Service Manual

iR8500 Series

Canon

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Application

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Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
Error	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.
   In the diagrams, represents the path of mechanical drive; where a signal name accompanies the symbol , the arrow ⟶ indicates the direction of the electric signal.
   The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.
2. In the digital circuits, '1'is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low".(The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.
   In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.
All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."

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1.1 System Construction

1.1.1 System Configuration

0006-9204

iR105i/iR105+ / iR9070

This machine may be configured with the following options:

F-1-1

T-1-1

[1]	Saddle Finisher-K3/K3N/K4/K4N	[11]	Puncher Unit-E1/F1
[2]	Inserter-B1	[12]	Stapler-G1/H1
[3]	Paper Folding Unit-C1	[13]	Stapler Cartridge-H1
[4]	Main body	[14]	Card Reader-D1
[5]	Side Paper Deck-N1	[15]	Original Holder-D1
[6]	Side Paper Deck-S1	[16]	Copy Tray Unit-G1
[7]	Stacker-A1	[17]	Index Paper Attachment-A1
[8]	Finisher-K1/K2/K1N/K2N	[18]	FL Cassette-P4
[9]	DADF-J1	[19]	NE Controller-A1/Copy Data Controller-B1/B2/ Copy Data Controller-A1
[10]	Trimmer-A1	[20]	Stapler-D2

Not all products are necessarily available in all sales areas.

1.1.2 System Configuration

0008-3570

/ iR8070

This machine may be configured with the following options:

F-1-2

T-1-2

[1]	Saddle Finisher-K3/K3N/K4/K4N	[11]	Puncher Unit-E1/F1
[2]	Inserter-B1	[12]	Stapler-G1/H1
[3]	Paper Folding Unit-C1	[13]	Stapler Cartridge-H1
[4]	Main body	[14]	Card Reader-D1
[5]	Side Paper Deck-M1	[15]	Original Holder-D1
[6]	Side Paper Deck-T1	[16]	Copy Tray Unit-G1
[7]	Stacker-A1	[17]	Index Paper Attachment-A1
[8]	Finisher-K1/K2/K1N/K2N	[18]	FL Cassette-P4
[9]	DADF-D1	[19]	NE Controller-A1/Copy Data Controller-B1/B2/ Copy Data Controller-A1
[10]	Trimmer-A1	[20]	Stapler-D2

Not all products are necessarily available in all sales areas.

1.1.3 System Configuration

0008-8624

iR85+

This machine may be configured with the following options:

F-1-3

T-1-3

[1]	Saddle Finisher-K3/K3N/K4/K4N	[10]	Staple-G1/H1
[2]	Inserter-B1	[11]	Staple Cartridge-H1
[3]	Paper Folding Unit-C1	[12]	Card Reader-D1
[4]	Main body	[13]	Copy Tray Unit-G1
[5]	Side Paper Deck-M1	[14]	FL Cassette-P4
[6]	Side Paper Deck-S1/T1	[15]	NE Controller-A1/Copy Data Controller-B1/B2/ Copy Data Controller-A1
[7]	Stacker-A1	[16]	Staple-D2
[8]	Finisher-K1/K2/K1N/K2N	[17]	Cassette Heater Kit 23
[9]	Puncher Unit-E1/F1	[18]	Cassette Heater Kit 25
		[19]	Index Paper Attachment-A1

Not all products are necessarily available in all sales areas.

1.1.4 Printing/Transmitting Accessories System Configuration

0008-7297

iR105i/iR105+ / iR9070

The following is a diagram of the system configuration:

F-1-4

[1] USB Application Interface Board-D1
[2] Expansion Bus-A1
[3] Multi-PDL Printer Kit-F1 (N-Boot)
[4] iR Security Kit-A2 (License)
[5] Universal Send PDF Enhancement Kit-B1 (License)
[6] Universal Send Seachable PDF Kit-A1 (License)
[7] Universal Send Kit-C1 (License)

1.1.5 Printing/Transmitting Accessories System Configuration

0008-8629

iR85+

The following is a diagram of the system configuration:

F-1-5

[1] USB Application Interface Board-D1
[2] Expansion Bus-A1
[3] Multi-PDL Printer Kit-F1 (N-Boot)
[4] iR Security Kit-A2 (License)

1.1.6 Printing/Transmitting Accessories System Configuration

0008-7317

iR8070

The following is a diagram of the system configuration:

F-1-6

[1] USB Application Interface Board-D1
[2] Expansion Bus-A1
[3] Multi-PDL Printer Kit-F1 (N-Boot)
[4] iR Security Kit-A2 (License)
[5] Universal Send PDF Enhancement Kit-B1 (License)
[6] Universal Send Seachable PDF Kit-A1 (License)
[7] Universal Send Kit-C1 (License)

1.2 Product Specifications

1.2.1 Features

1.2.1.1 High Speed, High Quality

0006-9353

iR105i/iR105+

- The use of a high-speed engine based on a twin-laser exposure technology promises high-speed operation and high-quality image reproduction.
- The CCD is a 4-channel CCD.
- Operating Speed:
105 copies/min (A4/LTR, 1-to-N; from cassette/deck)
- Reading Resolution: 600 x 600 dpi
- Printing Resolution
Copier mode: 1200 (equivalent) x 600 dpi (with smoothing ON)
Printer mode: 2400 (equivalent) x 600 dpi

1.2.1.2 High Speed, High Quality

0008-6613

iR85+

- The use of a high-speed engine based on a twin-laser exposure technology promises high-speed operation and high-quality image reproduction.
- Operating Speed:
85 prints/min (A4/LTR; from cassette/deck)
- Printing Resolution:
2400 (equivalent) x 600 dpi

1.2.1.3 High Speed, High Quality

0008-6615

iR8070

- The use of a high-speed engine based on a twin-laser exposure technology promises high-speed operation and high-quality image reproduction.
- Operating Speed:
80 copies/min (A4/LTR, 1-to-N; from cassette/deck)
- Reading Resolution: 600 x 600 dpi
- Printing Resolution
Copier mode: 1200 (equivalent) x 600 dpi (with smoothing ON)
Printer mode: 2400 (equivalent) x 600 dpi

1.2.1.4 High Durability, High Reliability

0006-9356

iR105i/iR105+ / iR9070 / iR85+ / iR8070

- The machine is designed for high durability and high reliability, as by using an amorphous silicon photosensitive drum.

1.2.1.5 High-Performance Controller, Large-Capacity Hard Disk

0006-9359

iR105i/iR105+ / iR9070 / iR85+ / iR8070

- The machine uses an iR controller (mounted on the main controller) for parallel processing of multiple tasks, thereby ensuring highly efficient control and extremely high speed data processing.
- The machine comes with a built-in large-capacity of hard disk (20 GB). When used as image memory, it enables memory sorting.
- The Box function makes storage of large volumes of data possible.

1.2.1.6 Ease of Operation

0006-9362

iR105i/iR105+ / iR9070

- The large-size, high-resolution, upright LCD color touch panel (1/1VGA) offers a high degree of recognition.

1.2.1.7 Ease of Operation

0008-6822

/ iR85+ / iR8070

- The large-size color touch panel (1/1VGA) has a high resolution for better viewing.

1.2.1.8 Large-Capacity Paper Source

0006-9366

iR105i/iR105+ / iR9070

- With the addition of the Side Paper Deck-M1 (option), up to 7650 sheets of paper (80 g/m2) may be accommodated for immediate use:
Right deck: 1500 sheets <1700 sheets>*
Left deck: 1500 sheets <1700 sheets>*
Cassette 3: 550 sheets <600 sheets>*
Cassette 4: 550 sheets <600 sheets>*
Manual feed tray: 50 sheets
Side Paper Deck-N1/S1 (option): 3500 sheets <4000 sheets*>

* If paper of 64 g/m2.

1.2.1.9 Large-Capacity Paper Source

0008-6825

/ iR85+ / iR8070

- With the addition of the Side Paper Deck-M1 (option), up to 7650 sheets of paper (80 g/m2) may be accommodated for immediate use:
Right deck: 1500 sheets <1700 sheets>*
Left deck: 1500 sheets <1700 sheets>*
Cassette 3: 550 sheets <600 sheets>*
Cassette 4: 550 sheets <600 sheets>*
Manual feed tray: 50 sheets
Side Paper Deck-M1/T1 (option): 3500 sheets <4000 sheets*>

* If paper of 64 g/m2.

1.2.1.10 Various Delivery Processing (with options)

0006-9371

iR105i/iR105+ / iR9070

a. Stapling
- A stack of as many as 100 sheets may be stapled. (1-point or 2-point stapling; with a Finisher-K1N/K2N or Saddle Finisher-K3N/K4N in use)

MEMO:

T-1-4

100-sheet stapling:	Stapler-G1
	Stapler cartridge (standard with finisher)
50-sheet stapling:	Stapler-H1
	Stapler Cartridge -H1

b. Saddle Stitching
- A sheet of paper may be stapled in the middle, folded, and delivered (with a Saddle Finisher-K3N/K4N in use).
c. Punching
- A sheet of paper may be punched to open 2, 3, or 4 holes and delivered (with a Finisher-K2N or Saddle Finisher-K3N/K4N, and Puncher Unit-E1/F1 in use).

MEMO:
Finisher-K2N: 2/3 holes.
Saddle Finisher-K3N: 2/3 holes.
Saddle Finisher-K4N: 4 holes.

d. Folding
- A sheet of paper may be folded into a Z and delivered (with a Paper Folding Unit-C1 in use).
e. Trimming function
- The trimmer receives a booklet prepared by the saddle finisher, and cuts off an edge of the booklet (i.e., an opposite side to the stapling side) to deliver. (When the trimmer-A1 is attached.)

MEMO: Trimming function
It cuts off an edge of a booklet for alignment.

1.2.1.11 Various Delivery Processing (with options)

0008-6834

/ iR85+ / iR8070

a. Stapling
- A stack of as many as 100 sheets may be stapled. (1-point or 2-point stapling; with a Finisher-K1/K1N/K2/K2N or Saddle Finisher-K3/K3N/K4/K4N in use)

MEMO:

T-1-5

100-sheet stapling:	Stapler-G1

	Stapler cartridge (standard with finisher)
50-sheet stapling:	Stapler-H1
	Stapler Cartridge -H1

b. Saddle Stitching
- A sheet of paper may be stapled in the middle, folded, and delivered (with a Saddle Finisher-K3/K3N/K4/K4N in use).

c. Punching
- A sheet of paper may be punched to open 2, 3, or 4 holes and delivered (with a Finisher-K2/K2N or Saddle Finisher-K3/K3N/K3/K4N, and Puncher Unit-E1/F1 in use).

MEMO:
Finisher-K2/K2N: 2/3 holes.
Saddle Finisher-K3/K3N: 2/3 holes.
Saddle Finisher-K4/K4N: 4 holes.

d. Folding
- A sheet of paper may be folded into a Z and delivered (with a Paper Folding Unit-C1 in use).

e. Trimming function
- The trimmer receives a booklet prepared by the saddle finisher, and cuts off an edge of the booklet (i.e., an opposite side to the stapling side) to deliver. (When the trimmer-A1 is attached.)

MEMO: Trimming function
It cuts off an edge of a booklet for alignment.

1.2.1.12 High-Level Printer Functions to Support Networking Requirements(iR105)

0006-9376

iR105

- The use of a Network Multi-PDL printer kit (option) will enable a higher level of network printing.

1.2.1.13 Support for MEAP (Multifunctional Embedded Application Platform)

0008-0871

iR105i/iR105+ / iR9070 / iR85+ / iR8070

- Mounting the JAVA platform enables to supply installing and operating environment of variable JAVA applications that satisfy the needs of users.

1.2.2 Names of Parts

1.2.2.1 External View

0006-9413

iR105i/iR105+ / iR9070

F-1-7

T-1-6

[1]	ADF	[8]	Waste toner box cover
[2]	Original delivery tray	[9]	Right deck
[3]	Main power switch	[10]	Left deck
[4]	Control panel power switch	[11]	Cassette 3
[5]	Manual feed tray	[12]	Cassette 4
[6]	Vertical path cover (upper)	[13]	Front cover
[7]	Vertical path cover (lower)		

F-1-8

T-1-7

[1]	Copyboard glass	[6]	Cover switch assembly

[2]	Control panel	[7]	Delivery cover
[3]	Grip/drum rotation stopper case	[8]	Heater switch
[4]	Service Book Case	[9]	Leakage breaker
[5]	Feeding assembly releasing lever		

1.2.2.2 External View

0008-8630

iR85+

F-1-9

T-1-8

[1]	Top panel	[7]	Waste toner case cover
[2]	Control panel power switch	[8]	Right deck
[3]	Main power switch	[9]	Left deck
[4]	Manual feed tray	[10]	Cassette 3
[5]	Right upper cover	[11]	Cassette 4
[6]	Right lower cover	[12]	Front cover

1.2.2.3 External View

0008-7327

/ iR8070

F-1-10

T-1-9

[1]	ADF	[7]	Waste toner box cover
[2]	Main power switch	[8]	Right deck
[3]	Control panel power switch	[9]	Left deck
[4]	Manual feed tray	[10]	Cassette 3
[5]	Right upper cover	[11]	Cassette 4
[6]	Right lower cover	[12]	Front cover

F-1-11

T-1-10

[1]	Copyboard glass	[6]	Cover switch assembly
[2]	Control panel	[7]	Delivery cover
[3]	Grip/drum rotation stopper case	[8]	Heater switch
[4]	Service Book Case	[9]	Leakage breaker
[5]	Feeding assembly releasing lever		

1.2.2.4 Cross Section

0006-9421

iR105i/iR105+ / iR9070

F-1-12

T-1-11

[1]	No.1 mirror	[23]	Separate charging assembly
[2]	Scanning lamp	[24]	Right deck pickup roller
[3]	Fixing assembly	[25]	Right deck feeding roller
[4]	Copyboard glass	[26]	Right deck separation roller
[5]	Fixing web	[27]	Right deck
[6]	Laser unit	[28]	Cassette 3 pickup roller
[7]	Feeding assembly	[29]	Cassette 3 feeding roller

[8]	Drum cleaner assembly	[30]	Cassette 3 separation roller
[9]	Photosensitive drum	[31]	Cassette 4 pickup roller
[10]	Primary charging assembly	[32]	Cassette 4 feeding roller
[11]	CCD unit	[33]	Cassette 4 separation roller
[12]	Bending mirror	[34]	Cassette 4
[13]	Toner cartridge	[35]	Cassette 3
[14]	Hopper	[36]	Left deck
[15]	Developing cylinder	[37]	Left deck separation roller
[16]	Pre-transfer charging assembly	[38]	Left deck feeding roller
[17]	Manual feed feeding roller	[39]	Left deck pickup roller
[18]	Manual feed pick roller	[40]	Fixing lower roller
[19]	Manual feed separation roller	[41]	Fixing upper roller
[20]	Pre-transfer exposure LED	[42]	External delivery roller
[21]	Registration roller	[43]	No.3 mirror
[22]	Transfer charging assembly	[44]	No.2 mirror

1.2.2.5 Cross Section

0008-8631

iR85+

F-1-13

T-1-12

[1]	Fixing assembly	[20]	Right deck pickup roller
[2]	Fixing web	[21]	Right deck feeding roller
[3]	Laser unit	[22]	Right deck separation roller
[4]	Feeding assembly	[23]	Right deck
[5]	Drum cleaner assembly	[24]	Cassette 3 pickup roller
[6]	Photosensitive drum	[25]	Cassette 3 feeding roller
[7]	Primary charging assembly	[26]	Cassette 3 separation roller
[8]	Bending mirror	[27]	Cassette 4 pickup roller
[9]	Toner cartridge	[28]	Cassette 4 feeding roller
[10]	Hopper	[29]	Cassette 4 separation roller
[11]	Developing cylinder	[30]	Cassette 4
[12]	Pre-transfer charging assembly	[31]	Cassette 3
[13]	Manual feed feeding roller	[32]	Left deck
[14]	Manual feed pick roller	[33]	Left deck separation roller
[15]	Manual feed separation roller	[34]	Left deck feeding roller
[16]	Pre-transfer exposure LED	[35]	Left deck pickup roller
[17]	Registration roller	[36]	Fixing lower roller
[18]	Transfer charging assembly	[37]	Fixing upper roller
[19]	Separate charging assembly	[38]	External delivery roller

1.2.2.6 Cross Section

0008-7335

/ iR8070

F-1-14

T-1-13

[1]	No.1 mirror	[23]	Separate charging assembly
[2]	Scanning lamp	[24]	Right deck pickup roller
[3]	Fixing assembly	[25]	Right deck feeding roller
[4]	Copyboard glass	[26]	Right deck separation roller
[5]	Fixing web	[27]	Right deck
[6]	Laser unit	[28]	Cassette 3 pickup roller
[7]	Feeding assembly	[29]	Cassette 3 feeding roller
[8]	Drum cleaner assembly	[30]	Cassette 3 separation roller
[9]	Photosensitive drum	[31]	Cassette 4 pickup roller
[10]	Primary charging assembly	[32]	Cassette 4 feeding roller
[11]	CCD unit	[33]	Cassette 4 separation roller
[12]	Bending mirror	[34]	Cassette 4
[13]	Toner cartridge	[35]	Cassette 3
[14]	Hopper	[36]	Left deck
[15]	Developing cylinder	[37]	Left deck separation roller
[16]	Pre-transfer charging assembly	[38]	Left deck feeding roller
[17]	Manual feed feeding roller	[39]	Left deck pickup roller
[18]	Manual feed pick roller	[40]	Fixing lower roller

[19]	Manual feed separation roller	[41]	Fixing upper roller
[20]	Pre-transfer exposure LED	[42]	External delivery roller
[21]	Registration roller	[43]	No.3 mirror
[22]	Transfer charging assembly	[44]	No.2 mirror

1.2.2.7 External Covers

0008-0905

iR105i/iR105+ / iR9070

F-1-15

[1] Upper front cover
[2] Copyboard glass
[3] Left glass retainer (2 screws)
[4] Left pocket plate
[5] Upper rear cover
[6] Right pocket plate (3 screws)
[7] Original delivery tray
[8] Manual feed tray
[9] Lower vertical path cover
[10] Toner cartridge cover (2 screws)
[11] Front cover

F-1-16

[12] Right glass retainer (2 screws)
[13] Scanning lamp cover
[14] Control panel
[15] Upper right cover
[16] Right rear cover
[17] Waste toner cover (1 screw)
[18] Right lower cover (2 screws)
[19] Upper vertical path cover
[20] Manual feed tray unit
[21] Face plate cover

F-1-17

[22] Control panel unit
[23] Upper front cover unit
[24] Upper left cover (3 screws)
[25] Left upper cover (9 screws; after removing left lower cover)
[26] Left lower cover (4 screws)
[27] System connector cover (2 screws)
[28] Rear cover
[29] Rear upper cover (2 screws)

F-1-18

[30] Inside upper cover
[31] Primary assembly cover (1 screw)
[32] Process unit cover
[33] Compartment cover
[34] Pre-transfer charging assembly cover (1 screw)
[35] Transfer/saparation charging assembly cover (1 screw)
[36] Inside right lower cover (2 screws; 1 screw used in common with front cover tape)
[37] Duplex unit cover (4 screws, 3 knobs)
[38] Fixing/feeder unit cover

F-1-19

[39] ADF
[40] Right deck
[41] Cassette 4
[42] Cassette 3
[43] Left deck

1.2.2.8 External Covers

0008-8220

Those covers that can be detached by mere removal of mounting screws are omitted from the discussions (number of screws indicated).

F-1-20

[1] Card Reader Case
[2] ADF
[3] Upper right cover
[4] Right rear cover
[5] Waste toner cover (1 screw)
[6] Manual feed tray unit
[7] Upper vertical path cover
[8] Right lower cover
[9] Lower vertical path cover
[10] Right deck
[11] Cassette 4
[12] Cassette 3
[13] Left deck
[14] Front cover

F-1-21

[15] Inside upper cover
[16] Primary assembly cover (1 screw)
[17] Process unit cover (4 screws)
[18] Pre-transfer charging assembly cover (1 screw)
[19] Compartment cover
[20] Inside right lower cover (2 screws; 1 screw used in common with front cover tape)
[21] Transfer/saparation charging assembly cover (1 screw)
[22] Duplex unit cover (4 screws, 3 knobs)
[23] Fixing/feeder unit cover

F-1-22

[24] Toner cartridge cover (2 screws)
[25] Control panel
[26] Left upper cover (9 screws; after removing left lower cover)
[27] Left lower cover (4 screws)
[28] System connector cover (2 screws)
[29] Rear cover
[30] Rear upper cover (2 screws)

F-1-23

[31] Left pocket plate
[32] Upper rear cover
[33] Right pocket plate (3 screws)
[34] Right glass retainer (2 screws)
[35] Original delivery tray (2 screws)
[36] Upper front cover
[37] Scanning lamp cover
[38] Copyboard glass
[39] Left glass retainer (2 screws)
[40] Upper left cover (3 screws)

1.2.2.9 External Covers

0008-8223

/ iR8070

Those covers that can be detached by mere removal of mounting screws are omitted from the discussions (number of screws indicated).

F-1-24

[1] Card Reader Case
[2] ADF
[3] Upper right cover
[4] Right rear cover
[5] Waste toner cover (1 screw)
[6] Manual feed tray unit
[7] Upper vertical path cover
[8] Right lower cover
[9] Lower vertical path cover
[10] Right deck
[11] Cassette 4
[12] Cassette 3
[13] Left deck
[14] Front cover

F-1-25

[15] Inside upper cover
[16] Primary assembly cover (1 screw)
[17] Process unit cover (4 screws)
[18] Pre-transfer charging assembly cover (1 screw)
[19] Compartment cover
[20] Inside right lower cover (2 screws; 1 screw used in common with front cover tape)
[21] Transfer/saparation charging assembly cover (1 screw)
[22] Duplex unit cover (4 screws, 3 knobs)
[23] Fixing/feeder unit cover

F-1-26

[24] Toner cartridge cover (2 screws)
[25] Control panel
[26] Left upper cover (9 screws; after removing left lower cover)
[27] Left lower cover (4 screws)
[28] System connector cover (2 screws)
[29] Rear cover

F-1-27

[30] Left pocket cover (reader rear cover removed; ADF positioning stepped screw, 1 pc.)
[31] Right pocket cover (reader rear cover removed; ADF positioning stepped screw 1 pc.)
[32] Reader right cover (2 screws)
[33] Cartridge upper cover
[34] Reader front cover (2 screws)
[35] Reader left cover (2 screws)
[36] Stream reading glass
[37] Original edge guide (ADF, copyboard glass, reader front cover removed; 2 screws)

F-1-28

[38] Rear upper cover (4 screws)
[39] Upper right cover
[40] Reader rear cover

1.2.3 Using the Machine

1.2.3.1 Power Switch

0006-9425

iR105i/iR105+ / iR9070

The machine is equipped with two power switches: main power switch and control panel power switch. It is turned on when the main power switch is turned on; to end power save mode, low power mode, or sleep mode, turn on the control panel power switch.

F-1-29

[1] Control panel power switch
[2] Main power lamp
[3] Main power switch

Do not turn off the main power while the progress bar is displayed, indicating that the HDD is being accessed. Otherwise, the HDD can suffer a fault (E602).

F-1-30

1.2.3.2 Power Switch

0008-8632

iR85+

The machine is equipped with two power switches: main power switch and control panel power switch. It is turned on when the main power switch is turned on; to end power save mode, low power mode, or sleep mode, turn on the control panel power switch.

F-1-31

[1] Control panel power switch
[2] Main power lamp
[3] Main power switch

Do not turn off the main power while the progress bar is displayed, indicating that the HDD is being accessed. Otherwise, the HDD can suffer a fault (E602).

F-1-32

1.2.3.3 Power Switch

0008-7338

/ iR8070

The machine is equipped with two power switches: main power switch and control panel power switch. It is turned on when the main power switch is turned on; to end power save mode, low power mode, or sleep mode, turn on the control panel power switch.

F-1-33

[1] Control panel power switch
[2] Main power lamp
[3] Main power switch

Do not turn off the main power while the progress bar is displayed, indicating that the HDD is being accessed. Otherwise, the HDD can suffer a fault (E602).

F-1-34

1.2.3.4 Points to Note When Turning Off the Main Power Switch

0006-9298

iR105i/iR105+ / iR9070

Points to Note When Turning Off the Main Power Switch

Be sure always to turn off the control panel power switch before turning off the main power switch; in addition, keep the following in mind.

1. If you turn off the main power switch while the printer function is in use, the data being processed can be lost. Check to make sure that the Operation/Memory lamp on the control panel is off before operating the main power switch.
2. Do not turn off the main power switch while downloading is taking place; otherwise, the machine may stop operating.
3. If the heater switch is turned on, the cassette heater and the drum heater will remain powered even when the main power switch is turned off.

4. Take care as some components remain powered even when the front cover is opened as long as the main power switch remains on.

F-1-35

[1] Control panel power switch
[2] Operation/Memory lamp
[3] Main power switch
[4] Heater switch

1.2.3.5 Points to Note When Turning Off the Main Power Switch

0008-8633

iR85+

Points to Note When Turning Off the Main Power Switch
Be sure always to turn off the control panel power switch before turning off the main power switch; in addition, keep the following in mind.
1. If you turn off the main power switch while the printer function is in use, the data being processed can be lost. Check to make sure that the Operation/Memory lamp on the control panel is off before operating the main power switch.
2. Do not turn off the main power switch while downloading is taking place; otherwise, the machine may stop operating.
3. If the heater switch is turned on, the cassette heater and the drum heater will remain powered even when the main power switch is turned off.
4. Take care as some components remain powered even when the front cover is opened as long as the main power switch remains on.

F-1-36

[1] Control panel power switch
[2] Operation/Memory lamp
[3] Main power switch
[4] Heater switch

1.2.3.6 Points to Note When Turning Off the Main Power Switch

0008-7339

/ iR8070

Points to Note When Turning Off the Main Power Switch

Be sure always to turn off the control panel power switch before turning off the main power switch; in addition, keep the following in mind.

1. If you turn off the main power switch while the printer function is in use, the data being processed can be lost. Check to make sure that the Operation/Memory lamp on the control panel is off before operating the main power switch.
2. Do not turn off the main power switch while downloading is taking place; otherwise, the machine may stop operating.
3. If the heater switch is turned on, the cassette heater and the drum heater will remain powered even when the main power switch is turned off.
4. Take care as some components remain powered even when the front cover is opened as long as the main power switch remains on.

F-1-37

[1] Control panel power switch
[2] Operation/Memory lamp
[3] Main power switch
[4] Heater switch

1.2.3.7 Control Panel

0006-9426

iR105i/iR105+ / iR9070

F-1-38

T-1-14

[1]	Control panel power switch	[9]	Clear key
[2]	Reset key	[10]	Keypad
[3]	Power Save key	[11]	ID key
[4]	Main power lamp	[12]	User Mode key

[5]	Stop key	[13]	Help key
[6]	Start key	[14]	Image contrast dial
[7]	Error lamp	[15]	Counter Check key *
[8]	Operation/Memory lamp	[16]	Touch panel display

* Indicates the readings of counters on the touch panel display.

1.2.3.8 Control Panel

0008-8638

iR85+

F-1-39

T-1-15

[1]	Counter Check key *	[9]	Operation/Memory lamp
[2]	Image contrast dial	[10]	ID key
[3]	Power Save key	[11]	Additional functions key
[4]	Control panel power switch	[12]	Guide key
[5]	Main power lamp	[13]	Reset key
[6]	Clear key	[14]	Touch panel display
[7]	Error lamp	[15]	Clip dent
[8]	Keypad		

* Indicates the readings of counters on the touch panel display.

1.2.3.9 Control Panel

0008-7341

/ iR8070

F-1-40

T-1-16

[1]	Counter Check key *	[10]	Keypad
[2]	Image contrast dial	[11]	Operation/Memory lamp
[3]	Power Save key	[12]	ID key
[4]	Control panel power switch	[13]	Interrupt key
[5]	Stop key	[14]	User Mode key
[6]	Main power lamp	[15]	Help key
[7]	Start key	[16]	Reset key
[8]	Clear key	[17]	Touch panel display
[9]	Error lamp	[18]	Clip dent

* Indicates the readings of counters on the touch panel display.

1.2.3.10 Extension Mode Items

0006-9429

iR105i/iR105+ / iR9070 / iR8070

T-1-17

Item	Description
Page separation	Use it to copy left and right pages of an open book on separate sheets by a single operation. Note: only used book mode
Cover/Interleaf	Use it to use sheets different from those used for the body for a cover, back cover, interleaf, or chapter leaf. Copies may also be made on sheets for insertion.
Reduced Page Composition	Use it for automatic reduction of 2, 4, or 8 originals, or a double-sided original or a book original for printing on a singe sheet of paper (singe-/double-sided).
Shift	Use it to shift the entire image of an original to any point (center, corner) for printing.
Book Making	Use it to print single-sided or double-sided originals when producing a booklet.
Transparency Interleaf	Use it to insert a sheet of paper between transparencies used in manual mode. The sheets may also be used to copy the original.
Enlarged Image Composition	Use it for automatic enlargement of a single original after dividing it into 2 or 4 parts for copying on paper of a specified size.
Bind Margin	Use it to create a margin of a specified size on the edge of the copy as binding margin (left, right, top, bottom).
Mixed Sizes	Use it when using originals of different sizes in an ADF for printing according to each size. The originals must, however, be of the same length on one side, e.g., A3 and A4 or b4 and B5.
Continuous Reading	Use it for continuous reading of different sets of originals for printing as a single set.
Frame Erase	Use it to erase the shadow, frame, or image of holes from copies.
Negative/Positive Reversal	Use it to reverse the black and white areas of the original for printing.
Image Repeat	Use it to repeat a single image on copies for as many times as needed (until the entire page is covered) in vertical or horizontal direction.
Mirror Image	Use it to print a mirror image of an image on the original.
Sharpness	Use it to emphasize the contrast of the image for a sharper impression.

Item	Description
Index Paper	Use it when inserting an index sheet/when printing in the index area of an index sheet.
Mode Memory	Use it to store or call a copying mode (9 settings max.).
Call	Use it to call back any of the three most recent copying modes for printing.

1.2.4 User Mode Items

1.2.4.1 Common Settings

0006-9468

iR105i/iR105+ / iR9070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-18

Main item	Intermediate item
Initial Function	Select Initial Function: Copy*/Send/Mail Box/MEAP Set [System Monitor] as the Initial Function: On/Off* Set [Device] as the default screen for [System Monitor]: On*/Off
Auto Clear Setting	Initial Function*/Selected Function
Settings for Function Order	Settings for Function Order Settings for Function Group Order: Group A, MEAP, Group B
Audible Tones	Entry Tone: On*, Off Invalid Entry Tone: On, Off* Restock Supplies Tone: On, Off* Error Tone: On*, Off Job Done Tone: On*, Off Forgot Original Tone: On, Off*
Display Remaining Paper Message	On*/Off
Inch Entry	On*/Off
Drawer Eligibility For APS/ ADS	Copy/Printer/Mail Box/Receive/Other (Stack Bypass: On/Off*, Drawers: On*/Off) Copy: Consider Paper Type: On/Off*
Register Paper Type	Paper drawer (1, 2), Paper Deck: Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy Paper drawer (3, 4): Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy/ Tab Paper
Energy Saver Mode	-10%*/-25%/-50%/None
Energy Consumption in Sleep Mode	Low*/High
Tray Designation	Tray A: Copy*/Printer*/Mail Box*/Receive*/Other* Tray B: Copy*/Printer*/Mail Box*/Receive*/Other*
Printing Priority	1: Copy (Priority) 2: Printer 3: Mail Box/Receive/Other
Register Form for Form Composition	Store (Entire Image Composition/Transparent Image)/Erase/Check Print/Details
Register Characters for Page No./Watermark	Register/Edit, Erase
Stack Bypass Standard Settings	On/Off*

Main item	Intermediate item
Standard Local Print Settings	Paper Select: Auto*/Select Paper Supply Copies: 1* to 9,999 sets Finisher: With the Finisher-K1N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right)) With the Finisher-K2N, Saddle Finisher-K3N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/ Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch With the Saddle Finisher-K3N + Paper Folding Unit-C1- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch/Z-Fold Two-Sided Print: On/Off* Erase Document After Printing: On/Off* Merge Documents: On/Off*
Language Switch	On/Off*
Reversed Display (Color)	On/Off*
Offset Jobs	On*/Off
Job Separator between Jobs	On/Off*
Job Separator between Copies	On/Off*
Job Duration Display	Copy/Mail Box/Other (All On/Off*)
Store Sizes for Side	A3/A4/A4R/B4/B5/11"x17"/LGL/LTR/LTRR
Different Paper Sizes for the Output Tray	On*/Off
Shutdown Mode	Press [Start]
Initialize Common Settings	Initialize
*: Factory default.	

1.2.4.2 Common Settings

0008-8648

iR85+

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-19

Main item	Intermediate item
Initial Function	Select Initial Function: Mail Box/MEAP Set [System Monitor] as the Initial Function: On/Off* Set [Device] as the default screen for [System Monitor]: On*/Off
Auto Clear Setting	Initial Function*/Selected Function
Settings for Function Order	Settings for Function Order Settings for Function Group Order: Group A, MEAP
Audible Tones	Entry Tone: On*, Off Invalid Entry Tone: On, Off* Restock Supplies Tone: On, Off* Error Tone: On*, Off Job Done Tone: On*, Off
Display Remaining Paper Message	On*/Off
Inch Entry	On*/Off
Drawer Eligibility For APS/ADS	Copy/Printer/Mail Box/Other (Stack Bypass: On/Off*, Drawers: On*/Off) Copy: Consider Paper Type: On/Off*
Register Paper Type	Paper drawer (1, 2), Paper Deck: Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy Paper drawer (3, 4): Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy/Tab Paper
Energy Saver Mode	-10%*/-25%/-50%/None
Energy Consumption in Sleep Mode	Low*/High
Tray Designation	Tray A: Copy*/Printer*/Mail Box*/Other* Tray B: Copy*/Printer*/Mail Box*/Other*
Printing Priority	1: Copy (Priority) 2: Printer 3: Mail Box/Other

Main item	Intermediate item
Register Form for Form Composition	Transparent Image)/Erase/Check Print/Details
Register Characters for Page No./Watermark	Register/Edit, Erase
Stack Bypass Standard Settings	On/Off*
Standard Local Print Settings	Paper Select: Auto*/Select Paper Supply Prints: 1* to 2,000 sets Finisher: With the Finisher-K1N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right)) With the Finisher-K2N, Saddle Finisher-K3N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/ Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch With the Saddle Finisher-K3N + Paper Folding Unit-C1- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch/Z-Fold Two-Sided Print: On/Off* Erase Document After Printing: On/Off* Merge Documents: On/Off*
Language Switch	On/Off*
Reversed Display (Color)	On/Off*
Offset Jobs	On*/Off
Job Separator between Jobs	On/Off*
Job Separator between Copies	On/Off*
Job Duration Display	Copy/Mail Box/Other (All On/Off*)
Store Sizes for Side	A3/A4/A4R/B4/B5/11"x17"/LGL/LTR/LTRR
Different Paper Sizes for the Output Tray	On*/Off
Shutdown Mode	Press [Start]
Initialize Common Settings	Initialize

*: Factory default.

1.2.4.3 Common Settings

0008-8523

/ iR8070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-20

Main item	Intermediate item
Initial Function	Select Initial Function: Copy*/Send/Mail Box/MEAP Set [System Monitor] as the Initial Function: On/Off* Set [Device] as the default screen for [System Monitor]: On*/Off
Auto Clear Setting	Initial Function*/Selected Function
Settings for Function Order	Settings for Function Order Settings for Function Group Order: Group A, MEAP, Group B
Audible Tones	Entry Tone: On*, Off Invalid Entry Tone: On, Off* Restock Supplies Tone: On, Off* Error Tone: On*, Off Job Done Tone: On*, Off Forgot Original Tone: On, Off*
Display Remaining Paper Message	On*/Off
Inch Entry	On*/Off
Drawer Eligibility For APS/ADS	Copy/Printer/Mail Box/Receive/Other (Stack Bypass: On/Off*, Drawers: On*/Off) Copy: Consider Paper Type: On/Off*

Main item	Intermediate item
Register Paper Type	Paper drawer (1, 2), Paper Deck: Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy Paper drawer (3, 4): Plain*/Recycled/Color/Letterhead/Bond/3-Hole Punch/Heavy/ Tab Paper
Energy Saver Mode	-10%*/-25%/-50%/None
Energy Consumption in Sleep Mode	Low*/High
LTRR/STMT Original Selection	Distinguish Manually/Use LTRR Format*/Use STMT Format
Tray Designation	Tray A: Copy*/Printer*/Mail Box*/Receive*/Other* Tray B: Copy*/Printer*/Mail Box*/Receive*/Other*
Printing Priority	1: Copy (Priority) 2: Printer 3: Mail Box/Receive/Other
Register Form for Form Composition	Store (Entire Image Composition/Transparent Image)/Erase/Check Print/Details
Register Characters for Page No./Watermark	Register/Edit, Erase
Stack Bypass Standard Settings	On/Off*
Standard Local Print Settings	Paper Select: Auto*/Select Paper Supply Copies: 1* to 9,999 sets Finisher: With the Finisher-K1N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right)) With the Finisher-K2N, Saddle Finisher-K3N- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/ Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch With the Saddle Finisher-K3N + Paper Folding Unit-C1- Do Not Collate/Collate/Offset Collate*/Group/Offset Group/Staple (Corner (Top Left/Bottom Left/Top Right/Bottom Right), Double (Left/Right))/Hole Punch/Z-Fold Two-Sided Print: On/Off* Erase Document After Printing: On/Off* Merge Documents: On/Off*
Language Switch	On/Off*
Reversed Display (Color)	On/Off*
Offset Jobs	On*/Off
Job Separator between Jobs	On/Off*
Job Separator between Copies	On/Off*
Job Duration Display	Copy/Mail Box/Other (All On/Off*)
Store Sizes for Side	A3/A4/A4R/B4/B5/11"x17"/LGL/LTR/LTRR
Different Paper Sizes for the Output Tray	On*/Off
Shutdown Mode	Press [Start]
Initialize Common Settings	Initialize

*: Factory default.

1.2.4.4 Timer Settings

0006-9447

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-1-21

Main item	Intermediate item
Time Fine Adjustment	00:00 to 23:59, in one minute increments
Auto Sleep Time	10, 15, 20, 30, 40, 50 min., 1 hour*, 90 min., 2, 3, 4 hours
Auto Clear Time	0 (no setting), 1 to 9 min., 2 min.*
Time Until Unit Quiets Down	0 (no setting), 1 to 9 min., 0 min.*
Daily Timer Settings	Sunday to Saturday, 00:00 to 23:59 in one-minute increments
Low-power Mode Time	10, 15*, 20, 30, 40, 50 min., 1 hour, 90 min., 2, 3, 4 hours

*: Factory default.

1.2.4.5 Adjustment/Cleaning

0006-9448

iR105i/iR105+ / iR9070 / iR8070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-22

Main item	Intermediate item
Zoom Fine Adjustment	X/Y: 0*, -1.0% to +1.0% in 0.1% increments
Saddle Stitcher Staple Repositioning	Press [Start]
Saddle Stitch Position Adjustment	-2.0 mm to +2.0 mm (0 mm*) in 0.25 mm increments
Double Staple Space Adjustment	2-3/4" to 5-7/8" (70 mm to 150 mm), 4-3/4"* (120 mm)
Exposure Recalibration	Copy/Send: 9 steps, 5*
Trim Width Adjustment	11" x 17": -0.13 inch to +0.40 inch in 0.01 inch increments, 0 inch* A3: -0.37 inch to +0.40 inch in 0.01 inch increments, 0 inch* B4: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* LGL: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* A4R: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* LTRR: -0.40 inch to +0.28 inch in 0.01 inch increments, 0 inch*
Page Num./Copy/Watermark Position Adjust.	X, Y: -5/16" to +5/16" (-8 mm to +8 mm in 1 mm increments); 0 mm*
Feeder Cleaning	Press [Start]
Wire Cleaning	Press [Start]
*: Factory default.	

1.2.4.6 Adjustment/Cleaning

0008-8649

iR85+

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-23

Main item	Intermediate item
Saddle Stitcher Staple Repositioning	Press [Start]
Saddle Stitch Position Adjustment	-2.0 mm to +2.0 mm (0 mm*) in 0.25 mm increments
Double Staple Space Adjustment	2-3/4" to 5-7/8" (70 mm to 150 mm), 4-3/4"* (120 mm)
Trim Width Adjustment	11" x 17": -0.13 inch to +0.40 inch in 0.01 inch increments, 0 inch* A3: -0.37 inch to +0.40 inch in 0.01 inch increments, 0 inch* B4: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* LGL: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* A4R: -0.40 inch to +0.40 inch in 0.01 inch increments, 0 inch* LTRR: -0.40 inch to +0.28 inch in 0.01 inch increments, 0 inch*
Page Num./Copy/Watermark Position Adjust.	X, Y: -5/16" to +5/16" (-8 mm to +8 mm in 1 mm increments); 0 mm*
Wire Cleaning	Press [Start]
*: Factory default.	

1.2.4.7 Report Settings

0006-9457

iR105i/iR105+ / iR9070 / iR8070

T-1-24

Main item	Intermediate item
Settings	Send
Print List	Send Network Printer

1.2.4.8 Report Settings

0008-9191

iR85+

T-1-25

Main item	Intermediate item
Print List	Network Printer

1.2.4.9 Copy Settings

0008-8650

iR85+

T-1-26

Main item	Intermediate item
Image Orientation Priority	On/Off*
Auto Orientation	On*/Off

*: Factory default.

1.2.4.10 System Settings

0006-9460

iR105i/iR105+ / iR9070 / iR8070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-27

Main item	Intermediate item
System Manager Settings	System Manager ID: 7 digit number max. System Password: 7 digit number max. System Manager: 32 characters max. E-mail Address: 64 characters max. Contact Information: 32 characters max. Comment: 32 characters max.
Dept. ID Management	Department ID Management: On/Off* (Store Dept. ID/Password, Print Totals, Accept Jobs With Unknown ID: On*/Off, Accept Scan Jobs with Unknown IDs: On*/Off)
Communications Settings	E-mail/I-Fax Settings Maximum Data Size For Sending: 0 = OFF/1 to 99MB 3MB* Default Subject: Attached Image Full Mode TX Timeout: 1 to 99 Hours, 24 Hours* Print MDN/DSN on Receipt: On/Off* Always send notice for RX errors: On*/Off Use Send Via Server: On/Off* Memory RX Inbox Settings Memory RX Inbox Password: 7 digit number max. Use I-Fax Memory Lock: On/Off* Memory Lock Start Time: Everyday, Select Days, Off* Memory Lock End Time: Everyday, Select Days, Off*
Remote UI	On*/Off Use SSL: On/Off*
Manage/Access to Address Book	Address Book Password: 7 digit number max. Access Number Management: On/Off* Restrict New Addresses: On/Off*
Device Information Settings	Device Name: 32 characters Location: 32 characters
Network Settings	It indicates separately
Forwarding Settings	Validate/Invalidate, Register, Forward w/o Conditions, E-mail Priority, Edit, Erase, Print List, Clear
Clear Message Board	Erase

Main item	Intermediate item
Auto Online/Offline	Auto Online: On/Off* Auto Offline: On/Off*
Date & Time Settings	Default Setting (12-digit number) Time Zone: GMT-12:00 to GMT+12:00, (GMT-05:00*) Daylight Saving Time: On*/Off, Between 2:00 a.m. on the first Sunday of April and 2:00 a.m. on the last Sunday of October
Register LDAP Server	Register, Edit, Erase, Print List
License Registration	24 characters maximum
Copy Set Numbering Option Settings	On/Off* Dept. ID: On/Off* Date: On/Off* Characters: On/Off*
MEAP Settings	Use HTTP: On*/Off Use SSL: On/Off* Print System Information: Print List
Device Information Delivery Settings	Transmitting Settings Transmitting Settings Register Destinations Destination List, Auto Search/Register, Register, Details, Erase Auto Delivery Settings Add. Functions Settings Value: On/Off* Network Settings: Include, Exclude* Dept. ID: On/Off* Address Book: On/Off* Manual Delivery Settings Add. Functions Settings Value: On/Off* Network Settings: Include, Exclude* Dept. ID: On/Off* Address Book: On/Off* Receiving Setting Restrictions for Receiving Device Info.: On/Off* Restore Data Add. Functions Set. Value, Dept. ID, Address Book Receive Limit for Each Function Add. Functions Settings Value: On/Off* Dept. ID: On/Off* Address Book: On/Off* Deliver/Receive Log: Details

*: Factory default.

1.2.4.11 System Settings

0008-9192

iR85+

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-28

Main item	Intermediate item
System Manager Settings	System Manager ID: 7 digit number max. System Password: 7 digit number max. System Manager: 32 characters max. E-mail Address: 64 characters max. Contact Information: 32 characters max. Comment: 32 characters max.
Dept. ID Management	Department ID Management: On/Off* (Store Dept. ID/Password, Print Totals, Accept Jobs With Unknown ID: On*/Off, Accept Scan Jobs with Unknown IDs: On*/Off)
Remote UI	On*/Off Use SSL: On/Off*
Device Information Settings	Device Name: 32 characters Location: 32 characters
Clear Message Board	Erase
Date & Time Settings	Default Setting (12-digit number) Time Zone: GMT-12:00 to GMT+12:00, (GMT-05:00*) Daylight Saving Time: On*/Off, Between 2:00 a.m. on the first Sunday of April and 2:00 a.m. on the last Sunday of October
License Registration	24 characters maximum

Main item	Intermediate item
Copy Set Numbering Option Settings	On/Off* Dept. ID: On/Off* Date: On/Off* Characters: On/Off*
MEAP Settings	Use HTTP: On*/Off Use SSL: On/Off* Print System Information: Print List
Device Information Delivery Settings	Transmitting Settings Transmitting Settings Register Destinations Destination List, Auto Search/Register, Register, Details, Erase Auto Delivery Settings Add. Functions Settings Value: On/Off* Network Settings: Include, Exclude* Dept. ID: On/Off* Manual Delivery Settings Add. Functions Settings Value: On/Off* Network Settings: Include, Exclude* Dept. ID: On/Off* Receiving Setting Restrictions for Receiving Device Info.: On/Off* Restore Data Add. Functions Set. Value, Dept. ID, Receive Limit for Each Function Add. Functions Settings Value: On/Off* Dept. ID: On/Off* Deliver/Receive Log: Details

*: Factory default.

1.2.4.12 Network Settings (in "System Settings")

0008-0973

iR105i/iR105+ / iR9070 / iR8070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-29

Main item: IP Address Settings

Intermediate item	
IP Address	IP address: IP address (0.0.0.0*) Subnet Mask: IP address (0.0.0.0*) Gateway Address: IP address (0.0.0.0*) DHCP: On/Off* RARP: On/Off* BOOTP: On/Off*
DNS Server Settings	Primary Server (DNS): IP Address (0.0.0.0*) Secondary Server (DNS): IP Address (0.0.0.0*) Host Name: 47 Characters maximum (CANON******) "******" represents the last six digits of a MAC address* Domain Name: 47 Characters maximum DNS Dynamic Update: On/Off*
PING Command	PING Command: IP Address (0.0.0.0*)
WINS Configuration	WINS Resolution: On/Off* WINS Server: IP Address (0.0.0.0*) Scope ID: 63 Characters maximum Node Type: Auto Set, display only
LPD Settings	LPD Settings: On*/Off LPD Banner Page: On/Off*
RAW Settings	RAW Settings: On*/Off Use Bidirectional: On/Off*
SNTP Settings	Use SNTP: On/Off* Polling Interval: Interval for performing time synchronization (1 to 48 hours) (24 hours*) NTP Server Address: IP address or host name NTP Server Check: -
FTP Print Settings	Use FTP printing: On*/Off User: User name for FTP server login (24 Characters maximum) Password: Password for FTP server login (24 Characters maximum)
Use PASV Mode for FTP	Use PASV Mode for FTP: On/Off*

Main item: IP Address Settings

Intermediate item	
IPP Settings	IPP Settings: On*/Off Use SSL: On/Off* Use Authentication: On/Off* User: User name for IPP authentication (24 Characters maximum) Password: Password for IPP authentication (24 Characters maximum)
Multicast Discovery	Response: On*/Off Scope Name: Scope name to use when performing a multicast discovery from utilities (32 Characters maximum) (default*)
Certificate Settings: Generate Key	Key Name: 24 Character smaximum Key Algorithm: Display only Key Length (bit): 512*/1024 Start Date of Validity: Year, Month, Date (1950/01/01 to 2049/12/31) End Date of Validity: Year, Month, Date (1950/01/01 to 2049/12/31) Country Name: Country name and code (2 Characters maximum) (United States (US)*) State: 24 Characters maximum City: 24 Characters maximum Organization: 24 Characters maximum Orgnztion Unit: 24 Characters maximum Shared Name: IP address or FQDN (24 Characters maximum)
Certificate Settings: Key and Certificate List	Default Key Settings: - Certificate Details: Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/CertificateThumbprint/Certificate Verification Erase: -
Certificate Settings: CA Certificate List	Certificate Details: Version/Serial Number/ Signature Algorithm/Issue Destination/StartDate of Validity/End Date of Validity/Issuer/ Public Key/Certificate Thumbprint/Certificate Verification Erase: -
Certificate Settings: Register Key and Certificate	Register: Key Name (24 Characters maximum) Password (24 Characters maximum) Erase: -
Certificate Settings: Register CA Certificate	Register: - Erase: -
Use HTTP	Use HTTP: On*/Off
Proxy Settings	Use Proxy: On*/Off Server Address: Server name or IP address (128 Characters maximum) Port Number: 1 to 65535 (80*) Use Proxy within the Same Domain: On/Off*
Authentication Settings	Use Proxy Authentication: On/Off* User: 24 Characters maximum Password: 24 Characters maximum
IP Address Range Settings	RX/Print Range: Reject IPAddress(es) Apply Settings: On/Off* Up to 8 IP addresses can be stored. RX/Print Range: Permit IP 0Address(es) Apply Settings: On/Off* Up to 8 IP addresses can be stored. Setting/Browsing Range: Reject IP Address(es) Apply Settings: On/Off* Up to 8 IP addresses can be stored. Setting/Browsing Range: Permit IP Address(es) Apply Settings: On/Off* Up to 8 IP addresses can be stored.
Receiving MAC Address Settings	Receiving MAC Address Settings Apply Settings: On/Off* MAC addresses (a maximum of 100 addresses can be registered)

*: Factory default.

T-1-30

Main item: NetWare Settings

Intermediate item	
NetWare Settings	On/Off*
Frame Type	Auto Detect*/Ethernet II/Ethernet 802.2/Ethernet 802.3/Ethernet SNAP
IPX External Network Number	Auto Set, display only
Node Number	Auto Set, display only
Packet Signature	Auto Set, display only
Print Service	Bindery PServer/RPrinter/NDS PServer*/NPrinter

Main item: NetWare Settings

Intermediate item	
Bindery PServer Settings	Print Server: 47 Characters maximum File Server: 47 Characters maximum Print Server Password: 20 Characters maximum Service Mode: Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/Minimize form changeswithin print queues* Printer Number: 0 to 15 (0*) Polling Interval: 1 to 15 seconds (5*) Printer Form: 0 to 255 (0*) Buffer Size: 1 to 20 (20*)
RPrinter Settings*	Print Server: 47 Characters maximum File Server: 47 Characters maximum Printer Number: 0 to 15 (0*)
NDS PServer Settings	Print Server: 64 Characters maximum Tree: 32 Characters maximum Context: 256 Characters maximum Print Server Password :20 Characters maximum Service Mode: Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/Minimize form changes within print queues* Printer Number: 0 to 254 (0*) Polling Interval: 1 to 255 seconds (5*) Printer Form: 0 to 255 (0*) Buffer Size: 3 to 20 (KB units) (20*)
NPrinter Settings	Print Server: 64 Characters maximum Tree: 32 Characters maximum Context: 256 Characters maximum Printer Number: 0 to 254 (0*)

*: Factory default.

T-1-31

Main item: AppleTalk Settings

Intermediate item	
AppleTalk	On/Off*
Phase	Phase 2 (fixed)
Service Name	32 Characters maximum (Model name*)
Zone	32 Characters maximum

*: Factory default.

T-1-32

Main item: SMB Server Settings

Intermediate item	
Use SMB Server	On*/Off
Server	15 Characters maximum
Workgroup	15 Characters maximum
Comment	255 Characters maximum
LM Announce	On/Off*
SMB Printer Settings	Use SMB: On*/Off Printer: 32 Characters maximum

*: Factory default.

T-1-33

Main item: SNMP Settings

Intermediate item	
Use SNMP	On*/Off
Community Name	Community Name (public*)

*: Factory default.

T-1-34

Main item: Enable Dedicated Port Settings

Intermediate item	
Enable Dedicated Port	On*/Off

*: Factory default.

T-1-35

Main item: Spool Settings

Intermediate item	
Use Spooler	On/Off*

*: Factory default.

T-1-36

Main item: Startup Time Settings

Intermediate item	
Startup Time Settings	0 to 300 seconds (60*)

*: Factory default.

T-1-37

Main item: Ethernet Driver Settings

Intermediate item	
Auto Detect	On*/Off
Communication Mode	Half Duplex*/Full Duplex
Ethernet Type	10 Base-T*/100 Base-TX
MAC Address	Display only

*: Factory default.

T-1-38

Main item: E-Mail/I-Fax Settings

Intermediate item	
SMTP Receipt	On*/Off
POP	On*/Off
On*/Off	Server name or IP address (48 Characters maximum)
E-mail Address	64 Characters maximum
POP Server	Server name or IP address (48 Characters maximum)
POP Address	32 Characters maximum
POP Password	32 Characters maximum
POP Interval	0 to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)
Authent./Encryption	POP Authentication: Standard*/APOP/POP AUTH/APOP/POP AUTH POP Authentication before Sending: On/Off* SMTP Authentication (SMTP AUTH): On/Off* User: User name for SMTP authentication (64 Characters maximum) Password: Password for SMTP authentication (32 Characters maximum) Allow SSL (POP): On/Off* Allow SSL (SMTP Send): On/Off* Allow SSL (SMTP Receive): SSL/On/Off*

*: Factory default.

1.2.4.13 Copy Settings

0006-9440

iR105i/iR105+ / iR9070

T-1-39

Main item	**Intermediate item**
Screen Display Setting	Regular Copy Only/Regular and Express Copy*/Express Copy Only Regular Copy Screen Priority: On*/Off
Paper Select Key Size for Express Copy Screen	Large* (Stack Bypass/Stack Bypass Settings/Paper Drawer 1/ Paper Drawer 2/Paper Drawer 3/Paper Drawer 4/Paper Drawer 5), Small: Max 4 paper sources
Standard Key 1, 2 Settings for Regular Copy Screen	All modes (No settings*)
Standard Key Settings for Express Copy Screen	The number of the displayed Standard Keys: Up to 5 Set Keys*/Up to 10 Set Keys

Main item	Intermediate item
Auto Collate	On*/Off
Image Orientation Priority	On/Off*
Auto Orientation	On*/Off
Photo Mode	On/Off*
Smart Scan	Initial Setting: On*/Off Change Original Type: On/Off* Recognizable Text: Japanese/European/Russian*
Standard Settings	Store, Initialize
Store Remote Device	Store (Max 7 printers), Details, Erase, Move To Top
Remote Device Transmission Timeout	5 to 30 seconds, 10 seconds*
Initialize Copy Settings	Initialize
*: Factory default.	

1.2.4.14 Copy Settings

0008-8524

/ iR8070

T-1-40

Main item	Intermediate item
Screen Display Setting	Regular Copy Only/Regular and Express Copy*/Express Copy Only Regular Copy Screen Priority: On*/Off
Paper Select Key Size for Express Copy Screen	Large* (Stack Bypass/Stack Bypass Settings/Paper Drawer 1/ Paper Drawer 2/Paper Drawer 3/Paper Drawer 4/Paper Drawer 5), Small: Max 4 paper sources
Standard Key 1, 2 Settings for Regular Copy Screen	All modes (No settings*)
Standard Key Settings for Express Copy Screen	The number of the displayed Standard Keys: Up to 5 Set Keys*/Up to 10 Set Keys
Auto Collate	On*/Off
Image Orientation Priority	On/Off*
Auto Orientation	On*/Off
Photo Mode	On/Off*
Standard Settings	Store, Initialize
Store Remote Device	Store (Max 7 printers), Details, Erase, Move To Top
Remote Device Transmission Timeout	5 to 30 seconds, 10 seconds*
Initialize Copy Settings	Initialize
*: Factory default.	

1.2.4.15 Communications Settings

0008-0960

iR105i/iR105+ / iR9070 / iR8070

MEMO:
The items associated with the printer are indicated when the printer functions are installed.

T-1-41

Main item	Intermediate item
Sender's Names (TTI)	01 to 99: Store/Edit (24 characters max), Erase
Unit Name	24 characters
Permit Non-ASCII Characters for FTP Sending	On/Off*
Erase Failed TX	On*/Off
Handle Documents with Forwarding Errors	Always Print, Store/Print, Off*
Photo Mode	On/Off*

Main item	Intermediate item
Retry Times	0 to 5 times (3 times*)
Edit Standard Send Settings	Scanning Mode, File Format, Stamp, Divide into Pages
Store Favorites Button	Store/Edit, Erase (8 combinations)
PDF (OCR) Settings	Smart Scan: On*, Off Number of Characters for Document Name Setting: 1 to 24 characters; 24 characters*
Default Screen for Send	Favorites Buttons, One-touch Buttons, New Address*
TX Terminal ID	On*/Off
Initialize TX Settings	Initialize
Two-sided Print	On/Off*
Select Cassette	Switch A to D; each On*/Off
Receive Reduction	On*/Off
Received Page Footer	On/Off*
2 On 1 Log	On/Off*

*: Factory default.

1.2.4.16 Mail Box Settings

0006-9454

iR105i/iR105+ / iR9070 / iR8070

T-1-42

Main item	Intermediate item
User Inboxes Settings	Number: 00 to 99 Store Inbox Name: 24 characters max. Password: 7 digit number max. Doc. Auto Erase: 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days, 0 (No Limit) URL Send Settings Initialize
Photo Mode	On/Off*
Standard Scan Settings	Store, Initialize
Confidential Fax Inboxes Settings	Number: 00 to 49 Store Inbox Name: 24 characters max. Password: 7 digit number max. URL Send Settings Initialize

*: Factory default.

1.2.4.17 Address Book Settings

0008-0964

iR105i/iR105+ / iR9070 / iR8070

T-1-43

Main item	Intermediate item
Store/Edit Address Book	Store New Address Edit Erase
Store Address Book Name	Store Name
One-touch Buttons	Store/Edit, Erase

1.2.5 Safety

1.2.5.1 Safety of Laser Light

0006-9333

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Laser light can prove to be harmful to the human body. The machine's laser system, however, is sealed inside a protective housing and external covers to prevent leakage of laser light to its outside, ensuring the safety of the user as long as the machine is used for its intended functions.

1.2.5.2 CDRH Ordinances

0006-9347

iR105i/iR105+ / iR9070

The Center for Devices and Radiological Health (CDRH) of the US Food and Drum Administration put into force ordinances related to laser products on August 2, 1976. These ordinances apply to laser products manufactured on and after August 1, 1976, and sale of laser products is prohibited within the US unless they bear a certificate of compliance. The following is the label that indicates compliance with the CDRH ordinances, and it must be found on all laser products sold in the US.

F-1-41

The description may vary from model to model.

1.2.5.3 CDRH Ordinances

0008-8659

iR85+

The Center for Devices and Radiological Health (CDRH) of the US Food and Drum Administration put into force ordinances related to laser products on August 2, 1976. These ordinances apply to laser products manufactured on and after August 1, 1976, and sale of laser products is prohibited within the US unless they bear a certificate of compliance. The following is the label that indicates compliance with the CDRH ordinances, and it must be found on all laser products sold in the US.

F-1-42

The description may vary from model to model.

1.2.5.4 CDRH Ordinances

0008-7357

/ iR8070

The Center for Devices and Radiological Health (CDRH) of the US Food and Drum Administration put into force ordinances related to laser products on August 2, 1976. These ordinances apply to laser products manufactured on and after August 1, 1976, and sale of laser products is prohibited within the US unless they bear a certificate of compliance. The following is the label that indicates compliance with the CDRH ordinances, and it must be found on all laser products sold in the US.

F-1-43

The description may vary from model to model.

1.2.5.5 Handling the Laser System

0006-9348

iR105i/iR105+ / iR9070

You must take extra care when servicing the area around the machine's laser system, as by not bringing a high-reflectance screwdriver into the laser path.

Take such precautions as removing the watch and rings before starting the work (to prevent reflection of laser light to the eye).
The machine's laser light is red, and covers that can reflect laser light are identified by the
following label. Take full care whenever servicing areas of the machine behind these covers.

⚠ This label is attached to all covers inside the machine where hazards from laser light exist.

F-1-44

1.2.5.6 Handling the Laser System

0008-8660

iR85+

You must take extra care when servicing the area around the machine's laser system, as by not bringing a high-reflectance screwdriver into the laser path.
Take such precautions as removing the watch and rings before starting the work (to prevent reflection of laser light to the eye).
The machine's laser light is red, and covers that can reflect laser light are identified by the
following label. Take full care whenever servicing areas of the machine behind these covers.

⚠

This label is attached to all covers inside the machine where hazards from laser light exist.

F-1-45

1.2.5.7 Handling the Laser System

0008-7359

/ iR8070

You must take extra care when servicing the area around the machine's laser system, as by not bringing a high-reflectance screwdriver into the laser path. Take such precautions as removing the watch and rings before starting the work (to prevent reflection of laser light to the eye).
The machine's laser light is red, and covers that can reflect laser light are identified by the following label. Take full care whenever servicing areas of the machine behind these covers.

⚠ This label is attached to all covers inside the machine where hazards from laser light exist.

F-1-46

1.2.5.8 Safety of Toner

0006-9350

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine's toner is a non-toxic product consisting of plastic, iron, and small amounts of dyes. If your skin or clothes have come into contact with toner, try removing as much of it as possible with dry paper tissues, and wash off with water. (Do not use warm water, as it would turn the toner jelly-like and become fused with the fibers of the fabric.)
In addition, avoid bringing toner into contact with plastic material, as it tends to dissolve easily.

⚠ Do not throw toner into fire to avoid explosion.

1.2.6 Product Specifications

1.2.6.1 Sepecifications

0006-9788

iR105i/iR105+ / iR9070

Body	Console
Copyboard	Fixed
Light source type	Fluorescent lamp
Lens type	Lens array (F3.7)
Photosensitive medium	Amorphous silicon drum (108-mm dia.)
Reproduction method	Indirect electrostatic
Charging method	Corona

Exposure method	Twin laser unit
Copy density adjustment function	Auto, or manual (9 settings)
Development method	Dry, 1-component toner projection
Pickup method	- Paper deck (2 cassettes; right deck, left deck) - Cassette (2 cassettes; cassette 3, caste 4) - Manual feed tray (5.5 mm deep, approx.; about 50 sheets of 80 g/m2 paper)
Transfer method	Corona
Separation method	Electrostatic
Drum cleaning method	Blade
Fixing method	Heat roller 200 V: 1150 W (main) + 565 W (sub) 208 V: 1220 W (main) + 600 W (sub) 230 V: 1185 W (main) + 645 W (sub)
Counter	Soft counter
Toner type	Magnetic, positive toner (toner cartridge)
Original type	Sheet, book, 3-D object (2 kg max.)
Maximum original size	A3/279.4 x 431.8 mm (11 x 17)
Reproduction ratio	Direct 1:1 Reduce I 1:0.250 Reduce II 1:0.500 Reduce III 1:0.611 Reduce IV 1:0.707 Reduce V 1:0.816 Reduce VI 1:0.865 Enlarge I 1:1.154 Enlarge II 1:1.224 Enlarge III 1:1.414 Enlarge IV 1:2.000 Enlarge V 1:4.000 Zoom: 1:0.250 to 4.000 (25 % to 400 % in 1 % increments)
Fine adjustment of reproduction ratio	Set ratio in user mode when setting 100 %
Warm-up time	6 min or less (at 20 deg C room temperature, rated input)
First print time	4.1 sec : (stream reading, right deck pick up selected manually, Direct, A4/LTR, non-AE, straight delivery, fluorescent lamp pre-activation ON) 2.8 sec : (book mode, right deck pickup selected manually, 1 original, Direct, A4/LTR, non-AE, straight delivery, fluorescent lamp pre-activation ON)
Continuous reproduction	1 to 9999 pages
Print area	Single-sided AB: A3 max., postcard (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min. Double-sided AB: A3 max., A5 (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min.
Reading speed	450 mm/s
Printing speed	500 mm/s
Reading resolution	600 x 600 dpi
Copying resolution	1200 (equivalent) x 600 dpi
Printing resolution	2400 (equivalent) x 600 dpi
Gradation	TBIC method, binary
Paper deck capacity	162 mm deep approx. (about 1500 sheets of 80 g/m2 paper)
Cassette capacity	55 mm deep approx. (about 550 sheets of 80 g/m2 paper)
Hard disk	20 GB
Non-image width (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.8 mm/-1.4 mm)
Non-image width (trailing edge)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)
Non-image width (left/right)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)
Image margin (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.5/-1.0 mm)
Image margin (trailing edge)	Direct/R-E: (one-sided) 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) Direct/R-E: (two-sided) 2.5 -/+2.0 mm (when an ADF is used: 2.5 -/+2.0 mm)
Image margin (left/right)	Direct/R-E: 2.5 + 1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) (on left, 0.5 mm or more)
Auto Clear	Yes (2 min standard; may be changed between 0 and 9 min in 1-min increments)
Auto power off	No
Low-power mode	Yes (15 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)

Sleep mode	Yes (60 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)
Energy save mode	Yes (-10 % standard; may be changed in user mode: -10 %, -25 %, -50 %, 0 % no recovery time)
Option	See "System configuration".
Operating environment (temperature range)	See "Selecting the site".
Operating environment (humidity range)	See "Selecting the site".
Operating environment (atmospheric pressure)	810.6 to 1013.3 hpa (0.8 to 1.0 atm)
Power supply rating	200 V/15 A (50/60 Hz) 208 V/12 A (60 Hz) 230 V/13 A (50 Hz)
Power consumption (maximum)	2.5 kw or less
Noise	In operation 79 dB or less In standby 63 dB or less
Ozone	Initial: 0.02 ppm or less (avr), 0.05 ppm or less (max.) Later (after 250,000 pages): 0.05 ppm or less (avr), 0.10 ppm or less (max.)
Dimensions	1035 (W) x 795 (D) x 1395 (H) mm (approx.)
Weight	280 kg (approx.; including ADF)
Environmental consideration	- Drum Heater (82 W) common for all countries - Cassette Heater (20 W) 200 V model: standard 208 V model: none available 230 V model: service parts - Fluorescent Lamp Heater (36 W) common for all countries

1.2.6.2 Sepecifications

0008-8651

iR85+

Body	Console
Photosensitive medium	Amorphous silicon drum (108-mm dia.)
Reproduction method	Indirect electrostatic
Charging method	Corona
Exposure method	Twin laser unit
Development method	Dry, 1-component toner projection
Pickup method	- Paper deck (2 cassettes; right deck, left deck) - Cassette (2 cassettes; cassette 3, caste 4) - Manual feed tray (5.5 mm deep, approx.; about 50 sheets of 80 g/m2 paper)
Transfer method	Transfer: Corona, Post Transfer: Corona & Exposure
Separation method	Electrostatic
Drum cleaning method	Blade
Fixing method	Heat roller 900 W (main) + 600 W (sub)
Counter	Soft counter
Toner type	Magnetic, positive toner (toner cartridge)
Warm-up time	6 min or less (at 20 deg C room temperature, rated input)
First print time	3.4 sec or less : (A4, right deck pick up, face-down)
Print area	Single-sided AB: A3 max., postcard (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min. Double-sided AB: A3 max., A5 (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min.
Printing speed	450 mm/s
Printing resolution	2400 (equivalent) x 600 dpi
Paper deck capacity	162 mm deep approx. (about 1500 sheets of 80 g/m2 paper)
Cassette capacity	55 mm deep approx. (about 550 sheets of 80 g/m2 paper)
Hard disk	20 GB
Non-image width (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.8 mm/-1.4 mm)
Non-image width (trailing edge)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)

Non-image width (left/right)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)
Image margin (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.5/-1.0 mm)
Image margin (trailing edge)	Direct/R-E: (one-sided) 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) Direct/R-E: (two-sided) 2.5 -/+2.0 mm (when an ADF is used: 2.5 -/+2.0 mm)
Image margin (left/right)	Direct/R-E: 2.5 + 1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) (on left, 0.5 mm or more)
Auto Clear	Yes (2 min standard; may be changed between 0 and 9 min in 1-min increments)
Auto power off	No
Low-power mode	Yes (15 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)
Sleep mode	Yes (60 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)
Energy save mode	Yes (-10 % standard; may be changed in user mode: -10 %, -25 %, -50 %, 0 % no recovery time)
Option	See "System configuration".
Operating environment (temperature range)	See "Selecting the site".
Operating environment (humidity range)	See "Selecting the site".
Operating environment (atmospheric pressure)	810.6 to 1013.3 hpa (0.8 to 1.0 atm)
Power supply rating	208 V/12 A (60 Hz) 230 V/13 A (50 Hz)
Power consumption (maximum)	2.7 kw or less
Noise	In operation 81 dB or less In standby 59.5 dB or less
Ozone	Initial: 0.02 ppm or less (avr), 0.05 ppm or less (max.) Later (after 250,000 pages): 0.05 ppm or less (avr), 0.10 ppm or less (max.)
Dimensions	764 (W) x 795 (D) x 1005 (H) mm (approx.)
Weight	261 kg (approx.)
Environmental consideration	- Drum Heater (82 W) common for all countries - Cassette Heater (20 W) 208 V model: none available 230 V model: service parts

1.2.6.3 Sepecifications

0008-8522

iR8070

Body	Console
Copyboard	Fixed
Light source type	Xenon lamp
Lens type	Lens array (F3.7)
Photosensitive medium	Amorphous silicon drum (108-mm dia.)
Reproduction method	Indirect electrostatic
Charging method	Corona
Exposure method	Twin laser unit
Copy density adjustment function	Auto, or manual (9 settings)
Development method	Dry, 1-component toner projection
Pickup method	- Paper deck (2 cassettes; right deck, left deck) - Cassette (2 cassettes; cassette 3, caste 4) - Manual feed tray (5.5 mm deep, approx.; about 50 sheets of 80 g/m2 paper)
Transfer method	Corona
Separation method	Electrostatic
Drum cleaning method	Blade

Fixing method	Heat roller 100 V: 800 W (main) + 250 W (sub) 208 V: 900 W (main) + 600 W (sub) 230 V: 900 W (main) + 600 W (sub)
Counter	Soft counter
Toner type	Magnetic, positive toner (toner cartridge)
Original type	Sheet, book, 3-D object (2 kg max.)
Maximum original size	A3/279.4 x 431.8 mm (11 x 17)
Reproduction ratio	Direct 1:1 Reduce I 1:0.250 Reduce II 1:0.500 Reduce III 1:0.611 Reduce IV 1:0.707 Reduce V 1:0.816 Reduce VI 1:0.865 Enlarge I 1:1.154 Enlarge II 1:1.224 Enlarge III 1:1.414 Enlarge IV 1:2.000 Enlarge V 1:4.000 Zoom: 1:0.250 to 4.000 (25 % to 400 % in 1 % increments)
Fine adjustment of reproduction ratio	Set ratio in user mode when setting 100 %
Warm-up time	6 min or less (at 20 deg C room temperature, rated input)
First print time	4.3 sec or less : (stream reading, right deck pick up selected manually, Direct, A4/LTR, non-AE, straight delivery, xenon lamp pre-activation ON) 3.1 sec or less : (book mode, right deck pickup selected manually, 1 original, Direct, A4/LTR, non-AE, straight delivery, xenon lamp pre-activation ON)
Continuous reproduction	1 to 9999 pages
Print area	Single-sided AB: A3 max., postcard (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min. Double-sided AB: A3 max., A5 (vertical feed) min. Inch: 279.4 x 431.8 mm (11 x 17) max., STMT (vertical feed) min.
Reading speed	450 mm/s
Printing speed	450 mm/s
Reading resolution	600 x 600 dpi
Copying resolution	1200 (equivalent) x 600 dpi
Printing resolution	2400 (equivalent) x 600 dpi
Gradation	TBIC method, binary
Paper deck capacity	162 mm deep approx. (about 1500 sheets of 80 g/m2 paper)
Cassette capacity	55 mm deep approx. (about 550 sheets of 80 g/m2 paper)
Hard disk	20 GB
Non-image width (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.8 mm/-1.4 mm)
Non-image width (trailing edge)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)
Non-image width (left/right)	Direct/R-E: 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.8 mm)
Image margin (leading edge)	Direct/R-E: 4.0 + 1.5/-1.0 mm (when an ADF is used: 4.0 -/+1.5/-1.0 mm)
Image margin (trailing edge)	Direct/R-E: (one-sided) 2.5 -/+1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) Direct/R-E: (two-sided) 2.5 -/+2.0 mm (when an ADF is used: 2.5 -/+2.0 mm)
Image margin (left/right)	Direct/R-E: 2.5 + 1.5 mm (when an ADF is used: 2.5 -/+1.5 mm) (on left, 0.5 mm or more)
Auto Clear	Yes (2 min standard; may be changed between 0 and 9 min in 1-min increments)
Auto power off	No
Low-power mode	Yes (15 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)
Sleep mode	Yes (60 min standard; may be changed in user mode: 10, 15, 20, 30, 40, 50, 60, 90 min; 2, 3, 4 hr)
Energy save mode	Yes (-10 % standard; may be changed in user mode: -10 %, -25 %, -50 %, 0 % no recovery time)
Option	See "System configuration".
Operating environment (temperature range)	See "Selecting the site".
Operating environment (humidity range)	See "Selecting the site".

Operating environment (atmospheric pressure)	810.6 to 1013.3 hpa (0.8 to 1.0 atm)
Power supply rating	100 V/15 A (50/60 Hz) 208 V/12 A (60 Hz) 230 V/13 A (50 Hz)
Power consumption (maximum)	100V: 1.5 kw or less, 208V/230V: 2.7 kw or less
Noise	In operation 81 dB or less In standby 59.5 dB or less
Ozone	Initial: 0.02 ppm or less (avr), 0.05 ppm or less (max.) Later (after 250,000 pages): 0.05 ppm or less (avr), 0.10 ppm or less (max.)
Dimensions	764 (W) x 795 (D) x 1171 (H) mm (approx.)
Weight	273 kg (approx.; including ADF)
Environmental consideration	- Drum Heater (82 W) common for all countries - Cassette Heater (20 W) 200 V model: standard 208 V model: none available 230 V model: service parts - Fluorescent Lamp Heater (36 W) common for all countries

1.2.7 Function List

1.2.7.1 Print speed

0007-4122

iR105i/iR105+

T-1-44

- AB

Enlargement/reduction		**Size**	**Paper size**	**Copies/min (1-to-N)**
Direct		A3 (297 x 420 mm)	A3	50
		A4 (210 x 297 mm)	A4	105 (100)
		B4 (257 x 364 mm)	B4	57
		B5 (182 x 257 mm)	B5	105 (100)
		A4R (297 x 210 mm)	A4R	72
		B5R (257 x 182 mm)	B5R	84
		A5R (210 x 148 mm)	A5R	100
Reduce	II (50.0 %)	A3 -> A5R	A5R	100
	III (61.1 %)	A3 -> B5R	B5R	84
	IV (70.7 %)	B4 -> B5R	B5R	84
		A3 -> A4R	A4R	72
	V (81.6 %)	B4 -> A4R	A4R	72
		B5R -> A5R	A5R	100
	VI (86.5 %)	A4 -> B5	B5	105 (100)
		A3 -> B4	B4	57
Enlarge	IV (200.0 %)	A5R -> A3	A3	50
	III (141.4 %)	A4R -> A3	A3	50
		B5R -> B4	B4	57
	II (122.4 %)	A4R -> B4	B4	57
		A5 -> B5	B5	105 (100)
	I (115.4 %)	B4 -> A3	A3	50
		B5 -> A4	A4	105 (100)

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette

T-1-45

- Inch

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Direct		279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	49
		LTR	LTR	105 (100)
		LGL	LGL	59
		LTRR	LTRR	77
		STMTR	STMTR	100
Reduce	II (50.0 %)	279.4 x 431.8 mm (11 x 17) -> STMTR	STMTR	100
	III (64.7 %)	279.4 x 431.8 mm (11 x 17) -> LTRR	LTRR	77
	IV (73.3 %)	279.4 x 431.8 mm (11 x 17) -> LGL	LGL	59
	V (78.6 %)	LGL -> LTRR	LTRR	77
Enlarge	III (200.0 %)	STMTR* -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	49
	II (129.4 %)	LTRR -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	49
	I (121.4 %)	LGL -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	49

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette
* STMTR may not be used in the ADF.

The above specifications are subject to change for product improvement.

1.2.7.2 Print speed

0008-8517

iR85+

T-1-46

Paper size	Prints/min.	Paper size	Prints/min.
A3	43	LTR	85
A4	85	LDR	85
B4	50	LGL	50
B5	85	LTRR	85
A4R	62	STMTR	62
B5R	72		
A5R	85		

Delivery from main body, non-sort, deck/cassette

The above specifications are subject to change for product improvement.

1.2.7.3 Print speed

0008-8513

iR9070

T-1-47

- AB

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Direct		A3 (297 x 420 mm)	A3	46
		A4 (210 x 297 mm)	A4	90
		B4 (257 x 364 mm)	B4	53
		B5 (182 x 257 mm)	B5	90
		A4R (297 x 210 mm)	A4R	66
		B5R (257 x 182 mm)	B5R	77
		A5R (210 x 148 mm)	A5R	90
Reduce	II (50.0 %)	A3 -> A5R	A5R	90
	III (61.1 %)	A3 -> B5R	B5R	77
	IV (70.7 %)	B4 -> B5R	B5R	77
		A3 -> A4R	A4R	66
	V (81.6 %)	B4 -> A4R	A4R	66
		B5R -> A5R	A5R	90
	VI (86.5 %)	A4 -> B5	B5	90
		A3 -> B4	B4	53 *
Enlarge	IV (200.0 %)	A5R -> A3	A3	46
	III (141.4 %)	A4R -> A3	A3	46
		B5R -> B4	B4	53 *
	II (122.4 %)	A4R -> B4	B4	53 *
		A5 -> B5	B5	90
	I (115.4 %)	B4 -> A3	A3	46
		B5 -> A4	A4	90

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette
*: 56 sheets/min. in straight delivery

T-1-48

- Inch

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Direct		279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	45
		LTR	LTR	90
		LGL	LGL	54
		LTRR	LTRR	70
		STMTR	STMTR	90
Reduce	II (50.0 %)	279.4 x 431.8 mm (11 x 17) -> STMTR	STMTR	90
	III (64.7 %)	279.4 x 431.8 mm (11 x 17) -> LTRR	LTRR	70
	IV (73.3 %)	279.4 x 431.8 mm (11 x 17) -> LGL	LGL	54
	V (78.6 %)	LGL -> LTRR	LTRR	70

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Enlarge	III (200.0 %)	STMTR* -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	45
	II (129.4 %)	LTRR -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	45
	I (121.4 %)	LGL -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	45

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette
* STMTR may not be used in the ADF.

The above specifications are subject to change for product improvement.

1.2.7.4 Print speed

0008-8515

iR8070

T-1-49

- AB

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Direct		A3 (297 x 420 mm)	A3	41
		A4 (210 x 297 mm)	A4	80
		B4 (257 x 364 mm)	B4	48 *
		B5 (182 x 257 mm)	B5	80
		A4R (297 x 210 mm)	A4R	59
		B5R (257 x 182 mm)	B5R	68
		A5R (210 x 148 mm)	A5R	80
Reduce	II (50.0 %)	A3 -> A5R	A5R	80
	III (61.1 %)	A3 -> B5R	B5R	68
	IV (70.7 %)	B4 -> B5R	B5R	68
		A3 -> A4R	A4R	59
	V (81.6 %)	B4 -> A4R	A4R	59
		B5R -> A5R	A5R	80
	VI (86.5 %)	A4 -> B5	B5	80
		A3 -> B4	B4	48 *
Enlarge	IV (200.0 %)	A5R -> A3	A3	41
	III (141.4 %)	A4R -> A3	A3	41
		B5R -> B4	B4	48 *
	II (122.4 %)	A4R -> B4	B4	48 *
		A5 -> B5	B5	80
	I (115.4 %)	B4 -> A3	A3	41
		B5 -> A4	A4	80

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette
*: 52 sheets/min. in straight delivery

T-1-50

- Inch

Enlargement/reduction		Size	Paper size	Copies/min (1-to-N)
Direct		279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	40
		LTR	LTR	80
		LGL	LGL	48
		LTRR	LTRR	63
		STMTR	STMTR	80
Reduce	II (50.0 %)	279.4 x 431.8 mm (11 x 17) -> STMTR	STMTR	80
	III (64.7 %)	279.4 x 431.8 mm (11 x 17) -> LTRR	LTRR	63
	IV (73.3 %)	279.4 x 431.8 mm (11 x 17) -> LGL	LGL	48
	V (78.6 %)	LGL -> LTRR	LTRR	63
Enlarge	III (200.0 %)	STMTR* -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	40
	II (129.4 %)	LTRR -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	40
	I (121.4 %)	LGL -> 279.4 x 431.8 mm (11 x 17)	279.4 x 431.8 mm (11 x 17)	40

Delivery from copier, auto paper select, density auto adjust, non-sort, deck/cassette
* STMTR may not be used in the ADF.

The above specifications are subject to change for product improvement.

1.2.7.5 Paper Type

0007-1143

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-1-51

Item	Description
Right deck pick up Left deck pick up	- Plain paper (64 to 80 g/m2) A4, B5, LTR
	- Recycled paper (64 to 80 g/m2) A4, B5, LTR
	- Eco paper (80 g/m2) A4
	- Tracing paper A4, B5
	- Colored paper (recommended type) A4
	- Thick paper (90 to 200 g/m2) A4, B5, LTR
	- 3-hole paper (horizontal feed; restrictions on orientation) LTR

Item	Description
Cassette 3 pick up Cassette 4 pick up	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMTR
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMTR
	- Eco paper (80 g/m2) A3, A4, A4R
	- Colored paper (recommended type) B4, A4, A4R
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole paper (horizontal feed; restrictions on orientation) LTR, LTRR
	- Index paper (attachment required) A4, LTR
Manual feed tray	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Eco paper (80 g/m2) A3, A4, A4R
	- Tracing paper (free of curl and adhesion) A3, B4, A4, B5, A4R, B5R
	- Transparency (recommended type; horizontal feed, mirror image, straight delivery) A4, A4R, LTR, LTRR
	- Colored paper (recommended type) B4, A4, A4R
	- Postcard (horizontal feed) 4-piece postcard pad
	- Label paper (recommended type) B4, A4, A4R, LTR, LTRR
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole sheet (horizontal feed) LTR, LTRR

Item	Description
Single-sided mode	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Eco paper (80 g/m2) A3, A4, A4R
	- Tracing paper (free of curl, and adhesion) A3, B4, A4, B5, A4R, B5R
	- Transparency (recommended type; horizontal feed, mirror image, straight delivery) A4, LTR
	- Colored paper (recommended type) B4, A4, A4R
	- Postcard (horizontal feed) 4-piece postcard pad
	- Lavel paper (recommended type) B4, A4, A4R, LTR, LTRR
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole paper (horizontal feed) LTR, LTRR
	- Index paper A4, LTR
Face-down delivery mode	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMTR
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMTR
	- Eco paper (80 g/m2) A3, A4, A4R
	- Tracing paper (free of curl and adhesion) A3, B4, A4, B5, A4R, B5R
	- Colored paper (recommended type) B4, A4, A4R
	- Postcard (horizontal feed) 4-piece postcard pad
	- Label paper (recommended type) B4, A4, A4R, LTR, LTRR
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole paper (horizontal feed) LTR
	- Index paper (from cassette) A4, LTR

Item	Description
Double-sided Auto mode	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Eco paper (80 g/m2) A3, A4, A4R
	- Colored paper (recommended type) B4, A4, A4R
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole paper (horizontal feed) LTR, LTRR
Double-sided mode Manual feed tray	- Plain paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Recycled paper (64 to 80 g/m2) A3, B4, A4, B5, A4R, B5R, A5R, 279.4 x 431.8 mm (11 x 17), LGL, LTR, LTRR, STMT (vertical feed)
	- Eco paper (80 g/m2) A3, A4, A4R
	- Colored paper (recommended type) B4, A4, A4R
	- Postcard (horizontal feed) 4-piece postcard pad
	- Thick paper (90 to 200 g/m2) A3, B4, A4, B5, A4R, B5R, LTR, LTRR
	- 3-hole paper (horizontal feed) LTR, LTRR

Chapter 2 Installation

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2.1 Making Pre-Checks

2.1.1 Selecting the site

0008-8679

iR105i/iR105+ / iR9070

The site of installation must meet the following requirements; if possible, visit the user's before delivery of the machine:

1) The site must provide with a power outlet that is rated to suit the machine and that can be used exclusively by the machine; 200V Model (180 to 220V, 15A or more), 208V Model (188 to 228V, 12A or more), 230V Model (198 to 264V, 13A or more).
2) Temperature and humidity must be within the extent of the following figure. Particularly, be sure to avoid areas near water faucets, water boilers, humidifiers, and refrigerators.

F-2-1

<Guaranteed Environment Zone>
[A] Zone A: All items of the Quality Standard are satisfied.
[B] Zone B: In the Quality Standard, there are items that are inferior to Zone A or not satisfied.
[C] Zone C: There are no safety problems, no malfunctions, and no improper indications. Copying is performed properly.

3) The site must not be near a source of fire, subject to dust or ammonium gas, or exposed to direct rays of the sun. As necessary provide curtains.
4) The level of ozone generated by the machine will not affect the health of individuals around it. Some, however, may find its odor unpleasant as while remaining in contact with it for long hours. Be sure that the room is well ventilated.
5) Make sure that the feet of the machine will remain in contact with the floor, and the machine will be kept level.
6) Make sure that the machine will be at least 10 cm away from any walls, allowing enough space for work.
7) Make sure that the area is well ventilated. If multiple machines are installed, in particular, be sure that the exhaust of another will not be drawn by the machine. Be sure also not to install a machine near an air vent.

Wrong 1

F-2-2

MEMO:
In general, the silicon gas (vapor of silicone oil from the fixing assembly) tends to soil the corona charging wire, reducing its life. This is particularly true of a low humidity environment.)

F-2-3

Outline of the Work Space
Use the following as a guide when considering space for service work:

- Copier + Finisher

F-2-4

- Copier + Finisher + Side Paper Deck

F-2-5

2.1.2 Selecting the site

0008-9635

/ iR8070

The site of installation must meet the following requirements; if possible, visit the user's before delivery of the machine:

1) The site must provide with a power outlet that is rated to suit the machine and that can be used exclusively by the machine; 100V Model (90 to 110V, 15A or more), 208V Model (188 to 228V, 12A or more), 230V Model (198 to 264V, 13A or more).
2) Temperature and humidity must be within the extent of the following figure. Particularly, be sure to avoid areas near water faucets, water boilers, humidifiers, and refrigerators.

F-2-6

<Guaranteed Environment Zone>
[A] Zone A: All items of the Quality Standard are satisfied.
[B] Zone B: In the Quality Standard, there are items that are inferior to Zone A or not satisfied.
[C] Zone C: There are no safety problems, no malfunctions, and no improper indications. Copying is performed properly.

3) The site must not be near a source of fire, subject to dust or ammonium gas, or exposed to direct rays of the sun. As necessary provide curtains.
4) The level of ozone generated by the machine will not affect the health of individuals around it. Some, however, may find its odor unpleasant as while remaining in contact with it for long hours. Be sure that the room is well ventilated.
5) Make sure that the feet of the machine will remain in contact with the floor, and the machine will be kept level.
6) Make sure that the machine will be at least 10 cm away from any walls, allowing enough space for work.
7) Make sure that the area is well ventilated. If multiple machines are installed, in particular, be sure that the exhaust of another will not be drawn by the machine. Be sure also not to install a machine near an air vent.

Wrong 1

F-2-7

MEMO:
In general, the silicon gas (vapor of silicone oil from the fixing assembly) tends to soil the corona charging wire, reducing its life. This is particularly true of a low humidity environment.)

Wrong 2

F-2-8

Outline of the Work Space
Use the following as a guide when considering space for service work:

- Copier + Finisher

F-2-9

- Copier + Finisher + Side Paper Deck

F-2-10

2.1.3 Selecting the site

0008-9638

The site of installation must meet the following requirements; if possible, visit the user's before delivery of the machine:

1) The site must provide with a power outlet that is rated to suit the machine and that can be used exclusively by the machine; 100V Model (90 to 110V, 20A or more), 208V Model (188 to 228V, 12A or more), 230V Model (198 to 264V, 13A or more).
2) Temperature and humidity must be within the extent of the following figure. Particularly, be sure to avoid areas near water faucets, water boilers, humidifiers, and refrigerators.

F-2-11

<Guaranteed Environment Zone>
[A] Zone A: All items of the Quality Standard are satisfied.
[B] Zone B: In the Quality Standard, there are items that are inferior to Zone A or not satisfied.
[C] Zone C: There are no safety problems, no malfunctions, and no improper indications. Copying is performed properly.

3) The site must not be near a source of fire, subject to dust or ammonium gas, or exposed to direct rays of the sun. As necessary provide curtains.
4) The level of ozone generated by the machine will not affect the health of individuals around it. Some, however, may find its odor unpleasant as while remaining in contact with it for long hours. Be sure that the room is well ventilated.
5) Make sure that the feet of the machine will remain in contact with the floor, and the machine will be kept level.
6) Make sure that the machine will be at least 10 cm away from any walls, allowing enough space for work.
7) Make sure that the area is well ventilated. If multiple machines are installed, in particular, be sure that the exhaust of another will not be drawn by the machine. Be sure also not to install a machine near an air vent.

Wrong 1

F-2-12

MEMO:
In general, the silicon gas (vapor of silicone oil from the fixing assembly) tends to soil the corona charging wire, reducing its life. This is particularly true of a low humidity environment.)

F-2-13

Outline of the Work Space
Use the following as a guide when considering space for service work:

- Copier + Finisher

F-2-14

- Copier + Finisher + Side Paper Deck

F-2-15

2.1.4 Selecting the site

0009-1237

iR85+

The site of installation must meet the following requirements; if possible, visit the user's before delivery of the machine:

1) The site must provide with a power outlet that is rated to suit the machine and that can be used exclusively by the machine; 208V Model (188 to 228V, 12A or more), 230V Model (198 to 264V, 13A or more).
2) Temperature and humidity must be within the extent of the following figure. Particularly, be sure to avoid areas near water faucets, water boilers, humidifiers, and refrigerators.

F-2-16

<Guaranteed Environment Zone>
[A] Zone A: All items of the Quality Standard are satisfied.
[B] Zone B: In the Quality Standard, there are items that are inferior to Zone A or not satisfied.
[C] Zone C: There are no safety problems, no malfunctions, and no improper indications. Printing is performed properly.

3) The site must not be near a source of fire, subject to dust or ammonium gas, or exposed to direct rays of the sun. As necessary provide curtains.
4) The level of ozone generated by the machine will not affect the health of individuals around it. Some, however, may find its odor unpleasant as while remaining in contact with it for long hours. Be sure that the room is well ventilated.
5) Make sure that the feet of the machine will remain in contact with the floor, and the machine will be kept level.
6) Make sure that the machine will be at least 10 cm away from any walls, allowing enough space for work.
7) Make sure that the area is well ventilated. If multiple machines are installed, in particular, be sure that the exhaust of another will not be drawn by the machine. Be sure also not to install a machine near an air vent.

Wrong 1

F-2-17

MEMO:
In general, the silicon gas (vapor of silicone oil from the fixing assembly) tends to soil the corona charging wire, reducing its life. This is particularly true of a low humidity environment.)

Wrong 2

F-2-18

Outline of the Work Space
Use the following as a guide when considering space for service work:

- Main body + Finisher

F-2-19

- Main body + Finisher + Side Paper Deck

F-2-20

2.1.5 Points to Note Before Starting the Work

0007-6374

iR105i/iR105+ / iR9070

Go through the following before starting to install the machine:

1) If the machine is moved from a cold to warm place, it can develop condensation in the form of droplets of water on its metal surfaces.
Use of the machine while it suffers from condensation can lead to image faults.
If the machine has been moved from a cold to warm place, be sure to leave it for 1 hour or more without unpacking so that it becomes fully used to the new place.
2) If stairs are used to move the machine into or out of the site of installation, keep the following in mind:
a. Take out the ADF, fixing/feeding assembly, holding tray assembly, and copy paper, and carry them separately from the main body.
b. When lifting the machine, do not use the grips on the pickup assembly/ delivery assembly. Instead, be sure to support the machine at four corners of its bottom.
3) Shift up the 2 adjusters (front) found on the bottom of the machine to be sure that they are unlocked. The adjusters can slip out of the bottom of the machine because of vibration during transportation. Take care not to loose them.
4) Be sure to work as a group of three or more. When removing the pad, in particular, one must hold the rear grip and one the front grip, while the other removes the pad.
5) Be sure to remove the accessories (side paper deck, finisher, paper folding unit) when moving the machine into or out of the site of installation to prevent damage.

2.1.6 Points to Note Before Starting the Work

0007-1499

/ iR8070

Go through the following before starting to install the machine:

1) If the machine is moved from a cold to warm place, it can develop condensation in the form of droplets of water on its metal surfaces.
Use of the machine while it suffers from condensation can lead to image faults.
If the machine has been moved from a cold to warm place, be sure to leave it for 1 hour or more without unpacking so that it becomes fully used to the new place.
2) If stairs are used to move the machine into or out of the site of installation, keep the following in mind:
a.Take out the ADF, fixing/feeding assembly, holding tray assembly, and copy paper, and carry them separately from the main body.
b.When lifting the machine, do not use the grips on the pickup assembly/ delivery assembly. Instead, be sure to support the machine at four corners of its bottom.
3) Shift up the 2 adjusters (front) found on the bottom of the machine to be sure that they are unlocked. The adjusters can slip out of the bottom of the machine because of vibration during transportation. Take care not to loose them.
4) Be sure to work as a group of three or more. When removing the pad, in particular, one must hold the rear grip and one the front grip, while the other removes the pad.
5) Be sure to remove the options (side paper deck, finisher, paper folding unit) when moving the machine into or out of the site of installation to prevent damage.

2.1.7 Points to Note Before Starting the Installation Work

0007-2892

Go through the following before starting the installation work:

1) Moving a machine from a cold to warm place can cause condensation (in the from of droplets of water on its metal surfaces).
A machine surffering from condensation can produce image faults.
If the machine has just been brought in from a cold place, leave it alone (unpacked) for at least 1 hour or before starting the work.
2) If the machine is moved into or out of the user's along stairs, observe the follwing:
a.Remove the ADF, fixing/feeding unit, holding tray assembly, and copy paper, and carry them separately from the machin.
b.When lifting the machine, do not grab the grips on the pickup/delivery assembly; rather, hold it by its four bottom corners.
3) Shift up the two adjusters (front) on the bottom of the machine to make sure that they are unlocked. Further, take care not to lose the adjusters, which can slip off the bottom because of vibration occuring in transit.
4) Work in a group of three or more. Particularly, when removing the pad, assign one person to work at the rear and one at the front, with one removing the pad.
5) Remove the side paper deck or the finisher (options) to prevent damege when bringing in or out the machine.

2.1.8 Points to Note Before Starting the Installation Work

0009-1364

iR85+

Go through the following before starting the installation work:

1) Moving a machine from a cold to warm place can cause condensation (in the from of droplets of water on its metal surfaces).
A machine surffering from condensation can produce image faults.
If the machine has just been brought in from a cold place, leave it alone (unpacked) for at least 1 hour or before starting the work.
2) If the machine is moved into or out of the user's along stairs, observe the follwing:
a.Remove the fixing/feeding unit, holding tray assembly, and paper, and carry them separately from the machin.
b.When lifting the machine, do not grab the grips on the pickup/delivery assembly; rather, hold it by its four bottom corners.
3) Shift up the two adjusters (front) on the bottom of the machine to make sure that they are unlocked. Further, take care not to lose the adjusters, which can slip off the bottom because of vibration occuring in transit.
4) Work in a group of three or more. Particularly, when removing the pad, assign one person to work at the rear and one at the front, with one removing the pad.
5) Remove the side paper deck or the finisher (options) to prevent damege when bringing in or out the machine.

2.1.9 Checking the Components

0008-9175

iR85+

Attachments

T-2-1

[1]	Developing assembly	1 PC.
[2]	Developing assembly unit	1 PC.

[3]	Size label(Cassette/Deck)	2 PC.*
[4]	Size plate	2 PC.
[5]	Grip	1 PC.
[6]	Non-Inch tab	4 PC.
[7]	Toner (Italiann only)	1 PC.
[8]	Document Tray (USA only)	1 PC.
[9]	Index paper attachment	1 PC.
[10]	Lining sheet	1 PC.
[11]	One-touch support	2 PC.
[12]	Deck locking plate	1 PC.
[13]	Shut-Down Warning Label	1 PC.
[14]	Reference Guide (USA only)	1 PC.
[15]	Box Guide (USA only)	1 PC.
[16]	MEAP Administration Software CD	1 PC.
[17]	QR Sheet	1 PC.
[18]	RS tightening screw(M4X10)	3 PC.
[19]	TP screw (M4X6)	6 PC.
[20]	Binding screw (M4x8; w/ washer; black)	1 PC.
[21]	Drum Unit Warranty	1 PC.
[22]	Installation Check List	1 PC.
[23]	Staple (USA only)	4 PC.
[24]	Resistration Guide (USA only)	1 PC.
[25]	MEAP Software CD	1 PC.

*The size label (cassette/deck) may come as separate labels (for cassette and for deck).

2.1.10 Checking the Components

0008-5722

iR105i/iR105+ / iR9070

Attachments

T-2-2

[1]	Developing assembly	1 pc.
[2]	Developing assembly locking plate unit	1 pc.
[3]	Control panel unit	1 pc.
[4]	Upper arm	1 pc.
[5]	Lower arm	1 pc.
[6]	Upper arm cover	1 pc.
[7]	Lower arm cover	1 pc.
[8]	Harness clip	1 pc.
[9]	Original delivery tray	1 pc.
[10]	size label (Deck /Cassette)	2 pc.*
[11]	Size plate	2 pc.
[12]	3-hole paper set label	1 pc.
[13]	Grip	1 pc.
[14]	Non-inch block	4 pc.
[15]	Toner	1 pc.
[16]	Index paper attachment	1 pc.
[17]	Lining sheet	1 pc.
[18]	One-touch support	2 pc.
[19]	Deck locking plate	1 pc.
[20]	Shut-Down Warning Label	1 pc.
[21]	User's Guide	1 pc.
[22]	Copy Guide	1 pc.
[23]	Box Guide	1 pc.

[24]	LIPS LX Driver/Utility CD-ROM	1 pc.
[25]	LIPS V Driver/Utlity CD	1 pc.
[26]	NW ScanGear CD	1 pc.
[27]	LIPS Printer Guide	1 pc.
[28]	Remote UI Guide	1 pc.
[29]	Network Guide	1 pc.
[30]	Emulation Manual CD	1 pc.
[31]	License Agreement	1 pc.
[32]	MEAP Administration Software CD	1 pc.
[33]	MEAP Application Control Function Guide	1 pc.
[34]	MEAP Authentication System Setup Guide	1 pc.
[35]	Transmission Guide	1 pc.
[36]	BM Links (sheet)	1 pc.
[37]	QR sheet	1 pc.
[38]	Service Book	1 pc.
[39]	RS tightening screw (M4X10)	3 pc.
[40]	TP screw (M4X6)	6 pc.
[41]	Binding screw (M4X6)	1 pc.
[42]	Binding screw (M4X10)	6 pc.
[43]	Binding screw (M4X14)	5 pc.
[44]	P tightening screw (M4x10)	2 pc.
[45]	W sems screw (M4x12)	1 pc.
[46]	Flat-head screw (M4x10)	1 pc.
[47]	Binding screw (M4x8; w/ washer; black)	1 pc.

*The size label (cassette/deck) may come as separate labels (for cassette and for deck).

2.1.11 Checking the Components

0008-5761

/ iR8070

Attachments

T-2-3

[1]	Developing assembly	1 PC.
[2]	Developing unit	1 PC.
[3]	Size label(Cassette/ Deck)	2 PC.*
[4]	Size plate	2 PC.
[5]	Grounding wire [100V Only]	1 PC.
[6]	Grip	1 PC.
[7]	Non-Inch tab	4 PC.
[8]	Toner	1 PC.
[9]	Index paper attachment	1 PC.
[10]	Deck locking plate	1 PC.
[11]	One-touch support	2 PC.
[12]	Deck locking plate	1 PC.
[13]	Shut-Down Warning Label	1 PC.
[14]	User's Guide	1 PC.
[15]	Copy Guide	1 PC.
[16]	Box Guide	1 PC.
[17]	LIPS LX Driver/Utility CD-ROM	1 PC.
[19]	NW ScanGear CD	1 PC.
[19]	LIPS Printer Guide	1 PC.
[20]	Remote UI Guide	1 PC.

[21]	Network Guide	1 PC.
[22]	MEAP Administration Software CD	1 PC.
[23]	MEAP Application Control Function Guide	1 PC.
[24]	MEAP Authentication System Setup Guide	1 PC.
[25]	BM Links (sheet)	1 PC.
[26]	QR Sheet	1 PC.
[27]	Service Book	1 PC.
[28]	Reader unit anti-condensation heater cable	1 PC.
[29]	RS tightening screw (M4X10)	1 PC.
[30]	TP screw (M4X6)	6 PC.
[31]	Binding screw (M4x8; w/ washer; black)	1 PC.

*The size label (cassette/deck) may come as separate labels (for cassette and for deck).

2.1.12 Checking the Components

0008-5820

Attachments

T-2-4

[1]	Developing assembly	1 PC.
[2]	Developing assembly unit	1 PC.
[3]	Original delivery tray	1 PC.
[4]	Size labels (Cassette/Deck)	2 PC.*
[5]	Size plate	2 PC.
[6]	Grounding wire [100V Oniy]	1 PC.
[7]	Grip	1 PC.
[8]	Non-Inch tab	4 PC.
[9]	Toner	1 PC.
[10]	Index paper attachment	1 PC.
[11]	Lining sheet	1 PC.
[12]	One-touch support	2 PC.
[13]	Deck locking plate	1 PC.
[14]	Shut-Down Warning Label	1 PC.
[15]	User's Guide	1 PC.
[16]	Copying Guide	1 PC.
[17]	Box Guide	1 PC.
[18]	LIPS LX Driver/Utility CD-ROM	1 PC.
[19]	NW ScanGear CD	1 PC.
[20]	LIPS Printer Guide	1 PC.
[21]	Remote UI Guide	1 PC.
[22]	Network Guide	1 PC.
[23]	MEAP Administration Software CD	1 PC.
[24]	MEAP Application Control Function Guide	1 PC.
[25]	MEAP Authentication System Setup Guide	1 PC.
[26]	QR Sheet	1 PC.
[27]	Service Book	1 PC.
[28]	RS tightening screw (M4X10)	3 PC.
[29]	TP screw (M4X6)	6 PC.
[30]	Binding screw (M4x8; w/ washer; black)	1 PC.

*The size label (cassette/deck) may come as separate labels (for cassette and for deck).

2.2 Unpacking and Installation

2.2.1 Unpacking

0007-6543

iR105i/iR105+ / iR9070

1) Unpack the copier.
   Open the plastic bag.
   Insert a flat-blade screwdriver into the top of the grip cover [1] (2 pc.) on the left side of the machine, and detach the cover.
   Shift up the grips [2].

F-2-21

2) Detach the grip cover [1] on the right side of the machine (using a flat-blade screwdriver), and shift up the grip [2] at the rear.

F-2-22

3) Take out the grip [1] from the box that comes with the machine.

F-2-23

4) Open the right upper cover, and slide the small face cover [1] to the rear to detach; then, detach the large face cover [2].
   Fit the grip [3] detached in step 3 at the front.
   Close the right upper cover.

F-2-24

5) Holding the grips on the pickup side (front, rear) for the copier, lift the machine slightly to remove the pad [1].
   At this time, move the plastic bag [2] toward the remaining pad.

F-2-25

6) Holding the grips on the delivery side (front, rear) of the copier, lift the machine slightly to remove the remaining pad [1] and the plastic bag at the same time.

F-2-26

7) Shift up the 2 adjusters [1] (front) found on the bottom for the copier, and check that they are unlocked.

F-2-27

8) Take out the 2 slope plates [2] from the middle of the skid [1].

F-2-28

9) Remove the 2 pins [2] taped in place to the slope plate [1].
Turn over the slope plate [1], and fit the pin [2] (1 pc. each) while matching the pin holes in the skid and the pin hole in the slope plate.
Holding the grips (front, rear) on the delivery side of the copier, slide the machine along the slope plates, then off the skid.

F-2-29

10) Take out the parts and attachments from the cardboard box that comes with the machine; then, check to make sure that none of the foregoing items is missing.
11) Open the left and right protrusions [1] of the grip you fitted in step 4) using a screwdriver [3]; then, detach the grip [1].

F-2-30

12) Open the front cover [1] and then the compartment cover [2]; then, store the grips [3] used in compartment behind the front cover.
Close the compartment cover, and close the front cover.

F-2-31

13) Mount the removed face covers to the right and left sides.
Open the right upper cover, and mount the small and large face covers.
Close the right upper cover.

If condensation is found on the outside or inside of the machine after unpacking, stop the work before moving to the next step so that the machine will become used to the room temperature.
Be sure of the absence of condensation when resuming the work.

2.2.2 Unpacking

0008-9179

iR85+

1) Unpack the machine.
Open the plastic bag.
Insert a flat-blade screwdriver into the top of the grip cover [1] (2 pc.) on the left side of the machine, and detach the cover.
Shift up the grips [2].

F-2-32

2) Detach the grip cover [1] on the right side of the machine (using a flat-blade screwdriver), and shift up the grip [2] at the rear.

F-2-33

3) Take out the grip [1] from the box that comes with the machine.

F-2-34

4) Open the right upper cover, and slide the small face cover [1] to the rear to detach; then, detach the large face cover [2].
Fit the grip [3] detached in step 3 at the front.
Close the right upper cover.

F-2-35

5) Holding the grips on the pickup side (front, rear) for the machine, lift the machine slightly to remove the pad [1].
At this time, move the plastic bag [2] toward the remaining pad.

F-2-36

6) Holding the grips on the delivery side (front, rear) of the machine, lift the machine slightly to remove the remaining pad [1] and the plastic bag at the same time.

F-2-37

7) Shift up the 2 adjusters [1] (front) found on the bottom for the machine, and check that they are unlocked.

F-2-38

8) Take out the 2 slope plates [2] from the middle of the skid [1].

F-2-39

9) Remove the 2 pins [2] taped in place to the slope plate [1].
Turn over the slope plate [1], and fit the pin [2] (1 pc. each) while matching the pin holes in the skid and the pin hole in the slope plate.
Holding the grips (front, rear) on the delivery side of the machine, slide the machine along the slope plates, then off the skid.

F-2-40

10) Take out the parts and attachments from the cardboard box that comes with the machine; then, check to make sure that none of the foregoing items is missing.
11) Open the left and right protrusions [1] of the grip you fitted in step 4) using a screwdriver [3]; then, detach the grip [1].

F-2-41

12) Open the front cover [1] and then the compartment cover [2]; then, store the grips [3] used in compartment behind the front cover.
Close the compartment cover, and close the front cover.

F-2-42

13) Mount the removed face covers to the right and left sides.
Open the right upper cover, and mount the small and large face covers.
Close the right upper cover.

If condensation is found on the outside or inside of the machine after unpacking, stop the work before moving to the next step so that the machine will become used to the room temperature.
Be sure of the absence of condensation when resuming the work.

2.2.3 Mounting the Scanner System

0007-6604

iR105i/iR105+ / iR9070

1) Remove the packing tape from the copier.
2) Open the ADF.
Remove the copyboard glass protective pad.
3) Remove the packing tape [1] from the scanner fixing.
Slide the scanner fixing [2] to the front to detach. (Store away the fixing, as you will need it to secure the scanner when relocating the machine.)

F-2-43

2.2.4 Unpacking

0007-1778

/ iR8070

1) Unpack the copier.
Open the plastic bag.
Insert a flat-blade screwdriver into the top of the grip cover [1] (2 pc.) on the left side of the machine, and detach the cover.
Shift up the grips [2].

F-2-44

2) Detach the grip cover [1] on the right side of the machine (using a flat-blade screwdriver), and shift up the grip [2] at the rear.

F-2-45

3) Take out the grip [1] from the box that comes with the machine.

F-2-46

4) Open the right upper cover, and slide the small face cover [1] to the rear to detach; then, detach the large face cover [2].
Fit the grip [3] detached in step 3 at the front.
Close the right upper cover.

F-2-47

5) Holding the grips on the pickup side (front, rear) for the copier, lift the machine slightly to remove the pad [1].
At this time, move the plastic bag [2] toward the remaining pad.

F-2-48

6) Holding the grips on the delivery side (front, rear) of the copier, lift the machine slightly to remove the remaining pad [1] and the plastic bag at the same time.

F-2-49

7) Shift up the 2 adjusters [1] (front) found on the bottom for the copier, and check that they are unlocked.

F-2-50

8) Take out the 2 slope plates [2] from the middle of the skid [1].

F-2-51

9) Remove the 2 pins [2] taped in place to the slope plate [1].
Turn over the slope plate [1], and fit the pin [2] (1 pc. each) while matching the pin holes in the skid and the pin hole in the slope plate.
Holding the grips (front, rear) on the delivery side of the copier, slide the machine along the slope plates, then off the skid.

F-2-52

10) Take out the parts and attachments from the cardboard box that comes with the machine; then, check to make sure that none of the foregoing items is missing.
11) Open the left and right protrusions [1] of the grip you fitted in step 4) using a screwdriver [3]; then, detach the grip [1].

F-2-53

12) Open the front cover [1] and then the compartment cover [2]; then, store the grips [3] used in compartment behind the front cover.
Close the compartment cover, and close the front cover.

F-2-54

13) Mount the removed face covers to the right and left sides.
Open the right upper cover, and mount the small and large face covers.
Close the right upper cover.

If condensation is found on the outside or inside of the machine after unpacking, stop the work before moving to the next step so that the machine will become used to the room temperature.
Be sure of the absence of condensation when resuming the work.

2.2.5 Unpacking

0007-2893

1) Unpack the copier.
   Open the plastic bag.
   Insert a flat-blade screwdriver into the top of the grip cover [1] (2 pc.) on the left side of the machine, and detach the cover.
   Shift up the grips [2].

F-2-55

2) Detach the grip cover [1] on the right side of the machine (using a flat-blade screwdriver), and shift up the grip [2] at the rear.

F-2-56

3) Take out the grip [1] from the box that comes with the machine.

F-2-57

4) Open the right upper cover, and slide the small face cover [1] to the rear to detach; then, detach the large face cover [2].
   Fit the grip [3] detached in step 3 at the front.
   Close the right upper cover.

F-2-58

5) Holding the grips on the pickup side (front, rear) for the copier, lift the machine slightly to remove the pad [1].
   At this time, move the plastic bag [2] toward the remaining pad.

F-2-59

6) Holding the grips on the delivery side (front, rear) of the copier, lift the machine slightly to remove the remaining pad [1] and the plastic bag at the same time.

F-2-60

7) Shift up the 2 adjusters [1] (front) found on the bottom for the copier, and check that they are unlocked.

F-2-61

8) Take out the 2 slope plates [2] from the middle of the skid [1].

F-2-62

9) Remove the 2 pins [2] taped in place to the slope plate [1].
Turn over the slope plate [1], and fit the pin [2] (1 pc. each) while matching the pin holes in the skid and the pin hole in the slope plate.
Holding the grips (front, rear) on the delivery side of the copier, slide the machine along the slope plates, then off the skid.

F-2-63

10) Take out the parts and attachments from the cardboard box that comes with the machine; then, check to make sure that none of the foregoing items is missing.
11) Open the left and right protrusions [1] of the grip you fitted in step 4) using a screwdriver [3]; then, detach the grip [1].

F-2-64

12) Open the front cover [1] and then the compartment cover [2]; then, store the grips [3] used in compartment behind the front cover.
Close the compartment cover, and close the front cover.

F-2-65

13) Mount the removed face covers to the right and left sides.
Open the right upper cover, and mount the small and large face covers.
Close the right upper cover.

If condensation is found on the outside or inside of the machine after unpacking, stop the work before moving to the next step so that the machine will become used to the room temperature.
Be sure of the absence of condensation when resuming the work.

2.2.6 Installing the Fixing Assembly

0007-6607

iR105i/iR105+ / iR9070

1) Open the front cover.
2) Shift the fixing/feeding assembly releasing lever [1] in the direction of the arrow (left) to release the transfer/ separation charging assembly.

F-2-66

3) Slide out the fixing/feeding unit [1] to the front.

F-2-67

4) Remove the tag [1] and tape [2] from the fixing/feeding assembly.
Remove the separation releasing member [3].

Remove all foreign matter (e.g., tape glue) from the feed belt.

F-2-68

5) Remove the tape used to keep the tag in place; then, open the fixing/ feeding unit top [1], and remove the two screws [2] from the front and the rear (fixing nip release).

F-2-69

Close the fixing/feeding unit top [1].

2.2.7 Mounting the Fixing Assembly

0008-9181

iR85+

1) Open the front cover.
2) Remove the tape [1] from the front of the inside cover and the tape [3] used to keep the tag [2] in place.

F-2-70

3) Shift down the fixing/feeding assembly releasing lever [1] in the direction of the arrow (left) to unlock the transfer/separation charging assembly.

F-2-71

4) Slide out the fixing/feeding unit [1] toward the front.

F-2-72

5) Remove the tag [1] of the fixing/feeding assembly and the separation releasing member [2].

Be sure to remove any foreign matter (e.g., glue left behind by the tape [3]) from the feeding belt.

F-2-73

6) Remove the tape used to keep the tag in place, and open the top [1] of the fixing/ feeding assembly; then, remove the 2 fixing nip releasing screws [2] at the front and rear.

F-2-74

Close the top of the fixing/feeding unit.

2.2.8 Mounting the Scanner System

0007-2044

/ iR8070

1) Remove the packing tape from the copier.
2) Open the ADF.
   Remove the copyboard glass protective padding.
3) Remove the scanning fixing screw [1] identified with a tag.
   (Store away the fixings for possible relocation of the machine in the future).

F-2-75

2.2.9 Mounting the Scanner System

0007-2895

1) Remove the packing tape from the copier.
2) Open the ADF.
Remove the copyboard glass protective padding.
3) Remove the tape [1], and slide the scanner fixing [2] toward the front to detach
(Store away the fixing screw for possible relocation of the machine in the future).

F-2-76

2.2.10 Mounting the Charging Assembly

0007-6622

iR105i/iR105+ / iR9070

1) Remove the screw [2], and detach the transfer/separation assembly front cover [1].

F-2-77

2) Remove the fixing [1] (1 screw [2]), and disconnect the connector [3].

F-2-78

3) While holding down the front and rear of the transfer/separation charging assembly [1], pull it by 1 cm toward the front; then, detach it toward the upper left.
Using alcohol, clean the transfer/ separation charging wire.

F-2-79

4) While keeping the following in mind, mount the transfer/separation charging assembly:
- The solvent must completely be dry.
- The gut wire must not be brought into contact with the transfer guide [1] to avoid a cut.
- The grounding plate [2] must be on the outside of the charging assembly frame [3] (See the figure).

F-2-80

F-2-81

5) Connect the connector of the transfer/ separation charging assembly, and mount the fixing.
6) Using a screw, mount the toner/separation charging assembly front cover.
Push in the fixing/feeding assembly inside the machine, and shift the fixing/feeding assembly releasing lever [1] back into position.

F-2-82

7) Remove the screw [1], and detach the primary charging assembly front cover [2].

F-2-83

8) Disconnect the connector [1], and release the locking lever [3] of the primary charging assembly [2]; then, take out the primary charging assembly.
Using alcohol, clean the primary charging assembly and the grid wire.

F-2-84

Do not start mounting work before the solvent has become completely dry.

9) Remove the screw [1], and detach the pretransfer charging assembly cover [2].

F-2-85

10) Disconnect the connector [1], and release the locking lever [3] of the pre-transfer charging assembly [2]; then, take out the pre-transfer charging assembly.
Using alcohol, clean the pre-transfer charging wire.

F-2-86

11) With the lock released, slide in the primary charging assembly, and connect the connector.

Check to make sure that the solvent is fully dry.
12) With the lock released, slide in the pretransfer charging assembly, and connect the connector.

F-2-87

- Check to make sure that the solvent is fully dry.
- Check to make sure that the one-way arm [1] of the pretransfer charging assembly is on the eccentric cam [2].

13) Mount the primary charging assembly cover and the pre-transfer charging assembly cover with a screw (1 pc. each).
14) Close the front cover.

2.2.11 Mounting the Fixing Assembly

0007-2048

/ iR8070

1) Open the front cover.
2) Shift down the fixing/feeding assembly releasing lever [4] in the direction of the arrow (left) to unlock the transfer/ separation charging assembly.

F-2-88

3) Slide out the fixing/feeding unit [1] toward the front.

F-2-89

4) Remove the tag [1] of the fixing/feeding assembly and the separation releasing member [2].

Be sure to remove any foreign matter (e.g., glue left behind by the tape [3]) from the feeding belt.

F-2-90

5) Remove the tape used to keep the tag in place, and open the top [1] of the fixing/ feeding assembly; then, remove the 2 fixing nip releasing screws [2] at the front and rear.

F-2-91

Close the top of the fixing/feeding unit.

2.2.12 Mounting the Fixing Assembly

0007-2900

1) Open the front cover.
2) Shift down the fixing/feeding assembly releasing lever [1] in the direction of the arrow (left) to unlock the transfer/separation charging assembly.

F-2-92

3) Slide out the fixing/feeding unit [1] toward the front.

F-2-93

4) Remove the tag [1] of the fixing/feeding assembly and the separation releasing member [2].

Be sure to remove any foreign matter (e.g., glue left behind by the tape [3]) from the feeding belt.

F-2-94

5) Remove the tape used to keep the tag in place, and open the top [1] of the fixing/ feeding assembly; then, remove the 2 fixing nip releasing screws [2] at the front and rear.

F-2-95

Close the top of the fixing/feeding unit.

2.2.13 Checking the Developing Assembly

0007-6638

iR105i/iR105+ / iR9070

1) Open the manual feed tray unit.
2) Take out the developing assembly from the package that comes with the machine.
   Turn the developing cylinder by hand to check it for scratches.
3) Holding the developing assembly [1] as shown, mount it to the machine.

F-2-96

When mounting the developing assembly, fit it from a high position, and take care not to bring the developing cylinder into contact with the plate of the developing assembly base.

4) Connect the 2 connectors [1].

F-2-97

5) Secure the developing assembly locking unit [1] with the 6 TP screws [2] (M4x6; black) that come with the machine.

F-2-98

Be sure that the developing assembly locking unit is firmly in contact and is free of displacement to avoid image faults. (Particularly, it must not ride overt the boss found at the bottom.)

6) Fit the door tape of the manual feed tray cover with a screw (M4x8; w/ washer: black).
   (Keep the manual feed tray cover open).

F-2-99

2.2.14 Mounting the Charging Assembly

0007-2902

/ iR85+

1) Remove the screw [2], and detach the transfer/separation assembly front cover [1].

F-2-100

2) Remove the fixing [1] (1 screw [2]), and disconnect the connector [3].

F-2-101

3) While holding down the front and rear of the transfer/separation charging assembly [1], pull it by 1 cm toward the front; then, detach it toward the upper left.
Using alcohol, clean the transfer/ separation charging wire.

F-2-102

4) While keeping the following in mind, mount the transfer/separation charging assembly:
- The solvent must completely be dry.
- The gut wire must not be brought into contact with the transfer guide [1] to avoid a cut.
- The grounding plate [2] must be on the outside of the charging assembly frame [3] (See the figure).

F-2-103

F-2-104

5) Connect the connector of the transfer/ separation charging assembly, and mount the fixing.
6) Using a screw, mount the toner/separation charging assembly front cover.
Push in the fixing/feeding assembly inside the machine, and shift the fixing/feeding assembly releasing lever [1] back into position.

F-2-105

7) Remove the screw [1], and detach the primary charging assembly front cover [2].

F-2-106

8) Disconnect the connector [1], and release the locking lever [3] of the primary charging assembly [2]; then, take out the primary charging assembly.
Using alcohol, clean the primary charging assembly and the grid wire.

F-2-107

Do not start mounting work before the solvent has become completely dry.

9) Remove the screw [1], and detach the pretransfer charging assembly cover [2].

F-2-108

10) Disconnect the connector [1], and release the locking lever [3] of the pre-transfer charging assembly [2]; then, take out the pre-transfer charging assembly.
Using alcohol, clean the pre-transfer charging wire.

F-2-109

11) With the lock released, slide in the primary charging assembly, and connect the connector.

Check to make sure that the solvent is fully dry.
12) With the lock released, slide in the pretransfer charging assembly, and connect the connector.

F-2-110

- Check to make sure that the solvent is fully dry.
- Check to make sure that the one-way arm [1] of the pretransfer charging assembly is on the eccentric cam [2].

13) Mount the primary charging assembly cover and the pre-transfer charging assembly cover with a screw (1 pc. each).
14) Close the front cover.

2.2.15 Mounting the Charging Assembly

0007-2060

/ iR8070

1) Remove the screw [2], and detach the transfer/separation assembly front cover [1].

F-2-111

2) Remove the fixing [1] (1 screw [2]), and disconnect the connector [3].

F-2-112

3) While holding down the front and rear of the transfer/separation charging assembly [1], pull it by 1 cm toward the front; then, detach it toward the upper left.

Using alcohol, clean the transfer/ separation charging wire.

F-2-113

4) While keeping the following in mind, mount the transfer/separation charging assembly:
- The solvent must completely be dry.
- The gut wire must not be brought into contact with the transfer guide [1] to avoid a cut.
- The grounding plate [2] must be on the outside of the charging assembly frame [3] (See the figure).

F-2-114

F-2-115

5) Connect the connector of the transfer/ separation charging assembly, and mount the fixing.
6) Using a screw, mount the toner/separation charging assembly front cover.
Push in the fixing/feeding assembly inside the machine, and shift the fixing/feeding assembly releasing lever [1] back into position.

F-2-116

7) Remove the screw [1], and detach the primary charging assembly front cover [2].

F-2-117

8) Disconnect the connector [1], and release the locking lever [3] of the primary charging assembly [2]; then, take out the primary charging assembly.
Using alcohol, clean the primary charging assembly and the grid wire.

F-2-118

Do not start mounting work before the solvent has become completely dry.

9) Remove the screw [1], and detach the pretransfer charging assembly cover [2].

F-2-119

10) Disconnect the connector [1], and release the locking lever [3] of the pre-transfer charging assembly [2]; then, take out the pre-transfer charging assembly.
Using alcohol, clean the pre-transfer charging wire.

F-2-120

11) With the lock released, slide in the primary charging assembly, and connect the connector.

Check to make sure that the solvent is fully dry.
12) With the lock released, slide in the pretransfer charging assembly, and connect the connector.

F-2-121

- Check to make sure that the solvent is fully dry.
- Check to make sure that the one-way arm [1] of the pretransfer charging assembly is on the eccentric cam [2].

13) Mount the primary charging assembly cover and the pre-transfer charging assembly cover with a screw (1 pc. each).
14) Close the front cover.

2.2.16 Mounting the Pickup Assembly

0007-6647

iR105i/iR105+ / iR9070

1) Shift down the lever [1] in the direction of the arrow, and remove the pickup roller releasing spacer [2].

F-2-122

Close the manual feed tray unit [3].
2) Open the right upper cover and the right lower cover, and push the release buttons of the front deck (right) and cassette 3/4; then, slide them halfway out.
3) Remove the three pickup roller releasing spacers [1].
Close the upper vertical path cover [2] and the lower vertical path cover [3].
Fit the front deck (right) and the cassette 3/4 back in.

F-2-123

4) Press the releasing button of the front deck (left), and slide it to the front.
Secure the deck locking plate [1] to the front deck (left) with an RS tightening screw [2] (M4x10; white).
Close the front deck (left).

F-2-124

2.2.17 Checking the Developing Assembly

0007-3391

/ iR85+

1) Open the manual feed tray unit.
2) Take out the developing assembly from the package that comes with the machine.
   Turn the developing assembly cylinder gear by hand, and check the cylinder for scratches.
3) Holding the developing assembly [1] as shown, fit it to the machine.

F-2-125

When fitting the developing assembly to the machine, lower it from above while taking care not to bring the developing cylinder into contact with the plate of the developing assembly base.

4) Connect the 2 connectors [2].

F-2-126

5) Secure the developing assembly locking unit [1] in place using the 6 TP screws [2] (M4X6; black).

F-2-127

Check to make sure that the developing assembly locking unit is firmly in contact; otherwise, image faults can occur (In particular, be sure it is not riding over the boss at the bottom).

6) Fit the door tape of the manual feed tray cover with a screw (M4x8; w/ washer: black).
   (Keep the manual feed tray cover open).

F-2-128

2.2.18 Checking the Developing Assembly

0007-2141

/ iR8070

1) Open the manual feed tray unit.
2) Take out the developing assembly from the package that comes with the machine.
   Turn the developing assembly cylinder gear by hand, and check the cylinder for scratches.
3) Holding the developing assembly [1] as shown, fit it to the machine.

F-2-129

When fitting the developing assembly to the machine, lower it from above while taking care not to bring the developing cylinder into contact

with the plate of the developing assembly base.

4) Connect the 2 connectors [2].

F-2-130

5) Secure the developing assembly locking unit [1] in place using the 6 TP screws [2] (M4X6; black).

F-2-131

Check to make sure that the developing assembly locking unit is firmly in contact; otherwise, image faults can occur (In particular, be sure it is not riding over the boss at the bottom).

6) Fit the door tape of the manual feed tray cover with a screw (M4x8; w/ washer: black).
(Keep the manual feed tray cover open).

F-2-132

2.2.19 Mounting the Control Panel

0007-6660

iR105i/iR105+ / iR9070

1) Open the toner cartridge cover [1], and remove the 3 RS tightening screws [2]; then, detach the upper right cover [3] while paying attention to the three claws [4] found inside the upper right cover.
When detaching it, be sure to lift the claw side of the upper right cover.

F-2-133

2) Open the 2 edge saddles [1] of the lower arm [2], and thread the control panel harness [3] through the lower arm.
At this time, keep the control panel harness routed to the connector side so that it will not be slack.
Close the 2 edge saddles.

F-2-134

3) Fit the claw [1] found at the bottom of the lower arm [4] into the copier.
Fit the RS tightening screw [2] (M4x10) of the right front; after positioning, fit the remaining 5 RS tightening screws [3] (M4x10) to secure the lower arm [4].

F-2-135

4) Mount the upper right cover [1] with 3 RS tightening screws [2].
At this time, check to make sure that the 3 claws [3] inside are fully engaged and the over is firmly in contact.

F-2-136

Close the toner cartridge cover [4].

5) Put the original delivery tray [1] over the lower arm, and hook the 2 claws [2] found at the bottom for the original delivery tray in the notches of the right upper cover; check that there is no gap, and then secure it in place with 2 RS tightening screws [3] (M4x10).

F-2-137

6) Hook the claw [1] of the upper arm [2] on the hole in the lower arm, and temporarily fix the upper arm in place with 4 binding screws [3] (M4x14).

F-2-138

7) Fit the positioning binding screw [1] (M4x14) so that the upper arm [2] is at the angle desired by the user; then, fully tighten the binding screw that was temporarily tightened.

Lead the control panel harness [3] through the 2 wire saddles [4].

At this time, check to make sure that the wire saddle [5] at the rear matches the marking [6] on the control panel harness.

F-2-139

8) Pinch the control panel harness with a harness clip [1], and fit it to the upper arm.

Hook the claw [2] found on the left side of the fate upper arm cover [3], and put it over the upper arm.

F-2-140

Keep the harness clip [1] so that the side with a protrusion (thicker side) is at the bottom.

The harness clip [1] will separate into two during the work. Continue the work, as it will not affect its function.

9) Remove the binding screw [1], and detach the rear support cover [2] of the control panel unit [3].

F-2-141

10) Put the control panel unit [1] on the upper arm, and secure it in place with a flat-head screw [2] (M4x10) and a W sems screw [3] (M4x12).
Mount the rear support cover [4] with a binding screw [5].

F-2-142

11) Secure the upper arm cover [1] with 2 P tightening screws [2] (M4x10).
Mount the lower arm cover [3] with a binding screw [4] (M4x6).

F-2-143

12) Connect the connector [1] of the control panel harness to the control panel unit.
13) Attach the ferrite core [2].

F-2-144

2.2.20 Mounting the Pickup Assembly

0007-3393

/ iR85+

1) Shift the lever [1] in the direction of the arrow, and remove the pickup roller releasing spacer [2] identified by a tag.

F-2-145

Close the manual feed tray unit [3].
2) Open the right upper cover and right lower cover; then, press the releasing buttons of the front deck (right) and cassettes 3 and 4, and slide them out halfway.
3) Remove the 3 pickup roller releasing spacers [1].
Close the right upper cover [2] and right lower cover [3].
Slide back the front deck (right) and cassettes 3 and 4.

F-2-146

4) Press the releasing button of the front deck (left), and slide it out to the front.
Secure the deck locking plate [1] that comes with the machine to the front deck (left) using an RS tightening screw [2] (M4x10; white).
Close the front deck (left).

F-2-147

2.2.21 Mounting the Pickup Assembly

0007-2352

/ iR8070

1) Shift the lever [1] in the direction of the arrow, and remove the pickup roller releasing spacer [2] identified by a tag.

F-2-148

Close the manual feed tray unit [3].
2) Open the right upper cover and right lower cover; then, press the releasing buttons of the front deck (right) and cassettes 3 and 4, and slide them out halfway.
3) Remove the 3 pickup roller releasing spacers [1].
Close the right upper cover [2] and right lower cover [3].
Slide back the front deck (right) and cassettes 3 and 4.

F-2-149

4) Press the releasing button of the front deck (left), and slide it out to the front.
Secure the deck locking plate [1] that comes with the machine to the front deck (left) using an RS tightening screw [2] (M4X10; white).
Close the front deck.

F-2-150

2.2.22 Supplying the Toner

0007-6682

iR105i/iR105+ / iR9070

1) Take out the toner cartridge [1] for the packaging box.

F-2-151

2) Remove the fixing tape [1].

F-2-152

3) Open the toner cartridge cover [1], and fit the toner cartridge [2] from the front of the copier.

F-2-153

Be sure to insert the toner cartridge so that the ▲ marking [3] on it matches the ▼ marking [4] on the copier.

F-2-154

4) Close the hoper cover.

2.2.23 Supplying the Toner

0008-9182

iR85+

1) Take out the toner cartridge [1] from the package.

F-2-155

2) Remove the fixing tape [1].

F-2-156

3) Open the hopper cover [1], and insert the toner cartridge [2] from the front of the machine.

F-2-157

Be sure to insert the toner carridge so that its ▲ marking and the machine's ▼ marking match [3].

F-2-158

4) Close the hopper cover.

2.2.24 Supplying the Toner

0007-2357

/ iR8070

1) Take out the toner cartridge [1] from the package.

F-2-159

2) Remove the fixing tape [1].

F-2-160

3) Open the hopper cover [1], and insert the toner cartridge [2] from the front of the copier.

F-2-161

Be sure to insert the toner carridge so that its ▲ marking and the copier's ▼ marking match [3].

F-2-162

4) Close the hopper cover.

2.2.25 Supplying the Toner

0007-3398

1) Take out the toner cartridge [1] from the package.

F-2-163

2) Remove the fixing tape [1].

F-2-164

3) Open the hopper cover [1], and insert the toner cartridge [2] from the front of the copier.

F-2-165

Be sure to insert the toner carridge so that its ▲ marking and the copier's ▼ marking match [3].

F-2-166

4) Close the hopper cover.

2.2.26 Mounting the ADF

0007-6686

iR105i/iR105+ / iR9070

1) Remove the air cap from the connector/power supply cable of the ADF.
2) Fit the ADF connector [1] into the socket found at the back of the copier.

F-2-167

2.2.27 Connectors

0007-2400

/ iR8070

1) Connect the cable [1] for the environment heater.

F-2-168

2) As needed, connect the reader unit anticondensation heater cable [1].

F-2-169

2.2.28 Installing the ADF

0007-3508

1) Remove the air cap from the connector/power supply cable of the ADF.
2) Connect the ADF connector [1] to the socket found at the back of the copier.

F-2-170

3) With the ADF open, mount the ADF original tray [1] using 2 RS tightening screws [2] (M4X8; white).

F-2-171

When mounting, fit the hook [3] of the ADF tray into the notch in the copier; then, slide it to the left, and secure it with screws.

2.2.29 Cassette

0007-6693

iR105i/iR105+ / iR9070

Perform this step if the user is not planning to use Inch papers.

1) Press the releasing buttons of the cassette 3 and 4, and slide out the cassettes to the front; then, take out the packing material.
2) Set the side guide plate [1] of the cassette (3/4) against the hole (A4/A3) identified by the marking M.
   Fit the non-inch block [2] that comes with the machine into the following hole, making sure that it will not be pushed up from inside the cassette.
   Hole with marking A [3]: STMT-R
   Hole with marking H [4]: LTR-R

F-2-172

2.2.30 Cassette

0007-3510

/ iR85+

Go through the following steps only if Inch-configured paper is not going to be used.

1) Press the releasing buttons of cassettes 3 and 4, and slide out the cassettes to remove the packing material.
2) Set the side guide plate [1] of cassettes 3 and 4 into the hole (A4/A3) identified by the marking M.
   Fit the non-Inch tab [2] that comes with the machine into the hole identified by the following marking, making sure that it will not be pushed up from inside the cassette:
   A:STMT-R
   H:LTR-R

F-2-173

2.2.31 Cassette

0007-2402

/ iR8070

Go through the following steps only if Inch-configured paper is not going to be used.

1) Press the releasing buttons of cassettes 3 and 4, and slide out the cassettes to remove the packing material.
2) Set the side guide plate [1] of cassettes 3 and 4 into the hole (A4/A3) identified by the marking M.
   Fit the non-Inch tab [2] that comes with the machine into the hole identified by the following marking, making sure that it will not be pushed up from inside the cassette:
   A:STMT-R
   H:LTR-R

F-2-174

2.2.32 Index Paper Attachment

0007-6700

iR105i/iR105+ / iR9070

1) Decide on either cassette 3 or 4 for use for index paper.
   Press the releasing button for the cassette, and slide it out to the front.
Match the 2 one-touch supports [1] against the holes [2] in the cassette; then, push in the pins to fix them in place.
2) Place the index paper attachment [3] by matching its holes against the one-touch supports [1].
3) Fit the base sheet [6] in the cassette.
   Slid out the cassette.

F-2-175

2.2.33 Index Paper Attachment

0007-3511

/ iR85+

1) Decide on either cassette 3 or 4 for use for index paper.
   Press the releasing button for the cassette, and slide it out to the front.
Match the 2 one-touch supports [1] against the holes [2] in the cassette; then, push in the pins to fix them in place.
2) Place the index paper attachment [3] by matching its holes against the one-touch supports [1].
3) Fit the base sheet [6] in the cassette.
   Slid out the cassette.

F-2-176

2.2.34 Index Paper Attachment

0007-2404

/ iR8070

1) Decide on either cassette 3 or 4 for use for index paper.
   Press the releasing button for the cassette, and slide it out to the front.
Match the 2 one-touch supports [1] against the holes [2] in the cassette; then, push in the pins to fix them in place.
2) Place the index paper attachment [3] by matching its holes against the one-touch supports [1].
3) Fit the base sheet [6] in the cassette.

Slid out the cassette.

F-2-177

2.2.35 Other attachment

0008-3481

iR105i/iR105+ / iR9070

- Shut-Down Warning Label
1)Select the Shut-Down Warning label [1] of the appropriate language; then, attach it to the left of the main power switch of the machine's right cover (rear).

F-2-178

2.2.36 Other attachment

0008-9183

iR85+

- Shut-Down Warning Label
1)Select the Shut-Down Warning label [1] of the appropriate language; then, attach it to the left of the main power switch of the machine's right cover (ear).

F-2-179

2.2.37 Other attachment

0008-3804

- Shut-Down Warning Label
1)Select the Shut-Down Warning label [1] of the appropriate language; then, attach it to the left of the main power switch of the machine's right cover (rear).

F-2-180

2.2.38 Other attachment

0008-3840

/ iR8070

- Shut-Down Warning Label
1)Select the Shut-Down Warning label [1] of the appropriate language; then, attach it to the left of the main power switch of the machine's right cover (rear).

F-2-181

2.2.39 Attaching the Labels, Setting Paper, Checking Images/Operations, and User Mode

0007-6730

iR105i/iR105+ / iR9070

1) Check to make sure that the front deck and the cassette are free of any packing material.
2) Connect the power plug to the power outlet, and turn on the main power switch.
 - Adjust the contrast of the control panel display using the Image Contrast dial for the best view, and advise the user on the use of the dial.
 - Check to see that the Add Paper message goes ON.
 - Press the keys on the keypad and the Clear key to see that the copy count is correctly indicated.
3) Check with the user to decide on a paper size.
4) Press the release button, and slide out the right/left deck.

To change the size of the front deck (right/left), refer to 2.14.

5) Attach the 3-Hole Paper Set labels [1].

F-2-182

6) Put paper in the right/left deck.
7) Push in the right/left deck. Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-183

8) Press the release button, and slide out the cassette 3/4.
9) Attach the 3-Hole Paper Set labels [1].

F-2-184

10) Peel off the appropriate cassette size label [1] from the liner of the size label (cassette/deck), and attach it on the paper size plate [2] of the cassette. Put the paper size plate in place on the cassette cover.

F-2-185

11) Push in the cassettes into the copier.
12) Start service mode.
MEMO
Starting Service mode
 - Press the Additional Function key.
 - Press the '2' and '8' keys at the same time on the keypad.
 - Press the Additional Function key.

Never turn off the power while the machine is in operation.

13) Make the following selections: COPIER>FUNCTION>INSTALL>TONERS.
14) See that the following message has appeared: 'Check the Developer'.
15) Check to see that the developing assembly and the developing assembly locking plate are correctly mounted; then, press the OK key.
16) The machine starts to supply toner. (about 10 min; progress shown on display by count-down)
17) At the end, make the following selections to generate 2 A3 solid

black copies to ensure stable images:
18) COPIER>TEST>PG>PG_PICK.
19) Enter the number of the source of paper containing A3 paper, and press the OK key.
('3' for cassette 3, or '4' for cassette 4)
20) Make the following selections: COPIER>TEST>PG>TYPE.
21) Enter '7', and press the OK key.
('7' for solid black; PG-TYPE6)
22) Preset the Start key twice to generate 2 solid black copies (A3).
23) At the end, press the Reset key twice to end service mode.
24) Place the Test Sheet on the copyboard glass, and check the copy image.
Check to make sure that pickup from each source of paper is normal.
(Make 3 test copies each from the decks and the cassettes.)
- Check to make sure that there is no abnormal noise.
- Check the quality of copy images for each default ratio.
- Check to make sure that as many copies as set are made.
- Check to make sure that copying operation is normal.
- If there is a difference in density between left and right, adjust the height of the rear of the primary charging assembly.

The first 10 copies or so may show soiled images because of toner dropping from the drum separation claw. This symptom will disappear as more and more copies are made.

25) Make double-sided copies, and check the operation.
26) Make user mode and service mode settings to suit the needs of the user.
27) Press the Rest key twice to end service mode.
28) Clean up the area around the copier.
29) Move the copier to its final location, and secure it in place using the adjusters.
30) If you are installing accessories, do so by referring to the Installation Procedure that comes with each accessory.

MEMO
For the Card Reader-D1, see 4.1 "Installing the Card Reader-D1."
31) Fill out the Service Sheet.

2.2.40 Attaching the Labels, Setting Paper, Checking Images/Operations, and User Mode

0008-9184

iR85+

1) Check to make sure that the front deck and the cassette are free of any packing material.
2) Connect the power plug to the power outlet, and turn on the main power switch.
- Adjust the contrast of the control panel display using the Image Contrast dial for the best view, and advise the user on the use of the dial.
- Check to see that the Add Paper message goes ON.
- Press the keys on the keypad to see that they are correctly responded.
3) Check with the user to decide on a paper size.
4) Press the release button, and slide out the right/left deck.

To change the size of the front deck (right/left), refer.

5) Put paper in the right/left deck.
6) Push in the right/left deck. Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-186

7) Press the release button, and slide out the cassette 3/4.
8) Peel off the appropriate cassette size label [1] from the liner of the size label (cassette/deck), and attach it on the paper size plate [2] of the cassette. Put the paper size plate in place on the cassette cover.

F-2-187

9) Push in the cassettes into the machine.
10) Start service mode.

MEMO
Starting Service mode
- Press the Additional Function key.
- Press the '2' and '8' keys at the same time on the keypad.
- Press the Additional Function key.

Never turn off the power while the machine is in operation.

11) Make the following selections: COPIER>FUNCTION>INSTALL>TONERS.
12) See that the following message has appeared: 'Check the Developer'.
13) Check to see that the developing assembly and the developing assembly locking plate are correctly mounted; then, press the OK key.
14) The machine starts to supply toner (about 10 min; progress shown on display by count-down).
15) At the end, make the following selections to generate 2 A3 solid black copies to ensure stable images:
16) COPIER>TEST>PG>PG_PICK.
17) Enter the number of the source of paper containing A3/11x17 paper, and press the OK key
('3' for cassette 3, or '4' for cassette 4).
18) Make the following selections: COPIER>TEST>PG>TYPE.
19) Enter '7', and press the OK key
('7' for solid black; PG-TYPE7).
20) Press the Help key to generate a single solid black (A3) prints. Check the output, and wait for about 5 sec; then, press the Help key once again to generate a second prints.
21) At the end, press the Reset key twice to end service mode.
22) Make test prints, and check images.
Check to make sure that pickup from each source of paper is normal
(Make 3 test prints each from the decks and the cassettes).
- Check to make sure that there is no abnormal noise.
- Check to make sure that printing operation is normal.
- If there is a difference in density between left and right, adjust the height of the rear of the primary charging assembly.

The first 10 prints or so may show soiled images because of toner dropping from the drum separation claw. This symptom will disappear as more and more prints are made.

23) Make double-sided ptints, and check the operation.
24) Press the Rest key twice to end service mode.
25) If the user tends to use thick paper or index paper or often use cover/interleaf mode or otherwise is a high volume user, change the following service mode settings:
COPIER>OPTION>BODY>TEMP-TBL (Level 2)"5"(Default)->"0"
MEMO:

Starting Service Mode (Level 2)
-Press the Additional Function key.
-Press the 2 and 8 keys on the keypad at the same time.
-Press the Additional Function key.
Press the Additional Function key and the 2 key in succession.
26) Clean up the area around the machine.
27) Move the machine to its final location, and secure it in place using the adjusters.
28) If you are installing options, do so by referring to the Installation Procedure that comes with each option.
MEMO
For the Card Reader-D1, see "Installing the Card Reader-D1."
29) Fill out the Service Sheet.

2.2.41 Attaching the Labels, Setting Paper, Checking Images/Operations, and User Mode

0007-2610

/ iR8070

1) Check to make sure that the front deck and the cassette are free of any packing material.
2) Remove the screw [1] from the machine.

F-2-188

3) Connect the grounding wire [2] to the copier using the screw [1] removed in step 2).

F-2-189

Check to make sure that the grounding wire is correctly secured; otherwise, the leakage breaker may fail to operate normally.

Point of Grounding
1. Grounding terminal in a power outlet.
2. Copper rod buried in the ground to a depth of 75 cm or more.
3. Grounding terminal prepared under appropriate Government regulations.
4) Connect the power plug to the power outlet, and turn on the main power switch.
- Adjust the contrast of the control panel display using the Image Contrast dial for the best view, and advise the user on the use of the dial.
- Check to see that the Add Paper message goes ON.
- Press the keys on the keypad and the Clear key to see that the copy count is correctly indicated.
5) Check with the user to decide on a paper size.
6) Press the release button, and slide out the right/left deck.

To change the size of the front deck (right/left), refer.

7) Put paper in the right/left deck.
8) Push in the right/left deck. Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-190

9) Press the release button, and slide out the cassette 3/4.
10) Peel off the appropriate cassette size label [1] from the liner of the size label (cassette/deck), and attach it on the paper size plate [2] of the cassette. Put the paper size plate in place on the cassette cover.

F-2-191

11) Push in the cassettes into the copier.
12) Start service mode.

MEMO
Starting Service mode
- Press the Additional Function key.
- Press the '2' and '8' keys at the same time on the keypad.
- Press the Additional Function key.

Never turn off the power while the machine is in operation.

13) Make the following selections: COPIER>FUNCTION>INSTALL>TONERS.
14) See that the following message has appeared: 'Check the Developer'.
15) Check to see that the developing assembly and the developing assembly locking plate are correctly mounted; then, press the OK key.
16) The machine starts to supply toner (about 10 min; progress shown on display by count-down).
17) At the end, make the following selections to generate 2 A3 solid black copies to ensure stable images:
18) COPIER>TEST>PG>PG_PICK.
19) Enter the number of the source of paper containing A3 paper, and press the OK key
('3' for cassette 3, or '4' for cassette 4).
20) Make the following selections: COPIER>TEST>PG>TYPE.
21) Enter '7', and press the OK key
('7' for solid black; PG-TYPE7).
22) Press the Start key to generate a single solid black (A3) copy. Check the output, and wait for about 5 sec; then, press the Start key once again to generate a second copy.
23) At the end, press the Reset key twice to end service mode.
24) Make test prints, and check images.
Check to make sure that pickup from each source of paper is normal (Make 3 test copies each from the decks and the cassettes).
- Check to make sure that there is no abnormal noise.
- Check the quality of copy images for each default ratio.
- Check to make sure that as many copies as set are made.
- Check to make sure that copying operation is normal.
- If there is a difference in density between left and right, adjust the height of the rear of the primary charging assembly.

The first 10 copies or so may show soiled images because of toner dropping from the drum separation claw. This symptom will disappear as more and more copies are made.

25) Make double-sided copies, and check the operation.
26) Make user mode and service mode settings to suit the needs of the user.
27) Press the Rest key twice to end service mode.
28) If the user tends to use thick paper or index paper or often use cover/interleaf mode or otherwise is a high copy volume user, change the following service mode settings:
COPIER>OPTION>BODY>TEMP-TBL (Level 2)"5"(Default)->"0"
MEMO:
Starting Service Mode (Level 2)
-Press the Additional Function key.
-Press the 2 and 8 keys on the keypad at the same time.
-Press the Additional Function key.
Press the Additional Function key and the 2 key in succession.
29) Clean up the area around the copier.
30) Move the copier to its final location, and secure it in place using the adjusters.
31) If you are installing options, do so by referring to the Installation Procedure that comes with each option.
MEMO
For the Card Reader-D1, see "Installing the Card Reader-D1."
32) Fill out the Service Sheet.

2.2.42 Attaching the Labels, Setting Paper, Checking Images/Operations, and User Mode

0007-3512

1) Check to make sure that the front deck and the cassette are free of any packing material.
2) Remove the screw [1] from the machine.

F-2-192

3) Connect the grounding wire [2] to the copier using the screw [1] removed in step 2).

F-2-193

Check to make sure that the grounding wire is correctly secured; otherwise, the leakage breaker may fail to operate normally.

Point of Grounding
1. Grounding terminal in a power outlet.
2. Copper rod buried in the ground to a depth of 75 cm or more.
3. Grounding terminal prepared under appropriate Government regulations.

4) Connect the power plug to the power outlet, and turn on the main power switch.
- Adjust the contrast of the control panel display using the Image Contrast dial for the best view, and advise the user on the use of the dial.
- Check to see that the Add Paper message goes ON.
- Press the keys on the keypad and the Clear key to see that the copy count is correctly indicated.

5) Check with the user to decide on a paper size.
6) Press the release button, and slide out the right/left deck.

To change the size of the front deck (right/left), refer.

7) Put paper in the right/left deck.
8) Push in the right/left deck. Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-194

9) Press the release button, and slide out the cassette 3/4.
10) Peel off the appropriate cassette size label [1] from the liner of the size label (cassette/deck), and attach it on the paper size plate [2] of the cassette. Put the paper size plate in place on the cassette cover.

F-2-195

11) Push in the cassettes into the copier.
12) Start service mode.

MEMO
Starting Service mode
- Press the Additional Function key.
- Press the '2' and '8' keys at the same time on the keypad.
- Press the Additional Function key.

Never turn off the power while the machine is in operation.

13) Make the following selections: COPIER>FUNCTION>INSTALL>TONERS.
14) See that the following message has appeared: 'Check the Developer'.
15) Check to see that the developing assembly and the developing assembly locking plate are correctly mounted; then, press the OK key.
16) The machine starts to supply toner (about 10 min; progress shown on display by count-down).
17) At the end, make the following selections to generate 2 A3 solid black copies to ensure stable images:
18) COPIER>TEST>PG>PG_PICK.
19) Enter the number of the source of paper containing A3 paper, and press the OK key
('3' for cassette 3, or '4' for cassette 4).
20) Make the following selections: COPIER>TEST>PG>TYPE.
21) Enter '7', and press the OK key
('7' for solid black; PG-TYPE7).
22) Press the Start key to generate a single solid black (A3) copy. Check the output, and wait for about 5 sec; then, press the Start key once again to generate a second copy.
23) At the end, press the Reset key twice to end service mode.
24) Make test prints, and check images.
Check to make sure that pickup from each source of paper is normal (Make 3 test copies each from the decks and the cassettes).
- Check to make sure that there is no abnormal noise.
- Check the quality of copy images for each default ratio.
- Check to make sure that as many copies as set are made.
- Check to make sure that copying operation is normal.
- If there is a difference in density between left and right, adjust the height of the rear of the primary charging assembly.

The first 10 copies or so may show soiled images because of toner dropping from the drum separation claw. This symptom will disappear as more and more copies are made.

25) Make double-sided copies, and check the operation.
26) Make user mode and service mode settings to suit the needs of the user.
27) Press the Rest key twice to end service mode.
28) If the user tends to use thick paper or index paper or often use cover/

interleaf mode or otherwise is a high copy volume user, change the following service mode settings:
COPIER>OPTION>BODY>TEMP-TBL (Level 2)"5"(Default)->"0"
MEMO:
Starting Service Mode (Level 2)
-Press the Additional Function key.
-Press the 2 and 8 keys on the keypad at the same time.
-Press the Additional Function key.
Press the Additional Function key and the 2 key in succession.
29) Clean up the area around the copier.
30) Move the copier to its final location, and secure it in place using the adjusters.
31) If you are installing options, do so by referring to the Installation Procedure that comes with each option.
MEMO
For the Card Reader-D1, see "Installing the Card Reader-D1."
32) Fill out the Service Sheet.

2.2.43 Changing the Paper Size for the Front Deck (right, left)

0007-6745

iR105i/iR105+ / iR9070

1) Press the release button, and slide out the deck.
2) Remove the screw [1] of the rear end guide plate [2], and secure the guide plate [2] to the desired position.

F-2-196

3) Remove the screw [1] (1 pc. each) from the left and right of the guide plate [2], and secure the guide plate [2] to the desired position.

F-2-197

4) Put paper in the deck.
5) Slide the deck inside the copier.
6) Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-198

7) Start service mode, and register the paper size of the front deck.
MEMO
Right deck : COPIER>OPTION>CST>P-SZ-C1
Left deck : COPIER>OPTION>CST>P-SZ-C2
A4=6,B5=15,LTR=18
8) Thereafter, turn off the main power switch.

Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.

9) Turn on the main power switch.

2.2.44 Changing the Paper Size for the Front Deck (right, left)

0007-3519

/ iR85+

1) Press the release button, and slide out the deck.
2) Remove the screw [1] of the rear end guide plate [2], and secure the guide plate [2] to the desired position.

F-2-199

3) Remove the screw [1] (1 pc. each) from the left and right of the guide plate [2], and secure the guide plate [2] to the desired position.

F-2-200

4) Put paper in the deck.
5) Slide the deck inside the machine.
6) Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-201

7) Start service mode, and register the paper size of the front deck.
MEMO
Right deck : COPIER>OPTION>CST>P-SZ-C1
Left deck : COPIER>OPTION>CST>P-SZ-C2
A4=6, B5=15, LTR=18
8) Thereafter, turn off the main power switch.

Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.

9) Turn on the main power switch.

2.2.45 Changing the Paper Size for the Front Deck (right, left)

0007-2612

/ iR8070

1) Press the release button, and slide out the deck.
2) Remove the screw [1] of the rear end guide plate [2], and secure the guide plate [2] to the desired position.

F-2-202

3) Remove the screw [1] (1 pc. each) from the left and right of the guide plate [2], and secure the guide plate [2] to the desired position.

F-2-203

4) Put paper in the deck.
5) Slide the deck inside the copier.
6) Peel off the appropriate deck size label [1] from the size label liner (cassette/deck), and attach it on the paper size plate of the deck.

F-2-204

7) Start service mode, and register the paper size of the front deck.
MEMO
Right deck : COPIER>OPTION>CST>P-SZ-C1
Left deck : COPIER>OPTION>CST>P-SZ-C2
A4=6, B5=15, LTR=18
8) Thereafter, turn off the main power switch.

Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.

9) Turn on the main power switch.

2.2.46 If Not Connected to a Network

0008-3484

iR105i/iR105+ / iR9070

Reference
If the machine is not connected to a network, its control panel will indicate the message "Check the Connection to the Network." To disable the message, turn off the following user mode item:
system setup>network>Ethernet driver setup>auto detect

2.2.47 If Not Connected to a Network

0008-3806

/ iR85+

Reference
If the machine is not connected to a network, its control panel will indicate the message "Check the Connection to the Network." To disable the message, turn off the following user mode item:
system setup>network>Ethernet driver setup>auto detect

2.2.48 If Not Connected to a Network

0008-3841

/ iR8070

Reference
If the machine is not connected to a network, its control panel will indicate the message "Check the Connection to the Network." To disable the message, turn off the following user mode item:
system setup>network>Ethernet driver setup>auto detect

2.3 Checking the Connection to the Network

2.3.1 Overview

0008-3485

iR105i/iR105+ / iR9070

The instructions that follow apply only when the machine is connected to a network.
If the user's network environment is based on TCP/IP, use the PING function to make sure that the network settings are correct.
If the user's network environment is based on IPX/SPX or AppleTalk, on the other hand, such a check need not be made.

2.3.2 Overview

0008-3808

/ iR85+

The instructions that follow apply only when the machine is connected to a network.
If the user's network environment is based on TCP/IP, use the PING function to make sure that the network settings are correct.
If the user's network environment is based on IPX/SPX or AppleTalk, on the other hand, such a check need not be made.

2.3.3 Overview

0008-3842

/ iR8070

The instructions that follow apply only when the machine is connected to a network.
If the user's network environment is based on TCP/IP, use the PING function to make sure that the network settings are correct.
If the user's network environment is based on IPX/SPX or AppleTalk, on the other hand, such a check need not be made.

2.3.4 Using the PING Function

0008-3486

iR105i/iR105+ / iR9070

1) Make the following selections in service mode: COPIER>TEST>NETWORK>PING.
2) Enter the correct IP address using the control panel keypad, and press the OK key.
3) Press the Start key.
- If successful, the indication will be 'OK'. If the attempt fails, however, 'NG' will be indicated.

F-2-205

[1] Result (OK/NG)
[2] IP address input

2.3.5 Using the PING Function

0008-3809

1) Make the following selections in service mode: COPIER>TEST>NETWORK>PING.
2) Enter the correct IP address using the control panel keypad, and press the OK key.
3) Press the Start key.
- If successful, the indication will be 'OK'. If the attempt fails, however, 'NG' will be indicated.

F-2-206

[1] Result (OK/NG)
[2] IP address input

2.3.6 Using the PING Function

0008-3843

/ iR8070

1) Make the following selections in service mode: COPIER>TEST>NETWORK>PING.
2) Enter the correct IP address using the control panel keypad, and press the OK key.
3) Press the Start key.
- If successful, the indication will be 'OK'. If the attempt fails, however, 'NG' will be indicated.

F-2-207

[1] Result (OK/NG)
[2] IP address input

2.3.7 Using the PING Function

0008-9580

iR85+

1) Make the following selections in service mode: COPIER>TEST>NETWORK>PING.
2) Enter the correct IP address using the control panel keypad, and press the OK key.
3) Help the Start key.
- If successful, the indication will be 'OK'. If the attempt fails, however, 'NG' will be indicated.

F-2-208

[1] Result (OK/NG)
[2] IP address input

2.3.8 Making a Check Using a Remote Host Address

0008-3487

iR105i/iR105+ / iR9070

You can use a remote host address in combination with the PING function to check the connection to the network.
The term "remote host address" refers to the IP address of a PC that is connected to the TCP/IP network to which the machine is connected.
1) Inform the system administrator that you will be checking the network connection using the PING function.
2) Ask the system administrator for the appropriate remote host address.
3) Enter the remote host address for PING.
4) If the result is 'OK', the connection to the network is correct.
5) If the result is 'NG', the connection to the network is not correct; start the following troubleshooting work:

2.3.9 Making a Check Using a Remote Host Address

0008-3810

/ iR85+

You can use a remote host address in combination with the PING function to check the connection to the network.
The term "remote host address" refers to the IP address of a PC that is connected to the TCP/IP network to which the machine is connected.
1) Inform the system administrator that you will be checking the network connection using the PING function.
2) Ask the system administrator for the appropriate remote host address.
3) Enter the remote host address for PING.
4) If the result is 'OK', the connection to the network is correct.
5) If the result is 'NG', the connection to the network is not correct; start the following troubleshooting work:

2.3.10 Making a Check Using a Remote Host Address

0008-3844

/ iR8070

You can use a remote host address in combination with the PING function to check the connection to the network.
The term "remote host address" refers to the IP address of a PC that is connected to the TCP/IP network to which the machine is connected.
1) Inform the system administrator that you will be checking the network connection using the PING function.
2) Ask the system administrator for the appropriate remote host address.
3) Enter the remote host address for PING.
4) If the result is 'OK', the connection to the network is correct.
5) If the result is 'NG', the connection to the network is not correct; start the following troubleshooting work:

2.4 Troubleshooting the Network

2.4.1 Overview

0008-3488

iR105i/iR105+ / iR9070

The instructions that follow apply only when the machine is connected to a network.
If an attempt to connect to the network fails, the following may be suspected:
a.the connection between the machine and the network is faulty.
b.the machine's TCP/IP setting is faulty.
c.the user's network is faulty.
d.the main controller PCB is faulty.
Make checks by referring to the following detailed instructions:

2.4.2 Overview

0008-3811

/ iR85+

The instructions that follow apply only when the machine is connected to a network.
If an attempt to connect to the network fails, the following may be suspected:
a.the connection between the machine and the network is faulty.
b.the machine's TCP/IP setting is faulty.
c.the user's network is faulty.
d.the main controller PCB is faulty.
Make checks by referring to the following detailed instructions:

2.4.3 Overview

0008-3845

/ iR8070

The instructions that follow apply only when the machine is connected to a network.
If an attempt to connect to the network fails, the following may be suspected:
a.the connection between the machine and the network is faulty.
b.the machine's TCP/IP setting is faulty.
c.the user's network is faulty.
d.the main controller PCB is faulty.
Make checks by referring to the following detailed instructions:

2.4.4 Making a Check Using a Loopback Address

0008-3489

iR105i/iR105+ / iR9070

A loopback address will return before it reaches the network controller. When you execute PING using a loopback address, you can find out whether the machine's TCP/IP setting is correct.
1) Enter the appropriate loopback address (127.0.0.1) for PING.
- If 'NG', check the machine's TCP/IP setting once again, and execute PING once again.
- If 'OK', go to the next check.

2.4.5 Making a Check Using a Loopback Address

0008-3812

/ iR85+

A loopback address will return before it reaches the network controller. When you execute PING using a loopback address, you can find out whether the machine's TCP/IP setting is correct.
1) Enter the appropriate loopback address (127.0.0.1) for PING.
- If 'NG', check the machine's TCP/IP setting once again, and execute PING once again.
- If 'OK', go to the next check.

2.4.6 Making a Check Using a Loopback Address

0008-3846

/ iR8070

A loopback address will return before it reaches the network controller. When you execute PING using a loopback address, you can find out whether the machine's TCP/IP setting is correct.
1) Enter the appropriate loopback address (127.0.0.1) for PING.
- If 'NG', check the machine's TCP/IP setting once again, and execute PING once again.
- If 'OK', go to the next check.

2.4.7 Making a Check Using a Local Host Address

0008-3490

iR105i/iR105+

A local host address is the IP address of the machine. When you execute PING using the address, it will return after it has reached the network controller so that you will be able to find out whether the network controller (main controller PCB) is free of a fault or not.
1) Enter the IP address of the machine for PING.
If 'NG' is indicated, perform the following, and execute PING once again:
- if the IP address of the machine is faulty, check to be sure that the IP address setting is correct or, as necessary, report to the system administrator to see

if the IP address is valid.
- if the main controller PCB is faulty, replace the PCB.

If 'OK' is indicated, suspect a fault in the user's network environment. Report to the system administrator for appropriate remedial action.

2.4.8 Making a Check Using a Local Host Address

0008-3813

/ iR85+

A local host address is the IP address of the machine. When you execute PING using the address, it will return after it has reached the network controller so that you will be able to find out whether the network controller (main controller PCB) is free of a fault or not.

1) Enter the IP address of the machine for PING.

If 'NG' is indicated, perform the following, and execute PING once again:
- if the IP address of the machine is faulty, check to be sure that the IP address setting is correct or, as necessary, report to the system administrator to see if the IP address is valid.
- if the main controller PCB is faulty, replace the PCB.

If 'OK' is indicated, suspect a fault in the user's network environment. Report to the system administrator for appropriate remedial action.

2.4.9 Making a Check Using a Local Host Address

0008-3849

/ iR8070

A local host address is the IP address of the machine. When you execute PING using the address, it will return after it has reached the network controller so that you will be able to find out whether the network controller (main controller PCB) is free of a fault or not.

1) Enter the IP address of the machine for PING.

If 'NG' is indicated, perform the following, and execute PING once again:
- if the IP address of the machine is faulty, check to be sure that the IP address setting is correct or, as necessary, report to the system administrator to see if the IP address is valid.
- if the main controller PCB is faulty, replace the PCB.

If 'OK' is indicated, suspect a fault in the user's network environment. Report to the system administrator for appropriate remedial action.

2.5 Installing the Card Reader

2.5.1 Checking the Contents

0007-2647

/ iR8070

T-2-5

[1]	Card reader	1 pc.
[2]	Screw (self-tapping)	4 pc.
[3]	Screw (M4x6)	1 pc.
[4]	Relay post header (fitted to card reader cable)	1 pc.
[5]	Communication mode switching connector (keep the connector connected for use)	1 pc.

F-2-209

2.5.2 Checking the Contents

0007-3527

/ iR85+

T-2-6

[1]	Card reader	1 pc.
[2]	Screw (self-tapping)	4 pc.
[3]	Screw (M4x6)	1 pc.
[4]	Relay post header (fitted to card reader cable)	1 pc.
[5]	Communication mode switching connector (keep the connector connected for use)	1 pc.

F-2-210

2.5.3 Checking the Contents

0007-6759

iR105i/iR105+ / iR9070

T-2-7

[1]	Card reader	1 pc.
[2]	Screw (self-tapping)	4 pc.
[3]	Screw (M4x6)	1 pc.
[4]	Relay post header (fitted to card reader cable)	1 pc.
[5]	Communication mode switching connector (keep the connector connected for use)	1 pc.

F-2-211

2.5.4 Installing the Card Reader-D1

0007-2648

/ iR8070

1) Start service mode, and make the following selections: COPIER>FUNCTION>INSTALLATION>Card.
Enter the lowest of the numbers of the cards to use (1 through 2001).

As many as 1000 cards starting with the number you entered my be used.
2) Turn off the main power switch.

Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.
4. Disconnect the power cable (from the wall outlet).

3) Open the front cover.
4) Remove the screw [1], and detach the primary charging assembly cover [2].

F-2-212

5) Shift down the fixing/feeding assembly lever [1], and slide out the fixing/feeding unit [2].
6) Open the toner cartridge cover [3].

F-2-213

7) Remove the 4 screws [1], and remove the process unit cover [2].

F-2-214

8) Disconnect the 2 connectors [1].

F-2-215

9) Remove the 5 screws [1], and detach the inside upper cover [2].

F-2-216

10) Remove the screw [1], and detach the card reader case [2] from the top of the machine.

F-2-217

11) Remove the face plate [1].

F-2-218

12) Using 4 self-tapping screws [1], mount the card reader [2] to the card reader case.

F-2-219

13) Using the screw [1], mount the grounding wire [2] to the card reader case plate assembly [3].
Lead the grounding wire [2] through the edge saddle [4].

F-2-220

14) Connect the connector of the card reader to the connector [1] of the machine.

F-2-221

15) Using the screw [1] removed in step 10, mount the card reader case to the machine.

F-2-222

Take care not to trap the harness indicated with a dashed line.

16) Mount the inside upper cover (Use the 5 screws, and connect the 2 connectors that have previously been removed).
17) Mount the process cover unit (4 screws).
18) Attach the primary charging assembly cover (1 screw).
19) Close the toner cartridge cover.
20) Put back the fixing/feeding unit, and set the fixing/feeding assembly lever.
21) Close the front cover.
22) Connect the copier's power plug, and turn on its main power switch.

2.5.5 Installing the Card Reader-D1

0007-3528

1) Start service mode, and make the following selections: COPIER>FUNCTION>INSTALLATION>Card.
Enter the lowest of the numbers of the cards to use (1 through 2001).
As many as 1000 cards starting with the number you entered my be used.
2) Turn off the main power switch.

⚠ Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.
4. Disconnect the power cable (from the wall outlet).

3) Open the front cover.
4) Remove the screw [1], and detach the primary charging assembly cover [2].

F-2-223

5) Shift down the fixing/feeding assembly lever [1], and slide out the fixing/feeding unit [2].
6) Open the toner cartridge cover [3].

F-2-224

7) Remove the 4 screws [1], and remove the process unit cover [2].

F-2-225

8) Disconnect the 2 connectors [1].

F-2-226

9) Remove the 5 screws [1], and detach the inside upper cover [2].

F-2-227

10) Remove the screw [1], and detach the card reader case [2] from the top of the machine.

F-2-228

11) Remove the face plate [1].

F-2-229

12) Using 4 self-tapping screws [1], mount the card reader [2] to the card reader case.

F-2-230

13) Using the screw [1], mount the grounding wire [2] to the card reader case plate assembly [3].
Lead the grounding wire [2] through the edge saddle [4].

F-2-231

14) Connect the connector of the card reader to the connector [1] of the machine.

F-2-232

15) Using the screw [1] removed in step 10, mount the card reader case to the machine.

F-2-233

Take care not to trap the harness indicated with a dashed line.

16) Mount the inside upper cover (Use the 5 screws, and connect the 2 connectors that have previously been removed).
17) Mount the process cover unit (4 screws).
18) Attach the primary charging assembly cover (1 screw).
19) Close the toner cartridge cover.
20) Put back the fixing/feeding unit, and set the fixing/feeding assembly lever.
21) Close the front cover.
22) Connect the copier's power plug, and turn on its main power switch.

2.5.6 Installing the Card Reader-D1

0007-6761

iR105i/iR105+ / iR9070

1) Start service mode, and make the following selections: COPIER>FUNCTION>INSTALLATION>Card.
   Enter the lowest of the numbers of the cards to use (1 through 2001).
   As many as 1000 cards starting with the number you entered my be used.
2) Turn off the main power switch.

Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.
4. Disconnect the power cable (from the wall outlet).

3) Open the front cover.
4) Remove the screw [1], and detach the primary charging assembly cover [2].

F-2-234

5) While supporting the card reader base [1], remove the screw (w/ washer) [2].
   (You will need the screw and the washer later.)

F-2-235

6) Push in the face plate [1] lightly, and take out the card reader base assembly [2] from below.

F-2-236

7) Remove the 2 screws [1], and detach the face plate [2] from the card reader base assembly [3].
(You will use the removed parts later.)

F-2-237

8) Remove the 2 screws that remain on the top of the card reader [1].
Mount the card reader [2] using the 2 removed screws [3] and the 2 screws [4] used to keep the face plate in place.
(At this time, be sure to route the harness [5] and the grounding wire [6] under the card reader as indicated.)
Route the harness through the edge saddle [7].

F-2-238

9) Remove the screw (w/washer) [1] from the rear of the card reader base.
Secure the grounding wire [2] with the removed screw (w/ washer) [1].

F-2-239

10) Remove the 2 screws [1] from the front of the card reader base.
Secure the face plate [2] removed in step 4 with 2 screws [1] as shown.

F-2-240

11) Connect the connector [1] of the copier and the harness of the card reader to which a relay post heater is attached.
Push the harness into the copier, and fit in the card reader assembly [2].

F-2-241

12) While supporting it, mount the card reader assembly [1] with the screw (w/ washer) [2] removed in step 5.

F-2-242

13) Mount the primary charging assembly front cover [1] with a screw [2].

F-2-243

14) Close the front cover.
15) Connect the power plug of the copier, and turn on the main power switch.

2.5.7 Installing the Card Reader-D1

0008-9187

iR85+

1) Start service mode, and make the following selections: COPIER>FUNCTION>INSTALLATION>Card.
   Enter the lowest of the numbers of the cards to use (1 through 2001).
   As many as 1000 cards starting with the number you entered my be used.
2) Turn off the main power switch.

⚠ Points to Note When Turning Off the Main Power Switch
1. Hold down the control panel power switch for 3 sec or more.
2. Go through the instructions for the shut-down sequence shown on the display so that the main power switch may be turned off.
3. Turn off the main power switch.
4. Disconnect the power cable (from the wall outlet).

3) Open the front cover.
4) Remove the screw [1], and detach the primary charging assembly cover [2].

F-2-244

5) Shift down the fixing/feeding assembly lever [1], and slide out the fixing/feeding unit [2].
6) Open the toner cartridge cover [3].

F-2-245

7) Remove the 4 screws [1], and remove the process unit cover [2].

F-2-246

8) Disconnect the 2 connectors [1].

F-2-247

9) Remove the 5 screws [1], and detach the inside upper cover [2].

F-2-248

10) Remove the screw [1], and detach the card reader case [2] from the top of the machine.

F-2-249

11) Remove the face plate [1].

F-2-250

12) Using 4 self-tapping screws [1], mount the card reader [2] to the card reader case.

F-2-251

13) Using the screw [1], mount the grounding wire [2] to the card reader case plate assembly [3].
Lead the grounding wire [2] through the edge saddle [4].

F-2-252

14) Connect the connector of the card reader to the connector [1] of the machine.

F-2-253

15) Using the screw [1] removed in step 10, mount the card reader case to the machine.

F-2-254

Take care not to trap the harness indicated with a dashed line.

16) Mount the inside upper cover (Use the 5 screws, and connect the 2 connectors that have previously been removed).
17) Mount the process cover unit (4 screws).
18) Attach the primary charging assembly cover (1 screw).
19) Close the toner cartridge cover.
20) Put back the fixing/feeding unit, and set the fixing/feeding assembly lever.
21) Close the front cover.
22) Connect the power plug, and turn on its main power switch.

2.6 Installing the NE Controller

2.6.1 Installing the NE Controller-A1/NE Controller-B1/Copy Data Controller-A1

0007-2650

/ iR8070

Here, the instructions are limited to installation to the copier. For how to make various settings, checks to make, and points to note, see the Installation Procedure that comes with a specific controller.

1) Remove the 4 screws [1] that come with the rear cover of the host machine, and remove the face cover [2].

F-2-255

2) Connect the connector J525 [1] of the host machine with the cable [3] of the controller.

F-2-256

3) Mount the controller [2] with 4 screws [1].

F-2-257

[When Installing a Copy Data Controller-A1 to a 230V Model]
4) Remove the connector fixing screw (bottom) [1].
Bend the terminal of the grounding wire [2] that comes with the machine to the outside, and mount it using a connector fixing screw [1].

F-2-258

5) Connect the connector J525 [1] of the host machine and the cable [3] of the controller.

F-2-259

6) Mount the controller [2] using 4 screws.
At this time, be sure to tighten the other terminal [3] of the grounding wire using the right lower screw.

F-2-260

2.6.2 Installing the NE Controller-A1/NE Controller-B1/Copy Data Controller-A1

0007-3529

/ iR85+

Here, the instructions are limited to installation to an machine. For how to make various settings, checks to make, and points to note, see the Installation Procedure that comes with a specific controller.

1) Remove the 4 screws [1] that come with the rear cover of the host machine, and remove the face cover [2].

F-2-261

2) Connect the connector J525 [1] of the host machine with the cable [3] of the controller.

F-2-262

3) Mount the controller [2] with 4 screws [1].

F-2-263

[When Installing a Copy Data Controller-A1 to a 230V Model]
4) Remove the connector fixing screw (bottom) [1].
Bend the terminal of the grounding wire [2] that comes with the machine to the outside, and mount it using a connector fixing screw [1].

F-2-264

5) Connect the connector J525 [1] of the host machine and the cable [3] of the controller.

F-2-265

6) Mount the controller [2] using 4 screws.
At this time, be sure to tighten the other terminal [3] of the grounding wire using the right lower screw.

F-2-266

2.6.3 Installing the NE Controller-A1/NE Controller-B1/Copy Data Controller-A1

0007-6753

iR105i/iR105+ / iR9070

Here, the instructions are limited to installation to an Copier. For how to make various settings, checks to make, and points to note, see the Installation Procedure that comes with a specific controller.

1) Remove the 4 screws [1] that come with the rear cover of the host machine, and remove the face cover [2].

F-2-267

2) Connect the connector J525 [1] of the host machine with the cable [3] of the controller.

F-2-268

3) Mount the controller [2] with 4 screws [1].

F-2-269

[When Installing a Copy Data Controller-A1 to a 230V Model]
4) Remove the connector fixing screw (bottom) [1].
Bend the terminal of the grounding wire [2] that comes with the machine to the outside, and mount it using a connector fixing screw [1].

F-2-270

5) Connect the connector J525 [1] of the host machine and the cable [3] of the controller.

F-2-271

6) Mount the controller [2] using 4 screws.
At this time, be sure to tighten the other terminal [3] of the grounding wire using the right lower screw.

F-2-272

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3.1 Construction

3.1.1 Functional Construction

0006-9138

iR105i/iR105+ / iR9070 / iR8070

The copier is divided into the following six functional blocks
- Original exposure system
- Image processing system
- Laser exposure system
- Image formation system
- Pickup/feeding system
- Control system

F-3-1

3.1.2 Connection Diagram of the Major PCBs(iR105)

0007-0538

iR105

The symbol ⟺ in the diagram indicates the connection between major PCBs, not the direction of signals.

F-3-2

3.1.3 Functional Construction

0008-8662

iR85+

The machine is divided into the following four functional blocks
- Laser exposure system
- Image formation system
- Pickup/feeding system
- Control system

F-3-3

3.1.4 Wiring Diagram of the Major PCBs

0006-9317

iR105i/iR105+ / iR9070

Note: The ⟺ in the diagram indicates major wiring between PCBs, not the direction of signals.

F-3-4

3.1.5 Wiring Diagram of the Major PCBs

0008-8663

iR85+

Note: The ⟺ in the diagram indicates major wiring between PCBs, not the direction of signals.

F-3-5

3.1.6 Wiring Diagram of the Major PCBs

0008-7368

/ iR8070

Note: The ⟺ in the diagram indicates major wiring between PCBs, not the direction of signals.

F-3-6

3.1.7 Inputs to the DC Controller PCB (1/6)

0006-9357

iR105

F-3-7

3.1.8 Inputs to the DC Controller PCB (2/6)

0006-9358

iR105

F-3-8

3.1.9 Inputs to the DC Controller PCB (3/6)

0006-9360

iR105

F-3-9

3.1.10 Inputs to the DC Controller PCB (4/6)

0006-9361

iR105

F-3-10

3.1.11 Inputs to the DC Controller PCB (5/6)

0006-9363

iR105

F-3-11

3.1.12 Inputs to the DC Controller PCB (6/6)

0006-9365

iR105

F-3-12

3.1.13 Outputs from the DC Controller PCB (1/7)

0006-9367

iR105

F-3-13

3.1.14 Outputs from the DC Controller PCB (2/7)

0006-9368

iR105

F-3-14

3.1.15 Outputs from the DC Controller PCB (3/7)

0006-9369

iR105

F-3-15

3.1.16 Outputs from the DC Controller PCB (4/7)

0006-9373

iR105

F-3-16

3.1.17 Outputs from the DC Controller PCB (5/7)

0006-9375

iR105

F-3-17

3.1.18 Outputs from the DC Controller PCB (6/7)

0006-9377

iR105

F-3-18

3.1.19 Outputs from the DC Controller PCB (7/7)

0006-9378

iR105

F-3-19

3.1.20 Controlling the Main Motor (M1)

0006-9352

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the functions of the main motor control circuit, and Figure is a block diagram of the circuit.

T-3-1

Item	Description
Power supply	38 V from the relay PCB.
Drive signal	Signals (MAIN_MOTOR_ON) from the DC controller PCB.
Operating/drive assembly	Waste toner feeding screw Cleaner assembly Feeding belt Internal delivery roller External delivery roller Reversing roller Separation claw (reciprocating operation) Developing assembly unit (through CL10)
Control	ON/OFF control Constant speed control
Error detection	Error code E010

Relay PCB
J1720
1
2
38V
GND
J611
1
2
Drive circuit
Main motor
(M1)
DC controller
PCB
J514
B7
B6
B5
B4
B3
0V
5V
MAIN_MOTOR_ON
MAIN_MOTOR_FG
0V
J612
1
2
3
4
5
Control
panel
Clock pulse
generation
circuit
Reference
signal
generation
circuit
When the main motor drive signal
goes '1', the main motor starts to rotate.
When the main motor starts to rotate,
the pulse signal goes '1'.
When the pulse signal goes '0', error
code E010 is indicated.

F-3-20

3.2 Basic Sequence

3.2.1 Basic Sequence of Operations (power-on)

0006-9349

iR105i/iR105+ / iR9070 / iR8070

F-3-21

T-3-2

Period	Description
WMUP (warm-up)	From when the power switch is turned on to when the surface temperature of the fixing assembly reaches 195 degrees.
WMUPR (warm-up rotation)	To execute potential stabilization control and surface potential control.

3.2.2 Basic Sequence of Operations (power-on)

0008-8664

iR85+

F-3-22

T-3-3

Period	Description
WMUP (warm-up)	From when the power switch is turned on to when the surface temperature of the fixing assembly reaches 195 degrees.
WMUPR (warm-up rotation)	To execute potential stabilization control and surface potential control.

Chapter 4 Main Controller

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4.1 Construction

4.1.1 Functional Construction(iR105)

0006-9729

iR105

The machine may be broadly divided into the following functional blocks (controller area in the shaded block):

F-4-1

4.1.2 Construction/Function

0008-2233

iR105i/iR105+ / iR9070 / iR8070

The machine's main controller block consists of the following and has the following functions:

T-4-1

Item	Description
Main controller PCB	Controls system operation, memory, printer unit output, image processing, printer unit image input processing, rendering, color LCD controller, card printer unit interface, fax image processing, etc.
SRAM	Retains service mode settings (by SRAM), HDD management information
Image memory (SDRAM)	Temporarily retains image data (512 MB)
BOOTROM	Stores boot program
HDD	Stores system software, retains image data for Box function (20 GB)
USB port	USB2.0 interface
Ethernet port (10/100Bsae-T)	Ethernet interface

F-4-2

4.1.3 Construction/Function

0008-8665

iR85+

The machine's main controller block consists of the following and has the following functions:

T-4-2

Item	Description
Main controller PCB	Controls system operation, memory, printer unit output, image processing, printer unit image input processing, rendering, color LCD controller, card printer unit interface, fax image processing, etc.
SRAM	Retains service mode settings (by SRAM), HDD management information
Image memory (SDRAM)	Temporarily retains image data (512 MB)
BOOTROM	Stores boot program
HDD	Stores system software, retains image data for Box function (20 GB)
USB port	USB2.0 interface
Ethernet port (10/100Bsae-T)	Ethernet interface

Main controller PCB
Image memory
(SDRAM)
Boot ROM
SRAM
USB port
RISER board
Ethernet
10/100BASE-T
Hard disk drive
DC controller PCB

F-4-3

4.2 Construction of the Electrical Circuitry

4.2.1 Outline(iR105)

0006-9741

iR105

The major electrical mechanisms of the controller block are controlled by the CPU on the main controller PCB; the following table shows the functions of the IC and hard disk located around the CPU (e.g., RAM, DIMM) and of the CPU itself:

4.2.2 Main Controller PCB

0008-2235

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following is a diagram showing the major control mechanisms of the main controller according to connectors:

F-4-4

T-4-3

Connector	Description
J1003	SDRAM connection slot
J1004	SDRAM connection slot
J1010	Boot ROM connector slot
J1013	Riser board connection slot
J1014	Scanner DDI
J1017	USB port
J1018	Control panel connector
J1020	Power supply connector
J1026	Hard disk connector
J1029	Printer DDI
J1061	Ethernet port (10/100BaseT)

4.2.3 Main Controller PCB(iR105)

0006-9744

iR105

T-4-4

Name	Description
CPU	- Controlling image processing of input image data from the reader unit - Controlling image processing of output image data to the printer unit - Controlling the hard disk drive - Controlling the following: network interface, DMA controller, PCI interface, ROM/RAM interface
RAM	- Storing temporarily program data and image data
DIMM-ROM	- Storing the system control program - Storing the boot program

4.2.4 Hard Disk Drive(iR105)

0006-9763

iR105

T-4-5

Name	Description
HDD	- Storing system software - Storing image data for the box function

F-4-5

4.3 Start-Up Sequence

4.3.1 Outline(iR105)

0006-9769

iR105

The system software used to control the machine is stored on the HDD. The CPU on the main controller PCB reads the system software from the HDD to write to the SDRAM mounted on the DIMM socket of the main controller PCB, requiring time before the control panel becomes ready for operation after the main power switch is turned on.
While the CPU reads the system software from the HDD to the SDRAM, the following screen remains in the control panel, with the progress bar on the screen indicating the changing stages of the startup sequence:

Start-Up Screen

F-4-6

4.3.2 Overview

0008-2236

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The system software used to control the machine is stored on the HDD.
When the machine is started, the CPU on the main controller PCB reads the system software from the HDD according to the instructions of the boot ROM boot program, and writes it to the image memory (SDRAM) of the controller PCB.
While the CPU reads the system software from the HDD to the image memory (DRAM), the control panel shows the following screen, using a progress bar to indicate the progress of the start-up sequence.

F-4-7

Do not turn off the main power while the progress bar is indicated, as access is being made to the HDD. Turning off the power can cause a fault on the HDD (identified by E602).

4.3.3 Start-Up Sequence(iR105)

0006-9777

iR105

When the main power switch is turned on, the CPU on the main controller PCB first executes the self-diagnosis program stored in the boot ROM.
The self-diagnosis program checks the condition of the SDRAM and the HDD; if a fault is found, it will indicate an error code in the control panel.

F-4-8

ERRO CODE:
E601-0000, -0001
Indicates an error in image transfer data.
E602-0001, -0002
Indicates a write/read error.

When the self-diagnosis ends normally, the boot program stored in the boot ROM starts up to read the system software from the HDD to write to the system area of the SDRAM.
When the write operation ends, the system software in the SDRAM starts up to initialize the components of the machine (at the end of which the normal operating screen will appear in the control panel) and, at the same time, the LED lamp of the Start key will change from red to green to indicate that the machine is ready to accept a job.
The system software of the machine consists of multiple modules, and specific modules as needed at specific times are called into the system area of the SDRAM for execution.

F-4-9

4.3.4 Start-Up Sequence

0008-2238

iR105i/iR105+ / iR9070 / iR8070

<Boot ROM Area>
- Self Diagnosis Program (interval 1)
The self-diagnosis program is run by the CPU on the main controller PCB when the main power switch is turned on.
The program is used to check the condition of the image memory (SDRAM) and the HDD.
The machine will indicate an error code if it finds a fault while running the program.

- Boot Program (interval 2)
When the self-diagnosis program ends normally, the CPU on the main controller PCB executes the boot program.
The program is used to read the system software from the HDD to write it into the image memory (SDRAM).

<Image Memory (SDRAM) Area> (interval 3)
The system software written by the boot program initializes the various functional blocks (e.g., I/F settings of the main controller).

When all the foregoing ends normally, the machine becomes ready to accept a job
(i.e., the control panel shows the Operation screen, and the LED on the Start key changes from red to green).

F-4-10

- While the Self-Diagnosis Program Is Being Executed

F-4-11

- While the Boot Program Is Being Run

F-4-12

4.3.5 Start-Up Sequence

0009-1312

iR85+

<Boot ROM Area>
- Self Diagnosis Program (interval 1)
The self-diagnosis program is run by the CPU on the main controller PCB when the main power switch is turned on.

The program is used to check the condition of the image memory (SDRAM) and the HDD.
The machine will indicate an error code if it finds a fault while running the program.

- Boot Program (interval 2)
When the self-diagnosis program ends normally, the CPU on the main controller PCB executes the boot program.
The program is used to read the system software from the HDD to write it into the image memory (SDRAM).

<Image Memory (SDRAM) Area> (interval 3)
The system software written by the boot program initializes the various functional blocks (e.g., I/F settings of the main controller).

When all the foregoing ends normally, the machine becomes ready to accept a job.

F-4-13

- While the Self-Diagnosis Program Is Being Executed

F-4-14

- While the Boot Program Is Being Run

: access to the program during execution.
: flow of the system program.

F-4-15

4.3.6 Construction of the System Software(iR105)

0006-9794

iR105

The system software of the machine can broadly be divided into system modules (for control) and language modules (for indication on the control panel LCD).
To upgrade the machine, you will have to upgrade both the system modules and the language modules.

4.3.7 E602 in Detaill

0008-5847

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-4-6

XX	YY	Description	Remedy
00	01	The HDD cannot be recognized. The startup partition (BOOTDEV) cannot be found at startup.	1. Turn off the main switch, and check the cable connector. Then, turn on the main switch. 2. Check to see if the HDD spins up when the main switch is turned on and if the 5V/12V power is supplied. 3. If the symptom still exists after the foregoing, replace the HDD, re-install the system software. If the symptom still exists, replace the main board.
00	02	The system software for the main CPU does not exist.	1. Start up in safe mode, and format the HDD using the SST (all); then, re-initial the system software (System, Language, RUI); then turn off and then back on the main power switch. 2. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

XX	YY	Description	Remedy
00	03	Suspension of a write operation to the boot device has been detected.	1. Find the sector for which the write operation has been suspended; then, execute recovery operation. <in the case of black-and-white E code> 1-1 The machine will not permit the use of service mode; go through the following: 1-2 Turn off the power. Then, turn on the power while holding down on the 1 and 9 keys so that the repair routine for the sector for which the write operation was suspended will automatically start up and the screen will turn solid black. 1-3 Wait for about 40 to 50 min. There will soon be an indicator of progress of work. The screen will turn solid white when the routine ends. <if the spanner symbol is indicated> 1-1 Set 'CHK-TYPE-0', and execute 'HD-CHECK' (50 to 50 min); thereafter, turn off and then back on the main power switch. 2. If the symptom still exists after the foregoing, start up in safe mode; then, format the HDD (full) using the SST, and re-install the system software (System, Language, RUI), and turn off and then back on the main power switch. 3. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
00	04	Symptom absent	
00	05	Symptom absent	
00	06	The system software of the sub CPU does not exist.	1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI); then, turn off and then back on the main power. 2. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software once again.
00	07	The IC profile does not exist.	1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI); then, turn off and then on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

[E602-XXYY]

T-4-7

XX				YY					
XX	**CHK-TYPE**	**Partition in question**	**Description**	**01**	**02**	**03**	**11, 21**	**13, 25**	**10, 12, 14, 22, 23, 24**
				At startup			**During routine operation**		
				Reme-dy	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**
1	1	DOSDEV	General data storage area	*1	*5	*9	*10	*11	*12
2	1	FSTDEV	Image data storage area (e.g., Box)	*1	*5	*9	*10	*11	*12
3	1	DOSDEV2	Image thumbnail display data area (e.g., Box)	*1	*5	*9	*10	*11	*12
4	1	FSTPDEV	Image data storage area (e.g., Box)	*1	*5	*9	*10	*11	*12
5	2	DOSDEV3	General file storage area (user settings, logs, PDL spool, image data control info)	*1	*5	*9	*10	*11	*12

XX				YY					
XX	**CHK-TYPE**	**Partition in question**	**Description**	**01**	**02**	**03**	**11, 21**	**13, 25**	**10, 12, 14, 22, 23, 24**
				At startup			**During routine operation**		
				Reme-dy	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**
6	3	PDLDEV	PDL-related file storage area (font, registered form, ICC profile, color correction info file for PDL function)	*1	*5	*9	*10	*11	*12
7	4	DOSDEV4	Firmware storage area (address book, filter)	*2	*6	*9	*10	*11	*12
8	4	BOOTDEV	Firmware storage area (System, Language, RUI)	*3	*8	*9	*10	*11	*12
9	5	DOSDEV5	For future expansion	*1	*5	*9	*10	*11	*12
FF	0	Not identified	Entire HDD (check on faulty sector and recovery)	*4	*7	*9	*10	*11	*12

[HDD formatting]

T-4-8

XX	CHK-TYPE	Partition in question	Description	Typical item deleted	HDD formatting by HD-CLEAR	Normal mode + HDD formatting with SST	Safe mode + HDD formatting with SST
1	1	DOSDEV	General data storage area	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
2	1	FSTDEV	Image data storage area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
3	1	DOSDEV2	Image thumbnail display data area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.

XX	CHK-TYPE	Partition in question	Description	Typical item deleted	HDD formatting by HD-CLEAR	Normal mode + HDD formatting with SST	Safe mode + HDD formatting with SST
4	1	FSTPDEV	Image data storage area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
5	2	DOSDEV3	General file storage area (user settings, logs, PDL spool, image data control info)	Items that are relatively less critical	Possible	DOSDEV3 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
6	3	PDLDEV	PDL-related file storage area (font, registered form, ICC profile, color correction info file for PDL function)	User Font IccProfil	Possible	PDLDEV specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
7	4	DOSDEV4	Firmware storage area (address book, filter)	Address book	Not possible	DOSDEV4 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
8	4	BOOTDEV	Firmware storage area (System, Language, RUI)	System software	Not possible	Not possible	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
9	5	DOSDEV5	For future expansion	None in particular	Possible	DOSDEV5 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
FF	0	Not identified	Entire HDD (check on faulty sector and recovery)	-	-	-	-

* When the machine starts up for the first time after its HDD has been formatted, it may take longer than usual to complete the startup session.

[Remedy]

T-4-9

	YY	Description	Remedy
*1	01	The ongoing write operation has been suspended (at startup).	1. Set '0' to TYPE-TYPE, and execute HDD-CHECK (50 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exists after the foregoing, type in TYPE-TYPE for the partition in question, and execute HDD-CLEAR. Thereafter, turn off and then back on the main switch.
*2	01	The ongoing operation has been suspended (at startup).	1. If possible, ask the user to back up the address book data using the RUI. 2. Set '0' to TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 3. If the symptom still exists after the foregoing, start download mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power.
*3	01	The ongoing write operation has been suspended (at startup).	To run a recovery session for the boot partition, you will have to use safe mode in combination with the SST. 1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and the back on the power. 2. If the symptom still exits after the foregoing, start download mode, and execute full formatting using the SST, and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the power.
*4	01	The ongoing write operation has been suspended (at startup).	1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, execute HDD-CLEAR using TYPE-TYPE=1, 2, 3, 5. Thereafter, turn off and then back on the power.
*5	02	A file system error has occurred.	1. Type in TYPE-TYPE of the partition in question, and execute HDD-CLEAR. Thereafter, turn off and then back on the main switch. 2. If the system still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*6	02	There is a file system error.	The system software is designed so that the information in this partition (e.g., address book, filter) is not deleted inadvertently; i.e., you will not the able to execute HDD-CLEAR from service mode. 1. If possible, ask the user to back up the address book data using the RUI. 2. From service mode, start download mode; then, execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and the back on the main power.
*7	02	A file system error has occurred.	This type of error is highly rare. 1. Using TYPE-TYPE=1, 2, 3, 5, execute HDD-CLEAR. Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*8	02	A file system error has occurred.	The system software is designed so that a recovery session will not run for the boot partition unless you use safe mode in combination with the SST. 1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

	YY	Description	Remedy
*9	03	There is poor contact of the HDD, or a v.x Works system error has occurred.	1. Check the cable and power supply connectors. 2. If the symptom still exits after the foregoing, start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power. 3. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*10	11,21	The HDD has poor contact.	This type of error is highly rare in relation to read/ write operations. 1. Check the cable and the power supply connectors. 2.If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and install the system software.
*11	13, 25	The ongoing write operation has been suspended.	There is a likelihood of the presence of damage to the file data on the HDD (e.g., Box). 1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, set '1' for TYPE-TYPE, and execute HDD-CLEAR. (In the case of DOSDEV4 or BOOTDEV, execute formatting and re-installation once again.) 3. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*12	10, 12, 14, 22, 23, 24	There is a system error or a packet data error.	The data may be corrupted or there is a software bug. 1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

⚠ HD-CLEAR
When you have executed HD-CLEAR, all contents of the partition in question (files, sub directories) will be lost.
The actual formatting will take place when the machine is started up after it has been turned off upon execution of HD-CLEAN.
At this time, the Startup screen shows a progress bar, its edge reaching the end in about 5 min. Be sure not to turn off the power while the progress bar is moving.
This function (i.e., mode item) cannot be used for BOOTDEV and DOSDEV4; to re-format any of these 2 partitions, you will have to use the SST.
Keep in mind that formatting of the HDD in service mode will necessarily be full formatting.

⚠ HD-CHECK
If the power is cut while data is being written to the HDD, the occurrence of a write-suspended sector is a possibility. When HD-CHECK is run on such a sector, repairs will be made, but all data in the sector will be lost. A write-suspended sector may be repaired only by HDD-CHECK (0); if not TYPE-TYPE=0, the task will be limited to an FS level check.
If the write-suspended sector happens to be a critical sector that holds a control area, there is no way of repairing it; you will have to execute HDD formatting.

⚠ Replacing the HDD
1. Turn off the main switch.
2. Connect the new HDD.
3. Start up the machine in safe mode.
4. Connect the SST, and execute full formatting.
5. Using the SST, download the system software (System, Language, RUI).
6. Turn off and then back on the power. (It may take about 5 min for the machine to start up).

4.4 Shut-Down Sequence

4.4.1 Overview

0008-2263

iR105i/iR105+ / iR9070 / iR85+ / iR8070

If the main power switch is turned off while the machine is accessing its HDD, damage can well occur on the HDD. To avoid such damage, the machine is provided with a shut-down sequence.

4.4.2 Flow of Operation

0008-2264

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following diagram shows the flow of shut-down operation:

F-4-16

4.5 Image Processing

4.5.1 Outline(iR105)

0006-9796

iR105

The digital processing and controlling of image memory of the machine are performed by the main controller PCB. The following is a block diagram showing its digital image processing:

F-4-17

4.5.2 Overview of the Image Flow

0008-2265

iR105i/iR105+ / iR9070 / iR8070

The following shows the flow of images in relation to the machine's functions:

F-4-18

4.5.3 Input Image Processing(iR105)

0006-9799

iR105

Input image data from the reader unit is processed as follows:

Image Data from the Reader Unit
The image signals from the reader unit is subjected to shading correction and turned into 8-bit, 256-gradation intensity signals.
The input is from 2 signal lines: even-bit pixels and odd-bit pixels.

Enlargement/Reduction (main scanning direction)
Image data is processed when it is written into or read from image memory for enlargement or reduction.

Edge Emphasis
Edge emphasis is performed so that the text, text/photo, print photo, or print photo images may be made sharp so as to reduce moire.

Edit Processing
Edit processing is performed to enable the following: blanking/framing, negative/positive reversal, slant, mirror, fold, repeat.

Density Conversion (LUT)
In this block, intensity signals are converted into density signals; in addition, processing is also performed so that the output density curve best suited to each mode is obtained.
a. LOG Conversion
Using a LOG conversion table, the intensity signals are converted into toner density signals in relation to reflected light.
b. Density Adjustment (F-value conversion)
Using an F-value table selected in relation to the setting of the Density key in the control panel, density adjustment is performed. It, however, will not be performed in memory copy mode.
c. Density Conversion (gamma conversion)
Using a gamma conversion table, density correction is performed for text, text/photo, print photo, or film photo mode.

Binary Processing (error diffusion method T-BIC)
The error diffusion method (TBIC) is used to control the texture, subjecting data to binary processing so that it becomes most suited for printing. Specifically, the 8-bit image density signals of text, text photo, or print photo mode are converted into 1-bit image density signals (binary).

Binary (dither screen method)
The dither screen method is used to control the texture, subjecting the data to binary processing. Specifically, the 8-bit image density signals in film photo mode are converted into 1-bit image density signals (binary).
Although binary, images are produced in 144 gradations owing to the 12 x 12 dither screen processing.

4.5.4 Construction of the Image Processing Module

0008-2266

iR105i/iR105+ / iR9070 / iR8070

The machine's major image processing is executed by the main controller PCB.
The following shows the construction of the modules associated with image processing:

F-4-19

4.5.5 Construction of the Image Processing Module

0008-8670

iR85+

The machine's major image processing is executed by the main controller PCB.
The following shows the construction of the modules associated with image processing:

F-4-20

4.5.6 Controlling the Image Memory(iR105)

0006-9800

iR105

The binary image data is controlled in image memory as follows:

Compression/Expansion, Rotation, and Enlargement/Reduction
Binary images are processed for compression/expansion (for electronic sorting), rotation, or resolution conversion.

SDRAM
The image data is temporarily stored as part of image memory control.

4.5.7 Reader Unit Input Image Processing

0008-2267

iR105i/iR105+ / iR9070 / iR8070

The image data colleted by the contact image sensor is processed by the main controller PCB.

F-4-21

4.5.8 Output Image Processing(iR105)

0006-9804

iR105

The output image data sent to the printer unit is processed as follows:

Smoothing
a. Read Image Output
In the case of text/print photo mode, the 600 x 600-dpi input images are subjected to smoothing for conversion into 1200-equivalent x 600dpi images.
In smoothing, the image data is compared to several hundred templates of 7 x 7-pixel matrices for replacing of pixels in question.
Notch processing is also performed in this block, as a pattern unique to read images.
b. Printer (PDL) Image Output
Smoothing most suited to PDL is performed, converting 300 x 300-dpi or 600 x 600-dpi data into 2400-equivalent x 600-dpi data.

Thickening (PDL output only)
If selected using a printer driver, thickening is performed to thicken fine lines for better reproduction.
PDL output images are thickened by adding 1/2 pixels (1200 dpi) to the top of a horizontal line or 1/2 pixels (1200 dpi) to the right of a vertical line.

Binary-Binary Conversion (read image output only)
Binary-binary density conversion is used as an auxiliary means to correct density during copying operation.

4.5.9 Compression/Extension/Editing Block

0008-2268

iR105i/iR105+ / iR9070 / iR8070

Here, image data is processed for compression, extension, and editing.

F-4-22

4.5.10 Compression/Extension/Editing Block

0008-8671

iR85+

Here, image data is processed for compression, extension, and editing.

F-4-23

4.5.11 Printer unit Output Image Processing

0008-2269

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The main controller processes the image data coming to the printer unit output image processing block for output to the printer unit.

Main controller PCB
Compression/expansion/editing block
Binary density conversion
Enlargement/reduction
Smoothing
Thickening
For PDL data, when fine line processing is ON
To DC controller PCB

F-4-24

4.6 Flow of Image Data

4.6.1 Flow of Image Data for the Copy Function

0008-2273

iR105i/iR105+ / iR9070 / iR8070

The following is the flow of image data when the Copy Function is in use:

F-4-25

4.6.2 Flow of Image Data for the Box Function

0008-2274

iR105i/iR105+ / iR9070 / iR8070

The following is the flow of image data when the Box function is in use:

F-4-26

4.6.3 Flow of Image Data for the SEND Function

0008-2275

iR105i/iR105+ / iR9070 / iR8070

The following is the flow of image data when the SEND function is in use.

F-4-27

4.6.4 Flow of Image Data for the PDL Function

0008-2277

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following is the flow of image data when the PDL function is in use:

F-4-28

4.7 Parts Replacement Procedure

4.7.1 Main Controller Box

4.7.1.1 Removing the Rear Cover

0008-2726

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-29

4.7.1.2 Removing the Rear Cover

0008-9357

iR85+

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-30

4.7.1.3 Removing the Rear Cover

0008-9684

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-31

4.7.1.4 Removing the System Connector Cover

0008-2728

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 2 screws [1], and detach the system connector cover [2].

F-4-32

4.7.1.5 Removing the Main Controller Box

0008-2672

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Disconnect the 6 connectors [1], and remove the 4 screws [2].

F-4-33

F-4-34

2) Open the main controller box [1] in the arrow direction, and disconnect the 2 connectors [2].

F-4-35

3) Detach the hinges [2] [3] to remove the main controller box [1] while lifting the main controller box slightly.

F-4-36

4.7.2 Main Controller PCB

4.7.2.1 Removing the Rear Cover

0008-2691

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-37

4.7.2.2 Removing the Rear Cover

0008-9358

iR85+

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-38

4.7.2.3 Removing the Rear Cover

0008-9685

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-39

4.7.2.4 Removing the Main Controller Box Cover

0008-2692

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 4 screws [1], and detach the main controller box cover [2].

F-4-40

4.7.2.5 Removing the Differential PCB/Differential PCB Relay Board

0008-2694

iR105i/iR105+ / iR9070 / iR8070

1) Loosen the 2 screws [1], and remove the reader controller communication cable [2].

F-4-41

2) Remove the 2 screws [1], and detach the differential PCB [2] in the arrow direction.

F-4-42

4.7.2.6 Removing the Pixel/Line Conversion PCB

0008-2696

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 2 screws [1], and detach the PCB mount [2].

F-4-43

2) Disconnect the 3 connectors [1], and remove the 2 screws [2]; detach the pixel/line conversion PCB [3] in the arrow direction.

F-4-44

4.7.2.7 Removing the Main Controller PCB

0008-2622

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Disconnect the 11 connectors [1], and remove the 8 screws [2]; detach the main controller PCB [3] in the arrow direction.

F-4-45

4.7.2.8 When Replacing the Main Controller PCB

0008-4993

iR105i/iR105+ / iR9070 / iR85+ / iR8070

If you are replacing the main controller PCB, be sure to transfer the following components from the old to new PCB:
[1] BootROM
[2] HDD
[3] image memory (SDRAM)
[4] counter memory PCB

F-4-46

If the user uses NetSpot Accountant (NSA) in Combination with a Card Reader

The SDRAM of the main controller retains card ID used by NSA. If you have replaced the main controller, you will have to download the card data from NSA once again to permit NSA to perform statistical operations.
If you have formatted the HDD and downloaded the system software, you will have to go through a specific set of steps:

1) Format the HDD.
2) Download the system software.
3) Make the following selections:
   COPIER>FUNCTION>INSTALL>CARD.
4) Enter a card No.
   Enter the first of the numbers that will be used for group control, and press the OK key (e.g., if you are planning to use cards from No. 1 thorough No. 100, enter '1').
5) turn off and then on the main power.
6) Check the count control mechanism in user mode.
   system control setup>group ID control>count control
   check to see as many as 'ID00000001 through ID00001000' have been prepared.
7) Set the IP address in user mode.
   system control setup>network setup>TCP/IP setup>IP address
Set 'IP address', 'gateway address', and 'sub net mask'.
8) Enter a number of your choice in user mode.
   system administrator info setup>system control group ID>system control ID No.
9) Hold down the control panel power switch for 3 sec or more.
10) Go through the instructions on the control panel for shut-down sequence so that the main power switch may be turned off.
11) Turn off the main power switch. Wait for 3 sec or more, and turn it back on.

Unless you have registered 'system control group ID' and 'system control ID No.', you will not be able to register cards for the device in the course of Net Spot Accountant setup work.

12) Download the card ID.
   Keep the machine in a standby state < and download the card ID to be used from the NSA>
13) Check the count control particulars in user mode.
   system control setup>group ID control>count control
   See that only the downloaded ID data is shown.
14) Check to see that the operation is normal.
   Make copies using a user card that has been registered using the NSA, and check to see that the count of the card in question has been incremented correctly.

4.7.3 Boot ROM

4.7.3.1 Removing the Rear Cover

0008-2685

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-47

4.7.3.2 Removing the Rear Cover

0008-9359

iR85+

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-48

4.7.3.3 Removing the Rear Cover

0008-9688

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-49

4.7.3.4 Removing the Main Controller Box Cover

0008-2687

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 4 screws [1], and detach the main controller box cover [2].

F-4-50

4.7.3.5 Removing the Boot ROM

0008-2607

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Push the release lever [1] in the arrow direction to release the Boot ROM [2], and remove the Boot ROM.

F-4-51

4.7.4 Differential PCB

4.7.4.1 Removing the Rear Cover

0008-2677

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-52

4.7.4.2 Removing the Rear Cover

0008-9689

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-53

4.7.4.3 Removing the Main Controller Box Cover

0008-2678

iR105i/iR105+ / iR9070 / iR8070

1) Remove the 4 screws [1], and detach the main controller box cover [2].

F-4-54

4.7.4.4 Removing the Differential PCB/Differential PCB Relay Board

0008-2609

iR105i/iR105+ / iR9070 / iR8070

1) Loosen the 2 screws [1], and remove the reader controller communication cable [2].

F-4-55

2) Remove the 2 screws [1], and detach the differential PCB [2] in the arrow direction.

F-4-56

4.7.5 HDD

4.7.5.1 Points to Note on Handling the Hard Disk

0008-2618

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Keep the following in mind when attaching/removing the hard disk.

1. Take countermeasures against electrostatic before work to prevent the hard disk from being damaged by electrostatic discharge.
2. Do not give a shock to the hard disk.

4.7.5.2 Removing the Rear Cover

0008-2680

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-57

4.7.5.3 Removing the Rear Cover

0008-9693

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-58

4.7.5.4 Removing the Rear Cover

0008-9368

iR85+

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-59

4.7.5.5 Removing the Main Controller Box Cover

0008-2681

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 4 screws [1], and detach the main controller box cover [2].

F-4-60

4.7.5.6 Removing the Differential PCB/Differential PCB Relay Board

0008-2682

iR105i/iR105+ / iR9070 / iR8070

1) Loosen the 2 screws [1], and remove the reader controller communication cable [2].

F-4-61

2) Remove the 2 screws [1], and detach the differential PCB [2] in the arrow direction.

F-4-62

4.7.5.7 Removing the Hard Disk

0008-2611

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the screw [1], and detach the counter memory PCB [2].

F-4-63

F-4-64

2) Remove the 2 screws [1], and slide the hard disk [2] in the arrow direction to detach.

F-4-65

4.7.5.8 Points to Note on Attaching the Hard Disk

0008-2612

iR105i/iR105+ / iR9070 / iR85+ / iR8070

- When attaching the hard disk, insert the claw [1] at the back of the hard disk into an opening [2] of the hard disk mount, and slide the hard disk in the horizontal direction. The hard disk connector might be broken if the hard disk is forcefully attached while the connector is stuck to the socket (on the main controller PCB) on the skew.

4.7.5.9 When Replacing the HDD

0008-2617

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Format the HDD.
Start up the machine in safe mode (i.e., while holding down the 2 and 8 keys, turn on the main power).
Using the HD format function of the SST, format all partitions ($); for details, see the descriptions given for upgrading.

2) Download the system software.
Using the SST, download the following: System, LANGUAGE, RUI, PS-FRONT, OCR dictionary, SSL coding key, SSL CA certificate, MEAP content.

4.7.6 Controller Fan

4.7.6.1 Removing the Rear Cover

0008-4387

iR105i/iR105+ / iR9070

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-66

4.7.6.2 Removing the Rear Cover

0008-9370

iR85+

1) Remove the 11 mounting screws [1], and detach the rear cover [2].

F-4-67

4.7.6.3 Removing the Rear Cover

0008-9696

/ iR8070

1) Remove the rear upper cover (4 screws).
2) Remove the 10 mounting screws [1], and detach the rear cover [2].

F-4-68

4.7.6.4 Removing the System Connector Cover

0008-4389

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 2 screws [1], and detach the system connector cover [2].

F-4-69

4.7.6.5 Removing the Main Controller Box Cover

0008-4388

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the 4 screws [1], and detach the main controller box cover [2].

F-4-70

4.7.6.6 Removing the Controller Fan

0008-2668

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Disconnect the connector [1], and pass the detached connector cable to the outside of the controller box through an opening of the cable clip [2].

F-4-71

2) Remove the 2 screws [1], and detach the controller fan [2].

F-4-72

Chapter 5 Original Exposure System

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5.1 Construction

5.1.1 Outline of the Original Exposure System(iR105)

0006-9374

iR105

The major changes made to the original exposure system are as follows:
- Enlargement/Reproduction
- 4-channel high-speed reading CCD (see discussions of image processing system)
- CCD adjustment (see discussions of image processing system)
- PCB arrangement
- ADF mechanism (new)

For others, see T02-202-01 for a table of differences.

T-5-1

Unit/ location	Change from GP605 (iR600)	Purpose of change	Remarks	Reference
Reading method	Changed the scanning speed at 100 % to 450 mm/sec.	To support higher speed of operation.	In the GP605 (iR600), 260 mm/ sec.	2.3 Enlargement/ Reduction
	Used digital enlargement/reduction (between 25 % and 400 %).	To support higher speed of operation.	In the GP605 (iR600), scanner enlargement/ reduction only.	2.3 Enlargement/ Reduction
Reader unit	Added a scanner motor fan.	To prevent overheating of the scanner motor.		2.4 Preventing Overheating of the Scanner Motor
	Added a transformer PCB.	To ensure stable inverter power.		2.6 Stabilizing the Scanning Lamp
Reader controller	Located the reader controller PCB where the image processor PCB was found.			2.5 Arrangement of PCBs
	Added a dust detection mechanism.	To prevent image faults.		2.8 Dust Detection Function in stream reading
ADF	Added open/closed detection to the ADF.	To prevent wrong detection.		2.7 Detecting the State (open/ closed) of the ADF

5.1.2 Outline

0006-9406

iR105i/iR105+ / iR9070

Table shows the major functions of the original exposure system.

T-5-2

Item	Description
Original illumination	Illumination by a fluorescent lamp
Original scanning	Book mode: scanning by the No. 1 mirror mount ADF mode (one-side reading): scanning by stream reading (2 fixed points of small-size reading and large-size reading) ADF mode (double-sided reading): scanning by the No. 1 mirror mount
Scanner position detection	By a scanner home position sensor (PS1) By an image leading edge sensor (PS3)
Enlargement/reduction	Main scanning direction: images are processed by a line memory Sub scanning direction: No. 1 mirror mount is moved at different speeds
Scanner drive control	No. 1 mirror mount: pulse control by a stepping motor (M5) Lens mount: fixed in position

Scanning lamp control	[1] Pre-heat control by a fluorescent lamp heater [2] Pre-heat voltage control [3] Initial activation control [4] Intensity control by an intensity sensor [5] Fluorescent lamp life detection
Original size detection	[1] By an original size sensor [2] By the ADF
Others	Copyboard glass sensor (PS57) Fluorescent lamp temperature sensor (H5): detects the temperature of the fluorescent lamp heater

5.1.3 Major Components

0006-9411

iR105i/iR105+ / iR9070

Figure shows the major components of the original exposure system.

F-5-1

F-5-2

Component	Notation	Description
Scanning lamp	FL1	Fluorescent amp (rated at 43 W)
Scanner motor	M5	5-phase stepping motor
Scanner home position	PS1	Photointerrupter (detects the scanner home
Image leading edge	PS3	Photointerrupter (detects the image leading edge)
Copyboard glass sensor	PS57	Photointerrupter (detects the presence/absence of the copyboard glass)
Fluorescent lamp temperature sensor	H5	Thermistor (detects the fluorescent lamp heater temperature)
Light intensity sensor	PD2001	Photodiode (detects the lamp light intensity)
Fluorescent lamp heater	H5	Nickel chrome line (rated at 36 W; stabilizes the temperature inside the fluorescent lamp)
Mirror		No. 1 through No. 3 mirrors

F-5-3

5.1.4 Arrangement of PCBs

0006-9531

iR105i/iR105+ / iR9070

The PCBs of the reader unit are arranged as follows:

F-5-4

T-5-3

[1]	Transformer PCB	[5]	Original orientation detection PCB
[2]	Light adjustment control PCB	[6]	Reader controller PCB
[3]	Fluorescent lamp inverter PCB	[7]	Laser scanner motor driver PCB
[4]	Scanner motor driver PCB	[8]	CCD/AP PCB

The reader controller PCB is located where the image processor PCB was found.

5.1.5 Outline

0008-7397

/ iR8070

The major functions of the original exposure system are as follows:

T-5-4

Item	Description
Scanning lamp	Xenon lamp
Original Scanning	In book mode: by moving the scanner. With ADF in use: by stream reading while holding the No. 1 mirror base fixed in position.
Scanner position detection	By scanner HP sensor (PS39)
Reproduction ratio (zoom)	[1] Using the Copyboard: 25 % to 400 % - In main scanning direction, image processing is per-formed by the controller unit. - In sub scanning direction, the speed of the No. 1 mirror base is changed (50 % or higher), in addition, the image data is processed by the controller unit (lower than 50 %). [2] Using the ADF: 25 % to 200 % - In main scanning direction, the image data is processed by the controller unit. - In sub scanning direction, the speed at which the origi-nals are moved is changed(50 % or higher) , in addition, the image data is processed by the controller unit(lower than 50 %).
Scanner drive control	The No.1/No.2 mirror base is controlled by means of a step-ping motor (M3).
Lens	Lens array (fixed in position)
Scanning lamp activation	[1] Turned on by an inverter circuit. [2] Monitored for errors.
Original size detection	[1] In book mode, by a reflection type sensor in sub scan-ning direction; by a CCD in main scanning direction. [2] With the ADF in use, by the ADF.

5.1.6 Major Components

0008-7398

/ iR8070

The major components of the original exposure system are as follows:

F-5-5

F-5-6

T-5-5

Component	Notation	Description
Scanning lamp	LA101	Xenon lamp (intensity of 70,000 lx)
Scanner motor	M101	2-phase stepping motor (under pulse control)
Scanner HP sensor	PS102	Photointerrupter (detects scanner home position)
Copyboard cover sensor	PS103	Photointerrupter (detects the state (open/closed) of copyboard cover)
Mirror	-	No. 1/No. 2/No. 3 mirror

5.1.7 Arrangement of PCBs

0008-7432

/ iR8070

The PCBs of the reader unit are arranged as follows:

F-5-7

T-5-6

[1]	Fuse PCB	[4]	Inverter PCB
[2]	Reader controller PCB	[5]	CCD/AP PCB
[3]	Differential PCB		

5.2 Basic Sequence

5.2.1 Basic Sequence of Operations

0006-9414

iR105i/iR105+ / iR9070

F-5-8

F-5-9

5.2.2 Book Mode, 1 Original, Copyboard Closed

0008-7399

/ iR8070

F-5-10

*1: original size detection.
*2: shading correction.

F-5-11

5.2.3 Book Mode, 1 Original, Copyboard Cover Open

0008-7400

/ iR8070

F-5-12

*1: original size detection.
*2: shading correction.

Stream reading position (start position)
HP
Image leading edge
Point of original size detection
Image end
Stop position
1. The copyboard cover is opened. The scanner moves to the point of original detection.
2. The Start key is pressed. After the original size has been detected, the scanner moves to home position.
3. After shading correction in home position, the scanner moves to start position.
4. The scanner scans the original.
5. The scanner returns to start position (at the speed used for 50% reduction).
6. The scanner moves to the point of original size detection.
○ : No. 1 mirror base

F-5-13

5.3 Various Control

5.3.1 Controlling the Scanner Drive System

5.3.1.1 Outline

0006-9418

iR105i/iR105+ / iR9070

Figure shows the components of the scanner drive system.

F-5-14

5.3.1.2 Controlling the Scanner Motor

0006-9419

iR105i/iR105+ / iR9070

Figure shows the construction of the scanner motor control mechanism.

F-5-15

T-5-7

Related Error Code	
E202 (scanner home position detection error)	The No. 1 mirror mount does not reach the home position sensor within a specific period of time.
E204 (image leading edge detection error)	[1] The image leading edge signal is not generated when the No. 1 mirror mount is moving forward. [2] The image leading edge signal from the ADF is not generated in stream reading mode.

T-5-8

Related Service Mode	
COPIER>ADJUST>ADJ-XY>ADJ-X (scanner image leading edge position adjustment)	Use it to adjust the image leading edge position by entering a setting. Setting range: 0 to 2970 (a change of 1 causes a shift of 0.1 mm)

Related Service Mode	
COPIER>ADJUST>ADJ-XY>ADJ-S (scanner home position adjustment)	Use it to adjust the home position (standard white plate read position) by entering a setting. If the standard white plate is soiled, use this mode to avoid reading the soiled area. Setting range: 0 to 4

5.3.1.3 Preventing Overheating of the Scanner Motor

0006-9523

iR105i/iR105+ / iR9070

The machine is provided with a scanner motor cooling fan to prevent overheating of the scanner motor.

F-5-16

T-5-9

[1]	Scanner motor cooling fan
[2]	Scanner motor

The scanner motor cooling fan is driven in fixed reading mode under the following conditions to cool the scanner motor:

T-5-10

Operating mode	Fan rotation control
In stream reading mode and standby	Stop
Between 60 % and 68.9 % reduction and fixed reading	Full speed
Other than above in fixed reading	Half speed

5.3.1.4 Outline

0008-7401

/ iR8070

The following parts are associated with the scanner drive system.

F-5-17

[1] Scanner Motor (M101) Control Signal
Used to turn on/off the motor and to control its direction and speed of rotation.

[2] Scanner HP Sensor (PS102) Detection Signal
Used to make sure that the No. 1 mirror base is at home position.

[3] Copyboard Cover Sensor (PS103) Detection Signal
Used to detect the state (open or close) of the copyboard cover.

5.3.1.5 Controlling the Scanner Motor

0008-7402

/ iR8070

The system used to control the scanner motor is constructed as follows:
The motor driver turns on/off the scanner motor and controls its direction and speed of rotation in keeping with the signals from the CPU, IPC, and speed control circuit.

F-5-18

Controlling the Motor When Scanning an Image
When scanning an image, the motor is controlled as follows, thereby controlling the movement of the No. 1 mirror base unit:

F-5-19

[1] Acceleration. Used to accelerate until the speed most appropriate to the read ratio is attained.

[2] Approach run. Used to ensure that speed stabilizes.
[3] Image read. Used to read the image at a specific speed suited to the read ratio.
[4] Deceleration. Used to enable the scanner to speed down and stop promptly, starting at the end of the image.
Reversing the Scanner After Scanning in Main Reading Direction
When the image has been scanned, the No. 1 mirror base is moved in reverse to home position at the speed used for 50% reduction, regardless of the ratio being used.

ERROR CODE:
E202 (HP detection error)
[1] The No. 1 mirror base does not reach the HP sensor within a specific period of time.
[2] The HP sensor identifies the presence of the No. 1 mirror base when the No. 1 mirror base should have been moved away.
E204 (image leading edge detection error)
[1] The image signal is not generated when the No. 1 mirror base is moving forward.
[2] The ADF does not generate the image leading edge signal in stream reading mode.

SERVICE MODE:
COPIER > ADJUST > ADJ-XY > ADJ-X (scanner image leading edge adjustment)
Enter an appropriate value to adjust the image leading edge position.
Range: 0 through 2970 (a change of '1' causes a shift of 0.1 mm)
COPIER > ADJUST > ADJ > XY > ADJ-S (scanner home position adjustment)
A numerical entry will adjust the home position (i.e., standard white plate reading position).
If dirt develops on the standard white plate, execute this adjustment so that the machine will take a reading while avoiding the area.
Settings: 0 to 4

F-5-20

F-5-21

5.3.2 Enlargement/Reduction

5.3.2.1 Changing the Reproduction Ratio in Main Scanning Direction

0006-9415

iR105i/iR105+ / iR9070

To execute scaling, image data is partially bypassed when it is written to the line memory (reduction), or image data is partially overlapped when it is read from the line memory (enlargement).

5.3.2.2 Enlargement/Reduction(iR105)

0006-9489

iR105

T-5-11

Change	iR105	GP605 (iR600)
Scanning speed at 100 % copying	450 mm/s	260 mm/s
Enlargement/reduction according to range	By scanner, between 25 % and 400 % In combination with digital method: in fixed reading, between 25 % and 49.9 %; in stream reading with ADF in use, between 25 % and 84.9 %	By scanner only, between 25 % and 400 %; no digital method used

The machine scans originals faster to support its higher speed of printing. Under specific conditions, it uses a digital method for enlargement/reduction in combination to enable a higher scanning speed, while keeping the speed of the scanner motor to more or less the same as that of the GP605 (iR600).

Normally, copying with the ADF in use is in stream reading; however, fixed reading is used for reduction between 25 % and 49.9 % and for all ratios in double-sided mode and in book mode.
The digital method of enlargement/reduction is used for the following:
- for fixed reading, if between 25 % and 49.9 %
- for stream reading, if between 25 % and 84.9 %

5.3.2.3 Changing the Reproduction Ratio in Sub Scanning Direction

0006-9416

iR105i/iR105+ / iR9070

To execute scaling, the moving speed of the mirror 1 mount is changed.
Also, digital scaling is concurrently used under the following conditions:
- Fixed reading: scaling is from 25 to 49.9%
- Stream reading: scaling is from 25 to 84.9%

Memo:
Stream reading is basically executed when a copy is made with the ADF. However,
fixed reading is executed instead if scaling is from 25 to 49.9% or a 2-sided copy is made at any scaling factor. Fixed reading is executed whenever a copy is made in book mode.

5.3.2.4 Changing the Reproduction Ratio in Main Scanning Direction

0008-7403

/ iR8070

For main scanning direction, the original is read at 100 % (for both copyboard and ADF); the size is changed by processing data in the main controller unit.
[1] To reduce, data units are skipped when writing image data to the line memory.
[2] To enlarge, data units are read multiple times when reading image data from the line memory.

5.3.2.5 Changing the Reproduction Ratio in Sub Scanning Direction

0008-7404

/ iR8070

The reproduction ratio in sub scanning direction is changed by controlling the speed of the scanner and the speed at which originals are moved.
[1] When the copyboard cover is used, the ratio may be between 25 % and 400 % and the speed of the scanner is controlled.
[2] When the ADF is used, the ratio may be between 25 % and 200 % and the speed of moving the originals is controlled.
For a reduction between 25 % and 49 %, however, the main controller unit also functions to change the ratio by processing data.
[1] To enlarge, the speeds at which the mirror base is moved and the originals are moved are reduced (i.e., slower than in Direct).
For instance, to enlarge at 200 %, the originals are read at 1/2 the speed used for Direct.
[2] To reduce to between 50 % and 99 %, the speeds at which the mirror base is moved and the originals are moved are increased (i.e., faster than in Direct).
For instance, to reduce to 50 %, the originals are read twice the speed used in Direct.

F-5-22

[3] To reduce to between 25 % and 49 %, the image data read at 50 % and 98 % is subjected to skipping (1/2) in the main controller unit.

5.3.3 Controlling the Scanning Lamp

5.3.3.1 Outline

0006-9424

iR105i/iR105+ / iR9070

The scanning lamp is controlled for the following:
[1] Temperature by a fluorescent lamp heater
[2] Pre-heat voltage
[3] Initial activation
[4] Intensity by a light intensity sensor
Figure shows the construction of the mechanisms used to control the scanning lamp.

F-5-23

T-5-12

Related Service Mode	
COPIER>ADJUST>LAMP>L-DATA (scanning lamp light intensity data input)	Use it to enter the setting recorded on the service label if the result of CCD-ADJ is NG, thereby determining FL-PWM. Settings: 0 to 255 Higher setting Lower intensity ◄► Higher intensity Lower setting

5.3.3.2 Stabilizing the Scanning Lamp(iR105)

0006-9538

iR105

A transformer PCB has been added to increase the voltage supplied to the inverter power supply from 38 to 40 V so that the intensity of the scanning lamp remains stable.

5.3.3.3 Controlling the Temperature by a Fluorescent Lamp Heater

0006-9428

iR105i/iR105+ / iR9070

The fluorescent lamp controls the area around the fluorescent lamp to 70 deg C to ensure a stable light intensity.

F-5-24

5.3.3.4 Controlling Pre-Heat Voltage

0006-9430

iR105i/iR105+ / iR9070

A pre-heat voltage is applied to the fluorescnet lamp even when the lamp remains off so as to ensure an optimum intensity in the shortest time possible.

F-5-25

T-5-13

	Voltage	Description
Standby pre-heating	2.9 V	Used to stabilize the heat inside the fluorescent lamp while the lamp is off.
Pre-heating before activation	4.1 V	Applied 1.5 sec immediately before turning on the fluorescent lamp, thereby shortening the time until optimum intensity is attained.
Pre-heating during activation	3.9 V to 3.8 V (optimum level is applied to suit the measurement of the light intensity sensor)	To stabilize the inside of the fluorescent lamp during activation.

5.3.3.5 Initial Activation

0006-9433

iR105i/iR105+ / iR9070

The fluorescent lamp is turned on when the control panel power switch is turned on for the following:
[1] To stabilize the inside of the fluorescent lamp in the shortest time possible.
[2] To check the intensity by the light intensity sensor to determine pre-heat voltage.

Temperature at power-on (control panel)	Activation period
40˚C or less	30 sec
40˚C to 60˚C	20 sec
60˚C to 65˚C	5 sec
65˚C or more	Off

F-5-26

5.3.3.6 Detecting an Error

0006-9435

iR105i/iR105+ / iR9070

As part of controlling the fluorescent lamp, checks are made of the following:
[1] Remaining life of the fluorescent lamp
[2] Activation error
[3] Thermistor error

F-5-27

T-5-14

Related Error Code	
E220 (activation error)	[1] While in standby, the scanning lamp turns on. (detected in reference to the voltage of FL-DTCT) [2] During scanning, the scanning lamp turns off. (detected in reference to the voltage of FL-DTCT)
E222 (fluorescent lamp heater error)	[1] When the main power switch is turned on, the temperature does not reach 70 deg C or higher 5 min after the scanner heater has turned on (HEAT-ON=1). [2] While power is supplied, the temperature does not reach 75 deg C or more 3 min after the fluorescent lamp heater has turned on.
E211 (thermistor open circuit)	[1] When the main power switch is turned on, the temperature does not reach 10 deg C or higher 2 min after the fluorescent heater has turned on (HEAT-ON=1). [2] While power is supplied, a temperautre of 0 deg C or lower is detected.
E215 (thermistor short circuit)	While the scanning lamp is off, a temperature of 170 deg C or more is detected.
E219 (scanning lamp end of life)	While the scanning lamp is on, a temperature of 170 deg C or higher is detected by the thermistor.

5.3.3.7 Outline

0008-7405

/ iR8070

The system used to control the scanning lamp is constructed as follows and the items of control include the following:
[1] Turning on and off the scanning lamp.
[2] Monitoring the scanning lamp for errors.

F-5-28

5.3.3.8 Scanning Lamp

0008-7406

/ iR8070

The machine's scanning lamp is a xenon lamp of a non-electrode discharge type, in which xenon gas is sealed in a tube.
On the outside of the glass tube, two electrodes are arranged parallel to the tube axis, and the inner side of the glass tube is coated with fluorescent material.
The internal gas discharges and, as a result, the fluorescent material glows when a high-frequency voltage is applied across the electrodes.

F-5-29

5.3.3.9 Turning On/Off the Lamp

0008-7407

/ iR8070

The scanning lamp is turned on/off in response to the drive signal (LAMP_ON) from the CPU on the reader controller PCB. When the signal is generated, the inverter generates a high-frequency, and high-voltage using the drive voltage (+24 V) supplied by the reader controller PCB to turn on the xenon tube.

5.3.3.10 Detecting an Error

0008-7408

/ iR8070

The reader controller circuit generates the error signal (INV_ERR) in response to an error

(e.g., output open, short circuit, leak) in the inverter circuit. A fault in the lamp (low inten-sity, activation failure) will be identified as an activation error caused by lack of intensity during initial activation (e.g., at time of shading correction).

ERROR CODE:
E220
It is used to indicate a fault in the inverter PCB.
E225
It is used to indicate a fault in the scanning lamp (xenon tube).

5.3.4 Detecting the Size of Originals

5.3.4.1 Outline

0006-9437

iR105i/iR105+ / iR9070

F-5-30

5.3.4.2 Detecting the State (open/closed) of the ADF

0006-9614

iR105i/iR105+ / iR9070

In addition to the open/close sensor (ON at 30 deg) mounted on the main unit, the ADF is also equipped with the open/close sensor (ON at 5 deg). These 2 sensors detect the state (open/close) of the ADF. However, if the sensor on the ADF fails to detect for some reason, only the sensor on the main unit detects the state (open/close) of the ADF.

F-5-31

- When the ADF Is Opened
When the ADF is opened, the ADF-side sensor goes ON as soon as it is opened 5 deg or higher [1], causing the machine to assume that the ADF has been opened and that the original has been removed; as a result, the size of the original that has been detected automatically will be cleared. Thereafter, when the ADF is opened farther and to 30 deg or higher [2], the machine-side sensor goes ON, enabling automatic detection of original size.

F-5-32

- When the ADF Is Closed
When the ADF is closed, the machine-side sensor goes ON as soon as it is closed to 30 deg or lower [3], causing the machine to assume that the ADF is starting to close; 4 sec thereafter, the machine assumes that the ADF is fully closed [4].

F-5-33

5.3.4.3 Outline

0008-7409

/ iR8070

The machine automatically identifies the size of originals based on the combination of intensities measured by reflection type sensors and CCD at specific points.
- For main scanning direction, the CCD is used to take measurements (if AB, 4 points; if Inch, 2 points).
- For sub scanning direction, a reflection type photosensor is used (1 point).

5.3.4.4 Points of Detection

0008-7412

/ iR8070

For main scanning direction, the No. 1 mirror base is moved to the following points in re-lation to the position of the original to measure the intensity at each point.
For sub scanning direction, on the other hand, measurements are taken while holding the sensor in place at a specific point.

<AB-Configuration>

F-5-34

<Inch-Configuration

F-5-35

5.3.4.5 Outline of Detection

0008-7413

/ iR8070

The machine identifies the size of originals in the following two steps:

[1] Detecting External Light (main scanning direction only)
While keeping the scanning lamp off, the CCD level at each point of detection in main scanning direction is measured. A point at which external light is detected will be identified as indicating the absence of an original, enabling the identification of the width of an original.
[2] Detecting the Sensor Output Level
The scanning lamp is turned on, and the CCD level at each point of detection in main scanning direction is measured. In addition, the reflection type photosensor in sub scanning direction is turned on to measure the sensor output.
The combination of these output measurements is used to identify the size of the original.
For specific movements, see the pages that follow.

5.3.4.6 Book Mode, 1 Original, Copyboard Cover Open

0008-7414

/ iR8070

[1] The scanner remains in wait.
No. 1 mirror base: at HP
Xenon lamp: off
Original sensor: disabled

F-5-36

[2] The copyboard is opened.
Detection starts of external light in main scanning direction.
No. 1 mirror base: to point of original de-tection
Xenon lamp: off
Original sensor: disabled

F-5-37

[3] An original is placed.
The width of the original is identified inrelation to the presence/absence of externallight; here, the absence of an original is identified at points in question, eliminating B5, B4, A4, and A3.

F-5-38

[4] The Start key is pressed.
In response, original detection is started.
For main scanning direction, the xenon lamp is turned on to check for reflected light by the CCD (4 points). For sub scanning direction, the original sensor starts detection. The absence of external light is identified as indicating the absence of an original. The machine will identify the size of an original based on the combination of the results.

F-5-39

T-5-15

AB-Configuration						Inch-Configuration			
Originals	Point of CCD detection				Original	Originals	Point of CCD detection		Originals
size	1	2	3	4	sensor	size	1	2	sensor
A3	yes	yes	yes	yes	yes	11"x 17"	yes	yes	yes
B4	yes	yes	yes	no	yes	LGL	yes	no	yes
A4R	yes	yes	no	no	yes	LTRR	yes	no	no
A4	yes	yes	yes	yes	no	LTR	yes	yes	no
B5	yes	yes	yes	no	no	None	no	no	no
B5R	yes	no	no	no	yes				
None	no	no	no	no	no	yes: reflection present		no: reflection absent	

5.3.4.7 Book Mode, 1 Original, Copyboard Cover Close

0008-7415

/ iR8070

[1] The scanner remains in wait.
No. 1 mirror base: HP
Xenon lamp: off
Original sensor: disabled

F-5-40

[2] The copyboard cover is opened.
Detection starts of external light in main scanning direction.
No. 1 mirror base: to point of original detection
Xenon lamp: off
Original sensor: disabled

F-5-41

[3] An original is set.
The width of an original is identified in terms of the presence or absence of exter-nal light; here, the external light is blocked and the absence of an original is identified, excluding B5, B4, A4, and A3.

F-5-42

[4] The copyboard cover is closed.
When the copyboard cover is brought down to 25 deg, the Copyboard cover sensor detects the "closed" state, and original size detection starts.
For main scanning direction, the xenon lamp is turned on, and the CCD checks for reflected light (4 points).
For sub scanning direction, the original sensor starts detection.

F-5-43

[5] The copyboard cover is fully closed.
The changes in the output level of each sensor are monitored until the copyboard cover is fully closed. The absence of a change is identified as indicating the absence of paper, and the size of the original is identified based on the combination of changes in level at five points

F-5-44

[6] The scanner remains in wait (for a press on the Start key).
The No. 1 mirror base moves to home position, and the scanner waits for a press on the Start key (wait state).

F-5-45

T-5-16

AB-Configuration						Inch-Configuration			
Originals	Point of CCD detection				Original	Originals	Point of CCD detection		Original
size	1	2	3	4	sensor	size	1	2	sensor
A3	yes	yes	yes	yes	yes	11"x 7"	yes	yes	yes
B4	yes	yes	yes	no	yes	LGL	yes	no	yes
A4R	yes	yes	no	no	yes	LTRR	yes	no	no
A4	yes	yes	yes	yes	no	LTR	yes	yes	no
B5	yes	yes	yes	no	no	None	no	no	no
B5R	yes	no	no	no	yes				
None	no	no	no	no	no	yes: Changes no: Does not changes			

5.3.5 Dirt Sensor Control

5.3.5.1 Detecting Dust in Stream Reading

0006-9651

iR105i/iR105+ / iR9070

In addition to the common points for stream reading, the machine uses an additional 6 points each for small-size and large-size sheets at intervals of 0.5 mm to avoid areas of dust (in total, 7 points for small-size and 7 points for large-size).
If it detects dust, however, it changes the point of reading to prevent dust from appearing in images. The detection of dust is executed at the end of each single job that uses stream reading; the machine moves the ADF belt idly when stream reading is selected and identifies any black line as an area of dust. When it detects dust, it resets the current point of stream reading, and uses the point of reference on the leftmost edge for dust detection; if dust is detected, it moves the point of stream reading to the right by 1 point (0.5 mm) for detection of dust for a second time. If dust is not detected, the machine uses that point as the point for stream reading. If dust is detected once again, it will use the next point. If dust is detected at all 7 points, the machine will indicate the message "Copyboard Glass Soiled," which will remain unit the ADF is opened and the copyboard glass is cleaned. The machine will not use stream reading but use fixed reading as long as the message remains.

F-5-46

Advise the user to clean the area where the CCD stops in stream reading if the message has appeared. A label indicating the points for stream reading (for small-size and large-size) is attached to the rear of the copyboard glass.
If a jam has occurred, the machine will not execute dust detection at the end of a job. If the ongoing job is cancelled, it will execute dust detection at the end of operation.

F-5-47

For the following, the machine can indicate the cleaning message in the absence of dust on the glass:
- The ADF feeding belt is appreciably soiled.
- CCD-ADJ/LUT-ADJ is not executed correctly.

If the message appears, clean the belt (using alcohol) or execute CCD-ADJ/LUT-ADJ.

5.4 Parts Replacement Procedure

5.4.1 Reader Unit

5.4.1.1 Removing the Reader Unit

0008-8033

/ iR8070

1) Remove the ADF.
2) Remove the upper right cover (inside)
3) Remove the rear upper cover (4 screws).
4) Remove the reader rear cover.
5) Remove the screw [1], and detach the reader fixing plate [2] and the washer [3] (1 each).
6) Remove the reader unit [4] to the rear.

F-5-48

5.4.1.2 Sliding the Reader Unit

0008-8139

/ iR8070

1) Remove the ADF.
2) Remove the upper right cover.
3) Remove the rear upper cover.
4) Remove the left upper cover.
5) Remove the screw [2] of the stopper [1].

F-5-49

6) Remove the 2 screws [1], and slide the reader unit [2] to the left.

F-5-50

5.4.2 CCD Unit

5.4.2.1 Removing the CCD Unit

0008-8120

1) Remove the reader controller cover.
2) Free the front/rear claw [2] of the CCD cover [1], and detach the CCD cover.

F-5-51

3) Remove the fixing screw [1], spring [2], and spring plate [3], and disconnect the connector (3 locations); then, disconnect the 2 flat cables [5] from the reader controller PCB, and detach the CCD unit [6].

F-5-52

5.4.2.2 Removing the CCD Unit

0007-2571

iR105i/iR105+ / iR9070

1) Remove the reader controller cover.
2) Free the front/rear claw [2] of the CCD cover [1], and detach the CCD cover.

F-5-53

3) Remove the fixing screw [1], spring [2], and spring plate [3], and disconnect the connector (3 locations); then, disconnect the 2 flat cables [5] from the reader controller PCB, and detach the CCD unit [6].

F-5-54

5.4.2.3 Removing the CCD Unit

0008-8132

/ iR8070

1) Remove the upper right cover or slide the reader unit.
2) Remove the reader right cover and detach the copyboard glass.
3) Move the No. 1 mirror base to the left end.
4) Remove the right upper cover and the right upper cover base.
5) Remove the reader left cover and the reader front cover.
6) Remove the eight screws [1], and disconnect the connector [2]; then, detach tje CCD shielding plate [3].

F-5-55

7) Remove the screw [1], and disconnect the connector [2]; then, free the cable from the cable clamp [3], and detach the original sensor unit [4].

F-5-56

8) Remove the four screws [1], and disconnect the connector [2]; then, free the flat cable [3], and free the two fixing claws [4]. Thereafter, detach the CCD unit [5].

F-5-57

5.4.2.4 When Replacing the CCD Unit

0008-4341

iR105i/iR105+ / iR9070

1) Check to make sure that the Execution/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the CCD unit.
4) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   COPIER> FUNCTION> CCD> CCD-ADJ
   COPIER> FUNCTION> CCD> LUT-ADJ
6) All items of the following will be updated; record them on the service label: COPIER>ADJUST>CCD, COPIER> ADJUST> LAMP> L-DATA.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode to make sure that the images are not displaced; if displaced, execute the following:

Book Mode
A: COPIER> ADJUST> ADJ-XY> ADJ-X
B: COPIER> ADJUST> ADJ-XY> ADJ-Y

F-5-58

Feeder Mode
C: COPIER> ADJUST> ADJ-Y-DF

F-5-59

9) Execute the following in service mode to print out a service label, and store away the service label in the service book case.

5.4.2.5 When Replacing the CCD Unit

0008-8122

1) Check to make sure that the Execution/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the CCD unit.
4) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   1. COPIER>FUNCTION>CCD>CCD-ADJ
   2. COPIER>FUNCTION>CCD>LUT-ADJ
6) All items of the following will be updated; record them on the service label: COPIER>ADJUST>CCD>**All Items**, COPIER>ADJUST>LAMP>**L-DATA**.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode to make sure that the images are not displaced; if displaced, execute the following:
   Book Mode
   A: COPIER>ADJUST>ADJ-XY>ADJ-X
   B: COPIER>ADJUST>ADJ-XY>ADJ-Y

F-5-60

Feeder Mode
C: COPIER>ADJUST>ADJ-Y-DF

F-5-61

9) Execute the following in service mode to print out a service label, and store away the service label in the service book case.

5.4.2.6 When Replacing the CCD/AP Unit

0008-8135

/ iR8070

Be sure to execute 'CCD auto adjustment' in service mode, and record the updated CCD adjustment data on the service label.

1. CCD Auto Adjustment
COPIER>FUNCTION>CCD>CCD-ADJ
2. CCD Adjustment dataall items under

COPIER>ADJUST>CCD

5.4.2.7 Points to Note when Replacing the CCD Unit

0009-0933

/ iR8070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

3) Replace the CCD unit.
4) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch.
5) Execute the following service modes in sequence:
1. COPIER>FUNCTION>CCD>CCD-ADJ
2. COPIER>FUNCTION>CCD>EGGN-POS
6) See that all items of COPIER>ADJUST>CCD is updated. Record the results on the service label.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode, and check to make sure that they are free of displaced images. Otherwise, execute the following:
Book Mode
A: COPIER>ADJUST>ADJ-XY>ADJ-X
B: COPIER>ADJUST>ADJ-XY>ADJ-Y

F-5-62

Feeder Mode
C: COPIER>ADJUST>ADJ-Y-DF

F-5-63

9) Execute the following in service mode to generate a service label; FUNCTION>MISCP> LBL-PRNT. Store the service label in the service book case.

5.4.3 Standard White Plate

5.4.3.1 Removing the Standard White Plate

0007-2558

iR105i/iR105+ / iR9070

1) Remove the copyboard glass.
2) Remove the small cover [1] for the standard white plate with a flat-blade screwdriver.

F-5-64

3) Remove the 2 screws [1], and detach the standard white plate cover [2].

F-5-65

4) Remove the 4 screws [1], and detach the standard white plate [2].

F-5-66

5.4.3.2 Removing the Standard White Plate

0008-8027

1) Remove the copyboard glass.
2) Remove the small cover [1] for the standard white plate with a flat-blade screwdriver.

F-5-67

3) Remove the 2 screws [1], and detach the standard white plate cover [2].

F-5-68

4) Remove the 4 screws [1], and detach the standard white plate [2].

F-5-69

5.4.3.3 When Replacing the Standard White Plate

0008-4342

iR105i/iR105+ / iR9070

1) Check to be sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as its power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the standard white plate.
4) Assemble the machine, and connect the power plug; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   COPIER> FUNCTION> CCD> CCD-ADJ
   COPIER> FUNCTION> CCD> LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
   COPIER> FUNCTION> MISC-P> LBL-PRNT
7) Turn off and then on the main power switch.

5.4.3.4 When Replacing the Standard White Plate

0008-8597

1) Check to be sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as its power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the standard white plate.
4) Assemble the machine, and connect the power plug; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   1. COPIER>FUNCTION>CCD>CCD-ADJ
   2. COPIER>FUNCTION>CCD>LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
   - COPIER>FUNCTION>MISC-P>LBL-PRNT
7) Turn off and then on the main power switch.

5.4.4 Scanning Lamp

5.4.4.1 Remove the Scanning Lamp/Scanning Lamp Heater

0007-1560

iR105i/iR105+ / iR9070

1) Remove the 2 screws [1], and detach the right glass retainer [2].
2) Shift the copyboard glass [3] to the right to detach; then, detach the scanning lamp cover [4].

F-5-70

3) Remove the 4 screws [1], and detach the original lamp inside cover [2].

F-5-71

4) Move the No. 1 mirror base [1] to where the scanning lamp mirror inside cover has been removed; then, remove the 2 screws [2], and detach the antireflection plate [3].

When moving the mirror base, be sure not to touch the mirror or the lamp or impose force on them to avoid dirt or damage.

F-5-72

When mounting the anti-reflection plate, be sure to fit the plate firmly in the cut-in ([2] at front, [3] at rear) of the No. 1 mirror base. Also, be sure that the connector in step 5) is firmly to the anti-reflection plate.

F-5-73

F-5-74

5) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the scanning lamp [4] from the electrode plate (front) [3].

F-5-75

6) Remove the scanning lamp [1] (w/scanning heater) to the front.

F-5-76

7) Detach the scanning lamp heater [1] from the scanning lamp [2].

F-5-77

5.4.4.2 Remove the Scanning Lamp/Scanning Lamp Heater

0008-8004

1) Remove the 2 screws [1], and detach the right glass retainer [2].
2) Shift the copyboard glass [3] to the right to detach; then, detach the scanning lamp cover [4].

F-5-78

3) Remove the 4 screws [1], and detach the original lamp inside cover [2].

F-5-79

4) Move the No. 1 mirror base [1] to where the scanning lamp mirror inside cover has been removed; then, remove the 2 screws [2], and detach the antireflection plate [3].

F-5-80

When moving the mirror base, be sure not to touch the mirror or the lamp or impose force on them to avoid dirt or damage.

When mounting the anti-reflection plate, be sure to fit the plate firmly in the cut-in ([2] at front, [3] at rear) of the No. 1 mirror base. Also, be sure that the connector in step 5) is firmly to the anti-reflection plate.

F-5-81

F-5-82

5) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the scanning lamp [4] from the electrode plate (front) [3].

F-5-83

6) Remove the scanning lamp [1] (w/ scanning heater) to the front.

F-5-84

7) Detach the scanning lamp heater [1] from the scanning lamp [2].

F-5-85

5.4.4.3 Removing the Scanning Lamp

0008-8037

/ iR8070

1) Remove the copyboard glass.
2) Remove the right upper cover and the right upper cover base.
3) Remove the reader left cover; then, detach the reader front cover.
4) Remove the reader controller PCB.
5) Move the No. 1 mirror base [1] as far as the cut-in made in the frame.
6) Remove the three screws [2] from the No. 1 mirror base, and detach the scanning lamp [3] together with the cable fixing plate [4].

F-5-86

7) Remove the four screws [1], and detach the blanking plate [2].

F-5-87

8) Disconnect the connector[2] from the inverter PCB[1].
Use a screwdriver and remove the rivet [3] out of the hole on the top of the frame. The remove the cable retainer plate [4].

F-5-88

When mounting the scanning lamp, be sure to hook the cable [1] on the pulley [3] of the No. 2 mirror base [2] without twisting it.

F-5-89

5.4.4.4 Points to Note When Replacing the Scanning Lamp

0007-1561

iR105i/iR105+ / iR9070

- Do not work if the surface of the scanning lamp is hot.
- Do not leave fingerprints on the surface of the scanning lamp.
- If the surface of the scanning lamp is soiled, dry wipe it.
- When mounting the scanning lamp heater [2] to the scanning lamp [1], be sure to fit it with reference to the marking [3]. (The connector [4] of the scanning lamp heater must be to the front of the machine.)
- Also, make sure that the distance A between the top edge of the scanning lamp and the top edge of the light opening [5] is about 6 to 7 mm when viewed from the side.
- When mounting the scanning lamp to the machine, be sure not to touch the light opening [5].

F-5-90

5.4.4.5 Points to Note When Replacing the Scanning Lamp

0008-8005

- Do not work if the surface of the scanning lamp is hot.
- Do not leave fingerprints on the surface of the scanning lamp.
- If the surface of the scanning lamp is soiled, dry wipe it.
- When mounting the scanning lamp heater [2] to the scanning lamp [1], be sure to fit it with reference to the marking [3] (The connector [4] of the scanning lamp heater must be to the front of the machine).
- Also, make sure that the distance A between the top edge of the scanning lamp and the top edge of the light opening [5] is about 6 to 7 mm when viewed from the side.
- When mounting the scanning lamp to the machine, be sure not to touch the light opening [5].
- Be sure to mount the scanning lamp so that the notation/marking is to the upper front of the machine.

F-5-91

5.4.4.6 Points to Note When Replacing the Scanning Lamp

0008-8039

/ iR8070

- Do not work while the scanning lamp is hot.
- Do not leave fingerprints on the surface of the scanning lamp.
- If the surface of the scanning lamp is soiled, dry wipe it.
- Do not touch the light window of the scanning lamp, as when mounting it.
- Do not subject the scanning lamp to impact.
- If the lamp fell, do not mount it back regardless of its condition (cracking can occur).

5.4.4.7 When Replacing the Scanning Lamp

0008-4343

iR105i/iR105+ / iR9070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long a the power plug is connected. Be sure to disconnect the power plug from the power outlet without fail.

3) Replace the scanning lamp.
4) Assemble the machine, and connector the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   COPIER> FUNCTION> CCD> CCD-ADJ
   COPIER> FUNCTION> CCD> LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
   COPIER> FUNCTION> MISC-P> LBL-PRNT
7) Turn off and then on the main power switch.

5.4.4.8 When Replacing the Scanning Lamp

0008-8582

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long a the power plug is connected. Be sure to disconnect the power plug from the power outlet without fail.

3) Replace the scanning lamp.
4) Assemble the machine, and connector the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   1. COPIER>FUNCTION>CCD>CCD-ADJ
   2. COPIER>FUNCTION>CCD>LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
   - COPIER>FUNCTION>MISC-P>LBL-PRNT
7) Turn off and then on the main power switch.

5.4.4.9 After Replacing the Scanning Lamp

0008-8584

/ iR8070

Execute'CCD auto adjustment'in service mode, and record the updated CCD adjustment
data on the service label.

1. CCD Auto Adjustment
COPIER>FUNCTION>CCD>CCD-ADJ
2. CCD Adjustment Data all items under
COPIER>ADJUST>CCD

5.4.5 Reader Controller PCB

5.4.5.1 Removing the Reader Controller PCB

0007-2511

iR105i/iR105+ / iR9070

1) Remove the original size sensor.
2) Remove the reader controller cover.
3) Disconnect all connectors on the Reader Controller PCB.
4) Disconnect the DDIS cable [1] and the 2 flexible cables [2]; then, remove the 9 screws [3] and the stepped screw [4], to detach the reader controller PCB [5] in the direction of the arrow.

F-5-92

5.4.5.2 Removing the Reader Controller PCB Unit

0008-8019

1) Remove the reader controller cover.
2) Disconnect the 8 connectors of the reader controller PCB, DDIS cable, and 2 flexible cables.
3) Remove the 8 screws [1], and detach the reader controller PCB unit [2].

F-5-93

5.4.5.3 Removing the Reader Controller PCB

0008-8138

/ iR8070

1) Remove the reader rear cover.
2) Disconnect the nine connectors [1], remove the seven screws [2], and remove the flat cable [3]; then, detach the reader controller PCB [4].

F-5-94

Do not hurt the flat cable which is removed in step 2).

5.4.5.4 Removing the Reader Controller PCB

0008-8014

1) Remove the original size sensor .
2) Remove the reader controller cover .
3) Disconnect all connectors on the Reader Controller PCB.
4) Disconnect the DDIS cable [1] and the 2 flexible cables [2]; then, remove the 9 screws [3] and the stepped screw [4], to detach the reader controller PCB [5] in the direction of the arrow.

F-5-95

5.4.5.5 When Replacing the Reader Controller PCB

0008-9603

/ iR8070

1) Print out the data on the user/service mode settings.
2) Replace the reader controller PCB.
3) Remove the EEPROM (1 pc.) from the existing PCB, and mount it to the new PCB.
4) Assemble the machine, connect the power plug, and turn on the main power switch.
5) Check to make sure that the following settings of service mode are identical with the settings that were effective before the replacement of the PCB:
   COPIER>ADJUST>AE>(all Items)
   COPIER>ADJUST>ADJ-XY>(all Items)
   COPIER>ADJUST>CCD>(all Items)

   If a discrepancy is found, enter the appropriate settings in service mode (by referring to the service label).

5.4.5.6 Removing the Reader Controller PCB Unit

0007-2781

iR105i/iR105+ / iR9070

1) Remove the reader controller cover.
2) Disconnect the 8 connectors of the reader controller PCB, DDIS cable, and 2 flexible cables.
3) Remove the 8 screws [1], and detach the reader controller PCB unit [2].

F-5-96

5.4.5.7 Points to Note When Replacing the reader controller PCB

0008-4345

iR105i/iR105+ / iR9070

1) Execute the following two items in service mode to print out settings stored under items: COPIER> FUNCTION> MISC-P> LBL-PRNT and COPIER> FUNCTION> MISCP> USER-PRT.
2) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
3) Disconnect the power plug from the power outlet.

⚠
The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the wall outlet.

4) Replace the reader controller PCB.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Execute the following in service mode: COPIER> FUNCTION> CLEAR> R-CON.
7) Turn off and then on the main power switch.
8) Execute the following in service mode: COPIER> FUNCTION> CCD> CCD-ADJ.
9) Enter the settings printed out in step 1) for the following:
- service mode
COPIER> ADJUST> ADJ-XY (4 items)
COPIER> ADJUST> LAMP (1 item)
COPIER> ADJUST> CCD (29 items)
- user mode
10) Turn off and then on the main power switch, and execute the following in service mode
to generate a service label; keep the service label in the service book case: COPIER> FUNCTION> MISC-P> LBL-PRNT.

5.4.5.8 Points to Note When Replacing the reader controller PCB

0008-8015

1) Execute the following two items in service mode to print out settings stored under items: COPIER>FUNCTION>MISC-P>LBL-PRNT and COPIER>FUNCTION>MISCP>USER-PRT.
2) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
3) Disconnect the power plug from the power outlet.

⚠
The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the wall outlet.

4) Replace the reader controller PCB.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Execute the following in service mode: COPIER>FUNCTION>CLEAR>R-CON.
7) Turn off and then on the main power switch.
8) Execute the following in service mode: COPIER>FUNCTION>CCD>CCD-ADJ.
9) Enter the settings printed out in step 1) for the following:
   - service mode
   COPIER>ADJUST>ADJ-XY (4 items)
   COPIER>ADJUST>LAMP (1 item)
   - user mode
10) Turn off and then on the main power switch, and execute the following in service mode to generate a service label; keep the service label in the service book case: COPIER>FUNCTION>MISC-P>LBL-PRNT.

5.4.6 Inverter PCB

5.4.6.1 Removing the Inverter PCB

0007-1761

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Remove the rear upper cover.
3) Remove the inverter cooling fan duct.
4) Remove the 2 screws [1], and disconnect the 7 connectors [2].

F-5-97

5) Free the left and right hooks [2] (1 pc. each) on the mounting plate of the inverter unit [1], and detach them upward.

F-5-98

6) Remove the 6 screws [1], and detach the inverter PCB [2].

F-5-99

5.4.6.2 Removing the Inverter PCB

0008-8010

1) Remove the rear cover
2) Remove the rear upper cover (2 screws)
3) Remove the inverter cooling fan duct.
4) Remove the 2 screws [1], and disconnect the 7 connectors [2].

F-5-100

5) Free the left and right hooks [2] (1 pc. each) on the mounting plate of the inverter unit [1], and detach them upward.

F-5-101

6) Remove the 6 screws [1], and detach the inverter PCB [2].

F-5-102

5.4.6.3 Removing the Inverter PCB

0008-8072

/ iR8070

1) Remove the reader controller PCB.
2) Remove the three screws [1], and detach the blanking plate [2].

F-5-103

3) Disconnect the two connectors[2] from the inverter PCB [1].

F-5-104

4) Remove the two screws [1], and pull out the inverter unit [2].

F-5-105

5) Remove the two screws [1], and disconnect the connector [2]; then, detach the inverter PCB [3].

F-5-106

Points to Note When Mounting the Inverter PCB

When fitting the inverter PCB [1] into the reader frame, be sure to fit the leading edge [2] of the frame of the inverter PCB into the mounting hole in the reader frame.

F-5-107

5.4.7 Light Intensity Control PCB

5.4.7.1 Removing the Light Adjustment PCB

0007-1760

iR105i/iR105+ / iR9070

1) Remove the copyboard glass.
2) Remove the screw [1] from the No. 1 mirror base assembly; then, while pushing down the claws [2], detach the light adjustment PCB holder.

F-5-108

3) Disconnect the connector J165 [1], and remove the screw [2]; then, detach the light adjustment PCB [3].

F-5-109

5.4.7.2 Removing the Light Adjustment PCB

0008-8009

1) Remove the copyboard glass.
2) Remove the screw [1] from the No. 1 mirror base assembly; then, while pushing down the claws [2], detach the light adjustment PCB holder.

F-5-110

3) Disconnect the connector J165 [1], and remove the screw [2]; then, detach the light adjustment PCB [3].

F-5-111

5.4.8 Transformer PCB

5.4.8.1 Removing the Transformer Unit

0007-2507

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Remove the rear upper cover (2 screws), and remove the upper left cover (3 screws).
3) Remove the inverter cooling fan duct.
4) Remove the 2 screws [1], and free the reader controller communication cable [2] from the wire saddle [3]; then, detach the transformer unit [4].

F-5-112

5.4.8.2 Removing the Transformer Unit

0008-8011

1) Remove the rear cover.
2) Remove the rear upper cover, and remove the upper left cover (3 screws).
3) Remove the 2 screws [1], and free the reader controller communication cable [2] from the wire saddle [3]; then, detach the transformer unit [4].

F-5-113

5.4.8.3 Removing the Transformer PCB

0008-8012

1) Remove the rear upper cover (2 screws).
2) Remove the inverter cooling fan duct.
3) Disconnect the connectors [1], and remove the 4 screws [2]; then, detach the transformer PCB [3].

F-5-114

5.4.8.4 Removing the Transformer PCB(iR105)

0007-2508

iR105

1) Remove the rear upper cover. (2 screws)
2) Remove the inverter cooling fan duct. (See 8.4.3.h.)
3) Disconnect the connectors [1], and remove the 4 screws [2]; then, detach the transformer PCB [3].

F-5-115

5.4.9 Original Orientation Detection PCB

5.4.9.1 Removing the Original Orientation Detection PCB

0007-2517

iR105i/iR105+ / iR9070

1) Remove the reader controller cover.
2) Remove the 3 screws [1], and remove the original orientation detection PCB [2] in the direction of the arrow.

F-5-116

5.4.9.2 Removing the Original Orientation Detection PCB

0008-8018

1) Remove the reader controller cover.
2) Remove the 3 screws [1], and remove the original orientation detection PCB [2] in the direction of the arrow.

F-5-117

5.4.10 Fuse PCB

5.4.10.1 Removing the Fuse PCB

0008-8069

/ iR8070

1) Remove the reader rear cover.
2) Remove the three screws [1], and free the fuse PCB base [2] from the ADF mounting plate.

F-5-118

3) Disconnect the connector [1], and free the harness from the edge saddle [2]; then, draw out the fuse PCB base [3] farther.

F-5-119

4) Remove the screw [1], and disconnect the three connectors [2]; then, detach the fuse PCB [3].

F-5-120

5.4.11 Scanner Motor

5.4.11.1 Removing the Scanner Motor

0007-1753

iR105i/iR105+ / iR9070

1) Remove the ADF.
2) Remove the upper right cover.
3) Remove the rear cover.
4) Remove the upper cover. (2 screws)
5) Remove the harness band [1].
6) Remove the 2 screws [2], and detach the rear over support plate [3].

F-5-121

7) Remove the right pocket plate. (3 screws)
8) Lift the upper rear cover [1], and remove the 2 screws [2]; then, detach the DF connector unit [3].

F-5-122

9) Disconnect the connector [1], and free the harness from the 2 edge saddles [2].
10) Remove the 3 screws [3], and detach the scanner motor [4].

F-5-123

REFERENCE:

When mounting it, be sure to set the tension to 10 -/+2 N (1 -/+0.2 kgf) using a spring gauge for correct positioning.

5.4.11.2 Removing the Scanner Motor

0008-8043

/ iR8070

1) Remove the reader rear cover.
2) Remove the reader controller PCB.
3) Remove the screw [1], and detach the ADF base (right) [2].
4) Remove the five screws [3], and detach the motor cover [4].

F-5-124

5) Remove the two springs [1], and remove the three screws [2]; then, while shifting the motor unit [3] in the direction of the arrow, detach the belt.

F-5-125

6) Remove the two screws [1], and detach the scanner motor [3] from the motor base [2].

F-5-126

5.4.11.3 Removing the Scanner Motor

0008-9174

1) Remove the right upper cover.
2) Remove the rear cover.
3) Remove the rear upper cover.
4) Remove the two screws [1], and detach the rear cover support plate [2].

F-5-127

5) Disconnect the connector [1], and free the harness from the 2 edge saddles [2].
6) Remove the 3 screws [3].

F-5-128

7) Slide out the scanner motor unit [1] to the front, and detach the belt; then, detach the scanner motor unit.

F-5-129

REF.
When mounting it, set the tension of the belt to 10 ±2N (1 ±0.2 kgf).

5.4.11.4 Mounting the Scanner Motor

0008-8048

/ iR8070

1) Attach the belt [3] to the pulley [2] of the scanner motor [1].
2) Fit the motor base to its position, fit the two springs to provide tension to the belt; then, secure it in place with three screws (See 3.9.5 Use the springs and the screws removed in step 5)).

F-5-130

5.4.12 Copyboard Cover Open/Close Sensor

5.4.12.1 Removing the Copyboard Cover Sensor

0008-8068

/ iR8070

1) Remove the reader rear cover.
2) Remove the three screws [1], and detach the fuse PCB base [2].

F-5-131

3) Disconnect the connector [1], and remove the screw [2]; then, detach the copyboard cover sensor cover [3] and the copyboard cover sensor [4].

F-5-132

5.4.13 Original Size Sensor

5.4.13.1 Removing the Original Size Sensor 1/2

0007-2546

iR105i/iR105+ / iR9070

1) Remove the copyboard glass.
2) Move the No. 1 mirror base to the right edge.
3) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the original size sensor unit (front) [3].

F-5-133

4) Disconnect the connector [1] (1 pc. each), and detach the original size 1/2 [2].

F-5-134

5.4.13.2 Removing the Original Size Sensor 1/2

0008-8020

1) Remove the copyboard glass.
2) Move the No. 1 mirror base to the right edge.
3) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the original size sensor unit (front) [3].

F-5-135

4) Disconnect the connector [1] (1 pc. each), and detach the original size sensor 1/2 [2].

F-5-136

5.4.13.3 Removing the Original Size Sensor

0008-8063

/ iR8070

1) Remove the copyboard glass.
2) Move the No. 1 mirror base to the left end.
3) Remove the screw [1], and disconnect the connector [2]; then, free the cable from the cable clamp [3], and detach the original sensor unit [4].

F-5-137

When removing the original sensor, take care not to damage it against the cable [5].

5.4.13.4 Removing the Original Size Sensor 3/4

0007-2547

iR105i/iR105+ / iR9070

1) Remove the copyboard glass.
2) Move the No. 1 mirror base to the left edge.
3) Remove the screw, and disconnect the connector [2]; then, detach the original size sensor unit (rear) [3].

F-5-138

4) Disconnect the connector [1] (1 pc. each), and detach the original size sensor 3/4 [2].

F-5-139

5.4.13.5 Removing the Original Size Sensor 3/4

0008-8021

1) Remove the copyboard glass.
2) Move the No. 1 mirror base to the left edge.
3) Remove the screw, and disconnect the connector [2]; then, detach the original size sensor unit (rear) [3].

F-5-140

4) Disconnect the connector [1] (1 pc. each), and detach the original size sensor 3/4 [2].

F-5-141

5.4.14 Scanner Home Position Sensor

5.4.14.1 Removing the HP Sensor

0008-8611

/ iR8070

1) Remove the ADF unit from the reader unit.
2) Remove the reader rear cover.
3) Remove the screw [1], and detach the ADF base (left) [2].
4) Remove the three screws [3], and detach the fuse base [4].

F-5-142

5) Remove the screw [1], and detach the sensor base [2]; then, disconnect the connector [3], and detach the HP sensor [4] from the base.

F-5-143

5.4.14.2 Removing the Scanner Home Position Sensor

0008-8023

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1]; then, disconnect the connector [2], remove the screw [3], and detach the sensor mounting plate [4].

F-5-144

3) Disconnect the connector [1], and remove the screw [2]; then, detach the scanner home position sensor [3].

F-5-145

5.4.14.3 Removing the Scanner Home Position Sensor

0007-2549

iR105i/iR105+ / iR9070

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1]; then, disconnect the connector [2], remove the screw [3], and detach the sensor mounting plate [4].

F-5-146

3) Disconnect the connector [1], and remove the screw [2]; then, detach the scanner home position sensor [3].

F-5-147

5.4.15 Copyboard Glass Sensor

5.4.15.1 Removing the Copyboard Glass Sensor

0007-2552

iR105i/iR105+ / iR9070

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1], and remove the screw [2]; then, detach the sensor mounting plate [3].

F-5-148

3) Disconnect the connector [1], and detach the copyboard glass sensor [2].

F-5-149

5.4.15.2 Removing the Copyboard Glass Sensor

0008-8024

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1], and remove the screw [2]; then, detach the sensor mounting plate [3].

F-5-150

3) Disconnect the connector [1], and detach the copyboard glass sensor [2].

F-5-151

5.4.16 Image Leading Edge Sensor

5.4.16.1 Removing the Image Leading Edge Sensor

0007-2555

iR105i/iR105+ / iR9070

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1]; then, disconnect the connector [2], remove the screw [3], and detach the sensor mounting plate [4].

F-5-152

3) Disconnect the connector [1], remove the screw [2], and detach the image leading edge sensor [3].

F-5-153

5.4.16.2 Removing the Image Leading Edge Sensor

0008-8025

1) Remove the transformer unit.
2) Free the harness from the wire saddle [1]; then, disconnect the connector [2], remove the screw [3], and detach the sensor mounting plate [4].

F-5-154

3) Disconnect the connector [1], remove the screw [2], and detach the image leading edge sensor [3].

F-5-155

5.4.17 Scanner Drive Cable

5.4.17.1 Adjusting the Tension of the Scanner Drive Cable

0007-1755

iR105i/iR105+ / iR9070

When attaching the scanner cable, be sure to keep a mirror positioning tool (FY9-3040) on hand.
1) Remove the ADF.
2) Remove the copyboard glass.
3) Remove the upper front cover unit.

4) Remove the inverter unit.
5) Move the No. 1 mirror case where the cable fixing [1] of the base is visible from the opening in the side plate of the machine.

F-5-156

F-5-157

When moving the mirror base, be sure not to touch the mirror or the lamp or impose force to avoid dirt and damage.

6) Fit the scanner cable on the pulley and the hook as indicated.

F-5-158

7) Fit the mirror positioning tool [1] between the No. 1 mirror base and the No. 2 mirror base; then, fit the pin [2] attached to the mirror positioning tool.
(front)

F-5-159

(rear)

F-5-160

8) Secure the cable fixing [1] that was temporarily fixed in place in step 6) by tightening the 2 screws [2] from the opening in the side plate.
(front)

F-5-161

(rear)

F-5-162

9) Detach the mirror positioning tool.
10) Reverse steps 1) through 4).

5.4.17.2 Adjusting the Tension of the Scanner Drive Cable

0008-8007

When routing the scanner drive cable, be sure to have a mirror positioning tool (FY9-3040-000) ready.
1) Remove the ADF.
2) Remove the copyboard glass.
3) Remove the control panel
4) Remove the rear cover and the rear upper cover.
5) Remove the inverter PCB unit .
6) Move the No. 1 mirror base to where the cable fixing [1] of the No. 1 mirror base is in view through the hole in the machine side plate.

Front

F-5-163

Rear

F-5-164

7) Fit the scanner cable on the pulley and the hook as indicated.

F-5-165

8) Fit the mirror positioning tool [1] between the No. 1 mirror base and the No.2 mirror base; then, fit the pin [2] attached to the mirror positioning tool.

(front)

F-5-166

(rear)

F-5-167

9) Secure the cable fixing [1] that was temporarily fixed in place in step 6) by tightening the 2 screws [2] from the opening in the side plate.
(front)

F-5-168

(rear)

F-5-169

10) Detach the mirror positioning tool.
11) Reverse steps 1) through 4).

5.4.17.3 Removing the Scanner System Drive Cable

0008-8050

/ iR8070

Obtain the following before starting to replace the scanner drive cable:
- mirror positioning tool (FY9-3009)

1) Remove the ADF.
2) Remove the copyboard glass.
3) Remove the reader left cover and the reader front cover.
4) Remove the motor cover.
5) Remove the five screws [1], and detach the PCB base [2].

F-5-170

6) Remove the screw [1], and detach the ADF base (left) [2]; then, remove the three screws [3], and detach the copyboard sensor base [4].

F-5-171

7) Remove the 15 screws [1], and remove the two screws [2]; then, detach the reader upper frame [3].

F-5-172

8) Remove the two cable fixing screws [2] of the No. 1 mirror base [1].
9) Remove the two springs [3] used to secure the cable in place.
10) Remove the cable fixing plate [4] and each pulley cable.

F-5-173

5.4.17.4 Removing the No. 1 Mirror Case Flexible Cable

0007-1759

iR105i/iR105+ / iR9070

Do not disconnect the connector (connected to the No. 1 mirror base) of the flexible cable unless you are replacing the No. 1 mirror base. (Clean the mirror without detaching the cable.)

---

1) Remove the right glass retainer. (2 screws)
2) Remove the copyboard.
3) Move the No. 1 mirror base [1] to the center.

F-5-174

When moving the mirror base, be sure not to touch the mirror or the lamp or impose force to avoid dirt or damage.

4) Peel off the Warning label [1] from the flexible cable [2].

F-5-175

5) Push in the claw [1] inside to free the flexible cable fixing plate [2] of the connector.

F-5-176

6) Using a small screwdriver [1], push the 2 protrusions [3] used to hook the flexible cable [2]) to disconnect the cable from the connector.

F-5-177

- When mounting it, butt and keep the flexible cable against the rearmost, and push in the fixing plate while holding it level.
- When pushing in the fixing plate, take care not to touch the reflecting plate.

5.4.17.5 Removing the No. 1 Mirror Case Flexible Cable

0008-8008

Do not disconnect the connector(connected to the No. 1 mirror base) of the flexible cable unless you are replacing the No. 1 mirror base (Clean

the mirror without detaching the cable).

1) Remove the right glass retainer (2 screws).
2) Remove the copyboard.
3) Move the No. 1 mirror base [1] to the center.

F-5-178

When moving the mirror base, be sure not to touch the mirror or the lamp or impose force to avoid dirt or damage.

4) Peel off the Warning label [1] from the flexible cable [2].

F-5-179

5) Push in the claw [1] inside to free the flexible cable fixing plate [2] of the connector.

F-5-180

6)Using a small screwdriver [1], push the 2 protrusions [3] used to hook the flexible cable [2]) to disconnect the cable from the connector.

F-5-181

- When mounting it, butt and keep the flexible cable against the rearmost, and push in the fixing plate while holding it level.
- When pushing in the fixing plate, take care not to touch the reflecting plate.

5.4.17.6 Routing the Scanner Drive Cable

0008-8055

/ iR8070

Route the scanner cable to each pulley and hook mirror base in the order indicated:
1) Loosen the screw on the cable fixing plate.
2) Fit the ball of the cable into the hole of the drive pulley, and wind the cable (4 times inward,
5 times outward); then, tape it in place. When winding, be sure that the

cable metal fixing is inside.
3) Hook the cable on each pulley, and temporarily fix one end to the cable fixing plate and the other end to the hook of the reader frame.
4) Temporarily fix the cable metal fixing to the No. 1 mirror base (Do not fully secure it).
5) Mount the reader paper frame.

F-5-182

When mounting the reader upper frame, be sure to go through the following steps:

1) Fit the ten claws [1] of the reader frame correctly into the cut-offs in the reader upper frame.
2) Secure the positions [2] of the six left/ right claws using screws.
3) Fit the two screws [3] at the end.

F-5-183

5.4.17.7 Positioning the No. 1/2 Mirror Base

0008-8059

/ iR8070

1) Set the pins of the mirror position tool as indicated.

F-5-184

2) Insert the pins of the mirror positioning tool (front [2]/rear [3]) into each of the holes [1]: No. 1 mirror base, No. 2 mirror base, and rail. The position of the No. 2 mirror base is adjusted by sliding the cable fixing plate to the front and the rear.

F-5-185

F-5-186

3) Secure the end of the cable so far temporarily fixed to the hook of the reader frame using a spring.
4) Fully tighten the screw on the cable fixing plate.
5) Fully tighten the cable metal fixing on the No. 1 mirror base.
6) Detach the mirror positioning tool.
7) Reverse steps 1) through 6) for mounting.

Chapter 6 Image Processing System

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6.1 Outline

6.1.1 Outline of the Image Processing System

0006-9656

iR105i/iR105+ / iR9070

The image processing system has the following major functions:
- CCD (image sensor)
  number of lines: 1; number of pixels: 7500; pixel size: 7 x 7 um
- Shading Correction
  shading adjustment: executed in service mode
  shading correction: executed for each copy
- Auto Density Adjustment (AE)
  executed for each single line in main scanning direction

The following is the functional construction of the image processing system:

F-6-1

Each PCB of the image processing system has the following functions:
[1] CCD/AP PCB
  CCD drive, analog image processing, A/D conversion
[2] Reader Controller PCB
  shading correction, auto density adjustment (AE), image data conversion (4 channels -> 2 channels)

6.1.2 Outline

0008-9640

/ iR8070

The major functions of the image processing system are as follows:

- CCD (image sensor)
  Number of lines: 1
  Number of pixels: 7450
  Size of pixel: 4.7 x 4.7 um
- Shading Correction
  Shading adjustment: executed in service mode
  Shading correction: executed for each copy
- Auto Density Adjustment (AE)
  Executed for each line in main scanning direction.

The image processing system consists of the following functional blocks:

F-6-2

Each of the PCBs used in the image processing system has the following functions:

[1] CCD/AP PCB: Drives the CCD, performs analog image processing, performs A/Dconversion.
[2] Reader controller PCB: Performs shading correction, performs auto density adjustment (AE).

6.2 Analog Image Processing

6.2.1 Analog Image Processing

0006-9678

iR105i/iR105+ / iR9070

Analog image processing is performed by the CCD/AP PCB, and it mainly consists of the following:
- CCD drive
- CCD output gain correction, offset correction
- CCD output A/D conversion

[1] 1st half even-numbered pixel analog image signal
[2] 1st half odd-numbered pixel analog image signal
[3] 2nd half even-numbered pixel analog image signal
[4] 2nd half odd-numbered pixel analog image signal
[5] 1st half even-numbered pixel digital image signal
[6] 1st half odd-numbered pixel digital image signal
[7] 2nd half even-numbered pixel digital image signal
[8] 2nd half odd-numbered pixel digital image signal

F-6-3

6.2.2 Outline

0008-9641

/ iR8070

Analog image processing is performed by the CCD/AP PCB, which has the following major functions:
[1] Drives the CCD.
[2] Corrects the gain in the CCD output, corrects offset.
[3] Performs A/D conversion of CCD output.

F-6-4

6.2.3 Driving the CCD

0008-9642

/ iR8070

The machine's CCD sensor is a single-line linear image sensor, and is composed of 7450 pixel photo cells.
The signals subjected to phtoconversion in the light-receiving segment are sent out in two types of analog signals: even-number (EVEN) pixels and odd-number (ODD) pixels.

F-6-5

6.2.4 Gain Correction and Offset Correction of the CCD Output

0008-9643

/ iR8070

To correct discrepancies in the efficiency of photoconversion among pixels, the analog video signals from the CCD are corrected: in gain correction, the rates of amplification are standardized; in offset correction, on the other hand, the output voltage in the absence of incoming light is set to a specific level.

6.2.5 A/D Conversion of the CCD Output

0008-9644

/ iR8070

The analog video signals of odd-number and even-number pixels after correction are converted into 8-bit digital signals that correspond to specific pixel voltage levels by the A/D converter.

Service Mode:
- COPIER/ADJUST>ADJ-XY>ADJ-Y (CCD read start position adjustment)
It is used to adjust the parameter used determining the read start position in main scanning direction.
Range: 100 to 400
(A change by '1' results in a shift of 0.1 mm.)

F-6-6

6.2.6 4-Channel High-Speed Reading CCD

0006-9671

iR105i/iR105+ / iR9070

To support high-speed reading at 80 ipm, the machine uses a 4-channel high-speed reading CCD. It consists of two CCDs connected to form a single entity (each, half length of a common CCD); the entire CCD is divided in the middle into first half and last half.
Reading starts simultaneously at both left and right sides, thereby cutting the data transfer time required for reading by half and ultimately enabling high-speed reading.
The image data is divided into 4 channels: first-half even-numbered pixels, first-half odd-numbered pixels, last-half even-numbered pixels, and last-half odd-numbered pixels. The following diagram shows how CCD data is transferred:

F-6-7

6.2.7 CCD Adjustment

0006-9676

iR105i/iR105+ / iR9070

As mentioned, the CCD consists of two segments. If the CCD gain characteristics differ between its first half and its last half, the image density read on the left side and the right side of its joint will differ, causing a discrepancy in density in the image.
If the reader controller PCB or the CCD/AP PCB is replaced or when the CCD correction data stored in the S-RAM of the reader controller PCB is lost, CCD correction must be executed in service mode, thereby making the gain around the joint between first half and lat half virtually the same. The parameters that occur after adjustment will all be stored in the S-RAM on the reader controller PCB.

The following three methods may be used for adjustment:

SERVICE MODE:
A. COPIRE> FUNCTION> CCD> CCD-ADJ (shading auto correction)
Use it to execute shading corretion for the CCD.
B. COPIRE> FUNCTION> CCD> LUT-ADJ (gain simple correction)
Use it to execute CCD gain correction with a blank sheet.
C. COPIRE> FUNCTION> CCD> LUT-ADJ2 (gain full correction)
Use it if CCD simple correction fails. Use it with the 10-Gradation Chart.

Use any of the above methods as needed.

Start with A, and then B; if both fail, execute C. Do not move to B or C without correctly executing A.

6.3 Digital Image Processing

6.3.1 Digital Image Processing

0006-9680

iR105i/iR105+ / iR9070

Digital image processing is performed by the reader controller PCB, and it mainly consists of the following:
- shading correction
- auto density correction (AE)
- conversion of 4-channel pixel data to 2-channel pixel data

[1] 1st-half even-numbered pixel digital image signal
[2] 1st-half odd-numbered pixel digital image signal
[3] 2nd-half even-numbered pixel digital image signal
[4] 2nd-half odd-numbered pixel digital image signal
[5] even-numbered pixel digital image signal
[6] odd-numbered pixel digital image signal

F-6-8

6.3.2 Outline

0008-9645

/ iR8070

Digital image processing is performed by the reader controller PCB, which has the following major functions:

[1] Shading correction
[2] Auto density adjustment (AE)

F-6-9

6.3.3 Detecting the Orientation of Originals

0006-9682

iR105i/iR105+ / iR9070

The orientation of an original placed in the ADF is detected in relation to the direction of the test area of the original by reading text data. On the other hand, the machine detects the orientation of only the first original, and uses the detected orientation as a reference for changes needed for subsequent pages. The machine uses the result of detection to determine the following:
- binding margin position
- stapling position
- layout orientation for reduced page composition

As needed, the machine rotates the image, thereby reducing waste of paper. The time it saves from not having to detect the orientation of all originals also helps increase its productivity.

F-6-10

6.3.4 Shading Correction

0008-9646

/ iR8070

a. Outline
The output of the CCD will not necessarily be uniform because of the following factors even if the density of the original in question is perfectly uniform:

(1) The level of sensitivity of a CCD pixel differs from that of another.
(2) The level of penetration of light differs between the center and the periphery of a lens.
(3) The intensity of the scanning lamp differs between the middle and the ends of the lamp.
(4) The scanning lamp is subject to deterioration.

Shading correction is executed to correct discrepancies in the output of the CCD, and it may be of either of the following two: shading adjustment used to determine a target level in service mode and shading correction executed when scanning each original.
To make up for the fluctuations in the intensity of light occurring at short intervals, edge
area gain correction is also executed.

b. Shading Adjustment
In this adjustment, the density of white paper and that of the standard white plate are measured, and the results are stored in memory.
The data is computed for use as the target level during shading correction. The adjustment is designed for service mode and is used upon installation of the machine, after replacement of the scanning lamp, or when correcting changes in the intensity of the scanning lamp occurring over time.

c. Shading Correction
This correction is executed each time an original is scanned. The density of the standard white plate is measured and the result is compared against the target value stored in the shading correction circuit. The difference is used as the shading correction value, which will be used to correct the variation in CCD pixels, thereby ensuring a specific level of image density.

F-6-11

d. Edge Gain Correction (ADF in use)
In stream reading with the ADF in use, the No. 1 mirror base is fixed in position. To check for changes in the intensity of the scanning lamp, the edge gain correction plate (gray; mounted at the edge of read position) is read, and a gain that enables the attainment of a specific intensity is computed.
The result is used to correct the data which otherwise would be affected by changes in the intensity of light (Not executed if AE is selected).

F-6-12

6.3.5 Auto Density Adjustment (AE)

0008-9650

/ iR8070

a. Outline
As in the case of a newspaper, some originals have a dark background. Auto density correction is executed to reproduce the information (text, graphics) of such originals by removing the background.
This adjustment is enabled in density auto mode or when text mode is selected and data is processed by the ABC circuit.
b. ABC Circuit
A colored background is identified as being white by changing the height of the dynamic range according to the chromatic level of the background as shown in the following figure for the CCD output level (8bit) of digital image signals (A/D converted).

F-6-13

Service Mode:
- COPIER > FUNCTION > CCD > CCD-ADJ (shading auto adjustment)
  Execute the mode after replacing the CCD unit, scanning lamp, reader controller PCB, or standard white plate.
- COPIER > FUNCTION > CCD > EGGN-POS (Auto adjustment of the end gain correction position)
Execute the mode after replacing the CCD unit, Mirror plate 1 or 2.

Service Mode:
- COPIER>ADJUST>CCD>PPR (density data of standard white paper)
- COPIER>ADJUST>CCD>PLT (density data of standard white plate)
- COPIER>AJDUST>CCD>GAIN-E/O (gain adjustment input of CCD output)
- COPIER>ADJUST>CCD>OFST-E/O (offset adjustment input of CCD output)
- COPIER>ADJUST>CCD>SH_RATIO (white level ratio data of standard white plate and standard white paper during shading correction)
  If a faulty image is generated after executing shading auto adjustment, enter the parameter values indicated on the service label.

- COPIER> ADJUST> CCD> EGGN-ST (Enter an adjustment value for the end gain correction start position)
- COPIER> ADJUST> CCD> EGGN-END (Enter an adjustment value for the end gain correction end position)
  Enter the edge gain correction value on the service label.

Service Mode:
- COPIER>ADJUST>AE>AE-TBL (text density adjustment for realtime AE mode)
  Use it to change the parameter for adjustment of the density correction curve (for real-time AE mode; 10 steps).
  Range: 0 to 9 (default: 5)

F-6-14

Chapter 7 Laser Exposure

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7.1 Construction

7.1.1 Outline of the Laser Exposure System

0007-0533

iR105i/iR105+ / iR9070

The laser exposure system consists of a laser unit (source of laser beams) and a polygon mirror. It scans the photosensitive drum (main scanning direction) to create a latent static image. It is a twin-laser mechanism (laser A, laser B).

F-7-1

T-7-1

Component	Description
Laser semi-conductor	Visible laser light (wave length: 675 nm; output: 7 mW), twin-laser exposure
Laser scanner motor (M4)	DC motor, 2-speed control; rotation speed: 44000 rpm
Polygon mirror	8-face
BD mirror/BD PCB	Used to detect laser beams.
Laser driver PCB	Used to control laser activation.
Scanner motor driver PCB	Used to control the rotation of the laser scanner motor.

7.1.2 Outline of the Laser Exposure System

0008-7437

/ iR85+ / iR8070

The laser exposure system consists of a laser unit (source of laser beams) and a polygon mirror. It scans the photosensitive drum (main scanning direction) to create a latent static image. It is a twin-laser mechanism (laser A, laser B).

F-7-2

T-7-2

Component	Description
Laser semi-conductor	Visible laser light (wave length: 675 nm; output: 7 mW), twin-laser exposure
Laser scanner motor (M4)	DC motor, 2-speed control; rotation speed: 40000 rpm
Polygon mirror	8-face
BD mirror/BD PCB	Used to detect laser beams.
Laser driver PCB	Used to control laser activation.
Scanner motor driver PCB	Used to control the rotation of the laser scanner motor.

7.2 Basic Sequence

7.2.1 Basic Sequence of Operations (laser exposure system)

0006-9486

iR105i/iR105+ / iR9070 / iR8070

F-7-3

7.2.2 Basic Sequence

0008-8680

iR85+

F-7-4

7.3 Various Controls

7.3.1 Controlling the Laser Activation Timing

7.3.1.1 Flow of the BD Signal

0006-9490

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-7-5

T-7-3

Related Service Mode	
COPIER>ADJUST>LASER>PVE-OFST (laser projection position adjustment)	If you have replaced the image processor PCB or initialized the RAM on the image processor PCB, enter the adjustment value. Setting range: -300 to 300 Lower setting (front) ← Laser B → Higher setting (rear) Note that the laser A move in sync with the laser B.

T-7-4

Related Error Code	
E100 (BD error)	[1] If the BD signal is not detected within a specific period of time. [2] See the descriptions under "Controlling the Laser Intensity."

7.3.2 Controlling the Intensity of Laser Light

7.3.2.1 Outline

0006-9495

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following figure shows items of control related to the laser driver circuit:
[1] Turning on and off the laser.
[2] Controlling the intensity of the laser.

F-7-6

7.3.2.2 Controlling Laser Activation

0006-9518

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following figure shows the construction of the system used to control laser activation.

F-7-7

T-7-5

Related Service Mode	
COPIER> ADJUST> LASER>LA-PWR-A, B (laser power adjustment input)	If you have replaced the laser unit or the IP PCB, or initialized the RAM on the IP PCB, enter the value recorded on the label attached to the laser unit.
COPIER> FUNCTION> LASER> POWERA, B (laser power adjustment activation)	Use this mode to turn on the laser when checking laser activation.

7.3.2.3 Controlling the Laser Intensity

0006-9527

iR105i/iR105+ / iR9070 / iR85+

The laser is controlled for the following:
[1] Laser power auto control (APC control).
[2] Intensity control to suit the surface potential of the drum.

F-7-8

T-7-6

Related Error Code	
E100 (laser intensity error)	[1] See the descriptions under II. "Generating the BD Signal." [2] The intensity of the laser fails to reach a specific level.

7.3.3 Controlling the Laser Scanner Motor

7.3.3.1 Outline

0006-9537

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The laser scanner motor is controlled for the following:
[1] Constant speed rotation control
[2] Full-speed/wait rotation switching

F-7-9

T-7-7

Related error code	
E110 (laser scanner rotation speed error)	[1] LM-RDY* goes '1' when the motor is rotating (i.e., when LM-ON is '0'). [2] LM-RDY* does not go '0' within a specific period of time.

7.4 Parts Replacement Procedure

7.4.1 Laser Scanner Unit

7.4.1.1 Removing the Laser Unit

0007-2596

iR105i/iR105+ / iR9070

1) Remove the CCD unit.
2) Remove the reader PCB unit.
3) Remove the 6 screws [1], and detach the laser driver PCB cover [2].

F-7-10

4) Disconnect the 4 connectors [1], and remove the video cable [2]; then, remove the 8 screws [3], and detach the laser scanner unit [4].

F-7-11

7.4.1.2 Removing the Laser Unit

0008-8142

1) Remove the CCD unit.
2) Remove the reader PCB unit.
3) Remove the 6 screws [1], and detach the laser driver PCB cover [2].

F-7-12

4) Disconnect the 4 connectors [1], and remove the video cable [2]; then, remove the 8 screws [3], and detach the laser scanner unit [4].

F-7-13

7.4.1.3 Removing the Laser Unit

0008-8151

/ iR8070

1) Slide the reader unit.
2) Remove the 6 screws [1], and detach the laser driver PCB cover [2].

F-7-14

4) Disconnect the 4 connectors [1], and remove the video cable [2]; then, remove the 8 screws [3], and detach the laser scanner unit [4].

F-7-15

7.4.1.4 Removing the Laser Unit

0008-8681

iR85+

1) Remove the left lower cover (4 mounting screws).
2) Remove the left upper cover (9 mounting screws).
3) Remove the upper cover (left) [1] (3 mounting screws [2]).

F-7-16

4) Remove the 2 face covers[2] on the top plate[1].

F-7-17

5) Remove the top plate [1] (2 mounting screws [2]).

F-7-18

6) Remove the 6 mounting screws [1], and detach the laser drive PCB cover [2].

F-7-19

7) At this item, free the harness from the edge saddle [1].

F-7-20

8) Disconnect the 4 connectors [1] and the video cable [2]; then, remove the 8mounting screws [3], and detach laser scanner unit [4].

F-7-21

7.4.1.5 Points to Note When Replacing the Laser Unit

0008-4353

iR105i/iR105+ / iR9070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF; then, turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected to the power outlet. Be sure to disconnect it.

3) Replace the laser unit.
4) Record the values (LA-DELAY) indicated on the label attached to the new laser unit.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Enter the values recorded in step 4) using service mode: COPIER> ADJUST> LASER> LA-DELAY.

7.4.1.6 Points to Note When Replacing the Laser Unit

0008-9206

/ iR85+ / iR8070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF; then, turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected to the power outlet. Be sure to disconnect it.

3) Replace the laser unit.
4) Record the values (LA-DELAY) indicated on the label attached to the new laser unit.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Enter the values recorded in step 4) using service mode: COPIER>ADJUST>LASER>LA-DELAY.

7.4.2 BD Unit

7.4.2.1 Removing the BD Unit

0007-2674

iR105i/iR105+ / iR9070

1) Remove the stream read fan duct.
2) Remove the 3 screws [1], and disconnect the 2 connectors [2]; then, remove the laser fan unit [3].
3) Slide out the process unit.

F-7-22

4) Mark the position of the BD unit [1] with a scriber for later reference.
5) Remove the screw [2], and slide out the BD unit [1] to the front.

F-7-23

6) Disconnect the connector [1], and take out the BD unit [2].

F-7-24

7.4.2.2 Removing the BD Unit

0008-9207

/ iR85+ / iR8070

1) Remove the inside upper cover.
2) Remove the 3 screws [1], and disconnect the 2 connectors [2]; then, remove the laser fan unit [3].
3) Slide out the process unit.

F-7-25

4) Mark the position of the BD unit [1] with a scriber for later reference.
5) Remove the screw [2], and slide out the BD unit [1] to the front.

F-7-26

6) Disconnect the connector [1], and take out the BD unit [2].

F-7-27

Chapter 8 Image Formation

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8.1 Construction

8.1.1 Outline

0006-9551

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the major functions of the image formation system.

T-8-1

Item	Pre-exposure
Pre-exposure	LED array (64 LEDs) ON/OFF control
Primary charging	DC constant current control (switched among 3 settings in service mode)
Grid bias	DC constant voltage control (determined by potential control)
Developing bias	AC constant voltage control (ON/OFF control only) DC constant voltage control (determined by potential control)
Dust-collecting roller bias	DC constant voltage control (ON/OFF control only; +1000 V)
Pre-transfer charging	AC constant current control (fuzzy control by an environment sensor) DC constant voltage control
Transfer guide bias control	DC constant voltage control (switched according to temperature/humidity)
Transfer charging	DC constant current control (fuzzy control by an environment sensor)
Separation charging	DC constant current control (fuzzy control by an environment sensor and toner deposit) AC constant voltage control
Potential	[1] Setting the optimum grid bias. [2] Setting the optimum laser output. [3] Setting the optimum developing bias (DC).
Wire auto cleaning	[1] Primary charging wire [2] Pre-transfer charging wire

8.1.2 Outline of the Image Formation System(iR105)

0006-9709

iR105

The major changes made to the image formation system are as follows:
- photosensitive drum
- pre-transfer exposure LED (added)
- measures against overheating of developing unit
- measures for enhanced image quality for developing unit
- measures against overheating of cleaning blade

For others, see T02-502-01 for a table of differences.

F-8-1

F-8-2

T-8-2

Unit/location	Changes to GP605 (iR600)	Purpose of change	Remarks	Reference
Photosensitive drum	Increased the charging capacity of the photopositive drum.	To support higher speed of operation.		

Unit/location	Changes to GP605 (iR600)	Purpose of change	Remarks	Reference
Pre-transfer charging assembly	Added a pre-transfer exposure unit.	To improve separation.		5.3 Addition of the Pre-Transfer Exposure Unit
Developing assembly	Added a developing fan for cooling the developing assembly to the front.	To cool the developing assembly.		5.5 Addition of theDeveloping Fan
	Changing the developing cylinder cover to a heat sink shape.	To enhance cooling of the developing assembly.		5.6 Modifying the Developing Cylinder Cover
	Modifying the developing cylinder	To enhance image quality.		
	Changing the developing bias Vp-p (1.2 kV).	To enhance image quality.		
	Modifying the developing contrast.	To enhance image quality.		
Transfer separation charging assembly	Changing the transfer charging wire height to 9.5 -/+ 0.3 mm.	For enhance transfer performance.	In the GP605 (iR600), 9.6 -/+ 0.4 mm.	
	Changing the No. 2 separation wire height to 17.1 -/+ 0.3 mm. (other charging wires same as GP605 (iR600))	To enhance separation performance.	In the GP605 (iR600), 15.7 -/+ 0.3 mm.	
	Increasing the frequency of the separation AC voltage to 10.0 kV/2 kHz.	To enhance separation performance.	In the GP605 (iR600), 10.5 kV/ 700 Hz.	
Cleaner	Changed the air flow. (added slit to polygon primary duct)	To cool the cleaning blade.		
	Blade vibration unit added.	To prevent adhesion of toner to the cleaning blade.		See 5.7 "Measures Against Adhesion of Toner to the Cleaning Blade."

8.1.3 Major Components

0006-9562

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the major components of the image formation system.

F-8-3

8.1.4 Pre-Transfer Exposure LED

0006-9749

iR105i/iR105+

The machine uses a process speed of 500 mm/sec to support a copying speed of 105 pages/min (A4, Direct). To make up for the decrease in charging on the photosensitive drum caused by the increase in the process speed, the machine uses a photosensitive drum with a high degree of charging capacity and a pre-exposure lamp with a short wave length (660 nm), thus ensuring a specific degree of charging.
The higher process speed also decreases static charges used for separation; the pre-transfer exposure LED is used to compensate for the decrease:

MEMO:
Pre-Transfer Exposure
Function: In an initial phase of the transfer process, the charges on the photosensitive drum (background potential) are reduced in advance, thereby weakening the stack bonding between the photosensitive drum and the transfer paper and ultimately encouraging separation.
Timing: The LED is turned on 100 msec before the leading edge of an image reaches a specific point until its trailing edge leaves it

8.1.5 Pre-Transfer Exposure LED

0009-0803

iR9070

The machine uses a process speed of 500 mm/sec to support a copying speed of 90 pages/min (A4, Direct). To make up for the decrease in charging on the photosensitive drum caused by the increase in the process speed, the machine uses a photosensitive drum with a high degree of charging capacity and a pre-exposure lamp with a short wave length (660 nm), thus ensuring a specific degree of charging.
The higher process speed also decreases static charges used for separation; the pre-transfer exposure LED is used to compensate for the decrease:

MEMO:
Pre-Transfer Exposure
Function: In an initial phase of the transfer process, the charges on the photosensitive drum (background potential) are reduced in advance, thereby weakening the stack bonding between the photosensitive drum and the transfer paper and ultimately encouraging separation.
Timing: The LED is turned on 100 msec before the leading edge of an image reaches a specific point until its trailing edge leaves it

8.1.6 Pre-Transfer Exposure LED

0008-8683

iR85+

The machine uses a process speed of 450 mm/sec to support a printing speed of 85 pages/min (A4/LTR). To make up for the decrease in charging on the photosensitive drum caused by the increase in the process speed, the machine uses a photosensitive drum with a high degree of charging capacity and a pre-exposure lamp with a short wave length (660 nm), thus ensuring a specific degree of charging.
The higher process speed also decreases static charges used for separation; the pre-transfer exposure LED is used to compensate for the decrease:

MEMO:
Pre-Transfer Exposure
Function: In an initial phase of the transfer process, the charges on the photosensitive drum (background potential) are reduced in advance, thereby weakening the stack bonding between the photosensitive drum and the transfer paper and ultimately encouraging separation.
Timing: The LED is turned on 100 msec before the leading edge of an image reaches a specific point until its trailing edge leaves it

8.1.7 Pre-Transfer Exposure LED

0008-8682

iR8070

The machine uses a process speed of 450 mm/sec to support a copying speed of 80 pages/min (A4, Direct). To make up for the decrease in charging on the photosensitive drum caused by the increase in the process speed, the machine uses a photosensitive drum with a high degree of charging capacity and a pre-exposure lamp with a short wave length (660 nm), thus ensuring a specific degree of charging.
The higher process speed also decreases static charges used for separation; the pre-transfer exposure LED is used to compensate for the decrease:

MEMO:
Pre-Transfer Exposure
Function: In an initial phase of the transfer process, the charges on the photosensitive drum (background potential) are reduced in advance, thereby weakening the stack bonding between the photosensitive drum and the transfer paper and ultimately encouraging separation.
Timing: The LED is turned on 100 msec before the leading edge of an image reaches a specific point until its trailing edge leaves it

8.1.8 Addition of the Developing Fan(iR105)

0006-9757

iR105

To prevent overheating of the developing assembly [1], a developing fan has been added to the front of the machine. (See 8.2 Fans)

8.2 Basic Sequence

8.2.1 Basic Sequence

0008-5822

iR105i/iR105+ / iR9070 / iR8070

F-8-4

8.2.2 Basic Sequence

0008-8687

iR85+

F-8-5

8.3 Potential Control

8.3.1 Outline

0006-9576

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The potential is controlled for the following:
[1] Determining the optimum grid bias. (VD control)
[2] Determining the optimum laser output. (VL control)
[3] Determining the optimum developing bias (DC). (Vdc control)
Figure shows the construction of the control system:

F-8-6

8.3.2 Basic Sequence

0006-9585

iR105i/iR105+ / iR9070 / iR8070

Figure shows the basic sequence (timing) of operations related to potential control.

F-8-7

F-8-8

T-8-3

Related Service Mode	
COPIER> OPTION> BODY> PO-CNT (potential control on/off)	0: disable potential control. 1: enable potential control. (default)
COPIER> ADJUST> V-CONT> EPOTOFST (potential sensor offset value input)	If you have replaced the image processor PCB or initialized the RAM on the image processor PCB, enter the value recorded on the service label.
COPIER> ADJUST> V-CONT> VL-OFST (VL target potential offset input)	
COPIER> ADJUST> V-CONT> VD-OFST (VD target potential offset value input)	
COPIER> FUNCTION> DPC> OFST (potential sensor offset adjustment)	For adjustments, see descriptions on electrical parts.

8.3.3 Basic Sequence

0008-8688

iR85+

Figure shows the basic sequence (timing) of operations related to potential control.

F-8-9

F-8-10

T-8-4

Related Service Mode	
COPIER> OPTION> BODY> PO-CNT (potential control on/off)	0: disable potential control. 1: enable potential control. (default)
COPIER> ADJUST> V-CONT> EPOTOFST (potential sensor offset value input)	If you have replaced the image processor PCB or initialized the RAM on the image processor PCB, enter the value recorded on the service label.
COPIER> ADJUST> V-CONT> VL-OFST (VL target potential offset input)	
COPIER> ADJUST> V-CONT> VD-OFST (VD target potential offset value input)	
COPIER> FUNCTION> DPC> OFST (potential sensor offset adjustment)	For adjustments, see descriptions on electrical parts.

8.3.4 Determining the Optimum Grid Bias

0006-9596

iR105i/iR105+ / iR9070 / iR85+ / iR8070

A grid bias is selected so that the surface potential of the drum will be identical to the target potential (the primary charging bias is fixed).

F-8-11

8.3.5 Grid Bias Corrective Control

0006-9598

iR105i/iR105+ / iR9070 / iR85+ / iR8070

If an optimum grid bias cannot be selected after measuring the surface potential of the drum several times, a corrective control sequence is started to determine the optimum grid bias.

F-8-12

8.3.6 Determining the Optimum Laser Output

0006-9604

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The laser output is determined so that the surface potential (light area potential VL) of the drum at time of laser exposure will be identical to the target potential.

F-8-13

8.3.7 Laser Output Corrective Control

0006-9606

iR105i/iR105+ / iR9070 / iR85+ / iR8070

If an optimum laser output cannot be selected after measuring the surface potential of the drum several times, a corrective control sequence is started to determine the optimum laser output.

F-8-14

8.3.8 Determining the Optimum Developing Bias

0006-9613

iR105i/iR105+ / iR9070 / iR85+ / iR8070

An optimum developing bias (Vdc) is computed based on the optimum drum surface potential (VD).

F-8-15

8.3.9 Potential Control for Transparency Mode

0006-9615

iR105i/iR105+ / iR9070 / iR85+ / iR8070

To prevent detachment of toner in high density areas on transparencies, the contrast is decreased to limit the amount of toner deposit. To enable the decrease in contrast, potential control for transparency mode is executed to select a target value.

F-8-16

T-8-5

Related Service Mode	
COPIER> OPTION> BODY> OHP-CNT (transparency mode potential control ON/OFF)	1: use the target value obtained for transparency mode potential control during transparency mode operation. (default) 0: disable potential control for transparency mode.

F-8-17

8.3.10 Target Potential Correction in Each Mode

0006-9650

iR105i/iR105+ / iR9070 / iR8070

The laser power/developing bias determined in relation to potential control is corrected for the following operating mode, and the result is used as the target value specific to each:

T-8-6

	Purpose	Correction
Density adjustment during printing (PDL input)	To enable reproduction of fine lines (PDL data from a computer) to suit the needs of the user.	Correct the laser power/developing bias according to the F setting.
Density correction during printing (scanner input)	To attain density levels suited to the needs of the user.	Corrects the laser power/developing bias according to the F setting.
During operation in high humidity mode	To prevent decreases in density (caused by a lower developing efficiency because of moist toner or a lower transfer efficiency caused by moist paper).	Corrects the laser power/developing bias according to the environment.

1. Adjusting the Density during Printing (PDL input)

F value	Laser power correction value	Vdc correction value	VD correction value
1	x0.8	———	———
2	x0.9		
3	x1.0		
4	x1.1		
5	x1.2		
6	x1.3	+10V	
7	x1.4	+20V	
8	x1.5	+30V	
9	x1.5	+40V	

F-8-18

F-8-19

T-8-7

Related Service Mode

COPIER > OPTION > BODY > CNT-W/PR (density setting mode on/off during printing)	0: correct the target value to enable variation of density during printing. (default) 1: disable the mechanism used to vary the density during printing.

F-8-20

2. Potential Control during High Humidity Mode

F-8-21

3. Density Adjustment during printing (scanner input)

F-8-22

8.3.11 Target Potential Correction in Each Mode

0008-8689

iR85+

The laser power/developing bias determined in relation to potential control is corrected for the following operating mode, and the result is used as the target value specific to each:

T-8-8

	Purpose	Correction
During operation in high humidity mode	To prevent decreases in density (caused by a lower developing efficiency because of moist toner or a lower transfer efficiency caused by moist paper).	Corrects the laser power/developing bias according to the environment.

1. Potential Control during High Humidity Mode

F-8-23

8.4 Charging Mechanism

8.4.1 Primary Charging Mechanism

8.4.1.1 Outline

0006-9662

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The primary charging mechanism is controlled for the following:
[1] Primary charging bias constant current
[2] Grid bias constant voltage
The follouing figure shows the construction of the primary charging control system.

F-8-24

8.4.1.2 Primary Charging Assembly Cleaning Mechanism

0006-9677

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-8-25

T-8-9

Timing of Cleaning
[1] The surface temperature of the fixing roller is 100 deg C or lower when the control panel power switch is turned on. [2] The wire cleaning mechanism is turned on in user mode. [3] At the end of LSTR after making 2000 prints following wire cleaning.

8.4.1.3 Others

0006-9683

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-8-10

Related Service Mode	
COPIER> ADJUST> HV-PRI> GRID (grid bias output adjustment value input)	If you have replaced the DC controller PCB or initialized the RAM on the DC controller PCB, enter the value recorded on the service label.

T-8-11

Related Error Code	
E065 (primary charging output error)	An overcurrent is detected (PR-ERR=1) because of leakage.

8.4.2 Dust-Collecting Roller Bias

8.4.2.1 Outline

0006-9692

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The dust-collecting roller bias mechanism is controlled for the following:
[1] Turning on and off the dust-collecting roller bias.
Figure shows the construction of the dust-collecting roller bias control system.

F-8-26

8.4.3 Pre-Transfer Charging Mechanism

8.4.3.1 Outline

0006-9697

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The pre-transfer charging mechanism is controlled for the following:
[1] DC bias constant current
[2] AC bias constant voltage
[3] Output to suit the environment (fuzzy control)
Figure shows the construction of the pre-transfer charging control system.

F-8-27

8.4.3.2 Controlling the Output to Suit the Environment (fuzzy control)

0006-9699

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The pre-transfer charging current is controlled to an optimum value to suit the environment (conditions identified based on data from the environment sensor).

F-8-28

T-8-12

Related Service Mode

COPIER> OPTION> BODY> FUZZY (fuzzy control ON/OFF)	0: enable fuzzy control. (default) 1: low humidity mode. (The pre-transfer charging current is lower than the standard level.) 2: normal humidity mode. 3: high humidity mode. (The pre-transfer charging current is higher than the standard level.) Selecting '1' through '3' makes the mechanism independent of the environment sensor.

8.4.3.3 Pre-Transfer Charging Assembly Cleaning Mechanism

0006-9705

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-8-29

T-8-13

Timing of Cleaning
[1] The surface temperature of the fixing roller is 100 deg C or lower when the control panel power switch is turned on. [2] The wire cleaning mechanism is turned on in user mode. [3] At the end of LSTR after making 2000 prints following wire cleaning.

8.4.3.4 Others

0006-9717

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-8-14

Related Service Mode	
COPIER> ADJUST> HV-TR> PRE-TR (pre-transfer charging current output adujstment input)	If you have replaced the DC controller PCB or initialized the RAM on the DC controller PCB, enter the value on the service label.

T-8-15

Related Error Code	
E068 (pre-transfer charging output error)	An overcurrent is detected (PT/SP-ERR=1) because of leakage.

8.5 Drum Cleaner Unit

8.5.1 Outline

0006-9854

iR105i/iR105+ / iR9070

Figure shows the construction of the drum cleaner unit.

F-8-30

The presence of caking toner on the cleaning blade inside the cleaner unit can adversely affect the cleaning of the drum. To prevent caking of toner, the blade of the machine is equipped with 2 blade vibrating units, which vibrate the blade to break and drop cakes of toner, thus preventing drum cleaning faults.

F-8-31

The blade vibrating units go ON as follows:
- after initial multiple rotation at time of main power-on (5 times or once)
- at stop sequence (once)
- when cleaning wire (pre-transfer, transfer, separation; once)

When vibrating once, it remains ON for 0.6 sec.
When vibrating 5 times, it remains ON for 0.6 sec and OFF for 0.3 sec.

SERVICE MODE:
These settings may be changed in service mode to suit the site of installation: COPIER> OPTION> BODY> VBR-M-SW.
The operation of the blade vibrating units may be checked in service mode: COPIER> FUNCTION> PART-CHK> MTR.

8.5.2 Outline

0008-9733

/ iR85+ / iR8070

Figure shows the construction of the drum cleaner unit.

F-8-32

8.5.3 Detecting the Waste Toner (case full condition)

0006-9856

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following figure shows the construction of the control system used to monitor the waste toner case.

F-8-33

T-8-16

Related Error Code	
E013 (waste toner lock)	The waste toner lock sensor (MSW2) has remained on for 4 sec or more.
E019 (waste toner case full)	After the waste toner case full sensor (PS19) has turned, on, 50,000 prints or more have been made without any action.

8.6 Developing Assembly

8.6.1 Outline

0006-9805

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the developing assembly.

F-8-34

8.6.2 Controlling the Developing Assembly

0006-9807

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the control system.

F-8-35

8.6.3 Controlling the Toner Cartridge Drive Mechanism

0006-9809

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the toner cartridge drive control system.

F-8-36

T-8-17

Related Error Code	
E025 (cartridge toner feed motor fault)	An overcurrent caused by an overload on the motor has been detected twice.

8.6.4 Controlling the Developing Bias

0006-9811

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The developing bias is controlled for the following:
[1] DC bias constant voltage
[2] AC bias constant voltage

F-8-37

T-8-18

Related Service Mode	
COPIER>ADJUST>DEVELOP>DE-DC (image area developing DC bias output input)	If you have replaced the MFC PCB or initialized the RAM on the MFC PCB, enter the value recorded on the service label. Settings: 0 to 500
COPIER>ADJUST>DEVELOP>DE-NO-DC (sheet-to-sheet-distance developing DC bias output input)	
COPIER>ADJUST>DEVELOP>DE-OFST (developing DC bias offset level offset adjustment)	Settings: -50 to 50 Higher setting Lighter images ← → Darker images Lower setting

8.6.5 Detecting the Toner Level and Controlling the Toner Supply Mechanism

0006-9842

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the toner supply control system.

F-8-38

F-8-39

The hopper supplies the developing assembly with toner as follows:

F-8-40

Figure shows the sequence of operations by which the toner cartridge supplies the hopper with toner.

F-8-41

T-8-19

Related Error Code	
E020 (toner supply error)	The toner sensor (TS3; inside the developing assembly) has detected the absence of toner for 3 sec or more.

8.7 Transfer Mechanism

8.7.1 Transfer Guide Bias

8.7.1.1 Outline

0006-9737

iR105i/iR105+ / iR9070 / iR85+ / iR8070

To prevent soiling of the surface of the transfer guide with toner (leading to soiled backs), a bias of the same polarity as toner is applied to the transfer guide. The transfer guide charging mechanism is controlled for the following:
[1] Transfer guide bias constant voltage
[2] Output to suit the environment
Figure shows the construction of the transfer guide bias

F-8-42

8.7.1.2 Controlling the Output to Suit the Environment

0006-9742

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The transfer guide bias is controlled to an optimum level to suit the environment (conditions identified based on data from the environment sensor).

	Transfer guide bias	
	Paper passing	Paper being fed
Normal/low humidity	+600	+600
High humidity	+200	+600

F-8-43

T-8-20

Related Service Mode	
COPIER> OPTION> BODY> TRNSG-SW (transfer guide bias control mode switching)	0: switches to +200 V in high humidity. (default) 1: fixes the transfer guide bias to +600 V. 2: fixes the transfer guide bias to +200 V. 3: switches to +200 V in normal humidity. 4: switches to +200 V in low humidity. If transfer faults occur, select '2' through '4'.

8.7.2 Transfer Charging Mechanism

8.7.2.1 Outline

0006-9754

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The transfer charging mechanism is controlled for the following:
[1] DC bias constant current
[2] Output to suit the environment (fuzzy control)
[3] Output correction at the trailing edge of paper
Figure shows the construction of the transfer charging control system.

F-8-44

8.7.2.2 Controlling the Output to Suit the Environment (fuzzy control)

0006-9756

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The transfer current output is controlled to an optimum level to suit the environment (conditions identified based on the data from the environment sensor).

F-8-45

T-8-21

Related Service Mode	
COPIER> OPTION> BODY> FUZZY (fuzzy control ON/OFF)	0: enable fuzzy control. (default) 1: low humidity mode. (The transfer current is lower than the standard level.) 2: normal humidity mode. 3: high humidity mode. (The transfer current is higher than the standard level.) Selecting '1' through '3' makes the control mechanism independent of the environment sensor.

8.7.2.3 Correcting the Output at the Trailing Edge of Paper

0006-9765

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When paper moves through the transfer charging assembly, the resistance abruptly drops as soon as the paper leaves the assembly, possibly causing discharge current momentarily and, ultimately, leading to white spots or distorted images. To prevent such a problem, the transfer current level is corrected (reduced) when the trailing edge of paper passes.

F-8-46

When making a double-sided print, paper will absorb fixing oil and tend to collect less charges (low resistance); since the discharge current along the trailing edge of paper will be low, the output is not varied.

In a low humidity environment, paper tends to dry up collecting excess charges (high resistance); to counter, the output is reduced.

	Transfer current correction (μA)	
	Single-sided printing	Double-sided printing
Low humidity	+220	———
Normal humidity	+150	———
High humidity	———	———

F-8-47

T-8-22

Related Service Mode	
COPIER> OPTION> BODY> TRSW-P-B (transfer current output correction control ON/OFF)	1: do not vary the transfer current level. (default; select if transfer faults occur along the trailing edge) 0: correct the transfer current level along the trailing edge of paper.

8.7.2.4 Transfer Charging Assembly Cleaning Mechanism

0006-9776

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-8-48

T-8-23

Timing of Cleaning
1. The surface temperature of the fixing roller is 100 deg C or lower when the control panel power switch is turned on. 2. The wire cleaning mechanism is turned on in user mode. 3. At the end of LSTR after making 2000 prints following wire cleaning.

8.7.2.5 Others

0006-9778

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-8-24

Related Service Mode	
COPIER> ADJUST> HV-TR> TR-N1 (output adjustment on single-sided print or 1st side of double-sided print; plain paper)	If you have replaced the DC controller PCB or initialized the RAM on the DC controller PCB, enter the value recorded on the service label.
COPIER> ADJUST> HV-TR> TR-N2 (output adjustment on 2nd side of double-sided print; plain paper)	

T-8-25

Related error Code	
E069 (transfer charging output error)	An overcurrent is detected (TR-ERR=1) because of leakage.

8.8 Separation Mechanism

8.8.1 Separation Charging Mechanism

8.8.1.1 Outline

0006-9791

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The separation mechanism is controlled for the following:
[1] DC bias constant current
[2] AC bias constant current
[3] output correction to suit the environment and deposit of toner (fuzzy control)
[4] output correction upon detection of leakage
Figure shows the construction of the control system for the separation charging mechanism.

F-8-49

8.8.1.2 Correcting the Output to Suit the Environment and the Toner Deposit

0006-9795

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The separation current output is controlled to an optimum level to suit the environment (conditions identified by the data from the environment sensor) and the toner deposit (low, average, or high based on the count of black pixels).

F-8-50

T-8-26

Related Service Mode	
COPIER> OPTION> BODY> FUZZY (fuzzy control ON/OFF)	0: enable fuzzy control. (default) 1: low humidity mode. (The separation current is lower than the standard level.) 2: normal humidity mode. 3: high humidity mode. (The separation current is higher than the standard level.) Selecting '1' through '3' makes the control mechanize independent of the environment sensor.

8.8.1.3 Correcting the Output upon Detection of Leakage

0006-9797

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The separation output is decreased upon detection of leakage.

F-8-51

T-8-27

Related Service Mode	
COPIER> OPTION> BODY> SP-MODE	0: standard mode. (default; AC output is 10.0 kVpp) 1: low voltage mode (AC output is 9.8 kVpp; select if errors caused by leakage occur frequently)

8.8.1.4 Others

0006-9802

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-8-28

Related Service Mode	
COPIER> ADJUST> HV-SP> SP-N1 (output adjustment for single-sided print or 1st side of double-side print; plain paper)	If you have replaced the DC controller PCB or initialized the RAM on the DC controller PCB, enter the value recorded on the service label.
COPIER> ADJUST> HV-SP> SP-N2 (output adjustment on 2nd side of double-sided print; plain paper)	

8.9 Parts Replacement Procedure

8.9.1 Process Unit

8.9.1.1 Removing the Process Unit

0007-2675

iR105i/iR105+ / iR9070

1) Remove the developing assembly.
2) Remove the process unit cover. (4 screws).
3) Slide out the fixing/feeder unit.
4) Remove the fixing toner cover; take out the drum protective sheet; and lay it over the fixing/feeder unit.
5) Disconnect the connector [1], and release the stopper lever [2]; then, detach the primary charging assembly [3].
6) Disconnect the connector [4], and release the stopper lever [5]; then, detach the pre-transfer charging assembly [6].

F-8-52

7) While using the drum stop [1] (found inside the compartment behind the front cover) to fix the drum in place, remove the screw [2], and detach the drum fixing block [3].
8) Detach the drum stopper [1].
9) Remove the 3 screws [4], and disconnect the connector [5]; then, slide out the process unit [6].

F-8-53

10) Slide fully out the process unit [1], and pull out the grip [2] on the right side.
11) Holding the grip [2] on the right and the grip [3] on the left, lift it upward.

F-8-54

When placing the removed process unit, turn the kit support plate [1] counterclockwise, and be sure to create a gap from the floor to prevent damage.

F-8-55

8.9.1.2 Removing the Process Unit

0008-9209

/ iR85+ / iR8070

1) Remove the developing assembly.
2) Remove the process unit cover (4 screws).
3) Slide out the fixing/feeder unit.
4) Remove the fixing toner cover; take out the drum protective sheet; and lay it over the fixing/feeder unit.
5) Disconnect the connector [1], and release the stopper lever [2]; then, detach the primary charging assembly [3].
6) Disconnect the connector [4], and release the stopper lever [5]; then, detach the pre-transfer charging assembly [6].

F-8-56

7) While using the drum stop [1] (found inside the compartment behind the front cover) to fix the drum in place, remove the screw [2], and detach the drum fixing block [3].
8) Detach the drum stopper [1].
9) Remove the 3 screws [4], and disconnect the connector [5]; then, slide out the process unit [6].

F-8-57

10) Slide fully out the process unit [1], and pull out the grip [2] on the right side.
11) Holding the grip [2] on the right and the grip [3] on the left, lift it upward.

F-8-58

When replacing the removed process unit, turn the kit support plate [1] counterclockwise, and be sure to create a gap from the floor to prevent damage.

F-8-59

8.9.1.3 Mounting the Process Unit

0007-2678

iR105i/iR105+ / iR9070

Keep the following in mind when mounting the process unit [1] to the slide rail:
1) Be sure to match the notch [2] found at the tip of the left slide rail against the front plate [3] of the process unit.
2) Be sure to match the bend [4] at the front of the right slide rail against the front plate [3] of the process unit.

F-8-60

Waste toner can drop on the duplex unit when the process unit is removed. After mounting the process unit. be sure to slide out the duplex unit and remove the waste toner.

8.9.1.4 Mounting the Process Unit

0008-9214

/ iR85+ / iR8070

Keep the following in mind when mounting the process unit [1] to the slide rail:
1) Be sure to match the notch [2] found at the tip of the left slide rail against the front plate [3] of the process unit.
2) Be sure to match the bend [4] at the front of the right slide rail against the front plate [3] of the process unit.

F-8-61

Waste toner can drop on the duplex unit when the process unit is removed. After mounting the process unit. be sure to slide out the duplex unit and remove the waste toner.

8.9.2 Pre-Exposure Lamp

8.9.2.1 Removing the Pre-Exposure Lamp Unit

0007-2051

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Slide out the process unit.
Caution:
Cover the drum with A3 paper or the like when you have slid out the process unit.
3) Disconnect the connector [1], and remove the two screws [2]; then, detach the preexposure unit [3].

F-8-62

4) Remove the three screws [4], and detach the pre-exposure holder [5]; then, detach the pre-exposure lamp [6].

F-8-63

F-8-64

8.9.3 Primary Charging Assembly

8.9.3.1 Removing the Primary Charging Assembly

0007-2054

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Remove the inside cover (process unit).
3) Disconnect the connector [1]; while shifting the charging assembly fixing plate [2] to the left, slide out the primary charging assembly [3].

F-8-65

8.9.4 Pre-Transfer Charging Assembly

8.9.4.1 Removing the Pre-Transfer Charging Assembly

0007-2057

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Remove the inside cover (process unit).
3) Disconnect the connector [1]; while shifting the charging assembly fixing plate [2] to the right, slide out the pre-transfer charging assembly [3].

F-8-66

8.9.5 Photosensitive Drum

8.9.5.1 Points to Note When Handling the Photosensitive Drum

0007-2028

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine's photosensitive drum is a high-sensitivity amorphous silicon drum, and its sensitivity can deteriorate if it or the process unit is not placed or stored properly. Be sure to keep the following in mind when handling the photosensitive drum or the process unit:
1. If you have removed the process unit from the machine, keep the photosensitive drum away from light. To do so, use the photosensitive drum protective sheet or wrap it in six or more sheets of A3 paper.
2. Do not place the process unit or the photosensitive drum near a window, i.e., do not subject it to direct sunshine.
3. Do not place the process unit or the photosensitive drum in places subjected to high temperature, high humidity, low temperature, or low humidity or areas subject to rapid changes in temperature or humidity.
4. Do not place the process unit or the photosensitive drum in places subject to dust, ammonium gas, or organic solvent gas.

The foregoing points apply to the photosensitive drum of all models.

8.9.5.2 Points to Note When Handling the Photosensitive Drum

0009-0119

The machine's photosensitive drum is made of high-sensitivity amorphous silicon, and thus its sensitivity can deteriorate if it or the process unit is not placed properly. When handling the process unit or the photosensitive drum, keep the following in mind:
1. If you have removed the process unit from the machine, protect the photosensitive drum from light by using the photosensitive drum protection sheet or by wrapping 6 or more A3 or larger sheets.
2. Do not place the process unit or the photosensitive drum in an area exposed to direct rays of the sun.
3. Do not place the process unit or the photosensitive drum in an area subject to high temperature/humidity or low temperature/humidity or rapid changes in temperature or humidly.
4. Do not place the process unit or the photosensitive drum in an area subject to dust, ammonium gas, or organic solvent gas.

The foregoing equally holds true for the photosensitive drums of all models.

8.9.5.3 Removing the Photosensitive Drum

0007-2688

iR105i/iR105+ / iR9070

Points to Note When Handling the Photosensitive Drum
The machine's photosensitive drum is made of high-sensitivity amorphous silicon, and thus its sensitivity can deteriorate if it or the process unit is not placed properly. When handling the process unit or the photosensitive drum, keep the following in mind:
1. If you have removed the process unit from the machine, protect the photosensitive drum from light by using the photosensitive drum protection sheet or by wrapping 6 or more A3 or larger sheets.
2. Do not place the process unit or the photosensitive drum in an area exposed to direct rays of the sun.
3. Do not place the process unit or the photosensitive drum in an area subject to high temperature/humidity or low temperature/humidity or rapid changes in temperature or humidly.
4. Do not place the process unit or the photosensitive drum in an area subject to dust, ammonium gas, or organic solvent gas.

The foregoing equally holds true for the photosensitive drums of all models.

1) Remove the developing fan.
2) Slide out the process unit.
3) Remove the 3 screws [1], and disconnect the 2 connectors [2]; then, detach the sub plate assembly [3].

F-8-67

4) Remove the 2 screws [1], and detach the positioner holder [2].

F-8-68

5) Remove the 3 screws [1], and detach the drum fixing plate [2].

F-8-69

6) Remove the screw [1], and detach the bearing stopper [2]; then, shift the photosensitive drum [3] to the front (in the direction of the arrow) to lift.

F-8-70

8.9.5.4 Removing the Photosensitive Drum

0008-8166

/ iR85+ / iR8070

1) Remove the developing fan.
2) Slide out the process unit.
3) Remove the 3 screws [1], and disconnect the 2 connectors [2]; then, detach the sub plate assembly [3].

F-8-71

4) Remove the 2 screws [1], and detach the positioner holder [2].

F-8-72

5) Remove the 3 screws [1], and detach the drum fixing plate [2].

F-8-73

6) Remove the screw [1], and detach the bearing stopper [2]; then, shift the photosensitive
drum [3] to the front (in the direction of the arrow) to lift.

F-8-74

8.9.6 Drum Cleaner Unit

8.9.6.1 Construction

0007-2386

/ iR85+ / iR8070

F-8-75

8.9.6.2 Construction

0007-2692

iR105i/iR105+ / iR9070

F-8-76

8.9.6.3 Removing the Cleaning Blade

0007-2390

/ iR85+ / iR8070

1) Open the front cover.
2) Slide out the process unit.
3) Remove the screw [1], and detach the reciprocating arm [2].

F-8-77

4) Disconnect the connector [3], and remove the five screws [4]; then, while pushing it toward the rear, detach the cleaning blade together with the mounting plate [5].

F-8-78

5) Remove the E-ring [6], and detach the pressure plate [7]; then, detach the cleaning blade assembly [8].

F-8-79

6) Remove the five screws [9], and detach the blade retaining plate [10]; then, detach the cleaning blade [11].

F-8-80

8.9.6.4 Removing the Cleaning Blade

0007-2693

iR105i/iR105+ / iR9070

1) Slide out the process unit.
2) Remove the screw [1], and detach the reciprocating arm [2].

F-8-81

3) Disconnect the 2 connectors [1], and remove the 5 screws [2]; then, lift the rear and push it in to detach the cleaning blade together with the mounting plate [3].

F-8-82

4) Remove the E-ring [1], and detach the pressure plate [2] to detach the cleaning blade assembly [3].

F-8-83

The pressure plate looks like the one used for the GP600 Sires or iR8500 Series machines; however, it is a different part with a different parts number. Do not use the wrong part.

5) Remove the 5 screws [1], and detach the blade retaining plate [2] to detach the cleaning blade [3].

F-8-84

8.9.6.5 Mounting the Cleaning Blade

0007-2392

/ iR85+ / iR8070

1) Butt the cleaning blade [1] against the rear end of the blade retaining plate [2].

Caution:
When butting the cleaning blade, be sure there is not gap.

F-8-85

2) Tighten the screws on the blade retaining plate temporarily in the order indicated.

Caution:
When tightening the screws temporarily, be sure to hold the blade down against the end. (See Figure 6-F706.)

F-8-86

3) Tighten the screws on the blade retaining plate fully in the order

indicated.

F-8-87

4) Apply toner on the cleaning blade where it comes into contact with the photosensitive drum; then, mount the cleaning blade.

Caution:
When mounting the cleaning blade, be sure to put the blade auxiliary plate between the blade support plate and the blade back plate.

Caution:
After mounting the cleaning blade, turn the drum; if toner slips off the cleaning blade at this time, repeat the foregoing
steps.
If the problem is not corrected after tightening the screws, replace the cleaning blade.

F-8-88

8.9.6.6 Mounting the Cleaning Blade

0007-2694

iR105i/iR105+ / iR9070

See "Maintenance and Inspection".

8.9.6.7 Removing the Blade Vibrating Unit

0007-2695

iR105i/iR105+ / iR9070

1) Remove the blade unit.
2) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the blade vibrating unit [3].

(The rear and front blade vibrating units may be disassembled in the same way.)

F-8-89

8.9.7 Photosensitive Drum Heater

8.9.7.1 Replacing the Photosensitive Drum Heater

0007-2047

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the photosensitive drum from the main body.
2) Remove the two mounting screws [1], and detach the flange [2] at the front; then, disconnect the connector [3].

F-8-90

3) Pull out the flange at the rear [4], and detach the power supply unit [5] from the photosensitive drum.

F-8-91

4) Pull out the flat heater (drum heater) [6] from inside the drum cylinder.

F-8-92

Points to Note When Mounting the Flange
There is hardly a gap between the flange and the inner side of the drum, causing the flange to get stuck if pushed at an angle.
When mounting the flange, push it in a parallel direction to the drum without applying excessive force.

8.9.8 Developing Assembly

8.9.8.1 Removing the Developing Assembly

0007-2360

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the manual feed tray cover; then, remove the six mounting screws [1], and detach the developing assembly stay [2].

F-8-93

2) Disconnect the two connectors [3], and slide out the developing assembly [4] to the front.

F-8-94

8.9.8.2 Removing the Hopper

0007-2362

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the developing assembly from the machine.
2) Remove the four mounting screws [1], and disconnect the connector [2]; then, detach the hopper [3].

F-8-95

F-8-96

8.9.9 Developing Cylinder

8.9.9.1 Removing the Developing Cylinder

0007-2383

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the developing assembly from the machine.
2) Remove the blade unit.
3) Remove the three mounting screws [1] from the rear, and detach the deceleration gear retainer [2].

F-8-97

4) Remove the three gears [3].

F-8-98

5) Remove the E-ring [4], and detach the pressure arm [5].

F-8-99

6) Remove the E-ring [6], gear [7], pressure roll [8], washer [9], grip ring [10], seal [11], butting roll [12], washer [9], and bearing [13] in the order indicated.

F-8-100

7) Remove the E-ring [14] and the pressure arm [15] at the front.

F-8-101

8) Remove the C-ring [16], washer [17], pressure roll [18], seal [19], washer [17], butting roll [20], C-ring [16], and bearing [21]; the, remove the two screws [22], and detach the bushing [23] and then the developing sleeve [24].

F-8-102

Do not leave fingerprints or oil on the surface of the developing cylinder. Wipe off any with lint-free paper. (Do not use solvent.)

Points to Note When Mounting the Developing Cylinder
Both front and rear sides of the developing assembly and the developing cylinder are equipped with a magnetic seal plate.
When mounting the developing cylinder, take care not to bring the magnetic seal plate into contact with the surface of the cylinder to avoid damage.

F-8-103

8.9.10 Developing Blade

8.9.10.1 Removing the Blade Unit

0007-2364

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the four mounting screws [1], and detach the sleeve cover [2].

F-8-104

2) Remove the screw [3], and detach the polarity plate [4]; then, remove the five screws [5], and detach the blade [6] together with the mounting plate [7].

F-8-105

The blade must be adjusted to an extremely high accuracy. Do not remove it on its own in the field. (Detach it together with its mounting plate.)

8.9.10.2 Mounting the Blade

0007-2382

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Mount the blade by reversing the steps used to remove it.
1) Butt the blade mounting plate against the developing assembly, and secure it in place with five screws.
Be sure to put paper over the developing cylinder for protection before starting to mount the blade.
2) Mount the polarity plate with a screw.

8.9.11 Developing Cylinder Deceleration Clutch

8.9.11.1 Remove the Developing Cylinder Deceleration Clutch

0007-2711

iR105i/iR105+ / iR9070

1) Remove the high-voltage transformer (DC) assembly.
2) Remove the flywheel.
3) Disconnect the 2 connectors [1], and remove the 5 screws [2]; then, detach the clutch mounting plate [3].

F-8-106

4) Remove the heater developing cylinder deceleration clutch [1].

F-8-107

5) Remove the 6 E-rings [1], 2 bearings [2], gear [3], and pin [4]; then, detach the clutch [5].

F-8-108

8.9.11.2 Remove the Developing Cylinder Deceleration Clutch

0008-8176

/ iR85+ / iR8070

1) Remove the high-voltage transformer (DC) assembly.
2) Remove the flywheel.
3) Disconnect the 2 connectors [1], and remove the 5 screws [2]; then, detach the clutch mounting plate [3].

F-8-109

4) Remove the heater developing cylinder deceleration clutch [1].

F-8-110

5) Remove the 6 E-rings [1], 2 bearings [2], gear [3], and pin [4]; then, detach the clutch [5].

F-8-111

8.9.12 Developing Cylinder Clutch

8.9.12.1 Remove the Developing Cylinder Clutch

0007-2719

iR105i/iR105+ / iR9070

1) Remove the clutch mounting plate.
2) Take out the developing cylinder clutch [1].

F-8-112

3) Remove the 8 E-rings [1], 2 beatings [2], 2 gears [3], and pin [4]; then, detach the clutch [5].

F-8-113

8.9.12.2 Remove the Developing Cylinder Clutch

0008-8177

/ iR85+ / iR8070

1) Remove the clutch mounting plate.
2) Take out the developing cylinder clutch [1].

F-8-114

3) Remove the 8 E-rings [1], 2 beatings [2], 2 gears [3], and pin [4]; then, detach the clutch [5].

F-8-115

8.9.13 Transfer/Separation Charging Assembly

8.9.13.1 Removing the Transfer/Separation Charging Assembly

0007-2061

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Slide out the fixing/feeding assembly.
3) Remove the screw [1], and detach the charging cover [2].

F-8-116

4) Remove the screw [3], and detach the fixing plate [4]; then, disconnect the connector [5], and detach the transfer/separation charging assembly [6].

F-8-117

Points to Note When Mounting

- The transfer/separation charging assembly is equipped with a positioning boss on its front and rear.

When mounting the assembly, be sure to hook the bosses on the cut-offs in the stay.

- If the charging assembly cleaner is on the front side, the home position detecting microswitch can become damaged; be sure to set the charging cleaner at the center.

F-8-118

F-8-119

8.9.14 Pre-Transfer Exposure LED

8.9.14.1 Removing the Pre-Transfer Exposure LED

0007-2710

iR105i/iR105+ / iR9070

1) Slide out the pre-transfer charging assembly.

When placing the removed pretransfer charging assembly, be sure to take care not to subject the LED to impact.

2) Turn over the pre-transfer charging assembly, and remove the 3 screws [1] found on the bottom; then, detach the LED cover [2].

F-8-120

3) Disconnect the connector [1], and remove the pre-transfer exposure LED [2].

F-8-121

8.9.14.2 Removing the Pre-Transfer Exposure LED

0008-8174

/ iR85+ / iR8070

1) Slide out the pre-transfer charging assembly.

When placing the removed pretransfer charging assembly, be sure to take care not to subject the LED to impact.

2) Turn over the pre-transfer charging assembly, and remove the 3 screws [1] found on the bottom; then, detach the LED cover [2].

F-8-122

3) Disconnect the connector [1], and remove the pre-transfer exposure LED [2].

F-8-123

8.9.15 Separation Claw/Separation Claw Drive Assembly

8.9.15.1 Separation Claw/Separation Claw Drive Assembly

0007-2395

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Take out the process unit.
3) Remove the E-ring [1], and slide out the separation claw holder shaft [2] to the front to detach the separation holder [3].

F-8-124

4) Remove the spring [4], and detach the separation claw [5].

F-8-125

Points to Note When Mounting
When mounting the separation claw holder, be sure that the separation claw holder spring is butted against the drum cleaner case. Further, check to make sure that the rack of the separation claw 3 drive assembly is engaged with the groove in the separation claw holder.

F-8-126

8.9.16 Potential Sensor

8.9.16.1 Removing the Potential Sensor Unit

0007-2052

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the front cover.
2) Remove the process unit.
3) Push in the fixing/feeding assembly.
4) Disconnect the two connectors [1], and pull out the dust-proofing glass [2]; then, remove the screw [3], and detach the potential sensor unit [4].

F-8-127

It is difficult to pull out the potential sensor in a horizontal direction. As shown, shift it down once, and then slide it out to facilitate the work.

F-8-128

5) Remove the two screws [5], and detach the potential sensor cover [6]; then, detach the potential sensor [7].

F-8-129

Replace the potential sensor simultaneously with the potential sensor PCB. When mounting it, be sure to fit the boss at its rear in the hole on the rear side of the machine; then, match it on the front side, and screw it in place.

8.9.17 Dust-Collecting Roller

8.9.17.1 Removing the Dust-Collecting Roller

0007-2058

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the pre-transfer charging assembly.
2) Remove the two screws [1], and detach the motor cover [2].

F-8-130

3) Remove the dust-collecting roller arm [3] and the twisted spring [4]; then, detach the dusts-collecting roller [5].

F-8-131

8.9.18 Charging Wire

8.9.18.1 Outline

0007-2696

iR105i/iR105+ / iR9070

As many as 3 charging wires are found around the photosensitive drum (primary, pre-transfer, transfer/separation); these wires are 0.06 mm in diameter.

8.9.18.2 Outline

0008-8168

/ iR85+ / iR8070

As many as 3 charging wires are found around the photosensitive drum (primary, pre-transfer, transfer/separation); these wires are 0.06 mm in diameter.

8.9.18.3 Removing the Wire Cleaner for the Primary Charging Assembly

0007-2698

iR105i/iR105+ / iR9070

1) Remove the primary charging assembly.
2) Move the clip base [1] fully to the rear, and remove the screw [2]; then, remove the support plate [4] of the wire clean motor shaft [3], and detach the clip base [1] from the cut-off [6] of the shielding plate [5] together with the wire cleaner motor shaft [3].

F-8-132

3) Pick the wire cleaner with small pliers, and free the hook with your fingers.

F-8-133

8.9.18.4 Removing the Wire Cleaner for the Primary Charging Assembly

0008-8169

/ iR85+ / iR8070

1) Remove the primary charging assembly.
2) Move the clip base [1] fully to the rear, and remove the screw [2]; then, remove the support plate [4] of the wire clean motor shaft [3], and detach the clip base [1] from the cut-off [6] of the shielding plate [5] together with the wire cleaner motor shaft [3].

F-8-134

3) Pick the wire cleaner with small pliers, and free the hook with your fingers.

F-8-135

8.9.18.5 Stringing the Charging Wire

0007-2702

iR105i/iR105+ / iR9070

As a rule, the charging wire (except the grid wire) may be strung in the same way for all charging assemblies. The following uses the primary charging assembly as an example:

1) Remove the 2 screws [1], and detach the shielding plate (left, right) [2] of the charging assembly.

To prevent deformation (slack) of the primary charging assembly, be sure to work on the left and right shielding plates separately. (Do not loosen the screw for the left/right shielding plate.)

2) Remove the wire cleaner.

F-8-136

For other charging assemblies, remove the lid (2 pc.)

3) Free a length of about 5 cm from a charging wire reel (wire dia. of 0.06 mm), and form a loop at the end about 2 mm in diameter.

F-8-137

MEMO:
To form a loop, wind the charging wire once around a hex key, and twist the key 3 to 4 times.

4) Cut the end (excess) for the twisted charging wire.

5) Hook the loop on the stud.

6) Hook the charging wire on the charging wire positioner at the rear, and hook the charging wire tension spring on the charging wire, and twist it.

F-8-138

7) Cut the excess of the charging wire with a nipper.

8) Pick the end of the charging wire tension spring with tweezers, and hook it on the charging wire terminal. In the case of the pre-transfer charging assembly, hook the spring at the front.

F-8-139

Be sure of the following:
- The charging wire is free of bends and twists.
- The charging wire is in the bottom of the V-groove of the charging wire positioner.

F-8-140

9) Fit the cushion to the front of the charging wire. (except for primary charging assembly)

10) Mount the shielding plate (left, right).

For other charging assemblies, fit the lid (2 pc.).

After stringing the charging wire of each charging assembly, check to make sure that the length of the tension spring is as follows:

Primary charging assembly	A=12.0±1mm	A
Pre-transfer charging assembly	A=12.0±1mm	
Transfer charging assembly	A=12.0±0.5mm	
Separation charging assembly	A=12.0±0.5mm	

F-8-141

11) Mount the wire cleaner. At this time, pay attention to the orientation of the wire cleaner.
12) Wipe the charging wire with lint-free paper moistened with alcohol.

8.9.18.6 Stringing the Charging Wire

0008-8170

/ iR85+ / iR8070

As a rule, the charging wire (except the grid wire) may be strung in the same way for all charging assemblies. The following uses the primary charging assembly as an example:
1) Remove the 2 screws [1], and detach the shielding plate (left, right) [2] of the charging assembly.
To prevent deformation (slack) of the primary charging assembly, be sure to work on the left and right shielding plates separately (Do not loosen the screw for the left/right shielding plate).
2) Remove the wire cleaner.

F-8-142

For other charging assemblies, remove the lid (2 pc.).

3) Free a length of about 5 cm from a charging wire reel (wire dia. of 0.06 mm), and form a loop at the end about 2 mm in diameter.

F-8-143

Memo:
To form a loop, wind the charging wire once around a hex key, and twist the key 3 to 4 times.

4) Cut the end (excess) for the twisted charging wire.
5) Hook the loop on the stud.
6) Hook the charging wire on the charging wire positioner at the rear, and hook the charging wire tension spring on the charging wire, and twist it.

F-8-144

7) Cut the excess of the charging wire with a nipper.
8) Pick the end of the charging wire tension spring with tweezers, and hook it on the charging wire terminal. In the case of the pre-transfer charging assembly, hook the spring at the front.

F-8-145

F-8-146

Be sure of the following:
- The charging wire is free of bends and twists.
- The charging wire is in the bottom of the V-groove of the charging wire positioner.

9) Fit the cushion to the front of the charging wire (except for primary charging assembly).
10) Mount the shielding plate (left, right).

For other charging assemblies, fit the lid (2 pc.).

After stringing the charging wire of each charging assembly, check to make sure that the length of the tension spring is as follows:

Primary charging assembly	A=12.0±1mm	A
Pre-transfer charging assembly	A=12.0±1mm	
Transfer charging assembly	A=12.0±0.5mm	
Separation charging assembly	A=12.0±0.5mm	

F-8-147

11) Mount the wire cleaner. At this time, pay attention to the orientation of the wire cleaner.
12)Wipe the charging wire with lint-free paper moistened with alcohol.

8.9.18.7 Stringing the Grid of the Primary Charging Assembly

0007-2704

iR105i/iR105+ / iR9070

1) Check to make sure that the 4 screws used to keep the front/rear block and shielding plate are not loose.
Then, hook the end of the charging wire on stud A, and then route it for 41 runs; then, hook it on B, C, and D; thereafter, fit it between the double washers [1], give a 1/2 turn around the screw [2], and secure it in place.

F-8-148

2) Loosen the screws [1], [2], [3], [4]; then, tighten the screw [5] to a torque of 1.5 -/+0.2 kg-cm. thereafter, tighten the screws [1], [2], [3], [4] to a torque of 8 kg-cm in the order indicated.

F-8-149

8.9.18.8 Stringing the Grid of the Primary Charging Assembly

0008-8171

/ iR85+ / iR8070

1) Check to make sure that the 4 screws used to keep the front/rear block and shielding plate are not loose.

Then, hook the end of the charging wire on stud A, and then route it for 41 runs; then, hook it on B, C, and D; thereafter, fit it between the double washers [1], give a 1/2 turn around the screw [2], and secure it in place.

F-8-150

2) Loosen the screws [1], [2], [3], [4]; then, tighten the screw [5] to a torque of 1.5 +/-0.2 kgxcm. thereafter, tighten the screws [1], [2], [3], [4] to a torque of 8 kgxcm in the order indicated.

F-8-151

8.9.18.9 Adjusting the Height of the Charging Wire

0007-2706

iR105i/iR105+ / iR9070

T-8-29

Charging assembly	Height of charging wire
Primary	
Pre-transfer	

Separation	
Transfer	

REFERENCE:
The height (position) of the primary and transfer charging wires may be adjusted by turning the screw found at the rear of the charging assembly. A full turn of the screw changes the position of the charging wire by about 0.7 mm.

8.9.18.10 Adjusting the Height of the Charging Wire

0008-8173

/ iR85+ / iR8070

T-8-30

Charging assembly	Height of charging wire
Primary	
Pre-transfer	
Separation	
Transfer	

Memo:
The height (position) of the primary and transfer charging wires may be adjusted by turning the screw found at the rear of the charging assembly. A full turn of the screw changes the position of the charging wire by about 0.7 mm.

Chapter 9 Pickup/Feeding System

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9.1 Construction

9.1.1 Outline of the Pickup/Feeding System(iR105)

0006-9798

iR105

The major changes made to the pickup/feeding system are as follows:
- To support the increased speed in the process (500 mm/sec), an optical sensor is used instead of a photointerrupter for the following: right/let deck pickup sensor, right/left feed sensor, cassette 3/4 pickup sensor, vertical path 3/4 sensor.
- The use of index paper is allowed as a transfer medium.

For others, see T02-602-01 and T02-602-02.

T-9-1

Unit/location	Changes from GP605 (iR600)	Propose of change	Remarks	Reference
Pickup roller	Changed the material.	To support higher speed of operation.		
Separation roller	Changed the material.	To support higher speed of operation.		
Static eliminator	Added a static eliminator.	To suppress noise; for grounding of the pull-off roller.	Upward compatible: right deck, cassette 3/4.	
Manual feed tray assembly	Added a noise damper.	To suppress noise caused by impact occurring at time of release of the pick roller.		

Unit/location	Changes from GP605 (iR600)	Propose of change	Remarks	Reference
Registration roller assembly	Changed the registration brake clutch.	To use a set screw for the joint between shaft and clutch, thereby preventing variation in the leading edge registration during high-speed operation.		
	Changed the shape of the registration cover roller.	To accommodate the change in the speed of the shaft caused by the use of a set screw stop clutch.		
	Changed the shape of the registration clutch cover.	To accommodate the shape of the cover caused by the use of a set screw clutch.		
	Added a bearing coupling gear.	To suppress the wobbling of the gear by fitting the bearing by force into the coupling, thereby eliminating the variation in the transmission of the drive caused by fluctuations in the load in the coupling (of the registration transfer assembly).		
Index paper attachment	To support the use of index paper.	To support the use of index paper. (The attachment is made available as an option.)		6.5 Index Paper Attachment

Unit/location	Changes from GP605 (iR600)	Propose of change	Remarks	Reference
Sensor	Made to use an optical sensor as the right/ left deck pickup sensor. Made to use an optical sensor as the right/ left deck feed sensor. Made to use optical sensors as the vertical path 3/4 sensors.	To support high-speed operation.	A prism is mounted in the opposite side.	
	Eliminated the U-turn sensor.	To support the design in which the duplex outlet sensor is used as the point of reference.		
	Eliminated the reversal sensor.	To support the design in which the duplex reversal sensor is used as the point of reference.		
	Added a duplex outlet sensor.	To ensure accurate movement of paper coming from the vertical path assembly at high accuracy by correctly identifying the position of the paper form the duplex feeding assembly.		
	Added a image write start sensor	To enable the shortest possible sheet-to-sheet distance.		
Torque limiter of separation roller	Increased the torque.	To ensure separation.		

9.1.2 Specifications and Construction

0007-0190

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the major functions of the pickup/feeding system.

T-9-2

Item	Description
Paper feeding reference	Center

Item	Description	
Paper stacking capacity	Paper deck (right, left): Cassette (3, 4): Multifeeder:	1,500 sheets (80 g/m2) 550 sheets (80 g/m2) 50 sheets (80 g/m2)
Paper size switch	Paper deck (right, left): Cassette (3, 4): Multifeeder:	by the service person by the user by the user
Duplexing system	No-stacking	
Related user mode	Turning on and off the cassette selection mechanism Selecting paper icons	
Related mechanical adjustment	Deck horizontal registration Cassette horizontal registration Manual feed tray horizontal registration	

9.1.3 Optical Sensors(iR105)

0006-9812

iR105

To accommodate the increase in the process speed, the machine uses a combination of an optical sensor [1] and a prism [2] instead of a photo sensor and a sensor flag for some of the sensors in the pickup/feeding assembly, thus ensuring correct detection of paper. (For the position of the sensors, see F02-604-01.)

F-9-1

9.1.4 Arrangement of Rollers and Sensors

0007-0196

/ iR85+ / iR8070

F-9-2

T-9-3

PS5: Registration sensor	PS6: Claw jam sensor
PS9: Internal delivery sensor	PS10: External delivery sensor
PS11: Fixing feeding outlet sensor	PS12: Duplexing reversal sensor
PS13: U-turn sensor	PS14: Pre-confluence sensor
PS15: Post-confluence sensr	PS16: Reversal sensor
PS20: Right deck pickup sensor	PS25: Left deck pickup sensor
PS26: Left deck feed sensor	PS27: Right deck feed sensor
PS35: Multifeeder feed sensor	PS37: Cassette 3 pickup paper sensor
PS41: Vertical path 3 sensor	PS42: Cassette 4 pickup paper sensor
PS46: Vertical path 4 sensor	PS47: Vertical path 1 sensor
PS49: Vertical path 2 sensor	

9.1.5 Arrangement of Rollers and Sensors

0006-9813

iR105i/iR105+ / iR9070

F-9-3

T-9-4

PS5:	registration sensor	PS27:	right deck feed sensor*
PS6:	claw jam sensor	PS35:	multifeeder pickup sensor
PS9:	internal delivery sensor	PS37:	cassette 3 pickup sensor*
PS10:	external delivery sensor	PS41:	vertical path 3 sensor*
PS11:	fixing/feeding outlet sensor	PS42:	cassette 4 pickup sensor*
PS12:	duplex reversal sensor	PS46:	vertical path 4 sensor *
PS14:	pre-confluence reversal sensor	PS47:	vertical path 1 sensor
PS15:	post-confluence sensor	PS49:	vertical path 2 sensor
PS20:	right deck pickup sensor*	PS60:	image write start sensor
PS25:	left deck pickup sensor*	PS61:	duplex outlet sensor
PS26:	left deck feed sensor*	* Optical sensor.	

9.1.6 Control System

0007-0198

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-9-4

9.1.7 Index Paper Attachment

0006-9818

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine allows the use of index paper as a transfer medium. Start user mode, and select index sheet mode and fit an Index Paper Attachment-A1 so that an index sheet may be inserted between sheets (index sheet insert mode) or print in the index area (index production mode).
Index sheets are fed from the source of index sheets (cassette 3/4) selected from the control panel. (For details, see the User Guide.)

F-9-5

9.1.8 Controlling the Pickup Motor (M2)

0007-0204

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the functions of the pickup motor control circuit, and Figure is a block diagram of the circuit.

T-9-5

Item	Description
Power supply	Supplies 38 V from the relay PCB.
Drive signal	Signal (M2-ON) from the DC controller PCB.
Operating/driving assembly	See Figure.
Control	On/off control Constant speed control
Error detection	Error code "E015"

F-9-6

9.2 Basic Sequence

9.2.1 Right Deck

0007-0200

iR105i/iR105+ / iR9070 / iR8070

- A4, 2 Sheets, Continuous

The copier's deck pickup assembly uses separation rollers to separate paper.

F-9-7

9.2.2 Pickup from the front deck

0008-8984

iR85+

- A4, 2 Sheets, Continuous

The machine's deck pickup assembly uses separation rollers to separate paper.

F-9-8

9.2.3 Pickup from the cassette 4

0007-0203

iR105i/iR105+ / iR9070 / iR8070

- A4, 2 Sheets, Continuous

The copier's cassette pickup assembly uses separation rollers.

F-9-9

9.2.4 Pickup from the cassette 4

0008-8985

iR85+

- A4, 2 Sheets, Continuous, cassette 4

The machine's cassette pickup assembly uses separation rollers.

F-9-10

9.3 Detecting Jams

9.3.1 Jam Detection Outline

9.3.1.1 Outline

0007-0559

iR105i/iR105+ / iR9070

Arrangement of Jam Sensors

F-9-11

Type of Jams

T-9-6

Sensor		Delay jam	Stationary jam	Stationary jam from power-on
Right deck pickup sensor	PS20	Present	Absent	Absent
Left deck pickup sensor	PS25	Present	Absent	Absent
Cassette 3 pickup sensor	PS37	Present	Absent	Absent
Cassette 4 pickup sensor	PS42	Present	Absent	Absent
Right deck feed sensor	PS27	Present	Absent	Present
Left deck feed sensor	PS26	Present	Absent	Present
Manual feed sensor	PS35	Present	Absent	Present
Vertical path 1 sensor	PS47	Present	Present	Present
Vertical path 2 sensor	PS49	Present	Present	Present
Vertical path 3 sensor	PS41	Present	Absent	Present
Vertical path 4 sensor	PS46	Present	Absent	Present
Registration roll sensor	PS5	Present	Present	Present
Claw jam sensor	PS6	Absent	Present	Present
Internal delivery sensor	PS9	Present	Present	Present
External delivery sensor	PS10	Present	Present	Present
image write start sensor	PS60	Present	Present	Present

Sensor		Delay jam	Stationary jam	Stationary jam from power-on
Fixing feeding outlet sensor	PS11	Absent	Absent	Present
Duplexing reversal sensor	PS12	Present	Present	Present
Duplex outlet sensor	PS61	Present	Present	Present
Pre-confluence sensor	PS14	Present	Present	Present
Post-confluence sensor	PS15	Present	Present	Present

9.3.1.2 Outline

0008-8485

/ iR85+ / iR8070

Arrangement of Jam Sensors

F-9-12

Type of Jams

T-9-7

Sensor		Delay jam	Stationary jam	Stationary jam from power-on
Right deck pickup sensor	PS20	Present	Absent	Absent
Left deck pickup sensor	PS25	Present	Absent	Absent
Cassette 3 pickup sensor	PS37	Present	Absent	Absent
Cassette 4 pickup sensor	PS42	Present	Absent	Absent
Right deck feed sensor	PS27	Present	Absent	Present
Left deck feed sensor	PS26	Present	Absent	Present
Manual feed sensor	PS35	Present	Absent	Present
Vertical path 1 sensor	PS47	Present	Present	Present
Vertical path 2 sensor	PS49	Present	Present	Present
Vertical path 3 sensor	PS41	Present	Absent	Present
Vertical path 4 sensor	PS46	Present	Absent	Present
Registration roll sensor	PS5	Present	Present	Present
Claw jam sensor	PS6	Absent	Present	Present
Internal delivery sensor	PS9	Present	Present	Present
External delivery sensor	PS10	Present	Present	Present
Reversal sensor	PS16	Present	Present	Present
Fixing feeding outlet sensor	PS11	Absent	Absent	Present

Sensor		Delay jam	Stationary jam	Stationary jam from power-on
Duplexing reversal sensor	PS12	Present	Present	Present
U-turn sensor	PS13	Present	Present	Present
Pre-confluence sensor	PS14	Present	Present	Present
Post-confluence sensor	PS15	Present	Present	Present

9.3.2 Delay Jams

9.3.2.1 Cassette Pickup (Right deck, Left deck, cassette 3, 4)

0007-0561

iR105i/iR105+ / iR9070 / iR8070

F-9-13

T-9-8

Source of paper	Time period (I)
Right deck	0.12 sec (approx.)
Left deck	0.15 sec (approx.)
Cassette 3	0.15 sec (approx.)
Cassette 4	0.15 sec (approx.)
Manual feed tray	0.18 sec (approx.)

9.3.2.2 Cassette Pickup (Right deck, Left deck, cassette 3, 4)

0008-8986

iR85+

F-9-14

T-9-9

Source of paper	Time period (I)
Right deck	0.12 sec (approx.)
Left deck	0.15 sec (approx.)
Cassette 3	0.15 sec (approx.)
Cassette 4	0.15 sec (approx.)
Manual feed tray	0.18 sec (approx.)

9.3.2.3 Other Delay Jams

0007-0565

iR105i/iR105+ / iR9070

Basically, the same principles are used to detect delay jams other than pickup sensor delay jams.

F-9-15

T-9-10

Delay jam sensor N	Sensor N-1	Time used I (sec)
Right deck feed sensor (PS27)	Right deck pickup sensor (PS20)	0.12
Left deck feed sensor (PS26)	Left deck pickup sensor (PS25)	0.12
Vertical path 1 sensor (PS47)	Vertical path 2 sensor (PS49)	0.58
Vertical path 1 sensor (PS47)	Left deck feed sensor (PS26)	0.24
Vertical path 1 sensor (PS47)	Post-confluence sensor (PS15)	0.88
Vertical path 2 sensor (PS49)	Vertical path 3 sensor (PS41)	0.38
Vertical path 3 sensor (PS41)	Vertical path 4 sensor (PS46)	0.37
Vertical path 3 sensor (PS41)	Cassette 3 pickups sensor (PS37)	0.12
Vertical path 4 sensor (PS46)	Cassette 4 pickup sensor (PS42)	0.12
Registration sensor (PS5)	Pre-registration sensor (PS47)	0.53
Registration sensor (PS5)	Manual feed sensor (PS35)	0.37
Internal delivery sensor (PS9)	Claw jam sensor (PS6)	0.13
External delivery sensor (PS10)	Internal delivery sensor (PS9)	0.26
External delivery sensor (PS10)	Fixing feeding outlet sensor (PS11)	0.27
Duplexing reversal sensor (PS12)	Fixing feeding outlet sensor (PS11)	0.30
Post-confluence sensor (PS15)	Pre-confluence sensor (PS14)	0.38
Post-confluence sensor (PS15)	Left deck feed sensor (PS26)	0.17

9.3.2.4 Other Delay Jams

0008-8486

/ iR8070

Basically, the same principles are used to detect delay jams other than pickup sensor delay jams.

F-9-16

T-9-11

Delay jam sensor N	Sensor N-1	Time used I (sec)
Right deck feed sensor (PS27)	Right deck pickup sensor (PS20)	0.12
Left deck feed sensor (PS26)	Left deck pickup sensor (PS25)	0.12
Vertical path 1 sensor (PS47)	Vertical path 2 sensor (PS49)	0.58
Vertical path 1 sensor (PS47)	Left deck feed sensor (PS26)	0.24
Vertical path 1 sensor (PS47)	Post-confluence sensor (PS15)	0.88
Vertical path 2 sensor (PS49)	Vertical path 3 sensor (PS41)	0.38
Vertical path 3 sensor (PS41)	Vertical path 4 sensor (PS46)	0.37
Vertical path 3 sensor (PS41)	Cassette 3 pickups sensor (PS37)	0.12
Vertical path 4 sensor (PS46)	Cassette 4 pickup sensor (PS42)	0.12
Registration sensor (PS5)	Pre-registration sensor (PS47)	0.53
Registration sensor (PS5)	Manual feed sensor (PS35)	0.37
Internal delivery sensor (PS9)	Claw jam sensor (PS6)	0.13
External delivery sensor (PS10)	Internal delivery sensor (PS9)	0.26
External delivery sensor (PS10)	Fixing feeding outlet sensor (PS11)	0.27
Reversal sensor (PS16)	Internal delivery sensor (PS9)	0.18
Reversal sensor (PS16)	Fixing feeding outlet sensor (PS11)	0.10
Duplexing reversal sensor (PS12)	Fixing feeding outlet sensor (PS11)	0.30
U-turn sensor (PS13)	Duplexing reversal sensor (PS12)	0.27
Pre-confluence sensor (PS14)	U-turn sensor (PS13)	1.08
Post-confluence sensor (PS15)	Pre-confluence sensor (PS14)	0.38
Post-confluence sensor (PS15)	Left deck feed sensor (PS26)	0.17

9.3.2.5 Other Delay Jams

0008-8987

iR85+

Basically, the same principles are used to detect delay jams other than pickup sensor delay jams.

F-9-17

T-9-12

Delay jam sensor N	Sensor N-1	Time used I (sec)
Right deck feed sensor (PS27)	Right deck pickup sensor (PS20)	0.12
Left deck feed sensor (PS26)	Left deck pickup sensor (PS25)	0.12
Vertical path 1 sensor (PS47)	Vertical path 2 sensor (PS49)	0.58
Vertical path 1 sensor (PS47)	Left deck feed sensor (PS26)	0.24
Vertical path 1 sensor (PS47)	Post-confluence sensor (PS15)	0.88
Vertical path 2 sensor (PS49)	Vertical path 3 sensor (PS41)	0.38
Vertical path 3 sensor (PS41)	Vertical path 4 sensor (PS46)	0.37
Vertical path 3 sensor (PS41)	Cassette 3 pickups sensor (PS37)	0.12
Vertical path 4 sensor (PS46)	Cassette 4 pickup sensor (PS42)	0.12
Registration sensor (PS5)	Pre-registration sensor (PS47)	0.53
Registration sensor (PS5)	Manual feed sensor (PS35)	0.37
Internal delivery sensor (PS9)	Claw jam sensor (PS6)	0.13
External delivery sensor (PS10)	Internal delivery sensor (PS9)	0.26
External delivery sensor (PS10)	Fixing feeding outlet sensor (PS11)	0.27
Reversal sensor (PS16)	Internal delivery sensor (PS9)	0.18
Reversal sensor (PS16)	Fixing feeding outlet sensor (PS11)	0.10
Duplexing reversal sensor (PS12)	Fixing feeding outlet sensor (PS11)	0.30
U-turn sensor (PS13)	Duplexing reversal sensor (PS12)	0.27
Pre-confluence sensor (PS14)	U-turn sensor (PS13)	1.08
Post-confluence sensor (PS15)	Pre-confluence sensor (PS14)	0.38
Post-confluence sensor (PS15)	Left deck feed sensor (PS26)	0.17

9.3.3 Stationary Jams

9.3.3.1 Common Stationary Jams

0007-0571

iR105i/iR105+ / iR9070 / iR8070

F-9-18

9.3.3.2 Common Stationary Jams

0008-8988

iR85+

F-9-19

9.3.3.3 Stationary Jam at Power-On

0007-0573

iR105i/iR105+ / iR9070 / iR85+ / iR8070

A stationary jam at power-on is identified in relation to the presence/absence of paper over a specific sensor about 1 sec after the control panel power switch is turned on.

9.4 Cassette Pick-Up Unit

9.4.1 Outline

0007-0206

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When the deck or the cassette is slid in, the cassette open/closed sensor turns on and, at the same time, the pickup roller starts to move down, causing the light-blocking plate to leave the lifter sensor, driving the cassette lifter motor and, ultimately, moving up the lifter.
The lifter keeps moving up until the lifter sensor detects the surface of paper. (In the case of the deck right/left, a limiter is mounted to stop the lifter if it fails to stop moving up.)
When the deck or cassette open button is pushed, the drive gear of the lifter becomes free to let the lifter move down on its own weight.

T-9-13

	Right deck	Left deck	Cassette 3	Cassette 4
Cassette open/ closed detection	Deck right open/ closed sensor (PS23)	Deck left open/ closed sensor (PS33)	Cassette 3 open/ closed sensor (PS40)	Cassette 4 open/ closed sensor (PS45)
Lifter position detection	Lifter sensor (PS21)	Lifter sensor (PS31)	Lifter sensor (PS38)	Lifter sensor (PS43)
Paper presence/ absence detection	Deck right paper sensor (PS22)	Deck left paper sensor (PS32)	Cassette 3 paper sensor (PS39)	Cassette 4 paper sensor (PS44)
Paper level detection	Deck right paper level middle sensor (PS51) Deck right paper level upper sensor (PS52)	Deck lifter paper level middle sensor (PS54) Cassette 2 paper level upper sensor (PS55)	Cassette 3 paper level detection PCB (variable resistor)	Cassette 4 paper level detection PCB (variable resistor)
Lifter upper limiter	Deck right limit sensor (PS24)	Deck left limit sensor (PS34)	---	---
Drive motor	Deck right lifter motor (M13)	Deck lifter motor (M14)	Cassette 3 lifter motor (M16)	Cassette 4 lifter motor (M17)

F-9-20

F-9-21

9.4.2 Detecting the Presence/Absence of Paper

0007-0216

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The presence/absent of paper inside the deck and the cassette is detected by the cassette paper sensor.

F-9-22

F-9-23

9.4.3 Detecting the Level of Paper

0007-0231

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine indicates the level of paper inside the deck and the cassette in four readings (including No Paper) on the control panel.

F-9-24

T-9-14

3 bars	100% to about 50% of capacity
2 bars	about 50% to about 10% of capacity
1 bar	about 10% of capacity or less
No bar	No paper

In the case of the deck right/left, two sensors are used to detect the position of the deck, and combinations of the states of the sensors (on/off) are used to find out the level of paper.
For the absence of paper, an exclusive sensor is used.

F-9-25

T-9-15

	Deck right			Deck left		
Paper level	[1] Sensor (PS51)	[2] Sensor (PS52)	Sensor (PS22)	[1] Sensor (PS54)	[2] Sensor (PS55)	Sensor (PS32)
100% to about 50%	ON	ON	ON	ON	ON	ON
About 50% to about 10	OFF	ON	ON	OFF	ON	ON
About 10% or less	OFF	OFF	ON	OFF	OFF	ON
None	OFF	OFF	OFF	OFF	OFF	OFF

In the case of cassette 3/4, the resistance of the variable resistor operating in conjunction with the movement of the lifter drive shaft is used to find out the level of paper.

F-9-26

T-9-16

Related Service Mode	
COPIER> ADJUST> CST-ADJ> C3-LVOL	Reading when 50 sheets exit in the cassette 3
COPIER> ADJUST> CST-ADJ> C3-HVOL	Reading when 275 sheets exist in the cassette 3
COPIER> ADJUST> CST-ADJ> C4-LVOL	Reading when 50 sheets exist in the cassette 4
COPIER> ADJUST> CST-ADJ> C4-HVOL	Reading when 275 sheets exist in the cassette 4
	Record the above readings on the service label.

9.4.4 Cassette 3/4

0007-0263

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1. The length of paper is detected by two photointerrupers (each cassette).
2. The width of paper is detected by a slide volume.

F-9-27

T-9-17

	Cassette 3	Cassette 4
Length detection Width detection	SV1 (2 photointerrupers) SV2	SV2 (2 photointerrupers) SVR3

9.4.5 Markings on the Width Guide Rail

0007-0316

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The width guide rail inside the cassette is equipped with paper size positioning holes, which are marked A through M as shown in Table.
Refer to these markings if the user reports skew movement of paper, thereby deciding whether the paper width is set correctly. (Note that this information is not disclosed to the user.)

T-9-18

Marking	Paper size	Remarks
A	STMT-R	
B	A5-R	
C	B5-R	
D	KLGL-R	U3
E	GLTR-R	
F	G-LGL	
G	A4-R	U2
H	LGL/LTR-R	
I	FLSC	U1 U4
J	B4/B5	
K	G-LTR	
L	279.4x431.8mm (11"x17")/LTR	
M	A3/A4	

9.4.6 Paper Size

0007-0321

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The microprocessor on the DC controller PCB determines the size of paper based on the inputs on paper width and paper length.
Table shows the paper size groupings selected in service mode.
*Paper size selected at time of shipment.

Length sensor	PS102/ PS104	PS101/ PS103	PS102/ PS104	PS101/ PS103	PS102/ PS104	PS101/ PS103	PS102/ PS104	PS101/ PS103
Width sensor (slice level) Unit:mm / Signal	SZ 2	SZ 1	SZ 2	SZ 1	SZ 2	SZ 1	SZ 2	SZ 1
ON/OFF	0	0	0	1	1	0	1	1
288.5	A4		———		A3		———	
273.7	(U4)		———		279.4 × 431.8mm (11" × 17")		———	
261.8	(U1)		———		———		———	
238.0	B5		———		B4		———	
212.9	STMT		LTRR		LGL		(U2)	
206.6	A5		A4R		———		(U3)	
196.6	G-LTRR		———		———			
186.0	K-LGLR		———		———		———	
165.2	B5R		———		———		———	
144.1	A5R		———		———		———	
	STMTR		———		———		———	

F-9-28

Group		Size
U1	*	G-LTR K-LGL
U2	*	FOOLSCAP OFFICIO E-OFFI A-LGL A-OFFI
U3	*	G-LGL FOLIO AUS-FLS
U4	*	LTR A-LTR

F-9-29

T-9-19

Related Service Mode	*** Factory setting.**
COPIER> OPTION> CST> CST-U1	31: GLTR *, 22: KLGL
COPIER> OPTION> CST> CST-U2	24: FLSC *, 26: OFI, 27: E-OFI, 33: A-LGL, 36: A-OFI
COPIER> OPTION> CST> CST-U3	34: GLGL *, 35: FOLI, 25: A-FLS
COPIER> OPTION> CST> CST-U4	18: LTR *, 29: A-LTR

T-9-20

Related Service Mode	
COPIER> ADJUST> CST-ADJ> C3-STMTR	Use it to adjust the paper width basic value for STMTR in the cassette 3.
COPIER> ADJUST> CST-ADJ> C3-A4R	Use it to adjust the paper width basic value for A4R in the cassette 3.
COPIER> ADJUST> CST-ADJ> C4-STMTR	Use it to adjust the paper width basic value for STMTR in the cassette 4.
COPIER> ADJUST> CST-ADJ> C4-A4R	Use it to adjust the paper width basic value for A4R in the cassette 4.

- Papers Supported by the Machine

T-9-21

Paper	**Notation**	**Size (verticalxhorizontal; mm)**
A3	A3	(297 -/+ 1)x(420 -/+ 1)
A4R	A4R	(210 -/+ 1)x(297 -/+)
A4	A4	(297 -/+ 1)x(210 -/+ 1)
A5	A5	(210 -/+ 1)x(148.5 -/+ 1)
A5R	A5R	(148.5 -/+ 1)x(210 -/+ 1)
B4	B4	(257 -/+ 1)x(364 -/+ 1)
B5R	B5R	(182 -/+ 1)x(257 -/+ 1)
B5	B5	(257 -/+ 1)x(182 -/+ 1)
11x17	11x17	(279 -/+ 1)x(432 -/+ 1)
LTRR	LTRR	(216 -/+ 1)x(279 -/+ 1)
LTR	LTR	(279 -/+ 1)x(216 -/+ 1)
STMT	STMT	(216 -/+ 1)x(139.5 -/+ 1)
STMR	STMTR	(139.5 -/+ 1)x(216 -/+ 1)
LEGAL	LGL	(216 -/+ 1)x(356 -/+ 1)
Korean Government	K-LGL	(265 -/+ 1)x(190 -/+ 1)
Korean Government R	K-LGLR	(190 -/+ 1)x(265 -/+ 1)
FOOLSCAP	FLSC	(216 -/+ 1)x(330 -/+ 1)
Australian FOOLSCAP	A-FLS	(206 -/+ 1)x(337 -/+ 1)
OFICIO	OFI	(216 -/+ 1)x(317 -/+ 1)

Paper	Notation	Size (verticalxhorizontal; mm)
Ecuadorian OFFICIO	E-OFI	(220 -/+ 1)x(320 -/+ 1)
Bolivian OFFICIO	B-OFI	(216 -/+ 1)x(355 -/+ 1)
Argentine LTR	A-LTR	(280 -/+ 1)x(220 -/+ 1)
Argentine LTRR	A-LTRR	(220 -/+ 1)x(280 -/+ 1)
Government LTR	G-LTR	(267 -/+ 1)x(203 -/+ 1)
Government LTRR	G-LTRR	(203 -/+ 1)x(267 -/+ 1)
Argentine LGL	A-LGL	(220 -/+ 1)x(340 -/+ 1)
Government LGL	G-LGL	(203 -/+ 1)x(330 -/+ 1)
FOLIO	FOLI	(210 -/+ 1)x(330 -/+ 1)
Argentine OFFICIO	A-OFI	(220 -/+ 1)x(340 -/+ 1)

9.5 Manual Feed Pickup Unit

9.5.1 Pickup Operation

0007-0419

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-9-22

Pickup drive:	pickup motor (M2)
Pickup roller contro:	manual feed tray pickup clutch (CL7)
	manual feed tray pickup solenoid (SL6)
Paper feed detection:	manual feed sensor (PS35)

F-9-30

9.5.2 Detecting the Paper Size

0007-0430

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-9-31

T-9-23

Related Service Mode	
COPIER> ADJUST> CST-ADJ> MF-A4R	Use it to change the paper width basic value for A4R on the manual feed tray.
COPIER> ADJUST> CST-ADJ> MF-A6R	Use it to adjust the paper width basic value for A6R on the manual feed tray.
COPIER> ADJUST> CST-ADJ> MF-A4	Use it to adjust the paper width basic value for A4 on the manual feed tray.

9.6 Deck

9.6.1 Outline

0007-0210

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When the deck or the cassette is slid in, the cassette open/closed sensor turns on and, at the same time, the pickup roller starts to move down, causing the light-blocking plate to leave the lifter sensor, driving the cassette lifter motor and, ultimately, moving up the lifter.
The lifter keeps moving up until the lifter sensor detects the surface of paper. (In the case of the deck right/left, a limiter is mounted to stop the lifter if it fails to stop moving up.)
When the deck or cassette open button is pushed, the drive gear of the lifter becomes free to let the lifter move down on its own weight.

T-9-24

	Right deck	Left deck	Cassette 3	Cassette 4
Cassette open/ closed detection	Deck right open/ closed sensor (PS23)	Deck left open/ closed sensor (PS33)	Cassette 3 open/ closed sensor (PS40)	Cassette 4 open/ closed sensor (PS45)
Lifter position detection	Lifter sensor (PS21)	Lifter sensor (PS31)	Lifter sensor (PS38)	Lifter sensor (PS43)
Paper presence/ absence detection	Deck right paper sensor (PS22)	Deck left paper sensor (PS32)	Cassette 3 paper sensor (PS39)	Cassette 4 paper sensor (PS44)
Paper level detection	Deck right paper level middle sensor (PS51) Deck right paper level upper sensor (PS52)	Deck lifter paper level middle sensor (PS54) Cassette 2 paper level upper sensor (PS55)	Cassette 3 paper level detection PCB (variable resistor)	Cassette 4 paper level detection PCB (variable resistor)
Lifter upper limiter	Deck right limit sensor (PS24)	Deck left limit sensor (PS34)	---	---
Drive motor	Deck right lifter motor (M13)	Deck lifter motor (M14)	Cassette 3 lifter motor (M16)	Cassette 4 lifter motor (M17)

F-9-32

F-9-33

9.6.2 Lifter Limiter (deck right/left)

0007-0213

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When the lifter moves up and the surface of paper reaches the cassette limit sensor, the drive to the lifter motor stops.

F-9-34

9.6.3 Detecting the Presence/Absence of Paper

0007-0214

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The presence/absent of paper inside the deck and the cassette is detected by the cassette paper sensor.

F-9-35

F-9-36

9.6.4 Detecting the Level of Paper

0007-0218

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine indicates the level of paper inside the deck and the cassette in four readings (including No Paper) on the control panel.

F-9-37

T-9-25

3 bars	100% to about 50% of capacity
2 bars	about 50% to about 10% of capacity
1 bar	about 10% of capacity or less
No bar	No paper

In the case of the deck right/left, two sensors are used to detect the position of the deck, and combinations of the states of the sensors (on/off) are used to find out the level of paper.
For the absence of paper, an exclusive sensor is used.

F-9-38

T-9-26

	Deck right			Deck left		
Paper level	[1] Sensor (PS51)	[2] Sensor (PS52)	Sensor (PS22)	[1] Sensor (PS54)	[2] Sensor (PS55)	Sensor (PS32)
100% to about 50%	ON	ON	ON	ON	ON	ON
About 50% to about 10	OFF	ON	ON	OFF	ON	ON
About 10% or less	OFF	OFF	ON	OFF	OFF	ON
None	OFF	OFF	OFF	OFF	OFF	OFF

In the case of cassette 3/4, the resistance of the variable resistor operating in conjunction with the movement of the lifter drive shaft is used to find out the level of paper.

F-9-39

T-9-27

Related Service Mode	
COPIER> ADJUST> CST-ADJ> C3-LVOL COPIER> ADJUST> CST-ADJ> C3-HVOL COPIER> ADJUST> CST-ADJ> C4-LVOL COPIER> ADJUST> CST-ADJ> C4-HVOL	Reading when 50 sheets exit in the cassette 3 Reading when 275 sheets exist in the cassette 3 Reading when 50 sheets exist in the cassette 4 Reading when 275 sheets exist in the cassette 4 Record the above readings on the service label.

9.6.5 Cassette Deck Right/Left

0007-0232

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The cassette deck right/left is not equipped with a paper detecting mechanism, and the paper size is switched as follows (A4, B5, and LTR):
1. By changing the paper size plate of the cassette.
2. By registering the new paper size in service mode.

T-9-28

Cassette Deck	Service Mode	Settings
Cassette deck right Cassette deck left	COPIER> OPTION> CST> P-SZ-C1 COPIER> OPTION> CST> P-SZ-C2	6: A4, 15: B5, 18: LTR

9.7 Registration Unit

9.7.1 Outline

0007-0439

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-9-29

Registration clutch	CL2
Registration clutch drive signal	CL2D
Registration brake clutch	CL3
Registration brake clutch drive signal	CL3D
Shift clutch activation timing	service mode

9.7.2 Control System

0007-0451

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-9-40

9.7.3 Sequence of Operations (registration brake)

0007-0455

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Note: If paper stops for a long time before the registration roller,

- ADF original processing time
- Finisher delivery processing time

F-9-41

As soon as the registration drive signal turns off, the registration brake clutch is kept on depending on the way paper is being fed for a specific period of time to prevent idle rotation otherwise caused by inertia.

T-9-30

Related Service Mode	
COPIER> ADJUST> FEED-ADJ> REGIST	Adjustment of the timing the registration roller clutch is turned on.

9.8 Duplex Feeding Unit

9.8.1 Copying on the First Side

0007-0463

iR105i/iR105+ / iR9070 / iR8070

F-9-42

9.8.2 Printing on the First Side

0008-8989

iR85+

F-9-43

9.8.3 Copying on the Second Side

0007-0467

iR105i/iR105+ / iR9070 / iR8070

F-9-44

9.8.4 Printing on the Second Side

0008-8990

iR85+

F-9-45

9.8.5 Sequence of Operations

0007-0472

iR105i/iR105+ / iR9070 / iR8070

A4, 4 Originals, Double-Sided Copies

F-9-46

9.8.6 Sequence of Operations

0008-8991

iR85+

A4, 2, Double-Sided Prints

F-9-47

9.8.7 Controlling the reversal motor (M11)

0007-0474

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the function of the reversal motor control circuit, and Figure is a block diagram of the circuit.

T-9-31

Item	Description
Power supply	Supplies 24 V from the no-stacking feeder driver PCB.
Drive signal	Signal (DUPI_OFF) from the DC controller PCB.
Operating/drive assembly	See Figure.
Control	ON/OFF control Direction control

Item	Description
Error detection	No error code; however, if a fault in the drive of the motor, a jam will occur.

F-9-48

9.8.8 Controlling the duplexing feeder motor (M12)

0007-0498

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the functions of the duplexing feeder motor control circuit, and Figure is a block diagram of the circuit.

T-9-32

Item	Description
Power supply	24 V is supplied by the no-stacking feeding driver PCB.
Drive signal	Signal (DUPF_OFF) from the DC controller PCB.
Operating/drive assembly	See Figure.
Control	ON/OFF control Rotation control
Error detection	No error code; however, a fault in the motor drive will cause a jam.

F-9-49

9.8.9 No-Stacking Operation

0007-0514

iR105i/iR105+ / iR9070 / iR8070

In no-stacking operation, paper after fixing is moved to the holding tray assembly by the delivery flapper and the reversing flapper and, then, is moved to the lower feeding assembly.
The copier re-orders image pages in its memory for printing, eliminating the need for printing in the order of the originals; as a result, its paper feeding operation need not be held at rest too long and, consequently, double-sided copies may be made faster. As many as two sheets of paper may exist simultaneously between the registration sensor and the lower feeding outlet sensor.

T-9-33

Related Service Mode	
COPIER> DJUST> FEED-ADJ> ADJ-REFE	Use it to adjust the image write start position in main scanning direction for re-pickup. (-10 to 10 mm)

Outline of Operations
For instance, no-stacking operation takes place as follows when making one set of doublesided copies of 10 originals.
1. The 1st sheet is picked up from the deck right.

F-9-50

2. The 1st side is printed on the 1st sheet.
   The 2nd sheet is picked up.

F-9-51

3. The 3rd side is printed on the 2nd sheet.
   The 1st sheet is moved to the holding tray assembly.
   The 3rd sheet is picked up.

F-9-52

4. The 1st sheet is moved to the reversing assembly.

F-9-53

5. The 1st sheet is moved to the lower feeding assembly.
   The 5th side is printed on the 3rd sheet.

F-9-54

6. The 1st sheet is re-picked up from the lower feeding assembly.

F-9-55

7. The 2nd side is printed on the 1st sheet.
   The 2nd sheet is kept in wait, and the 4th sheet is picked up.

F-9-56

8. The 7th side is printed on the 4th sheet, and the 1st sheet is discharged.

F-9-57

9. The 4th side is printed on the 2nd sheet, and the 3rd sheet is kept in wait in the lower feeding assembly.
   The 5th sheet is picked up.

F-9-58

10. The 2nd sheet is discharged.
   The 9th side is printed on the 5th sheet.

F-9-59

11. The 6th side is printed on the 3rd sheet.

F-9-60

12. The 3rd sheet is discharged.

F-9-61

13. The 8th side is printed on the 4th sheet.

F-9-62

14. The 4th sheet is discharged, and the 10th side is printed on the 5th sheet.

F-9-63

15. The 5th sheet is discharged.

F-9-64

9.8.10 No-Stacking Operation

0009-1605

iR85+

In no-stacking operation, paper after fixing is moved to the holding tray assembly by the delivery flapper and the reversing flapper and, then, is moved to the lower feeding assembly.
The machine re-orders image pages in its memory for printing, eliminating the need for printing in the order of the originals; as a result, its paper feeding operation need not be held at rest too long and, consequently, double-sided copies may be made faster. As many as two sheets of paper may exist simultaneously between the registration sensor and the lower feeding outlet sensor.

T-9-34

Related Service Mode	
COPIER> DJUST> FEED-ADJ> ADJ-REFE	Use it to adjust the image write start position in main scanning direction for re-pickup. (-10 to 10 mm)

Outline of Operations
For instance, no-stacking operation takes place as follows when making 5 doublesided prints.
1. The 1st sheet is picked up from the deck right.

F-9-65

2. The 1st side is printed on the 1st sheet.
   The 2nd sheet is picked up.

F-9-66

3. The 3rd side is printed on the 2nd sheet.
   The 1st sheet is moved to the holding tray assembly.
   The 3rd sheet is picked up.

F-9-67

4. The 1st sheet is moved to the reversing assembly.

F-9-68

5. The 1st sheet is moved to the lower feeding assembly.
   The 5th side is printed on the 3rd sheet.

F-9-69

6. The 1st sheet is re-picked up from the lower feeding assembly.

F-9-70

7. The 2nd side is printed on the 1st sheet.
   The 2nd sheet is kept in wait, and the 4th sheet is picked up.

F-9-71

8. The 7th side is printed on the 4th sheet, and the 1st sheet is discharged.

F-9-72

9. The 4th side is printed on the 2nd sheet, and the 3rd sheet is kept in wait in the lower feeding assembly.
   The 5th sheet is picked up.

F-9-73

10. The 2nd sheet is discharged.
    The 9th side is printed on the 5th sheet.

F-9-74

11. The 6th side is printed on the 3rd sheet.

F-9-75

12. The 3rd sheet is discharged.

F-9-76

13. The 8th side is printed on the 4th sheet.

F-9-77

14. The 4th sheet is discharged, and the 10th side is printed on the 5th sheet.

F-9-78

15. The 5th sheet is discharged.

F-9-79

9.8.11 Detecting the Horizontal Registration Position

0007-0531

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-9-35

Paper position detection	By the horizontal registration sensor (PS18)
Detection start timing	By the post-confluence sensor (PS15)
Drive	By the horizontal registration motor (M15)
Position measurement	By controlling the horizontal registration motor pulses (1 pulse = about 0.16 mm)
Related service mode	COPIER> ADJUST> FEED-ADJ> ADJ-REFE
Related error code	E051: The home position cannot be detected within a specific period of time.

F-9-80

The horizontal registration sensor moves to the start position (A4 detection position) when the main power switch is turned on or the front cover is closed, and moves to a detection position to suit the size of paper expected in the lower feeding assembly. Its position of etection is "paper width +2 mm."
The paper detection mechanism starts when paper moved to the lower feeding assembly has moved past the confluence sensor (PI 15) and has been moved over a specific distance (about 10mm past the horizontal registration sensor).

The position of paper is detected with reference to the start position and by finding out the difference between the start position and the actual paper position from the number of drive pulses (1 pulse = about 0.16 mm) of the motor.

F-9-81

9.8.12 Controlling the Horizontal Registration Motor (M15)

0007-0541

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Table shows the functions of the reversal motor control circuit, and the Figure is a block diagram of the circuit.

T-9-36

Item	Description
Power supply	24 V is supplied by the no-stacking feeding driver PCB.
Drive signal	Signal (SREGI_HOLD) from the DC controller PCB.
Operating/drive assembly	See Figure.
Control	ON/OFF control Rotation control Stop position retention
Error detection	Error code "E051"

When the M15 drive signal goes '1', the pickup motor starts to rotate.
When the M15 drive signal goes '0', the pickup motor is held in stop state.
DC controller PCB
No-stacking feeding driver PCB
+24V
FU3
+24V
J519
J3602
J3603
CPU (IC13)
A8
A7
A6
A5
SREJI-HOLD
SREJI-B
SREJI-A
A1
A2
A3
A4
Interface circuit
Interface circuit
Interface circuit
Motor driver (IC2)
A
A*
B
B*
B4
B5
B3
B2
B6
B1
M15
Phase-A excitation control signal
Phase-B excitation control signal

F-9-82

9.9 Delivery

9.9.1 Reversal Delivery

0007-0546

iR105i/iR105+ / iR9070 / iR8070

The copier discharges paper either in face-up delivery or in face-down delivery mode.

T-9-37

Delivery	Copying operation
Face-up	- Making multiple copies of a single original. - Making copies on transparencies (However, the images will be mirror images.)
Face-down	- Other than above

F-9-83

T-9-38

Parts (notation)	Description
Main motor (M1)	Drives the feeding roller.
Delivery flapper solenoid (SL3)	Turns on in face-up mode to lead paper to the delivery assembly.
Delivery speed switching clutch (CL21)	Turns on in reversal delivery mode to speed up the rotation of the external delivery roller.
Reversing flapper solenoid (SL11)	Turns off in reversal delivery mode to lead paper to the reversing assembly.
Reversal motor (M11)	Moves paper to the reversing assembly.

9.9.2 Reversal Delivery

0008-8992

iR85+

The machine discharges paper in face-down delivery mode.

F-9-84

T-9-39

Parts (notation)	Description
Main motor (M1)	Drives the feeding roller.
Delivery flapper solenoid (SL3)	Off
Delivery speed switching clutch (CL21)	Turns on in reversal delivery mode to speed up the rotation of the external delivery roller.
Reversing flapper solenoid (SL11)	Turns off in reversal delivery mode to lead paper to the reversing assembly.
Reversal motor (M11)	Moves paper to the reversing assembly.

9.10 Parts Replacement Procedure

9.10.1 Cassette Pickup Assembly

9.10.1.1 Removing the Cassette 3 Pickup Assembly

0007-1247

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the deck.
2) Open the upper right cover and the lower right cover.

The pickup assembly cannot be removed unless the deck has been removed (the lifter will get trapped).

3) Remove the mounting screw [1], and detach the connector cover [2]; then, disconnect the connector [3].
4) Remove the three mounting screws [4], and detach the pickup assembly [5].

F-9-85

9.10.1.2 Removing the Cassette 4 Pickup Assembly

0007-1251

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the deck.
2) Open the upper right cover and the lower right cover.

The pickup assembly cannot be removed unless the deck has been removed (the lifter will get trapped).

3) Remove the mounting screw [1], and detach the connector cover [2]; then, disconnect the connector [3].
4) Remove the three mounting screws [4], and detach the pickup assembly [5].

F-9-86

9.10.1.3 Removing the Vertical Path 3/4 Sensor and the Cassette 3/4 Pickup Sensor

0008-4519

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the cassette 3/4 pickup assembly.
2) Remove the screw, and detach the static eliminator [2].
3) Remove the screw [3], and detach the pickup assembly sensor base.

F-9-87

4) Disconnect the connector [1] (1 pc. each), and free the claw; then, detach the vertical path 3/4 sensor [2] and the cassette 3/4 pickup sensor [3].

F-9-88

9.10.2 Cassette Lifter Motor

9.10.2.1 Removing the Lifter Motor (M16/M17) of the Cassette (3/4)

0007-1318

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the front deck (right); then, slide out the cassette 3/4.

2) Remove the front lower right cover of the cassette assembly as instructed under "Removing the Vertical Path Roller 2."
3) Remove the two fixing screws [1] of the lifter motor (M16/M17), and disconnect the connector [2]; then, detach the lifter motor [3].

F-9-89

9.10.3 Front Deck Pickup Assembly

9.10.3.1 Removing the Front Deck (right)

0007-1245

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the deck.
2) Open the upper right cover and the lower right cover.

The pickup assembly cannot be removed unless the deck has been removed (the lifter will get trapped).

3) Remove the mounting screw [1], and detach the connector cover [2]; then, disconnect the connector [3].
4) Remove the three mounting screws [4], and detach the pickup assembly [5].

F-9-90

9.10.3.2 Removing the Pickup Assembly of the Front Deck (left)

0007-1246

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the deck (right, left).
2) Remove the two stoppers [2] from both left and right of the deck (left) [1].

F-9-91

3) Disconnect the connector [3] from inside the machine.

F-9-92

4) Remove the two screws [4], and remove the two pickup assembly fixing plate [5]; then, detach the cassette 2 pickup assembly [6].

F-9-93

When removing the fixing plate, be sure to support the pickup assembly to avoid dropping it.

9.10.4 Left Deck Pickup Sensor

9.10.4.1 Removing the Left Deck Pickup Sensor

0007-4275

iR105i/iR105+ / iR9070

1) Remove the front deck (left) pickup assembly.
2) Remove the screw [1], and detach the pickup sensor unit [2].

F-9-94

3) Disconnect the connector [1], and detach the left deck pickup sensor [2].

F-9-95

When removing the scanner sensor, be sure to remove the paint used to lock the claw in place in advance to prevent breaking the claw. When mounting it, be sure the claw is not displaced or the sensor is not disoriented.

9.10.5 Right Deck Pickup Sensor

9.10.5.1 Removing the Right Deck Feed Sensor/Right Deck Pickup Sensor

0007-4502

iR105i/iR105+ / iR9070

1) Remove the front deck (right) pickup assembly.
2) Remove the guide plate [1].

F-9-96

3) Remove the screw [1], and detach the stack eliminator [2].
4) Remove the 2 screws [3], and detach the pickup assembly sensor base [4].

F-9-97

5) Disconnect the connector [1] (1 pc. each), and free the claw; then, detach the right deck feed sensor [2] and the right deck pickup sensor [3].

F-9-98

When removing the scanner sensor, be sure to remove the paint used to lock the claw in place in advance to prevent breaking the claw. When mounting it, be sure the claw is not displaced or the sensor is not disoriented.

9.10.6 Manual Tray Assembly

9.10.6.1 Removing the Manual Feed Tray Unit

0007-2788

iR105i/iR105+ / iR9070

1) Remove the control panel unit.
2) Remove the upper right cover.
3) Open the manual feed tray unit [1].
4) Remove the screw [2], and detach the door tape [3] from the machine side.

5) Remove the screw [4], and detach the connector cover [5].
6) Disconnect the connector [6], and detach the manual feed tray unit [1] upward while it is kept open at about 90 deg.

F-9-99

9.10.6.2 Removing the Manual Feed Tray Unit

0008-8178

/ iR85+ / iR8070

1) Remove the upper right cover.
2) Open the manual feed tray unit [1].
3) Remove the screw [2], and detach the door tape [3] from the machine side.
4) Remove the screw [4], and detach the connector cover [5].
5) Disconnect the connector [6], and detach the manual feed tray unit [1] upward while it is kept open at about 90 deg.

F-9-100

9.10.6.3 Fitting the Side Guide Timing Belt for the Manual Feed Tray Assembly(iR105)

0007-2790

iR105

1) Butt the rack plate [1] of the manual feed tray against section A (in open state).
2) Move the slide volume [2] in the direction of B, and fit the timing belt [3] to the pulley [4] and the pulley [5].

F-9-101

9.10.6.4 Fitting the Side Guide Timing Belt for the Manual Feed Tray Assembly

0008-8180

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Butt the rack plate [1] of the manual feed tray against section A (in open state).
2) Move the slide volume [2] in the direction of B, and fit the timing belt [3] to the pulley [4] and the pulley [5].

F-9-102

9.10.7 Manual Pickup Roller

9.10.7.1 Removing the Pickup Roller

0007-1271

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the manual tray paper guide.
2) Remove the left/right stop rings [1] (two each), shutters [2] (two each), spacers [3] (two each), and rolls [4] (two each).

F-9-103

If the multifeeder is used during installation or if the multifeeder has not been used for a long time, pickup can fail. If such happens, detach the protective sheet from the sponge roller, and dry wipe the sponge roller.

9.10.7.2 Mounting the Pickup Roller

0007-1272

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Mount the pickup roller by reversing the steps used to remove it with the following in mind:
- The front pickup roller and the rear pickup roller are not interchangeable.
- The front pickup roller is identified by its silver- colored collar.

When mounting the pickup roller [1] to the pickup assembly, be sure that the round marking [2] on the collar (silver) is toward the machine's front,
- The rear pickup roller is identified by its gold collar.

When mounting the pickup roller [3] to the pickup assembly, be sure that the round marking [4] on the side of the roller and the round marking [5] on its collar (gold) are toward the machine's rear.

F-9-104

F-9-105

9.10.8 Manual Feed Roller

9.10.8.1 Removing the Feeding Roller

0007-1273

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the pickup roller, and remove the stop ring.
2) Remove the two screws [1], and detach the manual feed tray guide [2].

F-9-106

3) Remove the stop ring [3] from the front of the feeding roller assembly, and move the feeding roller assembly [5] together with the timing belt [4] to detach.

F-9-107

9.10.8.2 Orientation of the Feeding Roller

0007-1274

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When mounting the feeding roller [6] to the manual feed tray pickup assembly, be sure that the belt pulley [7] and the round marking [8] are toward the machine's front.

F-9-108

9.10.8.3 Removing the Manual Feed Roller

0007-1243

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the manual feed tray door.
2) Remove the two screws [3], and detach the front fixing plate [2] of the manual feed roller assembly [1].

F-9-109

3) Remove the screw [5], and detach the rear fixing plate 1 [4]; then, detach the rear fixing plate 2 [6].

F-9-110

4) Remove the E-ring [7], spacer [8], and bearing [9] at both front and rear; then, detach the manual feed roller [10].

F-9-111

9.10.8.4 Mounting the Manual Feed Roller

0007-1244

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Set the manual feed roller assembly to the main body.
2) Mount the rear fixing plate 2 and the rear fixing plate 1 in the order indicated; then, secure them in place with the mounting screw [3].

F-9-112

When mounting the manual feed roller, hook the two claws of the rear fixing plate 2 on the three holes in the rear side plate; then, mount the rear fixing plate 1 to secure.

3) Secure the front fixing plate [4] with two screws [5].

F-9-113

9.10.9 Manual Separation Roller

9.10.9.1 Removing the Separation Roller

0007-1284

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the two mounting screws [1], and detach the separation roller support plate [2].
2) Remove the joint [3], and detach the separation roller [4].

F-9-114

When removing the separation roller, pay attention to the bushing at the front.
It will slip off.

Initially, the urethane sponge of the part is pink, and changes over time (accelerated if exposed to light).
Its tone will change from pink to orange and to yellow; it is a general characteristic of urethane sponge, and no physical deterioration (in performance) exists because of changes in color, and the part is not identified by color.

F-9-115

9.10.10 Manual Feed Tray sensor

9.10.10.1 Removing the Manual Feed Tray Paper Sensor

0007-2791

iR105i/iR105+ / iR9070

1) Open the manual feed tray unit, and remove the door tape from the machine side.
2) Remove the mounting screw [1], and detach the solenoid cover [3]. (A claw [2] is hooked on the L-shaped opening; pull it down lightly, and move it as if to open it.)

F-9-116

3) Disconnect the connector [1].
4) Remove heater mounting screw [2], and detach the pickup roller releasing solenoid [3] together with the support plate.

F-9-117

5) Remove the screw [1], and detach the connector cover [2]; then, disconnect the connector [3].

F-9-118

6) Open the manual feed tray.
7) Remove the 11 mounting screws [1], and detach the manual feed tray pickup assembly [2].

F-9-119

8) Remove the 2 mounting screws [1], and detach the upper guide plate [2].

F-9-120

9) Remove the 2 mounting screws [1] found at the bottom, and detach the lower cover [2].

F-9-121

10) Remove the 2 mounting screws [1], and detach the middle guide plate [2].

F-9-122

11) Remove the 2 mounting screws [2] of the sensor unit [1].

F-9-123

12) Disconnect the connector [1], and detach the sensor unit [2].
13) Remove the sensor [3] from the sensor unit [2].

F-9-124

9.10.10.2 Removing the Manual Feed Tray Paper Sensor

0008-8181

/ iR85+ / iR8070

1) Open the manual feed tray unit, and remove the cover tape from the machine side.
2) Remove the mounting screw [1], and detach the solenoid cover [3] (A claw [2] is hooked on the L-shaped opening; pull it down lightly, and move it as if to open it).

F-9-125

3) Disconnect the connector [1].
4) Remove heater mounting screw [2], and detach the pickup roller releasing solenoid [3] together with the support plate.

F-9-126

5) Remove the screw [1], and detach the connector cover [2]; then, disconnect the connector [3].

F-9-127

6) Open the manual feed tray.
7) Remove the 11 mounting screws [1], and detach the manual feed tray pickup assembly [2].

F-9-128

8) Remove the 2 mounting screws [1], and detach the upper guide plate [2].

F-9-129

9) Remove the 2 mounting screws [1] found at the bottom, and detach the lower cover [2].

F-9-130

10) Remove the 2 mounting screws [1], and detach the middle guide plate [2].

F-9-131

11) Remove the 2 mounting screws [2] of the sensor unit [1].

F-9-132

12) Disconnect the connector [1], and detach the sensor unit [2].
13) Remove the sensor [3] from the sensor unit [2].

F-9-133

9.10.11 Registration Roller

9.10.11.1 Removing the Registration Roller

0007-1370

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the front cover of the fixing feeding unit.
2) Remove the transfer separation charging assembly.
3) Remove the registration brake clutch.
4) Remove the E-ring [1], and detach the clutch drive gear [2].

F-9-134

When removing the drive gear, take care not to drop the pin.

5) Remove the spring [3], E-ring [4], and bushing [5] at the front.

F-9-135

6) Remove the registration clutch.
7) Remove the spring [6], E-ring [7], spacer [8], and bushing [9] at the rear; then, detach the registration roller [10].

F-9-136

9.10.12 Pre-Registration Roller

9.10.12.1 Removing the Pre-Registration Roller

0007-1376

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Open the middle right cover, and remove the screw [1]; detach the connector cover [2], and remove the two screws [3]; then, detach the rear fixing plate [4].

F-9-137

2) Remove the screw [5], and detach the front fixing plate [6]; then, detach the preregistration roller assembly [7].

F-9-138

3) Remove the two springs [8], E-ring [9], and arm support shaft [10] at the front.
4) Remove the E-ring [11], spacer [12], and bearing [13].

F-9-139

5) Perform steps 3) and 4) for the rear; then, detach the pre-registration roller assembly.

9.10.13 Registration Clutch

9.10.13.1 Removing the Registration Clutch

0007-2867

iR105i/iR105+ / iR9070

1) Remove the fixing/feed unit.
2) Shift up the releasing lever.
3) Disconnect the connector [1], and detach the harness of the clutch from the clutch cover [2].
4) Remove the screw [3], and detach the clutch cover [2] and the bearing [4].

F-9-140

5) Loosen the 2 adjusting screws [1], and detach the registration clutch [2].

F-9-141

F-9-142

When mounting the registration clutch, be sure to hook the clutch stop [A] on the protrusion [B] of the clutch cover.

9.10.13.2 Removing the Registration Clutch

0008-8184

/ iR85+ / iR8070

1) Remove the fixing/feed unit.
2) Shift up the releasing lever.
3) Disconnect the connector [1], and detach the harness of the clutch from the clutch cover [2].
4) Remove the screw [3], and detach the clutch cover [2] and the bearing [4].

F-9-143

5) Loosen the 2 adjusting screws [1], and detach the registration clutch [2].

F-9-144

F-9-145

When mounting the registration clutch, be sure to hook the clutch stop [A] on the protrusion [B] of the clutch cover.

9.10.14 Registration Brake Clutch

9.10.14.1 Removing the Registration Brake Clutch

0007-2869

iR105i/iR105+ / iR9070

1) Remove the transfer separation charging assembly front cover. (1 screw)
2) Disconnect the connector [1], and loosen the 2 screws [2] (w/ hex hole); then, detach the registration brake clutch [3].

F-9-146

9.10.14.2 Removing the Registration Brake Clutch

0008-8185

/ iR85+ / iR8070

1) Remove the transfer separation charging assembly front cover (1 screw).
2) Disconnect the connector [1], and loosen the 2 screws [2] (w/ hex hole); then, detach the registration brake clutch [3].

F-9-147

9.10.15 Fixing/Feed Unit

9.10.15.1 Removing the Fixing/Feed Unit

0007-2877

iR105i/iR105+ / iR9070

1) Slide out the fixing/feed unit.
2) Remove the 2 stepped screws [1].

F-9-148

3) Remove the fixing/feed unit [1] from the slide rail [2].

F-9-149

Be sure to work as a group of two.

9.10.15.2 Removing the Fixing/Feed Unit

0008-8190

/ iR85+ / iR8070

1) Slide out the fixing/feed unit.
2) Remove the 2 stepped screws [1].

F-9-150

3) Remove the fixing /feed unit [1] from the slide rail [2].

F-9-151

Be sure to work as a group of two.

9.10.16 Feeding Roller

9.10.16.1 Removing the Feeding Roller

0007-1277

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the pickup assembly from the main body.
2) Remove the screw [2], and detach the feeding roller cover [1].
3) Remove the stop ring [3] form the front of the fixing roller.
4) Remove the stop ring [4] and the pickup roller [5] at the font; then, detach the feeding roller [7] together with the timing belt [6].

F-9-152

9.10.16.2 Orientation of the Feeding Roller of the Deck/ Cassette Pickup Assembly

0007-1281

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When mounting the feeding roller assembly [1] to the deck/cassette pickup assembly, be sure that the belt pulley [2] is toward the machine's front.
When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the machine's front.

F-9-153

9.10.17 Vertical Path Roller

9.10.17.1 Removing the Vertical Path Roller 1/3/4

0007-2865

iR105i/iR105+ / iR9070

1) Remove the deck right/cassette pickup assembly.
2) Remove the E-ring [1] and the bearing [2] from the front, and remove the grip ring [3], clutch [4], and bearing [5] from the rear.

F-9-154

3) Remove the E-ring [1] of the front and the rear of the roller shaft, and move the bearings [2] toward the inside; then, detach the guide plate [3].

F-9-155

4) Remove the E-ring [1], and remove the bearing [2] to detach the vertical path roller [3].

F-9-156

9.10.17.2 Removing the Vertical Path Roller 1/3/4

0008-8182

/ iR85+ / iR8070

1) Remove the deck right/cassette pickup assembly.
2) Remove the E-ring [1] and the bearing [2] from the front, and remove the grip ring [3], clutch [4], and bearing [5] from the rear.

F-9-157

3) Remove the E-ring [1] of the front and the rear of the roller shaft, and move the bearings [2] toward the inside; then, detach the guide plate [3].

F-9-158

4) Remove the E-ring [1], and remove the bearing [2] to detach the vertical path roller [3].

F-9-159

9.10.17.3 Removing the Vertical Path Roller 2

0007-2866

iR105i/iR105+ / iR9070

1) Slide out the deck (right) and the caste 3/4.
2) Remove the 3 screws [1], and detach the right lower front cover [2].

F-9-160

3) Disconnect the connector [1] and the screw [2]; then, detach the guide plate [3].

F-9-161

4) Remove the E-ring [1] at the front of the roller shaft, and move the bearing [2] toward the inside; then, detach the vertical path roller 2 [3].

F-9-162

9.10.17.4 Removing the Vertical Path Roller 2

0008-8183

/ iR85+ / iR8070

1) Slide out the deck (right) and the caste 3/4.
2) Remove the 3 screws [1], and detach the right lower front cover [2].

F-9-163

3) Disconnect the connector [1] and the screw [2]; then, detach the guide plate [3].

F-9-164

4) Remove the E-ring [1] at the front of the roller shaft, and move the bearing [2] toward the inside; then, detach the vertical path roller 2 [3].

F-9-165

9.10.18 Fixing Feeding Unit Releasing Lever Sensor

9.10.18.1 Removing the Fixing Feeding Unit Releasing lever Sensor

0007-1408

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the fixing feeding unit from the main body.
2) Detach the fixing feeding unit front cover.
3) Release the claw of the fixing feeding unit releasing lever sensor [1].

F-9-166

9.10.19 Feeding Belt

9.10.19.1 Removing the Feeding Belt

0007-1382

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the fixing feeding unit from the main body.
2) Remove the fixing feeding unit front cover.
3) Disconnect the three connectors [1], and remove the screw [2]; then, detach the harness guide [3].

F-9-167

4) Remove the two screws [4], and detach the fixing feeding unit releasing lever support plate [5].

F-9-168

5) Remove the E-ring [6], bearing [7], and three screws [8].

F-9-169

6) Remove the E-ring [9], gear [10], pin [11], three screws [12], E-ring [13], and bearing [14].

F-9-170

7) Remove the feeding belt unit [15], and detach the feeding belt [16] and the postcard belt [17].

F-9-171

9.10.20 Duplexing Unit

9.10.20.1 Removing the Duplexing Unit

0007-1411

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the duplexing unit from the main body.
2) Holding the left and right grips of the duplexing unit, detach it from the main body.

F-9-172

Take care not to trap your hand between the grip and the rail. Do not place the duplexing unit where it is subjected to damage.

9.10.20.2 Removing the Reversal Motor

0008-8187

/ iR85+ / iR8070

1) Remove the front cover of the duplexing unit.
2) Disconnect he two connectors [1], and remove the four screws [2] then, detach the reversal motor[3] together with the motor support plate [4].

F-9-173

3) Remove the four screws [1], and detach the reversal motor [2].

F-9-174

9.10.20.3 Removing the Reversal Motor

0007-2870

iR105i/iR105+ / iR9070

1) Remove the duplex feed fan unit.
2) Loosen the screw [1]; then, while pulling the tension support plate [2] in the direction of the arrow, tighten the screw [1] (to loosen the tension of the belt [2]).
3) Disconnect the connector [4], and remove the 2 screws [5]; then, detach the reversal motor [6].

F-9-175

9.10.20.4 Removing the Duplex Left Feed Motor

0007-2871

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplex feed fan unit.
2) Loosen the screw [1]; then, while pulling the tension support plate [2] in the direction of the arrow, tighten the screw [1] (to loosen the tension of the belt [3]).
3) Disconnect the connector [4], and remove the 2 screws [5]; then, detach the duplex left feed motor [6].

F-9-176

9.10.20.5 Removing the Lower Feed Motor

0008-8188

/ iR85+ / iR8070

1) Remove the duplexing unit front cover (four screws, three knobs).
2) Disconnect the connector [1], and remove the two screws [2]; then, detach the lower feed motor [3].

F-9-177

9.10.20.6 Removing the Reversing Flapper Solenoid

0007-1416

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplexing unit from the main body.
2) Remove the two screws [1], and disconnect the connector [2]; then, detach the reversing flapper solenoid [3].

F-9-178

9.10.20.7 Removing the Duplex Right Feed Motor

0007-2874

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the front cover of the duplex unit. (4 screws, 3 knobs)
2) Loosen the screw [1]; then, while pulling the tension support plate [2] in the direction of the arrow, tighten the screw [1] (to loosen the tension of the belt [3]).
3) Disconnect the connector [4], and remove the 2 screws [5]; then, detach the duplex right feed motor [6].

F-9-179

9.10.20.8 Removing the Left Deck Feed Sensor

0007-2875

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the duplex unit assembly.
2) Remove the screw [1], and detach the sensor base [2].

F-9-180

3) Disconnect the connector [1], and free the claw to detach the left deck feed sensor [2].

F-9-181

When removing the scanner sensor, be sure to remove the paint used to lock the claw in place in advance to prevent breaking the claw. When mounting it, be sure the claw is not displaced or the sensor is not disoriented.

9.10.20.9 Removing the Horizontal Registration Motor

0007-1422

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplexing unit from the main body.
2) Remove the two screws [1], and detach the upper cover [2].

F-9-182

3) Disconnect the connector [3], and remove the screw [4]; then, detach the horizontal registration motor [5].

F-9-183

9.10.20.10 Removing the Deck (left) Draw- Out Clutch/ Lower Feeder Middle Clutch

0007-1424

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplexing unit from the main body.
2) Remove the front cover.
3) Remove the two set screws [2] to detach the locking ring [1]; then, disconnect the connector [3], and detach the clutch [4]. (Be sure to perform this for each pair.)

F-9-184

9.10.20.11 Removing the Lower Feeding Right Clutch

0007-1425

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplexing unit from the main body.
2) Remove the front cover.
3) Disconnect the connector [1], and remove the two screws [2]; then, detach the latch plate [3].

F-9-185

4) Remove the bearing [4] and spacer [5]; then, detach the lower feeding right clutch [6].

F-9-186

9.10.20.12 Removing the Pre-Confluence Sensor

0007-1452

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Disconnect the connector [1] from the bottom of the duplexing unit; then, remove the screw [2], and detach the preconfluence sensor [3].

F-9-187

9.10.20.13 Removing the Post-Confluence Sensor

0007-1454

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the two screws [1] from the bottom of the duplexing unit; then, detach the left deck feeding roller assembly [2].

F-9-188

2) Disconnect the connector [3]; then, remove the screw [4], and detach the postconfluence sensor [5].

F-9-189

9.10.20.14 Removing the Front Deck (lifter) Draw-Out Sensor

0007-1456

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Disconnect the connector [1] from the bottom of the duplexing unit; then, remove the screw [2], and detach the front deck (left) feed sensor [3].

F-9-190

9.10.20.15 Removing the Horizontal Registration Sensor

0007-1458

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the duplexing unit from the main body.
2) Remove the front cover.
3) Disconnect the connector [1], and remove the three screws [2].

F-9-191

4) Remove the screw [3], and detach the duplexing unit right fixing assembly [4]; then, remove the two screws [5] at the rear, and detach the right grip plate [6].

F-9-192

When mounting the right grip plate, be sure that the boss on the grip plate is in the hole of the side plate.

5) Remove the screw [7], and detach the horizontal registration sensor [8].

F-9-193

9.10.21 Separation Roller

9.10.21.1 Removing the Separation Roller

0007-1291

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the two mounting screws [1], and remove the feeding guide plate [2]; then, detach the open/close guide [3]. (Skip this step for the pickup assembly of the front deck left.)

F-9-194

2) Remove the two mounting screws [4], and remove the separation roller assembly [5] from the joint. (If for the pickup assembly of the front deck left, remove one screw.)

F-9-195

3) Detach the separation roller [6] from the separation roller shaft mount.

F-9-196

Initially, the urethane sponge of the part is pink, and changes over time (accelerated if exposed to light).
Its tone will change from pink to orange and to yellow; it is a general characteristic of urethane sponge, and no physical deterioration (in performance) exists because of changes in color, and the part is not identified by color.

F-9-197

9.10.21.2 Orientation of the Separation Roller

0007-1297

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Keep the following in mind when replacing the separation roller.

F-9-198

If mounted in the wrong orientation, interference with the clamp washer can lead to faults. Take care.

Chapter 10 Fixing System

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10.1 Construction

10.1.1 Outline

0008-6185

iR105i/iR105+ / iR9070

Table shows the major functions of the fixing system.

T-10-1

Component	Notation	Description
Fixing upper roller		Heat roller, 60-mm dia.
Fixing lower roller		Pressure roller, 50-mm dia.
Fixing motor	M3	DC motor, 33 W
Main heater	H1	200V model: 1150 W
		208V model: 1220 W
		230V model: 1185 W
Sub heater	H2	200V model: 565 W
		208V model: 600 W
		230V model: 645 W
Main thermistor	TH1	Temperature control, error detection
Sub thermistor	TH2	Error detection
Thermal switch	TP1	Operating temperature: 228 deg C
Cleaning web		Driven by web drive solenoid (SL2);
		for large-size paper (B4 or larger), goes ON twice;
		for small-size paper (smaller than B4), goes on once
Inlet guide		Fixed

10.1.2 Outline

0008-9052

/ iR8070

Table shows the major functions of the fixing system.

T-10-2

Component	Notation	Description
Fixing upper roller		Heat roller, 60-mm dia.
Fixing lower roller		Pressure roller, 50-mm dia.
Fixing motor	M3	DC motor, 33 W
Main heater	H1	100V model: 800 W
		208V model: 900 W
		230V model: 900 W
Sub heater	H2	100V model: 250 W
		208V model: 600 W
		230V model: 600 W
Main thermistor	TH1	Temperature control, error detection
Sub thermistor	TH2	Error detection
Thermal switch	TP1	Operating temperature: 228 deg C
Cleaning web		Driven by web drive solenoid (SL2);
		for large-size paper (B4 or larger), goes ON twice;
		for small-size paper (smaller than B4), goes on once
Inlet guide		Fixed

10.1.3 Outline

0008-9053

Table shows the major functions of the fixing system.

T-10-3

Component	Notation	Description
Fixing upper roller		Heat roller, 60-mm dia.
Fixing lower roller		Pressure roller, 50-mm dia.
Fixing motor	M3	DC motor, 33 W
Main heater	H1	100V model: 1000 W
		208V model: 900 W
		230V model: 900 W
Sub heater	H2	100V model: 400 W
		208V model: 600 W
		230V model: 600 W
Main thermistor	TH1	Temperature control, error detection
Sub thermistor	TH2	Error detection
Thermal switch	TP1	Operating temperature: 228 deg C
Cleaning web		Driven by web drive solenoid (SL2);
		for large-size paper (B4 or larger), goes ON twice;
		for small-size paper (smaller than B4), goes on once
Inlet guide		Fixed

10.1.4 Outline

0009-1342

iR85+

T-10-4

Component	Notation	Description
Fixing upper roller		Heat roller, 60-mm dia.
Fixing lower roller		Pressure roller, 50-mm dia.
Fixing motor	M3	DC motor, 33 W
Main heater	H1	208V model: 900 W
		230V model: 900 W
Sub heater	H2	208V model: 600 W
		230V model: 600 W
Main thermistor	TH1	Temperature control, error detection
Sub thermistor	TH2	Error detection
Thermal switch	TP1	Operating temperature: 228 deg C
Cleaning web		Driven by web drive solenoid (SL2);
		for large-size paper (B4 or larger), goes ON twice;
		for small-size paper (smaller than B4), goes on once
Inlet guide		Fixed

10.1.5 Major Components

0006-9824

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-10-1

F-10-2

10.1.6 Fixing Drive System Outline

0007-0643

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The fixing drive system is controlled for the following:
[1] Drive of the fixing roller.
[2] Drive of the cleaning belt.
[3] Drive of the fixing inlet guide.
[4] Drive of the thermistor reciprocating mechanism.
[5] Drive of the upper separation claw reciprocating mechanism.

F-10-3

10.1.7 Controlling the Fixing Roller Drive Mechanism

0007-0646

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the control system used to control the fixing roller drive mechanism.

F-10-4

T-10-5

Related Error Code	
E014 (fixing motor speed error)	FXM-LCK is '1' for more than 2 sec while the motor is rotating (i.e., FXM-ON=1).

10.1.8 Controlling the Cleaning Belt Drive Mechanism

0007-0650

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the construction of the control system used to control the cleaning belt drive mechanism.

MEMO:
After the message "Ceaning Belt Running Out" has appeared, about 100,000 copies (A4) may be made. (In the case of A3, about 50,000 copies.)

F-10-5

10.1.9 Controlling the Thermistor Reciprocating Mechanism

0007-0657

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the control system used to control the reciprocating mechanism of the thermistor.

F-10-6

10.1.10 Controlling the Upper Separation Claw Reciprocating Mechanism

0007-0659

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Figure shows the control system used to control the reciprocating mechanism of the uppers separation claw.

F-10-7

10.2 Basic Sequence

10.2.1 Basic Sequence

0008-6186

iR105i/iR105+ / iR9070

F-10-8

10.2.2 Basic Sequence

0008-9063

/ iR8070

F-10-9

10.2.3 Basic Sequence

0009-1343

iR85+

Main power switch ON
190˚C
198˚C
Print request command
WAIT indicator
WMUP
WMUPR
STBY
INTR
PSTBY
PRINT
LSTR
STBY
Red
Green
Red
Fixing motor (M3)
Main heater (H1)
Sub heater (H2)
Controlled to 198˚C
Controlled to 198˚C
200˚C
198˚C
195˚C
190˚C
Passage of paper decreases the temperature.
To recover to 198˚C in a short time, both main and sub heaters are turned on.

F-10-10

10.3 Various Control Mechanisms

10.3.1 Controlling the Fixing Roller Temperature

10.3.1.1 Down Sequence Control

0006-9880

iR105i/iR105+

F-10-11

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TMP1 (setting the down sequence)

T-10-6

Setting	86cpm	74cpm	Suspend	Resume
Setting 0	183 deg C	178 deg C	173 deg C	188 deg C
Setting 1 (default)	178 deg C	173 deg C	168 deg C	183 deg C
Setting 2	173 deg C	168 deg C	163 deg C	178 deg C

Select setting 0 if priority is on image quality; select setting 2 if priority is on speed.

10.3.1.2 Down Sequence Control

0008-9430

iR9070

F-10-12

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TMP1 (setting the down sequence)

T-10-7

Setting	73.7cpm	63.4cpm	Suspend	Resume
Setting 0	183 deg C	178 deg C	173 deg C	188 deg C
Setting 1 (default)	178 deg C	173 deg C	168 deg C	183 deg C
Setting 2	173 deg C	168 deg C	163 deg C	178 deg C

Select setting 0 if priority is on image quality; select setting 2 if priority is on speed.

10.3.1.3 Down Sequence Control

0008-9450

iR8070

F-10-13

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TMP1 (setting the down sequence)

T-10-8

Setting	65.9cpm	56.5cpm	Suspend	Resume
Setting 0	183 deg C	178 deg C	173 deg C	188 deg C
Setting 1 (default)	178 deg C	173 deg C	168 deg C	183 deg C
Setting 2	173 deg C	168 deg C	163 deg C	178 deg C

Select setting 0 if priority is on image quality; select setting 2 if priority is on speed.

10.3.1.4 Down Sequence Control

0008-9451

F-10-14

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TMP1 (setting the down sequence)

T-10-9

Setting	70cpm	60cpm	Suspend	Resume
Setting 0	183 deg C	178 deg C	173 deg C	188 deg C
Setting 1 (default)	178 deg C	173 deg C	168 deg C	183 deg C
Setting 2	173 deg C	168 deg C	163 deg C	178 deg C

Select setting 0 if priority is on image quality; select setting 2 if priority is on speed.

10.3.1.5 Fixing Temperature Control(iR105)

0006-9849

iR105

F02-703-01 shows the basic sequence of operation sued of the fixing system:

F-10-15

10.3.1.6 Transparency Mode

0006-9851

iR105i/iR105+ / iR9070

To prevent wrapping of a transparency around the fixing roller (thus causing the transparency to melt because of heat of the fixing roller), the fixing roller temperature is reduced in transparency mode. Figure shows the sequence of operation used in transparency mode:

F-10-16

SERVICE MODE:
COPIER> OPTION> BODY> OHP-TEMP
(changing the temperature settings for the transparency mode)
0: 198 deg C (default)
1: 193 deg C
2: 188 deg C
3: 183 deg C

10.3.1.7 Transparency Mode

0008-9065

/ iR8070

To prevent wrapping of a transparency around the fixing roller (thus causing the transparency to melt because of heat of the fixing roller), the fixing roller temperature is reduced in transparency mode. Figure shows the sequence of operation used in transparency mode:

F-10-17

SERVICE MODE:
COPIER> OPTION> BODY> OHP-TEMP
(changing the temperature settings for the transparency mode)
0: 198 deg C (default)
1: 193 deg C
2: 188 deg C
3: 183 deg C

10.3.1.8 Transparency Mode

0009-1349

iR85+

To prevent wrapping of a transparency around the fixing roller (thus causing the transparency to melt because of heat of the fixing roller), the fixing roller temperature is reduced in transparency mode. Figure shows the sequence of operation used in transparency mode:

F-10-18

SERVICE MODE:

COPIER> OPTION> BODY> OHP-TEMP
(changing the temperature settings for the transparency mode)
0: 198 deg C (default)
1: 193 deg C
2: 188 deg C
3: 183 deg C

10.3.1.9 Thick Paper Mode

0006-9853

iR105i/iR105+

To prevent drops in the surface temperature of the fixing roller occurring when thick paper moves past it, the down sequence shift temperature increased. If thick paper is selected when registering paper type in user mode (common settings), the down sequence for thick mode will be executed.

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TEMP
(setting the down sequence start temperature for thick paper mode)

T-10-10

Setting	86cpm	74cpm	Suspend	Resume
0	194 deg C	193 deg C	183 deg C	198 deg C
1	189 deg C	188 deg C	178 deg C	193 deg C
2	184 deg C	183 deg C	173 deg C	188 deg C

10.3.1.10 Thick Paper Mode

0008-9438

iR9070

To prevent drops in the surface temperature of the fixing roller occurring when thick paper moves past it, the down sequence shift temperature increased. If thick paper is selected when registering paper type in user mode (common settings), the down sequence for thick mode will be executed.

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TEMP
(setting the down sequence start temperature for thick paper mode)

T-10-11

Setting	73.7cpm	63.4cpm	Suspend	Resume
0	194 deg C	193 deg C	183 deg C	198 deg C
1	189 deg C	188 deg C	178 deg C	193 deg C
2	184 deg C	183 deg C	173 deg C	188 deg C

10.3.1.11 Thick Paper Mode

0008-9458

iR8070

To prevent drops in the surface temperature of the fixing roller occurring when thick paper moves past it, the down sequence shift temperature increased. If thick paper is selected when registering paper type in user mode (common settings), the down sequence for thick mode will be executed.

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TEMP
(setting the down sequence start temperature for thick paper mode)

T-10-12

Setting	65.9cpm	56.5cpm	Suspend	Resume
0	194 deg C	193 deg C	183 deg C	198 deg C
1	189 deg C	188 deg C	178 deg C	193 deg C

Setting	65.9cpm	56.5cpm	Suspend	Resume
2	184 deg C	183 deg C	173 deg C	188 deg C

10.3.1.12 Thick Paper Mode

0008-9460

To prevent drops in the surface temperature of the fixing roller occurring when thick paper moves past it, the down sequence shift temperature increased. If thick paper is selected when registering paper type in user mode (common settings), the down sequence for thick mode will be executed.

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TEMP
(setting the down sequence start temperature for thick paper mode)

T-10-13

Setting	70cpm	60cpm	Suspend	Resume
0	194 deg C	193 deg C	183 deg C	198 deg C
1	189 deg C	188 deg C	178 deg C	193 deg C
2	184 deg C	183 deg C	173 deg C	188 deg C

10.3.1.13 Thick Paper Mode

0009-1351

iR85+

To prevent drops in the surface temperature of the fixing roller occurring when thick paper moves past it, the down sequence shift temperature increased. If thick paper is selected when registering paper type in user mode (common settings), the down sequence for thick mode will be executed.

SERVICE MODE:
COPIER> OPTION> BODY> FIX-TEMP
(setting the down sequence start temperature for thick paper mode)

T-10-14

Setting	70ppm	60ppm	Suspend	Resume
0	194 deg C	193 deg C	183 deg C	198 deg C
1	189 deg C	188 deg C	178 deg C	193 deg C
2	184 deg C	183 deg C	173 deg C	188 deg C

10.3.1.14 Power Save Mode

0006-9864

iR105i/iR105+ / iR9070

When the Power Save mode key is pressed in the control panel, the control temperature in STBY is made lower than normal to reduce power consumption. Figure shows the sequence of operation used in power save mode.

F-10-19

10.3.1.15 Power Save Mode

0008-9066

/ iR85+ / iR8070

When the Power Save mode key is pressed in the control panel, the control temperature in STBY is made lower than normal to reduce power consumption. Figure shows the sequence of operation used in power save mode.

F-10-20

10.4 Protective Functions

10.4.1 Detecting an Error

0006-9869

iR105i/iR105+ / iR9070

The following errors are detected in relation to fixing temperature control:
1. temperature control error by main thermistor (TH1)
2. sensor error by sub thermistor (TH2)
3. overheating error by thermal switch (TP1)

F-10-21

10.4.2 Detecting an Error

0008-9070

/ iR85+ / iR8070

The following errors are detected in relation to fixing temperature control:
1. temperature control error by main thermistor (TH1)
2. sensor error by sub thermistor (TH2)
3. overheating error by thermal switch (TP1)

Voltage according to the reading of the main thermistor
Voltage according to the reading of the sub thermistor
J508B
1
7
8
9
10
20
M-TEMP
0V
S-TEMP
0V
Upper fixing roller
Sub thermistor
Main heater
Main thermistor
DC controller PCB
J505A
1
10
11
12
13
14
15
16
17
Sub heater
Thermal switch
Turns off the AC line at 228˚C.
MHDTC
MH-ON
0V
SH-ON
SHDTC
ZEROCROSS
0V
100/200V detect
AC driver
RLY
Relay
Front cover
When the sub heater is powered, '0'.
When '1', the main heater goes ON.
J512A
1
10
11
17
When '0', the AC relay is cut off.
24V
Relay-OFF
Relay PCB

F-10-22

10.5 Parts Replacement Procedure

10.5.1 Fixing Unit

10.5.1.1 Removing the Fixing Assembly

0007-1467

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide the fixing/feeding unit halfway out the main body.
2) While pushing on the stopper [2] on both ends of the fixing/feeding unit rail [1], slide the fixing/feeding unit farther out.

F-10-23

3) While pushing the releasing lever link [3] found at the rear of the fixing/feeding unit, shift up the fixing/feeding unit releasing lever [4], and remove the screw [5] to detach.

F-10-24

When setting the fixing/feeding unit in the main body, be sure to mount the releasing lever, and shift the lever while pressing the releasing lever link.

4) Remove the two screws [6], pre-transfer charging assembly cover [7], and fixing roller knob [8]; then, remove the two screws [9], and detach the fixing/feeding unit cover [10].

F-10-25

5) Disconnect the four connectors [11], and remove the three screws [12]; then, detach the fixing motor [13].

F-10-26

6) Open the fixing/delivery assembly, and remove the screw [14]; then, holding the front [16] and the rear [17] of the fixing assembly [15], detach the fixing assembly from the main body.

F-10-27

10.5.2 Upper Fixing Roller

10.5.2.1 Removing the Fixing Upper Roller

0007-2916

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the fixing web, and clean the oil pan.
3) Remove the 2 fixing heaters.
4) Remove the screw [1], and detach the pressure support plate [2] at the front.

F-10-28

5) Remove the screw, and detach the pressure support plate [2] at the rear.

F-10-29

6) Open the fixing upper unit [1].

F-10-30

When opened, the fixing upper unit becomes unstable. Be sure to use a screwdriver as shown to support it.

7) Remove the stopper [1] from the front and the rear.

F-10-31

F-10-32

8) While paying attention to the thermal switch and the thermistor, remove the upper roller assembly.
9) Remove the C-ring [1] at the front, and remove the gear [2], bushing [3], and bearing [4].

F-10-33

10) Remove the C-ring [1] at the rear, and remove the electrode plate [2], spacer [3], bearing [4], and bushing [5].

F-10-34

10.5.2.2 Removing the Fixing Upper Roller

0008-8201

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the fixing web, and clean the oil pan.
3) Remove the 2 fixing heaters.
4) Remove the screw [1], and detach the pressure support plate [2] at the front.

F-10-35

5) Remove the screw [1], and detach the pressure support plate [2] at the rear.

F-10-36

6) Open the fixing upper unit [1].

F-10-37

When opened, the fixing upper unit becomes unstable. Be sure to use a screwdriver as shown to support it.

7) Remove the stopper [1] from the front and the rear.

F-10-38

F-10-39

8) While paying attention to the thermal switch and the thermistor,

remove the upper roller assembly.
9) Remove the C-ring [1] at the front, and remove the gear [2], bushing [3], and bearing [4].

F-10-40

10) Remove the C-ring [1] at the rear, and remove the electrode plate [2], spacer [3], bearing [4], and bushing [5].

F-10-41

10.5.2.3 Mounting the Fixing Upper Roller

0007-2918

iR105i/iR105+ / iR9070

Mount the upper roller by reversing the steps used to remove it.

F-10-42

F-10-43

a. To prevent the surface of the roller from dirt or damage, wrap paper after removing it.
b. Be sure that the longer cutoff A shown in F02-709-21 is toward the rear.
c. When mounting, clean the electrode plate [1] and the electrode terminal [2].

10.5.2.4 Mounting the Fixing Upper Roller

0008-8203

/ iR85+ / iR8070

Mount the upper roller by reversing the steps used to remove it.

a. To prevent the surface of the roller from dirt or damage, wrap paper after removing it.
b. Be sure that the longer cutoff A shown in figure is toward the rear.

F-10-44

c. When mounting, clean the electrode plate [1] and the electrode terminal [2].

F-10-45

10.5.3 Lower Fixing Roller

10.5.3.1 Removing the Lower Fixing Roller

0007-1517

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the fixing assembly from the main body.
2) Remove the fixing cleaning belt; then, clean and detach the oil pan.
3) Open the upper fixing unit.
4) Remove the two screws [1], and detach the lower separation claw support plate [2].

F-10-46

5) Remove the lower roller [3] from the fixing assembly, and remove the E-rings [4] and the bearings [5] from both front and rear.

F-10-47

10.5.3.2 Adjusting the Lower Roller Pressure (nip width)

0008-8436

/ iR85+ / iR8070

The nip width is correct if it is as indicated. Otherwise, adjust it using a pressure adjusting nut.

F-10-48

Take measurements when both upper/ lower roller are sufficiently heated.

b = 9.0±0.5mm
|a-c| = 0.5 mm or less

a and c are points 10 mm from both edges of paper.

a. Generating Output for Measuring the Nip Width
Before measuring the nip width, wait for 15 min after the end of the machine's warm-up period and make 20 A4 prints:
1) Place A3 paper in the manual feed tray.
2) Make the following selections in service mode to generate output: COPIER>FUNCTION>FIXING>NIP-CHK.
The A3 paper will be picked up and a print above figure will be delivered.

10.5.3.3 Adjusting the Lower Roller Pressure (nip)

0008-4621

iR105i/iR105+ / iR9070

The nip width must be as indicated in figure; if not, adjust it using the pressure adjusting nut.

F-10-49

a and c are points 10 mm from both edges of paper.

T-10-15

Dimension	Measure with upper and lower rollers fully heated
b	200 V: 9.0 -/+ 0.5 mm, 208/230 V: 10.0 -/+ 0.5 mm
| a-c |	0.5 mm or less

a. Generating Output for Nip Width Measurement
Wait for 15 min after the copier ends its warm-up period; make 20 A4 copies, and measure the nip.
1) Place A3 copy paper in the manual feed tray.
2) Make the following selections in service mode to generate output: COPIER> FUNCTION> FIXING> NIP-CHK.
The A3 paper will be picked up, and a copy like the one shown in figure will be delivered.

10.5.4 External Delivery Roller

10.5.4.1 Removing the External Delivery Roller

0007-2919

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the 3 screws [1]; then, while opening the upper delivery assembly [2], remove the delivery roller guide [3].

F-10-50

3) Remove the E-ring [1] at the front, slide the bearing [2] in the direction of the gear.

F-10-51

4) Remove the E-ring [1], and slide the bearing [2] toward the rear; then, detach the external delivery roller assembly [3].

F-10-52

5) Remove the E-ring [1], one-way gear [2], and bearing [3] at the rear of the external roller shaft; then, remove the 2 Erings [4] and the 2 rollers [5] of each roller.

F-10-53

Take care not to lose the parallel pin used in each roller.

10.5.4.2 Removing the External Delivery Roller

0008-8205

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the 3 screws [1]; then, while opening the upper delivery assembly [2], remove the delivery roller guide [3].

F-10-54

3) Remove the E-ring [1] at the front, slide the bearing [2] in the direction of the gear.

F-10-55

4) Remove the E-ring [1], and slide the bearing [2] toward the rear; then, detach the external delivery roller assembly [3].

F-10-56

5) Remove the E-ring [1], one-way gear [2], and bearing [3] at the rear of the external roller shaft; then, remove the 2 Erings [4] and the 2 rollers [5] of each roller.

F-10-57

Take care not to lose the parallel pin used in each roller.

10.5.5 Internal Delivery Roller

10.5.5.1 Removing the Internal Delivery Roller

0007-2920

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the internal delivery roller [1], bearing [2], 3 E-rings [3], and bushing holder [4]; then, detach the drive gear [5].

F-10-58

3) Remove the E-ring [1] and the bushing [2] at the rear of the shaft; then, detach the internal delivery roller [3].

F-10-59

10.5.5.2 Removing the Internal Delivery Roller

0008-8206

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the internal delivery roller [1], bearing [2], 3 E-rings [3], and bushing holder [4]; then, detach the drive gear [5].

F-10-60

3) Remove the E-ring [1] and the bushing [2] at the rear of the shaft; then, detach the internal delivery roller [3].

F-10-61

10.5.6 Main Thermistor

10.5.6.1 Removing the Main Thermistor

0007-2913

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the fixing web and the oil pan.
3) Remove the fixing harness cover.
4) Disconnect the connector [1] of the thermistor. Remove the screw [2], and shift the thermistor assembly [3] to the rear to detach.

F-10-62

When shifting the thermistor assembly to the rear, take care not to damage the fixing roller with the thermistor.

5) Remove the 2 thermistor retaining springs [1], and detach the main thermistor [2].

F-10-63

10.5.6.2 Removing the Main Thermistor

0008-8197

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the fixing web and the oil pan.
3) Remove the fixing harness cover.
4) Disconnect the connector [1] of the thermistor. Remove the screw [2], and shift the thermistor assembly [3] to the rear to detach.

When shifting the thermistor assembly to the rear, take care not to damage the fixing roller with the thermistor.

F-10-64

5) Remove the 2 thermistor retaining springs [1], and detach the main thermistor [2].

F-10-65

10.5.6.3 Mounting the Main Thermistor

0007-2914

iR105i/iR105+ / iR9070

When mounting the main thermistor to the fixing assembly, be sure that the tie-wrap [1] is as shown.
The tie-wrap serves as a stopper by butting against the claw [2].
Check also to be sure that the main thermistor and the fixing roller are not away from each other.

F-10-66

10.5.6.4 Mounting the Main Thermistor

0008-8198

/ iR85+ / iR8070

When mounting the main thermistor to the fixing assembly, be sure that the tie-wrap [1] is as shown.
The tie-wrap serves as a stopper by butting against the claw [2].
Check also to be sure that the main thermistor and the fixing roller are not away from each other.

F-10-67

10.5.7 Sub Thermistor

10.5.7.1 Removing the Sub Thermistor

0007-2915

iR105i/iR105+ / iR9070

1) Slide out the fixing assembly.
2) Remove the fixing web and the oil pan.
3) Remove the fixing harness cover.
4) Disconnect the connector [1] and remove the screw [2]; then, detach the sub thermistor assembly [3].

F-10-68

5) Remove the screw [1], and detach the sub thermistor [2].

F-10-69

10.5.7.2 Removing the Sub Thermistor

0008-8200

/ iR85+ / iR8070

1) Slide out the fixing assembly.
2) Remove the fixing web and the oil pan.
3) Remove the fixing harness cover.
4) Disconnect the connector [1] and remove the screw [2]; then, detach the sub thermistor assembly [3].

F-10-70

5) Remove the screw [1], and detach the sub thermistor [2].

F-10-71

10.5.8 Thermal Switch

10.5.8.1 Removing the Thermal Switch Unit

0007-2880

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the fixing web; then, remove the 2 screws [1] and the oil pan [2], and detach the fixing harness cover [3].

F-10-72

3) Remove the faston [1], and remove the 2 screws [2]; then, detach the electrode assembly [3] and the thermal switch holder [4].

F-10-73

4) Remove the 4 screws [1], and detach the thermal switch unit [2].

F-10-74

10.5.8.2 Removing the Thermal Switch Unit

0008-8195

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the fixing web; then, remove the 2 screws [1] and the oil pan [2], and detach the fixing harness cover [3].

F-10-75

3) Remove the faston [1], and remove the 2 screws [2]; then, detach the electrode assembly [3] and the thermal switch holder [4].

F-10-76

4) Remove the 4 screws [1], and detach the thermal switch unit [2].

F-10-77

10.5.8.3 Mounting the Thermal Switch Unit

0007-2912

iR105i/iR105+ / iR9070

F-10-78

- When mounting the thermal switch [1], be sure that it is in contact with the fixing roller [2] as shown.
- The thermal switch must be replaced as the thermal switch unit.
- Do not use again the thermal switch wolse contact point become open.

10.5.8.4 Mounting the Thermal Switch Unit

0008-8196

/ iR85+ / iR8070

- When mounting the thermal switch unit [1], be sure that it is in contact with the fixing roller [2] as shown.

F-10-79

- The thermal switch must be replaced as the thermal switch unit.
- Do not use again the thermal switch wolse contact point become open.

10.5.9 Fixing Heater

10.5.9.1 Removing the Main/Sub Heater

0007-2878

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the 2 screws [1], and detach the fixing connector unit [2]; then, remove the screw [3] and the terminal plate [4] at the rear to pull out the faston [5]. (2 locations)

F-10-80

3) Remove the 2 screw [1], and detach the heater positioning plate (rear) [2].

F-10-81

4) Remove the 2 fastons [1] at the front, and remove the screw [2] to detach the heater positioning plate (front) [3].

F-10-82

5) Remove the main/sub heater.

10.5.9.2 Removing the Main/Sub Heater

0008-8191

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Remove the 2 screws [1], and detach the fixing connector unit [2]; then, remove the screw [3] and the terminal plate [4]at the rear to pull out the faston [5] (2 locations).

F-10-83

3) Remove the 2 screw [1], and detach the heater positioning plate (rear) [2].

F-10-84

4) Remove the 2 fastons [1] at the front, and remove the screw [2] to detach the heater positioning plate (front) [3].

F-10-85

5) Remove the main/sub heater.

10.5.9.3 Mounting the Main/Sub Heater

0007-2879

iR105i/iR105+ / iR9070

To mount the fixing heater, reverse the steps used to remove it with the following in mind:
a. Do not touch the surface of the heater.
b. For both, mount the heater so that the side with the longer harness is to the front.
c. Viewing from the front of the fixing assembly, mount the main heater [1] to the right and the sub heater [2] to the left.

F-10-86

10.5.9.4 Mounting the Main/Sub Heater

0008-8194

/ iR85+ / iR8070

To mount the fixing heater, reverse the steps used to remove it with the following in mind:
a. Do not touch the surface of the heater.
b. For both, mount the heater so that the side with the longer harness is to the front.
c. Viewing from the front of the fixing assembly, mount the main heater [1] to the right and the sub heater [2] to the left.

F-10-87

10.5.9.5 Points to Note When Mounting the Fixing Heater

0008-4620

iR105i/iR105+ / iR9070

1. Do not touch the heater surface.
2. For both heaters, mount so that the side with the longer heater harness is toward the front.
3. Viewing from the front of the fixing assembly, mount the main heater on the right (for 200V model, 1150 W; for 208V model, 1220 W; for 230V model, 1185 W) and the sub heater on the left (for 200V model, 565 W; for 208V model, 600 W; for 230V model, 645 W).
4. Viewing from the rear, connect the right side of the faston of the heater at the rear to the main heater, and connect the top side to the sub heater.

Height of the Fixing Inlet Guide

F-10-88

Do not loosen the fixing screw on the inlet guide, as you will have to adjust the position of the inlet guide if you remove the inlet guide base. If you must loosen it, be sure to adjust the position of the inlet guide afterward by referring to the index on the fixing assembly.

10.5.9.6 Points to Note When Mounting the Fixing Heater

0008-8435

/ iR85+ / iR8070

1. Do not touch the surface of the heater directly.
2. For both heaters, be sure that the side with the longer heater wire is toward the front.
3. When viewing from the front, mount the main heater (1000 W for 100V model; 900 W for 208V model; 965W for 230V model) on the right and the sub heater (400 W for 100V model; 600 W for 208V model; 645W for 230V model) on the left.
4. When viewing from the rear, connect the faston for the heater at the rear so that the right side is to the main heater and the top side is to the sub heater.

Height of the Fixing Assembly Inlet Guide

F-10-89

If you should remove the inlet guide base, you will have to adjust the position of the inlet guide. Do not loosen the fixing screw on the inlet guide. If you must, be sure to put it back to its original position with reference to the scale on the fixing assembly base.

10.5.10 Fixing Cleaning Belt

10.5.10.1 Removing the Fixing Cleaning Belt

0007-1471

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide the fixing/feeding unit halfway out; then, release the stoppers on both rails, and slide the unit farther out.
2) Remove the pre-transfer charging assembly cover, fixing feeding unit releasing lever, and fixing roller knob.
3) Remove the screw [1], and detach the fixing assembly upper cover [2].

F-10-90

4) Remove the two screws [3] used to secure the fixing cleaning belt assembly, and open the top of the fixing cleaning belt assembly upward.

F-10-91

5) While pushing the cleaning belt feeding roller [4] and the take-up roller [5] toward the rear, detach the cleaning belt [6].

F-10-92

When cleaning the silicone oil pan, be sure to remove the silicone oil collecting in the oil pan [7] found under the cleaning belt feeding roller.

F-10-93

10.5.10.2 Mounting the Fixing Cleaning Belt

0007-1475

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Mount the fixing cleaning belt by reversing the steps used to remove it.

1) Wind the cleaning belt [2] around the cleaning belt take-up roller [1] two to three times, and mount it so that the arm guide plate [3] at the front is on the outside of the take-up roller.

At this time, check to make sure that the area of contact with the roller is impregnated with oil.

F-10-94

Check the fixing cleaning belt for skew, wrapping, and wrinkling. Further, be sure that the winding direction and the mounting orientation are as indicated.

F-10-95

2) After mounting the fixing cleaning belt, move the plunger [4] of the cleaning belt feeding solenoid into the direction of the arrow.

F-10-96

If you have replaced the cleaning belt, be sure to return the setting under COPIER>COUNTER>MISC>FIX-WEB to '0' in service mode.

10.5.11 Claw Jam Sensor

10.5.11.1 Removing the Claw Jam Sensor

0007-2926

iR105i/iR105+ / iR9070

1) Remove the fixing assembly.
2) Remove the 2 screws, and detach the lower separation claw assembly.
3) Detach the claw jam sensor [1] from the right side of the lower delivery assembly.

F-10-97

10.5.11.2 Removing the Delivery Speed Switching Clutch

0008-8208

/ iR85+ / iR8070

1) Slide out the fixing/feeder unit.
2) Remove the fixing motor.
3) Remove the 3 screws [1], and detach the fixing front support base [2].

F-10-98

10.5.12 External Delivery Sensor

10.5.12.1 Remove the External Delivery Sensor

0007-2928

iR105i/iR105+ / iR9070

1) Remove the external delivery roller.
2) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the external sensor assembly [3].

F-10-99

3) Disconnect the connector [1], and detach the external delivery sensor [2].

F-10-100

10.5.12.2 Remove the External Delivery Sensor

0008-8210

/ iR85+ / iR8070

1) Remove the external delivery roller.
2) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the external sensor assembly [3].

F-10-101

3) Disconnect the connector [1], and detach the external delivery sensor [2].

F-10-102

10.5.13 Internal Delivery Sensor

10.5.13.1 Removing the Internal Delivery Sensor

0007-2929

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the fixing assembly.
2) Open the upper delivery assembly, and remove the 2 screws [1]; then, detach the internal delivery sensor assembly [2].

F-10-103

3) Disconnect the connector [1], and detach the internal delivery senor [2].

F-10-104

10.5.13.2 Removing the Internal Delivery Sensor

0008-8211

/ iR85+ / iR8070

1) Remove the fixing assembly.
2) Open the upper delivery assembly, and remove the 2 screws [1]; then, detach the internal delivery sensor assembly [2].

F-10-105

3) Disconnect the connector [1], and detach the internal delivery sensor [2].

F-10-106

10.5.14 Reversal Sensor

10.5.14.1 Removing the Reversal Sensor

0008-8212

/ iR85+ / iR8070

1) Remove the fixing assembly from the machine.
2) Open the upper delivery assembly, and remove the screw [1]; then, remove the reversal sensor assembly [2].

F-10-107

3) Disconnect the connector [1], and detach the reversal sensor [2].

F-10-108

10.5.15 Fixing/Feeding Outlet Sensor

10.5.15.1 Remove the Fixing/Feeder Unit Outlet Sensor

0007-2931

iR105i/iR105+ / iR9070

1) Slide out the fixing/feed unit
2) Remove the screw [1] from the bottom face of the fixing/feeder unit; then, detach the fixing/feed outlet sensor [2].

F-10-109

3) Disconnect the connector [1], and detach the fixing/feed outlet sensor [2].

F-10-110

10.5.15.2 Remove the Fixing/Feeder Unit Outlet Sensor

0008-8213

/ iR85+ / iR8070

1) Slide out the fixing/feed unit.
2) Remove the screw [1] from the bottom face of the fixing/feeder unit; then, detach the fixing/feed outlet sensor [2].

F-10-111

3) Disconnect the connector [1], and detach the fixing/feed outlet sensor [2].

F-10-112

10.5.16 Delivery Speed Switch Clutch

10.5.16.1 Removing the Delivery Speed Switching Clutch

0007-2922

iR105i/iR105+ / iR9070

1) Slide out the fixing/feeder unit.
2) Remove the fixing motor.
3) Remove the 3 screws [1], and detach the fixing front support base [2].

F-10-113

4) Disconnect the 2 connectors [1], and remove the 2 screws [2]; then, detach the delivery speed switching clutch [3].

F-10-114

When detaching the delivery speed switching clutch, take care not to lose the bearings on both ends of the clutch shaft and the washer at the rear.

10.5.16.2 Removing the Delivery Speed Switching Clutch

0008-8207

/ iR85+ / iR8070

1) Slide out the fixing/feeder unit.
2) Remove the fixing motor.
3) Remove the 3 screws [1], and detach the fixing front support base [2].

F-10-115

4) Disconnect the 2 connectors [1], and remove the 2 screws [2]; then, detach the delivery speed switching clutch [3].

F-10-116

When detaching the delivery speed switching clutch, take care not to lose the bearings on both ends of the clutch shaft and the washer at the rear.

10.5.17 Upper Separation Claw

10.5.17.1 Removing the Upper Separation Claw

0007-1533

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Slide out the fixing/feeding unit from the main body.
2) Release the spring [1] used to open the fixing/delivery assembly; then, detach the upper separation claw [2].

F-10-117

10.5.18 Lower Separation Claw

10.5.18.1 Removing the Lower Separation Claw

0007-1535

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the fixing assembly from the main body.
2) Remove the two screws, and detach the lower separation claw assembly together with the support plate.
3) Remove the spring [1] from the lower separation claw.

F-10-118

4) Remove the three screws [2], and detach the lower separation claw support plate [3]; then, detach the separation claw.

F-10-119

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11.1 Control Panel

11.1.1 Outline

0007-0710

iR105i/iR105+ / iR9070

The copier's control panel consists of the PCBs shown in Figure and a liquid crystal display (LCD) panel.

F-11-1

T-11-1

Related Service Mode	
COPIER>FUNCTION>PANEL>LCD-CHK	Checks the LCD for missing dots.
COPIER>FUNCTION>PANEL>LED-CHK	Starts a check on the control panel LEDs (activation).
COPIER>FUNCTION>PANEL>LED-OFF	Ends a check on the control panel LEDs (de-activation).
COPIER>FUNCTION>PANEL>KEY-CHK	Starts a check on key inputs.
COPIER>FUNCTION>PANEL>TOUCHCHK	Adjusts coordinates of the touch panel.

11.1.2 Outline

0008-9414

/ iR85+ / iR8070

The control panel consists of the PCBs shown in Figure and a liquid crystal display (LCD) panel.

F-11-2

T-11-2

Related Service Mode	
COPIER>FUNCTION>PANEL>LCD-CHK	Checks the LCD for missing dots.
COPIER>FUNCTION>PANEL>LED-CHK	Starts a check on the control panel LEDs (activation).
COPIER>FUNCTION>PANEL>LED-OFF	Ends a check on the control panel LEDs (de-activation).
COPIER>FUNCTION>PANEL>KEY-CHK	Starts a check on key inputs.
COPIER>FUNCTION>PANEL>TOUCHCHK	Adjusts coordinates of the touch panel.

11.2 Counters

11.2.1 Soft Counters

0006-9806

iR105i/iR105+ / iR9070 / iR8070

The machine is equipped with soft counters to keep count of prints it makes. The counter readings are checked by pressing the Check key in the control panel.
The counters are controlled by the main controller PCB, and the readings are incremented when the following sensors detect paper during copying or printing.

T-11-3

Copying/printing operation	Counter sensor	
Single-sided	Finisher delivery sensor	
Double-sided	1st side:	PS14
	2nd side:	finisher delivery sensor

The counter mechanism consists of 16 items for large-size and small-size sheet, each with 8 mode items.

T-11-4

Copying/printing mode	Large-size	Small-size *1
Load copy	A	B
PDL print	C	D
Box print	E	F
Remote copy print	G	H
FAX reception print*2	I	J
Report print	K	L
Double-sided print	M	N
Scan	O	P

*1: At time of shipment from the factory, B4 or smaller; to count B4 as large-size, use service mode.
*2: Not counted; the machine is not equipped with fax functions.

The counters are set as follows when the machine is shipped from the factory to suit its country of installation:
- 100V/200V

T-11-5

Counter	Description *1	Default	Default change *2
Counter 1	Total (A through L)	ON	Fixed
Counter 2	-	OFF	May be changed
Counter 3	-	OFF	May be changed
Counter 4	-	OFF	May be changed
Counter 5	-	OFF	May be changed
Counter 6	-	OFF	May be changed

-208V, 230V (other than Europe)

T-11-6

Counter	Description *1	Default	Default change *2
Counter 1	Total (A through L)	ON	Fixed
Counter 2	Total large (ACEGIK)	ON	May be changed
Counter 3	Copy 1 (ABGH)	ON	May be changed
Counter 4	Copy 1 large (AG)	ON	May be changed
Counter 5	-	OFF	May be changed
Counter 6	-	OFF	May be changed

-230V (Europe)

T-11-7

Counter	Description *1	Default	Default change *2
Counter 1	Total (A through L)	ON	Fixed
Counter 2	Total large (ACEGIK)	ON	May be changed
Counter 3	Total small	ON	May be changed
Counter 4	Scan small	ON	May be changed
Counter 5	-	OFF	May be changed
Counter 6	-	OFF	May be changed

*1: The notation within parenthesis indicates modes supported by the basic counter.
*2: To change the contents of a counter or to enable/disable indication, use service mode. (This, however, does not apply to counter 1, whose data cannot be changed.)

11.2.2 Soft Counters

0008-9016

iR85+

The machine is equipped with soft counters to keep count of prints it makes. The counter readings are checked by pressing the Check key in the control panel.
The counters are controlled by the main controller PCB, and the readings are incremented when the following sensors detect paper during printing.

T-11-8

Printing operation	Counter sensor	
Single-sided	Finisher delivery sensor	
Double-sided	1st side:	PS14
	2nd side:	finisher delivery sensor

The counter mechanism consists of 16 items for large-size and small-size sheet, each with 8 mode items.

T-11-9

Printing mode	Large-size	Small-size *1
Load copy	A	B
PDL print	C	D
Box print	E	F
Remote copy print	G	H
FAX reception print*2	I	J
Report print	K	L
Double-sided print	M	N
Scan	O	P

*1: At time of shipment from the factory, B4 or smaller; to count B4 as large-size, use service mode.
*2: Not counted; the machine is not equipped with copy or fax functions.

The counters are set as follows when the machine is shipped from the factory to suit its country of installation:
-208V, 230V (other than Europe)

T-11-10

Counter	Description *1	Default	Default change *2
Counter 1	Total (A through L)	ON	Fixed
Counter 2	Total large (ACEGIK)	ON	May be changed
Counter 3	Copy 1 (ABGH)	ON	May be changed
Counter 4	Copy 1 large (AG)	ON	May be changed
Counter 5	-	OFF	May be changed
Counter 6	-	OFF	May be changed

-230V (Europe)

T-11-11

Counter	Description *1	Default	Default change *2
Counter 1	Total (A through L)	ON	Fixed
Counter 2	Total large (ACEGIK)	ON	May be changed
Counter 3	Total small	ON	May be changed
Counter 4	Scan small	ON	May be changed
Counter 5	-	OFF	May be changed
Counter 6	-	OFF	May be changed

*1: The notation within parenthesis indicates modes supported by the basic counter.
*2: To change the contents of a counter or to enable/disable indication, use service mode. (This, however, does not apply to counter 1, whose data cannot be changed.)

11.3 Fans

11.3.1 Changes Made to Externals/Auxiliary Controls(iR105)

0006-9899

iR105

T-11-12

Unit/location	Changes from GP605 (iR600)	Purpose of change	Remarks	Reference
Fan	Added a developing fan.	To cool the developing unit.		8.2 Fans
	Added a system fan.	To cool the inside of the system box.		8.2 Fans
	Added a delivery adhesion preventing fan.	To cool the delivery assembly.		8.2 Fans
	Added a scanner motor cooling fan.	To cool the scanner motor.		8.2 Fans
	Added a laser motor cooling fan.	To accommodate the integration of the pri- mary charging assembly and the laser scanner motor cooling fan functions.		8.2 Fans
	Added a duplex/ feeding fan.	To cool the duplexing/feeding assembly.		8.2 Fans
	Added a separation heat discharge fan.	To enhance discharge of heat from around the separation assembly and to enhance separation performance.		8.2 Fans
	Eliminated the primary charging assembly fan.	To accommodate the use of the laser motor cooling fan.		
	Eliminated the feeding fan.	To accommodate the use of the separation fan.		
	Eliminated the laser scanner motor cooling fan.	To accommodate the use of the laser motor cooling fan.		

Externals	Changed the design of the system cover (it remains in the body).	To improve the serviceability of the main controller PCB-related work.		
	Added an angular opening for duct suction in the rear upper cover.	To cool the inverter.		
	Added a gasket to the rear upper cover.	To suppress noise.		
	Added a new louver to the left lower cover (upward compatible).	To cool the all-night power supply unit.		
	Added a side louver to the front cover.	To prevent overheating of the developing assembly, cleaner, and laser scanner.		
	Made to use 2 heat discharge openings in the rear cover.	To prevent overheating.		
	Made to use an upright display for the control panel.	To improve recognition.		
Cassette	Changed the exterior appearance of the cassette.	To standardize the design.		

11.3.2 Fans

0008-8981

/ iR8070

Figure shows the arrangement of the machine's fans and the directions of current. Table shows the names and the functions of the fans:

F-11-3

T-11-13

Ref.	Notation	Name	Description	E code	Alarm code
[1]	FM1	Primary charging assembly fan	Prevents soiling of the wire in the primary charging assembly	E824	
[2]	FM2	Fixing heat discharge fan	To discharge heat from around	E805	-
[3]	FM3	Scanner cooling fan	To cool the laser scanner unit	E121-0001	-
[4]	FM5	Laser driver cooling fan	To cool the laser driver PCB	E121-0002	-
[5]	FM6	De-curling fan	To cool paper	-	330001
[6]	FM7	Feeding fan	To draw paper to the feed belt	-	330002
[7]	FM8	Drum fan	To draw and cool ozone and stray toner from around the drum	E820	-
[8]	FM10	Pre-transfer charging fan	To discharge ozone from around the pre-transfer charging assembly	E823	-
[9]	FM11	Power supply cooling fan 1	To cool the DC power supply PCB	E804	-
[10]	FM12	Power supply cooling fan 2	To cool the DC power supply PCB	E804	-
[11]	FM13	Separation fan	To facilitate separation of paper from the drum	E830	-
[12]	FM14	Laser scanner cooling fan	To cool the laser scanner motor, to insulate from the fixing assembly	E111	-
[13]	FM15	Developing fan	To cool the developing assembly	-	330006
[14]	FM16	System fan	To cool the PCBs inside the system box	E804-0004	000804-0004
[15]	FM17	Delivery adhesion proofing fan	To cool paper being delivered	-	330007

11.3.3 Fans

0008-8982

Figure shows the arrangement of the machine's fans and the directions of current. Table shows the names and the functions of the fans:

F-11-4

T-11-14

Ref.	Notation	Name	Description	E code	Alarm code
[1]	FM1	Primary charging assembly fan	Prevents soiling of the wire in the primary charging assembly	E824	
[2]	FM2	Fixing heat discharge fan	To discharge heat from around	E805	-
[3]	FM3	Scanner cooling fan	To cool the laser scanner unit	E121-0001	-
[4]	FM4	Stream reading fan	To cool the copyboard glass in stream reading mode	-	330010
[5]	FM5	Laser driver cooling fan	To cool the laser driver PCB	E121-0002	-
[6]	FM6	De-curling fan	To cool paper	-	330001
[7]	FM7	Feeding fan	To draw paper to the feed belt	-	330002
[8]	FM8	Drum fan	To draw and cool ozone and stray toner from around the drum	E820	-
[9]	FM9	Inverter cooling fan	To cool the control panel inverter	E251	-
[10]	FM10	Pre-transfer charging fan	To discharge ozone from around the pre-transfer charging assembly	E823	-
[11]	FM11	Power supply cooling fan 1	To cool the DC power supply PCB	E804	-
[12]	FM12	Power supply cooling fan 2	To cool the DC power supply PCB	E804	-
[13]	FM13	Separation fan	To facilitate separation of paper from the drum	E830	-
[14]	FM14	Laser scanner cooling fan	To cool the laser scanner motor, to insulate from the fixing assembly	E111	-
[15]	FM15	Developing fan	To cool the developing assembly	-	330006

Ref.	Notation	Name	Description	E code	Alarm code
[16]	FM16	System fan	To cool the PCBs inside the system box	E804-0004	000804-0004
[17]	FM17	Delivery adhesion proofing fan	To cool paper being delivered	-	330007
[18]	FM20	Scanner motor cooling fan	To cool the scanner motor	-	330005

11.3.4 Fans

0007-0509

iR105i/iR105+ / iR9070

Figure show the arrangement of fans used in the machine and the direction of air for each; for the name and function of each, see Table:

F-11-5

T-11-15

Ref.	Notation	Name	Function	Error code	Alarm code
[1]	FM1	laser motor cooling fan	cools laser scanner motor, insulates heat for fixing assembly, prevents soiling of wire in primary charging wire	E111	
[2]	FM2	fixing heater discharge fan	discharges heat from around fixing assembly	E805-0001	-
[3]	FM3	laser cooling fan 1	cools laser scanner unit	E121-0001	-
[4]	FM4	stream reading fan	cools copyboard glass in stream reading mode	-	330010
[5]	FM5	laser cooling fan 2	cools laser driver PCB	E121-0002	-
[6]	FM6	curl-reducing fan	cools paper	-	330001
[7]	FM8	drum fan	draws and cools ozone around drum and stray toner	E820	-
[8]	FM9	inverter cooling fan	cools control panel inverter	E251	-

Ref.	Notation	Name	Function	Error code	Alarm code
[9]	FM10	pre-transfer charging assembly fan	discharges ozone from around pre-transfer charging assembly	E823	-
[10]	FM11	power supply cooling fan 1	cools DC power supply PCB	E804	-
[11]	FM12	power supply cooling fan 2	cools DC power supply PCB	E804	-
[12]	FM13	separation fan	assists separation of paper from drum	E830	-
[13]	FM15	developing fan	cools developing assembly	-	330006
[14]	FM16	system fan	cools PCBs inside system box	E804-0004	000804-0004
[15]	FM17	delivery adhesion-preventing fan	cools paper upon delivery	-	330007
[16]	FM18	scanner motor cooling fan	cools scanner motor	-	330005
[17]	FM19	duplexing/feeding fan	cools duplex/feeding motor		330009
[18]	FM20	separation heat discharge fan	discharges heat from around separation assembly and to enhance separation performance	E805-0002	

11.3.5 Fans

0008-9057

iR85+

Figure shows the arrangement of the machine's fans and the directions of current. Table shows the names and the functions of the fans:

F-11-6

T-11-16

Ref.	Notation	Name	Description	E code	Alarm code
[1]	FM1	Primary charging assembly fan	Prevents soiling of the wire in the primary charging assembly	E824	
[2]	FM2	Fixing heat discharge fan	To discharge heat from around	E805	-
[3]	FM3	Scanner cooling fan	To cool the laser scanner unit	E121-0001	-
[4]	FM5	Laser driver cooling fan	To cool the laser driver PCB	E121-0002	-
[5]	FM6	De-curling fan	To cool paper	-	330001
[6]	FM7	Feeding fan	To draw paper to the feed belt	-	330002
[7]	FM8	Drum fan	To draw and cool ozone and stray toner from around the drum	E820	-
[8]	FM10	Pre-transfer charging fan	To discharge ozone from around the pre-transfer charging assembly	E823	-
[9]	FM11	Power supply cooling fan 1	To cool the DC power supply PCB	E804	-
[10]	FM12	Power supply cooling fan 2	To cool the DC power supply PCB	E804	-
[11]	FM13	Separation fan	To facilitate separation of paper from the drum	E830	-
[12]	FM14	Laser scanner cooling fan	To cool the laser scanner motor, to insulate from the fixing assembly	E111	-
[13]	FM15	Developing fan	To cool the developing assembly	-	330006
[14]	FM16	System fan	To cool the PCBs inside the system box	E804-0004	000804-0004
[15]	FM17	Delivery adhesion proofing fan	To cool paper being delivered	-	330007

11.3.6 Sequence of Fan Operation

0007-0530

iR105i/iR105+ / iR9070

The machine's fans may be either ones operating in conjunction with the state of the printer unit or ones operating in conjunction with the state of the scanning lamp, as shown in figure.
The scanner cooling fan and the power supply fan operate in relation to the states of both printer unit and the scanning lamp; they are, however, controlled to the higher speed.
When a fan error occurs or the door is opened, the state which the fan was in prior to the error will be used.
- Fans Opening in Keeping with the State of the Printer Unit

F-11-7

- Fans Operating in Keeping with the State of the Scanning Lamp

F-11-8

11.3.7 Sequence of Fan Operation

0008-8983

/ iR8070

The machine's fans may be either ones operating in conjunction with the state of the printer unit or ones operating in conjunction with the state of the scanning lamp, as shown in figure.
The scanner cooling fan and the power supply fan operate in relation to the states of both printer unit and the scanning lamp; they are, however, controlled to the higher speed.
When a fan error occurs or the door is opened, the state which the fan was in prior to the error will be used.

- Fans Opening in Keeping with the State of the Printer Unit

F-11-9

- Fans Operating in Keeping with the State of the Scanning Lamp

F-11-10

11.3.8 Sequence of Fan Operation

0008-9058

iR85+

The machine's fans may operates with the state of the printer unit as shown in figure.
When a fan error occurs or the door is opened, the state which the fan was in prior to the error will be used.

F-11-11

11.4 Power Supply System

11.4.1 Power Supply

11.4.1.1 Outline of the Power Supply

0007-0790

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine's DC power is supplied by the DC power supply PCB and the relay PCB.

T-11-17

PCB	Function
DC power supply PCB	- Generates DC power from AC power. - Protects against overcurrent.
Relay PCB	- Generates DC power from DC power (24V->18V) - Distributes DC power to loads. - Protects each load against overcurrent.

11.4.2 Protection Function

11.4.2.1 Protective Functions

0007-0808

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The machine is designed to automatically stop the output of the DC power supply as soon as the overcurrent protective mechanism turns on.
If an overcurrent is detected by the overcurrent detection circuit A, outputs [1] and [2] are stopped; this is to prevent malfunction of the machine, as output [1] is used by the logic system.
If the overcurrent detection circuit B detects an overcurrent, output [2] is stopped.

F-11-12

T-11-18

Detection by	Machine operation	Resetting
Overcurrent detection circuit A	Stops outputs [1] and [2] from the DC power supply PCB.	Turn off the main power switch, and remove the cause; then, leave the machine alone for about 3 min, and turn on the main power switch.

Detection by	Machine operation	Resetting
Overcurrent detection circuit B	Stops output [2] from the DC power supply PCB.	Remove the cause, and turn off and then on the control panel power switch.

11.4.3 Backup Battery

11.4.3.1 Backup Battery

0007-0811

iR105i/iR105+ / iR9070 / iR8070

The Main controller PCB, the DC controller PCB and the Reader controller PCB are equipped with a lithium battery (1 pc. each) to serve as a source of power, backing up various data in the even of power failure.

T-11-19

Main controller PCB	manganese dioxide lithium battery (3 V, 1000 mAh)
DC controller PCB	lithium battery (3 V, 600 mAh)
Reader controller PCB	lithium battery
Life	Main controller PCB: 8.8 year or more DC controller PCB: 5 year or less Reader controller PCB: 5 year or less
Replacement	The batteries cannot be replaced on their own in the field.

Be sure to exercise care whenever you have to replace the battery. In certain cases, it may explode.
Do not use a battery which is not of a type specifically indicated (same name, or equivalent).
Dispose of any used battery according to the instructions of its manufacturer.

11.4.4 Energy-Saving Function

11.4.4.1 Outline

0008-9498

iR105i/iR105+ / iR9070

1. Standby mode
The machine in this mode is either in operation or in the state that it can start operation at anytime, and all of the power supplies are turned on.

2. Power-saving mode
Depending on the setting rate of power-saving (which can be changed by operating "Energy Saver Mode" in User mode, 10% by default), the machine in this mode lowers the controlled temperature of the fixing assembly on standby, and that leads to reduce the power consumption.

Shifting condition from standby mode (Standby -> Power-saving)
- When pushing down the power-saving key.
Returning condition to standby mode (Power-saving -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

3. Low-power mode
The machine in this mode is in the state that the temperature of the fixing assembly is lowered (140 deg. C), and that leads to reduce the power consumption of the reader/printer assembly.

Shifting condition from standby mode/power-saving mode (Standby -> Low-power)
- When a specific period of time (which can be changed by operating " Low-power Mode Time" in User mode, 15 min. by default) has passed after the state of standby/power-saving mode continued for a certain period of time.

Returning condition to standby mode (Low-power -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

MEMO:
When "Low-power Mode Time" has the same setting value with "Auto Sleep Time" and the setting time has passed on standby, the machine will shift to sleep mode (not to low-power mode).

4. Sleep mode
The machine has two types of sleep mode, one is "Sleep mode 1"; the power consumption in this mode is high, and the other is "Sleep mode 3"; the power

consumption in this mode is low. The machine will shift to either of the two depending on the setting or presence/absence of job.

Shifting condition (Standby/Power-saving/Low-power -> Sleep)
- When a specific period of time (which can be changed by operating "Auto Sleep Time" in User mode, 60 min. by default) has passed after the state of standby mode continued for a certain period of time.
- When the power switch of the control panel is turned off on standby.

When the machine meets the shifting condition to sleep, it will shift to sleep mode after the exhaust fan drives for a specific period of time (6 min.) in order to lower the temperature in the machine.

Returning condition to standby mode (Sleep -> Standby)
- When the power switch of the control panel is turned on.

5. Power-Off mode
The power-off mode is the state that the main power of the machine is switched off.
To return from the power-off mode, it is the only way that the main power is switched on.
When the main power is switched on, the machine will return to standby mode automatically.

11.4.4.2 Outline

0006-9826

iR105

The main controller PCB controls the power supply for the following 5 power supply modes except for power-off mode, initiated by turning off the main power switch.
- Standby mode (normal operation)
- Power save mode
- Low power mode
- Sleep mode
- Off mode

11.4.4.3 Outline

0008-9631

/ iR8070

1. Standby mode
The machine in this mode is either in operation or in the state that it can start operation at anytime, and all of the power supplies are turned on.

2. Power-saving mode
Depending on the setting rate of power-saving (which can be changed by operating "Energy Saver Mode" in User mode, 10% by default), the machine in this mode lowers the controlled temperature of the fixing assembly on standby, and that leads to reduce the power consumption.

Shifting condition from standby mode (Standby -> Power-saving)
- When pushing down the power-saving key.
Returning condition to standby mode (Power-saving -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

3. Low-power mode
The machine in this mode is in the state that the temperature of the fixing assembly is lowered (140 deg. C), and that leads to reduce the power consumption of the reader/printer assembly.

Shifting condition from standby mode/power-saving mode (Standby -> Low-power)
- When a specific period of time (which can be changed by operating " Low-power Mode Time" in User mode, 15 min. by default) has passed after the state of standby/power-saving mode continued for a certain period of time.

Returning condition to standby mode (Low-power -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

MEMO:
When "Low-power Mode Time" has the same setting value with "Auto Sleep Time" and the setting time has passed on standby, the machine will shift to sleep mode (not to low-power mode).

---

4. Sleep mode
The machine has two types of sleep mode, one is "Sleep mode 1"; the power consumption in this mode is high, and the other is "Sleep mode 3"; the power consumption in this mode is low. The machine will shift to either of the two depending on the setting or presence/absence of job.

Shifting condition (Standby/Power-saving/Low-power -> Sleep)
- When a specific period of time (which can be changed by operating "Auto Sleep Time" in User mode, 60 min. by default) has passed after the state of standby mode continued for a certain period of time.
- When the power switch of the control panel is turned off on standby.

The machine will shift to sleep mode in either of the following two ways depending on the surface temperature of the fixing roller at the time of satisfying the shifting condition to sleep.

<When the surface temperature of the fixing roller is 150 deg. C or less. >
-> The machine will shift to sleep mode immediately.
<When the surface temperature of the fixing roller exceeds 150 deg. C. >
-> After the exhaust fan drives for 15 min., the machine will shift to sleep mode.

(Purpose: To lower the temperature in the machine)

Returning condition to standby mode (Sleep -> Standby)
- When the power switch of the control panel is turned on.

5. Power-Off mode
The power-off mode is the state that the main power of the machine is switched off.
To return from the power-off mode, it is the only way that the main power is switched on.
When the main power is switched on, the machine will return to standby mode automatically.

11.4.4.4 Outline

0008-9632

/ iR85+

1. Standby mode
The machine in this mode is either in operation or in the state that it can start operation at anytime, and all of the power supplies are turned on.

2. Power-saving mode
Depending on the setting rate of power-saving (which can be changed by operating "Energy Saver Mode" in User mode, 10% by default), the machine in this mode lowers the controlled temperature of the fixing assembly on standby, and that leads to reduce the power consumption.

Shifting condition from standby mode (Standby -> Power-saving)
- When pushing down the power-saving key.
Returning condition to standby mode (Power-saving -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

3. Low-power mode
The machine in this mode is in the state that the temperature of the fixing assembly is lowered (140 deg. C), and that leads to reduce the power consumption of the main body.

Shifting condition from standby mode/power-saving mode (Standby -> Low-power)
- When a specific period of time (which can be changed by operating " Low-power Mode Time" in User mode, 15 min. by default) has passed after the state of standby/power-saving mode continued for a certain period of time.

Returning condition to standby mode (Low-power -> Standby)
- When pushing down the power-saving key.
- When the power switch of the control panel is turned on.

MEMO:
When "Low-power Mode Time" has the same setting value with "Auto Sleep Time" and the setting time has passed on standby, the machine will shift to sleep mode (not to low-power mode).

---

4. Sleep mode
The machine has two types of sleep mode, one is "Sleep mode 1"; the power consumption in this mode is high, and the other is "Sleep mode 3"; the power consumption in this mode is low. The machine will shift to either of the two depending on the setting or presence/absence of job.

Shifting condition (Standby/Power-saving/Low-power -> Sleep)
- When a specific period of time (which can be changed by operating "Auto Sleep Time" in User mode, 60 min. by default) has passed after the state of standby mode continued for a certain period of time.
- When the power switch of the control panel is turned off on standby.

The machine will shift to sleep mode in either of the following two ways depending on the surface temperature of the fixing roller at the time of satisfying the shifting condition to sleep.

<When the surface temperature of the fixing roller is 163 deg. C or less. >
-> The machine will shift to sleep mode immediately.
<When the surface temperature of the fixing roller exceeds 163 deg. C. >
-> After the exhaust fan drives for 15 min., the machine will shift to sleep mode.
(Purpose: To lower the temperature in the machine)

Returning condition to standby mode (Sleep -> Standby)
- When the power switch of the control panel is turned on.

5. Power-Off mode
The power-off mode is the state that the main power of the machine is switched off.
To return from the power-off mode, it is the only way that the main power is switched on.
When the main power is switched on, the machine will return to standby mode automatically.

11.4.4.5 Power Supply Mode

0006-9829

iR105

The machine affects its power supplies as follows: +3.3 V all night (3.3 VB), +3.3 V non-all night (3.3 VA), +5 V non-all night (5 V), +24 V:

T-11-20

Mode	+3.3 V all night	+3.3 V non-all night	+5V	+24V
Standby	yes	yes	yes	yes
Power save	yes	yes	yes	yes
Low power	yes	yes	yes	yes
Sleep	yes	no	no	no
Off	yes	no	no	no
Power off	no	no	no	no

11.4.4.6 Standby Mode (normal operation)

0006-9835

iR105

In standby mode, the machine is in normal operation or is ready to start normal operation at any moment; in other words, most of power supplied are in operation.
Not only the main controller PCB, but also the reader unit, printer unit, and control panel are all ready for communication and control.

11.4.4.7 Power Save Mode

0006-9836

iR105

Most of power supplies are in operation (same as in standby mode).
According to the selected rate of saving, the control temperature of the fixing assembly for standby is lowered to reduce power consumption (140 deg C for 200 V model; 198 deg C for 208 V/230 V model, for which no specifications are provided).

11.4.4.8 Low Power Mode

0006-9837

iR105

In low power mode, the fixing assembly temperature is kept low (140 deg C for 200 V model, 198 deg C for 208 V/230 V model), and the power consumed by the reader unit and the printer unit is lowered to reduce the total power consumption for the machine.

Shift from Standby Mode (standby -> low power)
A shift from standby mode to low power mode is made for the following:
- Standby mode has continued for a specific period of time, i.e., a specific period of time as may be selected in user mode.

Shift to Standby Mode (low power -> standby)
A shift from low power mode to standby mode is made on the following condition:
- The control panel power switch (soft switch) is turned on.
- PDL data has been received from the network (parallel port); in terms of electrical mechanisms, the control panel is OFF as in standby mode.

11.4.4.9 Sleep Mode

0006-9846

iR105

In sleep mode, only the +3.3 V all-night (3.3 VB) power supply is ON. In this mode, the CPU on the main controller PCB is also at rest (in wait for an interrupt and not running the program) to reduce power consumption.
This mode is used only when the machine is configured as a printer equipped with a network print option and a PDL print option.

Shift from Standby Mode (standby -> sleep)
A shift from standby mode to sleep mode is made on the following condition:
- The control panel power switch (soft switch) is off.
- Standby mode has lasted for a specific period of time, i.e., a specific period of time as may be selected in user mode.

Shift from Low-Power Mode (low power -> sleep)
A shift from low power mode to sleep mode is made on the following condition:
- The control panel power switch (soft switch) is off.
- Low power mode has lasted for a specific period of time, i.e., a specific period of time as selected in user mode.

Return to Standby Mode (sleep -> standby)
A shift from sleep mode to standby mode is made on the following condition:
- The control panel power switch (soft switch) is on.
- PDL data has been received from the network (parallel port); in electrical terms, the control panel is off as in standby mode.

11.4.4.10 OFF Mode(iR105)

0006-9855

iR105

In OFF mode, the +3.3 V all-night power supply of the CPU itself is off, leaving a minimum logic circuitry of the main controller PCB on.
This mode is used when the machine is configured as a copier without a network print option or a PDL print option.

Shift from Standby Mode (standby -> OFF mode)
A shift from standby to OFF mode is made on the following condition:
- The control panel power mode (soft switch) is off.
- Standby mode has lasted for a specific period of time, i.e., a specific period of time as selected in user mode.

Shift from Low-Power Mode (low-power -> OFF mode)
A shift from low power mode to OFF mode is made on the following condition:
- The control panel power switch (soft switch) is off.
- Low power mode has lasted for a specific period of time, i.e., a specific period of time as selected in user mode.

Return to Standby Mode (OFF mode -> standby)
In OFF mode, a command from outside cannot cause a shift to standby; the control panel power switch (soft switch) or the main power switch must be turned off and then on to return to standby mode.
The operation at time of return will be exactly the same as when the machine is first turned on.

11.4.4.11 Power Supply OFF Mode

0006-9859

iR105

In power supply OFF mode, the machine remains in a state exactly the same as when its main power switch is off.
To return from power OFF mode, the main power switch must be turned on, in response to which the machine will automatically enter standby mode.

11.5 Parts Replacement Procedure

11.5.1 Left Pickup Drive Assembly

11.5.1.1 Removing the Left Pickup Drive Assembly

0007-1912

iR105i/iR105+ / iR9070

Construction

F-11-13

1) Remove the rear cover.
2) Open the system box assembly.
3) Remove the high-voltage transformer (AC).
4) While detaching the belt [1], remove the three screws [2], and detach the left pickup drive assembly [3].

F-11-14

11.5.2 Pickup Drive Assembly

11.5.2.1 Removing the Pickup Drive Assembly

0007-1914

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-15

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Remove the flywheel.
4) Remove the drum gear.
5) Remove the waste toner pipe.
6) Remove the two screws [1], and loosen the harness guide [2]; disconnect the two connectors [3], and remove the six screws [4]; then, detach the pickup drive assembly [5].

F-11-16

11.5.3 Developing Drive Assembly

11.5.3.1 Removing the Developing Drive Assembly

0007-1916

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-17

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Remove the flywheel.
4) Remove the drum gear.
5) Remove the waste toner pipe.
6) Remove the drum drive assembly.
7) Remove the waste toner drive assembly.
8) Remove the two screws [1], and disconnect the connector [2]; then, detach the drum fan [3].

F-11-18

9) Disconnect the two connectors [4], and remove the four screws [5]; then, detach the developing drive assembly [6].

F-11-19

11.5.4 Vertical Path Drive Assembly

11.5.4.1 Removing the Vertical Path Drive Assembly

0007-1922

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-20

1) Remove the rear cover.
2) Remove the waste toner case.
3) Remove the two screws [1], and detach the harness guide [2].

F-11-21

4) Disconnect the connector [3], and remove the two screws [4]; then, detach the vertical path drive assembly [5].

F-11-22

11.5.5 Waste Toner Drive Assembly

11.5.5.1 Removing the Waste Toner Drive Assembly

0007-1925

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-23

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Remove the flywheel.
4) Remove the drum gear.
5) Remove the waste toner pipe.
6) Remove the drum drive assembly.
7) Remove the six screws [1], and detach the waste toner drive assembly [2].

F-11-24

11.5.6 Multifeeder Pickup Drive Assembly

11.5.6.1 Removing the Multifeeder Pickup Drive Assembly

0007-1928

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-25

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Loosen the mounting screw on the rear fixing plate of the registration roller assembly.
4) Remove the four screws [1], and disconnect the four connectors [2]; then, detach the multifeeder pickup drive assembly [3].

F-11-26

11.5.7 Lifter Drive Assembly

11.5.7.1 Removing the Lifter Drive Assembly (right deck)

0007-1931

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-27

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Remove the flywheel.
4) Remove the drum gear.
5) Remove the waste toner pipe.
6) Remove the screw, and loosen the harness guide [1]; disconnect the two connectors [2], and remove the four screws [3]; then, detach the lifter drive assembly (for the right deck) [4].

F-11-28

11.5.7.2 Removing the Lifter Drive Assembly (left deck)

0007-1937

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-29

1) Remove the rear cover.
2) Open the system box assembly.
3) Remove the DC controller assembly.
4) Disconnect the three connectors [1], and remove the four screws [2]; then, detach the lifter drive assembly (for the left deck) [3].

F-11-30

11.5.8 Main Drive Assembly

11.5.8.1 Removing the Main Drive Assembly

0007-1940

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Construction

F-11-31

1) Remove the rear cover.
2) Remove the high-voltage transformer (DC).
3) Remove the flywheel.
4) Remove the drum gear.
5) Remove the waste toner pipe.
6) Remove the drum drive assembly.
7) Remove the waste toner drive assembly.
8) Disconnect the two connectors [1], and remove the nine screws [2]; then, detach the main drive assembly [3].

F-11-32

When mounting the main drive assembly, be sure to slide out the fixing/feeding assembly in advance. (A coupling and a spring are mounted to the back of the main drive assembly. If the fixing/feeding assembly is inside, the action of the spring will hinder mounting work.)

11.5.9 Drum Drive Assembly

11.5.9.1 Removing the Drum Drive Assembly

0007-3070

iR105i/iR105+ / iR9070

1) Remove the HV-DC PCB.
2) Remove the 2 screws [1], and detach the flywheel [2].

F-11-33

3) Loosen the 2 screws [1] (w/ hex hole), and remove the binding screw [2] (w/spring); then, detach the gear [3] of the drum shaft.

F-11-34

When removing the screw from the drum shaft gear, be sure to pay attention to the direction of gear rotation, i.e., turn it counterclockwise.

4) Remove the water toner case; then, remove the 5 screws [1], and disconnect the 4 connectors [2] to detach the waste toner case base [3].

F-11-35

5) Remove the E-ring [2] at the tip of the waste toner pipe [1], and shift the bushing [3] up to remove the 2 screws [4]; then, detach the waste toner pipe [1].

F-11-36

6) Remove the screw [1], and detach the drum cleaner pipe cover [2].

F-11-37

7) Disconnect the 4 connectors [1], and remove the 5 screws [2]; then, detach the drum drive assembly [3].

F-11-38

11.5.9.2 Removing the Drive Assembly

0008-9274

/ iR85+ / iR8070

1) Remove the HV-DC PCB.
2) Remove the 2 screws [1], and detach the flywheel [2].

F-11-39

3) Loosen the 2 screws [1] (w/ hex hole), and remove the binding screw [2] (w/spring); then, detach the gear [3] of the drum shaft.

F-11-40

When removing the screw from the drum shaft gear, be sure to pay attention to the direction of gear rotation, i.e., turn it counterclockwise.

4) Remove the water toner case; then, remove the 5 screws [1], and disconnect the 4 connectors [2] to detach the waste toner case base [3].

F-11-41

5) Remove the E-ring [2] at the tip of the waste toner pipe [1], and shift the bushing [3] up to remove the 2 screws [4]; then, detach the waste toner pipe [1].

F-11-42

66) Remove the screw [1], and detach the drum cleaner pipe cover [2].

F-11-43

7) Disconnect the 4 connectors [1], and remove the 5 screws [2]; then, detach the drum drive assembly [3].

F-11-44

11.5.10 Cassette Pickup Drive Assembly

11.5.10.1 Removing the Cassette Pickup Drive Assembly

0007-3073

iR105i/iR105+ / iR9070

1) Remove the waste toner case base.
2) Remove the cassette pickup assembly (upper, lower).
3) Remove the 5 screws [1], and detach the cassette pickup drive assembly [2].

F-11-45

11.5.10.2 Removing the Cassette Pickup Drive Assembly

0008-9283

/ iR85+ / iR8070

1) Remove the waste toner case base.
2) Remove the cassette pickup assembly (upper, lower).
3) Remove the 5 screws [1], and detach the cassette pickup drive assembly [2].

F-11-46

11.5.11 Toner Cartridge Drive Assembly

11.5.11.1 Removing the Toner Cartridge Drive Assembly

0007-1975

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Remove the upper right cover.
2) Open the toner cartridge cover, and slide out the toner cartridge.
3) Remove the four screws [1], and disconnect the connector [2]; then, detach the toner cartridge drive assembly [3].

F-11-47

4) Remove the three screws [4], and disconnect the connector [5]; then, detach the toner cartrdige drive motor [6].

F-11-48

11.5.12 Power Supply Unit

11.5.12.1 Removing the Power Supply Unit

0007-3092

iR105i/iR105+ / iR9070

1) Remove the left lower cover. (4 screws)
2) Disconnect the 2 connectors [1], and disconnect the connector from the relay PCB [2].

F-11-49

3) Remove the 2 screws [1], and detach the cover plate [2]; them, remove the 2 screws [3], and detach the power supply unit [4].

F-11-50

11.5.12.2 Removing the Power Supply Unit

0008-9299

/ iR85+ / iR8070

1) Remove the left lower cover (4 screws).
2) Disconnect the 2 connectors [1], and disconnect the connector from the relay PCB [2].

F-11-51

3) Remove the 2 screws [1], and detach the cover plate [2]; them, remove the 2 screws [3], and detach the power supply unit [4].

F-11-52

11.5.13 Control Panel

11.5.13.1 Removing the Control Panel Unit

0007-2993

iR105i/iR105+ / iR9070

1) Disconnect the connector [1].

F-11-53

If for a 230V model, detach the ferrite core [2].

F-11-54

2) Remove the binding screw [1], and detach the lower arm cover [2].
3) Remove the 2 binding screws [4] used to keep the upper arm cover [3] in place.

F-11-55

4) Remove the binding screw [1], and detach the rear support cover [2].
5) Remove the double washer screw [3] and the flat-headed screw [4], and detach the control panel [5].

F-11-56

6) While paying attention to the claw [2], detach the upper arm cover [1].
7) Remove the harness clip [3].

F-11-57

The harness clip will divide into two during the work. Continue the work, as it will not adversely
affect any function.

8) Free the control panel harness [2] from the 2 wire saddles [1].
9) Remove the 4 binding screws [3] and the positioning binding screw [4]; then, while paying attention to the claw [6], detach the upper arm [5]. At this time, be sure to take a note of the position of the binding screw [4].

F-11-58

When mounting, be sure to match the marking [7] of the control panel harness against the wire saddle at the rear.

10) Remove the 2 RS tightening screws [1], and detach the original delivery tray [2].

F-11-59

11) Open the toner cartage [1], and remove the 3 RS tightening screws [2]; then, while paying attention to the claw [4], detach the upper right cover [3].

F-11-60

12) Remove the 6 RS tightening screws [1]; then, while paying attention to the claw [3], detach the lower arm [2].

F-11-61

13) Open the 2 edge saddles [1], and pull out the control panel harness [3] from the lower arm [2].

F-11-62

11.5.13.2 Removing the Control Panel Unit

0008-8239

/ iR8070

1) Remove the inside upper cover
2) Remove the screw [1], and detach the left upper cover (small) [2].

F-11-63

3) Remove the 5 screws [1].
4) Turn over the control panel [2] to the front, and disconnect he connector [3]; then, remove the control panel [2].

F-11-64

11.5.13.3 Removing the Control Panel Unit

0008-9572

1) Remove the copyboard glass.
2) Remove the scanning lamp cover [1].
3) Remove the flat-head screw [2] (1 pc. each), and detach the 2 magnet catches [3].
4) Remove the small cover [4] for the standard white plate, and remove the screw [5].

F-11-65

5) Remove the inside upper cover.
6) Remove the 1 screw [1], and detach the left upper cover (small) [2].

F-11-66

7) Remove the 3 screws [1].
8) Turn over the control panel [2] to the front, and disconnect the connector [3]; then, remove the control panel [2].

F-11-67

11.5.13.4 Removing the Control Panel Unit

0008-9071

iR85+

1) Remove 2 face covers [2] on the top plate [1].

F-11-68

2) Remove 2 screws [2], then slide the top plate [1].

F-11-69

3) Remove 2 screws [1].

F-11-70

4) Open the front cover.
5) Remove the screw [1], and detach the primary charging assembly cover [2].

F-11-71

6) Shift down the fixing/feeding assembly lever [1], and slide out the fixing/feeding unit [2].
7) Open the toner cartridge cover [3].

F-11-72

8) Remove the 4 screws [1], and remove the process unit cover [2].

F-11-73

9) Disconnect the 2 connectors [1].

F-11-74

10) Remove the 5 screws [1], and detach the inside upper cover [2].

F-11-75

11) Remove the 1 screw [1], and detach the left upper cover (small) [2].

F-11-76

12) Remove the 3 screws [1].
13) Turn over the control panel [2] to the front, and disconnect the connector [3]; then, remove the control panel [2].

F-11-77

11.5.14 Control Panel Support Unit

11.5.14.1 Removing the Control Panel Support Unit

0007-3006

iR105i/iR105+ / iR9070

1) Remove the 2 screws [1], and detach the support front cover [2].
2) Remove the 5 screws [3], and detach the control panel rear cover [4].

F-11-78

3) Remove the 2 screws [1], 2 connector fixing screws [2], and 2 spring washers [3]; then, detach the connector cover [4].
4) Remove the 9 screws [5], and detach the control panel support unit [6].

F-11-79

11.5.15 Cover Switch Assembly

11.5.15.1 Removing the Front Cover Switch Assembly

0007-3080

iR105i/iR105+ / iR9070

1) Remove the upper front cover unit.
2) Remove the 3 screws [1], and detach the cover switch assembly [2].

F-11-80

3) Disconnect the 3 connectors [1], and detach the cover switch assembly [2].

F-11-81

11.5.15.2 Removing the Front Cover Switch Assembly

0008-8271

/ iR85+ / iR8070

1) Remove the control panel unit.
2) Remove the 3 screws [1], and detach the cover switch assembly [2].

F-11-82

3) Disconnect the 3 connectors [1], anddetach the cover switch assembly [2].

F-11-83

11.5.16 Manual Feed Tray Switch Assembly

11.5.16.1 Removing the Manual Feed Tray Switch Assembly

0007-3082

iR105i/iR105+ / iR9070

1) Remove the process unit cover. (4 screws)
2) Remove the 2 screws [1], and disconnect the 2 connectors [2]; then, detach the pre-transfer charging assembly fan [3].

F-11-84

3) Disconnect the 3 connectors [1], and remove the screw [2]; then, detach the potential sensor PCB [3].

F-11-85

4) Remove the screw [1], and disconnect the 2 connectors [2]; then, detach the manual feed tray switch assembly [3].

F-11-86

11.5.16.2 Removing the Manual Feed Tray Switch Assembly

0008-8938

/ iR85+ / iR8070

1) Remove the process unit cover (4 screws).
2) Remove the 2 screws [1], and disconnect the 2 connectors [2]; then, detach the pre-transfer charging assembly fan [3].

F-11-87

3) Disconnect the 3 connectors [1], and remove the screw [2]; then, detach the potential sensor PCB [3].

F-11-88

4) Remove the screw [1], and disconnect the 2 connectors [2]; then, detach the manual feed tray switch assembly [3].

F-11-89

11.5.17 Drum Heater Switch Assembly

11.5.17.1 Removing the Drum Heater Switch Assembly

0007-3084

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Remove the left lower cover. (4 screws)
3) Remove the 3 screws [1], and disconnect the 7 connectors [2]; then, detached power cord base [3]. thereafter, free the fixing claw to detach the drum heat switch [4].

F-11-90

11.5.17.2 Removing the Drum Heater Switch Assembly

0008-8274

/ iR85+ / iR8070

1) Remove the rear cover.
2) Remove the left lower cover (4 screws).
3) Remove the 3 screws [1], and disconnect the 7 connectors [2]; then, detached power cord base [3]. thereafter, free the fixing claw to detach the drum heat switch [4].

F-11-91

11.5.18 DC Controller PCB

11.5.18.1 Removing the DC Controller PCB

0008-8275

/ iR85+ / iR8070

1) Remove the rear cover.
2) Disconnect all connectors of the PCB, and remove the 4 screws [1]; then, detach the DC controller PCB [2].

F-11-92

11.5.18.2 Removing the DC Controller PCB

0007-3085

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect all connectors of the PCB, and remove the 4 screws [1]; then, detach the DC controller PCB [2].

F-11-93

11.5.18.3 When Replacing the DC Controller PCB

0008-4625

iR105i/iR105+ / iR9070

1) If possible, print out the user mode/service mode data.
2) Replace the DC controller PCB.
3) Execute the following in service mode to clear the RAM:
COPIER> FUNCTION> CLEAR> DC-CON.
4) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
5) Enter the following indicated on the service label:
COPIER> ADJUST> LASER (all items)
COPIER> ADJUST> DEVELOP (all items)
COPIER> ADJUST> DENS (all items)
COPIER> ADJUST> BLANK (all items)
COPIER> ADJUST> V-CONT (all items)
COPIER> ADJUST> HV-PRI (all items)
COPIER> ADJUST> HV-TR (all items)
COPIER> ADJUST> HV-SP (all items)
COPIER> ADJUST> FEED-ADJ (all items)
COPIER> ADJUST> CST-ADJ (all items)
COPIER> ADJUST> EXP-LED (all items)
6) Execute the following in service mode: COPIER> FUNCTION> MISC-P> CL-ADJ (all items)
COPIER> FUNCTION> SEN-ADJ (all items)
7) Enter the values (4 types) indicated on the label attached to the new DC controller PCB in service mode.

F-11-94

8) Turn off and then on the main power switch.

11.5.18.4 When Replacing the DC Controller PCB

0008-8603

/ iR85+ / iR8070

1) If possible, print out the user mode/service mode data.
2) Replace the DC controller PCB.
3) Execute the following in service mode to clear the RAM:
COPIER>FUNCTION>CLEAR>DC-CON.
4) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
5) Enter the following indicated on the service label:
COPIER>ADJUST>LASER (all items)
COPIER>ADJUST>DEVELOP (all items)
COPIER>ADJUST>DENS (all items)
COPIER>ADJUST>BLANK (all items)
COPIER>ADJUST>V-CONT (all items)
COPIER>ADJUST>HV-PRI (all items)
COPIER>ADJUST>HV-TR (all items)
COPIER>ADJUST>HV-SP (all items)
COPIER>ADJUST>FEED-ADJ (all items)
COPIER>ADJUST>CST-ADJ (all items)
COPIER>ADJUST>EXP-LED (all items)
6) Execute the following in service mode: COPIER>FUNCTION>MISC-P>CL-ADJ (all items)
COPIER>FUNCTION>SEEN>ADJ (all items)
7) Enter the values (4 types) indicated on the label attached to the new DC controller PCB in service mode.

F-11-95

8) Turn off and then on the main power switch.

11.5.19 Control Panel Controller PCB

11.5.19.1 Removing the Control Panel Controller (CPU) PCB

0007-3007

iR105i/iR105+ / iR9070

1) Remove the control panel support unit.
2) Disconnect the 3 connectors [1], and detach the 2 flat cables [2].
3) Remove the 4 screws [3], and detach the control panel controller (CPU) PCB [4].

F-11-96

11.5.19.2 Removing the Control Panel Controller (CPU) PCB

0008-8932

/ iR85+ / iR8070

1) Remove the 4 mounting screws [1], disconnect the 5 connectors [2], and disconnect the 2 flat cables [3]; then, detach the control panel controller (CPU) PCB [4].

F-11-97

11.5.20 Control Panel Inverter PCB

11.5.20.1 Removing the Control Panel Inverter PCB

0007-3009

iR105i/iR105+ / iR9070

1) Remove the control panel support unit.
2) Disconnect the 3 connectors [1].
3) Remove the 4 screws [2], and detach the control panel inverter PCB [3].

F-11-98

11.5.20.2 Removing the Control Panel Inverter

0008-8934

/ iR85+ / iR8070

1) Remove the 3 screws, and detach the control panel lower cover [2].
2) Disconnect the 3 connectors [1], and free the harness from the harness guide [2].
3) Remove the 4 screws [3], and detach the control panel inverter PCB [4].

F-11-99

11.5.21 Control Panel PCB

11.5.21.1 Removing the Control Panel PCB

0007-3017

iR105i/iR105+ / iR9070

1) Remove the LCD panel unit.
2) Remove the harness sheet [1].
3) Remove the 10 screws [2], and detach the control panel PCB [3].

F-11-100

11.5.21.2 Removing the Control Panel PCB

0008-8251

/ iR85+

1) Remove the control panel lower cover.
- Removing the Control Panel Case
2) Remove heater 4 screws [1], and detach the control panel case [2].

F-11-101

3) Remove the control panel. CPU PCB and the control panel inverter PCB.
4) Free the harness from the wire saddle, and remove the 9 screws [1]; then, detach the control panel plate [2].

F-11-102

5) Remove the mounting screw, and detach the control panel PCB [1].

F-11-103

11.5.21.3 Removing the Control Panel PCB

0008-8257

/ iR8070

1) Remove the control panel lower cover.

F-11-104

- Removing the Control Panel Case
2) Remove the 2 screws [1], and detach the control panel bracket (right) [2].
3) Remove the 3 screws [3], and lift the front of the control panel case [4].

A sheet [5] is attached to the control panel case; take care not to detach or bend the sheet.

F-11-105

4) Remove the control panel. CPU PCB and the control panel inverter PCB.
5) Free the harness from the wire saddle, and remove the 9 screws [1]; then, detach the control panel plate [2].

F-11-106

6) Remove the mounting screw, and detach the control panel PCB [1].

F-11-107

11.5.22 AC Driver PCB

11.5.22.1 Removing the AC Driver PCB

0007-3087

iR105i/iR105+ / iR9070

1) Detach delivery anti-adhesion fan mounting base.
2) Remove the mounting screw [2] of the grounding wire [1].
3) Disconnect the 8 connectors [3], and remove the 3 screws [4]; then, detach the AC driver PCB [5].

F-11-108

11.5.22.2 Removing the AC Driver PCB

0008-8285

/ iR85+ / iR8070

1) Detach delivery anti-adhesion fan mounting base.
2) Remove the mounting screw [2] of the grounding wire [1].
3) Disconnect the 8 connectors [3], and remove the 3 screws [4]; then, detach the AC driver PCB [5].

F-11-109

11.5.23 All Night Power Supply PCB

11.5.23.1 Removing the All Night Power Supply PCB

0007-3089

iR105i/iR105+ / iR9070

1) Remove the left lower cover (4 screws), and remove the left upper cover (9 screws).
2) Disconnect the connector [1], and remove the 6 screws [2]; then, detach the delivery anti-adhesion fan mounting case [3].

F-11-110

3) Disconnect the 5 connectors [1], and remove the 4 screws [2]; then, detach the all-night power supply PCB [3].

F-11-111

11.5.23.2 Removing the All Night Power Supply PCB

0008-8287

/ iR85+ / iR8070

1) Remove the left lower cover (4 screws), and remove the left upper cover (9 screws).
2) Disconnect the connector [1], and remove the 6 screws [2]; then, detach the delivery anti-adhesion fan mounting case [3].

F-11-112

3) Disconnect the 5 connectors [1], and remove the 4 screws [2]; then, detach the all-night power supply PCB [3].

F-11-113

11.5.24 Relay PCB

11.5.24.1 Removing the Relay PCB

0007-3091

iR105i/iR105+ / iR9070

1) Remove the left lower cover. (4 screws)
2) Disconnect the connector from the PCB; then, remove the screw [1], and detach the relay PCB [1] from the four PCB holders [2].

F-11-114

11.5.24.2 Removing the Relay PCB

0008-8340

/ iR85+ / iR8070

1) Remove the left lower cover (4 screws).
2) Disconnect the connector from the PCB; then, remove the screw [1], and detach the relay PCB [1] from the four PCB holders [2].

F-11-115

11.5.25 High-Voltage Transformer (AC)

11.5.25.1 Removing the High-Voltage Transformer Assembly (AC)

0007-3093

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect the 2 connectors [1], and remove the 2 screws [2]; then, detach the HV-AC PCB [3] together with the mounting base.

F-11-116

3) Disconnect the 3 connectors [1], and remove the screw [2]; then, detach the high-voltage transformer assembly (AC) [3].

F-11-117

11.5.25.2 Removing the High-Voltage Transformer Assembly (AC)

0008-8351

/ iR85+ / iR8070

1) Remove the rear cover (See 10.4.1.e.).
2) Disconnect the 2 connectors [1], and remove the 2 screws [2]; then, detach the HV-AC PCB [3] together with the mounting base.

F-11-118

3) Disconnect the 3 connectors [1], and remove the screw [2]; then, detach the high-voltage transformer assembly (AC) [3].

F-11-119

11.5.26 HV-AC PCB

11.5.26.1 Removing the HV-AC PCB

0007-3088

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect the 2 connectors [1], and remove the 4 screws [2]; then, detach the HV-AC PCB [3].

F-11-120

11.5.26.2 Removing the HV-AC PCB

0008-8286

/ iR85+ / iR8070

1) Remove the rear cover

2) Disconnect the 2 connectors [1], and remove the 4 screws [2]; then, detach the HV-AC PCB [3].

F-11-121

11.5.27 HV-DC PCB

11.5.27.1 Removing the HV-DC PCB

0007-3094

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect the 5 connectors [1], and remove the 3 screws [2]; then, slide the HV-DC PCB [3] along the left and right rails [4] to detach to the front.
3) Detach the HV-DC PCB [3] from the cut-offs of the rails.

F-11-122

11.5.27.2 Removing the HV-DC PCB

0008-8356

/ iR85+ / iR8070

1) Remove the rear cover.
2) Disconnect the 5 connectors [1], and remove the 3 screws [2]; then, slide the HV-DC PCB [3] along the left and right rails [4] to detach to the front.
3) Detach the HV-DC PCB [3] from the cut-offs of the rails.

F-11-123

11.5.27.3 When Replacing the HV-DC PCB

0008-4626

iR105i/iR105+ / iR9070

1) Replace the HV-DC PCB.
2) Check to make sure that the slide switch (SW101) on the PCB is on the UP side.
3) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
4) Enter the values (4 types) indicated on the label attached to the new HV-DC PCB in service mode.

F-11-124

5) Turn off and then on the main power switch.

11.5.27.4 When Replacing the HV-DC PCB

0008-8466

/ iR85+ / iR8070

1) Replace the HV-DC PCB.
2) Check to make sure that the slide switch (SW101) on the PCB is on the UP side.
3) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
4) Enter the values (4 types) indicated on the label attached to the new HV-DC PCB in service
mode.

F-11-125

5) Turn off and then on the main power switch.

11.5.28 Fixing Heat Discharge Fan

11.5.28.1 Removing the Fixing Heat Discharge Fan (FM2)

0007-3024

iR105i/iR105+ / iR9070 / iR8070

1) Remove the rear cover.
2) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the fixing heat discharge fan [3].

F-11-126

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.29 Scanner Cooling Fan

11.5.29.1 Removing the Scanner Motor Cooling Fan (FM18)

0007-3067

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect the connector [1] on the machine side.
3) Remove the 2 screws [2], and detach the scanner motor cooling fan unit [3].

F-11-127

4) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the scanner motor cooling fan [3].

F-11-128

When mounting the fan, be sure that the direction of air is as indicated by the arrow.

11.5.30 Stream Reading Fan

11.5.30.1 Removing the Stream Reading Fan (FM4)

0007-3032

iR105i/iR105+ / iR9070

1) Remove the upper front cover unit.
2) Remove the 2 screws [1], and detach the stream read fan dust [2].

F-11-129

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

3) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the stream read fan unit [3].

F-11-130

4) Remove the 2 screws [1], and detach the stream read fan [2].

F-11-131

11.5.31 Laser Cooling Fan

11.5.31.1 Removing the Laser Motor Cooling Fan (FM1)

0007-3022

iR105i/iR105+ / iR9070

1) Remove the inside upper cover.
2) Disconnect the connector [1], and remove the harness lock [2] from the plate.
3) Remove the 4 screws [3], and detach the laser motor cooling fan [4].

F-11-132

11.5.31.2 Removing the Laser Cooling Fan 2 (FM5)

0008-8261

/ iR85+ / iR8070

1) Remove the reader controller PCB or slide the reader unit.
2) Remove the 2 screws [1], and disconnect the connector; then, detach the laser driver cooling fan [3] together with the mounting base.

F-11-133

3) Remove the 2 screws [1], and detach the laser driver cooling fan [2].

F-11-134

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.31.3 Removing the Laser Cooling Fan 1 (FM3)

0007-3029

iR105i/iR105+ / iR9070

1) Remove the inside upper cover.
2) Disconnect the connector, and remove the 2 screws [2]; then, detach the laser cooling fan 1 [3].

F-11-135

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.31.4 Removing the Laser Cooling Fan 2 (FM5)

0007-3044

iR105i/iR105+ / iR9070

1) Remove the reader controller PCB.
2) Remove the 2 screws [1], and disconnect the connector; then, detach the laser driver cooling fan [3] together with the mounting base.

F-11-136

3) Remove the 2 screws [1], and detach the laser driver cooling fan [2].

F-11-137

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.32 De-Curling Fan

11.5.32.1 Removing the Curl-Reducing Fan (FM6)

0007-3053

iR105i/iR105+ / iR9070

1) Remove the fixing/feeding unit cover.
2) Disconnect the 4 connectors [1], and remove other 4 screws [2]; then, detach the fixing motor base [3].

F-11-138

3) Remove the 2 screws [1], and disconnect the 2 connectors [2]; then, detach the delivery speed switching clutch [3].

F-11-139

When removing the delivery speed switching clutch, take care not to lose the bearings and the washers (rear only) on both ends of the clutch shaft.

4) Disconnect the connector [1], and remove the 2 screws [2]; them, detach the curl-reducing fan [3].

F-11-140

11.5.32.2 Removing the Curl-Reducing Fan (FM6)

0008-8262

/ iR85+ / iR8070

1) Remove the fixing/feeding unit cover.
2) Disconnect the 4 connectors [1], and remove other 4 screws [2]; then, detach the fixing motor base [3].

F-11-141

3) Remove the 2 screws [1], and disconnect the 2 connectors [2]; then, detach the delivery speed switching clutch [3].

F-11-142

When removing the delivery speed switching clutch, take care not to lose the bearings and the washers (rear only) on both ends of the clutch shaft.

4) Disconnect the connector [1], and remove the 2 screws [2]; them, detach the curl-reducing fan [3].

F-11-143

11.5.33 Drum Fan

11.5.33.1 Removing the Drum Fan (FM8)

0007-3054

iR105i/iR105+ / iR9070 / iR8070

1) Remove the HV-DC PCB.

2) Remove the 2 screws [1], and disconnect that connector [2]; then, detach the drum fan unit [3].

F-11-144

3) Disconnect the connector [1], and remove the 3 screws [2]; then, detach the drum fan [3].

F-11-145

11.5.34 Inverter Cooling Fan

11.5.34.1 Removing the Inverter Cooling Fan (FM9)

0007-3055

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Remove the rear upper cover. (2 screws)
3) Remove the screw [1], and detach the inverter cooling fan duct [2].

F-11-146

4) Remove the 2 screws [1], and slide out the inverter fan [2].

F-11-147

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

5) Disconnect the connector [1], and detach the inverter cooling fan [2].

F-11-148

11.5.35 Pre-Transfer Charging Assembly Fan

11.5.35.1 Removing the Pre-Transfer Charging Assembly Fan (FM10)

0007-3057

iR105i/iR105+ / iR9070 / iR8070

1) Remove the process unit cover. (4 screws)
2) Remove the 2 screws [1], and disconnect the 2 connectors [2]; then, detach the fan motor [3].

F-11-149

3) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the pre-transfer charging assembly fan [3].

F-11-150

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.36 Power Supply Cooling Fan 1

11.5.36.1 Removing the Power Supply Cooling Fan 1 (FM11)

0007-3058

iR105i/iR105+ / iR9070

1) Remove the left lower cover. (4 screw)
2) Remove the power supply unit.
3) Remove the 3 screws [1], and detach the fan mounting base [2].

F-11-151

4) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the power supply cooling fan [3].

F-11-152

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.36.2 Removing the Power Supply Cooling Fan 1 (FM11)

0008-8263

/ iR85+ / iR8070

1) Remove the left lower cover (4 screw).
2) Remove the power supply unit.
3) Remove the 3 screws [1], and detach the fan mounting base [2].

F-11-153

4) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the power supply cooling fan [3].

F-11-154

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.37 Power Supply Cooling Fan 2

11.5.37.1 Removing the Power Supply Cooling Fan 2 (FM12)

0007-3059

iR105i/iR105+ / iR9070

1) Remove the fan mounting base.
2) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the power supply cooling fan 2 [3].

F-11-155

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.37.2 Removing the Power Supply Cooling Fan 2 (FM12)

0008-8264

/ iR85+ / iR8070

1) Slide out the fixing/feeder unit.
2) Remove the 4 screws [1], and detach the fixing/feeding lower cover (1) [2] and the fixing/feeding lower cover (2) [3].

F-11-156

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.38 Separation Fan

11.5.38.1 Removing the Separation Fan (FM13)

0007-3060

iR105i/iR105+ / iR9070

1) Slide out the fixing/feeder unit.
2) Remove the 4 screws [1], and detach the fixing/feeding lower cover (1) [2] and the fixing/feeding lower cover (2) [3].

F-11-157

3) Disconnect the connector [1], and remove the heater 3 screws [2]; then, detach the separation fan [3].

F-11-158

11.5.38.2 Removing the Separation Fan (FM13)

0008-8265

/ iR85+ / iR8070

1) Slide out the fixing/feeder unit.
2) Remove the 4 screws [1], and detach the fixing/feeding lower cover (1) [2] and the fixing/feeding lower cover (2) [3].

F-11-159

3) Disconnect the connector [1], and remove the five screws [2]; then, detach the separation fan unit [3].

F-11-160

4) Remove the three screws [1], and detach the separation fan [2].

F-11-161

11.5.39 Developing Fan

11.5.39.1 Removing the Developing Fan (FM15)

0007-3064

iR105i/iR105+ / iR9070

1) Remove the primary charging assembly.
2) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the fan unit [3].

F-11-162

3) Remove the 2 screws [1], and detach the developing assembly fan [2].

F-11-163

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.39.2 Removing the Developing Fan (FM15)

0008-8266

/ iR85+ / iR8070

1) Remove the primary charging assembly.
2) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the fan unit [3].

F-11-164

3) Remove the 2 screws [1], and detach the developing assembly fan [2].

F-11-165

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.40 Delivery Anti-Adhesion Fan

11.5.40.1 Removing the Delivery Anti-Adhesion Fan (FM17)

0007-3066

iR105i/iR105+ / iR9070

1) Remove the left lower cover. (4 screws)
2) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the fan unit [3].

F-11-166

3) Remove the 2 screws [1], and detach the fan [2].

F-11-167

11.5.40.2 Removing the Delivery Anti-Adhesion Fan (FM17)

0008-8268

/ iR85+ / iR8070

1) Remove the left lower cover (4 screws).
2) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the fan unit [3].

F-11-168

3) Remove the 2 screws [1], and detach the fan [2].

F-11-169

11.5.41 Duplex Feed Fan

11.5.41.1 Removing the Duplex Feed Fan (FM19)

0007-3068

iR105i/iR105+ / iR9070

1) Remove the duplex unit cover. (4 screws, 3 knobs)
2) Disconnect the connector [1], and remove the 3 screws [2]; then, detect the duplex feed fan unit [3].
At this time, keep in mind that the shift assembly [4] will also come off.

F-11-170

3) Remove the 2 screws [1], and detach the duplex feed fan [2].

F-11-171

When mounting the fan, be sure that the direction of air current is as indicated by the arrow.

11.5.42 Separation Heat Discharge Fan

11.5.42.1 Removing the Separation Heat Discharge Fan (FM20)

0007-3069

iR105i/iR105+ / iR9070

1) Remove the rear cover.
2) Disconnect the connector, and remove the 2 screws [2]; then, detach the separation heat discharge fan [3].

F-11-172

11.5.43 LCD Panel

11.5.43.1 Removing the LCD Panel

0007-3012

iR105i/iR105+ / iR9070

1) Remove the control panel controller (CPU) PCB.
2) Remove the control panel inverter PCB.
3) Remove the W washer screw [1], and detach the grounding sheet [2].
4) Remove the screw [3], and detach the LCD panel unit [4].

F-11-173

5) Remove the 4 screws [1], and detach the LCD panel [2].

F-11-174

11.5.43.2 Removing the LCD Panel

0008-8589

/ iR85+

1) Remove the control panel lower cover.
- Removing the Control Panel Case
2) Remove heater 4 screws [1], and detach the control panel case [2].

F-11-175

3) Remove the control panel. CPU PCB and the control panel inverter PCB.
4) Free the harness from the wire saddle, and remove the 9 screws [1]; then, detach the control panel plate [2].

F-11-176

5) Remove the 4 screws [1] on the control panel plate detached in step 4); then, detach the LCD panel [2].

F-11-177

11.5.43.3 Removing the LCD Panel

0008-8590

/ iR8070

1) Remove the control panel lower cover.

F-11-178

- Removing the Control Panel Case
2) Remove the 2 screws [1], and detach the control panel bracket (right) [2].
3) Remove the 3 screws [3], and lift the front of the control panel case [4].

A sheet [5] is attached to the control panel case; take care not to detach or bend the sheet.

F-11-179

4) Remove the control panel. CPU PCB and the control panel inverter PCB.
5) Free the harness from the wire saddle, and remove the 9 screws [1]; then, detach the control panel plate [2].

F-11-180

6) Remove the 4 screws [1] on the control panel plate detached in step 4); then, detach the LCD panel [2].

F-11-181

Chapter 12 MEAP

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12.1 MEAP

12.1.1 Overview

0008-1396

iR105i/iR105+ / iR9070 / iR8070

The term MEAP stands for Multifunctional Embedded Application Platform, and is used to generically refer to a platform for software built into MFPs and peripheral equipment. The architecture is based on Java (J2ME, i.e., Java 2 Platform Micro Edition), and is designed to enable the execution of Java applications.
A MEAP application behaves independently from its host printer's system software, and may be installed or uninstalled using SMS (Service Management Service), which is an interface that runs as part of the browser on a PC. As long as the device supports MEAP, most MEAP applications may be added to the device in the field.

12.1.2 MEAP Counter

0008-1397

iR105i/iR105+ / iR9070 / iR8070

In addition to the commonly found print counters, a device that supports MEAP is equipped with a counter mechanism used to keep track of which functions are used as well as how often they are used for individual MEAP applications that are installed. The MEAP counter readings may be checked by making the following selections on the device control panel: Counter Check Key>MEAP Counter Check. A device may possess the following MEAP counters, and which counter to use and, therefore, to display all depend on the application in question.
A counter reading may be of a type that is forced to increase as a job is expected or of a type that is increased when the application sends instructions; or, it may be of a type that increases independently of the host device, thus increasing solely in response to the application being run; specifics are as follows:

T-12-1

Type	Count item
forced	total
	total (black-and-white 1)
	total (black-and-while large)
	scan (total 1)
	black-and-white scan (total 1)
in response to instructions from application	black-and-white scan 1
	black-and-white scan 2
	black-and-white scan 3
	black-and-white scan 4
application-independent	free 1
	free 2
	free 3
	free 4
	free 5
	free 6
	free 7
	free 8
	free 9
	free 10
	free 11
	free 12

MEMO:
forced: the device forces the counter to increase its reading in response to execution of a job.
in response to instructions from application: the counter increases its reading only in response to instructions from the application.
application independent: the counter operates according to the specifications of the application.

12.1.3 Construction of the MEAP Platform

0008-1398

iR105i/iR105+ / iR9070 / iR8070

In addition to the installation of the system software, language file, and RUI, a printer equipped with MEAP functions calls for the installation of MEAP content, which offers functions (system services) needed to run MEAP applications and class libraries needed by the MEAP applications to control the device.
It is important that the version of the system software be fully compatible with the version of the MEAP content, calling for special care. (In the case of a mismatch, the device will not be able to run the MEAP application.) For version information, refer to the Service Information bulletin that is released in

conjunction with the system software.

The following shows the components of a MEAP application:

F-12-1

[1] User Interface Control Bock
installed as part of the system software
[2] Device Control Block
installed as part of the system software
[3] Operating System
installed as part of the system software
[4] Java VM
installed as part of the system software
[5] MEAP System Services (includes SDL/SSO)
installed as part of MEAP content
[6] Device Control Class Library
installed as part of MEAP content
[7] internally developed application
[8] externally developed application

Chapter 13 Maintenance and Inspection

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13.1 Periodically Replaced Parts

13.1.1 Overview

0006-9524

iR105i/iR105+ / iR9070

Some parts of the machine must be replaced on a periodical basis to ensure a specific level of product performance; once they fail, the consequences will be appreciable.
If possible, plan the replacement to coincide with a scheduled visit.

13.1.2 Overview

0008-8437

/ iR85+ / iR8070

Some parts of the machine must be replaced on a periodical basis to maintain a specific level of machine performance; replace them as indicated (Once they fail, the machine performance will be appreciably affected).
If possible, plan the replacement so that it will coincide with a periodical servicing visit for the machine.

13.1.3 Main Body

0006-9528

iR105i/iR105+ / iR9070

T-13-1

As of Oct 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Pre-transfer/transfer/ separation charging wire	FB4-3687-000	AR	500,000*	If high temperature/ humidity, every 250,000 pages.
	Primary charging wire	FB4-3687-000	AR	500,000*	If high temperature/ humidity, every 250,000 pages. If normal temperature/ low humidity, every 400,000 pages.
2	Primary grid wire	FY1-0883-000	AR	500,000*	
3	Main thermistor	FG6-7748-020	1	500,000	
4	Sub thermistor	FH7-7464-000	1	500,000	
5	Thermal switch unit	FG6-7745-000	1	1,000,000	
6	Ozone filter (drum)	FB6-0776-000	1	1,000,000	
7	Ozone filter (separation)	FB6-0397-000	1	1,000,000	
8	Ozone filter (fixing)	FB6-0403-000	1	1,000,000	

* Older type (full-plated) must not be used.
After replacing the charging wire, be sure to execute wire cleaning in service mode: COPIER> FUNCTION> CLEANING> WIRE-CLN.
* After servicing the charging assembly, be sure to mount it back while moving the cleaning holder toward the front.

F-13-1

The above figures are estimates only, and are subject to change based on future data.

13.1.4 Main body

0008-8438

/ iR85+

T-13-2

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (approx.; copies)	Remarks
1	Pre-transfer/Transfer/Separation charging wire Primary charging wire	FB4-3687-000	AR	250,000* 500,000*	
2	Primary charging grid wire	FY1-0883-000	AR	500,000	
3	Thermistor	FG6-7748-020	1	500,000	
4	Sub thermistor	FH7-7464-000	1	500,000	
5	Thermal switch unit	FG6-7745-000	1	1,000,000	
6	Primary charging wire cleaner 1	FF5-6883-000	2	500,000	
7	Primary charging wire cleaner 2	FF5-6884-000	2	500,000	
8	Transfer charging wire cleaner 1	FF5-6883-000	1	500,000	
9	Transfer charging wire cleaner 2	FF5-6884-000	1	500,000	
10	Separation charging wire cleaner	FF5-7891-020	1	500,000	
11	Pre-transfer charging wire cleaner	FF5-9552-000	1	500,000	
12	Ozone filter for FM2	FB6-0777-000	1	1,000,000	
13	Ozone filter for FM8	FB6-0776-000	1	1,000,000	
14	Dust-proofing filter for FM1	FF5-7663-000	1	1,000,000	
15	Dust-proofing filter for FM3	FF5-7662-000	1	1,000,000	
16	Dust-proofing filter for FM4	FF5-9547-000	1	1,000,000	
17	Dust-proofing filter for FM10	FF5-7664-000	1	1,000,000	
18	Dust-proofing filter for FM14	FF5-7663-000	1	1,000,000	

Note:
The above values are estimates only, and are subject to change based on future data.

* Old type (gold-plated) must not be used.
After replacing the charging wire, be sure to execute wire cleaning in service mode:
COPIER>FUNCTION>CLEANING>WIRE-CLN.
* After servicing the charging assembly, mount it while moving the cleaning holder to the fort by hand.

F-13-2

F-13-3

F-13-4

13.1.5 Main body

0008-8445

/ iR8070

T-13-3

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (approx.; copies)	Remarks
1	Pre-transfer/Transfer/ Separation charging wire Primary charging wire	FB4-3687-000	AR	200,000(*) 500,000(*)	
2	Primary charging grid wire	FY1-0883-000	AR	500,000	
3	Thermistor	FG6-7748-020	1	500,000	

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (approx.; copies)	Remarks
4	Thermistor	FH7-7464-000	1	500,000	
5	Thermal switch unit	FG6-7745-000	1	1,000,000	
6	Primary charging wire cleaner 1	FF5-6883-000	2	500,000	
7	Primary charging wire cleaner 2	FF5-6884-000	2	500,000	
8	Transfer charging wire cleaner 1	FF5-6883-000	1	500,000	
9	Transfer charging wire cleaner 2	FF5-6884-000	1	500,000	
10	Separation charging wire cleaner	FF5-7891-020	1	500,000	
11	Pre-transfer charging wire cleaner	FF5-9552-000	1	500,000	
12	Ozone filter for FM2	FB6-0777-000	1	1,000,000	
13	Ozone filter for FM8	FB6-0776-000	1	1,000,000	
14	Dust-proofing filter for FM1	FF5-7663-000	1	1,000,000	
15	Dust-proofing filter for FM3	FF5-7662-000	1	1,000,000	
16	Dust-proofing filter for FM10	FF5-7663-000	1	1,000,000	
17	Dust-proofing filter for FM14	FF5-7663-000	1	1,000,000	

Note:
The above values are estimates only, and are subject to change based on future data.

* Old type (gold-plated) must not be used.
After replacing the charging wire, be sure to execute wire cleaning in service mode:
COPIER>FUNCTION>CLEANING>WIRE-CLN.
* After servicing the charging assembly, mount it while moving the cleaning holder to the fort by hand.

F-13-5

[8]
[9]
[10]
[6]
[7]
[7]
[6]
[11]
[6] Primary charging wire cleaner 1
[7] Primary charging wire cleaner 2
[8] Transfer charging wire cleaner 1
[9] Transfer charging wire cleaner 2
[10] Separation charging wire cleaner
[11] Pre-transfer charging wire cleaner

F-13-6

[13] Ozone filter for FM8
[12] Ozone filter for FM2
[16] Dust-proofing filter for FM10
[14] Dust-proofing filter for FM1
[17] Dust-proofing filter for FM1
[15] Dust-proofing filter for FM3

F-13-7

13.2 Durables and Consumables

13.2.1 Overview

0006-9574

iR105i/iR105+ / iR9070

Some parts of the machine may prove to require replacement once or more over the period of product warranty because of wear or damage. Replace them when they fail; see the following for a guide:

13.2.2 Overview

0008-8446

/ iR85+ / iR8070

Some parts of the machine may require replacement once or more during the period of machine warranty because of wear or damage. Replace them as needed by referring to the following table.

13.2.3 Main Body

0006-9584

iR105i/iR105+ / iR9070

T-13-4

As of Oct 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Scanning lamp	FH7-3347-000	1	200 hr or 150,000 activations	Check in service mode: - Period of Activation COPIER> COUNTER> DRBL-1> SCN-LMP - Number of Activations COPIER> DISPLAY> MISC> SCAN-LMP
2	Developing cylinder	FB6-2370-000	1	1,000,000	
3	Developing assembly roll	FS5-6579-000	2	1,000,000	
4	Cleaner separation claw	FB4-8018-000	3	500,000	
5	Cleaning blade	FB6-2720-000	1	1,000,000	Use both edges, each for 500,000 pages; apply toner upon replacement.
6	Primary charging assembly	FG6-7313-000	1	1,000,000	
7	Transfer/separation charging assembly	FG6-8733-020	1	1,000,000	
8	Pre-transfer charging assembly	FG6-7424-000	1	1,000,000	
9	Primary charging wire cleaner 1	FF5-6883-000	2	500,000	If high temperature/ humidity, every 250,000 pages.
10	Primary charging wire cleaner 2	FF5-6884-000	2	500,000	If high temperature/ humidity, every 250,000 pages.
11	Transfer charging wire cleaner 1	FF5-6883-000	1	500,000	If high temperature/ humidity, every 250,000 pages.
12	Transfer charging wire cleaner 2	FF5-6884-000	1	500,000	If high temperature/ humidity, every 250,000 pages.
13	Separation charging wire cleaner	FF5-7891-020	1	500,000	If high temperature/ humidity, every 250,000 pages.
14	Pre-transfer charging wire cleaner	FF5-9552-000	1	500,000	If high temperature/ humidity, every 250,000 pages.
15	Pre-transfer charging assembly scraper	FF6-1031-000	1	500,000	
16	Fixing upper roller	FB5-6930-000	1	500,000	
17	Fixing lower roller	FB5-6952-000	1	500,000	
18	Fixing web	FY1-1157-000	1	500,000	

As of Oct 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
19	Insulating bush (front/rear)	FB5-6934-000	2	500,000	Replace together with fixing upper roller.
20	Fixing roller bearing	XG9-0421-000	2	1,000,000	
21	Fixing pressure roller bearing	XG9-0447-000	2	1,000,000	
22	Delivery upper separation claw	FB5-3625-000	6	500,000	
23	Delivery lower separation claw	FA2-9037-000	2	1,000,000	
24	Pickup roller (deck, cassette)	FF5-7829-000 (front) FF5-7830-000 (rear)	8	500,000	Actual number of pages (2 pc. each). Number may be checked in service mode*: left deck: LD-PU-RL right deck: RD-PU-RL cassette 3: C3-PU-RL cassette 4: C4-PU-RL
25	Feeding roller (deck, cassette)	FB6-0615-000	8	500,000	Actual number of pages (2 pc. each). Number may be checked in service mode*: left deck: LD-FD-RL right deck: RD-FD-RL cassette 3: C3-FD-RL cassette 4: C4-FD-RL
26	Separation rolle (deck, cassette)	FB5-6586-000	4	500,000	Actual number of pages processed. (1 pc. for each holder) May be checked in service mode*: left deck: LD-SP-RL right deck: RD-SP-RL cassette 3: C3-SP-RL cassette 4: C4-SP-RL
27	Pickup roller (manual feed tray)	FF5-7829-000 (front) FF5-7830-000 (rear)	2	120,000	Actual number of pages processed. May be checked in service mode*: M-UP-RL
28	Feeding roller (manual feed tray)	FB4-2035-000	2	120,000	Actual number of pages processed. May be checked in service mode*: MM-FD-RL
29	Separation roller (manual feed tray)	FB2-7545-000	1	120,000	Actual number of pages processed. May be checked in service mode*: M-SP-RL
30	Cleaner side scraper (font)	FB5-6868-000	1	1,000,000	
31	Cleaner side scarper (rear)	FB5-6869-000	1	1,000,000	

*: COPIER> COUNTER> DRBL-1.

F-13-8

F-13-9

13.2.4 Main body

0008-8447

T-13-5

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Scanning lamp	FH7-3347-000	1	200 hr or 150,000 activations	Check in service mode. - Length of Activation COPIER>COUNTER>DRBL-1>SCN-LMP - Number of Activations COPIER>DISPLAY>MISC>SCAN-LMP
2	Developing cylinder	FG9-3885-000	1	1,000,000	
3	Developing assembly member	FS5-6579-000	2	1,000,000	
4	Cleaner separation claw	FB4-8018-000	3	250,000	
5	Cleaning blade	FB6-2720-000	1	1,000,000	Use both edges; 50,000 pages each. Apply toner upon replacement.
6	Primary charging assembly	FG6-7313-000	1	1,000,000	
7	Transfer/ separation charging assembly	FG6-7740-000	1	1,000,000	
8	Pre-transfer charging assembly	FG9-3863-000	1	1,000,000	Use the LED unit (FG6-7185) for a second time.
9	Pre-transfer charging assembly scarper	FF6-1031-000	2	500,000	
10	Upper fixing roller	FB5-6930-000	1	500,000	
11	Lower fixing roller	FB5-6952-000	1	500,000	
12	Fixing web	FY1-1157-000	1	500,000	Replace simultaneously with the upper fixing roller.
13	Insulating bush (front/rear)	FB5-6934-000	2	500,000	
14	Fixing roller bearing	XG9-0421-000	2	1,000,000	
15	Fixing pressure roller bearing	XG9-0447-000	2	1,000,000	
16	Delivery upper separation claw	FB5-8727-000	6	500,000	
17	Delivery lower separation claw	FA2-9037-000	2	1,000,000	
18	Pickup roller (deck, cassette)	FF5-7829-000(front) FF5-7830-000(rear)	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-PU-RL Right deck: RD-PU-RL Cassette 3: C3-PU-RL Cassette 4: C4-PU-RL

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
19	Feeding roller (deck, cassette)	FB2-2034-000	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pagesm made may be checked in service mode.* Left deck: LD-FD-RL Right deck: RD-FD-RL Cassette 3: C3-FD-RL Cassette 4: C4-FD-RL
20	Separation roller (deck, cassette)	FB2-7777-020	4	250,000	Actual Number of Pages Made (1 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-SP-RL Right deck: RD-SP-RL Cassette 3: C3-SP-RL Cassette 4: C4-SP-RL
21	Pickup roller (manual feed tray)	FF5-7829-000(front) FF5-7830-000(rear)	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-PU-RL
22	Feeding roller (manual feed tray)	FB4-2035-000	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-FD-RL
23	Separation roller (manual feed tray)	FB2-7545-000	1	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-SP-RL

*: COPIER>COUNTER>DRBL-1.

F-13-10

F-13-11

13.2.5 Main body

0008-8457

/ iR8070

T-13-6

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Scanning lamp	FG6-4864-000 (208 V) FG6-5943-000 (100/230 V)	1	3,000,000 scanning	Check in service mode. - Length of Activation COPIER>COUNTER> DRBL-1>SCN-LMP - Number of Activations COPIER>DISPLAY>MISC> SCAN-LMP
2	Developing cylinder	FB5-3111-000	1	1,000,000	
3	Developing assembly roll	FS5-6579-000	2	1,000,000	
4	Cleaner separation claw	FB4-8018-000	3	250,000	
5	Cleaning blade	FB6-2720-000	1	1,000,000	Use both edges; 50,000 pages each. Apply toner upon replacement.
6	Primary charging assembly	FG6-7313-000	1	1,000,000	
7	Transfer/ separation charging assembly	FG6-7740-000	1	1,000,000	
8	Pre-transfer charging assembly	FG9-3863-000	1	1,000,000	Use the LED unit (FG6-7185) for a second time.
9	Pre-transfer charging assembly scarper	FF6-1031-000	1	500,000	
10	Upper fixing roller	FB5-6930-000	1	500,000	
11	Lower fixing roller	FB5-6952-000	1	500,000	

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
12	Fixing web	FY1-1157-000	1	500,000	Replace simultaneously with the upper fixing roller.
13	Insulating bush (front/rear)	FB5-6934-000	2	500,000	
14	Fixing roller bearing	XG9-0421-000	2	1,000,000	
15	Fixing pressure roller bearing	XG9-0447-000	2	1,000,000	
16	Delivery upper separation claw	FB5-8727-000	6	500,000	
17	Delivery lower separation claw	FA2-9037-000	2	1,000,000	
18	Pickup roller (deck, cassette)	FF5-7829-000 (front) FF5-7830-000 (rear)	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-PU-RL Right deck: RD-PU-RL Cassette 3: C3-PU-RL Cassette 4: C4-PU-RL
19	Feeding roller (deck, cassette)	FB4-2034-000	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pagesm made may be checked in service mode.* Left deck: LD-FD-RL Right deck: RD-FD-RL Cassette 3: C3-FD-RL Cassette 4: C4-FD-RL
20	Separation roller (deck, cassette)	FB2-7777-000	4	250,000	Actual Number of Pages Made (1 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-SP-RL Right deck: RD-SP-RL Cassette 3: C3-SP-RL Cassette 4: C4-SP-RL
21	Pickup roller (manual feed tray)	FF9-1763-000 (front) FF9-1764-000 (rear)	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-PU-RL
22	Feeding roller (manual feed tray)	FB4-2035-000	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-FD-RL

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
23	Separation roller (manual feed tray)	FB2-7545-000	1	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-SP-RL

*COPIER>COUNTER>DRBL-1.

F-13-12

F-13-13

13.2.6 Main body

0008-9075

iR85+

T-13-7

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Developing cylinder	FG9-3885-000	1	1,000,000	
2	Developing assembly roll	FS5-6579-000	2	1,000,000	
3	Cleaner separation claw	FB4-8018-000	3	250,000	
4	Cleaning blade	FB6-2720-000	1	1,000,000	Use both edges; 50,000 pages each. Apply toner upon replacement.
5	Primary charging assembly	FG6-7313-000	1	1,000,000	
6	Transfer/ separation charging assembly	FG6-7740-000	1	1,000,000	
7	Pre-transfer charging assembly	FG9-3863-000	1	1,000,000	Use the LED unit (FG6-7185) for a second time.
8	Pre-transfer charging assembly scarper	FF6-1031-000	2	500,000	
9	Upper fixing roller	FB5-6930-000	1	500,000	
10	Lower fixing roller	FB5-6952-000	1	500,000	
11	Fixing web	FY1-1157-000	1	500,000	Replace simultaneously with the upper fixing roller.
12	Insulating bush (front/rear)	FB5-6934-000	2	500,000	
13	Fixing roller bearing	XG9-0421-000	2	1,000,000	
14	Fixing pressure roller bearing	XG9-0447-000	2	1,000,000	
15	Delivery upper separation claw	FB5-8727-000	6	500,000	
18	Delivery lower separation claw	FA2-9037-000	2	1,000,000	
19	Pickup roller (deck, cassette)	FF5-7829-000(front) FF5-7830-000(rear)	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-PU-RL Right deck: RD-PU-RL Cassette 3: C3-PU-RL Cassette 4: C4-PU-RL
20	Feeding roller (deck, cassette)	FB2-2034-000	8	250,000	Actual Number of Pages Made (2 pc. for each) The actual number of pagesm made may be checked in service mode.* Left deck: LD-FD-RL Right deck: RD-FD-RL Cassette 3: C3-FD-RL Cassette 4: C4-FD-RL

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
21	Separation roller (deck, cassette)	FB2-7777-020	4	250,000	Actual Number of Pages Made (1 pc. for each) The actual number of pages made may be checked in service mode.* Left deck: LD-SP-RL Right deck: RD-SP-RL Cassette 3: C3-SP-RL Cassette 4: C4-SP-RL
22	Pickup roller (manual feed tray)	FF5-7829-000(front) FF5-7830-000(rear)	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-PU-RL
23	Feeding roller (manual feed tray)	FB4-2035-000	2	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-FD-RL
24	Separation roller (manual feed tray)	FB2-7545-000	1	120,000	Actual Number of Pages Made The actual number of pages made may be checked in service mode.* M-SP-RL

*: COPIER>COUNTER>DRBL-1.

F-13-14

F-13-15

13.2.7 Side Paper Deck

0006-9715

iR105i/iR105+ / iR9070

T-13-8

No.	Parts name	Parts No.	Q'ty	Life (pages)	As of Oct 2004 Remarks
1	Side Paper Deck Feed Roller	FF5-7829-000 (front) FF5-7830-000 (rear)	2	500,000	Actual number may be checked in service mode.* PD-PU-RL
2	Side Paper Deck Delivery Roller	FB6-0615-000	2	500,000	Actual number may be checked in service mode.* PD-FD-RL
3	Side Paper Deck Separation Roller	FB5-6586-000	1	500,000	Actual number may be checked in service mode.* PD-SP-RL

*: COPIER> COUNTER> DRBL-2.

F-13-16

13.2.8 Side Paper Deck

0008-8459

/ iR85+ / iR8070

T-13-9

As of October 2004

No.	Parts name	Parts No.	Q'ty	Life (pages)	Remarks
1	Side paper deck pickup roller	FF5-7829-000 (front) FF5-7830-000 (rear)	2	250,000	The actual number of pages made may be checked in service mode.* PD-UP-RL
2	Side paper deck feeding roller	FF5-7541-000	2	250,000	The actual number of pages made may be checked in service mode.* PD-FD-RL
3	Side paper deck separation roller	FB2-7777-020	1	250,000	The actual number of pages made may be checked in service mode.* PD-SP-RL

*COPIER>COUNTER>DRBL-2.

F-13-17

13.3 Scheduled Servicing Basic Procedure

13.3.1 Scheduled Service Chart

0006-9728

iR105i/iR105+ / iR9070

1. As a rule, provide scheduled service every 500,000 copies.
2. Check the Service Book before setting out for a visit, and take parts expected to require replacement.
3. If you have cleaned a charging wire with alcohol, check to be sure that the solvent has dried before mounting it back to the machine.
4. If the power plug is left connected for a long time in an area subject to excessive dust, humidity, or smoke (containing oil vapor), an insulation fault and, ultimately, a fire can occur (owing to the build-up of moist dust.)
   Be sure to disconnect the power plug on a periodical basis, and wipe the area and the power plug clean with a dry cloth.

T-13-10

			As of Oct 2004
No.	**Work**	**Checks**	**Remarks**
1	Meet the person in charge.	Check the general condition.	
2	Make test copies.	Check the faulty copies.	
3	Make test copies.	a. Image density b. Soiled background c. Character clarity d. Leading edge margin e. Fixing, displaced registration, soiled back	Standards (single-sided) Leading edge: 4.0 +1.5, -1.0 mm Left/right: 2.5 -/+1.5 mm Trailing edge: 2.5 -/+1.5 mm
4	Clean the charging assemblies: - Charging wire (primary, pre-transfer, transfer/separation) - Grid wire (primary charging assembly) - Shielding plate (charging assembly) - Roller electrode		Dry wipe with lint-free paper, and clean with alcohol.

Points to Note When Cleaning/Replacing the Charging Wire or Replacing the Charging Wire Cleaner

At the end of the following work, check to be sure that the charging wire is in the middle of the charging wire cleaner; otherwise, image faults can occur:
a. Cleaning the charging wire.
b. Replacing the charging wire.
c. Moving the charging wire cleaner by hand.
d. Replacing the charging wire cleaner.

Correct

F-13-18

Wrong

F-13-19

T-13-11

No.	Work	Checks	Remarks
5	Clean the optical assembly: - No. 1/2/3 mirror - Dust-proof glass - Reflecting plate - Standard white plate		Clean with a blower brush; if dirt cannot be removed, use alcohol.
6	Check the scanner system: - Scanner cable - Scanner rail	Check the tension of the cable. Clean the sliding areas, and apply silicone oil (FY9-6011).	Check the scanner cable only after making the first 250,000 pages.
7	Check the waste toner case.	If the case is more than half full, dispose of the toner in a plastic bag. Or, replace the case.	
8	Clean the filters: - Ozone filter - Dust-proof filter		Remove the dust from the filter surface.
9	Clean the developing assembly: - Developing assembly roll	Clean the developing assembly roll.	
10	Clean the pickup feeding assembly: - Transfer guide (upper, lower) plate - Registration roller (upper, lower) - Feeding belt - Feeding rollers - Scanner sensor cleaning (prism)		Clean with an air blower or dry wipe. (Do not use solvent.)
11	Clean the fixing/delivery assembly: - Separation claw (upper, lower) - Feed rollers - Inlet guide - Web (check) - Web oil receptacle - Thermistor - Sub thermistor - Thermal switch		
12	Clean the cleaner assembly: - Side scraper		
13	Clean the duplex assembly: - Duplex horizontal registration sensor		
14	Clean the copyboard glass.		
15	Make test copies.		
16	Make sample copies.		
17	Press the leakage breaker test switch to make sure that it operates normally. Thereafter, turn off the power switch, and shift the lever to the ON side; then, turn on the power switch.	With the power switch set to ON and, in addition, the lever [1] of the leakage breaker in ON state, press the test switch. If normal, the lever should flip to the OFF side, cutting the power. (Pay attention to its orientation when replacing it.) If you have replaced the leakage breaker, be sure to make this check.	
⚠ Check to make sure that the grounding is correct. Otherwise, possible leakage will not turn on the leakage breaker.			
18	Put the sample copies into order, and clean up the area around the machine.		
19	Record the last counter readings.		
20	Fill out the Service Book, and report to the person in charge.	Be user to describe the check on the leakage breaker in the Service Book.	

13.3.2 Scheduled Service Chart

0008-8467

/ iR8070

1. As a rule, perform scheduled servicing work every 250,000 pages.
2. Before setting out for a scheduled visit, check with the Service Book, and take parts that are likely to need replacement.
3. Whenever you have cleaned a charging wire, make sure it is completely dry before mounting it back to the machine.
4. If the power plug is left connected for a long time in an area subject to excessive dust, umidity, or smoke (containing oil vapor), an insulation fault and, ultimately, a fire can occur (owing to the build-up of moist dust).
Be sure to disconnect the power plug on a periodical basis, and wipe the area and the power plug clean with a dry cloth.

T-13-12

			As of October 2004
No.	**Step**	**Checks**	**Remarks**
1	Checks	Check the general condition.	
2	Take notes of the counter readings.	Check the faulty copies:	
3	Make test copies.	a. Image for density b. White background for soiling c. Characters for clarity d. Margin along leading edge e. Fixing, registration, and back (for soiling)	Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm
4	Clean the charging assemblies: - Charging wire (primary, pre-transfer, transfer/separation) - Grid wire (primary charging assembly) - Shielding plate (each charging assembly) - Roller electrode		Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm

Points to Note When Cleaning/Replacing the Charging Wire or Replacing the Charging Wire Cleaner

At the end of the following, always check to make sure that the charging wire is in the middle of the charging wire cleaner; otherwise, image faults can occur:
a. If you have cleaned the charging wire.
b. If you have replaced the charging wire.
c. If you have moved the charging wire cleaner by hand.
d. If you have replaced the charging wire.

F-13-20

T-13-13

Correct

F-13-21

T-13-14

Wrong

T-13-15

No.	Step	Checks	Remarks
5	Clean the optical path: - No. 1/2/3 mirror - Dust-proofing glass - Contact glass for stream reading - Scanner reflecting plate - Standard white plate		Use a blower brush; if the dirt is appreciable, use alcohol.
6	Clean the scanner: - Scanner cable - Scanner rail	Check the wire for tension. Clean the slide portion, and apply silicone oil (FY9-6011).	Check the scanner cable only at the first 250,000 copies.
7	Clean the waste toner collection case.	If more than 50% of the waste toner is full, dispose of the waste toner in a plastic bag; or, replace the waste toner collection case.	
8	Clean the filters: - Ozone filter - Dust-proofing filter		Remove the dust collecting on the filter surface.
9	Clean the developing assembly: - Developing assembly member	Clean the developing assembly member.	
10	Clean the pickup/feeding assembly: - Transfer guide (upper/lower) plate - Registration roller (upper/lower) - Feeding belt - Feeding rollers		
11	Clean the fixing/delivery assembly: - Separation claw (upper/lower) - Feeding rollers - Inlet guide - Web (check) - Web oil pan - Thermistor - Sub thermistor - Thermal switch		
12	Clean the cleaner assembly: - Side scarper		
13	Clean the duplexing unit: - Duplex horizontal registration sensor		

14	Clean the copyboard glass.		
15	Make test copies.		
16	Make sample copies.		
17	Press the leakage breaker test switch to make sure that the breaker operates normally. Thereafter, turn off the power switch, and shift the lever to ON position; then, turn on the power switch.	Press the test switch while the power switch is ON and the lever [1] of the leakage breaker is at ON; if normal, the lever should shift to OFF position to cut off the power (Pay attention to the orientation whenever replacing the breaker. If you have replaced the breaker, be sure to check its operation).	
⚠ Check to make sure that the grounding is correct; otherwise, leakage may not trigger the leakage breaker.			
18	Put the sample copies in order, and clean up the area around the machine.		
19	Record the latest counter readings.		
20	Record the latest counter readings.	Record the results of the check made on the leakage breaker in the Service Book.	

13.3.3 Scheduled Service Chart

0008-9522

⚠
1. As a rule, perform scheduled servicing work every 250,000 pages.
2. Before setting out for a scheduled visit, check with the Service Book, and take parts that are likely to need replacement.
3. Whenever you have cleaned a charging wire, make sure it is completely dry before mounting it back to the machine.
4. If the power plug is left connected for a long time in an area subject to excessive dust, umidity, or smoke (containing oil vapor), an insulation fault and, ultimately, a fire can occur (owing to the build-up of moist dust).
Be sure to disconnect the power plug on a periodical basis, and wipe the area and the power plug clean with a dry cloth.

T-13-16

			As of October 2004
No.	**Step**	**Checks**	**Remarks**
1	Checks	Check the general condition.	
2	Take notes of the counter readings.	Check the faulty copies:	
3	Make test copies.	a. Image for density b. White background for soiling c. Characters for clarity d. Margin along leading edge e. Fixing, registration, and back (for soiling)	Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm

4	Clean the charging assemblies: - Charging wire (primary, pre-transfer, transfer/ separation) - Grid wire (primary charging assembly) - Shielding plate (each charging assembly) - Roller electrode		Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm

Points to Note When Cleaning/Replacing the Charging Wire or Replacing the Charging Wire Cleaner

At the end of the following, always check to make sure that the charging wire is in the middle of the charging wire cleaner; otherwise, image faults can occur:
a. If you have cleaned the charging wire.
b. If you have replaced the charging wire.
c. If you have moved the charging wire cleaner by hand.
d. If you have replaced the charging wire.

F-13-22

T-13-17

Correct

F-13-23

T-13-18

Wrong

T-13-19

No.	Step	Checks	Remarks
5	Clean the optical path: - No. 1/2/3 mirror - Dust-proofing glass - Scanner reflecting plate - Standard white plate		Use a blower brush; if the dirt is appreciable, use alcohol.
6	Clean the scanner: - Scanner cable - Scanner rail	Check the wire for tension. Clean the slide portion, and apply silicone oil (FY9-6011).	Check the scanner cable only at the first 250,000 copies.

7	Clean the waste toner collection case.	If more than 50% of the waste toner is full, dispose of the waste toner in a plastic bag; or, replace the waste toner collection case.	
8	Clean the filters: - Ozone filter - Dust-proofing filter		Remove the dust collecting on the filter surface.
9	Clean the developing assembly: - Developing assembly member	Clean the developing assembly member.	
10	Clean the pickup/feeding assembly: - Transfer guide (upper/lower) plate - Registration roller (upper/lower) - Feeding belt - Feeding rollers		
11	Clean the fixing/delivery assembly: - Separation claw (upper/lower) - Feeding rollers - Inlet guide - Web (check) - Web oil pan - Thermistor - Sub thermistor - Thermal switch		
12	Clean the cleaner assembly: - Side scarper		
13	Clean the duplexing unit: - Duplex horizontal registration sensor		
14	Clean the copyboard glass.		
15	Make test copies.		
16	Make sample copies.		
17	Press the leakage breaker test switch to make sure that the breaker operates normally. Thereafter, turn off the power switch, and shift the lever to ON position; then, turn on the power switch.	Press the test switch while the power switch is ON and the lever [1] of the leakage breaker is at ON; if normal, the lever should shift to OFF position to cut off the power (Pay attention to the orientation whenever replacing the breaker. If you have replaced the breaker, be sure to check its operation).	
⚠ Check to make sure that the grounding is correct; otherwise, leakage may not trigger the leakage breaker.			
18	Put the sample copies in order, and clean up the area around the machine.		
19	Record the latest counter readings.		
20	Record the latest counter readings.	Record the results of the check made on the leakage breaker in the Service Book.	

13.3.4 Scheduled Service Chart

0008-9076

iR85+

1. As a rule, perform scheduled servicing work every 250,000 pages.
2. Before setting out for a scheduled visit, check with the Service Book, and take parts that are likely to need replacement.
3. Whenever you have cleaned a charging wire, make sure it is completely dry before mounting it back to the machine.
4. If the power plug is left connected for a long time in an area subject to excessive dust, umidity, or smoke (containing oil vapor), an insulation fault and, ultimately, a fire can occur (owing to the build-up of moist dust).
Be sure to disconnect the power plug on a periodical basis, and wipe the area and the power plug clean with a dry cloth.

T-13-20

			As of October 2004
No.	**Step**	**Checks**	**Remarks**
1	Checks	Check the general condition.	
2	Take notes of the counter readings.	Check the faulty copies:	
3	Make test prints.	a. Image for density b. White background for soiling c. Characters for clarity d. Margin along leading edge e. Fixing, registration, and back (for soiling)	Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm
4	Clean the charging assemblies: - Charging wire (primary, pre-transfer, transfer/separation) - Grid wire (primary charging assembly) - Shielding plate (each charging assembly) - Roller electrode		Standard (single-sided) Leading edge: 4.0 +1.5/-1.0 mm Left/right: 2.5 ±1.5 mm Trailing edge: 2.5 ±1.5 mm

Points to Note When Cleaning/Replacing the Charging Wire or Replacing the Charging Wire Cleaner

At the end of the following, always check to make sure that the charging wire is in the middle of the charging wire cleaner; otherwise, image faults can occur:
a. If you have cleaned the charging wire.
b. If you have replaced the charging wire.
c. If you have moved the charging wire cleaner by hand.
d. If you have replaced the charging wire.

F-13-24

T-13-21

Correct

F-13-25

T-13-22

Wrong

T-13-23

No.	Step	Checks	Remarks
5	Clean the waste toner collection case.	If more than 50% of the waste toner is full, dispose of the waste toner in a plastic bag; or, replace the waste toner collection case.	
6	Clean the filters: - Ozone filter - Dust-proofing filter		Remove the dust collecting on the filter surface.
7	Clean the developing assembly: - Developing assembly member	Clean the developing assembly member.	
8	Clean the pickup/feeding assembly: - Transfer guide (upper/lower) plate - Registration roller (upper/lower) - Feeding belt - Feeding rollers		
9	Clean the fixing/delivery assembly: - Separation claw (upper/lower) - Feeding rollers - Inlet guide - Web (check) - Web oil pan - Thermistor - Sub thermistor - Thermal switch		
10	Clean the cleaner assembly: - Side scarper		
11	Clean the duplexing unit: - Duplex horizontal registration sensor		
12	Make test prints.		

13	Press the leakage breaker test switch to make sure that the breaker operates normally. Thereafter, turn off the power switch, and shift the lever to ON position; then, turn on the power switch.	Press the test switch while the power switch is ON and the lever [1] of the leakage breaker is at ON; if normal, the lever should shift to OFF position to cut off the power (Pay attention to the orientation whenever replacing the breaker. If you have replaced the breaker, be sure to check its operation).	
⚠ Check to make sure that the grounding is correct; otherwise, leakage may not trigger the leakage breaker.			
14	Put the test prints in order, and clean up the area around the machine.		
15	Record the latest counter readings.		
16	Record the latest counter readings.	Record the results of the check made on the leakage breaker in the Service Book.	

13.3.5 Scheduled Service Items

0006-9902

iR105i/iR105+ / iR9070

⚠ Do not use solvents or oils not indicated herein.

T-13-24

Unit	Location	Service interval installation	every 500,000	every 1,000,000	Remarks
Externals and controls	Copyboard glass		Clean		
	Ozone filter (FM2, FM8, M20)		Clean	Replace	Remove dust from the filter surface.
	Dust filter (FM1 (2 pc.), FM3, FM10, front cover, upper front cover)		Clean		Remove dust from the filter surface.
Scanner system	Scanner wire		Check Adjust		Check only at initial 500,000 pages.
	Scanner rail		Clean Lubricate		Use silicone oil S-20 (FY9-6011)
Optical system	No. 1 to No. 3 mirrors		Clean		
	Dust-proof glass		Clean		
	Reflecting plate		Clean		
	Standard white plate		Clean		
	Pre-transfer exposure LED	Clean	Replace		
Charging assembly	Charging wire (Primary)	Clean	Replace		If high temperature/ humidity, every 250,000 pages.
	Charging wire (Transfer/separation)	Clean	Replace		If high temperature/ humidity, every 250,000 pages.
	Charging wire (Pre-transfer)	Clean	Replace		If high temperature/ humidity, every 250,000 pages.

Unit	Location	Service interval installation	every 500,000	every 1,000,000	Remarks
					If normal temperature/ low humidity, every 400,000 pages.
	Grid wire (Primary)	Clean	Replace		
	Shielding plate	Clean	Clean		If high temperature/ humidity, every 250,000,pages.
	Electrode	Clean	Clean		If high temperature/ humidity, every 250,000,pages.
Photosensitive drum	Photosensitive drum		Clean		Clean with alcohol and drum cleaning powder (CK-0429).
	Electrode for stop ring (drum heater)			Clean Lubricate	Clean the following with alcohol; then, apply FY9-6008 to the dust-collecting brush: - Electrode of slip spring - Wall surface of protrusion (electrode) - Dust-collection brush
Developing assembly	Developing cylinder	Check			
	Developing roll		Clean		
Cleaner	Side scraper		Clean		
	Toner receptacle (rear/front)		Clean		
	Magnet roller		Clean		
Fixing assembly	Inlet guide		Clean		
	Web	Check			
	Oil receptacle		Clean		
	Thermistor	Check	Replace		
	Sub thermistor		Replace		
	Thermal switch			Replace	
Scanner sensor	Sensor		Clean		If high temperature/ humidity, every 250,000 pages.
	Prism		Clean		If high temperature/ humidity, every 250,000 pages.
Waste toner collecting assembly	Waste toner case		Check		Check and dispose of the toner as necessary.
Pickup/ feeding assembly	Transfer guide		Clean		
	Registration roller (upper, lower)		Clean		
	Feeding belt		Clean		
	Feeding rollers		Clean		
Duplex assembly	Duplex horizontal registration sensor		Clean		
	Duplex roller		Clean		

F-13-26

13.3.6 Scheduled Service Items

0008-8469

Do not use solvents other than those indicated herein.

T-13-25

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
Externals and controls	Copyboard glass		Clean			
	Ozone filter (FM2,FM8)		Clean		Replace	Remove the dust from the filter.
	Dust-proofing filer (FM1, FM3, FM4) (FM10, FM14) Air filter		Clean		Replace	Remove the dust from the filter surface.
Scanner	Scanning cable		Check Adjust			Inspect only for thefirst 250,000 pages.
	Scanner rail		Clean Lubricat			Silicone oil S-20 (FY9-6011)
Optical path	No. 1 through No. 3 mirrors		Clean			
	Dust-proofing glass		Clean			
	Scanner reflecting plate		Clean			
	Standard white plate		Clean			

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
	Standard white plate	Clean	Clean			
Charging assembly	Charging wire (primary)	Clean		Replace		
	Charging wire (pre-transfer, transfer/ separation)	Clean	Replace			
	Grid wire (primary)	Clean	Clean	Replace		
	Charging assembly shielding plate	Clean	Clean			
	Electrode	Clean	Clean			
Photosensitive drum	Photosensitive drum			Clean		Use alcohol (C-17) + drum Cleaning powder (CK-0429).
	Electrode (stop ring for drum heater)				Clean Lubr icat	Clean the following with alcohol; then, apply FY9-6008 on the charge collecting brush: - Electrode of slip ring - Wall surface of protrusion on electrode - Charge collecting brush
Developing assembly	Developing assembly cylinder	Check				
	Developing assembly roller		Clean			
Cleaner	Side scraper		Clean			
	Toner pan (rear/front)		Clean			
	Magnet roller			Clean		
assembly	Inlet guide		Clean			
	Web	Check				
	Oil pan			Clean		
	Thermistor		Clean	Replace		
	Sub thermistor		Clean	Replace		
	Sub thermistor				Replace	
Delivery assembly	Delivery assembly		Clean			
Waste toner collection assembly	Waste toner box		Check			Check/remove.
Pickup/ feeding assembly	Transfer guide		Clean			
	Registration roller (upper/ lower)		Clean			
	Feeding belt		Clean			
	Feeding rollers		Clean			
Duplexing assembly	Duplex horizontal registration sensor		Clean			

F-13-27

13.3.7 Scheduled Service Items

0008-9545

/ iR8070

Do not use solvents other than those indicated herein.

T-13-26

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
Externals and controls	Copyboard glass		Clean			
	Ozone filter (FM2, FM8)		Clean		Replace	Remove the dust from the filter.
	Dust-proofing filer (FM1, FM3, FM4) (FM10, FM14) Air filter		Clean		Replace	Remove the dust from the filter surface.
Scanner	Scanning cable		Check Adjust			Inspect only for thefirst 250,000 pages.
	Scanner rail		Clean Lubricate			Silicone oil S-20 (FY9-6011)
Optical path	No. 1 through No. 3 mirrors		Clean			
	Dust-proofing glass		Clean			
	Scanner reflecting plate		Clean			
	Standard white plate		Clean			
	Standard white plate	Clean	Clean			

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
Charging assembly	Charging wire (primary)	Clean		Replace		
	Charging wire (pre-transfer, transfer/ separation)	Clean	Replace			
	Grid wire (primary)	Clean	Clean	Replace		
	Charging assembly shielding plate	Clean	Clean			
	Electrode	Clean	Clean			
Photosensitive drum	Photosensitive drum			Clean		Use alcohol (C-17) + drum Cleaning powder (CK-0429).
	Electrode (stop ring for drum heater)				Clean Lubricate	Clean the following with alcohol; then, apply FY9-6008 on the charge collecting brush: - Electrode of slip ring - Wall surface of protrusion on electrode - Charge collecting brush
Developing assembly	Developing assembly cylinder	Check				
	Developing assembly roller		Clean			
Cleaner	Side scraper		Clean			
	Toner pan (rear/front)		Clean			
	Magnet roller			Clean		
assembly	Inlet guide		Clean			
	Web	Check				
	Oil pan			Clean		
	Thermistor		Clean	Replace		
	Sub thermistor		Clean	Replace		
	Sub thermistor				Replace	
Delivery assembly	Delivery assembly		Clean			
Waste toner collection assembly	Waste toner box		Check			Check/remove.
Pickup/ feeding assembly	Transfer guide		Clean			
	Registration roller (upper/ lower)		Clean			
	Feeding belt		Clean			
	Feeding rollers		Clean			
Duplexing assembly	Duplex horizontal registration sensor		Clean			

F-13-28

13.3.8 Scheduled Service Items

0008-9078

iR85+

Do not use solvents other than those indicated herein.

T-13-27

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
Externals and controls	Ozone filter (FM2,FM8)		Clean		Replace	Remove the dust from the filter.
	Dust-proofing filer (FM1, FM3, FM4) (FM10, FM14) Air filter		Clean		Replace	Remove the dust from the filter surface.
Optical path	Dust-proofing glass		Clean			
Charging assembly	Charging wire (primary)	Clean		Replace		
	Charging wire (pre-transfer, transfer/ separation)	Clean	Replace			
	Grid wire (primary)	Clean	Clean	Replace		
	Charging assembly shielding plate	Clean	Clean			
	Electrode	Clean	Clean			
Photosensitive drum	Photosensitive drum			Clean		Use alcohol + drum Cleaning powder (CK-0429).

Unit	Location	Interval				Remarks
		upon installation	every 250,000	every 500,000	every 750,000	
	Electrode (stop ring for drum heater)				Clean Lubr icat	Clean the following with alcohol; then, apply FY9-6008 on the charge collecting brush: - Electrode of slip ring - Wall surface of protrusion on electrode - Charge collecting brush
Developing assembly	Developing assembly cylinder	Check				
	Developing assembly roller		Clean			
Cleaner	Side scraper		Clean			
	Toner pan (rear/front)		Clean			
	Magnet roller			Clean		
assembly	Inlet guide		Clean			
	Web	Check				
	Oil pan			Clean		
	Thermistor		Clean	Replace		
	Sub thermistor		Clean	Replace		
	Sub thermistor				Replace	
Delivery assembly	Delivery assembly		Clean			
Waste toner collection assembly	Waste toner box		Check			Check/remove.
Pickup/ feeding assembly	Transfer guide		Clean			
	Registration roller (upper/ lower)		Clean			
	Feeding belt		Clean			
	Feeding rollers		Clean			
Duplexing assembly	Duplex horizontal registration sensor		Clean			

F-13-29

13.3.9 Scheduled Service Work

0007-0209

iR105i/iR105+ / iR9070

Perform the following when maintaining the area around the drum as part of scheduled service work:

Work 1
a. Cleaning the side scraper assembly
b. Cleaning the toner receptacle

During the work, take care not to rotate the magnet roller drive assembly. Otherwise, waste toner will drop from the cleaner assembly.

1) Slide out the process unit.

Be sure to place a paper over the fixing/feeder unit.

2) Take out the photosensitive drum.
3) Take out the cleaner blade assembly.
4) While keeping the magnet roller [1] and the scraper [2] at the front, move the build-up of waste toner with a piece of paper [3] or the like toward the feedscrew rear.

F-13-30

5) Release the locks [1] of the slide rail, and draw the fixing/feeding unit [2] farthr to the front.

F-13-31

6) With the cleaner assembly [1] halfway slid put, remove the screw [2] (1 each), and detach the two toner receptacle fixing plates [3].
7) Remove the front toner receptacle, and remove the toner from the front toner receptacle [4].

F-13-32

8) Slide out the cleaner assembly [1], and remove the screw [2] (1 each); then, detach the two toner receptacle fixing plates [3].
9) Remove the rear toner receptacle, and remove the toner from the rear toner receptacle [4].

F-13-33

Work 2
a. Cleaning the photosensitive drum
b. Removing the toner from the magnet roller assembly
c. Turning over or replacing the cleaner blade

During the work, take care not to turn the magnet roller drive assembly. Otherwise, waste toner can drop from the cleaner assembly.

1) Slide out the process unit.

Be sure to place a paper over the fixing/feeding unit.

2) Remove the photosensitive drum.
3) Moisten lint-free paper [1] with 5 to 10 cc of alcohol [2], and collect 0.2 to 0.3 g of drum cleaning powder (CK-0429) [3] with the lint-free paper.

F-13-34

4) While forcing the lint-free paper against the photosensitive drum, wipe the drum as if to rub it from the front to the rear and then from the rear to the font with force.

F-13-35

- Clean the drum in widths of 5 to 10 cm in peripheral direction.
- For a single width, you may force the lint-free paper back and forth 15 to 20 times without damaging the drum.

5) Wait until the alcohol has evaporated; then, dry wipe the drum with lint-free paper. If traces remain, repeat step 4) and increase the number of trips made.
6) Rorate the drum so that that new areas may be cleaned (5 to 10 cm). Repeat steps 3) to 5) until the entire surface of the drum has been cleaned.
7) Remove the cleaning blade assembly.
8) Insert a ruler [3] between the magnet roller [1] and the scraper [2]; then, move it from the front to the rear and then from the rear to the front to breake the caking toner.
9) Turn the magnet roller [1] to make sure that the coating of waste toner is even.
If as follows, repeat step 8):
- The surface of the magnet roller is coated in distinct lines.
- The surface has dents in some areas.
- The surface has lumps of toner.

F-13-36

10) Remove the cleaning blade from the cleaning blade assembly.
11) Butt the edge of the cleaning blade [7] that has been turned over or newly mounted against the rear of the blade cleaning plate [8].

F-13-37

When butting the blade, be sure to force it so that there is no gap.

12) Secure the blade retaining plate with screws as indicated.
- For now, temporarily tighten screws 1 through 5.

F-13-38

With the blade pressed down by the plate, temporarily tighten the screws.

- Fully tighten screws 6 through 10.
13) Apply toner to the area of the cleaning blade coming into contact with the photosensitive drum, and mount the cleaning blade.

F-13-39

When mounting the cleaning blade, be sure to put the blade sub plate between the blade support plate and the blade back plate.

After mounting the cleaning blade, rotate the drum; if the toner is not colleted by the cleaning blade, repeat the foregoing steps. If it is not corrected after tightening the screws once again, replace the cleaning blade.

13.3.10 Scheduled Maintenance Work Procedure

0008-8636

/ iR8070

Perform the steps shown for scheduled maintenance work around the drum:
Work Procedure 1
a. Cleaning the Side Scraper
b. Cleaning the Toner Pan

During the work, take care not to rotate the magnet roller drive assembly; otherwise, waste toner may fall out of the cleaner assembly.

1) Slide out the process unit.

Be sure to place the Paper over the fixing/feeding unit.

2) Take out the photosensitive drum.
3) Remove the magnet blade assembly.
4) Using a piece of paper [3] or the like, move the waste toner collecting at the front of the magnet roller [1] and the scraper [2] toward the rear of the feedscrew.

F-13-40

5) Release the lock of the slide rail, and slide out the fixing/feeding unit farther toward the front.

F-13-41

6) Remove the two screws [1] of the cleaner assembly [2] one by one, and detach the toner pan (front, rear); then, remove the toner from the toner pan [3].

F-13-42

Work Procedure 2
a. Cleaning the Photosensitive Drum
b. Remove the Toner from the Magnet Roller Assembly
c. Turning Over/Replacing the Cleaning Blade

During the work, take care not to rotate the magnet roller drive assembly; otherwise, waste toner may fall out of the center assembly.

1) Slide out the process unit.

Be sure to place the Paper over the fixing/feeding unit.

2) Take out the photosensitive drum.
3) Moisten the lint-free paper [1] with alcohol [2] (5 to 10 cc), and put drum cleaning powder [3] (CK0429; 0.2 to 0.3 g) on the lint-free paper.

F-13-43

4) While forcing the lint-free paper against the photosensitive drum, move it from the front to the rear and then from the rear to the front to wipe the drum.

F-13-44

- Keep the width of the cleaning movement to 5 to 10 cm.
- For a single area, the lint-free paper may be moved back and forth 15 to 20 times; a little force will not affect the life of the drum.

5) When the alcohol has completely evaporated, dry wipe the drum with lintfree paper. If the drum has been wiped unevenly, go back to step 4), and clean once again.
6) Rotate the drum for the width of the cleaning movement to 5 to 10 cm, and repeat steps 3) through 5) until you have cleaned the entire surface of the drum.
7) Remove the cleaning blade assembly.
8) Insert a ruler [6] between the magnet roller [4] and the scraper [5], and move it back and forth from the front to the rear and then from the rear to the front to pulverize lumps of waste toner.
9) Turn the magnetic roller [4] to make sure that the coating of waste toner is even.
If it is as follows, repeat step 8):
- The coating is uneven in the form of lines.
- The coating has dents in parts.
- The coating has clumps of toner.

F-13-45

10) Remove the cleaning blade from the cleaning blade assembly.
11) Butt the turned or replaced cleaning blade [7] against the rear of the blade retaining plate [8] while keeping the edge flush.

F-13-46

When butting the blade, be sure to use your fingers to keep it firmly in contact.

12) Tighten the screws on the blade retaining plate in the sequence indicated.
- From 1 to 5, tighten temporarily.

F-13-47

While keeping the blade down with the plate, tighten the screws temporarily.

- From 6 to 10, tighten fully.

13) Apply toner in the area of the cleaning blade that will come into contact with the photosensitive drum; then, mount the blade.

F-13-48

When mounting the cleaning blade, be sure to put the blade auxiliary plate between the blade support plate and the blade back plate.

After mounting the cleaning blade, turn the drum; if toner slides off the cleaning blade as a result, repeat the foregoing step.
If the problem is not corrected, replace the cleaning blade.

13.3.11 Scheduled Maintenance Work Procedure

0008-9079

iR85+

Perform the steps shown for scheduled maintenance work around the drum:
Work Procedure 1
a. Cleaning the Side Scraper
b. Cleaning the Toner Pan

During the work, take care not to rotate the magnet roller drive assembly; otherwise, waste toner may fall out of the cleaner assembly.

1) Slide out the process unit.

Be sure to place the paper over the fixing/feeding unit.

2) Take out the photosensitive drum.
3) Remove the magnet blade assembly.
4) Using a piece of paper [3] or the like, move the waste toner collecting at the front of the magnet roller [1] and the scraper [2] toward the rear of the feedscrew.

F-13-49

5) Release the lock of the slide rail, and slide out the fixing/feeding unit farther toward the front.

F-13-50

6) Remove the two screws [1] of the cleaner assembly [2] one by one, and detach the toner pan (front, rear); then, remove the toner from the toner pan [3].

F-13-51

Work Procedure 2
a. Cleaning the Photosensitive Drum
b. Remove the Toner from the Magnet Roller Assembly
c. Turning Over/Replacing the Cleaning Blade

During the work, take care not to rotate the magnet roller drive assembly; otherwise, waste toner may fall out of the center assembly.

1) Slide out the process unit.

Be sure to place the paper over the fixing/feeding unit.

2) Take out the photosensitive drum.
3) Moisten the lint-free paper [1] with alcohol [2] (5 to 10 cc), and put drum cleaning powder [3] (CK0429; 0.2 to 0.3 g) on the lint-free paper.

F-13-52

4) While forcing the lint-free paper against the photosensitive drum, move it from the front to the rear and then from the rear to the front to wipe the drum.

F-13-53

- Keep the width of the cleaning movement to 5 to 10 cm.
- For a single area, the lint-free paper may be moved back and forth 15 to 20 times; a little force will not affect the life of the drum.

5) When the alcohol has completely evaporated, dry wipe the drum with lintfree paper. If the drum has been wiped unevenly, go back to step 4), and clean once again.

6) Rotate the drum for the width of the cleaning movement to 5 to 10 cm, and repeat steps 3) through 5) until you have cleaned the entire surface of the drum.
7) Remove the cleaning blade assembly.
8) Insert a ruler [6] between the magnet roller [4] and the scraper [5], and move it back and forth from the front to the rear and then from the rear to the front to pulverize lumps of waste toner.
9) Turn the magnetic roller [4] to make sure that the coating of waste toner is even.
If it is as follows, repeat step 8):
- The coating is uneven in the form of lines.
- The coating has dents in parts.
- The coating has clumps of toner.

F-13-54

10) Remove the cleaning blade from the cleaning blade assembly.
11) Butt the turned or replaced cleaning blade [7] against the rear of the blade retaining plate [8] while keeping the edge flush.

F-13-55

When butting the blade, be sure to use your fingers to keep it firmly in contact.

12) Tighten the screws on the blade retaining plate in the sequence indicated.
- From 1 to 5, tighten temporarily.

F-13-56

While keeping the blade down with the plate, tighten the screws temporarily.

- From 6 to 10, tighten fully.

13) Apply toner in the area of the cleaning blade that will come into contact with the photosensitive drum; then, mount the blade.

F-13-57

When mounting the cleaning blade, be sure to put the blade auxiliary plate between the blade support plate and the blade back plate.

After mounting the cleaning blade, turn the drum; if toner slides off the cleaning blade as a result, repeat the foregoing step.
If the problem is not corrected, replace the cleaning blade.

13.3.12 Points to Note for Scheduled Servicing Work

0007-0550

iR105i/iR105+ / iR9070

- Be sure to check the block (front, rear) for melting, thermal deformation, cracking, or discoloration caused by leakage. If found, be sure to replace it with a new one without delay.
- Be sure to check and clean the block (front, rear) thoroughly (all the way to its inside).
- Never use a cloth carrying any metal powder.
- Unless specifically indicated, do not use a moist cloth. Use lint-free paper to dry wipe, and use alcohol thereafter. Be sure that the alcohol has completely evaporated before fitting the part back into the machine.
- Be sure to provide scheduled servicing and replace periodically replaced parts at specific intervals.

F-13-58

T-13-28

No.	Part	Tool/agent	Work/remarks
[1]	Pre-exposure lamp	Alcohol	Cleaning
[2]	Copyboard glass	Alcohol	Cleaning
[3]	Scanning lamp	Lint-free paper	Dry wiping
[4]	Standard white plate	Lint-free paper	Dry wiping
[5]	Reflecting plate	Blower brush	Cleaning
[6]	No. 1 through No. 3 mirrors	Blower brush or lint-free paper	Cleaning or using blower brush; if dirt is excessive, dry wiping with lint-free paper
[7]	Separation claw	Solvent and lint-free paper	Cleaning
[8]	Upper roller, Lower roller	Cleaning oil, lint-free paper	Cleaning
[9]	Paper guide	Solvent and lint-free paper	Cleaning
[10]	Feeding assembly	Moist cloth (Note 1)	Cleaning
[11]	Re-pickup assembly, Reversing roller	Alcohol and lint-free paper	Cleaning
[12]	Re-pickup assembly, Pickup roller, Registration roller	Alcohol and lint-free paper	Cleaning
[13]	Primary charging assembly. Transfer/separation charging assembly, Pre-transfer charging assembly	Alcohol and lint-free paper	Dry wiping; then, cleaning with lit-free paper moistened with alcohol
[14]	Dust-proofing glass	Lint-free paper	Cleaning
[15]	Developing assembly base	Moist cloth (Note 1)	Cleaning

No.	Part	Tool/agent	Work/remarks
[16]	Dust-collecting roller		Disposing of toner trapped dust-collecting roller
[17]	Transfer guide (upper, lower)	Alcohol and lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[18]	Pre-transfer exposure lamp	Alcohol and lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[19]	Registration roller	Alcohol and lint-free paper	Cleaning
[20]	Manual feed tray, Pickup roller, Feed roller	Alcohol and lint-free paper	Cleaning
[21]	Prism (pickup sensor) (feeding sensor) (vertical path sensor)	Blower brush or lint-free paper	- Cleaning with lower brush - If dirt is excessive, dry wiping with lint-free paper (Do not use solvents other than the one indicated.)
[22]	Vertical path roller	Alcohol and lint-free paper	Cleaning

*1: Be sure not to leave any droplets of water.

13.3.13 Point to Note on Scheduled Servicing

0008-8619

/ iR8070

- Make thorough checks to be sure that the block (front, rear) is free of melting, thermal deformation, cracking, or yellowing caused by leakage. If a fault is found, replace the part immediately.
- Make checks and clean as far as the inside of the block (front, rear).
- Do not use a cloth or the like carrying metal powder.
- Do not use a wet/moist cloth unless specifically indicated. Use lint-free paper to dry wipe, and then use alcohol. After using alcohol, check to make sure that the part has dried completely.
- Provide scheduled servicing and replacement at the specified intervals.

F-13-59

T-13-29

Item		Tool/agent	Remarks
[1]	Pre-exposure lamp	Alcohol	Cleaning
[2]	Copyboard glass	Alcohol	Cleaning
[3]	Scanning lamp	Lint-free paper	Dry wiping
[4]	Standard White plate	Lint-free paper	Dry wiping
[5]	Reflecting plate	Blower brush	Cleaning
[6]	No.1 through No.3 mirrors	Blower brush or lint-free paper	Using a blower brush; if dirt is excessive, using lint-free paper
[7]	Separation claw	Solvent ad lintfree paper	Cleaning
[8]	Upper roller, Lower roller	Cleaning oil, Lint-free paper	Cleaning
[9]	Paper guide	Solvent and lintfeed paper	Cleaning
[10]	Feeding assembly	Moist cloth*	Cleaning
[11]	Re-pickup assembly, Reversing roller	Alcohol, Lint-free paper	Cleaning
[12]	Re-pickup assembly, Pickup roller, Registration roller	Alcohol, Lint-free paper	Cleaning
[13]	- Primary charging assembly - Transfer/ separation charging assembly - Pre-transfer charging assembly	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[14]	Dust-proofing glass	Lint-free paper	Cleaning
[15]	Developing assembly base	Moist cloth*	Cleaning

Item		Tool/agent	Remarks
[16]	Dust-proofing roller		Removing toner collecting around the dust-proofing roller
[17]	Transfer guide (upper/ lower)	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[18]	Pre-transfer charging lamp	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[19]	Registration roller	Alcohol, Lint-free paper	Cleaning
[20]	Manual feed tray, Pickup roller, Feeding roller	Alcohol, Lint-free paper	Cleaning
[21]	Vertical path roller	Alcohol, Lint-free paper	Cleaning

*: Be sure no droplet of water remains.

13.3.14 Point to Note on Scheduled Servicing

0008-9080

iR85+

- Make thorough checks to be sure that the block (front, rear) is free of melting, thermal deformation, cracking, or yellowing caused by leakage. If a fault is found, replace the part immediately.
- Make checks and clean as far as the inside of the block (front, rear).
- Do not use a cloth or the like carrying metal powder.
- Do not use a wet/moist cloth unless specifically indicated. Use lint-free paper to dry wipe, and then use alcohol. After using alcohol, check to make sure that the part has dried completely.
- Provide scheduled servicing and replacement at the specified intervals.

F-13-60

T-13-30

Item		Tool/agent	Remarks
[1]	Pre-exposure lamp	Alcohol	Cleaning
[2]	Separation claw	Solvent ad lintfree paper	Cleaning
[3]	Upper roller, Lower roller	Cleaning oil, Lint-free paper	Cleaning
[4]	Paper guide	Solvent and lintfeed paper	Cleaning
[5]	Feeding assembly	Moist cloth*	Cleaning
[6]	Re-pickup assembly, Reversing roller	Alcohol, Lint-free paper	Cleaning
[7]	Re-pickup assembly, Pickup roller, Registration roller	Alcohol, Lint-free paper	Cleaning
[8]	- Primary charging assembly - Transfer/ separation charging assembly - Pre-transfer charging assembly	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[9]	Dust-proofing glass	Lint-free paper	Cleaning
[10]	Developing assembly base	Moist cloth*	Cleaning
[11]	Dust-proofing roller		Removing toner collecting around the dust-proofing roller
[12]	Transfer guide (upper/ lower)	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol
[13]	Pre-transfer charging lamp	Alcohol, Lint-free paper	Dry wiping; then, cleaning with lint-free paper moistened with alcohol

Item		Tool/agent	Remarks
[14]	Registration roller	Alcohol, Lint-free paper	Cleaning
[15]	Manual feed tray, Pickup roller, Feeding roller	Alcohol, Lint-free paper	Cleaning
[16]	Vertical path roller	Alcohol, Lint-free paper	Cleaning

*: Be sure no droplet of water remains.

T-13-31

箇所		用具／溶剤	作業内容／注意事項
[1]	前露光ランプ	ビュックリン	清掃
[2]	分離爪	パークリンとシルボン紙	清掃
[3]	上ローラ 下ローラ	クリーニングオイル シルボン紙	清掃
[4]	紙ガイド	パークリンとシルボン紙	清掃
[5]	搬送部	濡れ雑巾（*1）	清掃
[6]	再給紙部 反転ローラ	ビュックリンとシルボン紙	清掃
[7]	再給紙部 ããéÜÉçÅ[Éâ レジストローラ	ビュックリンとシルボン紙	清掃
[8]	・1 次帯電器 ÅEi]éþÅ^ï™ó£ë—ìdäÌ ・転写前帯電器	ビュックリンとシルボン紙	乾拭き清掃後、シルボン紙にビュックリンをつけて清掃
[9]	防塵ガラス	シルボン紙	清掃
[10]	現像器台	濡れ雑巾 (注 1)	清掃
[11]	集塵ローラ		集塵ローラに溜まっているトナーを捨てる
[12]	転写ガイド上下	ビュックリンとシルボン紙	乾拭き清掃後、シルボン紙にビュックリンをつけて清掃
[13]	転写前露光ランプ	ビュックリンとシルボン紙	乾拭き清掃後、シルボン紙にビュックリンをつけて清掃
[14]	レジストローラ	ビュックリンとシルボン紙	清掃
[15]	手差しトレイ ããéÜÉçÅ[Éâ 搬送ローラ	ビュックリンとシルボン紙	清掃
[16]	縦パスローラ	ビュックリンとシルボン紙	清掃

*1ÅFêÖìHÇ™écÇÁÇ»Ç¢ÇÊÇ§Ç…Ç²ÇÈÅB

Chapter 14 Standards and Adjustments

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14.1 Image Adjustment Basic Procedure

14.1.1 Making Pre-Checks

0007-0542

iR105i/iR105+ / iR9070 / iR8070

F-14-1

14.1.2 Making Pre-Checks

0008-9081

iR85+

F-14-2

14.1.3 Making Checks on the Printer Side (Checking the Images)

0007-0544

iR105i/iR105+ / iR9070 / iR85+ / iR8070

- Use PG4, PG6, PG7

F-14-3

14.1.4 Making Checks on the Printer Side (Checking the Density Slope)

0007-0545

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-14-4

1) If the difference in density still exists after giving the adjusting screw 2 turns (one side; a full turn causes a change of about 0.7 mm), check the charging assembly, scanning lamp, and scanner for dirt.
2) When giving it a counterclockwise turn, be sure that the distance between wire and grid will not be 7.5 mm or less.

MEMO:
Moving the wire from the photosensitive drum causes the images to be darker; while moving it closer causes the images to be lighter.

14.1.5 Making Checks on the Printer Side (Checking the Solid Black Density)

0008-3708

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-14-5

14.1.6 Making Checks on the Printer Side (Checking for fogging)

0008-3709

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-14-6

14.1.7 Making Checks on the Printer Side (Checking Halftone Density)

0008-3710

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-14-7

14.1.8 Making Checks on the Scanner Side (Initial Checks)

0008-9663

/ iR8070

F-14-8

14.1.9 Making Checks on the Scanner Side (Checking the Density Slope)

0008-9664

/ iR8070

F-14-9

14.1.10 Making Checks on the Scanner Side (Checking the Density Slope)

0008-9665

/ iR8070

F-14-10

14.1.11 Making Checks on the Scanner Side (Checking for fogging)

0008-9666

/ iR8070

F-14-11

14.1.12 Making Checks on the Scanner Side(Checking Halftone Density)

0008-9667

/ iR8070

F-14-12

14.1.13 Making Checks on the Scanner Side(Initial Checks)

0007-0548

iR105i/iR105+ / iR9070

F-14-13

14.1.14 Making Checks on the Scanner Side(Checking the Density Slope)

0008-3711

iR105i/iR105+ / iR9070

F-14-14

14.1.15 Making Checks on the Scanner Side(Checking the Solid Black)

0008-3712

iR105i/iR105+ / iR9070

F-14-15

14.1.16 Making Checks on the Scanner Side(Checking for fogging)

0008-3713

iR105i/iR105+ / iR9070

F-14-16

14.1.17 Making Checks on the Scanner Side(Checking Halftone Density)

0008-3714

iR105i/iR105+ / iR9070

F-14-17

14.1.18 Potential Control System Conversion Table

0007-0789

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-14-1

Control [V]	Primary [uA]	Developing bias [V]	Pre-transfer [uA]	Transfer [uA]	Separation [uA]
3.00	1600	0	0	0	0
3.05	1590	3	+2	-4	+5
3.10	1580	7	+4	-8	+10
3.15	1570	11	+6	-12	+15
3.20	1560	15	+8	-16	+20
3.25	1550	18	+10	-20	+25
3.30	1540	22	+12	-24	+30
3.35	1530	26	+14	-28	+35
3.40	1520	30	+15	-32	+40
3.45	1510	33	+17	-36	+45
3.50	1500	37	+19	-40	+50
3.55	1490	41	+21	-44	+55
3.60	1480	45	+23	-48	+60
3.65	1470	48	+25	-52	+65
3.70	1460	52	+27	-56	+70
3.75	1450	56	+29	-60	+75
3.80	1440	60	+30	-65	+80
3.85	1430	63	+32	-69	+85
3.90	1420	67	+34	-73	+90
3.95	1410	71	+36	-77	+95
4.00	1400	75	+38	-81	+100
4.05	1390	78	+40	-85	+105
4.10	1380	82	+42	-89	+110
4.15	1370	86	+44	-93	+115
4.20	1360	90	+45	-97	+120
4.25	1350	93	+47	-101	+125
4.30	1340	97	+49	-105	+130
4.35	1330	101	+51	-109	+135
4.40	1320	105	+53	-113	+140
4.45	1310	108	+55	-117	+145
4.50	1300	112	+57	-121	+150
4.55	1290	116	+59	-125	+155
4.60	1280	119	+60	-129	+160
4.65	1270	123	+62	-134	+165
4.70	1260	127	+64	-138	+170
4.75	1250	131	+66	-142	+175
4.80	1240	134	+68	-146	+180
4.85	1230	138	+70	-150	+185
4.90	1220	142	+72	-154	+190
4.95	1210	146	+74	-158	+195
5.00	1200	150	+75	-162	+200
5.05	1190	153	+77	-166	+205
5.10	1180	157	+79	-170	+210
5.15	1170	161	+81	-174	+215
5.20	1160	165	+83	-178	+220
5.25	1150	168	+85	-182	+225
5.30	1140	172	+87	-186	+230
5.35	1130	176	+89	-190	+235
5.40	1120	180	+90	-195	+240
5.45	1110	183	+92	-199	+245
5.50	1100	187	+94	-203	+250
5.55	1090	191	+96	-207	+255
5.60	1080	195	+98	-211	+260
5.65	1070	198	+100	-215	+265

Control [V]	Primary [uA]	Developing bias [V]	Pre-transfer [uA]	Transfer [uA]	Separation [uA]
5.70	1060	202	+102	-219	+270
5.75	1050	206	+104	-223	+275
5.80	1040	210	+105	-227	+280
5.85	1030	213	+107	-231	+285
5.90	1020	217	+109	-235	+290
5.95	1010	221	+111	-239	+295
6.00	1000	225	+113	-243	+300
6.05	990	228	+115	-247	+305
6.10	980	232	+117	-251	+310
6.15	970	236	+119	-255	+315
6.20	960	240	+120	-260	+320
6.25	950	243	+122	-264	+325
6.30	940	247	+124	-268	+330
6.35	930	251	+126	-272	+335
6.40	920	255	+128	-276	+340
6.45	910	258	+130	-280	+345
6.50	900	262	+132	-284	+350
6.55	890	266	+134	-288	+355
6.60	880	269	+135	-292	+360
6.65	870	273	+137	-29	+365
6.70	860	277	+139	-300	+370
6.75	850	281	+141	-304	+375
6.80	840	285	+143	-308	+380
6.85	830	288	+145	-312	+385
6.90	820	292	+147	-316	+390
6.95	810	296	+149	-320	+395
7.00	800	300	+150	-325	+400
7.05	790	303	+152	-329	+405
7.10	780	307	+154	-333	+410
7.15	770	311	+156	-337	+415
7.20	760	315	+158	-341	+420
7.25	750	318	+160	-345	+425
7.30	740	322	+162	-349	+430
7.35	730	326	+164	-353	+435
7.40	720	330	+165	-357	+440
7.45	710	333	+167	-361	+445
7.50	700	337	+169	-365	+450
7.55	690	341	+171	-369	+455
7.60	680	345	+173	-373	+460
7.65	670	348	+175	-377	+465
7.70	660	352	+177	-381	+470
7.75	650	356	+179	-385	+475
7.80	640	360	+180	-390	+480
7.85	630	363	+182	-394	+485
7.90	620	367	+184	-398	+490
7.95	610	371	+186	-402	+495
8.00	600	375	+188	-406	+500
8.05	590	378	+190	-410	+505
8.10	580	382	+192	-414	+510
8.15	570	386	+194	-418	+515
8.20	560	390	+195	-422	+520
8.25	550	393	+197	-426	+525
8.30	540	397	+199	-430	+530
8.35	530	401	+201	-434	+535
8.40	520	405	+203	-438	+540
8.45	510	408	+205	-442	+545
8.50	500	412	+207	-446	+550
8.55	490	416	+209	-450	+555
8.60	480	419	+210	-454	+560
8.65	470	423	+212	-459	+565

Control [V]	Primary [uA]	Developing bias [V]	Pre-transfer [uA]	Transfer [uA]	Separation [uA]
8.70	460	427	+214	-463	+570
8.75	450	431	+216	-467	+575
8.80	440	434	+218	-471	+580
8.85	430	438	+220	-475	+585
8.90	420	442	+222	-479	+590
8.95	410	446	+224	-483	+595
9.00	400	450	+225	-487	+600
9.05	390	453	+227	-491	+605
9.10	380	457	+229	-495	+610
9.15	370	461	+231	-499	+615
9.20	360	465	+233	-503	+620
9.25	350	468	+235	-507	+625
9.30	340	472	+237	-511	+630
9.35	330	476	+239	-515	+635
9.40	320	480	+240	-520	+640
9.45	310	483	+242	-524	+645
9.50	300	487	+244	-528	+650
9.55	290	491	+246	-532	+655
9.60	280	495	+248	-536	+660
9.65	270	498	+250	-540	+665
9.70	260	502	+252	-544	+670
9.75	250	506	+254	-548	+675
9.80	240	510	+255	-552	+680
9.85	230	513	+257	-556	+685
9.90	220	517	+259	-560	+690
9.95	210	521	+261	-564	+695
10.00	200	525	+263	-568	+700
10.05	190	528	+265	-572	+705
10.10	180	532	+267	-576	+710
10.15	170	536	+269	-580	+715
10.20	160	540	+270	-585	+720
10.25	150	543	+272	-589	+725
10.30	140	547	+274	-593	+730
10.35	130	551	+276	-597	+735
10.40	120	555	+278	-601	+740
10.45	110	558	+280	-605	+745
10.50	100	562	+282	-609	+750
10.55	90	566	+284	-613	+755
10.60	80	570	+285	-617	+760
10.65	70	573	+287	-621	+765
10.70	60	577	+289	-625	+770
10.75	50	581	+291	-629	+775
10.80	40	585	+293	-633	+780
10.85	30	588	+295	-637	+785
10.90	20	592	+297	-641	+790
10.95	10	596	+299	-645	+795
11.00	0	600	+300	-650	+800

14.2 Image Adjustments

14.2.1 Overview

0007-0552

iR105i/iR105+ / iR9070

Adjusting the Image Position
Be sure to adjust the image position in the following sequence:
1. image position adjustment of printer output
2. image position adjustment for copier output (book mode)
3. image position adjustment for copier output (ADF mode)

14.2.2 Outline

0008-8364

/ iR8070

Making Image Adjustments
Be sure to adjust the image position in the following order:
1. Adjusting the image position for printer output
2. Adjusting the image position for copier output (book move)
3. Adjusting the image position for copier output (ADF mode)

14.2.3 Conversion Table for the Potential Control System

0008-8580

iR7200

T-14-2

Control [V]	Primary [µA]	Developing bias [V]	Pre-transfer [µA]	Transfer [µA]	Separation [µA]
3.00	1600	0	0	0	0
3.05	1590	3	+2	-4	+5
3.10	1580	7	+4	-8	+10
3.15	1570	11	+6	-12	+15
3.20	1560	15	+8	-16	+20
3.25	1550	18	+10	-20	+25
3.30	1540	22	+12	-24	+30
3.35	1530	26	+14	-28	+35
3.40	1520	30	+15	-32	+40
3.45	1510	33	+17	-36	+45
3.50	1500	37	+19	-40	+50
3.55	1490	41	+21	-44	+55
3.60	1480	45	+23	-48	+60
3.65	1470	48	+25	-52	+65
3.70	1460	52	+27	-56	+70
3.75	1450	56	+29	-60	+75
3.80	1440	60	+30	-65	+80
3.85	1430	63	+32	-69	+85
3.90	1420	67	+34	-73	+90
3.95	1410	71	+36	-77	+95
4.00	1400	75	+38	-81	+100
4.05	1390	78	+40	-85	+105
4.10	1380	82	+42	-89	+110
4.15	1370	86	+44	-93	+115
4.20	1360	90	+45	-97	+120
4.25	1350	93	+47	-101	+125
4.30	1340	97	+49	-105	+130
4.35	1330	101	+51	-109	+135
4.40	1320	105	+53	-113	+140
4.45	1310	108	+55	-117	+145
4.50	1300	112	+57	-121	+150
4.55	1290	116	+59	-125	+155
4.60	1280	119	+60	-129	+160
4.65	1270	123	+62	-134	+165
4.70	1260	127	+64	-138	+170
4.75	1250	131	+66	-142	+175
4.80	1240	134	+68	-146	+180

Control [V]	Primary [µA]	Developing bias [V]	Pre-transfer [µA]	Transfer [µA]	Separation [µA]
4.85	1230	138	+70	-150	+185
4.90	1220	142	+72	-154	+190
4.95	1210	146	+74	-158	+195
5.00	1200	150	+75	-162	+200
5.05	1190	153	+77	-166	+205
5.10	1180	157	+79	-170	+210
5.15	1170	161	+81	-174	+215
5.20	1160	165	+83	-178	+220
5.25	1150	168	+85	-182	+225
5.30	1140	172	+87	-186	+230
5.35	1130	176	+89	-190	+235
5.40	1120	180	+90	-195	+240
5.45	1110	183	+92	-199	+245
5.50	1100	187	+94	-203	+250
5.55	1090	191	+96	-207	+255
5.60	1080	195	+98	-211	+260
5.65	1070	198	+100	-215	+265
5.70	1060	202	+102	-219	+270
5.75	1050	206	+104	-223	+275
5.80	1040	210	+105	-227	+280
5.85	1030	213	+107	-231	+285
5.90	1020	217	+109	-235	+290
5.95	1010	221	+111	-239	+295
6.00	1000	225	+113	-243	+300
6.05	990	228	+115	-247	+305
6.10	980	232	+117	-251	+310
6.15	970	236	+119	-255	+315
6.20	960	240	+120	-260	+320
6.25	950	243	+122	-264	+325
6.30	940	247	+124	-268	+330
6.35	930	251	+126	-272	+335
6.40	920	255	+128	-276	+340
6.45	910	258	+130	-280	+345
6.50	900	262	+132	-284	+350
6.55	890	266	+134	-288	+355
6.60	880	269	+135	-292	+360
6.65	870	273	+137	-29	+365
6.70	860	277	+139	-300	+370
6.75	850	281	+141	-304	+375
6.80	840	285	+143	-308	+380
6.85	830	288	+145	-312	+385
6.90	820	292	+147	-316	+390
6.95	810	296	+149	-320	+395
7.00	800	300	+150	-325	+400
7.05	790	303	+152	-329	+405
7.10	780	307	+154	-333	+410
7.15	770	311	+156	-337	+415
7.20	760	315	+158	-341	+420
7.25	750	318	+160	-345	+425
7.30	740	322	+162	-349	+430

Control [V]	Primary [µA]	Developing bias [V]	Pre-transfer [µA]	Transfer [µA]	Separation [µA]
7.35	730	326	+164	-353	+435
7.40	720	330	+165	-357	+440
7.45	710	333	+167	-361	+445
7.50	700	337	+169	-365	+450
7.55	690	341	+171	-369	+455
7.60	680	345	+173	-373	+460
7.65	670	348	+175	-377	+465
7.70	660	352	+177	-381	+470
7.75	650	356	+179	-385	+475
7.80	640	360	+180	-390	+480
7.85	630	363	+182	-394	+485
7.90	620	367	+184	-398	+490
7.95	610	371	+186	-402	+495
8.00	600	375	+188	-406	+500
8.05	590	378	+190	-410	+505
8.10	580	382	+192	-414	+510
8.15	570	386	+194	-418	+515
8.20	560	390	+195	-422	+520
8.25	550	393	+197	-426	+525
8.30	540	397	+199	-430	+530
8.35	530	401	+201	-434	+535
8.40	520	405	+203	-438	+540
8.45	510	408	+205	-442	+545
8.50	500	412	+207	-446	+550
8.55	490	416	+209	-450	+555
8.60	480	419	+210	-454	+560
8.65	470	423	+212	-459	+565
8.70	460	427	+214	-463	+570
8.75	450	431	+216	-467	+575
8.80	440	434	+218	-471	+580
8.85	430	438	+220	-475	+585
8.90	420	442	+222	-479	+590
8.95	410	446	+224	-483	+595
9.00	400	450	+225	-487	+600
9.05	390	453	+227	-491	+605
9.10	380	457	+229	-495	+610
9.15	370	461	+231	-499	+615
9.20	360	465	+233	-503	+620
9.25	350	468	+235	-507	+625
9.30	340	472	+237	-511	+630
9.35	330	476	+239	-515	+635
9.40	320	480	+240	-520	+640
9.45	310	483	+242	-524	+645
9.50	300	487	+244	-528	+650
9.55	290	491	+246	-532	+655
9.60	280	495	+248	-536	+660
9.65	270	498	+250	-540	+665
9.70	260	502	+252	-544	+670
9.75	250	506	+254	-548	+675
9.80	240	510	+255	-552	+680

Control [V]	Primary [µA]	Developing bias [V]	Pre-transfer [µA]	Transfer [µA]	Separation [µA]
9.85	230	513	+257	-556	+685
9.90	220	517	+259	-560	+690
9.95	210	521	+261	-564	+695
10.00	200	525	+263	-568	+700
10.05	190	528	+265	-572	+705
10.10	180	532	+267	-576	+710
10.15	170	536	+269	-580	+715
10.20	160	540	+270	-585	+720
10.25	150	543	+272	-589	+725
10.30	140	547	+274	-593	+730
10.35	130	551	+276	-597	+735
10.40	120	555	+278	-601	+740
10.45	110	558	+280	-605	+745
10.50	100	562	+282	-609	+750
10.55	90	566	+284	-613	+755
10.60	80	570	+285	-617	+760
10.65	70	573	+287	-621	+765
10.70	60	577	+289	-625	+770
10.75	50	581	+291	-629	+775
10.80	40	585	+293	-633	+780
10.85	30	588	+295	-637	+785
10.90	20	592	+297	-641	+790
10.95	10	596	+299	-645	+795
11.00	0	600	+300	-650	+800

14.2.4 Adjusting the Image Position for Printer Output

0007-0553

iR105i/iR105+ / iR9070

Image Position Standards

F-14-18

1) Adjusting the Image Position in Main Scanning Direction
Check to make sure that the value for the following matches that indicated on the service label: COPIER> ADJUST> LASER> PVE-OFST. If different, enter the value indicate on the service label.

The value is used to center the image position on the photosensitive drum.
Changing the value can cause deformation at the edge of an image.

2) Check to make sure that the value of the following is '106':
COPIER> ADJUST> BLANK> BLANK-T. If not, enter '106'.
3) Adjusting the Image Leading Edge Margin
Generate output using the following to check the image leading edge margin:
COPIER> TEST> PG5>
Standard: 4 +1.5 mm,-1.0 mm
Adjustment: COPIER> ADJUST> FEED-ADJ> REGIST
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-19

4) Adjusting the Image Trailing Edge Margin
Generate output of the following to check the image trailing edge margin:
COPIER> TEST> PG5.
Standard: 2.5 -/+1.5 mm
Adjustment: COPIER> ADJUST> BLANK> BLANK-B
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-20

5) Adjusting the Image Front Margin for Each Source of Paper
Make the following selections to select '1' (right deck): COPIER> TEST> PG-PICK.
Then, generate the following to check the image front margin: COPIER> TEST> PG56.
Likewise, make the following selections to select '2', '3', '4', and '8': COPIER> TEST> PG5. Then, generate COPIER> TEST> PG5 to check the image front margin.
Standard: 2.5 -/+1.5 mm
PG-PICK 1: right deck
PG-PICK 2: left deck
PG-PICK 3: cassette 3
PG-PICK 4: cassette 4

F-14-21

Adjustment: Adjusting the Fixing Position of Each Source of Paper

- Front Deck (left, right)
1) Slide out the deck, and loosen the 4 screws [2] and the 2 fixing screws [3] of the cassette front cover [1].

F-14-22

2) Move the cassette guide assembly (front) [4] to the front or the rear to make adjustments.

F-14-23

- Cassette (3/4)
1) Slide out the cassette, and remove the 2 screws [2] for the cassette front cover [1].

F-14-24

2) Loosen the 2 fixing screws [3] found on the left/right of the cassette, and adjust the position using the fixing screw [4].

F-14-25

If you have adjusted the cassette 3 or cassette 4, be sure to execute the following:
- If you have replaced the cassette 3,
  COPIER> ADJUST> CST-ADJ> C3-STMTR
  COPIER> ADJUST> CST-ADJ> C3-A4R
- If you have replaced the cassette 4,
  COPIER> ADJUST> CST-ADJ> C4-STMTR
  COPIER> ADJUST> CST-ADJ> C4-A4R

14.2.5 Adjusting the Image Position for Printer Output

0008-8365

/ iR85+ / iR8070

Standards for Image Position

F-14-26

1) Adjust the image position in main scanning direction as follows:
Check to make sure that the following setting is as indicated on the service label: COPIER>ADJUST>LASER>PVE-OFST. If not, enter the setting recorded on the service label.

The setting is used so that the image on the photosensitive drum will be centered.
Changing the setting can deform the edges of images.

2) Check to make sure the setting of the following is '106':
COPIER>ADJUST>BLANK>BLANK-T. If not, enter '106'.
3) Adjust the image leading edge margin as follows:
Generate output by making the following selections: COPIER>TEST>PG5; then, check the image leading edge margin.
Standard: 4 +1.5, -1.0 mm
Mode: COPIER>ADJUST>FEED-ADJ>REGIST
- A higher setting increases the margin.
- A lower setting decreases the margin.

F-14-27

4) Adjust the image trailing edge margin as follows:
Generate output by making the following selections: COPIER>TEST>PG5; then, check the image trailing edge margin.
Standard: 2.5 ±1.5 mm
Mode: COPIER>ADJUST>BLANK>BLANK-B
- A higher setting increases the margin.
- A lower setting decreases the margin.

F-14-28

5) Adjust the image front margin for each source of paper as follows:
Select '1' (right deck) by making the following selections: COPIER>TEST>PG-PICK. Then, generate output by making the following selections to adjust the image front margin: COPIER>TEST>PG65.
Likewise, select '2', '3', and '4' by making the following selections: COPIER>TEST>PG-PICK. Then, generate output by making the following selections, and adjust the image front margin: COPIER>TEST>PG5.
Standard: 2.5 ±1.5 mm
PG-PICK 1: right deck
PG-PICK 2: left deck
PG-PICK 3: cassette 3
PG-PICK 4: cassette 4

F-14-29

adjustment: by adjusting the fixed position of each source of paper.

- Front Deck (left/right)
1) Slide out the deck, and loosen the four screws [2] and the two fixing screws [3] of the cassette front cover [1].

F-14-30

2) Move the cassette guide assembly (front) [4] to the front or the rear, and make adjustments.

F-14-31

- Cassette (3/4)
1) Slide out the cassette, and remove the two screws [2] of the cassette front cover [1].

F-14-32

2) Loosen the two fixing screws [3] on the left/right of the cassette, and make adjustments using the adjusting screw [4].

F-14-33

If you have adjusted cassette 3 or 4, be sure to execute the following service mode:
If you have adjusted cassette 3,
COPIER>ADJUST>CST-ADJ>C3-STMTR
COPIER>ADJUST>CST-ADJ>C3-A4R

If you have adjusted cassette 4,
COPIER>ADJUST>CST-ADJ>C4-STMTR
COPIER>ADJUST>CST-ADJ>C4-A4R

14.2.6 Adjusting the Image Position of Copier Output (book mode)

0007-0558

iR105i/iR105+ / iR9070

Make these adjustments only after you have adjusted the image position of printer output.

1) Adjusting the Image Leading Edge Non-Image Width
Place the NA3 Test Chart on the copyboard glass, and make a copy to check the image leading edge non-image width:
Standard: 4 +1.5 mm, -1.0 mm
Adjustment: COPIER> ADJUST> ADJ-XY> ADJ-X
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-34

2) Adjusting the Image Front Non-Image Width
Place the NA3 Test Chart on the copyboard glass, and make a copy to check the image front non-image width.
Standard: 2.5 -/+1.5 mm
Adjustment: COPIER> ADJUST> ADJ-XY> ADJ-Y
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-35

3) Adjusting the Image Front Non-Image Width of Double-Sided Copy Images
Place the NA3 Test Chart on the copyboard glass, and make a double-sided copy to check the front non-image width of the 2nd side.
Standard: 2.5 -/+2.0 mm
Adjustment: COPIER> ADJUST> FEED-ADJ> ADJ-REFER
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-36

4) Adjusting the Image Front Margin for the Manual Feed Tray and the Side Paper Deck (accessory)
Place the NA3 Test Chart on the copyboard glass, and make a double-sided copy to check the front non-image width of the 2nd side image.
Standard: 2.5 -/+1.5 mm

F-14-37

Adjustment: Adjusting the Fixing Plate of Each Source of Paper
- Manual Feed Tray
1) Loosen the 2 mounting screws [1] of the manual feed tray to adjust the manual feed tray position.

F-14-38

- Side Paper Deck (accessory)
1) Slide out the compartment, and adjust the position of the latch plate [1] of the deck open solenoid using the 2 screws [2]. (At this time, use the index [3] on the latch plate as a reference.)

F-14-39

14.2.7 Adjusting the Image Position for Copier Output (book mode)

0008-8367

/ iR8070

Be sure to complete the image adjustment for printer output before starting the following work.

1) Adjusting the Leading Edge Non-Image Width
Place the NA3 Test Chart on the copyboard glass, and make a copy of it to check the leading edge non-image width.
Standard: 4 +1.5, -1.0 mm
Mode: COPIER>ADJUST>ADJ-XY>ADJ-X
- A higher setting increases the margin.
- A lower setting decreases the margin.

F-14-40

2) Adjusting the Front Non-Image Width
Place the NA3 Test Chart on the copyboard, and make a copy of it to check the front non-image width.
Standard: 2.5 ±1.5 mm
Mode: COPIER>ADJUST>ADJ-XY>ADJ-Y
- A higher setting increases the margin.
- A lower setting decreases the margin.

F-14-41

3) Adjusting the Front Non-Image Width for Double-Sided Copies
Place the NA3 Test Chart on the copyboard glass, and make a double-sided copy of it to check the front non-image width on the second side.
Standard: 2.5 ±2.0 mm
Adjustment:COPIER>ADJUST>FEED-ADJ>ADJ-REFE
- A higher setting increases the margin.
- A lower setting decreases the margin.

F-14-42

4) Adjusting the Front Margin for the Manual Feed Tray and Side Paper Deck (option)
Place the NA3 Test Chart on the copyboard glass, and make a double-sided copy of it to check the front margin on the second side.
Standards: 2.5 ±1.5 mm.

F-14-43

Adjustment: mounting position of each source of paper.
- Manual Feed Tray
1) Loosen the two mounting screws [1] of the manual feed tray, and adjust the position of the manual feed tray.

F-14-44

- Side Paper Deck (option)
1) Slide out the compartment, and adjust the position of the latch plate [1] of the deck open solenoid using the two screws [2].
(For this work, use the scale [3] on the latch plate as a reference.)

F-14-45

14.2.8 Adjusting the Image Position of Copier Output (ADF mode)

0007-0562

iR105i/iR105+ / iR9070

Make these adjustments after you have adjusted the "image position of printer output" and the "image position of copoier output (book mode)."

1) Adjusting the Image Leading Edge Non-Image Width
Place an A3 test chart and an A4 test chart on the ADF original tray, and make a copy to check the image leading edge non-image width.
Standard: 4 +1.5 mm, -1.0 mm
Adjustment:
FEEDER> ADJUST> STRD-S (A4 original)
FEEDER> ADJUST> STRD-L (A3 original)
- A higher value increases the margin.
- A lower value decreases the margin.

F-14-46

2) Adjusting the Image Front Non-Image Width
Place an A3 size test chart in the ADF original tray, and make a copy to check the image front non-image width.
Standard: 2.5 -/+1.5 mm
Adjustment: Adjust the ADF original tray fixing position.

F-14-47

14.2.9 Adjusting the Image Position for Copier Output (ADF mode)

0008-8368

/ iR8070

Be sure to complete the adjustment of image position for printer output and the adjustment of image position for copier output (book mode) before starting the following work.

1) Adjusting the Leading Edge Non-Image Width
Place an A3 test chart (and an A4 test chart) in the original tray of the ADF, and make copies to check the leading edge nonimage width.
Standard: 4 +1.5, -1.0 mm
Adjustment: FEEDER>ADJUST>DOCST

F-14-48

2) Adjusting the Front Non-Image Width
Place A3 test chart in the original tray of the ADF and make a copy of it to check the front non-image width.
Standards: 2.5 ±1.5 mm
Adjustment:mounting position of the ADF original tray.

F-14-49

14.3 Scanning System

14.3.1 When Replacing the CCD Unit

0008-3885

iR105i/iR105+ / iR9070

1) Check to make sure that the Execution/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the CCD unit.
4) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
   COPIER> FUNCTION> CCD> CCD-ADJ
   COPIER> FUNCTION> CCD> LUT-ADJ
6) All items of the following will be updated; record them on the service label: COPIER>ADJUST>CCD, COPIER> ADJUST> LAMP> L-DATA.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode to make sure that the images are not displaced; if displaced, execute the following:

Book Mode
A: COPIER> ADJUST> ADJ-XY> ADJ-X
B: COPIER> ADJUST> ADJ-XY> ADJ-Y

F-14-50

Feeder Mode
C: COPIER> ADJUST> ADJ-Y-DF

F-14-51

9) Execute the following in service mode to print out a service label, and store away the service label in the service book case.

14.3.2 Points to Note when Replacing the CCD Unit

0008-8444

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

3) Replace the CCD unit.
4) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch.
5) Execute the following service modes in sequence:
1. COPIER>FUNCTION>CCD>CCD-ADJ
2. COPIER>FUNCTION>CCD>LUT-ADJ
6) See that all items of COPIER>ADJUST>CCD is updated. Record the results on the service label.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode, and check to make sure that they are free of displaced images. Otherwise, execute the following:

Book Mode
A: COPIER>ADJUST>ADJ-XY>ADJ-X
B: COPIER>ADJUST>ADJ-XY>ADJ-Y

F-14-52

Feeder Mode
C: COPIER>ADJUST>ADJ-Y-DF

F-14-53

9) Execute the following in service mode to generate a service label; FUNCTION>MISCP> LBL-PRNT. Store the service label in the service book case.

14.3.3 Points to Note when Replacing the CCD Unit

0008-9717

/ iR8070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

3) Replace the CCD unit.
4) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch.
5) Execute the following service modes in sequence:
1. COPIER>FUNCTION>CCD>CCD-ADJ
2. COPIER>FUNCTION>CCD>EGGN-POS
6) See that all items of COPIER>ADJUST>CCD is updated. Record the results on the service label.
7) Turn off and then on the main power switch.
8) Make test copies in book mode and feeder mode, and check to make sure that they are free of displaced images. Otherwise, execute the

following:
Book Mode
A: COPIER>ADJUST>ADJ-XY>ADJ-X
B: COPIER>ADJUST>ADJ-XY>ADJ-Y

F-14-54

Feeder Mode
C: COPIER>ADJUST>ADJ-Y-DF

F-14-55

9) Execute the following in service mode to generate a service label; FUNCTION>MISCP> LBL-PRNT. Store the service label in the service book case.

14.3.4 When Replacing the Standard White Plate

0008-3974

iR105i/iR105+ / iR9070

1) Check to be sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as its power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the standard white plate.
4) Assemble the machine, and connect the power plug; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
COPIER> FUNCTION> CCD> CCD-ADJ
COPIER> FUNCTION> CCD> LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
COPIER> FUNCTION> MISC-P> LBL-PRNT
7) Turn off and then on the main power switch.

14.3.5 When Replacing the Standard White Plate

0008-8596

1) Check to be sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as its power plug is connected. Be sure to disconnect the power plug from the power outlet.

3) Replace the standard white plate.
4) Assemble the machine, and connect the power plug; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
1. COPIER>FUNCTION>CCD>CCD-ADJ
2. COPIER>FUNCTION>CCD>LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
- COPIER>FUNCTION>MISC-P>LBL-PRNT
7) Turn off and then on the main power switch.

14.3.6 When Replacing the Scanning Lamp

0008-3976

iR105i/iR105+ / iR9070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long a the power plug is connected. Be sure to disconnect the power plug from the power outlet without fail.

3) Replace the scanning lamp.
4) Assemble the machine, and connector the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
COPIER> FUNCTION> CCD> CCD-ADJ
COPIER> FUNCTION> CCD> LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
COPIER> FUNCTION> MISC-P> LBL-PRNT
7) Turn off and then on the main power switch.

14.3.7 When Replacing the Scanning Lamp

0008-8581

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long a the power plug is connected. Be sure to disconnect the power plug from the power outlet without fail.

3) Replace the scanning lamp.
4) Assemble the machine, and connector the power plug to the power outlet; then, turn on the main power switch.
5) Execute the following in service mode in sequence:
1. COPIER>FUNCTION>CCD>CCD-ADJ
2. COPIER>FUNCTION>CCD>LUT-ADJ
6) Inplement the service mode described below to the service sheet which is to be kept in the service log book case.
- COPIER>FUNCTION>MISC-P>LBL-PRNT
7) Turn off and then on the main power switch.

14.3.8 After Replacing the Scanning Lamp

0008-8583

/ iR8070

Execute'CCD auto adjustment'in service mode, and record the updated CCD adjustment
data on the service label.

1. CCD Auto Adjustment
COPIER>FUNCTION>CCD>CCD-ADJ
2. CCD Adjustment Data all items under
COPIER>ADJUST>CCD

14.3.9 Points to Note When Replacing the reader controller PCB

0008-3977

iR105i/iR105+ / iR9070

1) Execute the following two items in service mode to print out settings stored under items: COPIER> FUNCTION> MISC-P> LBL-PRNT and COPIER> FUNCTION> MISCP> USER-PRT.
2) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
3) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected. Be sure to disconnect the power plug from the wall outlet.

4) Replace the reader controller PCB.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Execute the following in service mode: COPIER> FUNCTION> CLEAR> R-CON.
7) Turn off and then on the main power switch.
8) Execute the following in service mode: COPIER> FUNCTION> CCD> CCD-ADJ.
9) Enter the settings printed out in step 1) for the following:
- service mode
COPIER> ADJUST> ADJ-XY (4 items)
COPIER> ADJUST> LAMP (1 item)
COPIER> ADJUST> CCD (29 items)
- user mode
10) Turn off and then on the main power switch, and execute the following in service mode
to generate a service label; keep the service label in the service book case: COPIER> FUNCTION> MISC-P> LBL-PRNT.

14.3.10 When Replacing the Reader Controller PCB

0008-8449

1) Execute the following in service mode to generate the setting of each item: COPIER, FUNCTION>MISC-P>LBL-PRNT and COPIER>FUNCTION>MISC-P>USER-PRT.
2) Check to make sure that that Execute/Memory lamp in the control panel are OFF, and turn off the main power switch.
3) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

4) Replace the reader controller PCB.
5) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch.
6) Execute the following in service mode: COPIER>FUNCTION>CLEAR>**R-CON**.
7) Turn on and then off the main power switch.
8) Execute the following in service mode: COPIER>FUNCTION>CCD>**CCD-ADJ**.
9) Enter the setting of each item generated in step 1):
- Service Mode
COPIER>ADJUST>ADJ-XY (4 items)
COPIER>ADJUST>LAMP (1 item)
COPIER>ADJUST>CCD (29 items)
- User Mode
10) Turn off and then on the main power switch, and execute COPIER>FUNCTION>MISC-P>LBL-PRNT in service mode to generate a service label. Then, store it in the service book case.

14.3.11 When Replacing the Reder controller PCB

0008-8451

/ iR8070

1) Print out the data of user mode/service mode.
2) Check to make sure that the Execute/Memory lamp in the control panel ore OFF, and turn off the main power switch.
3) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when is main power switch is turned off.
Be sure to disconnect the power plug.

4) Replace the reader controller PCB.
5) Remove the EEPROM (1 pc.) from the existing PCB, and mount it to the new PCB.
6) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch.
7) Check to make sure that the following service mode settings are the same as the data before replacement:
COPIER>ADJUST>AE>all items
COPIER>ADJUST>ADJ-XY>all items
COPIER>ADJUST>CCD>all items
If any service mode setting is faulty, enter the respective setting recorded on the service label in service mode.

14.4 Laser Exposure System

14.4.1 Points to Note When Replacing the Laser Unit

0008-4300

iR105i/iR105+ / iR9070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF; then, turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered as long as the power plug is connected to the power outlet. Be sure to disconnect it.

3) Replace the laser unit.
4) Record the values (LA-DELAY) indicated on the label attached to the new laser unit.
5) Assemble the machine, and connect the power plug to the power outlet; then, turn on the main power switch.
6) Enter the values recorded in step 4) using service mode: COPIER> ADJUST> LASER> LA-DELAY.

14.4.2 When Replacing the Laser Unit

0008-8468

/ iR85+ / iR8070

1) Check to make sure that the Execute/Memory indicator in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as the power plug remains connected to the power outlet. Be sure to disconnect the power plug.

3) Replace the laser unit.
4) Take notes of the settings (LA-DELAY) on the label attached to the new laser unit.
5) After assembling the machine, connect the power plug to the power outlet, and turn on the main power switch and the control panel power switch.
6) Enter the settings recorded in step 4) in service mode: COPIER>ADJUST>LASER>LA-DELAY.

14.4.3 Checking the Laser Power

0007-0662

iR105i/iR105+ / iR9070

1) Check to make sure that the Data lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.
3) Remove the copyboard glass.
4) Open the laser power checker slot cover [1].

F-14-56

5) Shift the switch of the laser power checker (FY9-4008) to '2'.
6) White orienting the laser power checker so that its light-receiving face [1] is as shown, fit it in.

F-14-57

7) Connect the probe lines of the laser power checker to a digital multimeter.

F-14-58

8) Connect the power plug to the power outlet, and turn on the main power switch.
9) Make the following selections in service mode: COPIER> FUNCTION> LASER.
10) Select <POWER-A>, and press the OK key.
11) Check to see that the reading of the digital multimeter is 9 to 11 mV, indicating that the power of the laser A is correct.
12) Select <POWER-B>, and press the OK key.
13) Check to see that the reading of the digital multimeter is 9 to 11 mV, indicating that the power of the laser B is correct.

14.4.4 Checking the Laser Power

0008-8441

/ iR8070

1) Check to make sure that the Data lamp in the control panel is OFF, and turn off the main paper switch.
2) Disconnect the power plug from the power outlet.
3) Remove the copyboard glass.
4) Open the laser power check slot cover [1].

F-14-59

5) Shift the switch on the laser power checker (FY9-4008) to '2'.
6) Fit the laser power checker with its light-receiving face [1] as indicated.

F-14-60

7) Connect the probe of the laser power checker to the digital multimeter.

F-14-61

8) Connect the power plug to the power outlet, and turn on the main power switch.
9) Make the following selections in service mode: COPIER>FUNCTION>LASER.
10) Select 'POWER-A', and press the OK key.
11) See that the reading of the digital multimeter is 9 to 11 mV, indicating the power of laser A is correct.
12) Select 'POWER-B', and press the OK key.
13) See the the reading of the digital multimeter is 9 to 11 mV, indicating that the power of laser B is correct.

14.4.5 Checking the Laser Power

0009-1750

iR85+

1) Check to make sure that the Data lamp in the control panel is OFF, and turn off the main paper switch.
2) Disconnect the power plug from the power outlet.
3) Remove the top cover.
4) Open the laser power check slot cover [1].

F-14-62

5) Shift the switch on the laser power checker (FY9-4008) to '2'.
6) Fit the laser power checker with its light-receiving face [1] as indicated.

F-14-63

7) Connect the probe of the laser power checker to the digital multimeter.

F-14-64

8) Connect the power plug to the power outlet, and turn on the main power switch.
9) Make the following selections in service mode: COPIER>FUNCTION>LASER.
10) Select 'POWER-A', and press the OK key.
11) See that the reading of the digital multimeter is 9 to 11 mV, indicating the power of laser A is correct.
12) Select 'POWER-B', and press the OK key.
13) See the the reading of the digital multimeter is 9 to 11 mV, indicating that the power of laser B is correct.

14.5 Image Formation System

14.5.1 Adjusting the Height of the Charging Wire

0008-8359

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-14-3

Height of charging wire
Primary
Pre-transfer
Separation
Transfer

MEMO:
The height (position) of the primary and transfer charging wires may be adjusted by turning the screw found at the rear of the charging assembly. A full turn of the screw changes the position of the charging wire by about 0.7 mm.

14.6 Fixing System

14.6.1 Adjusting the Lower Roller Pressure (nip)

0008-9719

/ iR85+ / iR8070

The nip width must be as indicated in figure; if not, adjust it using the pressure adjusting nut.

F-14-65

a and c are points 10 mm from both edges of paper.

T-14-4

Dimension	Measure with upper and lower rollers fully heated
b	9.0 -/+ 0.5 mm
| a-c |	0.5 mm or less

a. Generating Output for Nip Width Measurement
Wait for 15 min after the print ends its warm-up period; make 20 A4 prints, and measure the nip.
1) Place A3 paper in the manual feed tray.
2) Make the following selections in service mode to generate output:
COPIER> FUNCTION> FIXING> NIP-CHK.
The A3 paper will be picked up, and a print like the one shown in figure will be delivered.

14.6.2 Adjusting the Lower Roller Pressure (nip)

0007-0658

iR105i/iR105+ / iR9070

The nip width must be as indicated in figure; if not, adjust it using the pressure adjusting nut.

F-14-66

a and c are points 10 mm from both edges of paper.

T-14-5

Dimension	Measure with upper and lower rollers fully heated
b	200 V: 9.0 -/+ 0.5 mm, 208/230 V: 10.0 -/+ 0.5 mm
| a-c |	0.5 mm or less

a. Generating Output for Nip Width Measurement
Wait for 15 min after the copier ends its warm-up period; make 20 A4 copies, and measure the nip.
1) Place A3 copy paper in the manual feed tray.
2) Make the following selections in service mode to generate output:
COPIER> FUNCTION> FIXING> NIP-CHK.
The A3 paper will be picked up, and a copy like the one shown in figure will be delivered.

14.7 Electrical Components

14.7.1 Electrical Parts Requiring Work After Replacement

0007-0672

iR105i/iR105+ / iR9070 / iR8070

T-14-6

Parts name
Scanning lamp
CCD unit
Reader controller PCB
Main controller PCB
HDD unit
DC controller PCB
HV-DC PCB
Laser unit
Potential sensor/potential control PCB

14.7.2 Electrical Components Requiring Work After Replacement

0008-8442

iR7200

T-14-7

Part name
Standard white plate
Scanning lamp
CCD unit
Reader controller PCB
Main controller PCB
HDD unit
DC controller PCB
High-voltage DC PCB
Laser unit
Potential sensor/potential control PCB

14.7.3 Electrical Parts Requiring Work After Replacement

0008-9084

iR85+

T-14-8

Parts name
Main controller PCB
HDD unit
DC controller PCB
HV-DC PCB
Laser unit
Potential sensor/potential control PCB

14.7.4 When Replacing the HDD

0008-2616

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Format the HDD.
Start up the machine in safe mode (i.e., while holding down the 2 and 8 keys, turn on the main power).
Using the HD format function of the SST, format all partitions ($); for details, see the descriptions given for upgrading.

2) Download the system software.
Using the SST, download the following: System, LANGUAGE, RUI, PS-FRONT, OCR dictionary, SSL coding key, SSL CA certificate, MEAP content.

14.7.5 When Replacing the Main Controller PCB

0008-2701

iR105i/iR105+ / iR9070 / iR8070

If you are replacing the main controller PCB, be sure to transfer the following components from the old to new PCB:
[1] BootROM
[2] HDD
[3] image memory (SDRAM)
[4] counter memory PCB

F-14-67

If the user uses NetSpot Accountant (NSA) in Combination with a Card Reader

The SDRAM of the main controller retains card ID used by NSA. If you have replaced the main controller, you will have to download the card data from NSA once again to permit NSA to perform statistical operations.
If you have formatted the HDD and downloaded the system software, you will have to go through a specific set of steps:

1) Format the HDD.
2) Download the system software.
3) Make the following selections:
COPIER>FUNCTION>INSTALL>CARD.
4) Enter a card No.
Enter the first of the numbers that will be used for group control, and press the OK key (e.g., if you are planning to use cards from No. 1 thorough No. 100, enter '1').
5) turn off and then on the main power.
6) Check the count control mechanism in user mode.
system control setup>group ID control>count control
check to see as many as 'ID00000001 through ID00001000' have been prepared.
7) Set the IP address in user mode.
system control setup>network setup>TCP/IP setup>IP address
Set 'IP address', 'gateway address', and 'sub net mask'.
8) Enter a number of your choice in user mode.
system administrator info setup>system control group ID>system control ID No.
9) Hold down the control panel power switch for 3 sec or more.
10) Go through the instructions on the control panel for shut-down sequence so that the main power switch may be turned off.
11) Turn off the main power switch. Wait for 3 sec or more, and turn it back on.

Unless you have registered 'system control group ID' and 'system control ID No.', you will not be able to register cards for the device in the course of Net Spot Accountant setup work.

12) Download the card ID.
Keep the machine in a standby state < and download the card ID to be used from the NSA>
13) Check the count control particulars in user mode.
system control setup>group ID control>count control
See that only the downloaded ID data is shown.
14) Check to see that the operation is normal.
Make copies using a user card that has been registered using the NSA, and check to see that the count of the card in question has been incremented correctly.

14.7.6 Replacing the Main Controller PCB

0008-8453

iR7200

1) Make a backup of the data using the Service Support Tool.
2) Replace the main controller PCB.
3) Detach the following PCBs from the existing PCB, and mount it to the new PCB:
- SD-RAM [1]
- BOOT-ROM [2]
- Counter memory PCB [3]

F-14-68

4) After assembling the machine, connect the power plug to the power outlet, while holding down '2' and '8' keys on the keypad in the control panel at the same time, turn on the main power switch.
5) Put the data back in.

14.7.7 When Replacing the Main Controller PCB

0009-1302

iR85+

If you are replacing the main controller PCB, be sure to transfer the following components from the old to new PCB:
[1] BootROM
[2] HDD
[3] image memory (SDRAM)
[4] counter memory PCB

F-14-69

If the user uses NetSpot Accountant (NSA) in Combination with a Card Reader

The SDRAM of the main controller retains card ID used by NSA. If you have replaced the main controller, you will have to download the card data from NSA once again to permit NSA to perform statistical operations.
If you have formatted the HDD and downloaded the system software, you will have to go through a specific set of steps:

1) Format the HDD.
2) Download the system software.
3) Make the following selections:
COPIER>FUNCTION>INSTALL>CARD.
4) Enter a card No.
Enter the first of the numbers that will be used for group control, and press the OK key (e.g., if you are planning to use cards from No. 1 thorough No. 100, enter '1').
5) turn off and then on the main power.
6) Check the count control mechanism in user mode.
system control setup>group ID control>count control
check to see as many as 'ID00000001 through ID00001000' have been prepared.
7) Set the IP address in user mode.
system control setup>network setup>TCP/IP setup>IP address
Set 'IP address', 'gateway address', and 'sub net mask'.
8) Enter a number of your choice in user mode.
system administrator info setup>system control group ID>system control ID No.
9) Hold down the control panel power switch for 3 sec or more.
10) Go through the instructions on the control panel for shut-down sequence so that the main power switch may be turned off.
11) Turn off the main power switch. Wait for 3 sec or more, and turn it back on.

Unless you have registered 'system control group ID' and 'system control ID No.', you will not be able to register cards for the device in the course of Net Spot Accountant setup work.

12) Download the card ID.
Keep the machine in a standby state < and download the card ID to be used from the NSA>
13) Check the count control particulars in user mode.
system control setup>group ID control>count control
See that only the downloaded ID data is shown.
14) Check to see that the operation is normal.
Make prints using a user card that has been registered using the NSA, and check to see that the count of the card in question has been incremented correctly.

14.7.8 When Replacing the HV-DC PCB

0009-1597

/ iR85+ / iR8070

1) Replace the HV-DC PCB.
2) Assemble the machine; then, connect the power plug to the power

outlet, and turn on the main power switch.
3) Enter the values (4 types) indicated on the label attached to the new HV-DC PCB in service mode.

F-14-70

4) Turn off and then on the main power switch.

14.7.9 When Replacing the DC Controller PCB

0008-4623

iR105i/iR105+ / iR9070

1) If possible, print out the user mode/service mode data.
2) Replace the DC controller PCB.
3) Execute the following in service mode to clear the RAM:
COPIER> FUNCTION> CLEAR> DC-CON.
4) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
5) Enter the following indicated on the service label:
COPIER> ADJUST> LASER (all items)
COPIER> ADJUST> DEVELOP (all items)
COPIER> ADJUST> DENS (all items)
COPIER> ADJUST> BLANK (all items)
COPIER> ADJUST> V-CONT (all items)
COPIER> ADJUST> HV-PRI (all items)
COPIER> ADJUST> HV-TR (all items)
COPIER> ADJUST> HV-SP (all items)
COPIER> ADJUST> FEED-ADJ (all items)
COPIER> ADJUST> CST-ADJ (all items)
COPIER> ADJUST> EXP-LED (all items)
6) Execute the following in service mode: COPIER> FUNCTION> MISC-P> CL-ADJ (all items)
COPIER> FUNCTION> SEN-ADJ (all items)
7) Enter the values (4 types) indicated on the label attached to the new DC controller PCB in service mode.

F-14-71

8) Turn off and then on the main power switch.

14.7.10 When Replacing the DC Controller PCB

0008-8601

/ iR85+ / iR8070

1) If possible, print out the user mode/service mode data.
2) Replace the DC controller PCB.
3) Execute the following in service mode to clear the RAM:
COPIER>FUNCTION>CLEAR>DC-CON.
4) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
5) Enter the following indicated on the service label:
COPIER>ADJUST>LASER (all items)
COPIER>ADJUST>DEVELOP (all items)
COPIER>ADJUST>DENS (all items)
COPIER>ADJUST>BLANK (all items)
COPIER>ADJUST>V-CONT (all items)
COPIER>ADJUST>HV-PRI (all items)
COPIER>ADJUST>HV-TR (all items)
COPIER>ADJUST>HV-SP (all items)
COPIER>ADJUST>FEED-ADJ (all items)
COPIER>ADJUST>CST-ADJ (all items)
COPIER>ADJUST>EXP-LED (all items)
6) Execute the following in service mode: COPIER>FUNCTION>MISC-P>CL-ADJ (all items)
COPIER>FUNCTION>SEEN>ADJ (all items)
7) Enter the values (4 types) indicated on the label attached to the new DC controller PCB
in service mode.

F-14-72

8) Turn off and then on the main power switch.

14.7.11 Replacing the Potential Sensor/Potential Control PCB

0008-9087

iR85+

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

3) Replace the potential sensor/potential control PCB.

The potential sensor and the potential control PCB are adjusted as a pair, requiring simultaneous replacement.

4) Remove the developing assembly, and slide out the process unit.
5) Disconnect the connector [1] of the potential sensor.

F-14-73

6) Remove the two screws [1], and detach the potential sensor support plate [2].

F-14-74

7) Put the developing assembly and the process unit back into their initial positions.
8) Connect the connector [1] of the potential sensor.

F-14-75

9) Fit the potential sensor checking electrode (FY9-3041) [2] to the potential sensor [1].

F-14-76

When mounting the potential sensor checking electrode to the potential sensor, take care so that the magnet of the checking electrode will not come into contact with the potential sensor cover.

10) Connect the cable [1] of the potential sensor checking electrode to the frame (GND) [2] of the machine.

Be sure to allow enough space from the window of the sensor so the the clip will not come into contact with the cover of the sensor.

F-14-77

11) Insert the door switch actuator into the door switch assembly.
12) Connect the power plug to the power outlet, and turn on the main power switch.
13) Execute the following in service mode: COPIER>FUNCTION>DPC>OFST.
14) Record the setting of 'OFST' on the service label.
15) Turn off the main power switch.
16) Disconnect the power plug from the power outlet.
17) Detach the potential sensor checking electrode.
18) Put the potential sensor support plate back into its initial position.
19) Connect the power plug to the power outlet, and turn on the main power switch.

14.7.12 When Replacing the HV-DC PCB

0008-4622

iR105i/iR105+ / iR9070

1) Replace the HV-DC PCB.
2) Check to make sure that the slide switch (SW101) on the PCB is on the UP side.
3) Assemble the machine; then, connect the power plug to the power outlet, and turn on the main power switch.
4) Enter the values (4 types) indicated on the label attached to the new HV-DC PCB in service mode.

F-14-78

5) Turn off and then on the main power switch.

14.7.13 Checking the Surface Potential Control System

0008-9088

iR85+

a. Outline
If an image fault occurs, it is important to find out if the cause is in the latent image formation block (including the photosensitive drum and the potential control system) or in the development/transfer system, requiring a check to see if the surface potential is appropriate.
The service potential may be checked in service mode.

b. Disabling Auto Control
As a means of finding out if the corona current control, lamp intensity control, or developing bias control mechanisms is faulty, the auto control mechanism may be disabled
(hereafter, "non-auto control mode").
In addition, non-auto control mode may be made use of as an emergency remedy in the event a fault occurs in the auto control mechanism.

[1] Procedure
1) Make the following selections in service mode, and enter '0': COPIER>OPTION>BODY>P0-CNT; then, press the OK key.
2) Press the reset key twice.

When non-auto control mode is selected, all settings for corona current control, intensity control, and developing bias control will automatically be set to standard settings stored in ROM.

[2] Making Use of Non-Auto Control Mode
Use it to find out if the cause is on the input side or on the output side of the microprocessor on the DC controller PCB when an image fault occurs.
If any improvement is noted in non-auto control mode, a fault may be suspected in the potential measurement unit or the DC controller PCB.

c. Zero-Level Check
A "zero-level check" may be used as a means to find out whether the surface potential control circuit is good or not.

MEMO:
In a zero-level check, a check is made to find out whether the microprocessor indicates 0 V when the drum surface potential is 0 V.

Using a zero-level check, the microprocessor on the DC control PCB and the measurement unit may be checked.
In method 1, the condition of the level shift circuit on the DC controller PCB may be checked while in method 2 the potential control circuit may be checked.

[1] Method 1
1) Turn off the power switch.
2) Short J522-1 and -2 on the DC controller PCB with a jumper wire, and disconnect connector J3 of the potential control PCB.

F-14-79

3) Fit the door switch actuator in the door switch assembly, and turn on the power switch.
4) Make the following selections in service mode (COPIER>DISPLAY>DPOT>DPOTK), and check to see that the reading of initial rotation is between 0 and 30.

MEMO: If not, suspect a fault in the DC controller PCB.

5) Turn off the power switch, and detach the door switch actuator.
6) Detach the jumper wire from the DC controller PCB.
7) Connect the connector to J3 of the potential control circuit.
8) Turn on the power switch.

[2] Method 2
1) Turn off the power switch.
2) Remove the developing assembly, and slide out the process unit.
3) Disconnect the connector [1] of the potential sensor.

F-14-80

4) Remove the two screws [1], and detach the potential sensor support plate [2].

F-14-81

5) Put the developing assembly and the process unit back to their original positions.
6) Connect the connector [1] of the potential sensor.

F-14-82

7) Fit the potential sensor checking electrode (FY9-3041) [2] to the potential sensor [1].

When fitting the checking electrode to the potential sensor, take care so that the magnet of the checking electrode will not come into contact with the potential sensor cover.

F-14-83

8) Connect the cable [1] of the potential sensor checking electrode to the frame (GND) [2] of the machine.

Be sure to allow enough space from the sensor window so that the clip will never come into contact with the sensor cover.

F-14-84

9) Fit the door switch actuator into the door switch assembly.
10) Turn on the power switch.

After turning on the power switch, do not touch the potential sensor assembly.

11) Make the following selections in service mode, and check to see that the reading for initial rotation is between 0 and 30: COPIER>DISPLAY>DPOT>DPOT-K.

MEMO:
1. If the reading in method 1 is as indicated but the reading in method 2 is not as indicated,
Suspect dirt on the sensor or a fault in the potential measurement unit.
2. If the readings in both methods 1 and 2 are as indicated,
It is safe to assume that the operation and the signal path from the potential sensor unit to the microprocessor on the DC controller PCB are normal.

12) Turn off the power switch.
13) Detach the potential sensor checking electrode.
14) Mount the potential sensor support plate.
15) Turn on the power switch.

14.7.14 When Replacing the Potential Sensor/ Potential Control PCB

0007-0705

iR105i/iR105+ / iR9070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains powered after the main power switch is turned off as long as the power plug is connected to the power outlet. Be sure to disconnect the power plug from the power outlet.

3) Replace the potential sensor/potential control PCB.

The potential sensor and the potential control PCB are adjusted as a pair. Be sure to replace them at the same time.

4) Remove the developing assembly, and slide out the process unit.
5) Disconnect the connector [1] of the potential sensor.

F-14-85

6) Remove the 2 screws [1], and detach the potential sensor support plate [2].

F-14-86

7) Put back the developing assembly and the process unit.
8) Connect the connector [1] of the potential sensor.

F-14-87

9) Fit the potential checker electrode (FY9-3041) [2] to the potential sensor [1].

F-14-88

When fitting the checker electrode to the potential sensor, make sure that the magnet of the checker electrode will not come into contact with the potential sensor cover.

10) Connect the cable [1] of the potential sensor checker electrode to the frame assembly (GND) [2] of the machine.

Never bring the clip into contact with the sensor cover. Be sure to fit it fully away from the sensor window.

F-14-89

11) Fit the door switch actuator in the door switch assembly.
12) Connect the power plug to the power outlet, and turn on the main power switch.
13) Execute the following in service mode: COPIER> FUNCTION> DPC>OFST.
14) Record the value of <OFST> on the service label.
15) Turn off the main power switch.
16) Disconnect the power plug from the power outlet.
17) Detach the potential sensor checker electrode.
18) Put back the potential sensor support plate.
19) Connect the power plug, and turn on the main power switch.

14.7.15 Replacing the Potential Sensor/Potential Control PCB

0008-8470

/ iR8070

1) Check to make sure that the Execute/Memory lamp in the control panel is OFF, and turn off the main power switch.
2) Disconnect the power plug from the power outlet.

The machine remains supplied with power as long as its power plug is connected to a power outlet even when its main power switch is turned off. Be sure to disconnect the power plug.

3) Replace the potential sensor/potential control PCB.

The potential sensor and the potential control PCB are adjusted as a pair, requiring simultaneous replacement.

4) Remove the developing assembly, and slide out the process unit.
5) Disconnect the connector [1] of the potential sensor.

F-14-90

6) Remove the two screws [1], and detach the potential sensor support plate [2].

F-14-91

7) Put the developing assembly and the process unit back into their initial positions.
8) Connect the connector [1] of the potential sensor.

F-14-92

9) Fit the potential sensor checking electrode (FY9-3041) [2] to the potential sensor [1].

F-14-93

When mounting the potential sensor checking electrode to the potential sensor, take care so that the magnet of the checking electrode will not come into contact with the potential sensor cover.

10) Connect the cable [1] of the potential sensor checking electrode to the frame (GND) [2] of the machine.

Be sure to allow enough space from the window of the sensor so the the clip will not come into contact with the cover of the sensor.

F-14-94

11) Insert the door switch actuator into the door switch assembly.
12) Connect the power plug to the power outlet, and turn on the main power switch.
13) Execute the following in service mode: COPIER>FUNCTION>DPC>OFST.
14) Record the setting of 'OFST' on the service label.
15) Turn off the main power switch.
16) Disconnect the power plug from the power outlet.
17) Detach the potential sensor checking electrode.
18) Put the potential sensor support plate back into its initial position.
19) Connect the power plug to the power outlet, and turn on the main power switch.

14.7.16 Checking the Surface Potential Control System

0007-0720

iR105i/iR105+ / iR9070

a. Outline
If image faults occur, it is important to find out whether the cause is in the latent static image formation block (including the photosensitive drum and the potential control system) or it is in the developing/transfer system, requiring a check on the surface potential. (You can check the surface potential in service mode.)
b. Disabling the Auto Control Mechanisms
As a way of checking the mechanisms used for corona current control, lamp intensity control, or developing bias control, you may disable the auto control mechanisms (hereafter, non-auto control mode).
As a first-aid measure when a fault exists in the auto control mechanism, you may use non-auto control mode; keep in mind that all outputs in non-auto control mode are fixed to standard values.
1. Procedure
1) Make the following selections in service mode, and enter '0':
COPIER> OPTION> BODY> PO-CNT.
2) Press the Reset key twice.

In non-auto control mode, all settings used for coronal current control, intensity control, developing bias control will be set to standard settings stored in ROM.

2. Making Use of Non-Auto Control Mode
If a fault occurs in images, use the mode to find out if the cause is on the input side or output side of the microprocessor on the DC controller PCB.
In non-auto control mode, if the fault is corrected somewhat, you may suspect the potential measurement unit or the DC controller PCB.
c. Zero-Level Check
One way of finding out if the surface potential control circuit is good or not is to use a zero-level check.

MEMO:
A zero-level check is made to see if the microprocessor registers 0 V when the surface potential of the drum is 0 V.

Using the result of the check, you can find out if the microprocessor on the DC controller PCB or the measurement unit is good or not; a zero-level check may take either of the following two methods:
1. Method 1
1) Turn off the power switch.
2) Short the connectors J522-1 and -2 on the DC controller PCB with a jumper wire, and disconnect the connector J3 of the potential control PCB.

F-14-95

3) Fit the door switch actuator into the door switch assembly, and turn on the power switch.
4) Make the following selections in service mode, and check to see if the reading is between 0 and 30 during initial rotation: COPIER> DISPLAY> DPOT> DPOT-K.

MEMO:
If the reading is not as indicated, you may suspect a fault in the DC controller PCB.

5) Turn off the power switch, and detach the door switch actuator.
6) Detach the jumper wire from the DC controller PCB.
7) Connect the connector to J3 of the potential control PCB.
8) Turn on the power switch.
2. Method 2
1) Turn off the power switch.
2) Remove the developing assembly, and slide out the process unit.
3) Disconnect the connector [1] of the potential sensor.

F-14-96

4) Remove the 2 screws [1], and detach the potential sensor support plate [2].

F-14-97

5) Put back the developing assembly and the process unit.
6) Connect the connector [1] of the potential sensor.

F-14-98

7) Fit the potential sensor checker electrode (FY9-3041) [2] to the potential sensor [1].

When fitting the checker electrode to the potential sensor, be sure that the magnet of the checker electrode will not come into contact with the potential sensor cover.

F-14-99

8) Connect the cable [1] of the potential sensor checker electrode to the frame (GND) [2] of the machine.

Never bring the clip into contact with the sensor cover. Be sure to keep it fully away from the sensor window.

F-14-100

9) Fit the door switch actuator into the door switch assembly.
10) Turn on the power switch.

Once you have turned on the power switch, do not touch the potential sensor assembly.

11) Make the following selections in service mode, and check to make sure that the reading is between 0 and 30 during initial rotation: COPIER> DISPLAY> DPOT> DPOT-K.

MEMO:
1. If the reading is as indicated in Method 1 but is not in Method 2, suspect dirt on the sensor or a fault in the potential measurement unit.
2. If the reading is as indicated in both Method 1 and Method 2, assume that the signal path and the operation from the potential sensor unit to the microprocessor on the DC controller PCB are normal.

12) Turn off the power switch.
13) Remove the potential sensor checker electrode.
14) Mount the potential sensor support plate.
15) Turn on the power switch.

14.7.17 Checking the Surface Potential Control System

0008-8472

/ iR8070

a. Outline
If an image fault occurs, it is important to find out if the cause is in the latent image formation block (including the photosensitive drum and the potential control system) or in the development/transfer system, requiring a check to see if the surface potential is appropriate.
The service potential may be checked in service mode.

b. Disabling Auto Control
As a means of finding out if the corona current control, lamp intensity control, or developing bias control mechanisms is faulty, the auto control mechanism may be disabled
(hereafter, "non-auto control mode").
In addition, non-auto control mode may be made use of as an emergency remedy in the event a fault occurs in the auto control mechanism.

[1] Procedure
1) Make the following selections in service mode, and enter '0': COPIER>OPTION>BODY>P0-CNT; then, press the OK key.
2) Press the reset key twice.

When non-auto control mode is selected, all settings for corona current control, intensity control, and developing bias control will automatically be set to standard settings stored in ROM.

[2] Making Use of Non-Auto Control Mode
Use it to find out if the cause is on the input side or on the output side of the microprocessor on the DC controller PCB when an image fault occurs.
If any improvement is noted in non-auto control mode, a fault may be suspected in the potential measurement unit or the DC controller PCB.

c. Zero-Level Check
A "zero-level check" may be used as a means to find out whether the surface potential control circuit is good or not.

REF:
In a zero-level check, a check is made to find out whether the microprocessor indicates 0 V when the drum surface potential is 0 V.

Using a zero-level check, the microprocessor on the DC control PCB and the measurement unit may be checked.
In method 1, the condition of the level shift circuit on the DC controller PCB may be checked while in method 2 the potential control circuit may be checked.

[1] Method 1
1) Turn off the power switch.
2) Short J522-1 and -2 on the DC controller PCB with a jumper wire, and disconnect connector J3 of the potential control PCB.

F-14-101

3) Fit the door switch actuator in the door switch assembly, and turn on the power switch.
4) Make the following selections in service mode (COPIER>DISPLAY>DPOT>**DPOTK**), and check to see that the reading of initial rotation is between 0 and 30.

MEMO: If not, suspect a fault in the DC controller PCB.

5) Turn off the power switch, and detach the door switch actuator.
6) Detach the jumper wire from the DC controller PCB.
7) Connect the connector to J3 of the potential control circuit.
8) Turn on the power switch.

[2] Method 2
1) Turn off the power switch.
2) Remove the developing assembly, and slide out the process unit.
3) Disconnect the connector [1] of the potential sensor.

F-14-102

4) Remove the two screws [1], and detach the potential sensor support plate [2].

F-14-103

5) Put the developing assembly and the process unit back to their original positions.
6) Connect the connector [1] of the potential sensor.

F-14-104

7) Fit the potential sensor checking electrode (FY9-3041) [2] to the potential sensor [1].

When fitting the checking electrode to the potential sensor, take care so that the magnet of the checking electrode will not come into contact with the potential sensor cover.

F-14-105

8) Connect the cable [1] of the potential sensor checking electrode to the frame (GND) [2] of the machine.

Be sure to allow enough space from the sensor window so that the clip will never come into contact with the sensor cover.

F-14-106

9) Fit the door switch actuator into the door switch assembly.
10) Turn on the power switch.

After turning on the power switch, do not touch the potential sensor assembly.

11) Make the following selections in service mode, and check to see that the reading for initial rotation is between 0 and 30: COPIER>DISPLAY>DPOT>DPOT-K.

REF:
1. If the reading in method 1 is as indicated but the reading in method 2 is not as indicated,
Suspect dirt on the sensor or a fault in the potential measurement unit.
2. If the readings in both methods 1 and 2 are as indicated,
It is safe to assume that the operation and the signal path from the potential sensor unit to the microprocessor on the DC controller PCB are normal.

12) Turn off the power switch.
13) Detach the potential sensor checking electrode.
14) Mount the potential sensor support plate.
15) Turn on the power switch.

14.7.18 Checking the Environment Sensor

0007-0793

iR105i/iR105+ / iR9070

1) Checking the Environment Sensor
Make the following selections in service mode, and check and record the temperature/ humidity indicated on the screen in the control panel: COPIER> DISPLAY> ANALOG.
Data A
'RTMP' deg C ..... data A1
'RHUM' % ..... data A2
2) Press the Rest key twice to turn off the power switch.
3) Remove the environment sensor, and fit the environment sensor jig (FY9-3014) in its place.
4) Turn on the power switch, and leave the machine alone for 5 min.
5) Make the following selections in service mode, and check and record the temperature/ humidity indicated on the screen in the control panel: COPIER> DISPLAY> ANALOG:
Data B
'RTMP' deg C ..... data B1
'RHUM' % ..... data B2
6) Compare data A and data B.
- difference between data A 1 and data B1 is 0 -/+ 5
- difference between data A2 and data B2 is 0 -/+ 20
If the difference between data A and data B is outside the range, replace the environment sensor.
7) Press the Reset key twice, and turn off the power switch.
8) Detach the environment sensor jig, and fit the environment sensor.
9) Put back all covers.

The environment sensor jig (FY9-3014) is precisely adjusted at the factory.
Be sure to keep it in an air-tight case with a drying agent.

14.7.19 Checking the Environment Sensor

0008-8545

/ iR85+ / iR8070

1) Make the following selections in service mode:
COPIER>DISPLAY>ANALOG. Then,
check and record the temperature and humidity readings on the control panel display.
(data A)
'RTMP' deg C ..... data A1
'RHUM' % ..... data A2
2) Press the Reset key twice, and turn offf the power switch.
3) Remove the environment sensor, and fit the environment sensor jig (FY9-3014) in place.
4) Turn on the power switch, and leave the machine alone for 5 min.
5) Make the following selections in service mode: COPIER>DISPLAY>ANALOG. Then, check and record the temperature and humidity readings on the control panel display.
(data B)
'RTMP' deg C ..... data B1
'RHUM' % ..... data B2
6) Compare data A and data B.
- The difference between data A1 and data B1 is 0 ±5.
- The difference between data A2 and data B2 is 0 ±20.
If the difference between data A and data B is not as indicated, replace the environment sensor.
7) Press the Reset key twice, and turn offf the power switch.
8) Detach the environment sensor jig, and fit the environment sensor.
9) Attach all covers.

The environment sensor jig (FY9-3014) is adjusted at the factory to a high level of accuracy. Be sure to put it in a sealed case with a drying agent for storage.

14.7.20 Checking the Photointerrupters

0007-0796

iR105i/iR105+ / iR9070

The machine allows the use of a conventional meter or its service mode for checks on its photointerrupters:

a. Using a Meter

1) Set the meter range to 30 VDC.
2) Connect the - probe of the meter to GND of the DC controller PCB.
3) Connect the + probe of the meter to the terminal (DC controller PCB) indicated in the table that follows.
4) Make checks as indicated.

b. Using Service Mode

1) Start service mode (COPIER> I/O), and check the corresponding address.

Take full care. The sensor goes on and off, at times causing the motors and the like to operate.

<Sensor>
Scanner HP sensor (PS1)
<Connector No.>
J1110-A1
<I/O address>
-
<Checks>
Move the scanner by hand in standby.
The light-blocking plate is at PS1: 1 (5 V)
The light-blocking plate is not at PS1: 0 (0 V)

<Sensor>
Image leading edge sensor (PS3)
<Connector No.>
J1110-A4
<I/O address>
-
<Checks>
Move the scanner by hand in standby.
The light-blocking plate is at PS3: 1 (5 V)
The light-blocking plate is not at PS3: 0 (0 V)

<Sensor>
Copyboard cover open/closed sensor (PS4)
<Connector No.>
J1110-B9
<I/O address>
P001-4
<Checks>
Move the copyboard cover by hand in standby.
The cover is closed: 1 (5 V)
The cover is open: 0 (0 V)

<Sensor>
Registration paper sensor (PS5)
<Connector No.>
J509-A2
<I/O address>
P010-11
<Checks>
Put paper over PS5 in standby.
Paper is not over PS5: 1 (5 V)
Paper is over PS5: 0 (0 V)

<Sensor>
Fixing claw jam sensor (PS6)
<Connector No.>
J508-B15
<I/O address>
P010-15
<Checks>
Put paper over PS6 in standby.
Paper is not over PS6: 0 (0 V)
Paper is over PS6: 1 (5 V)

<Sensor>
Fixing web length sensor (PS7)
<Connector No.>
J508-B2
<I/O address>
P003-3
<Checks>
Move the detecting lever of PS7 by hand in standby.
The web is present: 0 (0 V)
The web is absent: 1 (5 V)

<Sensor>
Fixing web length warning sensor (PS8)
<Connector No.>
J508-B5
<I/O address>
P003-4
<Checks>
Move the detecting lever of PS8 in standby.
The No Web warning is present: 1 (5 V)
The No Web warning is absent: 0 (0 V)

<Sensor>
Inside delivery sensor (PS9)
<Connector No.>
J508-A2
<I/O address>
P010-12
<Checks>
Put paper over the detecting lever assembly of PS9 in standby.
Paper is put: 1 (5 V)
Paper is removed: 0 (0 V)

<Sensor>
Outside delivery sensor (PS10)
<Connector No.>
J508-A8
<I/O address>
P010-13
<Checks>
Put paper over the detecting lever of PS10 in standby.
Paper is put: 1 (5 V)
Paper is removed: 0 (0 V)

<Sensor>
Fixing/feeding unit outlet sensor (PS11)
<Connector No.>
J508-A11
<I/O address>
P010-14
<Checks>
Put paper over the detecting lever assembly of PS11 in standby.
Paper is put: 1 (5 V)
Paper is removed: 0 (0 V)

<Sensor>
Duplexing reversal sensor (PS12)
<Connector No.>
J519-B10
<I/O address>
P002-1
<Checks>
Put paper over the detecting lever of PS12 in standby.
Paper is put: 0 (0 V)
Paper is removed: 1 (5 V)

<Sensor>
Pre-confluence sensor (PS14)
<Connector No.>
J519-B12
<I/O address>
P002-3
<Checks>
Put paper over the detecting lever assembly of PS14 in standby.
Paper is put: 1 (5 V)
Paper is not put: 0 (0 V)

<Sensor>
Postconfluence sensor (PS15)
<Connector No.>
J519-B13
<I/O address>
P002-4
<Checks>
Put paper over the detecting lever assembly of PS15 in standby.
Paper is put: 1 (5 V)
Paper is not put: 0 (0 V)

<Sensor>
Manual feed tray paper sensor (PS17)
<Connector No.>
J510-B9
<I/O address>
P004-12
<Checks>

Move the rear partitioning plate by hand in standby.
Paper is put: 1 (5 V)
Paper is not put: 0 (0 V)

<Sensor>
Horizontal registration sensor (PS18)
<Connector No.>
J519-B14
<I/O address>
P025-7
<Checks>
Put paper over PS18 in standby.
Paper is over PS18: 1 (5 V)
Paper is not over PS18: 0 (0 V)

<Sensor>
Waste toner case full sensor (PS19)
<Connector No.>
J514-A2
<I/O address>
P003-7
<Checks>
Put paper over the detecting lever of PS19 in standby.
Paper is put: 1 (5 V)
Paper is removed: 0 (0 V)

<Sensor>
Right deck lifter sensor (PS21)
<Connector No.>
J511-A6
<I/O address>
P004-0
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS21: 1 (5 V)
The light-blocking plate is at PS21: 0 (0 V)

<Sensor>
Right deck paper sensor (PS22)
<Connector No.>
J511-A9
<I/O address>
P004-8
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS22: 1 (5 V)
The light-blocking plate is at PS22: 0 (0 V)

<Sensor>
Right deck Right deck open/closed sensor (PS23)
<Connector No.>
J511-B2
<I/O address>
P005-4
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS23: 1 (5 V)
The light-blocking plate is not at PS23: 0 (0 V)

<Sensor>
Right deck limit sensor (PS24)
<Connector No.>
J511-B13
<I/O address>
P004-14
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS24: 1 (5 V)
The light-blocking plate is not at PS24: 0 (0 V)

<Sensor>
Fixing/feeding unit releasing lever sensor (PS28)
<Connector No.>
J509-B9
<I/O address>
P005-14
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS28: 1 (5 V)
The light-blocking plate is not at PS28: 0 (0 V)

<Sensor>
Left deck lifter sensor (PS31)
<Connector No.>
J518-A2
<I/O address>
P004-1
<Checks>
Move the detecting lever by hand in standby.
The light-detecting plate is at PS31: 1 (5 V)
The light-blocking plate is not at PS31: 0 (0 V)

<Sensor>
Left deck paper sensor (PS32)
<Connector No.>
J518-A5
<I/O address>
P004-9
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS32: 1 (5 V)
The light-blocking plate is not at PS32: 0 (0 V)

<Sensor>
Left deck open/closed sensor (PS33)
<Connector No.>
J518-B2
<I/O address>
P005-5
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS33: 1 (5 V)
The light-blocking plate is not at PS33: 0 (0 V)

<Sensor>
Left deck limit sensor (PS34)
<Connector No.>
J518-B5
<I/O address>
P004-15
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS34: 1 (5 V)
The light-blocking plate is not at PS34: 0 (0 V)

<Sensor>
Manual feed inlet sensor (PS35)
<Connector No.>
J510-B3
<I/O address>
P010-10
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS35: 1 (5 V)
The light-blocking plate is not at PS35: 0 (0 V)

<Sensor>
Cassette 3 lifter sensor (PS38)
<Connector No.>
J515-A6
<I/O address>
P004-2
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS38: 1 (5 V)
The light-blocking plate is not at PS38: 0 (0 V)

<Sensor>
Cassette 3 paper sensor (PS39)
<Connector No.>
J515-A9
<I/O address>
P004-10
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS39: - (5 V)
The light-blocking plate is not at PS39: - (0 V)

<Sensor>
Cassette 3 open/closed sensor (PS40)
<Connector No.>
J515-B2
<I/O address>
P005-6
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS40: 1 (5 V)
The light-blocking plate is not at PS40: 0 (0 V)

<Sensor>

Cassette 4 lifter sensor (PS43)
<Connector No.>
J517-A6
<I/O address>
P004-3
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS43: 1 (5 V)
The light-blocking plate is not at PS43: 0 (0 V)

<Sensor>
Cassette 4 paper sensor (PS44)
<Connector No.>
J517-A9
<I/O address>
P004-11
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS44: 1 (5 V)
The light-blocking plate is not at PS44: 0 (0 V)

<Sensor>
Cassette 4 open/closed sensor (PS45)
<Connector No.>
J517-B2
<I/O address>
P005-7
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS45: 1 (5 V)
The light-blocking plate is not at PS45: 0 (0 V)

<Sensor>
Vertical path 1 paper sensor (PS47)
<Connector No.>
J502-B5
<I/O address>
P010-4
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS47: 1 (5 V)
The light-blocking plate is not a PS47: 0 (0 V)

<Sensor>
Right lower cover open/closed sensor (PS48)
<Connector No.>
J516-A2
<I/O address>
P005-9
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS48: 1 (5 V)
The light-blocking plate is not at PS48: 0 (0 V)

<Sensor>
Vertical path 2 paper sensor (PS49)
<Connector No.>
J516-B9
<I/O address>
P010-5
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS49: 1 (5 V)
The light-blocking plate is not at PS49: 0 (0 V)

<Sensor>
Right deck paper level middle sensor (PS51)
<Connector No.>
J513-B9
<I/O address>
P004-4
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS51: 1 (5 V)
The light-blocking plate is not at PS51: 0 (0 V)

<Sensor>
Right deck paper level high sensor (PS52)
<Connector No.>
J513-B12
<I/O address>
P004-5
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS52: - (5 V)
The light-blocking plate is not at PS52: - (0 V)

<Sensor>
Left deck paper level middle sensor (PS54)
<Connector No.>
J514-B9
<I/O address>
P004-6
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS54: 1 (5 V)
The light-blocking plate is not at PS54: 0 (0 V)

<Sensor>
Left deck paper level high sensor (PS55)
<Connector No.>
J514-B12
<I/O address>
P004-7
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS55: - (5 V)
The light-blocking plate is not at PS55: - (0 V)

<Sensor>
Manual feed tray cover open/closed sensor (PS56)
<Connector No.>
J502-A2
<I/O address>
P005-10
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS56: 1 (5 V)
The light-blocking plate is not at PS56: 0 (0 V)

<Sensor>
Right upper cover open/closed sensor (PS58)
<Connector No.>
J502-B2
<I/O address>
P005-8
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS58: 1 (5 V)
The light-blocking plate is not at PS58: 0 (0 V)

<Sensor>
Toner cartridge cover open/closed sensor (PS59)
<Connector No.>
J512-B2
<I/O address>
P005-12
<Checks>
Move the detecting lever by hand in standby.
The light-blocking plate is at PS59: 1 (5 V)
The light-blocking plate is not at PS59: 0 (0 V)

<Sensor>
Duplex output sensor (PS61)
<Connector No.>
J519-B11
<I/O address>
P002-2
<Checks>
Put paper over the detecting assembly of PS61 in standby.
Paper is put: 1 (5 V)
Paper is removed: 0 (0 V)

14.7.21 Checking the Photointerrupters

0008-8546

The machine's photointerrupters may be checked by a conventional meter or its service mode:
a. Using a Meter
1) Set the meter range to 30 VDC.
2) Connect the - probe of the meter to GND of the DC controller PCB.
3) Connect the + probe of the meter to the terminals (DC controller PCB) indicated in the following table.
4) Make checks as instructed.
b. Using Service Mode
1) Start service mode (COPIER>I/O), and check the appropriate address.

Turning on/off a sensor can start the machine's motor or the like. Take full care.

<Sensor>
Scanner HP sensor(PS1)
<Connector>
J1110-A1
<I/O address>
-
<Checks/ I/O/ Voltage>
In standby, move the scanner by hand.
When the light-blocking plate is at PS1, 1(5V)
When the light-blocking plate is not at PS1, 0(0V)

<Sensor>
Image leading edge sensor(PS3)
<Connector>
J1110-A4
<I/O address>
-
<Checks/ I/O/ Voltage>
In standby, move the scanner by hand.
When the light-blocking plate is at PS3, 1(5V)
When the light-blocking plate is not at PS3, 0(0V)

<Sensor>
Copyboard cover open/closed sensor(PS4)
<Connector>
J1110-B9
<I/O address>
P001-4
<Checks/ I/O/ Voltage>
In standby, move the copyboard cover by hand.
When the cover is closed, 1(5V)
When the cover is opened, 0(0V)

<Sensor>
Registration paper sensor(PS5)
<Connector>
J509-A2
<I/O address>
P001-11
<Checks/ I/O/ Voltage>
In standby, put paper over PS5.
When paper is not at PS5, 1(5V)
When paper is at PS5, 0(0V)

<Sensor>
Fixing claw jam sensor(PS6)
<Connector>
J508-B15
<I/O address>
P001-15
<Checks/ I/O/ Voltage>
In standby, put paper over PS6.
When paper is not at PS6, 0(0V)
When paper is at PS6, 1(5V)

<Sensor>
Fixing web length sensor(PS7)
<Connector>
J508-B2
<I/O address>
P003-3
<Checks/ I/O/ Voltage>
In standby, put paper over PS7.
When the web is present, 0(0V)
When the web is absent, 1(5V)

<Sensor>
Fixing web length warning sensor(PS8)
<Connector>
J508-B5
<I/O address>
P003-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS8.
When the No Web warning is issued, 1(5V)
When the No Web warning is not issued, 0(0V)

<Sensor>
Inside delivery sensor(PS9)
<Connector>
J508-A2
<I/O address>
P001-12
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS9.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Outside delivery sensor(PS10)
<Connector>
J508-A8
<I/O address>
P001-13
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS10.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Fixing/feeding unit outlet sensor(PS11)
<Connector>
J508-A11
<I/O address>
P001-14
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS11.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Duplexing reversal sensor(PS12)
<Connector>
J519-B6
<I/O address>
P002-1
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS12.
When paper is put, 0(0V)
When paper is pulled, 1(5V)

<Sensor>
U-turn sensor(PS13)
<Connector>
J519-B7
<I/O address>
P002-2
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS13.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Pre-confluence sensor(PS14)
<Connector>
J519-B8
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS14.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Post-confluence sensor(PS15)
<Connector>
J519-B9
<I/O address>
P002-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS15.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Reversal sensor(PS16)
<Connector>
J508-A5
<I/O address>
P002-0
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS16.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Manual feed tray paper sensor(PS17)
<Connector>
J510-B8
<I/O address>
P004-12
<Checks/ I/O/ Voltage>
In standby, move the rear partition by hand.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Horizontal registration sensor(PS18)
<Connector>
J519-B11
<I/O address>
PC
<Checks/ I/O/ Voltage>
In standby, move the side guide by hand.
When the light-blocking plate is not at PS18, 1(5V)
When the light-blocking plate is at PS18, 0(0V)

<Sensor>
Waste toner case full sensor(PS19)
<Connector>
J514-A2
<I/O address>
P003-7
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS19.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Deck (right) pickup sensor(PS20)
<Connector>
J511-B2
<I/O address>
P001-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS20, 1(5V)
When the light-blocking plate is not at PS20, 0(0V)

<Sensor>
Deck (right) lifter sensor(PS21)
<Connector>
J511-A6
<I/O address>
P004-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS21, 1(5V)
When the light-blocking plate is not at PS21, 0(0V)

<Sensor>
Deck (right) paper sensor(PS22)
<Connector>
J511-A9
<I/O address>
P004-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS22, 1(5V)
When the light-blocking plate is not at PS22, 0(0V)

<Sensor>
Deck (right) open/ closed sensor(PS23)
<Connector>
J511-B5
<I/O address>
P005-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS23, 1(5V)
When the light-blocking plate is not at PS23, 0(0V)

<Sensor>
Deck (right) limit sensor(PS24)
<Connector>
J511-B8
<I/O address>
P004-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS24, 1(5V)
When the light-blocking plate is not at PS24, 0(0V)

<Sensor>
Deck (left) pickup sensor(PS25)
<Connector>
J518-A8
<I/O address>
P001-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS25, 1(5V)
When the light-blocking plate is not at PS25, 0(0V)

<Sensor>
Deck (left) feed sensor(PS26)
<Connector>
J519-B10
<I/O address>
P001-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS26, 1(5V)
When the light-blocking plate is not at PS26, 0(0V)

<Sensor>
Deck (right) feed sensor(PS27)
<Connector>
J511-B11
<I/O address>
P001-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS27, 1(5V)
When the light-blocking plate is not at PS27, 0(0V)

<Sensor>
Fixing/feeding unit releasing lever sensor(PS28)
<Connector>
J509-B9
<I/O address>
P005-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS28, 1(15V)
When the light-blocking plate is not at PS28, 0(0V)

<Sensor>
Deck (left) lifter sensor(PS31)
<Connector>
J518-A2
<I/O address>
P004-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS31, 1(5V)
When the light-blocking plate is not at PS31, 0(0V)

<Sensor>
Deck (left) paper sensor(PS32)
<Connector>
J518-A5
<I/O address>
P004-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS32, 1(5V)
When the light-blocking plate is not at PS32, 0(0V)

<Sensor>
Deck (left) open/ closed sensor(PS33)
<Connector>
J518-B2
<I/O address>
P005-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS33, 1(5V)
When the light-blocking plate is not at PS33, 0(0V)

<Sensor>
Deck (left) limit sensor(PS34)
<Connector>
J518-B5

<I/O address>
P004-15
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS34, 1(5V)
When the light-blocking plate is not at PS34, 0(0V)

<Sensor>
Manual feed inlet sensor(PS35)
<Connector>
J510-B2
<I/O address>
P001-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS35, 1(5V)
When the light-blocking plate is not at PS35, 0(0V)

<Sensor>
Cassette 3 pickup sensor(PS37)
<Connector>
J515-B2
<I/O address>
-
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS37, - (5V)
When the light-blocking plate is not at PS37, - (0V)

<Sensor>
Cassette 3 lifter sensor(PS38)
<Connector>
J515-A6
<I/O address>
P004-2
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS38, 1(5V)
When the light-blocking plate is not at PS38, 0(0V)

<Sensor>
Cassette 3 paper sensor(PS39)
<Connector>
J515-A9
<I/O address>
P004-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS39, - (5V)
When the light-blocking plate is not at PS39, - (0V)

<Sensor>
Cassette 3 open/ closed sensor(PS40)
<Connector>
J515-B5
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS40, 1(5V)
When the light-blocking plate is not at PS40, 0(0V)

<Sensor>
Vertical path 3 sensor(PS41)
<Connector>
J515-B8
<I/O address>
P001-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS41, 1(5V)
When the light-blocking plate is not at PS41, 0(0V)

<Sensor>
Cassette 4 pickup sensor(PS42)
<Connector>
J517-B2
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS42, 1(5V)
When the light-blocking plate is not at PS42, 0(0V)

<Sensor>
Cassette 4 lifter sensor(PS43)
<Connector>
J517-A6
<I/O address>
P004-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS43, 1(5V)
When the light-blocking plate is not at PS43, 0(0V)

<Sensor>
Cassette 4 paper sensor(PS44)
<Connector>
J517-A9
<I/O address>
P004-11
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS44, 1(5V)
When the light-blocking plate is not at PS44, 0(0V)

<Sensor>
Cassette 4 open/ closed sensor(PS45)
<Connector>
J517-B5
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS45, 1(5V)
When the light-blocking plate is not at PS45, 0(0V)

<Sensor>
Vertical path 4 sensor(PS46)
<Connector>
J517-B8
<I/O address>
P001-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS46, 1(5V)
When the light-blocking plate is not at PS46, 0(0V)

<Sensor>
Vertical path 1 paper sensor(PS47)
<Connector>
J502-B5
<I/O address>
P001-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS47, 1(5V)
When the light-blocking plate is not at PS47, 0(0V)

<Sensor>
Right lower cover open/ closed sensor(PS48)
<Connector>
J516-A2
<I/O address>
P005-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS48, 1(5V)
When the light-blocking plate is not at PS48, 0(0V)

<Sensor>
Vertical path 2 paper sensor(PS49)
<Connector>
J516-B9
<I/O address>
P001-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS49, 1(5V)
When the light-blocking plate is not at PS49, 0(0V)

<Sensor>
Deck (right) paper level middle sensor(PS51)
<Connector>
J513-B9
<I/O address>
P004-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.

When the light-blocking plate is at PS51, 1(5V)
When the light-blocking plate is not at PS51, 0(0V)

<Sensor>
Deck (right) paper level high sensor(PS52)
<Connector>
J513-B12
<I/O address>
P004-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS52, - (5V)
When the light-blocking plate is not at PS52, - (0V)

<Sensor>
Deck (left) paper level middle sensor(PS54)
<Connector>
J514-B9
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS54, 1(5V)
When the light-blocking plate is not at PS54, 0(0V)

<Sensor>
Deck (left) paper level high sensor(PS55)
<Connector>
J514-B12
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS55, - (5V)
When the light-blocking plate is not at PS55, - (0V)

<Sensor>
Manual feed tray cover open/ closed sensor(PS56)
<Connector>
J502-A2
<I/O address>
P005-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS56, 1(5V)
When the light-blocking plate is not at PS56, 0(0V)

<Sensor>
Right inside cover open/ closed sensor(PS58)
<Connector>
J502-B2
<I/O address>
P005-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS58, 1(5V)
When the light-blocking plate is not at PS58, 0(0V)

<Sensor>
Toner cartridge cover open/ closed sensor(PS59)
<Connector>
J512-B2
<I/O address>
P005-12
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS59, 1(5V)
When the light-blocking plate is not at PS59, 0(0V)

14.7.22 Checking the Photointerrupters

0008-8573

/ iR8070

The machine's photointerrupters may be checked by a conventional meter or its service mode:

a. Using a Meter
1) Set the meter range to 30 VDC.
2) Connect the - probe of the meter to GND of the DC controller PCB.
3) Connect the + probe of the meter to the terminals (DC controller PCB) indicated in the following table.
4) Make checks as instructed.
b. Using Service Mode
1) Start service mode (COPIER>I/O), and check the appropriate address.

Turning on/off a sensor can start the machine's motor or the like. Take full care.

<Sensor>
Registration paper sensor(PS5)
<Connector>
J509-A2
<I/O address>
P001-11
<Checks/ I/O/ Voltage>
In standby, put paper over PS5.
When paper is not at PS5, 1(5V)
When paper is at PS5, 0(0V)

<Sensor>
Fixing claw jam sensor(PS6)
<Connector>
J508-B15
<I/O address>
P001-15
<Checks/ I/O/ Voltage>
In standby, put paper over PS6.
When paper is not at PS6, 0(0V)
When paper is at PS6, 1(5V)

<Sensor>
Fixing web length sensor(PS7)
<Connector>
J508-B2
<I/O address>
P003-3
<Checks/ I/O/ Voltage>
In standby, put paper over PS7.
When the web is present, 0(0V)
When the web is absent, 1(5V)

<Sensor>
Fixing web length warning sensor(PS8)
<Connector>
J508-B5
<I/O address>
P003-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS8.
When the No Web warning is issued, 1(5V)
When the No Web warning is not issued, 0(0V)

<Sensor>
Inside delivery sensor(PS9)
<Connector>
J508-A2
<I/O address>
P001-12
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS9.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Outside delivery sensor(PS10)
<Connector>
J508-A8
<I/O address>
P001-13
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS10.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Fixing/feeding unit outlet sensor(PS11)
<Connector>
J508-A11
<I/O address>
P001-14
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS11.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Duplexing reversal sensor(PS12)
<Connector>
J519-B6
<I/O address>
P002-1
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS12.
When paper is put, 0(0V)
When paper is pulled, 1(5V)

<Sensor>
U-turn sensor(PS13)
<Connector>
J519-B7
<I/O address>
P002-2
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS13.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Pre-confluence sensor(PS14)
<Connector>
J519-B8
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS14.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Post-confluence sensor(PS15)
<Connector>
J519-B9
<I/O address>
P002-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS15.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Reversal sensor(PS16)
<Connector>
J508-A5
<I/O address>
P002-0
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS16.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Manual feed tray paper sensor(PS17)
<Connector>
J510-B8
<I/O address>
P004-12
<Checks/ I/O/ Voltage>
In standby, move the rear partition by hand.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Horizontal registration sensor(PS18)
<Connector>
J519-B11
<I/O address>
PC
<Checks/ I/O/ Voltage>
In standby, move the side guide by hand.
When the light-blocking plate is not at PS18, 1(5V)
When the light-blocking plate is at PS18, 0(0V)

<Sensor>
Waste toner case full sensor(PS19)
<Connector>
J514-A2
<I/O address>
P003-7
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS19.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Deck (right) pickup sensor(PS20)
<Connector>
J511-B2
<I/O address>
P001-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS20, 1(5V)
When the light-blocking plate is not at PS20, 0(0V)

<Sensor>
Deck (right) lifter sensor(PS21)
<Connector>
J511-A6
<I/O address>
P004-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS21, 1(5V)
When the light-blocking plate is not at PS21, 0(0V)

<Sensor>
Deck (right) paper sensor(PS22)
<Connector>
J511-A9
<I/O address>
P004-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS22, 1(5V)
When the light-blocking plate is not at PS22, 0(0V)

<Sensor>
Deck (right) open/ closed sensor(PS23)
<Connector>
J511-B5
<I/O address>
P005-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS23, 1(5V)
When the light-blocking plate is not at PS23, 0(0V)

<Sensor>
Deck (right) limit sensor(PS24)
<Connector>
J511-B8
<I/O address>
P004-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS24, 1(5V)
When the light-blocking plate is not at PS24, 0(0V)

<Sensor>
Deck (left) pickup sensor(PS25)
<Connector>
J518-A8
<I/O address>
P001-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS25, 1(5V)
When the light-blocking plate is not at PS25, 0(0V)

<Sensor>
Deck (left) feed sensor(PS26)
<Connector>
J519-B10
<I/O address>
P001-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS26, 1(5V)
When the light-blocking plate is not at PS26, 0(0V)

<Sensor>
Deck (right) feed sensor(PS27)
<Connector>
J511-B11

<I/O address>
P001-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS27, 1(5V)
When the light-blocking plate is not at PS27, 0(0V)

<Sensor>
Fixing/feeding unit releasing lever sensor(PS28)
<Connector>
J509-B9
<I/O address>
P005-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS28, 1(15V)
When the light-blocking plate is not at PS28, 0(0V)

<Sensor>
Deck (left) lifter sensor(PS31)
<Connector>
J518-A2
<I/O address>
P004-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS31, 1(5V)
When the light-blocking plate is not at PS31, 0(0V)

<Sensor>
Deck (left) paper sensor(PS32)
<Connector>
J518-A5
<I/O address>
P004-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS32, 1(5V)
When the light-blocking plate is not at PS32, 0(0V)

<Sensor>
Deck (left) open/ closed sensor(PS33)
<Connector>
J518-B2
<I/O address>
P005-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS33, 1(5V)
When the light-blocking plate is not at PS33, 0(0V)

<Sensor>
Deck (left) limit sensor(PS34)
<Connector>
J518-B5
<I/O address>
P004-15
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS34, 1(5V)
When the light-blocking plate is not at PS34, 0(0V)

<Sensor>
Manual feed inlet sensor(PS35)
<Connector>
J510-B2
<I/O address>
P001-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS35, 1(5V)
When the light-blocking plate is not at PS35, 0(0V)

<Sensor>
Cassette 3 pickup sensor(PS37)
<Connector>
J515-B2
<I/O address>
-
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS37, - (5V)
When the light-blocking plate is not at PS37, - (0V)

<Sensor>
Cassette 3 lifter sensor(PS38)
<Connector>
J515-A6
<I/O address>
P004-2
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS38, 1(5V)
When the light-blocking plate is not at PS38, 0(0V)

<Sensor>
Cassette 3 paper sensor(PS39)
<Connector>
J515-A9
<I/O address>
P004-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS39, - (5V)
When the light-blocking plate is not at PS39, - (0V)

<Sensor>
Cassette 3 open/ closed sensor(PS40)
<Connector>
J515-B5
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS40, 1(5V)
When the light-blocking plate is not at PS40, 0(0V)

<Sensor>
Vertical path 3 sensor(PS41)
<Connector>
J515-B8
<I/O address>
P001-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS41, 1(5V)
When the light-blocking plate is not at PS41, 0(0V)

<Sensor>
Cassette 4 pickup sensor(PS42)
<Connector>
J517-B2
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS42, 1(5V)
When the light-blocking plate is not at PS42, 0(0V)

<Sensor>
Cassette 4 lifter sensor(PS43)
<Connector>
J517-A6
<I/O address>
P004-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS43, 1(5V)
When the light-blocking plate is not at PS43, 0(0V)

<Sensor>
Cassette 4 paper sensor(PS44)
<Connector>
J517-A9
<I/O address>
P004-11
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS44, 1(5V)
When the light-blocking plate is not at PS44, 0(0V)

<Sensor>
Cassette 4 open/ closed sensor(PS45)
<Connector>
J517-B5
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS45, 1(5V)

When the light-blocking plate is not at PS45, 0(0V)

<Sensor>
Vertical path 4 sensor(PS46)
<Connector>
J517-B8
<I/O address>
P001-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS46, 1(5V)
When the light-blocking plate is not at PS46, 0(0V)

<Sensor>
Vertical path 1 paper sensor(PS47)
<Connector>
J502-B5
<I/O address>
P001-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS47, 1(5V)
When the light-blocking plate is not at PS47, 0(0V)

<Sensor>
Right lower cover open/ closed sensor(PS48)
<Connector>
J516-A2
<I/O address>
P005-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS48, 1(5V)
When the light-blocking plate is not at PS48, 0(0V)

<Sensor>
Vertical path 2 paper sensor(PS49)
<Connector>
J516-B9
<I/O address>
P001-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS49, 1(5V)
When the light-blocking plate is not at PS49, 0(0V)

<Sensor>
Deck (right) paper level middle sensor(PS51)
<Connector>
J513-B9
<I/O address>
P004-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS51, 1(5V)
When the light-blocking plate is not at PS51, 0(0V)

<Sensor>
Deck (right) paper level high sensor(PS52)
<Connector>
J513-B12
<I/O address>
P004-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS52, - (5V)
When the light-blocking plate is not at PS52, - (0V)

<Sensor>
Deck (left) paper level middle sensor(PS54)
<Connector>
J514-B9
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS54, 1(5V)
When the light-blocking plate is not at PS54, 0(0V)

<Sensor>
Deck (left) paper level high sensor(PS55)
<Connector>
J514-B12
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS55, - (5V)
When the light-blocking plate is not at PS55, - (0V)

<Sensor>
Manual feed tray cover open/ closed sensor(PS56)
<Connector>
J502-A2
<I/O address>
P005-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS56, 1(5V)
When the light-blocking plate is not at PS56, 0(0V)

<Sensor>
Right inside cover open/ closed sensor(PS58)
<Connector>
J502-B2
<I/O address>
P005-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS58, 1(5V)
When the light-blocking plate is not at PS58, 0(0V)

<Sensor>
Toner cartridge cover open/ closed sensor(PS59)
<Connector>
J512-B2
<I/O address>
P005-12
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS59, 1(5V)
When the light-blocking plate is not at PS59, 0(0V)

<Sensor>
Original sensor(PS101)
<Connector>
R>J5006-1
<I/O address>
IO-P4-6
<Checks/ I/O/ Voltage>
Place an original on the copyboard.
Paper is present, 0(0V)
Paper is absent, 1(5V)

<Sensor>
Scanner HP sensor(PS102)
<Connector>
R>J5012-3
<I/O address>
IO-P6-4
<Checks/ I/O/ Voltage>
Move the No. 1 mirror base by hand.
Light-blocking plate is present, 1(5V)
Light-blocking plate is absent, 0(0V)

<Sensor>
Copyboard cover sensor(PS103)
<Connector>
R>J5012-6
<I/O address>
IO-P6-7
<Checks/ I/O/ Voltage>
Move the sensor lever by hand.
Copyboard (ADF) is closed, 1(5V)
Copyboard (ADF) is opened, 0(0V)

14.7.23 Checking the Optical Sensors

0007-0806

iR105i/iR105+ / iR9070

<Sensor>
Right deck pickup sensor (PS20)
<Connector No.>
J511-B6
<I/O address>
P010-0
<Checks>
Put paper over PS20 in standby.

Paper is at PS20: 1 (5 V)
Paper is not at PS20: 0 (0 V)

<Sensor>
Left deck pickup sensor (PS25)
<Connector No.>
J518-A9
<I/O address>
P010-1
<Checks>
Put paper over PS25 in standby.
Paper is at PS25: 1 (5 V)
Paper is not at PS25: 0 (0 V)

<Sensor>
Left deck feed sensor (PS26)
<Connector No.>
J519-B16
<I/O address>
P010-9
<Checks>
Put paper over PS26 in standby.
Paper is at PS26: 1 (5 V)
Paper is not at PS26: 0 (0 V)

<Sensor>
Right deck feed sensor (PS27)
<Connector No.>
J511-B10
<I/O address>
P010-8
<Checks>
Put paper over PS27 in standby.
Paper is at PS27: 1 (5 V)
Paper is not at PS27: 0 (0 V)

<Sensor>
Cassette 3 pickup sensor (PS37)
<Connector No.>
J515-B6
<I/O address>
P010-2
<Checks>
Put paper over PS37 in standby.
Paper is at PS37: - (5 V)
Paper is not at PS37: - (0 V)

<Sensor>
Vertical path 3 paper sensor (PS41)
<Connector No.>
J515-B10
<I/O address>
P010-6
<Checks>
Put paper over PS41 in standby.
Paper is at PS41: 1 (5 V)
Paper is not at PS41: 0 (0 V)

<Sensor>
Cassette 4 pickup sensor (PS42)
<Connector No.>
J517-B6
<I/O address>
P010-3
<Checks>
Put paper over PS42 in standby.
Paper is at PS42: 1 (5 V)
Paper is not at PS42: 0 (0 V)

<Sensor>
Vertical path 4 paper sensor (PS46)
<Connector No.>
J517-B10
<I/O address>
P010-7
<Checks>
Put paper over PS46 in standby.
Paper is at PS46: 1 (5 V)
Paper is not at PS46: 0 (0 V)

<Sensor>
Image write start sensor (PS60)
<Connector No.>
J503-B8
<I/O address>
P002-5
<Checks>
Put paper over PS60 in standby.
Paper is at PS60: 1 (5 V)
Paper is not at PS60: 0 (0 V)

14.7.24 Checking the Photointerrupters

0009-1598

iR85+

The machine's photointerrupters may be checked by a conventional meter or its service mode:
a. Using a Meter
1) Set the meter range to 30 VDC.
2) Connect the - probe of the meter to GND of the DC controller PCB.
3) Connect the + probe of the meter to the terminals (DC controller PCB) indicated in the following table.
4) Make checks as instructed.
b. Using Service Mode
1) Start service mode (COPIER>I/O), and check the appropriate address.

Turning on/off a sensor can start the machine's motor or the like. Take full care.

<Sensor>
Registration paper sensor(PS5)
<Connector>
J509-A2
<I/O address>
P001-11
<Checks/ I/O/ Voltage>
In standby, put paper over PS5.
When paper is not at PS5, 1(5V)
When paper is at PS5, 0(0V)

<Sensor>
Fixing claw jam sensor(PS6)
<Connector>
J508-B15
<I/O address>
P001-15
<Checks/ I/O/ Voltage>
In standby, put paper over PS6.
When paper is not at PS6, 0(0V)
When paper is at PS6, 1(5V)

<Sensor>
Fixing web length sensor(PS7)
<Connector>
J508-B2
<I/O address>
P003-3
<Checks/ I/O/ Voltage>
In standby, put paper over PS7.
When the web is present, 0(0V)
When the web is absent, 1(5V)

<Sensor>
Fixing web length warning sensor(PS8)
<Connector>
J508-B5
<I/O address>
P003-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS8.
When the No Web warning is issued, 1(5V)
When the No Web warning is not issued, 0(0V)

<Sensor>
Inside delivery sensor(PS9)
<Connector>
J508-A2
<I/O address>
P001-12
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS9.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Outside delivery sensor(PS10)
<Connector>
J508-A8
<I/O address>
P001-13
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS10.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Fixing/feeding unit outlet sensor(PS11)
<Connector>
J508-A11
<I/O address>
P001-14
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS11.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Duplexing reversal sensor(PS12)
<Connector>
J519-B6
<I/O address>
P002-1
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS12.
When paper is put, 0(0V)
When paper is pulled, 1(5V)

<Sensor>
U-turn sensor(PS13)
<Connector>
J519-B7
<I/O address>
P002-2
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS13.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Pre-confluence sensor(PS14)
<Connector>
J519-B8
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS14.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Post-confluence sensor(PS15)
<Connector>
J519-B9
<I/O address>
P002-4
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS15.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Reversal sensor(PS16)
<Connector>
J508-A5
<I/O address>
P002-0
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS16.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Manual feed tray paper sensor(PS17)
<Connector>
J510-B8
<I/O address>
P004-12
<Checks/ I/O/ Voltage>
In standby, move the rear partition by hand.
When paper is put, 1(5V)
When paper is not put, 0(0V)

<Sensor>
Horizontal registration sensor(PS18)
<Connector>
J519-B11
<I/O address>
PC
<Checks/ I/O/ Voltage>
In standby, move the side guide by hand.
When the light-blocking plate is not at PS18, 1(5V)
When the light-blocking plate is at PS18, 0(0V)

<Sensor>
Waste toner case full sensor(PS19)
<Connector>
J514-A2
<I/O address>
P003-7
<Checks/ I/O/ Voltage>
In standby, put paper over the detecting lever of PS19.
When paper is put, 1(5V)
When paper is pulled, 0(0V)

<Sensor>
Deck (right) pickup sensor(PS20)
<Connector>
J511-B2
<I/O address>
P001-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS20, 1(5V)
When the light-blocking plate is not at PS20, 0(0V)

<Sensor>
Deck (right) lifter sensor(PS21)
<Connector>
J511-A6
<I/O address>
P004-0
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS21, 1(5V)
When the light-blocking plate is not at PS21, 0(0V)

<Sensor>
Deck (right) paper sensor(PS22)
<Connector>
J511-A9
<I/O address>
P004-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS22, 1(5V)
When the light-blocking plate is not at PS22, 0(0V)

<Sensor>
Deck (right) open/ closed sensor(PS23)
<Connector>
J511-B5
<I/O address>
P005-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS23, 1(5V)
When the light-blocking plate is not at PS23, 0(0V)

<Sensor>
Deck (right) limit sensor(PS24)
<Connector>
J511-B8
<I/O address>
P004-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS24, 1(5V)
When the light-blocking plate is not at PS24, 0(0V)

<Sensor>
Deck (left) pickup sensor(PS25)
<Connector>
J518-A8
<I/O address>

P001-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS25, 1(5V)
When the light-blocking plate is not at PS25, 0(0V)

<Sensor>
Deck (left) feed sensor(PS26)
<Connector>
J519-B10
<I/O address>
P001-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS26, 1(5V)
When the light-blocking plate is not at PS26, 0(0V)

<Sensor>
Deck (right) feed sensor(PS27)
<Connector>
J511-B11
<I/O address>
P001-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS27, 1(5V)
When the light-blocking plate is not at PS27, 0(0V)

<Sensor>
Fixing/feeding unit releasing lever sensor(PS28)
<Connector>
J509-B9
<I/O address>
P005-14
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS28, 1(15V)
When the light-blocking plate is not at PS28, 0(0V)

<Sensor>
Deck (left) lifter sensor(PS31)
<Connector>
J518-A2
<I/O address>
P004-1
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS31, 1(5V)
When the light-blocking plate is not at PS31, 0(0V)

<Sensor>
Deck (left) paper sensor(PS32)
<Connector>
J518-A5
<I/O address>
P004-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS32, 1(5V)
When the light-blocking plate is not at PS32, 0(0V)

<Sensor>
Deck (left) open/ closed sensor(PS33)
<Connector>
J518-B2
<I/O address>
P005-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS33, 1(5V)
When the light-blocking plate is not at PS33, 0(0V)

<Sensor>
Deck (left) limit sensor(PS34)
<Connector>
J518-B5
<I/O address>
P004-15
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS34, 1(5V)
When the light-blocking plate is not at PS34, 0(0V)

<Sensor>
Manual feed inlet sensor(PS35)
<Connector>
J510-B2
<I/O address>
P001-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS35, 1(5V)
When the light-blocking plate is not at PS35, 0(0V)

<Sensor>
Cassette 3 pickup sensor(PS37)
<Connector>
J515-B2
<I/O address>
-
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS37, - (5V)
When the light-blocking plate is not at PS37, - (0V)

<Sensor>
Cassette 3 lifter sensor(PS38)
<Connector>
J515-A6
<I/O address>
P004-2
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS38, 1(5V)
When the light-blocking plate is not at PS38, 0(0V)

<Sensor>
Cassette 3 paper sensor(PS39)
<Connector>
J515-A9
<I/O address>
P004-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS39, - (5V)
When the light-blocking plate is not at PS39, - (0V)

<Sensor>
Cassette 3 open/ closed sensor(PS40)
<Connector>
J515-B5
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS40, 1(5V)
When the light-blocking plate is not at PS40, 0(0V)

<Sensor>
Vertical path 3 sensor(PS41)
<Connector>
J515-B8
<I/O address>
P001-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS41, 1(5V)
When the light-blocking plate is not at PS41, 0(0V)

<Sensor>
Cassette 4 pickup sensor(PS42)
<Connector>
J517-B2
<I/O address>
P001-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS42, 1(5V)
When the light-blocking plate is not at PS42, 0(0V)

<Sensor>
Cassette 4 lifter sensor(PS43)
<Connector>
J517-A6
<I/O address>
P004-3
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS43, 1(5V)
When the light-blocking plate is not at PS43, 0(0V)

<Sensor>
Cassette 4 paper sensor(PS44)
<Connector>
J517-A9
<I/O address>
P004-11
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS44, 1(5V)
When the light-blocking plate is not at PS44, 0(0V)

<Sensor>
Cassette 4 open/ closed sensor(PS45)
<Connector>
J517-B5
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS45, 1(5V)
When the light-blocking plate is not at PS45, 0(0V)

<Sensor>
Vertical path 4 sensor(PS46)
<Connector>
J517-B8
<I/O address>
P001-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS46, 1(5V)
When the light-blocking plate is not at PS46, 0(0V)

<Sensor>
Vertical path 1 paper sensor(PS47)
<Connector>
J502-B5
<I/O address>
P001-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS47, 1(5V)
When the light-blocking plate is not at PS47, 0(0V)

<Sensor>
Right lower cover open/ closed sensor(PS48)
<Connector>
J516-A2
<I/O address>
P005-9
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS48, 1(5V)
When the light-blocking plate is not at PS48, 0(0V)

<Sensor>
Vertical path 2 paper sensor(PS49)
<Connector>
J516-B9
<I/O address>
P001-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS49, 1(5V)
When the light-blocking plate is not at PS49, 0(0V)

<Sensor>
Deck (right) paper level middle sensor(PS51)
<Connector>
J513-B9
<I/O address>
P004-4
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS51, 1(5V)
When the light-blocking plate is not at PS51, 0(0V)

<Sensor>
Deck (right) paper level high sensor(PS52)
<Connector>
J513-B12
<I/O address>
P004-5
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS52, - (5V)
When the light-blocking plate is not at PS52, - (0V)

<Sensor>
Deck (left) paper level middle sensor(PS54)
<Connector>
J514-B9
<I/O address>
P004-6
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS54, 1(5V)
When the light-blocking plate is not at PS54, 0(0V)

<Sensor>
Deck (left) paper level high sensor(PS55)
<Connector>
J514-B12
<I/O address>
P004-7
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS55, - (5V)
When the light-blocking plate is not at PS55, - (0V)

<Sensor>
Manual feed tray cover open/ closed sensor(PS56)
<Connector>
J502-A2
<I/O address>
P005-10
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS56, 1(5V)
When the light-blocking plate is not at PS56, 0(0V)

<Sensor>
Right inside cover open/ closed sensor(PS58)
<Connector>
J502-B2
<I/O address>
P005-8
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS58, 1(5V)
When the light-blocking plate is not at PS58, 0(0V)

<Sensor>
Toner cartridge cover open/ closed sensor(PS59)
<Connector>
J512-B2
<I/O address>
P005-12
<Checks/ I/O/ Voltage>
In standby, move the detecting lever by hand.
When the light-blocking plate is at PS59, 1(5V)
When the light-blocking plate is not at PS59, 0(0V)

14.8 Pickup/Feeding System

14.8.1 Orientation of the Deck/Cassette Pickup Roller

0007-0566

iR105i/iR105+ / iR9070

The deck/cassette pickup roller may be mounted by reversing the steps used to remove it; however, keep the following in mind:
- The pickup rollers used at the front and the rear of the machine are not interchangeable.
- The collar of the pickup roller used at the front of the machine is gold-colored.

When mounting the pickup roller [1] to the pickup assembly, be sure that the round marking [2] found on the side of the roller and the round marking [3] on the collar (gold-colored) are toward the front of the machine.

F-14-107

- The collar of the pickup roller used at the rear is silver-colored. When mounting the pickup roller [4] to the pickup assembly, be sure that the round marking [5] on the side of the roller and the round marking [6] on the collar (silver-colored) are toward the rear of the machine.

F-14-108

14.8.2 Orientation of the Deck/Cassette Pickup Roller

0008-8370

/ iR85+ / iR8070

Mount the parts by reversing the steps used to remove them with the following in mind:
- The front and rear pickup rollers are not interchangeable.
- The collar of the front pickup roller is gold-colored.

When mounting the pickup roller [1] to the pickup assembly, be sure that the round marking [2] on the side of the roller and the round marking [3] on the collar (gold-colored) are toward the front of the machine.

F-14-109

- The rear pickup roller is silver-colored. When mounting the pickup roller [4] to the pickup assembly, be sure that the round marking [5] on the side of the roller and the round marking [6] on the collar (silver-colored) are toward the rear of the machine.

F-14-110

14.8.3 Orientation of the Deck/Cassette Separation Roller

0007-0568

iR105i/iR105+

When replacing the separation roller, be sure that it is oriented as shown

F-14-111

14.8.4 Orientation of the Deck/Cassette Separation Roller

0008-8371

/ iR85+ / iR8070

When replacing the separation roller, be sure it is orientated as follows:

F-14-112

14.8.5 Orientation of the Feeding Roller of the Deck/Cassette Pickup Assembly

0007-0569

iR105i/iR105+ / iR9070

When mounting the feeding roller assembly to the deck/cassette pickup assembly, be sure that the belt pulley [2] is to the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the front of the machine.

F-14-113

14.8.6 Orientation of the Feeding Roller of the Deck/ Cassette Pickup Assembly

0008-8373

/ iR85+ / iR8070

When mounting the feeding roller assembly of the deck/cassette pickup assembly, be sure that the belt pulley [2] is toward the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the front of the machine.

F-14-114

14.8.7 Orientation of the Pickup Roller of the Manual Feed Tray/Side Paper

0007-0570

iR105i/iR105+ / iR9070

The pickup roller may be mounted by reversing the steps used to remove it; however, keep the following in mind:
- The pickup rollers used at the front and the rear of the machine are not interchangeable.
- The collar of the pickup roller used at the front of the machine is silver-colored.

When mounting the pickup roller [1] to the pickup assembly, be sure that the round marking [2] of the color (silver-colored) is toward the front of the machine.

F-14-115

[1] Pickup roller
[2] Marking (collar)
- The collar of the pickup roller used at the rear of the machine is gold-colored.

When mounting the pickup roller [4] to the pickup assembly, be sure that the round marking [5] on the side of the roller and the round marking [6] on the collar (gold-colored) are toward the rear of the machine.

F-14-116

[4] Pickup roller
[5] Marking (roller)
[6] Marking (collar)

14.8.8 Orientation of the Pickup Roller of the Manual Feed Tray/Side Paper Deck

0008-8375

/ iR85+ / iR8070

Mount the part by reversing the steps used to remove it with the following in mind:
- The front and rear pickup rollers are not interchangeable.
- The front pickup roller is silver-colored.

When mounting the pickup roller [1] to the pickup assembly, be sure that the round marking [2] on the collar (silver-colored) is toward the front of the machine.

F-14-117

[1] Pickup roller
[2] Marking (collar)
- The rear pickup roller is gold-colored.

When mounting the pickup roller [3] to the pickup assembly, be sure that the round marking [4] on the side of the roller and the round marking [5] on the collar (silver-colored) are toward the rear of the machine.

F-14-118

[3] Pickup roller
[4] Marking (roller)
[5] Marking (collar)

14.8.9 Orientation of the Feeding Roller of the Manual Feed Tray

0007-0575

iR105i/iR105+ / iR9070

When mounting the feeding roller assembly [1] to the manual feed tray pickup assembly, be sure that the belt pulley [2] is toward the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the front of the machine.

F-14-119

14.8.10 Orientation for the Feeding Roller of the Manual Feed Tray

0008-8378

/ iR85+ / iR8070

When mounting the feeding roller assembly [1] to the manual feed tray pickup assembly, be sure that the belt pulley [2] is toward the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the front of the machine.

F-14-120

14.8.11 Orientation of the Feeding Roller of the Side Paper Deck

0007-0576

iR105i/iR105+ / iR9070

When mounting the feeding roller assembly [1] to the side paper deck pickup assembly, be sure that the belt pulley [2] is toward the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the rear of the machine.

F-14-121

14.8.12 Orientation of the Feeding Roller of the Side Paper Deck

0008-8379

/ iR85+ / iR8070

When mounting the feeding roller assembly [1] to the side paper deck pickup assembly, be sure that the belt pulley [2] is toward the front of the machine. When mounting the feeding roller [3] to the feeding roller shaft [4], be sure that the round marking [5] is toward the rear of the machine.

F-14-122

14.8.13 Adjusting the Pressure of the Deck/Cassette Separation Roller

0007-0577

iR105i/iR105+ / iR9070

If double feeding or pickup failure occurs during pickup, adjust the position of the pressure spring of the separation roller.
- If double feeding occurs, move the hook of the spring in the direction of arrow B.
- If pickup failure occurs, move the hook of the spring in the direction of A.

F-14-123

T-14-9

[1] Feeding roller

[2] Separation roller

[3] Locking lever

[4] Pressure spring

14.8.14 Adjusting the Pressure of the Separation Roller of the Deck/Cassette

0008-8380

/ iR85+ / iR8070

If double feeding or pickup failure occurs during pickup, change the position of the pressure spring of the separation roller.
- If double feeding occurs, move the hook of the spring in the direction of B.
- If pickup failure occurs, move the hook of the spring in the direction of A.

F-14-124

[1] Feeding roller
[2] Separation roller
[3] Locking lever
[4] Pressure spring

14.8.15 Adjusting the Pressure of the Pickup/ Feeding Roller of the Manual

0007-0612

iR105i/iR105+ / iR9070

If double feeding or pickup failure occurs during pickup, adjust the position of the pressure spring of the separation roller.
- If double feeding occurs, move the hook of the spring in the direction of arrow A.
- If pickup failure occurs, move the hook of the spring in the direction of B.

F-14-125

14.8.16 Adjusting the Pressure of the Pickup/ Feeding Roller of the Manual Feed Tray

0008-8382

/ iR85+ / iR8070

If double feeding or pickup failure occurs during pickup, adjust the position of the separation roller:

- If double feeding occurs, move the hook of the spring in the direction of A.
- If pickup failure occurs, move the hook of the spring in the direction of B.

F-14-126

14.8.17 Locations of the Solenoid

0007-0614

iR105i/iR105+ / iR9070

F-14-127

F-14-128

(if fixing web is not new)

F-14-129

SL 3

F-14-130

SL 6

F-14-131

SL 7

F-14-132

SL 8

F-14-133

SL 9 / 10

F-14-134

- SL 11
No adjustment needed.

Side paper deck
SL 101

F-14-135

14.8.18 Position of the Solenoids

0008-8383

/ iR85+ / iR8070

<Solenoid Arrangement>

F-14-136

-SL2

F-14-137

If the fixing web has been in use,

F-14-138

-SL3

F-14-139

-SL4

F-14-140

-SL6

F-14-141

-SL7

F-14-142

-SL8

F-14-143

-SL9/10

F-14-144

- SL 11 No adjustment needed.

-SL101(Side paper deck)

F-14-145

14.8.19 Location of the Fixing Web Solenoid (SL2)

0007-0632

iR105i/iR105+ / iR9070

a. If the Fixing Web Is New
Use the position of the solenoid [1] using the screw [2] so that the travel of the drive lever is 8.2 mm.

F-14-146

b. If the Fixing Web Is Not New
Before removing the solenoid, check the position [A] of the drive lever when the solenoid [1] is ON. After replacing the solenoid, make adjustments using the screw [2] so that the position of the drive lever is the same (when the solenoid is ON).

F-14-147

14.8.20 Position of the Fixing Web Solenoid (SL2)

0008-8388

/ iR85+ / iR8070

a. If the Fixing Web Is New
Use the screw [2] to adjust the position of the solenoid [1] so that the travel of the drive lever is 8.2 mm.

F-14-148

b. If the Fixing Web Has Been in Use
Before removing the solenoid, take note of the position [A] of the drive lever when the solenoid [1] is ON; after replacement, adjust the position of the drive lever using the screw [2] so that it is the same as it was before removal when the solenoid goes on.

F-14-149

14.8.21 Position of the Delivery Flapper Solenoid (SL3)

0007-0637

iR105i/iR105+ / iR9070

Use the screw [2] to adjust the position of the solenoid [1] so that the drive lever is fully pushed when the solenoid is ON (i.e., when the steel core is drawn).

F-14-150

14.8.22 Position of the Delivery Flapper Solenoid (SL3)

0008-8389

/ iR85+ / iR8070

Use the screw [2] to adjust the position of the solenoid so that, when the solenoid [1] goes on (i.e., when steel core is drawn), the drive lever is fully pushed.

F-14-151

14.8.23 Position the Fixing/Feeder Unit Locking Solenoid (SL4)

0007-0639

iR105i/iR105+ / iR9070

Use the screw [3] to adjust the position of the solenoid [1] so that the locking lever [2] is 10.5 -/+ 0.5 mm away from the frame when the solenoid is ON (i.e., when the steel core is drawn).

F-14-152

14.8.24 Position of the Fixing Feeding Unit Locking Solenoid (SL4)

0008-8390

/ iR85+ / iR8070

Adjust the position of the solenoid using the screw [3] so that the locking lever [2] will stick out 10.5 ±0.5 mm from the frame when the solenoid [1] goes ON (i.e., the steel core is drawn).

F-14-153

14.8.25 Position of the Multifeeder Latch Solenoid (SL6)

0007-0642

iR105i/iR105+ / iR9070

Slide the solenoid in the direction of A so that the gap between the shutter [1] and the shutter plate [2] is 0.4 -/+ 0.2 mm when the solenoid is drawn.

F-14-154

F-14-155

14.8.26 Adjusting the Position for the Multifeeder Pickup Latch Solenoid (SL6)

0008-8391

/ iR85+ / iR8070

Adjust the solenoid in the direction of A to adjust so that the gap between the shutter [1] and the shutter plate [2] is 0.4 ±0.2 mm when the solenoid is pulled.

F-14-156

F-14-157

14.8.27 Position of the Deck (right) Pickup Solenoid (SL7)

0007-0644

iR105i/iR105+ / iR9070

Use the screw [3] so that the distance from the pickup unit bottom of each cassette holder and the bushing bottom edge of the A roller support

plate is 34.0 -/+ 0.5 mm when the plunger of the pickup roller releasing solenoid is drawn (as occurring when [1] and [2] are operated as shown). (After adjustment, make sure that the distance between the paper face and the A roller is 2.5 -/+ 0.5 mm when the A roller is in UP position.)

F-14-158

14.8.28 Position of the Deck (right) Pickup Solenoid (SL7)

0008-8415

/ iR85+ / iR8070

Adjust the position using the screw [1] so that when [1] and [2] in the following figure are operated and the plunger of the pickup roller releasing solenoid is pulled, the distance from the bottom of each pickup unit to the bottom edge of the bushing of the roller support plate is 34.5 ±0.5 mm.

F-14-159

14.8.29 Position of the Deck (Left) Pickup Solenoid (SL8)

0007-0645

iR105i/iR105+ / iR9070

Use the screw [3] so that the distance from the pickup unit bottom face to the bushing bottom edge of the A roller support plate is 49.5 -/+ 0.5 mm when the plunger of the pickup releasing solenoid is drawn (as occurring when [1] and [2] are operated as shown). (After adjustment, make sure that the distance between the paper face and the A roller is 2.5 -/+ 0.5 mm when the A roller is in UP position.)

F-14-160

14.8.30 Position of the Deck (left) Pickup Solenoid (SL8)

0008-8417

/ iR85+ / iR8070

Adjust the position using the screw [1] so that when [1] and [2] in the following figure are operated and when the plunger of the pickup roller releasing solenoid is pulled, the distance from the bottom of each pickup unit to the bottom of the bushing of the roller support plate is 50 ±0.5 mm.

F-14-161

14.8.31 Position of the Cassette 3/4 Pickup Solenoid (SL9/10)

0007-0647

iR105i/iR105+ / iR9070

Use the screw [3] so that the distance from the pickup unit bottom face of each cassette holder and the bushing bottom edge of the A roller support plate is 35.5 -/+ 0.5 mm when the plunger of the pickup roller releasing solenoid is drawn (as occurring when [1] and [2] are operated as shown). (After adjustment, make sure that the distance between the paper face and the A roller is 2.5 -/+ 0.5 mm when the A roller is in UP position.)

F-14-162

14.8.32 Position for the Cassette 3/4 Pickup Solenoid (SL9/10)

0008-8424

/ iR85+ / iR8070

Adjust the position using the screws [1] so that when [A] and [B] in the following figure are operated and when the plunger of the pickup roller releasing solenoid is pulled, the distance from the bottom of each pickup unit to the bottom edge of the bushing of the roller support plate is 36 ±0.5 mm.

F-14-163

14.8.33 Position of the Side Paper Deck Pickup Roller Releasing Solenoid

0007-0648

iR105i/iR105+ / iR9070

Before removing the deck pickup roller releasing solenoid [1] from the support plate, make mental notes of the positions of the 2 fixing screws [2] of the solenoid with reference to the index on the support plate. (Or, mark the position of the solenoid on the support plate with a scriber.)
If you are replacing the solenoid on its own, you must secure it in its initial position.

F-14-164

14.8.34 Position of the Side Paper Deck Pickup Roller Releasing Solenoid

0008-8426

/ iR85+ / iR8070

Before removing the deck pickup roller releasing solenoid [1], be sure to take note of the positions of the two fixing screws [2] of the solenoid with reference to the scale on the support plate. Or, mark the position for the solenoid itself on the support plate using a scriber.
If you are replacing the solenoid on its own, be sure to secure the solenoid exactly where the old solenoid was found.

F-14-165

14.8.35 Fitting the Side Guide Timing Belt of the Manual Feed Tray Assembly

0007-0649

iR105i/iR105+ / iR9070

Butt the rack plate [1] of the manual feed tray against section A (open state).
Move the slide volume [2] in the direction of B, and fit the timing belt [3] to the pulley [4].

F-14-166

14.8.36 Attaching the Timing Belt for the Manual Feed Tray Assembly Side Guide

0008-8428

/ iR85+ / iR8070

Butt the rack plate [1] of the manual feed tray against A (open state). Move the slide volume [2] in the direction of B, and attach the timing belt [3] to the pulley [4].

F-14-167

14.8.37 Fitting the Drive Belt

0007-0652

iR105i/iR105+ / iR9070

Fit the drive belt to the pulleys and rollers as follows:

F-14-168

14.8.38 Attaching the Drive Belts

0008-8429

/ iR85+ / iR8070

Be sure to attach the drive belts on the pulleys and the rollers as shown.

F-14-169

Chapter 15 Correcting Faulty Images

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15.1 Making Initial Checks

15.1.1 Checking the Side of Installation

0007-0810

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Check the site of installation against the following requirements:
a. The voltage of the power supply must be as rated (-/+ 10%). The power plug must remain connected day and night.
b. The site must not be subject to high temperature/humidity (near a water faucet, water boiler, humidifier). The machine must not be installed in a cold place or in an area near a source of fire or subject to dust.
c. The site must not be subject to ammonium gas.
d. The site must not be subject to direct rays of the sun. As necessary, curtains must be provided.
e. The site must be well ventilated.
f. The machine must be kept level.
g. The machine must remain powered throughout the night.

15.1.2 Checking the Originals

0007-0812

iR105i/iR105+ / iR9070 / iR8070

Check the originals to find out whether the problem is caused by the originals used or is in the machine:
a. The copy density setting is optimum at 5 -/+ 1.
b. If the original has a reddish background, copies can suffer poor contrast.

MEMO:
Red sheets, slips, and the like.

c. The density of the original can have the following effects:

MEMO:
if the original is a diazo copy or is rather transparent, copies can be mistaken as being "foggy."
if the original is prepared in pencil, copies can be mistaken as being "too light."

15.1.3 Checking the Copyboard Cover, Copyboard Glass, and Standard White Plate

0007-0817

iR105i/iR105+ / iR9070 / iR8070

Check the copyboard cover, copyboard glass, and standard white plate for dirt or scratches. If dirt is found, clean it with a solution of mild detergent or alcohol; if a scratch is found, on the other hand, replace it.

15.1.4 Checking the Charging Assemblies

0007-0819

iR105i/iR105+ / iR9070 / iR85+ / iR8070

a. Check the charging assemblies for dirt and a faulty charging wire.
b. Clean the charging wire and the shielding plate of the charging assemblies. (If dirt cannot be removed, replace it.)
c. Check the type and height of the charging wire.
d. Check to make sure that the changing assemblies are firmly fitted.
e. Check the charging wire spring for rusting.
f. Check the charging wire cleaning pad (of each charging assembly) for displacement.

15.1.5 Checking the Developing Assembly

0007-0820

iR105i/iR105+ / iR9070

a. Check to make sure that the rolls on both ends of the developing assembly are in contact with the drum.
b. Check to make user that the surface of the developing cylinder is coated with an even layer of toner.
c. Check the connectors between the developing assembly and the machine for connection.
d. Check to make sure that the slide switch (SW101) of the HV-DC PCB is in UP position.
e. Check to make sure that the 4th page <DEV-SLO> of the following in service mode in '2': COPIER> OPTION> BODY.

15.1.6 Checking the Developing Assembly

0009-1604

/ iR85+ / iR8070

a. Check to make sure that the rolls on both ends of the developing assembly are in contact with the drum.
b. Check to make user that the surface of the developing cylinder is coated with an even layer of toner.
c. Check the connectors between the developing assembly and the machine for connection.
d. Check to make sure that the 4th page <DEV-SLO> of the following in service mode in '2': COPIER> OPTION> BODY.

15.1.7 Checking the Paper

0007-0821

iR105i/iR105+ / iR9070 / iR85+ / iR8070

a. Check to see if the paper is a type recommended by Canon.
b. Check to see if the paper is moist. Try paper fresh out of package.

15.1.8 Checking the Periodically Replaced Parts

0007-0822

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Check with the Periodical Servicing Chart and the Periodically Replaced Parts Table, and replace those parts that have reached the end of their lives.

15.1.9 Others

0007-0823

iR105i/iR105+ / iR9070 / iR8070

In winter, bringing a machine from a cold to warm place can cause the inside of the machine to develop condensation, leading to various problems.

MEMO:
a. Condensation in the scanning system (glass, mirrors, lenses) will produce darker images.
b. Condensation in the charging system will cause electrical leakage.
c. Condensation on the pickup/feeding guide will cause feeding faults.
If condensation is found, dry wipe the part or leave the machine alone and powered for 60 min.

If the density is uneven (different between front and rear) or the image is too light or is foggy, perform the "Image Adjustment Basic Procedure" in advance.

15.1.10 Others

0008-9134

iR85+

In winter, bringing a machine from a cold to warm place can cause the inside of the machine to develop condensation, leading to various problems.

MEMO:
a. Condensation in the charging system will cause electrical leakage.
b. Condensation on the pickup/feeding guide will cause feeding faults.
If condensation is found, dry wipe the part or leave the machine alone and powered for 60 min.

If the density is uneven (different between front and rear) or the image is too light or is foggy, perform the "Image Adjustment Basic Procedure" in advance.

15.2 Troubleshooting

15.2.1 Countermeasures

15.2.1.1 Lead edge voids of paper due to retransferring iR105

0001-6609

iR105

Symptom
Lead edge voids of paper due to retransferring (iR105)
Description
Retransferring causes white spots at the leading edge of paper when non-recommended paper is used.
Cause
Separation charging current is determined based on Canon recommended paper. Since there are differences in the thickness and the surface resistance between Canon recommended and non-recommended paper, the separation charging current is not suitable for non-recommended paper and the retransferring problem will occur.

As a result of verification into the actual case reported from the field, the separation charging current tends to be higher against the paper in use.
Field Remedy
In order to check whether the retransferring can be improved, output 5 sheets or more in intermittent mode after each setting change.
1. Load paper exhibiting the retransferring into a cassette and set it at thin recycled paper mode.
- In service mode [COPIER>Option>BODY>TR-SP-C1 through TR-SP-DK], enter '1'.
Check whether the retransferring can be improved at each setting. If any improvements can be seen, complete the setting change at that point. Not improved -> Go on to Step 2.
2. Decrease the separation charging current.
- In service mode [COPIER>Option>BODY>TR-SP-C1 through TR-SP-DK], enter '0'.
- In service mode [COPIER>Adjust>HV-TR>TR-N1/TR-N2], change the value from -588mA (ref) to -450mA.
- In service mode [COPIER>Adjust>HV-SP>SP-N1/SP-N2], enter '350mA' and then '300mA'.
Check whether the retransferring can be improved at each setting. If any improvements can be seen, complete the setting change at that point. Not improved -> Go on to Step 3.
3. Adjust the height of separate charging wire.
- Lower the height of secondary separate charging wire (left) by 0.7mm.
- Lower the height of secondary separate charging wire (left) by 0.7mm furthermore.
- Lower the height of primary separate charging wire (right) by 0.7mm.
- Lower the height of secondary separate charging wire (left) by 0.7mm furthermore.
Check whether the retransferring can be improved at each setting. If any improvements can be seen, complete the setting change at that point. Not improved -> Go on to Step 4.
4. Lower VD.
- In service mode [OPIER>Adjust>V-CONT>VD-OFST], enter '-50'.
- In service mode [OPIER>Option>BODY>COTDPC-D], enter '1', '2' and '3' in this order.
Check whether the retransferring can be improved at each setting. If any improvements can be seen, complete the setting change at that point. Not improved -> Go on to Step 5.
5. Select 'Tracing paper'.
- Reset all the settings in Step 2 through 4 to default.
- In service mode [COPIER>Option>BODY>TR-SP-C1 through TR-SP-DK], enter '2'.

15.2.1.2 Black lines: when using ADF

0001-8241

iR7200

Symptom
Black lines: when using ADF
Field Remedy
In order to activate the following three functions with iR7200, upgrade the system software to Ver.50.49, RCON to Ver.7.02 and ADF CONT to Ver.8.01 or later.
- Detecting dust in stream reading mode
- Shifting document reading position
- Displaying the result of dust detection

In addition to the upgrade, select '1' in service mode [COPIER>Option>USER>SPECK-DP (enable/disable the indication of the result of dust detection)].

15.2.1.3 E220-0001: the inverter PCB is not properly grounded Error Code

0001-9930

iR7200

Symptom
E220-0001: the inverter PCB is not properly grounded Error Code
Cause
Inverter PCB is faulty.
Field Remedy
Check the inverter PCB J5101 for 24V input.
If there is input, the inverter PCB is likely to be faulty. In such a case, replace it with a new one (FH3-7208).

15.2.1.4 E712-0001/E712-0002 Error Code

0001-9199

iR7200

Symptom
E712-0001/E712-0002 Error Code
Description
This error code is related to the reader area of iR7200. Some of the error codes can be displayed although they are not explained in the service manual

of iR8500/iR7200.

Explanation

E712-0001 is displayed when communication does not resume in 3 seconds after data has been written to the error register of the communication IC (IPC) of the ADF controller PCB.

E712-0002 is displayed when the transmission bit is not enabled after a period of 10 seconds at the sync register of the IPC (IC5021) on the reader controller PCB.

15.2.1.5 E743-0000 Error Code

0001-9194

iR7200

Symptom

E743-0000 Error Code

Description

This error code is related to the reader area of iR7200. Some of the error codes can be displayed although they are not explained in the service manual of iR8500/iR7200.

Explanation

This error code is displayed when the reader controller PCB has detected an error in the communication between the main controller PCB and the reader controller PCB (DDI-S).

15.2.2 Image Faults

15.2.2.1 Foggy Image

15.2.2.1.1 Fogging in the half of image/Solid black in the half of image: iR8500/iR105

0003-0713

iR8500 / iR105 / iR85

[Inspected by Canon Inc.]

Cause

There are three cases found in our inspection that the CCD unit was faulty.

Field Remedy

Execute CCD adjustments:

1. CCD auto adjustment (CCD-ADJ)
2. CCD gain simple correction (LUT-ADJ)

For adjustment procedures, refer to the attached file titled 'CCD-ADJ.pdf'.

If the symptom is not solved even after the adjustments, replace the CCD unit with a new one.

After replacement, execute the above adjustments by referring to the attached file titled 'ReplacingtheCCDUnit.pdf'.

15.2.2.2 Out of Focus

15.2.2.2.1 DADF-J1 How to adjust document leading edge position: when being fed from pick-up tray

0003-1269

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Field Remedy

Adjustment procedures for document stop position (when being fed from the pick-up tray):

1. Set bits 1, 3 and 6 of DIP switches (SW1) at 'ON' position on the ADF controller PCB. Set a sheet of A4- or LTR-sized paper on the pick-up tray and press the push switch (SW2) once. Then, the document will start to be fed and stop on the copyboard glass.
2. Open the ADF slowly so that the document does not move. Inspect the document stop position (left side). Then, close the ADF slowly.
3. Press SW3 or SW4 to adjust the stop position. A press of SW3 will move it to the right by 0.5mm and SW4 will move to the left by 0.5mm.
4. When the stop position is fixed, press SW2. The document will be delivered and the new stop position will be recorded.

15.2.2.2.2 DADF-J1 How to adjust document leading edge position: when being fed from manual tray

0003-1272

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Field Remedy

Adjustment procedures for document stop position (when being fed from the manual tray):

1. Set bits 4 and 6 of DIP switches (SW1) at 'ON' position on the ADF controller PCB. Set a sheet of A4- or LTR-sized paper on the manual tray and press the push switch (SW2) once. Then, the document will start to be fed and stop on the copyboard glass.
2. Open the ADF slowly so that the document does not move. Inspect the document stop position (left side). Then, close the ADF slowly.
3. Press SW3 or SW4 to adjust the stop position. A press of SW3 will move it to the right by 0.5mm and SW4 will move to the left by 0.5mm.
4. When the stop position is fixed, press SW2. The document will be delivered and the new stop position will be recorded.

15.2.2.3 Smudged/Streaked

15.2.2.3.1 Black lines: due to inferior cleaning

0002-1897

iR8500 / iR7200 / iR105 / iR85

Symptom

Black lines: due to inferior cleaning

Cause

- Control failure of the drum heater
- Wrong installation of the cleaning blade
- Use of cleaning blade for other models'

Field Remedy

1. Check the version of DCON ROM.
The control sequence of the drum heater has been changed on Ver.3.01 for iR105 and Ver.30.06 for iR8500/7200.
2. Check whether the cleaning blade has not exceeded its life of five hundred thousand sheets.
3. Check whether the cleaning blade is installed in a correct orientation, where the numbers can be read at the edge of the blade.
4. Check whether the appropriate cleaning blade is used:
For iR105: Part Number FA9-3878
For iR8500/7200: Part Number FB6-2720

15.2.2.3.2 Black streaks in sub-scanning direction/abnormal noise (gear teeth chipping sound) from waste toner drive ass'y

0002-2480

iR8500 / iR7200 / iR105 / iR85

Symptom
Black streaks in sub-scanning direction/abnormal noise (gear teeth chipping sound) from waste toner drive ass'y
Cause
Some gears in the waste toner drive ass'y are scraped off because of a long-term use and thus are unable to drive the waste toner cleaner ass'y. This deactivates the magnet roller coming in contact with the photosensitive drum, leading to black streaks in sub-scanning direction or gear teeth chipping sound from the waste toner drive ass'y due to inferior cleaning.
Field Remedy
This symptom can occur if the page count of the machine has reached about three million sheets.

Visually check whether the magnet roller is rotating during operation as follows: Open the front cover and remove the process unit cover. Then, insert the door switch actuator in the door switch ass'y and start a copy operation.

If the magnet roller is not rotating, there is a possibility that gears have been scraped off. So, replace the waste toner drive ass'y, or the gears.

Waste toner drive ass'y (Parts Catalog Fig. 280): FG6-7328
28T/48T gear (Fig. 280-13): FU3-0414
36T gear (Fig. 280-14): FU3-0415
36T gear (Fig. 280-15): FU3-0416

15.2.2.3.3 Black lines: Corrections against cleaning failure by cleaning blade

0002-6220

iR8500 / iR7200 / iR105 / iR85

Symptom
Black lines: Corrections against cleaning failure by cleaning blade
Explanation
Cleaning failure can occur under the several conditions described below. If your case match either of them, make the appropriate corrective actions.

* For related information, black banding phenomenon is referred at the end.
Field Remedy
[Condition 1] Under high temperature/low humidity, and making duplex copy frequently
[Cause] Agglomeration of toner at the edge of the cleaning blade
[Reason] During continuous duplex copying, the temperature of the drum surface becomes higher than usual because of heat from the paper which has passed through the fixing ass'y. This will cause waste toner at the edge of the cleaning blade to agglomerate and lift up the cleaning blade, resulting in toner slipping.
[Corrections]
Change the setting in the 'Drum cleaning enhancement mode' (In service mode [COPIER>Option>BODY>DRUM-CLN]). The drum rotation will halt during copying, thereby recovering the cleaning performance of cleaning blade.
Setting 0 through 2: A higher setting provides stronger effects.
Setting 3: It will operate as in the case of '2' under normal circumstances and as in the case of '0' (default) under high humidity environment.

[Condition 2] Immediately after turning the power ON (e.g. first in the morning) or low temperature, and making simplex copy frequently
[Cause] Low elasticity of the cleaning blade
[Reason] The drum heater is turned OFF during simplex copy and furthermore the temperature of the drum surface is hard to warm instantly just after turning the power ON. In such a case, the elasticity of the cleaning blade remains low, resulting in toner slipping.
[Corrections]
1. Upgrade the DCON ROM as designated below:
iR8500/7200: Ver.10.08 and later
iR105: Ver.3.01 and later
(Change: When making simplex copy, the drum heater is always turned ON.)
2. Turn on the drum heater at the back (inside) of the machine. This will keep the cleaning blade soft and enhance the cleaning performance even first in the morning.

[Condition 3] Drum unit and cleaning blade have exceeded the limit of periodical cleaning interval (half a million)
[Cause] Scratches on the cleaning blade
[Reason] As the drum surface gets soiled, minute contaminants are likely to adhere to it. They will scratch the cleaning blade, causing black lines on the image.
[Corrections]
Make sure to perform periodical maintenance every half a million sheets. The drum surface and the cleaning blade can be prevented from scratches.

* Related information about black banding phenomenon
[Condition 4] Making a single output of document having low image ratio frequently (especially with printer model)
[Cause] The cleaning blade is turned up.
[Reason] In a single output, the period of no toner on the drum surface is longer than during continuous printing. This will increase the coefficient of friction between the drum and the cleaning blade, making the blade easy to be turned up.
[Corrections]
Change the setting in the 'Black band increase month mode for January through December' (In service mode [COPIER>Option>BODY>BK-BD-1 through 12]). Forming the black band on the drum surface will decrease the coefficient of friction between the drum and the cleaning blade.
Setting 0 through 3: A higher setting provides stronger effects.

** FYI

There are several cases in the field where paper dust caused this problem. So, try using Canon genuine paper in order to identify the cause.

15.2.2.3.4 Soiling at back of paper/Jam at fixing unit: because fixing lower roller shaft is scraped

0002-6416

iR8500 / iR7200 / iR105 / iR85

Case in the field

Symptom

Soiling at back of paper/Jam at fixing unit: because fixing lower roller shaft is scraped

Explanation

Because of the shaft of the fixing lower roller being scraped, the roller will apply a smaller amount of pressure, causing fuser offset or a jam.

Field Remedy

Inspect the fixing lower roller for any indication of scrape. If there is, replace the fixing lower roller and the bearing. Additionally, make sure that there is no abnormality with the plates at the fixing unit side which is supporting the bearing.

15.2.3 Malfunction

15.2.3.1 No Power

15.2.3.1.1 No power: main power indicator lighting up but LCD on the control panel not turning ON

0002-1865

iR8500 / iR7200 / iR105 / iR85

Symptom

No power: main power indicator lighting up but LCD on the control panel not turning ON

Cause

As a result of inspection, the following are found:
- Main controller PCB is faulty.
- HDD is faulty.

This symptom can also occur by the following reasons:
- Contact failure of Boot ROM
- Contact failure of SDRAM and faulty SDRAM
- Contact failure of connectors on main controller PCB
- Faulty DC power supply PCB
- Faulty LCD control panel unit

Field Remedy

1. Remove the Boot ROM and SDRAM, and clean the contacts of both devices and slots on the main controller PCB with a blower brush. There occurred several cases in the field.
2. Check the connectors J1012 and J1018on the main controller PCB, which are connecting to the control panel, are securely connected. There occurred several cases in the field.
3. Measure DC output on the DC power supply PCB. If there are any problems with output, replace the PCB with a new one.
4. Replace the main controller PCB with a new one.
5. Replace the HDD with a new one.
6. Replace the LCD control panel unit with a new one.

15.2.3.1.2 No power: due to faulty all-night power supply PCB

0003-1608

iR8500 / iR7200 / iR105 / iR85

[Inspected by Canon Inc.]

Cause

As a result of inspection, the all-night power supply PCB was found to be faulty.

Field Remedy

The following are procedures for checking the all-night power supply PCB:
(The measurement points are all the connectors on the all-night power supply PCB. Voltages below are actually-measured values by a digital tester.)

1) Between J781-1 and J781-3: AC input approx. 100V Åi208V)
J783-1: DC output approx. 9V
J783-3: DC output approx. 3.3V
J783-4: DC output approx. 3.3V
If an anomaly is found in DC output, replace the PCB with a new one.

2Åj J785-2 RMT_1 signal: DC approx. 3.3V
Between J782-ÇP and J782-6: AC input approx. 100V Åi208V)Åj
Between J782-2 and J782-5: AC input approx. 100V Åi208V)Åj
If RMT_1 signal can be confirmed and there is no AC input, replace the PCB with a new one.

3Åj J785-3 RMT_2 signal: DC output approx. 1.3V
J784-1: DC output approx. 5V
J784-2: DC output approx. 3.3V
If RMT_2 signal can be confirmed and there is no DC output at J784-1 and J784-2, replace the PCB with a new one.

All-night power supply PCB part number:
- FG6-7267 for iR8500/7200 100V
- FG6-7268 for iR105/8500/7200 208/220/240V

15.2.3.2 Malfunction/Faulty Detection

15.2.3.2.1 Locking up/Unable to boot up: Machine locking up at startup with 'Start up. Please wait.' message

0002-2827

iR8500 / iR7200 / iR105 / iR85

Inspected by Canon Inc.
Symptom Title
Locking up/Unable to boot up: Machine locking up at startup with 'Start up. Please wait.' message
Symptom Cause
As a result of inspection, the following were found:
- The BOOT ROM is not securely fitted.
- The Main controller PCB is faulty.
Spot Disposal
1. Check whether the machine can recover by removing/inserting the BOOT ROM.
2. Check the main controller PCB for poor contact of the connectors and pinched wires of the cables. If there is no problem, replace the main controller PCB (FG6-7278) with a new one.
Image1 Main Controller PCB, BOOT ROM

F-15-1

15.2.3.2.2 Locking up: Control panel locking up with 'printing' message

0002-2876

iR8500 / iR7200 / iR105 / iR85

Symptom
Locking up: Control panel locking up with 'printing' message
Cause
As a result of inspection, the connectors between the LVDS PCB in the controller box ass'y and the main controller PCB are found to be fitted incompletely.
Field Remedy
Check the LVDS PCB (FG6-7266) and the main controller PCB (FG6-7278) for poor contact of the connectors and pinched wires of the cables.

15.2.3.2.3 Expansion of Universal Send Expansion Board-A1

0002-6408

iR8500 / iR7200 / iR105 / iR85

Case in the field
Symptom
Expansion of Universal Send Expansion Board-A1
Cause
When attempting to install the Universal Send Expansion Board-A1, the firmware of the host machine should be Ver.50.49 and later.
Field Remedy
The following are upgrading procedures of the firmware of the host machine with Service Support Tool Ver.1.51 and later.
1. Upgrade BOOTROM.
2. Upgrade the system software to Ver.50.49 and later.
3. Upgrade RUL/Language.

15.2.3.3 User Warning Message

15.2.3.3.1 Solution for message 'Load paper.' in side paper deck (right)

0003-1359

iR8500 / iR7200 / iR105 / iR85

[Case in the field]
Description
1. A message 'Load paper.' comes on during continuous copy from the side paper deck (right).
2. When the side paper deck (right) is put back to the host machine after loading paper or other operations, the paper lifting plate does not ascend and the message 'Load paper.' still comes on.

Cause
This symptom occurs because the clearance is wide between the right lock plate (FF5-8152) and the top surface of the side paper deck (right). For the location, refer to RightLockPlate1.jpg.

Field Remedy
Fix the right lock plate with two screws so as to make the clearance between the right lock plate (see RightLockPlate1.jpg) and the top surface of the side paper deck (right) 0.8mm to 0.9mm.

For your information, the emboss should be located at the upper of the elongated hole of the right lock plate as shown in RichtLockPlate2.jpg.

Emboss to be located at upper of elongated hole

RightLockPlate1

F-15-2

RichtLockPlate2

F-15-3

15.2.3.4 Other Defect

15.2.3.4.1 First copy time: It takes much time for first copy

0002-6225

iR8500 / iR105 / iR85

Verified by Canon Inc.

Symptom

First copy time: It takes much time for first copy

Cause

As a result of inspection, the scanning lamp was found to be faulty. To be more specific, both ends of the lamp were blackened.

The possible reasons of being blackened are: the lamp has reached the end of life, the lamp itself is faulty, contacts of the lamp are poor, or the pre-heating control of the lamp is faulty because of the flat cable being broken.

Field Remedy

If the both ends of the scanning lamp are blackened, replace it with a new one.

** For your information **
Elapsed time (in sec.) and number of times for the lamp turning ON are checked in service mode:
Elapsed time: COPIER>Counter>DRBL-1>SCN-LMP
Number of times: COPIER>Display>MISC>SCAN-LMP

** Estimated life of lamp **
iR8500/iR105 Scanning Lamp: 200 hours or 150 thousand times

15.2.3.4.2 IP address is automatically overwritten

0003-1246

iR8500 / iR7200 / iR105 / iR85

[Case in the field]

Field Remedy

If either of DHCP, BOOTP or RARP is enabled (selected), the IP address will be overwritten by automatically-obtained one although it is manually designated.
In order to use the fixed IP address, disable the above three modes and turn the power OFF/ON.

In user mode [System Settings>Network Settings>TCP/IP Settings>IP Address Settings], disable DHCP, BOOTP and RARP.

15.2.4 Printing/scanning

15.2.4.1 No Output

15.2.4.1.1 Second sheet and later are not output when printing with LPR software

0003-1231

iR8500 / iR7200 / iR105 / iR85

[Case in the field]

Description

When LPR printing is executed by using LPR software via network under Windows95/Windows98/WindowsMe environment, the second data (job) is not output or it takes extremely longer (10 to 20 minutes).

Cause

This symptom will occur if the application software below is launched:
Norton Internet Security 2001 ÅiNIS 2001Åj
Norton Personal Firewall 2001 ÅiNPF 2001Åj
Norton Anti Virus 2002 ÅiNAV 2002Åj

Field Remedy

As a temporary solution, do not launch the affected software programs so that printing can be made properly.

As a permanent solution, access the website of Symantec and update the file by executing LiveUpdate of the affected software programs.

15.2.5 Jam (Main Unit)

15.2.5.1 JAM CODE 010C, 020A: External delivery sensor arm being shaved

0002-2314

iR8500 / iR7200 / iR105 / iR85

Symptom

JAM CODE 010C, 020A: External delivery sensor arm being shaved

Explanation

JAM CODE 010C: External delivery sensor (PS10) delay jam
JAM CODE 020A: Fixing claw jam sensor (PS6) stationary jam

Field Remedy

In the field, paper was caught by the shaved internal delivery sensor arm and accordingly jammed. Check whether the sensor arm (FB4-2303) is shaved or not. For the internal delivery sensor arm, see Image1.

Image1

F-15-4

15.2.5.2 JAM CODE 010C: Malfunction of solenoid arm actuating delivery reversal flapper

0002-2320

iR8500 / iR7200 / iR105 / iR85

Symptom

JAM CODE 010C: Malfunction of solenoid arm actuating delivery reversal flapper

Explanation

JAM CODE 010C: External delivery sensor (PS10) delay jam

Cause

As a result of inspection, the solenoid arm in the fixing/feeder unit, which actuates the delivery reversal flapper in the external delivery upper ass'y, is found to remain up (not to get back to the initial position).

This is because the amount of grease application to the root of the solenoid arm is too much.

Field Remedy

Check whether the solenoid arm goes up and down smoothly (Image1: Initial position, Image2: Improper position).
If too much amount of grease is applied to the portion indicated in Image3, wipe it off (Image3: Fixing/feeder unit, view from left).

For your information, contamination on the metal stay and the solenoid arm caused this problem in the field.

Image1

F-15-5

Image2

F-15-6

Image3

F-15-7

15.2.6 Jam (FIN)

15.2.6.1 JAM CODE 1123 Paper Folding Unit-C1

0003-1606

iR8500 / iR7200 / iR105 / iR85

[Case in the field]
Description
JAM CODE 1123 is a stationary jam at the feed path paper sensor 3 (S8) of the paper folding unit-C1.
Cause
There is a case in the field that the optical axis of the feed path paper sensor 3 was misaligned.
Field Remedy
Check the feed path paper sensor 3 in I/O mode: [COPIER>I/O>SORTER>P010-6, 1: paper present]

If an anomaly is found, check the position of the sensor and also make sure that the light-emitting device and the light-receptive device are aligned.
If the symptom is still not solved, replace the sensor with a new one.
For the sensor position refer to the attached image.

F-15-8

15.2.6.2 JAM CODE 1129/E577 Error Code: FIN-K1/K2/K3/K4/K1N/K2/K3N

0003-1334

iR8500 / iR7200 / iR105 / iR85

[Verified by Canon Inc.]
Description
E577: The paddle home position sensor does not sense the paddle within 5 secs. after the paddle motor (M9) is started.
1129 JAM: Lower path sensor (S3) stationary jam
Cause
The paddle home position is detected by rotating the paddle sensor flag in the finisher operation ass'y. This symptom occurs because the paddle sensor flag has been scraped at the hole coming into contact with the shaft of the paddle.
Field Remedy
Inspect whether the hole of the paddle sensor flag has been scraped. If it has, replace it with a new type one (FB5-8430). Note that the new type sensor flag requires the dowel pin (XD3-2200).

Paddle Sensor Flag: FB5-8430
Dowel Pin: XD3-2200

15.2.7 Error Code

15.2.7.1 E065: due to faulty HV-DC transformer PCB Error Code

0003-1598

iR8500 / iR7200 / iR105 / iR85

[Case in the field]
Description
The main causes of E065 are: The primary charging ass'y or HV-DC transformer PCB is faulty. Wiring is faulty (short circuit, open circuit). The error code will be displayed when a fault (leakage) in high-voltage output to the primary charging ass'y is detected.
Cause
There is a case in our inspection that the HV-DC transformer PCB was faulty. There is a case in the field that a leakage occurred at the blocks for the charging wire in the primary charging ass'y.
Field Remedy

Inspect the primary charging ass'y for soil, contaminations, or abnormalities such as leakage at the block for the charging wire. Also, check whether poor contact occurs between the ass'y and the host machine.

If there is no anomaly, check the connection of T601, J723 and J730 on the HV-DC transformer PCB. If there is no problem, replace the PCB with a new one.

15.2.7.2 E240 Error Code, Control panel locking up, power suddenly being shut down

0002-6227

iR8500 / iR7200 / iR105 / iR85

Case in the field

Symptom

E240 Error Code, Control panel locking up, power suddenly being shut down

Explanation

E240: A communication error occurs between the main controller PCB and the CPU of the DC controller PCB.

Cause

1. There are several cases in the field that a faulty HDD caused this problem.
2. There is a case in our inspection that the main controller PCB was found to be faulty.

Field Remedy

1. Execute HD-CHECK and if the problem is not solved replace the HDD with a new one.
2. Check whether the connectors are securely fitted or the cables are not pinched between the main controller PCB and the DC controller PCB. If there is no problem with them, replace the main controller PCB with a new one.

15.2.7.3 E245/E246/E247 Error Code

0003-0917

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Description

E245/E246/E247 are displayed when the counter memory PCB is faulty.

* E245/E245: After replacement of the counter memory PCB, the error will be automatically cleared and the soft counter data will taken over.
* E247: After replacement of the counter memory PCB, the error will be automatically cleared and the soft counter data will also be cleared.

Field Remedy

When E245/E246/E247 are displayed, replace the counter memory PCB with a new one. For procurement of the PCB, contact a division concerned.
If the error code does not disappear even after installation of the new PCB, put the original PCB back to the machine and contact the division.

Things to be PROHIBITED
Never install the PCBs listed below that have been taken out from other machines. In such a case, the error cannot be cleared. In some cases, the serial number or the soft counter will be rewritten.
- Counter memory PCB
- Serial number PCB
- Main controller PCB

15.2.7.4 E350 Error Code

0003-0900

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Description

E350 is displayed when the serial number PCB is faulty.

* After replacement of the serial number PCB, the error will be automatically cleared and the soft counter data will be taken over.

Field Remedy

When E350 is displayed, check the connection between the main controller PCB and the serial number PCB. If there is no problem found, replace the serial number PCB with a new one. For procurement of the PCB, contact a division concerned.
If the error code does not disappear even after installation of the new PCB, put the original PCB back to the machine and contact the division.

Things to be PROHIBITED
Never install the PCBs listed below that have been taken out from other machines. In such a case, the error cannot be cleared. In some cases, the serial number or the soft counter will be rewritten.
- Counter memory PCB
- Serial number PCB
- Main controller PCB

15.2.7.5 E354 Error Code

0003-0925

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Description

E354 is displayed when a mismatch occurs in the serial number data.

* It occurs when installing the counter memory PCB, the serial number PCB and the main controller PCB that have been taken out from other machines.
* Under the condition that the original serial number PCB are installed, when replacing the counter memory PCB with a new one and executing 'E355CLR', the error will be cleared and the soft counter data will also be cleared.

Field Remedy

1. If E354 is displayed as a result of installing the PCBs listed below that have been taken out from other machines, put the original PCBs back to the machine and troubleshoot the problem before E354 indication.
2. If E354 is an error code that was first displayed, replace the counter memory PCB with a new one. For procurement of the PCB, contact a division concerned. After replacement, execute 'E355CLR'.

Things to be PROHIBITED
Never install the PCBs listed below that have been taken out from other machines. In such a case, the error cannot be cleared. In some cases, the serial number or the soft counter will be rewritten.
- Counter memory PCB
- Serial number PCB
- Main controller PCB

15.2.7.6 E355 Error Code

0003-1213

iR8500 / iR7200 / iR105 / iR85

[Manual-related]
Description
E355 is displayed when a mismatch occurs in the serial number data.

* It occurs when installing the counter memory PCB, the serial number PCB and the main controller PCB that have been taken out from other machines.
* Under the condition that the original serial number PCB are installed, when replacing the counter memory PCB with a new one and executing 'E355CLR', the error will be cleared and the soft counter data will also be cleared.

Field Remedy
1. If E355 is displayed as a result of installing the PCBs listed below that have been taken out from other machines, put the original PCBs back to the machine and troubleshoot the problem before E355 indication.
2. If E355 is an error code that was first displayed, replace the counter memory PCB with a new one. For procurement of the PCB, contact a division concerned. After replacement, execute 'E355CLR'.

Things to be PROHIBITED
Never install the PCBs listed below that have been taken out from other machines. In such a case, the error cannot be cleared. In some cases, the serial number or the soft counter will be rewritten.
- Counter memory PCB
- Serial number PCB
- Main controller PCB

15.2.7.7 E402 DADF-J1: ADF belt motor does not rotate Error Code

0003-1224

iR8500 / iR7200 / iR105 / iR85

[Inspected by Canon Inc.]
Description
The main causes of E402 are:
1. The belt motor (M2) in the ADF is faulty.
2. The belt motor clock sensor (PI1) is faulty.
3. The ADF controller PCB is faulty.

It is displayed when the belt motor drive signal is generated, no clock signal is generated for 100 msec.

Cause
As a result of inspection, the ADF belt motor M2 was found to be faulty.

Field Remedy
Check whether the belt motor (M2) is properly rotating in the following procedure:
On the ADF controller PCB, set bit1 and bit5 of the DIP switch (SW1) to 'ON' position and press the push switch (SW2).
If the rotation of the motor is abnormal, E402 will be displayed. In such a case, replace the belt motor ass'y with a new one (FG6-7736).

15.2.7.8 E532 Finisher-K1/K2/K3/K4N Error Code

0002-6700

iR8500 / iR7200 / iR105 / iR85

Inspected by Canon Inc.
Symptom
E532 Finisher-K1/K2/K3/K4N Error Code
Cause
As a result of inspection, the following were found:
The Stapler Slider Block (FB5-9042) was broken: 5 cases
The Stop Link 1 (FB5-8989) was broken: 2 cases
Field Remedy
Inspect the stable slider block and the stop link 1, and replace them if they are broken.
For the location of the parts, refer to the attached file.

15.2.8 Specifications-related FAQ

15.2.8.1 FAQ on Main Unit Specifications

15.2.8.1.1 Scan counters inoperative: even by entering the scan counter numbers in service mode [COPIER>Option>USER>COUNTER 2 through 6]

0002-2479

iR8500 / iR7200 / iR105 / iR85

Verified by Canon Inc.
Symptom
Scan counters inoperative: even by entering the scan counter numbers in service mode [COPIER>Option>USER>COUNTER 2 through 6]
Cause
Typos in <Soft counter Specifications> in the service manual. The soft counters 501 through 504 marked with a circle are assigned for the color scan counter. So, they are inoperative for B/W iR products.

No. Counter
501 scan (total 1) -> Inoperative
502 scan (total 2) -> Inoperative
503 scan (L) -> Inoperative
504 scan (S) -> Inoperative

Field Remedy

1. Without send function model of iR105, iR8500 and iR7200
In order to display the scan counters on the LCD, enter the Bk scan counter numbers (505 through 508) in [COUNTER 2] through [COUNTER 6].

2. With send function model of iR105, iR8500 and iR7200
In order to display the scan counters on the LCD, enter the following scan counter numbers. (505 through 508 are inoperative.)

916 Sent scan total 2 (black and white): incremented by all send functions
940 Remote scans (black and white): incremented by remote scans from PC

15.2.8.1.2 Card Reader-D1: How to print list of print totals by each department

0003-1292

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Field Remedy

In user mode [System Settings>Dept. ID Management>Print Totals], press 'Print List' button to print the list of print totals.

15.2.8.1.3 Paper size of A5 is not displayed on LCD although A5 is loaded in Cassettes 3 and 4

0003-1298

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Field Remedy

For iR8500 series, A5-feeding is not applicable from the right/left paper decks, the cassettes 3 and 4 and the manual tray. This is the specification. A5R-feeding is applicable from these paper sources.

Note that A5 can be physically loaded in the cassettes 3 and 4; however, this is because these cassettes are commonly used with other models with which A5-feeding is applicable.

<For Your Information>
The printable paper sizes from the cassettes 3 and 4 are as follows:
- Plain paper (64 to 80 g/m2)
A3, B4, A4, B5, A5R, A4R, B5R, 279.4 × 431.8mm (11 × 17), LGL, LTR, LTRR, STMT (vertical feed)
- Recycled paper (64 to 80 g/m2)
A3, B4, A4, B5, A5R, A4R, B5R, 279.4 × 431.8mm (11 × 17), LGL, LTR, LTRR, STMT (vertical feed)
- Eco paper (80 g/m2)
A3, A4, A4R
- Colored paper (Canon-recommended)
B4, A4, A4R
- Thick paper (90 to 200 g/m2)
- 3-hole paper (horizontal feed)
LTR, LTRR
- Index paper
A4, LTR

15.2.8.1.4 Paper Deck-M1/N1/S1/T1: How to adjust horizontal registration

0003-1304

iR8500 / iR7200 / iR105 / iR85

[Manual-related]

Field Remedy

Slide out the compartment, and adjust the position of the latch plate (see attached image) of the deck open solenoid using the two screws. For this work, use the scale on the latch plate as a reference. This procedure is described in Service Manual on page 6-15 and 6-16 for both iR8500/7200 and iR105.

F-15-9

15.2.8.1.5 List of versions for System Software and compliant ROMs for USA as of 2003/07/14

0003-1351

iR8500 / iR7200 / iR105 / iR85

[Verified by Canon Inc.]
Description
The following table shows combinations for the system software (host machine) and the compliant ROM versions.

T-15-1

iR8500/7200/105 ÉVÉäÅ[ÉY

Model	System Software	Language	Boot ROM	RUI	RCON	DCON	ADF	Finisher K1/K2/K3	Finisher K1N/K2N/K3N	Saddle	Trimmer
iR8500	**71.01**	**71.01**	**13.33**	**70.2**	**10.01**	**40.06**	**7.01**	**4.03/4.01**	**24.01/22.01**	**4.05**	**6.01**
iR85			11.3		3.03	32.01	6.01	3.06/3.02	23.02/22.01	3.03	4.01
			10.29		2.02	31.02	5.01		21.02/21.01	2.02	3.02
			9.28		1.47	30.06	4.05		4.03/4.01		
			8.27			20.04			3.03/3.02		
						10.08					
						4.01					
						3.01					
iR7200	**71.01**	**71.01**	**13.33**	**70.2**	**8.01**	**40.06**	**8.01**	**4.03/4.01**	**24.01/22.01**	**4.05**	**6.01**
			11.3		7.02	32.01	7.01		23.02/22.01	3.03	3.02
			10.29		6.01	31.02			21.02/21.01		
			9.28		5.01	30.06					
			8.27		4.04	20.04					
						10.08					
iR105	**71.01**	**71.01**	**13.33**	**70.2**	**10.01**	**10.06**	**7.01**	**4.03/4.01**	**24.01/22.01**	**4.05**	**6.01**
			11.3		3.03	3.01	6.01		23.02/22.01	3.03	4.01
			10.29			2.04			21.02/21.01		3.02
			9.28			1.07					2.05

8.27

Versions in bold type: the latest version
Versions in standard (not bold) type: applicable versions that can be used with the system software

15.2.8.1.6 Explanations about 'FIX-WEB' (Fixing Web Counter) in service mode

0003-1361

iR8500 / iR7200 / iR105 / iR85

[Manual-related]
Field Remedy
There are two different 'FIX-WEB' in service mode:
1.COPIER>COUNTER>MISC>FIX-WEB
This item is assigned for a guide of replacement of the fixing web. It may be desired that the fixing web be replaced after half a million sheets.

2. COPIER>COUNTER>DRBL-1>FIX-WEB
This item is assigned for a guide of replacement of the fixing web solenoid. It may be desired that the fixing web solenoid be replace after five million sheets.

15.2.8.2 FAQ on Send Specifications

15.2.8.2.1 Unable to change service mode setting under [DISPLAY>ACC-STS>SEND] to '2' after installation of Universal Send Expansion Board-A1

0003-1609

iR8500 / iR7200 / iR105 / iR85

[Case in the field]
Description
The installation manual describes 'After mounting the Universal Send Expansion Board-A1, verify that the value under DISPLAY>ACC-STS>SEND in service mode is 2. If any other value is displayed, change it to 2.' However, it is unable to change the setting.
Field Remedy
The machine automatically recognizes the send board upon its installation. So, it is unnecessary to change the setting in service mode. This is an error in the manual.

If other value than '2' is displayed under [DISPLAY>ACC-STS>SEND], it is possible that the Send board is faulty or not securely fitted. Reinstall the board. Replace it with a new one if the symptom is not solved.

15.3 Outline of Electrical Components

15.3.1 Clutch/Solenoid

15.3.1.1 Clutches

0007-0924

iR105i/iR105+ / iR9070

F-15-10

T-15-2

Name	Notation	Function
Inside hopper magnet roller drive clutch	CL1	Drives the inside hopper magnet roller.
Registration clutch	CL2	Drives the registration roller.
Registration brake clutch	CL3	Drives the registration brake.
Development 1 clutch	CL4	Drives the developing cylinder (1).
Pre-registration clutch	CL5	Drives the pre-registration roller.
Pre-registration brake clutch	CL6	Drives the pre-registration brake.
Manual feed tray pickup clutch	CL7	Drives the manual feed tray pickup roller.
Vertical path 1 clutch	CL8	Drives the vertical path 1 roller.
Vertical path 2 clutch	CL9	Drives the vertical path 2 roller.
Deck (right) pickup clutch	CL10	Drives the deck (right) pickup roller.
Deck (left) pickup clutch	CL11	Drives the deck (left) pickup roller.
Cassette 3 pickup clutch	CL12	Drives the cassette 3 pickup roller.
Vertical path 3 clutch	CL13	Drives the vertical path 3 roller.
Cassette 4 pickup clutch	CL14	Drives the cassette 4 pickup roller.
Vertical path 4 clutch	CL15	Drives the vertical path 4 roller.
Lower feeder middle clutch	CL16	Dives the lower feeder middle roller.
Lower feeder right clutch	CL17	Drives the lower feeder right roller.
Manual feed tray feeding clutch	CL18	Drives the manual feed tray drive roller.
Deck (left) feeding clutch	CL19	Drives the deck (left) feeding roller.
Developing 2 clutch	CL20	Drives the developing cylinder (2).
Delivery speed switching clutch	CL21	Switches delivery speed.

15.3.1.2 Clutches

0008-9301

/ iR8070

F-15-11

T-15-3

Name	Notation	Function
Inside hopper magnet roller drive clutch	CL1	Drives the inside hopper magnet roller.
Registration clutch	CL2	Drives the registration roller.
Registration brake clutch	CL3	Drives the registration brake.
Development 1 clutch	CL4	Drives the developing cylinder (1).
Pre-registration clutch	CL5	Drives the pre-registration roller.
Pre-registration brake clutch	CL6	Drives the pre-registration brake.
Manual feed tray pickup clutch	CL7	Drives the manual feed tray pickup roller.
Vertical path 1 clutch	CL8	Drives the vertical path 1 roller.
Vertical path 2 clutch	CL9	Drives the vertical path 2 roller.
Deck (right) pickup clutch	CL10	Drives the deck (right) pickup roller.
Deck (left) pickup clutch	CL11	Drives the deck (left) pickup roller.
Cassette 3 pickup clutch	CL12	Drives the cassette 3 pickup roller.
Vertical path 3 clutch	CL13	Drives the vertical path 3 roller.
Cassette 4 pickup clutch	CL14	Drives the cassette 4 pickup roller.
Vertical path 4 clutch	CL15	Drives the vertical path 4 roller.
Lower feeder middle clutch	CL16	Dives the lower feeder middle roller.
Lower feeder right clutch	CL17	Drives the lower feeder right roller.
Manual feed tray feeding clutch	CL18	Drives the manual feed tray drive roller.
Deck (left) feeding clutch	CL19	Drives the deck (left) feeding roller.
Developing 2 clutch	CL20	Drives the developing cylinder (2).
Delivery speed switching clutch	CL21	Switches delivery speed.

15.3.1.3 Clutches

0008-9340

/ iR85+

F-15-12

T-15-4

Name	Notation	Function
Inside hopper magnet roller drive clutch	CL1	Drives the inside hopper magnet roller.
Registration clutch	CL2	Drives the registration roller.
Registration brake clutch	CL3	Drives the registration brake.
Development 1 clutch	CL4	Drives the developing cylinder (1).
Pre-registration clutch	CL5	Drives the pre-registration roller.
Pre-registration brake clutch	CL6	Drives the pre-registration brake.
Manual feed tray pickup clutch	CL7	Drives the manual feed tray pickup roller.
Vertical path 1 clutch	CL8	Drives the vertical path 1 roller.
Vertical path 2 clutch	CL9	Drives the vertical path 2 roller.
Deck (right) pickup clutch	CL10	Drives the deck (right) pickup roller.
Deck (left) pickup clutch	CL11	Drives the deck (left) pickup roller.
Cassette 3 pickup clutch	CL12	Drives the cassette 3 pickup roller.
Vertical path 3 clutch	CL13	Drives the vertical path 3 roller.
Cassette 4 pickup clutch	CL14	Drives the cassette 4 pickup roller.
Vertical path 4 clutch	CL15	Drives the vertical path 4 roller.
Lower feeder middle clutch	CL16	Dives the lower feeder middle roller.
Lower feeder right clutch	CL17	Drives the lower feeder right roller.
Manual feed tray feeding clutch	CL18	Drives the manual feed tray drive roller.
Deck (left) feeding clutch	CL19	Drives the deck (left) feeding roller.
Developing 2 clutch	CL20	Drives the developing cylinder (2).
Delivery speed switching clutch	CL21	Switches delivery speed.

15.3.1.4 Solenoids

0007-0931

iR105i/iR105+ / iR9070

F-15-13

T-15-5

Name	Notation
Fixing web solenoid	SL2
Delivery flapper solenoid	SL3
Fixing/feeder unit locking solenoid	SL4
Manual feed pickup latch solenoid	SL6
Deck (right) pickup solenoid	SL7
Deck (left) pickup solenoid	SL8
Cassette 3 pickup solenoid	SL9
Cassette 4 pickup solenoid	SL10
Reversing flapper solenoid	SL11

15.3.1.5 Solenoids

0008-9342

/ iR8070

F-15-14

T-15-6

Name	Notation
Fixing web solenoid	SL2
Delivery flapper solenoid	SL3
Fixing/feeder unit locking solenoid	SL4
Manual feed pickup latch solenoid	SL6
Deck (right) pickup solenoid	SL7
Deck (left) pickup solenoid	SL8
Cassette 3 pickup solenoid	SL9
Cassette 4 pickup solenoid	SL10
Reversing flapper solenoid	SL11

15.3.1.6 Solenoids

0008-9343

/ iR85+

F-15-15

T-15-7

Name	Notation
Fixing web solenoid	SL2
Delivery flapper solenoid	SL3
Fixing/feeder unit locking solenoid	SL4
Manual feed pickup latch solenoid	SL6
Deck (right) pickup solenoid	SL7
Deck (left) pickup solenoid	SL8
Cassette 3 pickup solenoid	SL9
Cassette 4 pickup solenoid	SL10
Reversing flapper solenoid	SL11

15.3.2 Motor

15.3.2.1 Motors

0007-0934

iR105i/iR105+ / iR9070

F-15-16

T-15-8

Name	Notation
Drum motor	M0
Main motor	M1
Pickup motor	M2
Fixing motor	M3
Laser scanner motor	M4
Scanner motor	M5
Inside cartridge toner feeder motor	M6
Pre-transfer charging wire cleaner motor	M7
Primary charging wire cleaner motor	M8
Transfer/separation charging wire cleaner motor	M9
Vibration motor	M10/M20
Duplex reversal motor	M11
Duplex feeder motor (left)	M12
Deck (right) lifter motor	M13
Deck (left) lifter motor	M14
Horizontal registration motor	M15
Cassette 3 lifter motor	M16
Cassette 4 lifter motor	M17
Inside hoper toner feeder motor	M18
Duplex feeder motor (right)	M19

15.3.2.2 Motors

0008-9136

iR85+

F-15-17

T-15-9

Name	Notation
Drum motor	M0
Main motor	M1
Pickup motor	M2
Fixing motor	M3
Laser scanner motor	M4
Inside cartridge toner feeder motor	M6
Pre-transfer charging wire cleaner motor	M7
Primary charging wire cleaner motor	M8
Transfer/separation charging wire cleaner motor	M9
Duplex reversal motor	M11
Duplex feeder motor (left)	M12
Deck (right) lifter motor	M13
Deck (left) lifter motor	M14
Horizontal registration motor	M15
Cassette 3 lifter motor	M16
Cassette 4 lifter motor	M17
Inside hoper toner feeder motor	M18

15.3.2.3 Motors

0008-9345

/ iR8070

F-15-18

T-15-10

Name	Notation
Drum motor	M0
Main motor	M1
Pickup motor	M2
Fixing motor	M3
Laser scanner motor	M4
Inside cartridge toner feeder motor	M6
Pre-transfer charging wire cleaner motor	M7
Primary charging wire cleaner motor	M8
Transfer/separation charging wire cleaner motor	M9
Duplex reversal motor	M11
Duplex feeder motor (left)	M12
Deck (right) lifter motor	M13
Deck (left) lifter motor	M14
Horizontal registration motor	M15
Cassette 3 lifter motor	M16
Cassette 4 lifter motor	M17
Inside hoper toner feeder motor	M18
Scanner motor	M101

15.3.2.4 Motors

0008-9346

F-15-19

T-15-11

Name	Notation
Drum motor	M0
Main motor	M1
Pickup motor	M2
Fixing motor	M3
Laser scanner motor	M4
Scanner motor	M5
Inside cartridge toner feeder motor	M6
Pre-transfer charging wire cleaner motor	M7
Primary charging wire cleaner motor	M8
Transfer/separation charging wire cleaner motor	M9
Duplex reversal motor	M11
Duplex feeder motor (left)	M12
Deck (right) lifter motor	M13
Deck (left) lifter motor	M14
Horizontal registration motor	M15
Cassette 3 lifter motor	M16
Cassette 4 lifter motor	M17
Inside hoper toner feeder motor	M18

15.3.3 Fan

15.3.3.1 Fans

0007-0951

iR105i/iR105+ / iR9070

F-15-20

T-15-12

Name	Notation
Laser motor cooling fan	FM1
Fixing heat discharge fan	FM2
Laser cooling fan 1	FM3
Stream reading fan	FM4
Laser cooling fan 2	FM5
Curl-reducing fan	FM6
Drum fan	FM8
Inverter cooling fan	FM9
Pre-transfer charging assembly fan	FM10
Power supply cooling fan 1	FM11
Power supply cooling fan 2	FM12
Separation fan	FM13
Developing fan	FM15
System fan	FM16
Delivery anti-adhesion fan	FM17
Scanner motor cooling fan	FM18
Duplex feeder fan	FM19
Separation heat discharge fan	FM20

15.3.3.2 Fans

0008-9135

iR85+

F-15-21

T-15-13

Name	Notation
Laser motor cooling fan	FM1
Fixing heat discharge fan	FM2
Laser cooling fan 1	FM3
Laser cooling fan 2	FM5
Curl-reducing fan	FM6
feeding fan	FM7
Drum fan	FM8
Pre-transfer charging assembly fan	FM10
Power supply cooling fan 1	FM11
Power supply cooling fan 2	FM12
Separation fan	FM13
Laser scanner fan	FM14
Developing fan	FM15
System fan	FM16
Delivery anti-adhesion fan	FM17

15.3.3.3 Fans

0008-9347

/ iR8070

F-15-22

T-15-14

Name	Notation
Laser motor cooling fan	FM1
Fixing heat discharge fan	FM2
Laser cooling fan 1	FM3
Laser cooling fan 2	FM5
Curl-reducing fan	FM6
feeding fan	FM7
Drum fan	FM8
Pre-transfer charging assembly fan	FM10
Power supply cooling fan 1	FM11
Power supply cooling fan 2	FM12
Separation fan	FM13
Laser scanner fan	FM14
Developing fan	FM15
System fan	FM16
Delivery anti-adhesion fan	FM17

15.3.3.4 Fans

0008-9348

F-15-23

T-15-15

Name	Notation
Laser motor cooling fan	FM1
Fixing heat discharge fan	FM2
Laser cooling fan 1	FM3
Stream reading fan	FM4
Laser cooling fan 2	FM5
Curl-reducing fan	FM6
feeding fan	FM7
Drum fan	FM8
Inverter cooling fan	FM9
Pre-transfer charging assembly fan	FM10
Power supply cooling fan 1	FM11
Power supply cooling fan 2	FM12
Separation fan	FM13
Laser scanner fan	FM14
Developing fan	FM15
System fan	FM16
Delivery anti-adhesion fan	FM17
Scanner motor cooling fan	FM20

15.3.4 Sensor

15.3.4.1 Sensor 1

0007-0954

iR105i/iR105+ / iR9070

F-15-24

T-15-16

Name	Notation
Scanner home position sensor	PS1
Image leading edge sensor	PS3
Copyboard cover open/closed sensor	PS4
Registration paper sensor	PS5
Fixing cable jam sensor	PS6
Fixing web length sensor	PS7
Fixing web length warning sensor	PS8
Internal delivery sensor	PS9
External delivery sensor	PS10
Fixing/feeder unit outlet sensor	PS11
Duplex reversal sensor	PS12
Pre-confluence sensor	PS14
Post-confluence sensor	PS15
Manual feed tray paper sensor	PS17
Horizontal registration sensor	PS18
Waste toner case full sensor	PS19
Right deck pickup sensor	PS20
Right deck lifter sensor	PS21
Right deck paper sensor	PS22
Right deck open/closed sensor	PS23
Right deck limit sensor	PS24
Left deck pickup sensor	PS25

Name	Notation
Left deck feed sensor	PS26
Right deck feed sensor	PS27
Fixing/feeder unit releasing lever sensor	PS28
Left deck lifter sensor	PS31
Left deck paper sensor	PS32
Left deck open/closed sensor	PS33
Left deck open/closed sensor	PS34
Manual feed feeder inlet sensor	PS35
Cassette 3 pickup sensor	PS37
Cassette 3 lifter sensor	PS38
Cassette 3 paper sensor	PS39
Cassette 3 open/closed sensor	PS40
Vertical path 3 paper sensor	PS41
Cassette 4 pickup sensor	PS42
Cassette 4 lifter sensor	PS43
Cassette 4 paper sensor	PS44
Cassette 4 open/closed sensor	PS45
Vertical path 4 paper sensor	PS46
Vertical path 1 paper sensor	PS47
Right lower cover open/closed sensor	PS48
Vertical path 2 paper sensor	PS49
Right deck paper level medium sensor	PS51
Right deck paper level upper sensor	PS52
Left deck paper level medium sensor	PS54
Left deck paper level upper sensor	PS55
Manual feed tray cover open/closed sensor	PS56
Copyboard glass sensor	PS57
Right upper cover open/closed sensor	PS58
Toner cartridge cover open /closed sensor	PS59
Image write start sensor	PS60
Duplex outlet sensor	PS61

15.3.4.2 Sensor 1

0008-9137

iR85+

F-15-25

T-15-17

Name	Notation
Registration paper sensor	PS5
Fixing cable jam sensor	PS6
Fixing web length sensor	PS7
Fixing web length warning sensor	PS8
Internal delivery sensor	PS9
External delivery sensor	PS10
Fixing/feeder unit outlet sensor	PS11
Duplex reversal sensor	PS12
Pre-confluence sensor	PS14
Post-confluence sensor	PS15
Reversal sensor	PS16
Manual feed tray paper sensor	PS17
Horizontal registration sensor	PS18
Waste toner case full sensor	PS19
Right deck pickup sensor	PS20
Right deck lifter sensor	PS21
Right deck paper sensor	PS22
Right deck open/closed sensor	PS23
Right deck limit sensor	PS24
Left deck pickup sensor	PS25

Name	Notation
Left deck feed sensor	PS26
Right deck feed sensor	PS27
Fixing/feeder unit releasing lever sensor	PS28
Left deck lifter sensor	PS31
Left deck paper sensor	PS32
Left deck open/closed sensor	PS33
Left deck open/closed sensor	PS34
Manual feed feeder inlet sensor	PS35
Cassette 3 pickup sensor	PS37
Cassette 3 lifter sensor	PS38
Cassette 3 paper sensor	PS39
Cassette 3 open/closed sensor	PS40
Vertical path 3 paper sensor	PS41
Cassette 4 pickup sensor	PS42
Cassette 4 lifter sensor	PS43
Cassette 4 paper sensor	PS44
Cassette 4 open/closed sensor	PS45
Vertical path 4 paper sensor	PS46
Vertical path 1 paper sensor	PS47
Right lower cover open/closed sensor	PS48
Vertical path 2 paper sensor	PS49
Right deck paper level medium sensor	PS51
Right deck paper level upper sensor	PS52
Left deck paper level medium sensor	PS54
Left deck paper level upper sensor	PS55
Manual feed tray cover open/closed sensor	PS56
Right upper cover open/closed sensor	PS58
Toner cartridge cover open /closed sensor	PS59

15.3.4.3 Sensor 1

0008-9350

F-15-26

T-15-18

Name	Notation
Scanner home position sensor	PS1
Image leading edge sensor	PS3
Copyboard cover open/closed sensor	PS4
Registration paper sensor	PS5
Fixing cable jam sensor	PS6
Fixing web length sensor	PS7
Fixing web length warning sensor	PS8
Internal delivery sensor	PS9
External delivery sensor	PS10
Fixing/feeder unit outlet sensor	PS11
Duplex reversal sensor	PS12
Pre-confluence sensor	PS14
Post-confluence sensor	PS15
Reversal sensor	PS16
Manual feed tray paper sensor	PS17
Horizontal registration sensor	PS18
Waste toner case full sensor	PS19
Right deck pickup sensor	PS20
Right deck lifter sensor	PS21

Name	Notation
Right deck paper sensor	PS22
Right deck open/closed sensor	PS23
Right deck limit sensor	PS24
Left deck pickup sensor	PS25
Left deck feed sensor	PS26
Right deck feed sensor	PS27
Fixing/feeder unit releasing lever sensor	PS28
Left deck lifter sensor	PS31
Left deck paper sensor	PS32
Left deck open/closed sensor	PS33
Left deck open/closed sensor	PS34
Manual feed feeder inlet sensor	PS35
Cassette 3 pickup sensor	PS37
Cassette 3 lifter sensor	PS38
Cassette 3 paper sensor	PS39
Cassette 3 open/closed sensor	PS40
Vertical path 3 paper sensor	PS41
Cassette 4 pickup sensor	PS42
Cassette 4 lifter sensor	PS43
Cassette 4 paper sensor	PS44
Cassette 4 open/closed sensor	PS45
Vertical path 4 paper sensor	PS46
Vertical path 1 paper sensor	PS47
Right lower cover open/closed sensor	PS48
Vertical path 2 paper sensor	PS49
Right deck paper level medium sensor	PS51
Right deck paper level upper sensor	PS52
Left deck paper level medium sensor	PS54
Left deck paper level upper sensor	PS55
Manual feed tray cover open/closed sensor	PS56
Copyboard glass sensor	PS57
Right upper cover open/closed sensor	PS58
Toner cartridge cover open /closed sensor	PS59

15.3.4.4 Sensor 1

0008-9362

/ iR8070

F-15-27

T-15-19

Name	Notation
Registration paper sensor	PS5
Fixing cable jam sensor	PS6
Fixing web length sensor	PS7
Fixing web length warning sensor	PS8
Internal delivery sensor	PS9
External delivery sensor	PS10
Fixing/feeder unit outlet sensor	PS11
Duplex reversal sensor	PS12
U-turn sensor	PS13
Pre-confluence sensor	PS14
Post-confluence sensor	PS15
Reversal sensor	PS16
Manual feed tray paper sensor	PS17
Horizontal registration sensor	PS18
Waste toner case full sensor	PS19
Right deck pickup sensor	PS20
Right deck lifter sensor	PS21
Right deck paper sensor	PS22

Name	Notation
Right deck open/closed sensor	PS23
Right deck limit sensor	PS24
Left deck pickup sensor	PS25
Left deck feed sensor	PS26
Right deck feed sensor	PS27
Fixing/feeder unit releasing lever sensor	PS28
Left deck lifter sensor	PS31
Left deck paper sensor	PS32
Left deck open/closed sensor	PS33
Left deck open/closed sensor	PS34
Manual feed feeder inlet sensor	PS35
Cassette 3 pickup sensor	PS37
Cassette 3 lifter sensor	PS38
Cassette 3 paper sensor	PS39
Cassette 3 open/closed sensor	PS40
Vertical path 3 paper sensor	PS41
Cassette 4 pickup sensor	PS42
Cassette 4 lifter sensor	PS43
Cassette 4 paper sensor	PS44
Cassette 4 open/closed sensor	PS45
Vertical path 4 paper sensor	PS46
Vertical path 1 paper sensor	PS47
Right lower cover open/closed sensor	PS48
Vertical path 2 paper sensor	PS49
Right deck paper level medium sensor	PS51
Right deck paper level upper sensor	PS52
Left deck paper level medium sensor	PS54
Left deck paper level upper sensor	PS55
Manual feed tray cover open/closed sensor	PS56
Right upper cover open/closed sensor	PS58
Toner cartridge cover open /closed sensor	PS59
Original sensor	PS101
Scanner HP sensor	PS102
Copyboad cover sensor	PS103

15.3.4.5 Sensor 2

0007-0957

iR105i/iR105+ / iR9070

F-15-28

T-15-20

Name	Notation
Original size sensor 1	SIZE1
Original side sensor 2	SIZE2
Original side sensor 3	SIZE3
Original size sensor 4	SIZE4
Cassette 3 paper length sensor	SV1
Cassette 4 paper length sensor	SV2
Manual feed tray paper width detecting volume	SVR1
Cassette 3 paper width detecting volume	SVR2
Cassette 4 paper width detecting volume	SVR3
Inside hopper toner sensor	TS1
Inside hopper toner lower limit sensor	TS2
Inside developing assembly toner sensor	TS3
Potential sensor	DP1

15.3.4.6 Sensor 2

0008-9138

iR85+

F-15-29

T-15-21

Name	Notation
Cassette 3 paper length sensor	SV1
Cassette 4 paper length sensor	SV2
Manual feed tray paper width detecting volume	SVR1
Cassette 3 paper width detecting volume	SVR2
Cassette 4 paper width detecting volume	SVR3
Inside hopper toner sensor	TS1
Inside hopper toner lower limit sensor	TS2
Inside developing assembly toner sensor	TS3
Potential sensor	DP1

15.3.4.7 Sensor 2

0008-9372

/ iR8070

F-15-30

T-15-22

Name	Notation
Cassette 3 paper length sensor	SV1
Cassette 4 paper length sensor	SV2
Manual feed tray paper width detecting volume	SVR1
Cassette 3 paper width detecting volume	SVR2
Cassette 4 paper width detecting volume	SVR3
Inside hopper toner sensor	TS1
Inside hopper toner lower limit sensor	TS2
Inside developing assembly toner sensor	TS3
Potential sensor	DP1

15.3.4.8 Sensor 2

0008-9373

F-15-31

T-15-23

Name	Notation
Original size sensor 1	SIZE1
Original side sensor 2	SIZE2
Original side sensor 3	SIZE3
Original size sensor 4	SIZE4
Cassette 3 paper length sensor	SV1
Cassette 4 paper length sensor	SV2
Manual feed tray paper width detecting volume	SVR1
Cassette 3 paper width detecting volume	SVR2
Cassette 4 paper width detecting volume	SVR3
Inside hopper toner sensor	TS1
Inside hopper toner lower limit sensor	TS2
Inside developing assembly toner sensor	TS3
Potential sensor	DP1

15.3.5 Switch

15.3.5.1 Switches

0007-0961

iR105i/iR105+ / iR9070

F-15-32

T-15-24

Name	Notation
Main switch	SW1
Front cover switch	SW2
Drum heater switch	SW3
Cartridge detecting switch	MSW1
Waste toner clog detecting switch	MSW2
Manual feed tray cover open/closed detecting switch	MSW5
Front cover open/closed detecting switch	MSW7
Cartridge motor drive switch	MSW8

15.3.5.2 Switches

0008-9375

/ iR8070

F-15-33

T-15-25

Name	Notation
Main switch	SW1
Front cover switch	SW2
Drum heater switch	SW3
Cartridge detecting switch	MSW1
Waste toner clog detecting switch	MSW2
Manual feed tray cover open/closed detecting switch	MSW5
Front cover open/closed detecting switch	MSW7
Cartridge motor drive switch	MSW8

15.3.5.3 Switches

0008-9376

/ iR85+

F-15-34

T-15-26

Name	Notation
Main switch	SW1
Front cover switch	SW2
Drum heater switch	SW3
Cartridge detecting switch	MSW1
Waste toner clog detecting switch	MSW2
Manual feed tray cover open/closed detecting switch	MSW5
Front cover open/closed detecting switch	MSW7
Cartridge motor drive switch	MSW8

15.3.6 Lamps, Heaters, and Others

15.3.6.1 Lamp, Heater, and Others

0007-0968

iR105i/iR105+ / iR9070

F-15-35

T-15-27

Name	Notation	Description
Scanning lamp (fluorescent lamp)	FL1	Scanning lamp
Heater	H1	Fixing main heater
	H2	Fixing sub heater
	H3	Drum heater
	H4	Cassette heater
	H5	Scanning amp heater
Thermistor	TH1	Fixing heater main thermistor
	TH2	Fixing heater sub thermistor (edge)
Thermal switch	TP1	Fixing heater thermal switch
Leakage breaker	ELCB1	Leakage breaker
Pre-exposure lamp	LED1	Drum pre-exposure
Pre-transfer exposure lamp	LED2	Pre-transfer exposure
Hard disk	HD1	Hard disk

15.3.6.2 Lamp, Heater, and Others

0008-9139

iR85+

F-15-36

T-15-28

Name	Notation	Description
Heater	H1	Fixing main heater
	H2	Fixing sub heater
	H3	Drum heater
	H4	Cassette heater (208V:None 230V:option)
Thermistor	TH1	Fixing main thermistor
	TH2	Fixing sub thermistor
Thermal switch	TP1	Fixing heater thermal switch
Leakage breaker	ELCB1	Leakage breaker
Pre-exposure lamp	LED1	Pre-exposure lamp
Pre-transfer expgure lamp	LED2	Pre-transfer exposure lamp
Hard disk	HD1	Hard disk

15.3.6.3 Lamp, Heater, and Others

0008-9380

/ iR8070

F-15-37

T-15-29

Name	Notation	Description
Scanning lamp (xenon lamp)	LA101	Scanning lamp (xenon lamp)
Heater	H1	Fixing main heater
	H2	Fixing sub heater
	H3	Drum heater
	H4	Cassette heater
	H101	Lens heater
	H102	Mirror heater
Thermistor	TH1	Fixing main thermistor
	TH2	Fixing sub thermistor
Thermal switch	TP1	Fixing heater thermal switch
Leakage breaker	ELCB1	Leakage breaker
Pre-exposure lamp	LED1	Pre-exposure lamp
Pre-transfer expgure lamp	LED2	Pre-transfer exposure lamp
Hard disk	HD1	Hard disk

15.3.6.4 Lamp, Heater, and Others

0008-9394

F-15-38

T-15-30

Name	Notation	Description
Scanning lamp (fluorescent lamp)	FL1	Scanning lamp
Heater	H1	Fixing main heater
	H2	Fixing sub heater
	H3	Drum heater
	H4	Cassette heater
	H5	Scanning lamp heater
Thermistor	TH1	Fixing main thermistor
	TH2	Fixing sub thermistor
Thermal switch	TP1	Fixing heater thermal switch
Leakage breaker	ELCB1	Leakage breaker
Pre-exposure lamp	LED1	Pre-exposure lamp
Pre-transfer expgure lamp	LED2	Pre-transfer exposure lamp
Hard disk	HD1	Hard disk

15.3.7 PCBs

15.3.7.1 PCBs

0007-0973

iR105i/iR105+ / iR9070

F-15-39

T-15-31

Name	Notation	Function
CCD/AP PCB	PCB1	Drives the CCD/processes analog images.
Reader controller PCB	PCB2	Controls the reader unit.
Pixel/line conversion PCB	PCB3	Executes pixel/line conversion.
Differential PCB	PCB4	Executes communication signal conversion.
Main controller PCB	PCB5	Controls the system.
DC controller PCB	PCB6	Controls the printer unit.
Laser driver PCB 1	PCB7	Drives the laser diode.
Laser driver PCB 2	PCB8	Controls the laser intensity.
Scanner motor drive PCB	PCB9	Drives the scanner motor.
DC power supply PCB	PCB10	Supplies DC power.
HV-DC PCB	PCB11	Generates high-voltage DC components.
HV-AC PCB	PCB12	Generates high-voltage AC components.
All-day power supply PCB	PCB13	Supplies DC power.
Relay PCB	PCB14	Distributes DC power supply.
Bi-Centronics PCB	PCB15	Serves as a download interface.
Fluorescent lamp inverter PCB	PCB16	Controls the activation of the fluorescent lamp.
Drum heater control PCB	PCB17	Drives the drum heater.
BD PCB	PCB18	Detects the laser beam.
Potential control PCB	PCB19	Controls the drum surface potential.

Name	Notation	Function
AC driver PCB	PCB20	Drive the fixing heater.
Environment sensor PCB	PCB22	Detects the machine outside temperature/ humidity.
Stackless feeder driver PCB	PCB23	Drives the duplex/feeder unit.
Cassette 3 paper level detection PCB	PCB24	Detects the level of paper in the cassette 3.
Cassette 4 paper level detection PCB	PCB25	Detects the level of paper in the cassette 4.
Laser scanner motor drive PCB	PCB26	Drives the laser scanner motor.
Light adjustment control PCB	PCB27	Controls the intensity of the fluorescent lamp.
Light adjustment sensor PCB	PCB28	Detects the intensity of the fluorescent lamp.
Original orientation detection PCB	PCB29	Detects the orientation of the original.
Transformer PCB	PCB31	Supplies inverter power.
Capacitor PCB (200V model only)	PCB32	Prevents electrical noise
Controls panel CPU PCB	PCB33	Controls the control panel.
Control panel PCB	PCB34	Controls panel key inputs and LED indications.
Control panel inverter PCB	PCB35	Controls the activation of the LCD.

15.3.7.2 PCBs

0008-9140

iR85+

F-15-40

T-15-32

Name	Notation	Function
Pixel/line conversion PCB	PCB3	Executes pixel/line conversion.
Main controller PCB	PCB5	Controls the system.
DC controller PCB	PCB6	Controls the printer unit.
Laser driver PCB 1	PCB7	Drives the laser diode.
Laser driver PCB 2	PCB8	Controls the laser intensity.
DC power supply PCB	PCB10	Supplies DC power.
HV-DC PCB	PCB11	Generates high-voltage DC components.
HV-AC PCB	PCB12	Generates high-voltage AC components.
All-day power supply PCB	PCB13	Supplies DC power.
Relay PCB	PCB14	Distributes DC power supply.
Bi-Centronics PCB	PCB15	Serves as a download interface.
Drum heater control PCB	PCB17	Drives the drum heater.
BD PCB	PCB18	Detects the laser beam.
Potential control PCB	PCB19	Controls the drum surface potential.
AC driver PCB	PCB20	Drive the fixing heater.
Environment sensor PCB	PCB22	Detects the machine outside temperature/ humidity.
Stackless feeder driver PCB	PCB23	Drives the duplex/feeder unit.
Cassette 3 paper level detection PCB	PCB24	Detects the level of paper in the cassette 3.
Cassette 4 paper level detection PCB	PCB25	Detects the level of paper in the cassette 4.
Laser scanner motor drive PCB	PCB26	Drives the laser scanner motor.
Control panel CPU PCB	PCB30	Controls the control panel.
Control panel PCB	PCB31	Supplies inverter power.
Capacitor PCB (200V model only)	PCB32	Prevents electrical noise

15.3.7.3 PCBs

0008-9399

F-15-41

T-15-33

Name	Notation	Function
CCD/AP PCB	PCB1	Drives the CCD/processes analog images.
Reader controller PCB	PCB2	Controls the reader unit.
Pixel/line conversion PCB	PCB3	Executes pixel/line conversion.
Differential PCB	PCB4	Executes communication signal conversion.
Main controller PCB	PCB5	Controls the system.
DC controller PCB	PCB6	Controls the printer unit.
Laser driver PCB 1	PCB7	Drives the laser diode.
Laser driver PCB 2	PCB8	Controls the laser intensity.
Scanner motor drive PCB	PCB9	Drives the scanner motor.
DC power supply PCB	PCB10	Supplies DC power.
HV-DC PCB	PCB11	Generates high-voltage DC components.
HV-AC PCB	PCB12	Generates high-voltage AC components.
All-day power supply PCB	PCB13	Supplies DC power.
Relay PCB	PCB14	Distributes DC power supply.
Bi-Centronics PCB	PCB15	Serves as a download interface.
Fluorescent lamp inverter PCB	PCB16	Controls the activation of the fluorescent lamp.
Drum heater control PCB	PCB17	Drives the drum heater.
BD PCB	PCB18	Detects the laser beam.
Potential control PCB	PCB19	Controls the drum surface potential.

Name	Notation	Function
AC driver PCB	PCB20	Drive the fixing heater.
Environment sensor PCB	PCB22	Detects the machine outside temperature/ humidity.
Stackless feeder driver PCB	PCB23	Drives the duplex/feeder unit.
Cassette 3 paper level detection PCB	PCB24	Detects the level of paper in the cassette 3.
Cassette 4 paper level detection PCB	PCB25	Detects the level of paper in the cassette 4.
Laser scanner motor drive PCB	PCB26	Drives the laser scanner motor.
Intensity control PCB	PCB27	Controls the intensity of the fluorescent lamp.
Intensity sensor PCB	PCB28	Detects the intensity of the fluorescent lamp.
Original orientation detection PCB	PCB29	Detects the orientation of the original.
Control panel CPU PCB	PCB30	Controls the control panel.
Control panel PCB	PCB31	Supplies inverter power.
Capacitor PCB (200V model only)	PCB32	Prevents electrical noise

15.3.7.4 PCBs

0008-9408

/ iR8070

F-15-42

T-15-34

Name	Notation	Function
Pixel/line conversion PCB	PCB3	Executes pixel/line conversion.
Differential PCB	PCB4	Executes communication signal conversion.
Main controller PCB	PCB5	Controls the system.
DC controller PCB	PCB6	Controls the printer unit.
Laser driver PCB 1	PCB7	Drives the laser diode.
Laser driver PCB 2	PCB8	Controls the laser intensity.
DC power supply PCB	PCB10	Supplies DC power.
HV-DC PCB	PCB11	Generates high-voltage DC components.
HV-AC PCB	PCB12	Generates high-voltage AC components.
All-day power supply PCB	PCB13	Supplies DC power.
Relay PCB	PCB14	Distributes DC power supply.
Bi-Centronics PCB	PCB15	Serves as a download interface.
Fluorescent lamp inverter PCB	PCB16	Controls the activation of the fluorescent lamp.
Drum heater control PCB	PCB17	Drives the drum heater.
BD PCB	PCB18	Detects the laser beam.
Potential control PCB	PCB19	Controls the drum surface potential.
AC driver PCB	PCB20	Drive the fixing heater.
Environment sensor PCB	PCB22	Detects the machine outside temperature/ humidity.
Stackless feeder driver PCB	PCB23	Drives the duplex/feeder unit.
Cassette 3 paper level detection PCB	PCB24	Detects the level of paper in the cassette 3.
Cassette 4 paper level detection PCB	PCB25	Detects the level of paper in the cassette 4.
Laser scanner motor drive PCB	PCB26	Drives the laser scanner motor.
Control panel PCB	PCB31	Supplies inverter power.
Capacitor PCB (200V model only)	PCB32	Prevents electrical noise
Control panel CPU PCB	PCB33	Controls the control panel.
CCD/AP PCB	PCB101	Drives the CCD/processes analog images.
Reader Controller PCB	PCB102	Controls the reader unit.
Inverter PCB	PCB103	Controls the activation of the lamp.
Fuse PCB	PCB104	Controls the mirror/lens heater.
Differential PCB	PCB105	Executes communication signal conversion.

15.3.8 Plane Pedistal

15.3.8.1 Side Paper Deck-N1

0007-1019

iR105

F-15-43

F-15-44

T-15-35

Name	Notation
Deck pickup sensor	PS1
Deck paper absent sensor	PS2
Deck lifter upper limit sensor	PS3
Deck lift position sensor	PS4
Deck set sensor	PS5
Deck feed sensor	PS6
Deck paper supply position sensor	PS7
Deck paper level sensor	PS8
Compartment open sensor	PS9
Compartment open detecting switch	SW1
Deck lifter lower limit detecting switch	SW2
Compartment open switch	SW100
Deck main motor	M1
Deck lifter motor	M2
Deck feeding clutch	CL1
Deck pickup clutch	CL2
Deck pickup roller releasing solenoid	SL1
Compartment open solenoid	SL2
Deck heater (option for 200/230 V model)	H1
Deck drive PCB	PCB1
Open switch PCB	PCB2

15.3.9 Variable Resistors (VR), Light-Emitting Diodes (LED), and Check Pins by PCB

15.3.9.1 Variable Resistors (VR), Light-Emitting Diodes (LED), and Check Pins by PCB

0007-1025

iR105i/iR105+ / iR9070

Of the variable VRs, LEDs, and switches used in the machine, those needed when servicing in the field are discussed.

1. Some LEDs emit dim light even when OFF because of leakage current; this is a normal condition, and must be kept in mind.
2. VRs that may be used in the field

: ⊘

VRs that must not be used in the field

: ⊘

Do not touch the VRs and check pins not discussed herein. They are exclusively for use at the factory, and require special tools and high precision.

15.3.9.2 Variable Resistors (VR), Light-Emitting Diodes (LED), and Check Pins by PCB

0008-9409

/ iR85+ / iR8070

Of the variable VRs, LEDs, and switches used in the machine, those needed when servicing in the field are discussed.

1. Some LEDs emit dim light even when OFF because of leakage current; this is a normal condition, and must be kept in mind.
2. VRs that may be used in the field

:

VRs that must not be used in the field

:

Do not touch the VRs and check pins not discussed herein. They are exclusively for use at the factory, and require special tools and high precision.

15.3.9.3 Main Controller PCB

0007-1027

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-15-45

15.3.9.4 Main Controller PCB

0008-9410

iR7200

F-15-46

15.3.9.5 Reader Controller PCB

0007-1029

iR105i/iR105+ / iR9070

F-15-47

15.3.9.6 Reader Controller PCB

0008-9411

F-15-48

15.3.9.7 Reader Controller PCB

0008-9412

/ iR8070

F-15-49

T-15-36

	SW5001-1	SW5001-2
ON:	Inch series.	Not used.
OFF:	AB series.	Not used.

15.3.9.8 DC controller PCB

0007-1031

iR105i/iR105+ / iR9070

F-15-50

15.3.9.9 DC controller PCB

0008-9415

/ iR85+ / iR8070

F-15-51

15.3.9.10 HV-DC PCB

0007-1032

iR105i/iR105+ / iR9070

F-15-52

Normally, keep the slide switch (SW101) in UP position. Keep this in mind when replacing the PCB.

15.3.9.11 HV-DC PCB

0008-9417

/ iR85+ / iR8070

F-15-53

The slide switch (SW101) is for factory use only, and is not used for servicing work in the field (Keep it as it is set at the factory).

Chapter 16 Self Diagnosis

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16.1 Error Code Table

16.1.1 Outline

0007-1248

iR105i/iR105+ / iR9070 / iR8070

The CPU on the machine's main controller PCB and DC controller PCB is equipped with a self diagnostic mechanism that monitors the condition of the machine (especially of the sensors); upon detection of a fault, it indicates the fact in the control panel using an error code.
A description of each code and the timing of its detection are as discussed hereafter; the suffix that may follow each code is a detail code, which may be checked in service mode (COPIER>DISPLAY>JAM/ERR).

The error codes are grouped as follows according to the items they refer to:
E000 to E399 error code related to the copier
E400 to E499 error code related to the ADF
E500 to E514 error code related to the finisher
E515 error code related to the inserter
E518 error code related to the paper folding unit
E530 to E595 error code related to the finisher
E5F0 to E5F9 error code related to the saddle stitch assembly
E601 to E830 error code related to the copier

When the self diagnostic mechanism has gone ON, the machine may be reset by turning its power switch. This, however, does not apply to E000, E001, E002, E003, E004, E005, E013, E020, E717 or E719, indicating a fault which can lead to serious consequences if the machine is reset without removing the cause (i.e., melting thermistor, which will overheat the fixing roller, or overflowing of toner from the hoper).
If the code is from E000 to E003, the power switch will go OFF in about 30 sec if it is turned ON without resetting; in the case of E004, the power switch will go OFF in about 3 sec after indicting E000 if the power switch is turned ON without resetting.
You will have to clear the data in the RAM on the DC controller PCB for the following: E000, E001, E002, E003, E004, E005, E013, E020, E717 andE719.

<Clearing Errors>
1) Execute the following in service mode: COPIER>FUNCTION>CLEAR>ERR.
2) Press the Reset key twice to return to the Copy Mode screen.
3) Turn off and the on the main power switch.

16.1.2 Outline

0008-9145

iR85+

The CPU on the machine's main controller PCB and DC controller PCB is equipped with a self diagnostic mechanism that monitors the condition of the machine (especially of the sensors); upon detection of a fault, it indicates the fact in the control panel using an error code.
A description of each code and the timing of its detection are as discussed hereafter; the suffix that may follow each code is a detail code, which may be checked in service mode (COPIER>DISPLAY>JAM/ERR).

The error codes are grouped as follows according to the items they refer to:
E000 to E399 error code related to the main body
E500 to E514 error code related to the finisher
E515 error code related to the inserter
E518 error code related to the paper folding unit
E530 to E595 error code related to the finisher
E5F0 to E5F9 error code related to the saddle stitch assembly
E601 to E830 error code related to the main body

When the self diagnostic mechanism has gone ON, the machine may be reset by turning its power switch. This, however, does not apply to E000, E001, E002, E003, E004, E005, E013, E020, E717 or E719, indicating a fault which can lead to serious consequences if the machine is reset without removing the cause (i.e., melting thermistor, which will overheat the fixing roller, or overflowing of toner from the hoper).
If the code is from E000 to E003, the power switch will go OFF in about 30 sec if it is turned ON without resetting; in the case of E004, the power switch will go OFF in about 3 sec after indicting E000 if the power switch is turned ON without resetting.
You will have to clear the data in the RAM on the DC controller PCB for the following: E000, E001, E002, E003, E004, E005, E013, E020, E717 andE719.

<Clearing Errors>
1) Execute the following in service mode: COPIER>FUNCTION>CLEAR>ERR.
2) Press the Reset key twice to return to the standby screen.
3) Turn off and the on the main power switch.

16.1.3 Error Code List

0008-5846

iR105i/iR105+ / iR9070

T-16-1

Code	Description
E000	The temperature of the fixing assembly is abnormally high.
E001	The over-rising in temperature of the fixing assembly is detected.
E002	The rise in temperature of the fixing assembly is faulty.
E003	The fixing temperature is too low after a standby state.
E004	The fixing assembly is faulty.
E005	The absence of the fixing web is detected.
E010	The rotation of the main motor is faulty.
E012	The rotation of the drum motor is faulty.
E013	The lock of the waste toner feed screw is detected.
E014	The rotation of the fixing motor is faulty.
E015	The rotation of the pickup motor is faulty.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.
E025	The toner feed motor inside the hopper is faulty.
E032	The counter of the copy data controller or the NE controller is faulty.
E043	The rotation of the side paper deck main motor is faulty.
E051	There is an error in the detection of the horizontal registration home position.
E065	There is an error in the high-voltage output to the primary charging assembly.
E067	There is an error in the high-voltage output.
E068	There is an error in the high-voltage output to the separation charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.
E100	The BD PCB is faulty.
E110	The rotation of the laser scanner motor is faulty.
E111	The rotation of the laser motor cooling fan is faulty.
E121	The rotation of the laser cooling fan (1/2) is faulty.
E202	There is an error in the detection of the scanner home position.
E204	There is an error in the detection of the image leading edge signal.
E211	The rise in temperature of the scanning lamp heater is faulty.
E215	The temperature of the scanning lamp heater is abnormally high.
E218	The scanning lamp is not mounted properly.
E219	The scanning lamp life
E220	The lighting of the scanning lamp is faulty.
E222	The rise in temperature of the scanning lamp heater is faulty.
E240	The communication between the MCON and DCON is faulty.
E241	The communication between the original orientation detection PCB and RCON is faulty.
E243	The communication between the control panel PCB and MCON is faulty.
E251	The rotation of the inverter cooling fan is faulty.
E302	Shading error
E315	There is an error in image data. The reader controller PCB is faulty. The main controller PCB is faulty.
E320	There is a time out error in the image reading processing.
E400	Communication error with the ADF
E402	The rotation of the ADF belt motor is faulty.
E404	The rotation of the ADF delivery motor is faulty.
E405	The rotation of the ADF separation motor is faulty.
E410	The rotation of the ADF pickup motor is faulty.
E412	The rotation of the ADF cooling fan is faulty.
E420	The EEPROM is faulty. The ADF controller PCB is faulty.
E602	There is an error on the hard disk.
E604	The image memory is faulty or is inadequate.
E609	There is an error on the HDD.
E610	The HDD coding key is faulty.
E710	There is an error in the initialization of the IPC.
E711	There is an error in the IPC communication.
E712	Communication error with the ADF
E713	There is an error in the communication with the finisher.
E717	There is an error in the communication with the NE controller.
E719	There is a coin vendor error.
E730	There is a PDL software error.
E732	There is an error in the communication with the scanner.

Code	Description
E733	There is an error in the communication with the printer.
E740	There is an error on the Ethernet board.
E744	There is an error in the language file/boot ROM.
E745	There is a fault on the TokenRing board.
E746	The accessories board is of the wrong type.
E748	Mismatch in controller board and SDRAM size
E800	There is an error in the auto power-off circuit.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.
E820	The rotation of the drum fan is faulty.
E823	The rotation of the pre-transfer charging assembly fan is faulty.
E830	The rotation of the separation fan is faulty.

16.1.4 Error Code List

0008-8489

/ iR8070

T-16-2

Code	Description
E000	The temperature of the fixing assembly is abnormally high.
E001	The over-rising in temperature of the fixing assembly is detected.
E002	The rise in temperature of the fixing assembly is faulty.
E003	The fixing temperature is too low after a standby state.
E004	The fixing assembly is faulty.
E005	The absence of the fixing web is detected.
E010	The rotation of the main motor is faulty.
E012	The rotation of the drum motor is faulty.
E013	The lock of the waste toner feed screw is detected.
E014	The rotation of the fixing motor is faulty.
E015	The rotation of the pickup motor is faulty.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.
E025	The toner feed motor inside the hopper is faulty.
E032	The counter of the copy data controller or the NE controller is faulty.
E043	The rotation of the side paper deck main motor is faulty.
E051	There is an error in the detection of the horizontal registration home position.
E065	There is an error in the high-voltage output to the primary charging assembly.
E067	There is an error in the high-voltage output.
E068	There is an error in the high-voltage output to the separation charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.
E100	The BD PCB is faulty.
E110	The rotation of the laser scanner motor is faulty.
E111	The rotation of the laser motor cooling fan is faulty.
E121	The rotation of the laser cooling fan (1/2) is faulty.
E202	There is an error in the detection of the scanner home position.
E204	There is an error in the detection of the image leading edge signal.
E220	The lamp inverter PCB is faulty.
E225	The scanning lamp is faulty.
E240	The communication between the MCON and DCON is faulty.
E243	The communication between the control panel PCB and MCON is faulty.
E248	Backup (EEPROM) error
E302	Shading error
E315	There is an error in image data. The reader controller PCB is faulty. The main controller PCB is faulty.
E320	There is a time out error in the image reading processing.
E412	The rotation of the ADF cooling fan is faulty.
E420	The EEPROM is faulty. The ADF controller PCB is faulty.
E421	Backup (EEPROM) error
E422	There is an error in the IPC communication.

Code	Description
E602	There is an error on the hard disk.
E604	The image memory is faulty or is inadequate.
E609	There is an error on the HDD.
E610	The HDD coding key is faulty.
E710	There is an error in the initialization of the IPC.
E711	There is an error in the IPC communication.
E712	Communication error with the ADF
E713	There is an error in the communication with the finisher.
E717	There is an error in the communication with the NE controller.
E719	There is a coin vendor error.
E730	There is a PDL software error.
E732	There is an error in the communication with the scanner.
E733	There is an error in the communication with the printer.
E740	There is an error on the Ethernet board.
E744	There is an error in the language file/boot ROM.
E745	There is a fault on the TokenRing board.
E746	The accessories board is of the wrong type.
E748	Mismatch in controller board and SDRAM size
E800	There is an error in the auto power-off circuit.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.
E820	The rotation of the drum fan is faulty.
E823	The rotation of the pre-transfer charging assembly fan is faulty.
E824	The rotation of the primary charging assembly fan is faulty.
E830	The rotation of the separation fan is faulty.

16.1.5 Error Code List

0008-9146

iR85+

T-16-3

Code	Description
E000	The temperature of the fixing assembly is abnormally high.
E001	The over-rising in temperature of the fixing assembly is detected.
E002	The rise in temperature of the fixing assembly is faulty.
E003	The fixing temperature is too low after a standby state.
E004	The fixing assembly is faulty.
E005	The absence of the fixing web is detected.
E010	The rotation of the main motor is faulty.
E012	The rotation of the drum motor is faulty.
E013	The lock of the waste toner feed screw is detected.
E014	The rotation of the fixing motor is faulty.
E015	The rotation of the pickup motor is faulty.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.
E025	The toner feed motor inside the hopper is faulty.
E032	The counter of the copy data controller or the NE controller is faulty.
E043	The rotation of the side paper deck main motor is faulty.
E051	There is an error in the detection of the horizontal registration home position.
E065	There is an error in the high-voltage output to the primary charging assembly.
E067	There is an error in the high-voltage output.
E068	There is an error in the high-voltage output to the separation charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.
E100	The BD PCB is faulty.
E110	The rotation of the laser scanner motor is faulty.
E111	The rotation of the laser motor cooling fan is faulty.
E121	The rotation of the laser cooling fan (1/2) is faulty.
E240	The communication between the MCON and DCON is faulty.

Code	Description
E243	The communication between the control panel PCB and MCON is faulty.
E602	There is an error on the hard disk.
E604	The image memory is faulty or is inadequate.
E609	There is an error on the HDD.
E610	The HDD coding key is faulty.
E710	There is an error in the initialization of the IPC.
E711	There is an error in the IPC communication.
E713	There is an error in the communication with the finisher.
E717	There is an error in the communication with the NE controller.
E719	There is a coin vendor error.
E730	There is a PDL software error.
E733	There is an error in the communication with the printer.
E740	There is an error on the Ethernet board.
E744	There is an error in the language file/boot ROM.
E745	There is a fault on the TokenRing board.
E746	The accessories board is of the wrong type.
E748	Mismatch in controller board and SDRAM size
E800	There is an error in the auto power-off circuit.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.
E820	The rotation of the drum fan is faulty.
E823	The rotation of the pre-transfer charging assembly fan is faulty.
E824	The rotation of the primary charging assembly fan is faulty.
E830	The rotation of the separation fan is faulty.

16.2 Error Code Details

16.2.1 Error Code Detail

0008-6182

iR105i/iR105+ / iR9070

T-16-4

Code	Cause	Remedy
E000	The temperature of the fixing assembly is abnormally high.	
0000	When the main power switch is turned on, the reading of the main thermistor does not reach 70 deg C within 3 min 30 sec.	- Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E001	The over-rising in temperature of the fixing assembly is detected.	
0001	The hardware port detects a fault.	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0002	Either the main thermistor or the sub thermistor detects 230 deg C or higher for 2 sec.	- Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor or the sub thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0003	The reading of the main thermistor is higher than that of the sub thermistor by 50 deg C or more for 1 sec.	Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0004	The reading of the main thermistor is lower than that of the sub thermistor by 50 deg C or more for 1 sec.	- Check if the main thermistor is mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E002	The rise in temperature of the fixing assembly is faulty.	
0000	The reading of the main thermistor (TH1) does not reach 100 deg C 2 min 30 sec after it has exceeded 70 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).

Code	Cause	Remedy
0001	The reading of the main thermistor does not reach 150 deg C within 2 min 30 sec after it has exceeded 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E003	The fixing temperature is too low after a standby state.	
0000	The reading of the main thermistor is 70 deg C or lower for 2 sec or more after it has reached 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E004	The fixing assembly is faulty.	
0000	The SSR used to drive the fixing heater has a short circuit (detection by hardware circuitry).	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E005	The absence of the fixing web is detected.	
0000	The length of the fixing web that has been taken up is more than a specific value and the fixing web length sensor (PS7) has detected the absence of the web for 5 sec or more.	- Check the position of the fixing web detection lever. - Replace the fixing web. - Replace the fixing web length sensor. - Replace the DC controller PCB. Caution After replacing the fixing web, you will have to clear the two web counters in service mode (COPIER>COUNTER>MISC>FIX-WEB and COPIER>COUNTER>DRBL-1>FIX-WEB).
0010	The power is turned off and then on without clearing the error.	- Reset the counters of the two webs to zero in service mode (COPIER>COUNTER>MISC>FIX-WEB, COPIER>COUNTER>DRBL-1>FIX-WEB)
E010	The rotation of the main motor is faulty.	
0000	No clock pulse arrive for 2 sec or more after the main motor drive signal (MMFG) has been generated.	- Check if the connecter (J611, J612) of the main motor is mounted properly. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the main motor. - Replace the relay PCB. - Replace the DC controller PCB.
E012	The rotation of the drum motor is faulty.	
0000	No clock pulse arrives for 2 sec or more after the drum motor drive signal (DMFG) has been generated.	- Check if the connector (J1720) of the relay PCB is mounted properly. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Check if the connecter (J601, J602) of the drum motor is mounted properly. - Replace the drum motor. - Replace the DC controller PCB.
E013	The lock of the waste toner feed screw is detected.	

Code	Cause	Remedy
0000	The waste toner feed screw fails to rotate normally, and the switch MSW2 is pressed multiple times within a specific period of time.	- Re-mount the waste toner pipe. - Replace the waste toner pipe. - Replace the waste toner clog detecting switch. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is tuned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E014	The rotation of the fixing motor is faulty.	
0000	The motor clock signal is not detected for 2 sec or more after the fixing motor drive signal has been generated.	- Check if the connecter (J651, J652) of the fixing motor is mounted properly. - Replace the fixing motor. - Replace the relay PCB. - Replace the DC controller PCB.
E015	The rotation of the pickup motor is faulty.	
0000	The motor lock signal is not detected for 2 sec or more after the pickup motor drive signal has been generated.	- Check if the connecter (J621, J622) of the pickup motor is mounted properly. - Replace the pickup motor. - Replace the relay PCB. - Replace the DC controller PCB.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.	
0000	More than a specific number of pages are printed without disposing of the waste toner after the waste toner case has been found to be full.	- Dispose the waste toner in the case. - Check the operation of the base plate of waste toner case. - Check if the connector (J514) of the DC controller PCB is mounted properly. - Replace the waste toner full sensor. - Replace the DC controller PCB.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.	
0000	Although the developing assembly is supplied with toner, the absence of toner inside it is detected for 3 sec or more.	- Replace the magnet roller drive clutch. - Replace the toner feed motor (M18). - Replace the toner sensor. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E025	The toner feed motor inside the hopper is faulty.	
0000	The DC controller PCB detects an overcurrent flowing to the toner feed motor (M6) inside the cartridge for 10 sec or more twice. (In response to the first detection, it indicates the message "Shake the Toner Case, and Set.")	- Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the toner feed motor (M6).
E032	The counter of the copy data controller or the NE controller is faulty.	
0000	The copy data controller or the NE controller are disconnected after they have once been connected.	- Check if the connecter of the main controller PCB is mounted properly. - Replace the main controller PCB. - Replace the copy data controller or the NE controller.
E043	The rotation of the side paper deck main motor is faulty.	
0000	The PLL lock signal (DMPLK) does not arrive for 2 sec or more after the side paper deck main motor drive signal has been generated.	- Check if the connecter (J101, J106) of the side deck driver PCB is mounted properly. - Replace the side deck main motor. - Replace the side deck driver PCB. - Replace the DC controller PCB.
E051	There is an error in the detection of the horizontal registration home position.	
0001	Departure from home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
0002	Home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.

Code	Cause	Remedy
0003	The horizontal registration detection movement for the preceding sheet does not end within 5 sec at the start of a horizontal registration search during printing.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
E065	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the primary charging assembly.	- Check if the primary charging assembly is mounted properly and also check if there is no contamination. - Check if the connector (T601, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB.
E067	There is an error in the high-voltage output.	
0000	An error is detected in two or more of the following at the same time: the primary high voltage, pre-transfer high voltage, transfer high voltage, and separation high voltage. Or, an error (leakage) in the high-voltage output to the separation charging assembly is detected.	- Check if the primary charging assembly, pre-transfer charging assembly, transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the HV-AC PCB.
E068	There is an error in the high-voltage output to the separation charging assembly.	
0000	An error (leakage) to the high-voltage output to the separation charging assembly is detected.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730, J734) of the HV-DC PCB and the connector (J741, J742) of the HV-AC PCB are mounted properly. - Replace the HV-AC PCB. - Replace the separation charging assembly. - Replace the pre-transfer charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the transfer charging assembly.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (T701, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the pre-transfer charging assembly.
E100	The BD PCB is faulty.	
0000	The BD signal does not arrive within 1 sec after the laser drive signal has been generated. Or, the BD signal does not arrive for 1 sec or more while the laser remains ON.	- Check if the BD PCB, laser driver PCB and DC controller are connected properly. - Replace the BD PCB. - Replace the laser scanner unit. - Replace the DC controller PCB.
E110	The rotation of the laser scanner motor is faulty.	
0000	The constant speed rotation signal (LM-RDY) does not arrive for 20 sec or more after the laser scanner motor (M4) drive signal has been generated.	- Check if the connector (J762) of the laser scanner motor driver PCB is mounted properly. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the laser scanner unit. - Replace the DC controller PCB.
E111	The rotation of the laser motor cooling fan is faulty.	
0000	The lock signal arrives for 5 sec or more although the laser motor cooling fan (FM1) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser motor cooling fan. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser motor cooling fan. - Replace the DC controller PCB.
E121	The rotation of the laser cooling fan (1/2) is faulty.	
0001	The lock signal arrives for 5 sec or more although the laser cooling fan 1 (FM3) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 1. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 1. - Replace the DC controller PCB.
0002	The lock signal arrives for 5 sec or more although the laser cooling fan 2 (FM5) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 2. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 2. - Replace the DC controller PCB.
E202	There is an error in the detection of the scanner home position.	

Code	Cause	Remedy
0000	Scanner home position cannot be detected within a specific period of time after the power switch is turned on or the Start key is pressed.	Caution No code will be indicated. The keys will be locked. You can check the code in service mode (COPIER>DISPLAY>ERR). - Check if the scanner motor is connected properly, and replace the scanner motor if necessary. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the scanner home position sensor. - Replace the reader controller PCB.
E204	There is an error in the detection of the image leading edge signal.	
0000	During forward movement in fixed reading mode or during a home position search, the image leading signal does not occur; or, in stream reading mode, the image leading edge signal does not arrive from the ADF controller PCB.	Caution No code will be indicated. The keys will be locked. You can check the code in service mode (COPIER>DISPLAY>ERR). - Check if the scanner motor is connected properly, and replace the scanner motor if necessary. - Replace the scanner image leading edge sensor. - Replace the reader controller PCB.
E211	The rise in temperature of the scanning lamp heater is faulty.	
0000	While the power is ON, the ambient temperature of the scanning lamp does not exceed 10 deg C 2 min after the florescent heater has gone ON; or, after the power is turned on, the reading of the ambient temperature of the scanning lamp is 0 deg C or lower.	- Check if the connecter (J852, J853) of the light control PCB is mounted properly. - Replace the scanning lamp heater. - Replace the light control PCB. - Replace the reader controller PCB.
E215	The rise in temperature of the scanning lamp heater is faulty.	
0000	While the scanning lamp is OFF, the reading of the ambient temperature is 170 deg C or higher.	- Check if the connecter (J852, J853) of the light control PCB is mounted properly. - Replace the scanning lamp heater. - Replace the light control PCB. - Replace the reader controller PCB.
E218	The scanning lamp is not mounted properly.	
0000	When the power is turned on, the absence of the scanning lamp is detected.	- Check if the scannning lamp is mounted properly. - Check if the connecter (J1002, J1003) of the inverter PCB is mounted properly. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the scanning lamp. - Replace the reader controller PCB.
E219	The scanning lamp life	
0000	While the scanning lamp is ON, the reading of the ambient temperature is 170 deg C or higher.	- Check if the connecter (J852, J853) of the light control PCB is mounted properly. - Replace the scanning lamp heater. - Replace the light control PCB. - Replace the reader controller PCB.
E220	The lighting of the scanning lamp is faulty.	
0000	The scanning lamp does not reach a specific intensity within 10 sec after it is tuned on (if the room temperature is 10 deg C or lower, within 60 sec). Or, the ON detection signal (FL-DTCT) does not go OFF within 5 sec after the scanning lamp is turned off; during shading adjustment, the ON detection signal (FL-DTCT) does not go ON within 60 sec after the scanning lamp is turned on.	- Check if the connecter (J852, J853) of the light control PCB is mounted properly. - Replace the scanning lamp heater. - Replace the light control PCB. - Replace the reader controller PCB.
E222	The rise in temperature of the scanning lamp heater is faulty.	
0000	During the initial activation after power-on, the reading does not reach 70 deg C within 5 min after the heater is turned on. Or, during standby or reading operation, the reading does not reach 75 deg C within 3 min after the heater is tuned on.	- Check if the connecter (J852, J853) of the light control PCB is mounted properly. - Replace the scanning lamp heater. - Replace the light control PCB. - Replace the reader controller PCB.
E240	The communication between the MCON and DCON is faulty.	
0000 0001 0002	A communication fault exists between the CPUs of the main controller PCB and the DC controller PCB.	- Check the wiring between the DC controller PCB and the main controller PCB. - Replace the DC controller PCB. - Replace the main controller PCB.
E241	The communication between the original orientation detection PCB and RCON is faulty.	
0000	The initial communication between the CPUs of the original orientation detection PCB and the reader controller PCB fails.	- Replace the original orientation PCB. - Replace the reader controller PCB.

Code	Cause	Remedy
0001	When the orientation of an original is detected, the result of detection is not communicated by the original orientation detection PCB until the next original is read.	- Replace the original orientation PCB. - Replace the reader controller PCB.
0002	The result of detection of the last original is not communicated 5 sec after the end of reading the last original.	- Replace the original orientation PCB. - Replace the reader controller PCB.
E243	The communication between the control panel PCB and MCON is faulty.	
0000	A communication fault exists between the CPUs of the control panel PCB and the main controller PCB.	- Replace the control panel PCB. - Replace the main controller PCB.
E251	The rotation of the inverter cooling fan is faulty.	
0000	The lock signal (FM9LCK) arrives for 5 sec or more although the inverter cooling fan (FM9) is being driven.	- Check if there is no foreign material in the rotation assembly of the inverter cooling fan. - Check if the connecter (J1110) of the reader control PCB is mounted properly. - Replace the inverter cooling fan. - Replace the reader controller PCB.
E302	Shading error	
0000	During shading operation, the reader controller PCB fails to end shading processing.	- Check if the connecter (J1502, J1503) of the CCD PCB is mounted properly. - Check if the connecter (J1107, J1108) of the reader control PCB is mounted properly. - Replace the CCD PCB. - Replace the reader controller PCB.
E315	There is an error in image data. The reader controller PCB is faulty. The main controller PCB is faulty.	
0000	During image rotation, the encoding/decoding has a fault.	- Replace the reader controller PCB. - Replace the main controller PCB.
0007	If JBIG encoding is not completed	- Replace the main controller PCB.
000D	If there is an unexpected interrupt from the hardware when JBIG is decoded	- Replace the main controller PCB.
000E	If JBIG decoding is not completed within a specified time	- Replace the main controller PCB.
E320	There is a time out error in the image reading processing.	
0000	While an image is being read, the image read end notice does not arrive at the reader controller PCB within 60 sec from the CCD/AP PCB.	- Check if the connecter (J1502, J1503) of the CCD PCB is mounted properly. - Check if the connecter (J1107, J1108) of the reader control PCB is mounted properly. - Replace the CCD PCB. - Replace the reader controller PCB.
E400	Communication error with the ADF	
0000	While the ADF is in standby, the communication between ADF and copier is interrupted for 5 sec or more. Or, when the ADF is in operation, the communication between ADF and copier is disrupted for 0.5 sec or more.	- Check if the communication cable between the ADF and copier is connected properly. - Replace the ADF controller PCB.
E402	The rotation of the ADF belt motor is faulty.	
0000	The clock signal does not occur for 100 msec when the belt motor drive signal is generated.	- Check if the cable between the ADF belt motor drive PCB and ADF controller PCB is connected properly. - Replace the ADF belt motor clock sensor. - Replace the ADF belt motor. - Replace the ADF belt motor drive PCB. - Replace the ADF controller PCB.
E404	The rotation of the ADF delivery motor is faulty.	
0000	The clock signal does not occur for 200 msec when the delivery motor drive signal is generated.	- Replace the ADF delivery motor. - Replace the ADF delivery motor clock sensor. - Replace the ADF controller PCB.
E405	The rotation of the ADF separation motor is faulty.	
0000	The clock signal does not occur for 200 msec when the separation motor drive signal is generated.	- Replace the ADF separation motor. - Replace the ADF separation motor clock sensor. - Replace the ADF controller PCB.
E410	The rotation of the ADF pickup motor is faulty.	
0000	The pickup roller height sensor 1 (PI8) or 2 (PI9) does not generate a signal within 2 sec after the pickup motor is driven. Or, the pickup roller home position sensor (PI7) does not generate a signal within 2 sec after the pickup motor is driven.	- Replace the ADF pickup motor. - Replace the ADF pickup roller height sensor 1. - Replace the ADF pickup roller height sensor 2. - Replace the ADF pickup roller home position sensor. - Replace the ADF controller PCB.
E412	The rotation of the ADF cooling fan is faulty.	
0000	The lock signal arrives for 100 msec or more although the cooling fan is being driven.	- Replace the ADF cooling fan. - Replace the ADF controller PCB.

Code	Cause	Remedy
E420	The EEPROM is faulty. The ADF controller PCB is faulty.	
0000	The backup data of the EEPROM cannot be read when the connected device is tuned on. Or, the data that has been read has a fault.	- Replace the ADF controller PCB.
E602	There is an error on the hard disk.	
0001	An HDD detection error has occurred. The HDD cannot be detected. The HDD does not become ready. The HDD returns an error.	See the details under E602.
0002	There is no startup file. The program for the main CPU does not exist on the HDD or in BOOTDEV/BOOT, and so on.	See the details under E602.
0003	An HD write abort error has occurred. The sectors for BOOTDEV on the HD cannot be read.	See the details under E602.
0006	A subbootable that matches the PDL type does not exit in BOOTDEV/BOOT.	See the details under E602.
0007	An ICC profile that matches the PDL type does not exit in BOOTDEV/PDL.	See the details under E602.
01XX	/DOSDEV is faulty.	See the details under E602.
02XX	/FSTDEV is faulty.	See the details under E602.
03XX	/DOSDEV2 is faulty.	See the details under E602.
04XX	/FSTPDEV is faulty.	See the details under E602.
05XX	/DOSDEV3 is faulty.	See the details under E602.
06XX	/PDLDEV is faulty.	See the details under E602.
07XX	/DOSDEV4 is faulty.	See the details under E602.
08XX	/BOOTDEV is faulty.	See the details under E602.
09XX	/DOSDEV5 is faulty.	See the details under E602.
FFXX	There is an error in a partition that cannot be identified.	See the details under E602.
E604	The image memory is faulty or is inadequate.	
0000	The memory size does not match the model.	- Increase the memory.
E609	There is an error on the HDD.	
0008	At startup, the HDD fails to reach a specific temperature level within a specific period of time.	- Replace the HDD. - Replace the DC controller PCB.
0009	At time of sleep recovery, the temperature fails to reach a specific level.	- Replace the HDD. - Replace the DC controller PCB.
E610	The HDD coding key is faulty.	
	The SRAM/PCB is faulty. The battery has become exhausted, leading to loss of SRAM contents.	- Turn off and then back on the power switch to generate the key once again. - Replace the main controller PCB.
E710	There is an error in the initialization of the IPC.	
0001	The IPC (IC5) on the reader controller PCB cannot be initialized when the main power supply is turned on.	- Check the cable. - Replace the reader controller PCB.
0002	The IPC (IC40) on the DC controller PCB cannot be initialized when the main power supply is turned on.	- Check the cable. - Replace the DC controller PCB.
0003	The IPC (IC1003) on the machine controller PCB cannot be initialized when the main power is turned on.	- Check the cable. - Replace the main controller PCB.
E711	There is an error in the IPC communication.	
0001	Data has been written to the error register of the IPC (IC5) on the reader controller PCB 4 times or more within 1.5 sec.	- Check the cable. - Replace the reader controller PCB.
0002	Data has been written to the error register of the IPC (IC40) on the DC controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the DC controller PCB.
0003	Data has been written to the error register of the IPC (IC1003) on the main controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the main controller PCB.
E712	Communication error with the ADF	
0000	The communication IC (IPC) on the ADF controller PCB goes out of order.	- Check if the communication cable between the ADF and copier is connected properly. - Replace the ADF controller PCB.
E713	There is an error in the communication with the finisher.	
0000	The communications IC (IPC) on the finisher controller PCB goes out of order.	- Check if the communication cable between the finisher and copier is connected properly. - Replace the finisher controller PCB. - Replace the DC controller PCB.

Code	Cause	Remedy
E717	There is an error in the communication with the NE controller.	
0001	The NE controller is not connected at power on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	An IPC error has occurred while the NE controller is in operation. There is an open circuit for the IPC. An error has occurred, and the IPC communication remains disabled.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E719	There is a coin vendor error.	
0001	The coin vendor is not connected when the power is turned on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	While the coin vendor is in operation, an IPC error has occurred, IPC has developed an open circuit, or an error preventing recovery of IPC communication has occurred. An open circuit ha been detected in the line for the pickup/delivery signal. An illegal signal has been detected.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0003	While the unit price is being checked at startup, an error occurs in the communication with the coin vendor.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0011	An error has occurred at new card reader startup. The new card reader is not connected when the power is turned off, although it was connected when the power was turned off.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0012	An IPC error has occurred at new card reader startup. There is an IPC open circuit. An error has occurred that prevents recovery of IPC communication.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E730	There is a PDL software error.	
1001	An initialization error has occurred.	- Execute PDL resetting. - Turn on the power once again.
100A	An error that may be critical to the system (e.g., failed initialization) has occurred.	- Execute PDL resetting. - Turn on the power once again.
9004	There is an error in the communication (PAI) with an external controller.	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
9005	Fault in the connector of the vide cable to the external controller	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
A006	The PDL board does not respond. A subbootable is faulty or absent.	- Execute PDL resetting. - Turn on the power once again. - Check the connection of the UFR board. - Re-install the firmware. - Replace the main controller PCB.
A007	There is a mismatch between the control software of the machine and the PDL control software in regard to version.	- Execute PDL resetting. - Turn on the power once again. - Execute system formatting (all), and reinstall the system.
B013	Corruption in the font data	- Turn on the power once again. - Re-install the Software. - Execute system formatting (all), and reinstall the system.
E732	There is an error in the communication with the scanner.	
0001	There is a DDI-S communication error.	- Check the connector used to connected the scanner. - Check the power supply of the scanner (to see if initialization takes place at startup). - Replace the reader controller, scanner board, or main controller PCB as necessary.
E733	There is an error in the communication with the printer.	
0000	At startup, communication with the printer fails.	- Check the connector used to connect to the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.

Code	Cause	Remedy
0001	There is a DDI-P communication error.	- Check the connection with the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.
E740	There is an error on the Ethernet board.	
0002	The MAC address is illegal.	- Replace the main controller PCB.
E744	There is an error in the language file/boot ROM.	
0001	The version of the language file on the HDD and that of the bootable do not match.	- Download a language file of the correct version.
0002	The size of the language file on the HDD is too large.	- Download a language file of the correct version.
0003	There is no language file on the HDD indicated by config.txt for a switchover.	- Download a language file of the correct version.
0004	An attempt to switchover to a language on the HDD fails.	- Download a language file of the correct version.
1000	The boot ROM that is mounted is of the wrong type.	Replace the Boot ROM with one of the model in question.
E745	There is a fault on the TokenRing board.	
0001	An attempt at PCI initialization has failed.	- Disconnect and then connect the TokenRing board. - Replace the TokenRing board.
0002	The MAC address is faulty.	- Replace the TokenRing board.
0003	There is an error in the acquisition/setting of board information.	- Replace the TokenRing board.
0004	There is a connection error.	- Check the connection the cable. - Replace the cable. - Check the power source of the MAU. - Replace the MAU. - Replace the TokenRing board.
0005	Other Errors	
E746	The accessories board is of the wrong type.	
0003	At startup, a board for a different model has been detected.	- Replace the UFR board of the correct type (model).
E748	Mismatch in controller board and SDRAM size	
1001	There is a mismatch between the control board and the SDRAM.	- Check the correct combination between main controller PCB and SDRAM.
E800	There is an error in the auto power-off circuit.	
0000	An open circuit is detected in the auto power-off circuit for 3 sec or more.	- Turn on the power once again. - Check if the connector (J505) of theDC controller PCB is mounted properly. - Check if the connector (J1719) of the relay PCB is mounted properly. - Replace the relay PCB. - Replace the DC controller PCB.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).	
0000	The lock signal is detected for 5 sec or more although the power supply cooling fan (1 and 2) is being driven.	- Check if there is no foreign material in the rotation assembly of the power supply cooling fan (1 and 2) fan. - Check if the connector (J505) of the DC controller PCB is mounted properly. - Replace the power supply cooling fan (1/2). - Replace the DC controller PCB.
0004	The reading of the ambient temperature of the main controller is 80 degrees or higher.	- Check if there is no foreign material in the rotation assembly of the system fan. - Check if the connector (J1028) of the main controller PCB is mounted properly. - Replace the sysytem fan. - Replace the main controller PCB. Caution In the case of a fault in the system fan, the data will be indicated in the form of an alarm (0008040004; ALARM-2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.	
0001	The lock signal is detected for 5 sec or more although the fixing assembly heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the fixing assembly heat discharging fan. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the fixing assembly heat discharging fan. - Replace the DC controller PCB.

Code	Cause	Remedy
0002	The lock signal is detected for 5 sec or more although the separation heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation heat discharging fan. - Check if the connector (J1112) of the reader controller PCB is mounted properly. - Replace the separation heat discharging fan. - Replace the reader controller PCB.
E820	The rotation of the drum fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the drum fan is being driven.	- Check if there is no foreign material in the rotation assembly of the drum fan. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the drum fan. - Replace the DC controller PCB.
E823	The rotation of the pre-transfer charging assembly fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the pre-transfer charging assembly fan is being driven.	- Check if there is no foreign material in the rotation assembly of the pre-transfer charging assembly fan. - Check if the connector (J504) of the DC controller PCB is mounted properly. - Replace the pre-transfer charging assembly fan. - Replace the DC controller PCB.
E830	The rotation of the separation fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the separation cooling fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation cooling fan. - Check if the connector (J509) of the DC controller PCB is mounted properly. - Replace the separation cooling fan. - Replace the DC controller PCB.

16.2.2 Error Code Detail

0008-8491

/ iR8070

T-16-5

Code	Cause	Remedy
E000	The temperature of the fixing assembly is abnormally high.	
0000	When the main power switch is turned on, the reading of the main thermistor does not reach 70 deg C within 3 min 30 sec.	- Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E001	The over-rising in temperature of the fixing assembly is detected.	
0001	The hardware port detects a fault.	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0002	Either the main thermistor or the sub thermistor detects 230 deg C or higher for 2 sec.	- Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor or the sub thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0003	The reading of the main thermistor is higher than that of the sub thermistor by 50 deg C or more for 1 sec.	Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).

Code	Cause	Remedy
0004	The reading of the main thermistor is lower than that of the sub thermistor by 50 deg C or more for 1 sec.	- Check if the main thermistor is mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E002	The rise in temperature of the fixing assembly is faulty.	
0000	The reading of the main thermistor (TH1) does not reach 100 deg C 2 min 30 sec after it has exceeded 70 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0001	The reading of the main thermistor does not reach 150 deg C within 2 min 30 sec after it has exceeded 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E003	The fixing temperature is too low after a standby state.	
0000	The reading of the main thermistor is 70 deg C or lower for 2 sec or more after it has reached 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E004	The fixing assembly is faulty.	
0000	The SSR used to drive the fixing heater has a short circuit (detection by hardware circuitry).	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E005	The absence of the fixing web is detected.	

Code	Cause	Remedy
0000	The length of the fixing web that has been taken up is more than a specific value and the fixing web length sensor (PS7) has detected the absence of the web for 5 sec or more.	- Check the position of the fixing web detection lever. - Replace the fixing web. - Replace the fixing web length sensor. - Replace the DC controller PCB. Caution After replacing the fixing web, you will have to clear the two web counters in service mode (COPIER>COUNTER>MISC>FIX-WEB and COPIER>COUNTER>DRBL-1>FIX-WEB).
0010	The power is turned off and then on without clearing the error.	- Reset the counters of the two webs to zero in service mode (COPIER>COUNTER>MISC>FIX-WEB, COPIER>COUNTER>DRBL-1>FIX-WEB)
E010	The rotation of the main motor is faulty.	
0000	No clock pulse arrive for 2 sec or more after the main motor drive signal (MMFG) has been generated.	- Check if the connecter (J611, J612) of the main motor is mounted properly. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the main motor. - Replace the relay PCB. - Replace the DC controller PCB.
E012	The rotation of the drum motor is faulty.	
0000	No clock pulse arrives for 2 sec or more after the drum motor drive signal (DMFG) has been generated.	- Check if the connector (J1720) of the relay PCB is mounted properly. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Check if the connecter (J601, J602) of the drum motor is mounted properly. - Replace the drum motor. - Replace the DC controller PCB.
E013	The lock of the waste toner feed screw is detected.	
0000	The waste toner feed screw fails to rotate normally, and the switch MSW2 is pressed multiple times within a specific period of time.	- Re-mount the waste toner pipe. - Replace the waste toner pipe. - Replace the waste toner clog detecting switch. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is tuned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E014	The rotation of the fixing motor is faulty.	
0000	The motor clock signal is not detected for 2 sec or more after the fixing motor drive signal has been generated.	- Check if the connecter (J651, J652) of the fixing motor is mounted properly. - Replace the fixing motor. - Replace the relay PCB. - Replace the DC controller PCB.
E015	The rotation of the pickup motor is faulty.	
0000	The motor lock signal is not detected for 2 sec or more after the pickup motor drive signal has been generated.	- Check if the connecter (J621, J622) of the pickup motor is mounted properly. - Replace the pickup motor. - Replace the relay PCB. - Replace the DC controller PCB.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.	
0000	More than a specific number of pages are printed without disposing of the waste toner after the waste toner case has been found to be full.	- Dispose the waste toner in the case. - Check the operation of the base plate of waste toner case. - Check if the connector (J514) of the DC controller PCB is mounted properly. - Replace the waste toner full sensor. - Replace the DC controller PCB.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.	
0000	Although the developing assembly is supplied with toner, the absence of toner inside it is detected for 3 sec or more.	- Replace the magnet roller drive clutch. - Replace the toner feed motor (M18). - Replace the toner sensor. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E025	The toner feed motor inside the hopper is faulty.	

Code	Cause	Remedy
0000	The DC controller PCB detects an overcurrent flowing to the toner feed motor (M6) inside the cartridge for 10 sec or more twice. (In response to the first detection, it indicates the message "Shake the Toner Case, and Set.")	- Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the toner feed motor (M6).
E032	The counter of the copy data controller or the NE controller is faulty.	
0000	The copy data controller or the NE controller are disconnected after they have once been connected.	- Check if the connecter of the main controller PCB is mounted properly. - Replace the main controller PCB. - Replace the copy data controller or the NE controller.
E043	The rotation of the side paper deck main motor is faulty.	
0000	The PLL lock signal (DMPLK) does not arrive for 2 sec or more after the side paper deck main motor drive signal has been generated.	- Check if the connecter (J101, J106) of the side deck driver PCB is mounted properly. - Replace the side deck main motor. - Replace the side deck driver PCB. - Replace the DC controller PCB.
E051	There is an error in the detection of the horizontal registration home position.	
0001	Departure from home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
0002	Home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
0003	The horizontal registration detection movement for the preceding sheet does not end within 5 sec at the start of a horizontal registration search during printing.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
E065	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the primary charging assembly.	- Check if the primary charging assembly is mounted properly and also check if there is no contamination. - Check if the connector (T601, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB.
E067	There is an error in the high-voltage output.	
0000	An error is detected in two or more of the following at the same time: the primary high voltage, pre-transfer high voltage, transfer high voltage, and separation high voltage. Or, an error (leakage) in the high-voltage output to the separation charging assembly is detected.	- Check if the primary charging assembly, pre-transfer charging assembly, transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the HV-AC PCB.
E068	There is an error in the high-voltage output to the separation charging assembly.	
0000	An error (leakage) to the high-voltage output to the separation charging assembly is detected.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730, J734) of the HV-DC PCB and the connector (J741, J742) of the HV-AC PCB are mounted properly. - Replace the HV-AC PCB. - Replace the separation charging assembly. - Replace the pre-transfer charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the transfer charging assembly.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (T701, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the pre-transfer charging assembly.
E100	The BD PCB is faulty.	
0000	The BD signal does not arrive within 1 sec after the laser drive signal has been generated. Or, the BD signal does not arrive for 1 sec or more while the laser remains ON.	- Check if the BD PCB, laser driver PCB and DC controller are connected properly. - Replace the BD PCB. - Replace the laser scanner unit. - Replace the DC controller PCB.
E110	The rotation of the laser scanner motor is faulty.	

Code	Cause	Remedy
0000	The constant speed rotation signal (LM-RDY) does not arrive for 20 sec or more after the laser scanner motor (M4) drive signal has been generated.	- Check if the connector (J762) of the laser scanner motor driver PCB is mounted properly. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the laser scanner unit. - Replace the DC controller PCB.
E111	The rotation of the laser motor cooling fan is faulty.	
0000	The lock signal arrives for 5 sec or more although the laser motor cooling fan (FM1) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser motor cooling fan. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser motor cooling fan. - Replace the DC controller PCB.
E121	The rotation of the laser cooling fan (1/2) is faulty.	
0001	The lock signal arrives for 5 sec or more although the laser cooling fan 1 (FM3) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 1. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 1. - Replace the DC controller PCB.
0002	The lock signal arrives for 5 sec or more although the laser cooling fan 2 (FM5) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 2. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 2. - Replace the DC controller PCB.
E202	There is an error in the detection of the scanner home position.	
0000	Scanner home position cannot be detected within a specific period of time after the power switch is turned on or the Start key is pressed.	Caution No code will be indicated. The keys will be locked. You can check the code in service mode (COPIER>DISPLAY>ERR). - Check if the scanner motor is connected properly, and replace the scanner motor if necessary. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the scanner home position sensor. - Replace the reader controller PCB.
E204	There is an error in the detection of the image leading edge signal.	
0000	During forward movement in fixed reading mode or during a home position search, the image leading signal does not occur; or, in stream reading mode, the image leading edge signal does not arrive from the ADF controller PCB.	Caution No code will be indicated. The keys will be locked. You can check the code in service mode (COPIER>DISPLAY>ERR). - Check if the scanner motor is connected properly, and replace the scanner motor if necessary. - Replace the scanner image leading edge sensor. - Replace the reader controller PCB.
E220	Inverter is faulty.	
0001	An error is detected in the lamp inverter PCB.	- Check the connection of the lamp inverter PCB, and replace if necessary. - Check the connection of the reader controller PCB, and replace if necessary.
E225	Scanning lamp is not turned on properly.	
0000	A specific signal level cannot be attained by CCD gain correction at power-on.	- Check the connection of scanning lamp, and replace if necessary. - Check the connection of inverter PCB, and replace if necessary. - Check the connection of CCD/AP PCB, and replace if necessary. - Check the connection of reader controller PCB, and replace if necessary.
0002	The end gain correction value has changed more than the specified level, compared with the correction value level of the previous sheet	- Check the connection of scanning lamp, and replace if necessary. - Check the connection of inverter PCB, and replace if necessary. - Check the connection of CCD/AP PCB, and replace if necessary. - Check the connection of reader controller PCB, and replace if necessary.
E240	The communication between the MCON and DCON is faulty.	
0000	A communication fault exists between the CPUs of the main controller PCB and the DC controller PCB.	- Check the wiring between the DC controller PCB and the main controller PCB. - Replace the DC controller PCB. - Replace the main controller PCB.
E243	The communication between the control panel PCB and MCON is faulty.	

Code	Cause	Remedy
0000	A communication fault exists between the CPUs of the control panel PCB and the main controller PCB.	- Replace the control panel PCB. - Replace the main controller PCB.
E248	Backup (EEPROM) error	
0001	The ID read into the EEPROM when the main power switch has been turned on and the ID in the ROM do not match.	- Check if the EEPROM is mounted properly. - Execute the following in service mode to clear the RAM. COPIER > FUNCTION > CLEAR > R-CON - Replace the EEPROM. - Replace the reader controller PCB.
0002	When data is written into EEPROM, the data written and the data read do not match.	
0003	When data is written, the ID in the EEPROM and the ID in the ROM are found not to match.	
E302	Shading error	
0000	During shading operation, the reader controller PCB fails to end shading processing.	- Check if the connecter (J1502, J1503) of the CCD PCB is mounted properly. - Check if the connecter (J1107, J1108) of the reader control PCB is mounted properly. - Replace the CCD PCB. - Replace the reader controller PCB.
E315	There is an error in image data. The reader controller PCB is faulty. The main controller PCB is faulty.	
0000	During image rotation, the encoding/decoding has a fault.	- Replace the reader controller PCB. - Replace the main controller PCB.
E320	There is a time out error in the image reading processing.	
0000	While an image is being read, the image read end notice does not arrive at the reader controller PCB within 60 sec from the CCD/AP PCB.	- Check if the connecter (J1502, J1503) of the CCD PCB is mounted properly. - Check if the connecter (J1107, J1108) of the reader control PCB is mounted properly. - Replace the CCD PCB. - Replace the reader controller PCB.
E412	The rotation of the ADF cooling fan is faulty.	
0000	The lock signal arrives for 100 msec or more although the cooling fan is being driven.	- Replace the ADF cooling fan. - Replace the ADF controller PCB.
E421	Backup (EEPROM) error	
0001	Backup data cannot be written to the EEPROM or the data, if written, has an error.	- Check if the EEPROM is mounted properly. - Execute the following in service mode to clear the RAM. COPIER > FUNCTION > CLEAR > R-CON - Replace the EEPROM. - Replace the reader controller PCB.
E422	There is an error in the IPC communication.	
0001	While the machine is in standby, the communication with the host machine has been interrupted for 5 secs or more. or, while the machine is in operation, the communication with the host machine has been interrupted for 0.5 sec or more.	- Check the cable. - Replace the reader controller PCB.
E420	The EEPROM is faulty. The ADF controller PCB is faulty.	
0000	The backup data of the EEPROM cannot be read when the connected device is tuned on. Or, the data that has been read has a fault.	- Replace the ADF controller PCB.
E602	There is an error on the hard disk.	
0001	An HDD detection error has occurred. The HDD cannot be detected. The HDD does not become ready. The HDD returns an error.	See the details under E602.
0002	There is no startup file. The program for the main CPU does not exist on the HDD or in BOOTDEV/BOOT, and so on.	See the details under E602.
0003	An HD write abort error has occurred. The sectors for BOOTDEV on the HD cannot be read.	See the details under E602.
0006	A subbootable that matches the PDL type does not exit in BOOTDEV/BOOT.	See the details under E602.
0007	An ICC profile that matches the PDL type does not exit in BOOTDEV/PDL.	See the details under E602.
01XX	/DOSDEV is faulty.	See the details under E602.
02XX	/FSTDEV is faulty.	See the details under E602.
03XX	/DOSDEV2 is faulty.	See the details under E602.
04XX	/FSTPDEV is faulty.	See the details under E602.
05XX	/DOSDEV3 is faulty.	See the details under E602.
06XX	/PDLDEV is faulty.	See the details under E602.
07XX	/DOSDEV4 is faulty.	See the details under E602.
08XX	/BOOTDEV is faulty.	See the details under E602.

Code	Cause	Remedy
09XX	/DOSDEV5 is faulty.	See the details under E602.
FFXX	There is an error in a partition that cannot be identified.	See the details under E602.
E604	The image memory is faulty or is inadequate.	
0000	The memory size does not match the model.	- Increase the memory.
E609	There is an error on the HDD.	
0008	At startup, the HDD fails to reach a specific temperature level within a specific period of time.	- Replace the HDD. - Replace the DC controller PCB.
0009	At time of sleep recovery, the temperature fails to reach a specific level.	- Replace the HDD. - Replace the DC controller PCB.
E610	The HDD coding key is faulty.	
	The SRAM/PCB is faulty. The battery has become exhausted, leading to loss of SRAM contents.	- Turn off and then back on the power switch to generate the key once again. - Replace the main controller PCB.
E710	There is an error in the initialization of the IPC.	
0001	The IPC (IC5) on the reader controller PCB cannot be initialized when the main power supply is turned on.	- Check the cable. - Replace the reader controller PCB.
0002	The IPC (IC40) on the DC controller PCB cannot be initialized when the main power supply is turned on.	- Check the cable. - Replace the DC controller PCB.
0003	The IPC (IC1003) on the machine controller PCB cannot be initialized when the main power is turned on.	- Check the cable. - Replace the main controller PCB.
E711	There is an error in the IPC communication.	
0001	Data has been written to the error register of the IPC (IC5) on the reader controller PCB 4 times or more within 1.5 sec.	- Check the cable. - Replace the reader controller PCB.
0002	Data has been written to the error register of the IPC (IC40) on the DC controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the DC controller PCB.
0003	Data has been written to the error register of the IPC (IC1003) on the main controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the main controller PCB.
E712	Communication error with the ADF	
0000	The communication IC (IPC) on the ADF controller PCB goes out of order.	- Check if the communication cable between the ADF and copier is connected properly. - Replace the ADF controller PCB.
E713	There is an error in the communication with the finisher.	
0000	The communications IC (IPC) on the finisher controller PCB goes out of order.	- Check if the communication cable between the finisher and copier is connected properly. - Replace the finisher controller PCB. - Replace the DC controller PCB.
E717	There is an error in the communication with the NE controller.	
0001	The NE controller is not connected at power on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	An IPC error has occurred while the NE controller is in operation. There is an open circuit for the IPC. An error has occurred, and the IPC communication remains disabled.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E719	There is a coin vendor error.	
0001	The coin vendor is not connected when the power is turned on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	While the coin vendor is in operation, an IPC error has occurred, IPC has developed an open circuit, or an error preventing recovery of IPC communication has occurred. An open circuit ha been detected in the line for the pickup/delivery signal. An illegal signal has been detected.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0003	While the unit price is being checked at startup, an error occurs in the communication with the coin vendor.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.

Code	Cause	Remedy
0011	An error has occurred at new card reader startup. The new card reader is not connected when the power is turned off, although it was connected when the power was turned off.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0012	An IPC error has occurred at new card reader startup. There is an IPC open circuit. An error has occurred that prevents recovery of IPC communication.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E730	There is a PDL software error.	
1001	An initialization error has occurred.	- Execute PDL resetting. - Turn on the power once again.
100A	An error that may be critical to the system (e.g., failed initialization) has occurred.	- Execute PDL resetting. - Turn on the power once again.
9004	There is an error in the communication (PAI) with an external controller.	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
9005	Fault in the connector of the vide cable to the external controller	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
A006	The PDL board does not respond. A subbootable is faulty or absent.	- Execute PDL resetting. - Turn on the power once again. - Check the connection of the UFR board. - Re-install the firmware. - Replace the main controller PCB.
A007	There is a mismatch between the control software of the machine and the PDL control software in regard to version.	- Execute PDL resetting. - Turn on the power once again. - Execute system formatting (all), and reinstall the system.
B013	Corruption in the font data	- Turn on the power once again. - Re-install the Software. - Execute system formatting (all), and reinstall the system.
E732	There is an error in the communication with the scanner.	
0001	There is a DDI-S communication error.	- Check the connector used to connected the scanner. - Check the power supply of the scanner (to see if initialization takes place at startup). - Replace the reader controller, scanner board, or main controller PCB as necessary.
E733	There is an error in the communication with the printer.	
0000	At startup, communication with the printer fails.	- Check the connector used to connect to the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.
0001	There is a DDI-P communication error.	- Check the connection with the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.
E740	There is an error on the Ethernet board.	
0002	The MAC address is illegal.	- Replace the main controller PCB.
E744	There is an error in the language file/boot ROM.	
0001	The version of the language file on the HDD and that of the bootable do not match.	- Download a language file of the correct version.
0002	The size of the language file on the HDD is too large.	- Download a language file of the correct version.
0003	There is no language file on the HDD indicated by config.txt for a switchover.	- Download a language file of the correct version.
0004	An attempt to switchover to a language on the HDD fails.	- Download a language file of the correct version.
1000	The boot ROM that is mounted is of the wrong type.	Replace the Boot ROM with one of the model in question.
E745	There is a fault on the TokenRing board.	
0001	An attempt at PCI initialization has failed.	- Disconnect and then connect the TokenRing board. - Replace the TokenRing board.
0002	The MAC address is faulty.	- Replace the TokenRing board.
0003	There is an error in the acquisition/setting of board information.	- Replace the TokenRing board.

Code	Cause	Remedy
0004	There is a connection error.	- Check the connection the cable. - Replace the cable. - Check the power source of the MAU. - Replace the MAU. - Replace the TokenRing board.
0005	Other Errors	
E746	The accessories board is of the wrong type.	
0003	At startup, a board for a different model has been detected.	- Replace the UFR board of the correct type (model).
E748	Mismatch in controller board and SDRAM size	
1001	There is a mismatch between the control board and the SDRAM.	- Check the correct combination between main controller PCB and SDRAM.
E800	There is an error in the auto power-off circuit.	
0000	An open circuit is detected in the auto power-off circuit for 3 sec or more.	- Turn on the power once again. - Check if the connector (J505) of theDC controller PCB is mounted properly. - Check if the connector (J1719) of the relay PCB is mounted properly. - Replace the relay PCB. - Replace the DC controller PCB.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).	
0000	The lock signal is detected for 5 sec or more although the power supply cooling fan (1 and 2) is being driven.	- Check if there is no foreign material in the rotation assembly of the power supply cooling fan (1 and 2) fan. - Check if the connector (J505) of the DC controller PCB is mounted properly. - Replace the power supply cooling fan (1/2). - Replace the DC controller PCB.
0004	The reading of the ambient temperature of the main controller is 80 degrees or higher.	- Check if there is no foreign material in the rotation assembly of the system fan. - Check if the connector (J1028) of the main controller PCB is mounted properly. - Replace the sysytem fan. - Replace the main controller PCB. Caution In the case of a fault in the system fan, the data will be indicated in the form of an alarm (0008040004; ALARM-2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.	
0001	The lock signal is detected for 5 sec or more although the fixing assembly heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the fixing assembly heat discharging fan. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the fixing assembly heat discharging fan. - Replace the DC controller PCB.
0002	The lock signal is detected for 5 sec or more although the separation heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation heat discharging fan. - Check if the connector (J1112) of the reader controller PCB is mounted properly. - Replace the separation heat discharging fan. - Replace the reader controller PCB.
E820	The rotation of the drum fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the drum fan is being driven.	- Check if there is no foreign material in the rotation assembly of the drum fan. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the drum fan. - Replace the DC controller PCB.
E823	The rotation of the pre-transfer charging assembly fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the pre-transfer charging assembly fan is being driven.	- Check if there is no foreign material in the rotation assembly of the pre-transfer charging assembly fan. - Check if the connector (J504) of the DC controller PCB is mounted properly. - Replace the pre-transfer charging assembly fan. - Replace the DC controller PCB.
E824	The rotation of the primary charging assembly fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the primary charging assembly fan is being driven.	- Check if there is no foreign material in the rotation assembly of the primary charging assembly fan. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the primary charging assembly fan. - Replace the DC controller PCB.
E830	The rotation of the separation fan is faulty.	

Code	Cause	Remedy
0000	The lock signal is detected for 5 sec or more although the separation cooling fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation cooling fan. - Check if the connector (J509) of the DC controller PCB is mounted properly. - Replace the separation cooling fan. - Replace the DC controller PCB.

16.2.3 Error Code Detail

0008-9148

iR85+

T-16-6

Code	Cause	Remedy
E000	The temperature of the fixing assembly is abnormally high.	
0000	When the main power switch is turned on, the reading of the main thermistor does not reach 70 deg C within 3 min 30 sec.	- Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E001	The over-rising in temperature of the fixing assembly is detected.	
0001	The hardware port detects a fault.	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0002	Either the main thermistor or the sub thermistor detects 230 deg C or higher for 2 sec.	- Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor or the sub thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0003	The reading of the main thermistor is higher than that of the sub thermistor by 50 deg C or more for 1 sec.	Check if the main thermistor and the sub thermistor are mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0004	The reading of the main thermistor is lower than that of the sub thermistor by 50 deg C or more for 1 sec.	- Check if the main thermistor is mounted properly. - Replace the main thermistor. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E002	The rise in temperature of the fixing assembly is faulty.	

Code	Cause	Remedy
0000	The reading of the main thermistor (TH1) does not reach 100 deg C 2 min 30 sec after it has exceeded 70 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0001	The reading of the main thermistor does not reach 150 deg C within 2 min 30 sec after it has exceeded 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E003	The fixing temperature is too low after a standby state.	
0000	The reading of the main thermistor is 70 deg C or lower for 2 sec or more after it has reached 100 deg C.	- Check if the connector (J505) of the DC controller PCB is mounted properly and also check if the connector of the fixing assembly is mounted properly. - Check the wiring between the thermistor and the DC controller. -Check if the main thermistor is mounted properly and also check if there is no contamination. - Replace the main thermistor. - Replace the fixing heater. - Replace the AC driver PCB. - Replace the DC controller PCB. Caution You must clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power has been turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E004	The fixing assembly is faulty.	
0000	The SSR used to drive the fixing heater has a short circuit (detection by hardware circuitry).	- Replace the AC driver PCB. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E005	The absence of the fixing web is detected.	
0000	The length of the fixing web that has been taken up is more than a specific value and the fixing web length sensor (PS7) has detected the absence of the web for 5 sec or more.	- Check the position of the fixing web detection lever. - Replace the fixing web. - Replace the fixing web length sensor. - Replace the DC controller PCB. Caution After replacing the fixing web, you will have to clear the two web counters in service mode (COPIER>COUNTER>MISC>FIX-WEB and COPIER>COUNTER>DRBL-1>FIX-WEB).
0010	The power is turned off and then on without clearing the error.	- Reset the counters of the two webs to zero in service mode (COPIER>COUNTER>MISC>FIX-WEB, COPIER>COUNTER>DRBL-1>FIX-WEB)
E010	The rotation of the main motor is faulty.	

Code	Cause	Remedy
0000	No clock pulse arrive for 2 sec or more after the main motor drive signal (MMFG) has been generated.	- Check if the connecter (J611, J612) of the main motor is mounted properly. - Check if the connector (J1720) of the relay PCB is mounted properly. - Replace the main motor. - Replace the relay PCB. - Replace the DC controller PCB.
E012	The rotation of the drum motor is faulty.	
0000	No clock pulse arrives for 2 sec or more after the drum motor drive signal (DMFG) has been generated.	- Check if the connector (J1720) of the relay PCB is mounted properly. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Check if the connecter (J601, J602) of the drum motor is mounted properly. - Replace the drum motor. - Replace the DC controller PCB.
E013	The lock of the waste toner feed screw is detected.	
0000	The waste toner feed screw fails to rotate normally, and the switch MSW2 is pressed multiple times within a specific period of time.	- Re-mount the waste toner pipe. - Replace the waste toner pipe. - Replace the waste toner clog detecting switch. - Replace the DC controller PCB. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is tuned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E014	The rotation of the fixing motor is faulty.	
0000	The motor clock signal is not detected for 2 sec or more after the fixing motor drive signal has been generated.	- Check if the connecter (J651, J652) of the fixing motor is mounted properly. - Replace the fixing motor. - Replace the relay PCB. - Replace the DC controller PCB.
E015	The rotation of the pickup motor is faulty.	
0000	The motor lock signal is not detected for 2 sec or more after the pickup motor drive signal has been generated.	- Check if the connecter (J621, J622) of the pickup motor is mounted properly. - Replace the pickup motor. - Replace the relay PCB. - Replace the DC controller PCB.
E019	The waste toner case is full, or the waste toner case full sensor is faulty.	
0000	More than a specific number of pages are printed without disposing of the waste toner after the waste toner case has been found to be full.	- Dispose the waste toner in the case. - Check the operation of the base plate of waste toner case. - Check if the connector (J514) of the DC controller PCB is mounted properly. - Replace the waste toner full sensor. - Replace the DC controller PCB.
E020	The difficulty providing toner inside the hopper developing assemblies is detected.	
0000	Although the developing assembly is supplied with toner, the absence of toner inside it is detected for 3 sec or more.	- Replace the magnet roller drive clutch. - Replace the toner feed motor (M18). - Replace the toner sensor. Caution You will have to clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
0010	The power is turned off and then on without clearing the error.	- Clear the error in service mode (COPIER>FUNCTION>CLEAR>ERR).
E025	The toner feed motor inside the hopper is faulty.	
0000	The DC controller PCB detects an overcurrent flowing to the toner feed motor (M6) inside the cartridge for 10 sec or more twice. (In response to the first detection, it indicates the message "Shake the Toner Case, and Set.")	- Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the toner feed motor (M6).
E032	The counter of the copy data controller or the NE controller is faulty.	
0000	The copy data controller or the NE controller are disconnected after they have once been connected.	- Check if the connecter of the main controller PCB is mounted properly. - Replace the main controller PCB. - Replace the copy data controller or the NE controller.
E043	The rotation of the side paper deck main motor is faulty.	
0000	The PLL lock signal (DMPLK) does not arrive for 2 sec or more after the side paper deck main motor drive signal has been generated.	- Check if the connecter (J101, J106) of the side deck driver PCB is mounted properly. - Replace the side deck main motor. - Replace the side deck driver PCB. - Replace the DC controller PCB.
E051	There is an error in the detection of the horizontal registration home position.	

Code	Cause	Remedy
0001	Departure from home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
0002	Home position is not detected within 5 sec during a horizontal registration home position search.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
0003	The horizontal registration detection movement for the preceding sheet does not end within 5 sec at the start of a horizontal registration search during printing.	- Replace the horizontal registration sensor. - Replace the horizontal registration motor. - Check if the manual feed tray open/closed detecting switch is mounted properly. - Replace the stackless feed driver PCB. - Replace the DC controller PCB.
E065	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the primary charging assembly.	- Check if the primary charging assembly is mounted properly and also check if there is no contamination. - Check if the connector (T601, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB.
E067	There is an error in the high-voltage output.	
0000	An error is detected in two or more of the following at the same time: the primary high voltage, pre-transfer high voltage, transfer high voltage, and separation high voltage. Or, an error (leakage) in the high-voltage output to the separation charging assembly is detected.	- Check if the primary charging assembly, pre-transfer charging assembly, transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the HV-AC PCB.
E068	There is an error in the high-voltage output to the separation charging assembly.	
0000	An error (leakage) to the high-voltage output to the separation charging assembly is detected.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (J722, J723, J730, J734) of the HV-DC PCB and the connector (J741, J742) of the HV-AC PCB are mounted properly. - Replace the HV-AC PCB. - Replace the separation charging assembly. - Replace the pre-transfer charging assembly.
E069	There is an error in the high-voltage output to the transfer charging assembly.	
0000	An error (leakage) is detected in the high-voltage output to the transfer charging assembly.	- Check if the transfer charging assembly and separation charging assembly are mounted properly. - Check if the connector (T701, J723, J730) of the HV-DC PCB is mounted properly and also check the wiring. - Replace the HV-DC PCB. - Replace the pre-transfer charging assembly.
E100	The BD PCB is faulty.	
0000	The BD signal does not arrive within 1 sec after the laser drive signal has been generated. Or, the BD signal does not arrive for 1 sec or more while the laser remains ON.	- Check if the BD PCB, laser driver PCB and DC controller are connected properly. - Replace the BD PCB. - Replace the laser scanner unit. - Replace the DC controller PCB.
E110	The rotation of the laser scanner motor is faulty.	
0000	The constant speed rotation signal (LM-RDY) does not arrive for 20 sec or more after the laser scanner motor (M4) drive signal has been generated.	- Check if the connector (J762) of the laser scanner motor driver PCB is mounted properly. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the laser scanner unit. - Replace the DC controller PCB.
E111	The rotation of the laser motor cooling fan is faulty.	
0000	The lock signal arrives for 5 sec or more although the laser motor cooling fan (FM1) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser motor cooling fan. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser motor cooling fan. - Replace the DC controller PCB.
E121	The rotation of the laser cooling fan (1/2) is faulty.	
0001	The lock signal arrives for 5 sec or more although the laser cooling fan 1 (FM3) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 1. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 1. - Replace the DC controller PCB.

Code	Cause	Remedy
0002	The lock signal arrives for 5 sec or more although the laser cooling fan 2 (FM5) is being driven.	- Check if there is no foreign material in the rotation assembly of the laser cooling fan 2. - Check if the connector (J503) of the relay PCB is mounted properly. - Replace the laser cooling fan 2. - Replace the DC controller PCB.
E240	The communication between the MCON and DCON is faulty.	
0000	A communication fault exists between the CPUs of the main controller PCB and the DC controller PCB.	- Check the wiring between the DC controller PCB and the main controller PCB. - Replace the DC controller PCB. - Replace the main controller PCB.
E243	The communication between the control panel PCB and MCON is faulty.	
0000	A communication fault exists between the CPUs of the control panel PCB and the main controller PCB.	- Replace the control panel PCB. - Replace the main controller PCB.
E602	There is an error on the hard disk.	
0001	An HDD detection error has occurred. The HDD cannot be detected. The HDD does not become ready. The HDD returns an error.	See the details under E602.
0002	There is no startup file. The program for the main CPU does not exist on the HDD or in BOOTDEV/BOOT, and so on.	See the details under E602.
0003	An HD write abort error has occurred. The sectors for BOOTDEV on the HD cannot be read.	See the details under E602.
0006	A subbootable that matches the PDL type does not exit in BOOTDEV/BOOT.	See the details under E602.
0007	An ICC profile that matches the PDL type does not exit in BOOTDEV/PDL.	See the details under E602.
01XX	/DOSDEV is faulty.	See the details under E602.
02XX	/FSTDEV is faulty.	See the details under E602.
03XX	/DOSDEV2 is faulty.	See the details under E602.
04XX	/FSTPDEV is faulty.	See the details under E602.
05XX	/DOSDEV3 is faulty.	See the details under E602.
06XX	/PDLDEV is faulty.	See the details under E602.
07XX	/DOSDEV4 is faulty.	See the details under E602.
08XX	/BOOTDEV is faulty.	See the details under E602.
09XX	/DOSDEV5 is faulty.	See the details under E602.
FFXX	There is an error in a partition that cannot be identified.	See the details under E602.
E604	The image memory is faulty or is inadequate.	
0000	The memory size does not match the model.	- Increase the memory.
E609	There is an error on the HDD.	
0008	At startup, the HDD fails to reach a specific temperature level within a specific period of time.	- Replace the HDD. - Replace the DC controller PCB.
0009	At time of sleep recovery, the temperature fails to reach a specific level.	- Replace the HDD. - Replace the DC controller PCB.
E610	The HDD coding key is faulty.	
	The SRAM/PCB is faulty. The battery has become exhausted, leading to loss of SRAM contents.	- Turn off and then back on the power switch to generate the key once again. - Replace the main controller PCB.
E710	There is an error in the initialization of the IPC.	
0002	The IPC (IC40) on the DC controller PCB cannot be initialized when the main power supply is turned on.	- Check the cable. - Replace the DC controller PCB.
0003	The IPC (IC1003) on the machine controller PCB cannot be initialized when the main power is turned on.	- Check the cable. - Replace the main controller PCB.
E711	There is an error in the IPC communication.	
0002	Data has been written to the error register of the IPC (IC40) on the DC controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the DC controller PCB.
0003	Data has been written to the error register of the IPC (IC1003) on the main controller PCB 4 times or more within 2 sec.	- Check the cable. - Replace the main controller PCB.
E713	There is an error in the communication with the finisher.	

Code	Cause	Remedy
0000	The communications IC (IPC) on the finisher controller PCB goes out of order.	- Check if the communication cable between the finisher and main body is connected properly. - Replace the finisher controller PCB. - Replace the DC controller PCB.
E717	There is an error in the communication with the NE controller.	
0001	The NE controller is not connected at power on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	An IPC error has occurred while the NE controller is in operation. There is an open circuit for the IPC. An error has occurred, and the IPC communication remains disabled.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E719	There is a coin vendor error.	
0001	The coin vendor is not connected when the power is turned on, although it was connected before the power was turned off because of an error.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0002	While the coin vendor is in operation, an IPC error has occurred, IPC has developed an open circuit, or an error preventing recovery of IPC communication has occurred. An open circuit ha been detected in the line for the pickup/delivery signal. An illegal signal has been detected.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0003	While the unit price is being checked at startup, an error occurs in the communication with the coin vendor.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0011	An error has occurred at new card reader startup. The new card reader is not connected when the power is turned off, although it was connected when the power was turned off.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
0012	An IPC error has occurred at new card reader startup. There is an IPC open circuit. An error has occurred that prevents recovery of IPC communication.	Check the cable; thereafter, reset the condition in service mode: COPIER>FUNCTION>CLEAR>ERR.
E730	There is a PDL software error.	
1001	An initialization error has occurred.	- Execute PDL resetting. - Turn on the power once again.
100A	An error that may be critical to the system (e.g., failed initialization) has occurred.	- Execute PDL resetting. - Turn on the power once again.
9004	There is an error in the communication (PAI) with an external controller.	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
9005	Fault in the connector of the vide cable to the external controller	- Turn on the power once main. - Check the connection of the open I/F board and the cable. - Replace the board for the external controller open I/F. - Replace the main controller PCB.
A006	The PDL board does not respond. A subbootable is faulty or absent.	- Execute PDL resetting. - Turn on the power once again. - Check the connection of the UFR board. - Re-install the firmware. - Replace the main controller PCB.
A007	There is a mismatch between the control software of the machine and the PDL control software in regard to version.	- Execute PDL resetting. - Turn on the power once again. - Execute system formatting (all), and reinstall the system.
B013	Corruption in the font data	- Turn on the power once again. - Re-install the Software. - Execute system formatting (all), and reinstall the system.
E733	There is an error in the communication with the printer.	
0000	At startup, communication with the printer fails.	- Check the connector used to connect to the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.

Code	Cause	Remedy
0001	There is a DDI-P communication error.	- Check the connection with the printer. - Check the power supply of the printer (to see if initialization takes place at startup). - Replace the DC controller or the main controller PCB.
E740	There is an error on the Ethernet board.	
0002	The MAC address is illegal.	- Replace the main controller PCB.
E744	There is an error in the language file/boot ROM.	
0001	The version of the language file on the HDD and that of the bootable do not match.	- Download a language file of the correct version.
0002	The size of the language file on the HDD is too large.	- Download a language file of the correct version.
0003	There is no language file on the HDD indicated by config.txt for a switchover.	- Download a language file of the correct version.
0004	An attempt to switchover to a language on the HDD fails.	- Download a language file of the correct version.
1000	The boot ROM that is mounted is of the wrong type.	Replace the Boot ROM with one of the model in question.
E745	There is a fault on the TokenRing board.	
0001	An attempt at PCI initialization has failed.	- Disconnect and then connect the TokenRing board. - Replace the TokenRing board.
0002	The MAC address is faulty.	- Replace the TokenRing board.
0003	There is an error in the acquisition/setting of board information.	- Replace the TokenRing board.
0004	There is a connection error.	- Check the connection the cable. - Replace the cable. - Check the power source of the MAU. - Replace the MAU. - Replace the TokenRing board.
0005	Other Errors	
E746	The accessories board is of the wrong type.	
0003	At startup, a board for a different model has been detected.	- Replace the UFR board of the correct type (model).
E748	Mismatch in controller board and SDRAM size	
1001	There is a mismatch between the control board and the SDRAM.	- Check the correct combination between main controller PCB and SDRAM.
E800	There is an error in the auto power-off circuit.	
0000	An open circuit is detected in the auto power-off circuit for 3 sec or more.	- Turn on the power once again. - Check if the connector (J505) of theDC controller PCB is mounted properly. - Check if the connector (J1719) of the relay PCB is mounted properly. - Replace the relay PCB. - Replace the DC controller PCB.
E804	There is an error in the system fan/the power supply cooling fan (1 and 2).	
0000	The lock signal is detected for 5 sec or more although the power supply cooling fan (1 and 2) is being driven.	- Check if there is no foreign material in the rotation assembly of the power supply cooling fan (1 and 2) fan. - Check if the connector (J505) of the DC controller PCB is mounted properly. - Replace the power supply cooling fan (1/2). - Replace the DC controller PCB.
0004	The reading of the ambient temperature of the main controller is 80 degrees or higher.	- Check if there is no foreign material in the rotation assembly of the system fan. - Check if the connector (J1028) of the main controller PCB is mounted properly. - Replace the sysytem fan. - Replace the main controller PCB. Caution In the case of a fault in the system fan, the data will be indicated in the form of an alarm (0008040004; ALARM-2).
E805	The rotation of the fixing assembly heat discharging fan and separation heat discharging fan is faulty.	
0001	The lock signal is detected for 5 sec or more although the fixing assembly heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the fixing assembly heat discharging fan. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the fixing assembly heat discharging fan. - Replace the DC controller PCB.
0002	The lock signal is detected for 5 sec or more although the separation heat discharging fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation heat discharging fan. - Replace the separation heat discharging fan.
E820	The rotation of the drum fan is faulty.	

Code	Cause	Remedy
0000	The lock signal is detected for 5 sec or more although the drum fan is being driven.	- Check if there is no foreign material in the rotation assembly of the drum fan. - Check if the connector (J512) of the DC controller PCB is mounted properly. - Replace the drum fan. - Replace the DC controller PCB.
E823	The rotation of the pre-transfer charging assembly fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the pre-transfer charging assembly fan is being driven.	- Check if there is no foreign material in the rotation assembly of the pre-transfer charging assembly fan. - Check if the connector (J504) of the DC controller PCB is mounted properly. - Replace the pre-transfer charging assembly fan. - Replace the DC controller PCB.
E824	The rotation of the primary charging assembly fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the primary charging assembly fan is being driven.	- Check if there is no foreign material in the rotation assembly of the primary charging assembly fan. - Check if the connector (J503) of the DC controller PCB is mounted properly. - Replace the primary charging assembly fan. - Replace the DC controller PCB.
E830	The rotation of the separation fan is faulty.	
0000	The lock signal is detected for 5 sec or more although the separation cooling fan is being driven.	- Check if there is no foreign material in the rotation assembly of the separation cooling fan. - Check if the connector (J509) of the DC controller PCB is mounted properly. - Replace the separation cooling fan. - Replace the DC controller PCB.

16.2.4 E602 in Detaill

0008-5844

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-16-7

XX	YY	Description	Remedy
00	01	The HDD cannot be recognized. The startup partition (BOOTDEV) cannot be found at startup.	1. Turn off the main switch, and check the cable connector. Then, turn on the main switch. 2. Check to see if the HDD spins up when the main switch is turned on and if the 5V/12V power is supplied. 3. If the symptom still exists after the foregoing, replace the HDD, re-install the system software. If the symptom still exists, replace the main board.
00	02	The system software for the main CPU does not exist.	1. Start up in safe mode, and format the HDD using the SST (all); then, re-initial the system software (System, Language, RUI); then turn off and then back on the main power switch. 2. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
00	03	Suspension of a write operation to the boot device has been detected.	1. Find the sector for which the write operation has been suspended; then, execute recovery operation. <in the case of black-and-white E code> 1-1 The machine will not permit the use of service mode; go through the following: 1-2 Turn off the power. Then, turn on the power while holding down on the 1 and 9 keys so that the repair routine for the sector for which the write operation was suspended will automatically start up and the screen will turn solid black. 1-3 Wait for about 40 to 50 min. There will soon be an indicator of progress of work. The screen will turn solid white when the routine ends. <if the spanner symbol is indicated> 1-1 Set 'CHK-TYPE-0', and execute 'HD-CHECK' (50 to 50 min); thereafter, turn off and then back on the main power switch. 2. If the symptom still exists after the foregoing, start up in safe mode; then, format the HDD (full) using the SST, and re-install the system software (System, Language, RUI), and turn off and then back on the main power switch. 3. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
00	04	Symptom absent	

XX	YY	Description	Remedy
00	05	Symptom absent	
00	06	The system software of the sub CPU does not exist.	1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI); then, turn off and then back on the main power. 2. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software once again.
00	07	The IC profile does not exist.	1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI); then, turn off and then on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

[E602-XXYY]

T-16-8

XX				YY					
XX	**CHK-TYPE**	**Partition in question**	**Description**	**01**	**02**	**03**	**11, 21**	**13, 25**	**10, 12, 14, 22, 23, 24**
				At startup			**During routine operation**		
				Reme-dy	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**	**Reme-dy**
1	1	DOSDEV	General data storage area	*1	*5	*9	*10	*11	*12
2	1	FSTDEV	Image data storage area (e.g., Box)	*1	*5	*9	*10	*11	*12
3	1	DOSDEV2	Image thumbnail display data area (e.g., Box)	*1	*5	*9	*10	*11	*12
4	1	FSTPDEV	Image data storage area (e.g., Box)	*1	*5	*9	*10	*11	*12
5	2	DOSDEV3	General file storage area (user settings, logs, PDL spool, image data control info)	*1	*5	*9	*10	*11	*12
6	3	PDLDEV	PDL-related file storage area (font, registered form, ICC profile, color correction info file for PDL function)	*1	*5	*9	*10	*11	*12
7	4	DOSDEV4	Firmware storage area (address book, filter)	*2	*6	*9	*10	*11	*12
8	4	BOOTDEV	Firmware storage area (System, Language, RUI)	*3	*8	*9	*10	*11	*12
9	5	DOSDEV5	For future expansion	*1	*5	*9	*10	*11	*12
FF	0	Not identified	Entire HDD (check on faulty sector and recovery)	*4	*7	*9	*10	*11	*12

[HDD formatting]

T-16-9

XX	CHK-TYPE	Partition in question	Description	Typical item deleted	HDD formatting by HD-CLEAR	Normal mode + HDD formatting with SST	Safe mode + HDD formatting with SST
1	1	DOSDEV	General data storage area	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
2	1	FSTDEV	Image data storage area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
3	1	DOSDEV2	Image thumbnail display data area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
4	1	FSTPDEV	Image data storage area (e.g., Box)	Entire collection of image data (e.g., Box)	Possible (4 partitions, simul-taneously)	FSTDEV specified (4 partitions, simul-taneously)	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
5	2	DOSDEV3	General file storage area (user settings, logs, PDL spool, image data control info)	Items that are relatively less critical	Possible	DOSDEV3 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
6	3	PDLDEV	PDL-related file storage area (font, registered form, ICC profile, color correction info file for PDL function)	User Font IccProfil	Possible	PDLDEV specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.

XX	CHK-TYPE	Partition in question	Description	Typical item deleted	HDD formatting by HD-CLEAR	Normal mode + HDD formatting with SST	Safe mode + HDD formatting with SST
7	4	DOSDEV4	Firmware storage area (address book, filter)	Address book	Not possible	DOSDEV4 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
8	4	BOOTDEV	Firmware storage area (System, Language, RUI)	System software	Not possible	Not possible	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
9	5	DOSDEV5	For future expansion	None in particular	Possible	DOSDEV5 specified	Possible; however, selection of a specific partition is not allowed, requiring deletion of all data. After formatting, the system software must be downloaded.
FF	0	Not identified	Entire HDD (check on faulty sector and recovery)	-	-	-	-

* When the machine starts up for the first time after its HDD has been formatted, it may take longer than usual to complete the startup session.

[Remedy]

T-16-10

	YY	Description	Remedy
*1	01	The ongoing write operation has been suspended (at startup).	1. Set '0' to TYPE-TYPE, and execute HDD-CHECK (50 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exists after the foregoing, type in TYPE-TYPE for the partition in question, and execute HDD-CLEAR. Thereafter, turn off and then back on the main switch.
*2	01	The ongoing operation has been suspended (at startup).	1. If possible, ask the user to back up the address book data using the RUI. 2. Set '0' to TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 3. If the symptom still exists after the foregoing, start download mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power.

	YY	Description	Remedy
*3	01	The ongoing write operation has been suspended (at startup).	To run a recovery session for the boot partition, you will have to use safe mode in combination with the SST. 1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and the back on the power. 2. If the symptom still exits after the foregoing, start download mode, and execute full formatting using the SST, and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the power.
*4	01	The ongoing write operation has been suspended (at startup).	1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, execute HDD-CLEAR using TYPE-TYPE=1, 2, 3, 5. Thereafter, turn off and then back on the power.
*5	02	A file system error has occurred.	1. Type in TYPE-TYPE of the partition in question, and execute HDD-CLEAR. Thereafter, turn off and then back on the main switch. 2. If the system still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*6	02	There is a file system error.	The system software is designed so that the information in this partition (e.g., address book, filter) is not deleted inadvertently; i.e., you will not the able to execute HDD-CLEAR from service mode. 1. If possible, ask the user to back up the address book data using the RUI. 2. From service mode, start download mode; then, execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and the back on the main power.
*7	02	A file system error has occurred.	This type of error is highly rare. 1. Using TYPE-TYPE=1, 2, 3, 5, execute HDD-CLEAR. Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*8	02	A file system error has occurred.	The system software is designed so that a recovery session will not run for the boot partition unless you use safe mode in combination with the SST. 1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*9	03	There is poor contact of the HDD, or a v.x Works system error has occurred.	1. Check the cable and power supply connectors. 2. If the symptom still exits after the foregoing, start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power. 3. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*10	11,21	The HDD has poor contact.	This type of error is highly rare in relation to read/write operations. 1. Check the cable and the power supply connectors. 2.If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and install the system software.

	YY	Description	Remedy
*11	13, 25	The ongoing write operation has been suspended.	There is a likelihood of the presence of damage to the file data on the HDD (e.g., Box). 1. Set '0' for TYPE-TYPE, and execute HDD-CHECK (40 to 50 min). Thereafter, turn off and then back on the power. 2. If the symptom still exits after the foregoing, set '1' for TYPE-TYPE, and execute HDD-CLEAR. (In the case of DOSDEV4 or BOOTDEV, execute formatting and re-installation once again.) 3. If the symptom still exists after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.
*12	10, 12, 14, 22, 23, 24	There is a system error or a packet data error.	The data may be corrupted or there is a software bug. 1. Start up in safe mode, and execute full formatting using the SST and re-install the system software (System, Language, RUI). Thereafter, turn off and then back on the main power. 2. If the symptom still exits after the foregoing, suspect a fault on the HDD, and replace the HDD and re-install the system software.

HD-CLEAR

When you have executed HD-CLEAR, all contents of the partition in question (files, sub directories) will be lost.
The actual formatting will take place when the machine is started up after it has been turned off upon execution of HD-CLEAN.
At this time, the Startup screen shows a progress bar, its edge reaching the end in about 5 min. Be sure not to turn off the power while the progress bar is moving.
This function (i.e., mode item) cannot be used for BOOTDEV and DOSDEV4; to re-format any of these 2 partitions, you will have to use the SST.
Keep in mind that formatting of the HDD in service mode will necessarily be full formatting.

HD-CHECK

If the power is cut while data is being written to the HDD, the occurrence of a write-suspended sector is a possibility. When HD-CHECK is run on such a sector, repairs will be made, but all data in the sector will be lost. A write-suspended sector may be repaired only by HDD-CHECK (0); if not TYPE-TYPE=0, the task will be limited to an FS level check.
If the write-suspended sector happens to be a critical sector that holds a control area, there is no way of repairing it; you will have to execute HDD formatting.

Replacing the HDD

1. Turn off the main switch.
2. Connect the new HDD.
3. Start up the machine in safe mode.
4. Connect the SST, and execute full formatting.
5. Using the SST, download the system software (System, Language, RUI).
6. Turn off and then back on the power. (It may take about 5 min for the machine to start up).

16.3 Jam Code

16.3.1 Jam Code (Main Body-related)

0007-0520

iR105i/iR105+ / iR9070

T-16-11

FF: Type of Copier Jam

Code	Type
01xx	delay jam
02xx	stationary jam
0Axx	power-on residual jam
0Bxx	front cover open jam

T-16-12

ff: Copier Jam Sensor

Code	Sensor
xx00	no sensor in particular
xx01	right deck pickup sensor (PS20)
xx02	left deck pickup sensor (PS25)
xx03	cassette 3 pickup sensor (PS37)
xx04	cassette 4 pickup sensor (PS42)
xx05	vertical path 1 paper sensor (PS47)
xx06	vertical path 2 paper sensor (PS49)
xx07	vertical path 3 paper sensor (PS41)
xx08	vertical path 4 paper sensor (PS46)
xx09	registration paper sensor (PS5)
xx0A	fixing claw jam sensor (PS6)
xx0B	internal delivery sensor (PS9)
xx0C	external delivery sensor (PS10)
xx0D	fixing/feeder unit outlet sensor(PS11)
xx0F	duplexing reversal sensor (PS12)
xx10	duplexing outlet sensor (PS61)
xx11	pre-confluence sensor (PS14)
xx12	post-confluence sensor (PS15)
xx13	left deck feed sensor (PS26)
xx14	right deck feed sensor (PS27)
xx15	side paper deck feed sensor(PS106)
xx16	manual feed sensor (PS35)
xx17	side paper deck pickup sensor(PS101)
xx18	Image write start sensor (PS60)

16.3.2 Jam Code (Main Body-related)

0008-8637

/ iR85+ / iR8070

T-16-13

FF: Type of Main Body Jam

Code	Type
01xx	delay jam

Code	Type
02xx	stationary jam
0Axx	power-on residual jam
0Bxx	front cover open jam

T-16-14

ff: Jam Sensor in Main Body

Code	Sensor
xx00	no sensor in particular
xx01	right deck pickup sensor (PS20)
xx02	left deck pickup sensor (PS25)
xx03	cassette 3 pickup sensor (PS37)
xx04	cassette 4 pickup sensor (PS42)
xx05	vertical path 1 paper sensor (PS47)
xx06	vertical path 2 paper sensor (PS49)
xx07	vertical path 3 paper sensor (PS41)
xx08	vertical path 4 paper sensor (PS46)
xx09	registration paper sensor (PS5)
xx0A	fixing claw jam sensor (PS6)
xx0B	internal delivery sensor (PS9)
xx0C	external delivery sensor (PS10)
xx0D	fixing/feeder unit outlet sensor(PS11)
xx0E	reversal sensor (PS16)
xx0F	duplexing reversal sensor (PS12)
xx10	U-tirn sensor (PS13)
xx11	pre-confluence sensor (PS14)
xx12	post-confluence sensor (PS15)
xx13	left deck feed sensor (PS26)
xx14	right deck feed sensor (PS27)
xx15	side paper deck feed sensor(PS106)
xx16	manual feed sensor (PS35)
xx17	side paper deck pickup sensor(PS101)

16.3.3 Jam Code (Finisher-related)

0007-0532

iR105i/iR105+ / iR9070 / iR85+ / iR8070

T-16-15

FF: Type of Finisher Jam

Code	Jam
10xx	delay jam
11xx	stationary jam
13xx	power-on residual jam
14xx	front cover open jam
15xx	staple jam
16xx	punch jam
17xx	other

T-16-16

ff: Finisher Jam Sensor

Code	Sensor
xx00	no sensor in particular
xx11	fold path paper residual sensor 1 delay jam (PI73)
xx12	fold path paper residual sensor 2 delay jam (PI77)
xx13	fold path paper residual sensor 3 delay jam (PI75)
xx14	fold path paper residual sensor 4 delay jam (PI74)
xx15	saddle inlet sensor delay jam (PI59)
xx16	inlet path paper sensor delay jam (S1)
xx17	buffer path rear sensor delay jam (PI3)
xx18	non-sort delivery sensor delay jam (PI6)
xx19	sort delivery sensor delay jam (PI4)
xx1A	inserter separation sensor 1/2 delay jam (PI62/PI63)
xx1B	inserter feed sensor 3 delay jam (PI61)
xx21	feed path paper sensor 1 stationary jam (PI76)
xx22	feed path paper sensor 2 stationary jam (S7)
xx23	feed path paper sensor 3 stationary jam (S8)
xx24	feed path paper sensor 4 stationary jam (PI74)
xx25	saddle inlet sensor stationary jam (PI59)
xx26	inlet path paper sensor stationary jam (S1)
xx27	buffer path rear paper sensor stationary jam (PI3)
xx28	non-sort delivery sensor stationary jam (PI6)
xx29	sort delivery sensor stationary jam (PI4)
xx2A	inserter separation sensor 1/2 stationary jam (PI62/PI63)
xx2B	inserter feed path paper sensor 3 stationary jam (PI61)
xx2C	knurled belt HP sensor/stack delivery sensor stationary jam (PS31/32)
xx31	inserter paper set sensor pickup paper absent jam (S9)
xx32	shutter jam
xx33	inserter separation sensor 1/2 skew jam (PI62/PI63)
xx86	stitcher home position sensor front/rear staple jam (MS34/MS32)
xx87	No. 1 paper sensor /delivery sensor stationary jam (PI60/PI52)
xx88	outlet cover sensor/inlet cover sensor open jam (paper present) (PI46/PI51)
xx89	outlet cover sensor/inlet cover sensor open jam (paper absent) (PI46/PI51)
xx91	No. 1 paper sensor delay jam (PI60)
xx92	delivery sensor/vertical path paper sensor delay jam (PI52/PI57)
xxA1	No. 1/2/3 paper sensor stationary jam (PI60/61/62)
xxA2	delivery sensor/vertical path sensor stationary jam (PI52/PI57)

16.3.4 Jam Code (ADF-related)

0007-0547

iR105i/iR105+ / iR9070

T-16-17

FFff: ADF Jam Code

Code	Sensor
0011	pickup trailing edge skew
0012	pickup fault 1
0013	pickup fault 2
0014	reversal delay
0015	reversal pickup trailing edge skew
0016	reversal pickup fault 1

Code	Sensor
0019	residual original
001A	1st sheet pickup trailing edge skew rear
001B	1st sheet reversal pickup trailing edge rear
001C	1st sheet pickup fault 1
001D	1st sheet pickup fault 2
001E	1st sheet reversal delay
001F	1st sheet reversal pickup fault 1
0022	separation delay
0023	pickup delay
0024	pickup leading edge skew
0025	pre-reversal delay 1
0026	pre-reversal delay 2
0027	pre-reversal delay 3
002A	1st sheet pickup leading edge skew
002B	1st sheet pre-reversal delay 1
002C	1st sheet pre-reversal delay 2
002D	1st sheet pre-reversal delay 3
0031	pickup stationary 1
0032	pickup stationary 2
0033	pre-reversal stationary 1
0034	pre-reversal stationary 2
0035	pre-reversal stationary 3
0036	pre-reversal stationary 4
003A	1st sheet pickup stationary 1
003B	1st sheet pickup stationary 2
003C	1st sheet pre-reversal stationary 1
003D	1st sheet pre-reversal stationary 2
003E	1st sheet pre-reversal stationary 3
003F	1st sheet pre-reversal stationary 4
0041	reversal stationary
004A	1st sheet reversal stationary
0052	reversal pickup delay
0054	reversal pickup stationary
0055	pre-reversal pickup delay
0056	pre-reversal pickup stationary 1
0057	pre-reversal pickup stationary 2
005A	1st sheet reversal pickup delay
005B	1st sheet reversal pickup stationary
005C	1st sheet pre-reversal pickup delay
005D	1st sheet pre-reversal pickup stationary 1
005E	1st sheet pre-reversal pickup stationary 2
0081	delivery delay
0082	delivery stationary 1
0083	delivery stationary 2
008A	1st sheet delivery delay
008B	1st sheet delivery stationary 1
008C	1st sheet delivery stationary 2
0092	manual feed registration delay
00A1	manual feed registration stationary
00A2	manual feed reversal stationary
00A3	manual feed delivery stationary

Code	Sensor
00A4	manual feed delivery delay
00A5	manual feed residual original
00A6	manual feed original size error
00E1	ADF open
00E2	cover open
00E3	cycle NG
00E4	initial stay
00E5	timing error
00E6	original size error
00E7	user ADF open
00E8	user cover open
00E9	power-down
00EA	time leading edge error
00EB	1st sheet image leading position error
00F1	belt speed setting error
00F2	belt speed switch-over error
00F3	belt status error
00F4	image leading edge output timing error
00F8	reversal speed setting error
00F9	reversal speed switch-cover error
00FA	reversal status error
00FD	last sheet error
00FE	error
00FF	program

16.3.5 Jam Code (ADF-related)

0008-8494

/ iR8070

T-16-18

FFff: ADF jam code

Code	Description	Sensor
00X1	Post-separation sensor (S3) delay	S3
00X2	Post-separation sensor (S3) stationary	S2, S3
00X3	Registration sensor (PI1) delay	S3, P11
00X4	Registration sensor (PI1) stationary	P11
00X5	Read sensor (S2) delay	S2
00X6	Read sensor (S2) stationary	S2
00X7	Delivery reversal sensor (S1) delay	S1, S2
00X8	Delivery reversal sensor (S1) stationary	S1, S2
00X9	User ADF open	PI2
00XA	ADF open	PI2
00XB	User cover open	SW2
00XC	Cover open	SW2
00XD	Residual	PI1, S1, S2, S3
00XE	Pickup fault	PI5
00XF	Timing error	S2

x=1: 1st original picked up.
x=0: 2nd or subsequent original picked up.

16.4 Alarm Code

16.4.1 Alarm Code

0007-0636

iR105i/iR105+ / iR9070

T-16-19

EE	Location code	ffff	Code
00	error code	0804	system fan alarm (detail code: 0004)
02	reader assembly (scanner)	0003	dust detection small 1
		0004	dust detection small 2
		0005	dust detection small 3
		0006	dust detection small 4
		0007	dust detection small 5
		0008	dust detention small 6
		0009	dust detection small 7
		0010	dust detection large 1
		0011	dust detection large 2
		0012	dust detection large 3
		0013	dust detection large 4
		0014	dust detection large 5
		0015	dust detection large 6
		0016	dust detection large 7
		0017	small position stream reading prohibit
		0018	large position stream reading prohibit
		0019	scanner lamp intensity low
04	pickup/feeding system	0001	right deck lifter alarm
		0002	left deck lifter alarm
		0003	cassette 3 lifter alarm
		0004	cassette 4 lifter alarm
		0007	manual feed tray lifter alarm
		0008	side paper deck lifter alarm
		0011	right deck retry alarm
		0012	left deck retry alarm
		0013	cassette 3 retry alarm
		0014	cassette 4 retry alarm
		0017	manual feed retry alarm
		0018	side paper deck retry alarm
30	high-voltage system	0001	primary charging assembly leakage
		0002	transfer charging assembly leakage
		0003	separation charging assembly leakage
32	potential control system	0001	potential control VD alarm
		0002	potential control VL alarm
33	fan system	0001	delivery assembly curl-reducing fan alarm
		0005	scanner motor fan alarm
		0006	developing fan alarm
		0007	delivery adhesion prevention fan alarm
		0009	duplex feeding fan alarm
		0010	stream reading fan alarm
61	sorter/finisher stapler system	0001	staple absent
62	saddle stitcher system	0001	stitch staple absent

EE	Location code	ffff	Code
65	sorter/finisher puncher system	0001	punch waste case full

16.4.2 Alarm Code

0008-8496

/ iR8070

T-16-20

EE	Location code	ffff	Code
00	error code	0804	system fan alarm (detail code: 0004)
04	pickup/feeding system	0001	right deck lifter alarm
		0002	left deck lifter alarm
		0003	cassette 3 lifter alarm
		0004	cassette 4 lifter alarm
		0007	manual feed tray lifter alarm
		0008	side paper deck lifter alarm
		0011	right deck retry alarm
		0012	left deck retry alarm
		0013	cassette 3 retry alarm
		0014	cassette 4 retry alarm
		0017	manual feed retry alarm
		0018	side paper deck retry alarm
30	high-voltage system	0001	primary charging assembly leakage
		0002	transfer charging assembly leakage
		0003	separation charging assembly leakage
32	potential control system	0001	potential control VD alarm
		0002	potential control VL alarm
33	fan system	0001	delivery assembly curl-reducing fan alarm
		0002	feeding fan alarm
		0004	laser driver cooling fan alarm
		0005	scanner motor fan alarm
		0006	developing fan alarm
		0007	delivery adhesion prevention fan alarm
		0010	stream reading fan alarm
61	sorter/finisher stapler system	0001	staple absent
62	saddle stitcher system	0001	stitch staple absent
65	sorter/finisher puncher system	0001	punch waste case full

16.4.3 Alarm Code

0008-9150

iR85+

T-16-21

EE	Location code	ffff	Code
00	error code	0804	system fan alarm (detail code: 0004)

EE	Location code	ffff	Code
04	pickup/feeding system	0001	right deck lifter alarm
		0002	left deck lifter alarm
		0003	cassette 3 lifter alarm
		0004	cassette 4 lifter alarm
		0007	manual feed tray lifter alarm
		0008	side paper deck lifter alarm
		0011	right deck retry alarm
		0012	left deck retry alarm
		0013	cassette 3 retry alarm
		0014	cassette 4 retry alarm
		0017	manual feed retry alarm
		0018	side paper deck retry alarm
30	high-voltage system	0001	primary charging assembly leakage
		0002	transfer charging assembly leakage
		0003	separation charging assembly leakage
32	potential control system	0001	potential control VD alarm
		0002	potential control VL alarm
33	fan system	0001	delivery assembly curl-reducing fan alarm
		0002	feeding fan alarm
		0004	laser driver cooling fan alarm
		0005	scanner motor fan alarm
		0006	developing fan alarm
		0007	delivery adhesion prevention fan alarm
61	sorter/finisher stapler system	0001	staple absent
62	saddle stitcher system	0001	stitch staple absent
65	sorter/finisher puncher system	0001	punch waste case full

Chapter 17 Service Mode

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17.1 Outline

17.1.1 Construction of Service Mode(iR105)

0007-0318

iR105

The service mode screens are arranged in a 3-level construction: Initial screen, Level 1/2 screen, Level 3 screen.

F-17-1

The machine' s service mode consists of the following 7 types:

F-17-2

17.1.2 Service mode screen configuration

0008-7886

iR105i/iR105+ / iR9070 / iR8070

As shown below, the service modes use three screen levels: initial screen -> main/intermediate item screen -> sub-item screen.
One set of modes are used for normal maintenance (Level 1 modes), and another set are used for troubleshooting (Level 2 modes).

F-17-3

The copier has the 7 service modes listed below.

F-17-4

17.1.3 Service mode screen configuration

0009-1479

iR85+

As shown below, the service modes use three screen levels: initial screen -> main/intermediate item screen -> sub-item screen.
One set of modes are used for normal maintenance (Level 1 modes), and another set are used for troubleshooting (Level 2 modes).

F-17-5

The machine has the 7 service modes listed below.

F-17-6

17.1.4 Starting Service Mode and Making Selections(iR105)

0007-0320

iR105

1) Press the User Mode key " ✱ " in the control panel.
2) Press '2' and '8' keys at the same time on the keypad.

3) Press the User Mode key " ✱ " in the control panel.
The following Initial screen will appear as a result:

F-17-7

17.1.5 Entering or selecting service modes

0008-7887

iR105i/iR105+ / iR9070 / iR8070

To execute a copier operation using a service mode, remove the cable from the external controller or the cable from the network before entering the desired mode. Take care when using the FUNCTION (operation/inspection mode) mode, as the copier may malfunction and be damaged if a print job is received from outside while an operation is executing with this mode in effect.

1) Press the asterisk key ( ) on the operation panel.
2) Press 2 and 8 simultaneously on the numeric keypad.
3) Press the asterisk key ( )on the operation panel.
The initial screen (see below) now appears.

F-17-8

17.1.6 Entering or selecting service modes

0009-1480

iR85+

To execute a machine operation using a service mode, remove the cable from the external controller or the cable from the network before entering the desired mode. Take care when using the FUNCTION (operation/inspection mode) mode, as the machine may malfunction and be damaged if a print job is received from outside while an operation is executing with this mode in effect.

1) Press the asterisk key ( ) on the operation panel.
2) Press 2 and 8 simultaneously on the numeric keypad.
3) Press the asterisk key ( )on the operation panel.
The initial screen (see below) now appears.

F-17-9

17.1.7 Ending Service Mode(iR105)

0007-0323

iR105

- Press the Reset key once to return to the Service Mode Initial screen (F00-102-01).
- Press the Reset key twice to leave service mode and return to the User screen (Standard screen).

If you used service mode (ADJUST, FUNCTION, OPTION), be sure to turn off and then on the main power switch after leaving service mode.

17.1.8 Exiting service modes

0008-7888

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When the reset key is pressed once, the display returns to the service mode initial screen.
When the reset key is pressed twice, the service modes are exited, and the display returns to the user screen (standard screen).

When using the ADJUST, FUNCTION or OPTION service mode, be sure to turn the main power switch ON/OFF after exiting the mode.

17.1.9 Backing Up Service Mode

0007-0324

iR105i/iR105+ / iR9070 / iR8070

At time of shipment from the factory, each machine is adjusted, and the adjustment values are recorded on the Service Label (attached to the cover of the Service Book case behind the front cover).
If you have replaced the reader controller PCB, DC controller PCB (or if you have cleared the RAM of these), the ADJUST and OPTION settings will be replaced by default settings.
If you have made adjustments in the field and changed service mode settings, be sure to print out the Service Label and store it away (COPIER>FUNCTION>MISC-P>LBL-PRINT). If the label lacks items, use its margin.
You can also print out a complete list of service mode settings: COPIER>ADJUST/OPTION/COUNTER; COPIER>FUNCTION>MISC-P>P-PRINT.

F-17-10

17.1.10 Backing Up Service Mode

0008-9151

iR85+

At time of shipment from the factory, each machine is adjusted, and the adjustment values are recorded on the Service Label (attached to the cover of the Service Book case behind the front cover).
If you have replaced the DC controller PCB (or if you have cleared the RAM of these), the ADJUST and OPTION settings will be replaced by default settings.
If you have made adjustments in the field and changed service mode settings, be sure to print out the Service Label and store it away (COPIER>FUNCTION>MISC-P>LBL-PRINT). If the label lacks items, use its margin.
You can also print out a complete list of service mode settings: COPIER>ADJUST/OPTION/COUNTER; COPIER>FUNCTION>MISC-P>P-PRINT.

F-17-11

17.1.11 Initial Screen(iR105)

0007-0325

iR105

F-17-12

17.1.12 Initial screen

0008-7889

iR105i/iR105+ / iR9070 / iR8070

F-17-13

17.1.13 Initial screen

0009-1481

iR85+

F-17-14

17.1.14 Level 1/2 Screen(iR105)

0007-0327

iR105

F-17-15

17.1.15 Main/intermediate item screen

0008-7891

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-17-16

17.1.16 Level 3 Screen(iR105)

0007-0328

iR105

F-17-17

Stop key: press to stop ongoing operation.

Clear key: press to clear a value.

Start key: press to make a copy without leaving service mode.

F-17-18

17.1.17 Sub-item screen

0008-7893

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-17-19

Stop key: Stops running operations.

Clear key: Clears value.

Start key: Starts copying without exiting service mode.

F-17-20

17.2 DISPLAY (Status Display Mode)

17.2.1 COPIER

17.2.1.1 Copier List

0008-4863

iR105i/iR105+ / iR9070

<VERSION>

T-17-1

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
ROM version of each circuit board Marking style<R-CON XX.YY> XX : Version number ,YY : Development control number - <--,--> if no circuit boards are connected.		
DC-CON	ROM version of the DC controller circuit board	1
R-CON	ROM version of the reader controller circuit board	1
PANEL	ROM version of the CPU circuit of the operator panel	1
FEEDER	ROM version of the DADF controller circuit board	1
SORTER	ROM version of the finisher controller circuit board (MasterCPU)	1
NIB	Version of the network software	1
SDL-STCH	ROM version of the saddle stitcher controller circuit board	1
MN-CONT	ROM version of the main controller circuit board	1
RIP1	Not used	1
DIAG-DVC	ROM version of the self-diagnostic device	1
RUI	Version of the remote UI	1
LANG-EN	Version of the English language file	1
LANG-FR	Version of the French language file	1
LANG-DE	Version of the German language file	1
LANG-IT	Version of the Italian language file	1
LANG-JP	Version of the Japanese language file	1
TRIM-VER	Indicates the version of the trimmer controller PCB.	1
MEAP	Version of the MEAP Description on the hard disk	1
OCR-CN	Version of the simple-font Chinese OCR	1
OCR-JP	Version of the Japanese OCR	1
OCR-KR	Version of the Korean OCR	1
OCR-TW	Version of the full-font Chinese OCR	1
BOOTROM	Boot ROM version of the main controller circuit board Marking style: xx.yy_z z indicates the boot ROM type.	1
FN-SLAVE	indicates the version of the slave CPU of the finisher.	1
LANG-CS	Version of the Czech language file	2
LANG-DA	Version of the Danish language file	2
LANG-EL	Version of the Greek language file	2
LANG-ES	Version of the Spanish language file	2
LANG-ET	Version of the Estonian language file	2
LANG-FI	Version of the Finnish language file	2
LANG-HU	Version of the Hungarian language file	2
LANG-KO	Version of the Korean language file	2
LANG-NL	Version of the Dutch language file	2
LANG-NO	Version of the Norwegian language file	2
LANG-PL	Version of the Polish language file	2
LANG-PT	Version of the Portuguese language file	2
LANG-RU	Version of the Russian language file	2
LANG-SL	Version of the Slovenian language file	2
LANG-SV	Version of the Swedish language file	2
LANG-TW	Version of the full-font Chinese language file	2
LANG-ZH	Version of the simple-font Chinese language file	2
LANG-BU	Version of the Bulgarian language file	2
LANG-CR	Version of the Croatian language file	2
LANG-RM	Version of the Rumanian language file	2
LANG-SK	Version of the Slovak language file	2

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
LANG-TK	Version of the Turkish language file	2

<ACC-STS>

T-17-2

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
FEEDER	DADF connection status 0: Not connected 1: Connected	1
SORTER	Finisher and punch unit connection status Sorter type 0: None 1: Finisher 2: Saddle finisher Punch type 0: None 1: 2 holes 2: 2/3 holes 3: 4 holes (fr) 4: 4 holes (sw)	1
DECK	Paper deck connection status 0: not connected 1: connected (small) 2: connected (large)	1
CARD	Card reader connection status 0: Card reader connected with no card inserted 1: Card reader not connected or connected with card inserted (1: Ready to copy, 0: Not ready to copy)	1
DATA-CON	Copy data controller connection status 0: Not connected 1: Connected	1
RAM	Capacity of the memory on the main controller circuit board 256 MB, 512 MB	1
NIB	Network board connection status 0: No board connected 1: Ethernet board connected 2: Token ring board connected 3: Ethernet board and token ring board connected	1
PS/PCL	Not used	1
RIP1	Not used	1
NETWARE	Netware firmware installation status 0: Not installed 1: Installed	1
SEND	Send function addition status 0: Send function not added 1: Send function added	1
TRIM-CN	Display the connection status of trimmer **Setting range** 0: Not connect 1: Connect	1
PDL-FNC1/2	Valid PDL 0000 0000 0000 0000 to 1111 1111 1111 1111 (0:OFF,1:ON) b31 to b16 for PDL-FNC1 b15 to b0 for PDL-FNC2 b31: BDL, b30: PS, b29: PCL, b28: PDF, b27: LIPS, b26: N201, b25: I5577, b24: ESC/P, b23: HPGL, b22: HPGL2, b21: IMAGING, b20: KS, b19 to b0: Reserved	1
HDD	Model name of the hard disk drive	1
PCI1/2/3	PCI1/2/3 board name Not connected: Hyphen (-) displayed Connected: Board name displayed	1

<ANALOG>

T-17-3

COPIER > DISPLAY > ANALOG		
Sub-item	**Description**	**Level**
TEMP	In-machine temperature (environment sensor): Unit: deg C	1
HUM	In-machine humidity (environment sensor): Unit: %RH	1
ABS-HUM	Water content (environment sensor): Unit: g	1
OPTICS	Photoconductor drum ambient temperature (drum sensor): Unit: deg C	1
FIX-C	Fixing heater temperature (main thermistor): Unit: deg C	1
FIX-E	Fixing heater edge temperature (sub-thermistor): Unit: deg C	1

<CST-STS>

T-17-4

COPIER > DISPLAY > CST-STS		
Sub-item	**Description**	**Level**
WIDTH-C3	Indicates the paper width of the cassette 3 in terms of paper size.	2
WIDTH-C4	Indicates the paper width of the cassette 4 in terms of paper size.	2
WIDTH-MF	Indicates the paper width of the manual feeder in terms of paper size.	2

<JAM>

F-17-21

Touch an arbitrary jam display screen to see details about the jam.
(1) To previous page
(2) To next page
(3) Jam sequential number
(4) Jam type
(5) Corresponding sensor
(6) To next jam screen
(7) To previous jam screen
<No.> Jam sequential number: 1 to 50 (The oldest jam has the greatest number.)
<DATE> Jam occurrence date
<TIME1> Jam occurrence time
<TIME2> Jam reset time
<L>Location of the jam: 0 - 2 (0:host machine, 1:Feeder, 2:Finisher)
<CODE>Jam Code
<P> Paper feed position
1: Cassette 1, 2: Cassette 2, 3: Cassette 3, 4: Cassette 4, 5: Side paper deck, 6: Manual feed tray, 7: Duplex section
<CNTR> Software counter value of the paper feed stage
<SIZE> Paper size
<ERR>

F-17-22

<No.> Error sequential number: 1 to 50 (The oldest error has the greatest number.)
<DATE> Error occurrence date
<TIME1> Error occurrence time
<TIME2> Error reset time
<CODE> Error code
<DTL> Error detail code (0000 for none)
<1> Error location
0: Main controller 1: DADF 2: Finisher 3: Not used 4: Reader unit 5: Printer unit
6: Various PDL board
<P> Not used
<HV-STS>

T-17-5

COPIER > DISPLAY > HV-STS		
Sub-item	**Description**	**Leve**
PRIMARY	Primary charge current at photoconductor drum Registrationance detection control (APVC) Unit: uA	1
PRI-GRID	Indicates the grid voltage of primary charging. (V)	1
PRE-TR	Indicates the level of current for pre-transfer (post) charging.	1
TR	Indicates the level of transfer charging current.	1
SP	Indicates the level of separation charging current.	1
BIAS	Developing bias setting for the job executed last Unit: V	1

<DPOT>

T-17-6

COPIER > DISPLAY > DPOT		
Sub-item	**Description**	**Leve**
DPOT-K	indicates the surface potential of the photosensitive drum.	1
VL1T	indicates the light area potential target value.	1
VL1M	indicates the light area measurement value.	1
VDT	indicates the dark area target value.	1
VDM	indicates the dark area measurement value.	1
VDM-P	indicates the dark area potential measurement value for printer (PDL) images.	1
VDT-P	indicates the dark area potential target value for printer (PDL) images.	1

<SENSOR>

T-17-7

COPIER > DISPLAY > SENSOR		
Sub-item	**Description**	**Level**
DOC-SZ	Indicates the original size detected by the original size sensor.	2
DOC-SZ1	Indicates the sensor output detected by the original size sensor 1.	2
DOC-SZ2	Indicates the sensor output detected by the original size sensor 2.	2
DOC-SZ3	Indicates the sensor output detected by the original size sensor 3.	2
DOC-SZ4	Indicates the sensor output detected by the original size sensor 4.	2

<MISC>

T-17-8

COPIER > DISPLAY > MISC		
Sub-item	**Description**	**Level**
FL-LIFE	indicates the duty of the fluorescence lamp.	1

<ALARM-2>

F-17-23

<No.> Alarm sequential number: 1 to 50 (The oldest alarm has the greatest number.)
<DATE> Alarm occurrence date
<TIME1> Alarm occurrence time
<TIME2> Alarm reset time
<CODE> Alarm location code and alarm code
<DTL> Alarm detail code
<CNTR> Total counter value at alarm occurrence

17.2.1.2 Copier List

0008-7769

/ iR8070

<VERSION>

T-17-9

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
ROM version of each circuit board Marking style<R-CON XX.YY> XX : Version number ,YY : Development control number - <--.--> if no circuit boards are connected.		
DC-CON	ROM version of the DC controller circuit board	1
R-CON	ROM version of the reader controller circuit board	1
PANEL	ROM version of the CPU circuit of the operator panel	1
FEEDER	ROM version of the DADF controller circuit board	1
SORTER	ROM version of the finisher controller circuit board (MasterCPU)	1
NIB	Version of the network software	1
SDL-STCH	ROM version of the saddle stitcher controller circuit board	1
MN-CONT	ROM version of the main controller circuit board	1
RIP1	Not used	1
DIAG-DVC	ROM version of the self-diagnostic device	1
RUI	Version of the remote UI	1
LANG-EN	Version of the English language file	1
LANG-FR	Version of the French language file	1
LANG-DE	Version of the German language file	1
LANG-IT	Version of the Italian language file	1
LANG-JP	Version of the Japanese language file	1
TRIM-VER	Indicates the version of the trimmer controller PCB.	1
MEAP	Version of the MEAP Description on the hard disk	1
OCR-CN	Version of the simple-font Chinese OCR	1
OCR-JP	Version of the Japanese OCR	1
OCR-KR	Version of the Korean OCR	1
OCR-TW	Version of the full-font Chinese OCR	1

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
BOOTROM	Boot ROM version of the main controller circuit board Marking style: xx.yy_z z indicates the boot ROM type.	1
FN-SLAVE	ROM version of the finisher controller circuit board (SlaveCPU)	1
LANG-CS	Version of the Czech language file	2
LANG-DA	Version of the Danish language file	2
LANG-EL	Version of the Greek language file	2
LANG-ES	Version of the Spanish language file	2
LANG-ET	Version of the Estonian language file	2
LANG-FI	Version of the Finnish language file	2
LANG-HU	Version of the Hungarian language file	2
LANG-KO	Version of the Korean language file	2
LANG-NL	Version of the Dutch language file	2
LANG-NO	Version of the Norwegian language file	2
LANG-PL	Version of the Polish language file	2
LANG-PT	Version of the Portuguese language file	2
LANG-RU	Version of the Russian language file	2
LANG-SL	Version of the Slovenian language file	2
LANG-SV	Version of the Swedish language file	2
LANG-TW	Version of the full-font Chinese language file	2
LANG-ZH	Version of the simple-font Chinese language file	2
LANG-BU	Version of the Bulgarian language file	2
LANG-CR	Version of the Croatian language file	2
LANG-RM	Version of the Rumanian language file	2
LANG-SK	Version of the Slovak language file	2
LANG-TK	Version of the Turkish language file	2

<ACC-STS>

T-17-10

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
FEEDER	DADF connection status 0: Not connected 1: Connected	1
SORTER	Finisher and punch unit connection status Sorter type 0: None 1: Finisher 2: Saddle finisher Punch type 0: None 1: 2 holes 2: 2/3 holes 3: 4 holes (fr) 4: 4 holes (sw)	1
DECK	Paper deck connection status 0: Not connected 1: Connected(small) 2: connected (large)	1
CARD	Card reader connection status 0: Card reader connected with no card inserted 1: Card reader not connected or connected with card inserted (1: Ready to copy, 0: Not ready to copy)	1
DATA-CON	Copy data controller connection status 0: Not connected 1: Connected	1
RAM	Capacity of the memory on the main controller circuit board 256 MB, 512 MB	1
NIB	Network board connection status 0: No board connected 1: Ethernet board connected 2: Token ring board connected 3: Ethernet board and token ring board connected	1
PS/PCL	Not used	1
RIP1	Not used	1
NETWARE	Netware firmware installation status 0: Not installed 1: Installed	1
SEND	Send function addition status 0: Send function not added 1: Send function added	1
TRIM-CN	Display the connection status of trimmer	1
	Setting range 0: Not connect 1: Connect	

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
PDL-FNC1/2	Valid PDL 0000 0000 0000 0000 to 1111 1111 1111 1111 (0:OFF,1:ON) b31 to b16 for PDL-FNC1 b15 to b0 for PDL-FNC2 b31: BDL, b30: PS, b29: PCL, b28: PDF, b27: LIPS, b26: N201, b25: I5577, b24: ESC/P, b23: HPGL, b22: HPGL2, b21: IMAGING, b20: KS, b19 to b0: Reserved	1
HDD	Model name of the hard disk drive	1
PCI1/2/3	PCI1/2/3 board name Not connected: Hyphen (-) displayed Connected: Board name displayed	1

<ANALOG>

T-17-11

COPIER > DISPLAY > ANALOG		
Sub-item	**Description**	**Level**
TEMP	In-machine temperature (environment sensor): Unit: deg C	1
HUM	In-machine humidity (environment sensor): Unit: %RH	1
ABS-HUM	Water content (environment sensor): Unit: g	1
FIX-C	Fixing heater temperature (main thermistor): Unit: deg C	1
FIX-E	Fixing heater edge temperature (sub-thermistor): Unit: deg C	1

<CST-STS>

T-17-12

COPIER > DISPLAY > CST-STS		
Sub-item	**Description**	**Level**
WIDTH-C3	Indicates the paper width of the cassette 3 in terms of paper size.	2
WIDTH-C4	Indicates the paper width of the cassette 4 in terms of paper size.	2
WIDTH-MF	Indicates the paper width of the manual feeder in terms of paper size.	2

<JAM>

F-17-24

Touch an arbitrary jam display screen to see details about the jam.
(1) To previous page
(2) To next page
(3) Jam sequential number
(4) Jam type
(5) Corresponding sensor
(6) To next jam screen
(7) To previous jam screen
<No.> Jam sequential number: 1 to 50 (The oldest jam has the greatest number.)
<DATE> Jam occurrence date
<TIME1> Jam occurrence time
<TIME2> Jam reset time
<L>Location of the jam: 0 - 2 (0:host machine, 1:Feeder, 2:Finisher)
<CODE>Jam Code
<P> Paper feed position
1: Cassette 1, 2: Cassette 2, 3: Cassette 3, 4: Cassette 4, 5: Side paper deck, 6: Manual feed tray, 7: Duplex section
<CNTR> Software counter value of the paper feed stage
<SIZE> Paper size
<ERR>

F-17-25

<No.> Error sequential number: 1 to 50 (The oldest error has the greatest number.)

<DATE> Error occurrence date
<TIME1> Error occurrence time
<TIME2> Error reset time
<CODE> Error code
<DTL> Error detail code (0000 for none)
<1> Error location
0: Main controller 1: DADF 2: Finisher 3: Not used 4: Reader unit 5: Printer unit
6: Various PDL board
<P> Not used
<HV-STS>

T-17-13

COPIER > DISPLAY > HV-STS		
Sub-item	**Description**	**Leve**
PRIMARY	Primary charge current at photoconductor drum Registrationance detection control (APVC) Unit: uA	1
PRI-GRID	Indicates the grid voltage of primary charging. (V)	1
PRE-TR	Indicates the level of current for pre-transfer (post) charging.	1
TR	Indicates the level of transfer charging current.	1
SP	Indicates the level of separation charging current.	1
BIAS	Developing bias setting for the job executed last Unit: V	1

<DPOT>

T-17-14

COPIER > DISPLAY > DPOT		
Sub-item	**Descr iption**	**Leve**
DPOT-K	indicates the surface potential of the photosensitive drum.	1
VL1T	indicates the light area potential target value.	1
VL1M	indicates the light area measurement value.	1
VDT	indicates the dark area target value.	1
VDM	indicates the dark area measurement value.	1
VDM-P	indicates the dark area potential measurement value for printer (PDL) images.	1
VDT-P	indicates the dark area potential target value for printer (PDL) images.	1

<SENSOR>

T-17-15

COPIER > DISPLAY > SENSOR		
Sub-item	**Description**	**Level**
DOC-SZ	Indicates the original size detected by the original size sensor.	2

<ALARM-2>

F-17-26

<No.> Alarm sequential number: 1 to 50 (The oldest alarm has the greatest number.)
<DATE> Alarm occurrence date
<TIME1> Alarm occurrence time
<TIME2> Alarm reset time
<CODE> Alarm location code and alarm code

<DTL> Alarm detail code
<CNTR> Total counter value at alarm occurrence

17.2.1.3 Copier List

0008-7771

iR85+

<VERSION>

T-17-16

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
ROM version of each circuit board Marking style<R-CON XX.YY> XX : Version number ,YY : Development control number - <--.--> if no circuit boards are connected.		
DC-CON	ROM version of the DC controller circuit board	1
PANEL	ROM version of the CPU circuit of the operator panel	1
SORTER	ROM version of the finisher controller circuit board (MasterCPU)	1
NIB	Version of the network software	1
SDL-STCH	ROM version of the saddle stitcher controller circuit board	1
MN-CONT	ROM version of the main controller circuit board	1
RIP1	Not used	1
DIAG-DVC	ROM version of the self-diagnostic device	1
RUI	Version of the remote UI	1
LANG-EN	Version of the English language file	1
LANG-FR	Version of the French language file	1
LANG-DE	Version of the German language file	1
LANG-IT	Version of the Italian language file	1
LANG-JP	Version of the Japanese language file	1
TRIM-VER	Indicates the version of the trimmer controller PCB.	1
MEAP	Version of the MEAP Description on the hard disk	1
OCR-CN	Version of the simple-font Chinese OCR	1
OCR-JP	Version of the Japanese OCR	1
OCR-KR	Version of the Korean OCR	1
OCR-TW	Version of the full-font Chinese OCR	1
BOOTROM	Boot ROM version of the main controller circuit board Marking style: xx.yy_z z indicates the boot ROM type.	1
FN-SLAVE	Indicates the version of the slave CPU of the finisher.	1
LANG-CS	Version of the Czech language file	2
LANG-DA	Version of the Danish language file	2
LANG-EL	Version of the Greek language file	2
LANG-ES	Version of the Spanish language file	2
LANG-ET	Version of the Estonian language file	2
LANG-FI	Version of the Finnish language file	2
LANG-HU	Version of the Hungarian language file	2
LANG-KO	Version of the Korean language file	2
LANG-NL	Version of the Dutch language file	2
LANG-NO	Version of the Norwegian language file	2
LANG-PL	Version of the Polish language file	2
LANG-PT	Version of the Portuguese language file	2
LANG-RU	Version of the Russian language file	2
LANG-SL	Version of the Slovenian language file	2
LANG-SV	Version of the Swedish language file	2
LANG-TW	Version of the full-font Chinese language file	2
LANG-ZH	Version of the simple-font Chinese language file	2
LANG-BU	Version of the Bulgarian language file	2
LANG-CR	Version of the Croatian language file	2
LANG-RM	Version of the Rumanian language file	2
LANG-SK	Version of the Slovak language file	2
LANG-TK	Version of the Turkish language file	2

<ACC-STS>

T-17-17

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
SORTER	Finisher and punch unit connection status Sorter type 0: None 1: Finisher 2: Saddle finisher Punch type 0: None 1: 2 holes 2: 2/3 holes 3: 4 holes (fr) 4: 4 holes (sw)	1
DECK	Paper deck connection status 0: not connected 1: connected (small) 2: connected (large)	1
CARD	Card reader connection status 0: Card reader connected with no card inserted 1: Card reader not connected or connected with card inserted (1: Ready to copy, 0: Not ready to copy)	1
DATA-CON	Copy data controller connection status 0: Not connected 1: Connected	1
RAM	Capacity of the memory on the main controller circuit board 256 MB, 512 MB	1
NIB	Network board connection status 0: No board connected 1: Ethernet board connected 2: Token ring board connected 3: Ethernet board and token ring board connected	1
PS/PCL	Not used	1
RIP1	Not used	1
NETWARE	Netware firmware installation status 0: Not installed 1: Installed	1
TRIM-CN	Display the connection status of trimmer **Setting range** 0: Not connect 1: Connect	1
PDL-FNC1/2	Valid PDL 0000 0000 0000 0000 to 1111 1111 1111 1111 (0:OFF,1:ON) b31 to b16 for PDL-FNC1 b15 to b0 for PDL-FNC2 b31: BDL, b30: PS, b29: PCL, b28: PDF, b27: LIPS, b26: N201, b25: I5577, b24: ESC/P, b23: HPGL, b22: HPGL2, b21: IMAGING, b20: KS, b19 to b0: Reserved	1
HDD	Model name of the hard disk drive	1
PCI1/2/3	PCI1/2/3 board name Not connected: Hyphen (-) displayed Connected: Board name displayed	1

<ANALOG>

T-17-18

COPIER > DISPLAY > ANALOG		
Sub-item	**Description**	**Level**
TEMP	In-machine temperature (environment sensor): Unit: deg C	1
HUM	In-machine humidity (environment sensor): Unit: %RH	1
ABS-HUM	Water content (environment sensor): Unit: g	1
FIX-C	Fixing heater temperature (main thermistor): Unit: deg C	1
FIX-E	Fixing heater edge temperature (sub-thermistor): Unit: deg C	1

<CST-STS>

T-17-19

COPIER > DISPLAY > CST-STS		
Sub-item	**Description**	**Level**
WIDTH-C3	Indicates the paper width of the cassette 3 in terms of paper size.	2
WIDTH-C4	Indicates the paper width of the cassette 4 in terms of paper size.	2
WIDTH-MF	Indicates the paper width of the manual feeder in terms of paper size.	2

<JAM>

F-17-27

Touch an arbitrary jam display screen to see details about the jam.
(1) To previous page
(2) To next page
(3) Jam sequential number
(4) Jam type
(5) Corresponding sensor
(6) To next jam screen
(7) To previous jam screen
<No.> Jam sequential number: 1 to 50 (The oldest jam has the greatest number.)
<DATE> Jam occurrence date
<TIME1> Jam occurrence time
<TIME2> Jam reset time
<L>Location of the jam: 0 - 2 (0:host machine, 2:Finisher)
<CODE>Jam Code
<P> Paper feed position
1: Cassette 1, 2: Cassette 2, 3: Cassette 3, 4: Cassette 4, 5: Side paper deck, 6: Manual feed tray, 7: Duplex section
<CNTR> Software counter value of the paper feed stage
<SIZE> Paper size
<ERR>

F-17-28

<No.> Error sequential number: 1 to 50 (The oldest error has the greatest number.)

<DATE> Error occurrence date
<TIME1> Error occurrence time
<TIME2> Error reset time
<CODE> Error code
<DTL> Error detail code (0000 for none)
<1> Error location
0: Main controller 2: Finisher 3: Not used 5: Printer unit
6: Various PDL board
<P> Not used
<HV-STS>

T-17-20

COPIER > DISPLAY > HV-STS		
Sub-item	**Description**	**Level**
PRIMARY	Primary charge current at photoconductor drum Registrationance detection control (APVC) Unit: uA	1
PRI-GRID	Indicates the grid voltage of primary charging. (V)	1
PRE-TR	Indicates the level of current for pre-transfer (post) charging.	1
TR	Indicates the level of transfer charging current.	1
SP	Indicates the level of separation charging current.	1
BIAS	Developing bias setting for the job executed last Unit: V	1

<DPOT>

T-17-21

COPIER > DISPLAY > DPOT		
Sub-item	**Description**	**Level**
DPOT-K	indicates the surface potential of the photosensitive drum.	1
VL1T	indicates the light area potential target value.	1
VL1M	indicates the light area measurement value.	1
VDT	indicates the dark area target value.	1
VDM	indicates the dark area measurement value.	1
VDM-P	indicates the dark area potential measurement value for printer (PDL) images.	1
VDT-P	indicates the dark area potential target value for printer (PDL) images.	1

<ALARM-2>

F-17-29

<No.> Alarm sequential number: 1 to 50 (The oldest alarm has the greatest number.)
<DATE> Alarm occurrence date
<TIME1> Alarm occurrence time
<TIME2> Alarm reset time
<CODE> Alarm location code and alarm code
<DTL> Alarm detail code
<CNTR> Total counter value at alarm occurrence

17.2.1.4 Copier List

0008-7772

<VERSION>

T-17-22

COPIER > DISPLAY > VERSION		
Sub-item	**Description**	**Level**
ROM version of each circuit board Marking style<R-CON XX.YY> XX : Version number ,YY : Development control number - <--.--> if no circuit boards are connected.		
DC-CON	ROM version of the DC controller circuit board	1
R-CON	ROM version of the reader controller circuit board	1
PANEL	ROM version of the CPU circuit of the operator panel	1
FEEDER	ROM version of the DADF controller circuit board	1
SORTER	ROM version of the finisher controller circuit board (MasterCPU)	1
NIB	Version of the network software	1
SDL-STCH	ROM version of the saddle stitcher controller circuit board	1
MN-CONT	ROM version of the main controller circuit board	1
RIP1	Not used	1
DIAG-DVC	ROM version of the self-diagnostic device	1
RUI	Version of the remote UI	1
LANG-EN	Version of the English language file	1
LANG-FR	Version of the French language file	1
LANG-DE	Version of the German language file	1
LANG-IT	Version of the Italian language file	1
LANG-JP	Version of the Japanese language file	1
TRIM-VER	Indicates the version of the trimmer controller PCB.	1
MEAP	Version of the MEAP Description on the hard disk	1
OCR-CN	Version of the simple-font Chinese OCR	1
OCR-JP	Version of the Japanese OCR	1
OCR-KR	Version of the Korean OCR	1
OCR-TW	Version of the full-font Chinese OCR	1
BOOTROM	Boot ROM version of the main controller circuit board Marking style: xx.yy_z z indicates the boot ROM type.	1
FN-SLAVE	ROM version of the finisher controller circuit board (SlaveCPU)	1
LANG-CS	Version of the Czech language file	2
LANG-DA	Version of the Danish language file	2
LANG-EL	Version of the Greek language file	2
LANG-ES	Version of the Spanish language file	2
LANG-ET	Version of the Estonian language file	2
LANG-FI	Version of the Finnish language file	2
LANG-HU	Version of the Hungarian language file	2
LANG-KO	Version of the Korean language file	2
LANG-NL	Version of the Dutch language file	2
LANG-NO	Version of the Norwegian language file	2
LANG-PL	Version of the Polish language file	2
LANG-PT	Version of the Portuguese language file	2
LANG-RU	Version of the Russian language file	2
LANG-SL	Version of the Slovenian language file	2
LANG-SV	Version of the Swedish language file	2
LANG-TW	Version of the full-font Chinese language file	2
LANG-ZH	Version of the simple-font Chinese language file	2
LANG-BU	Version of the Bulgarian language file	2
LANG-CR	Version of the Croatian language file	2
LANG-RM	Version of the Rumanian language file	2
LANG-SK	Version of the Slovak language file	2
LANG-TK	Version of the Turkish language file	2

<ACC-STS>

T-17-23

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
FEEDER	DADF connection status 0: Not connected 1: Connected	1

COPIER > DISPLAY > ACC-STS		
Sub-item	**Description**	**Level**
SORTER	Finisher and punch unit connection status Sorter type 0: None 1: Finisher 2: Saddle finisher Punch type 0: None 1: 2 holes 2: 2/3 holes 3: 4 holes (fr) 4: 4 holes (sw)	1
DECK	Paper deck connection status 0: not connected 1:connected (small) 2:connected (large)	1
CARD	Card reader connection status 0: Card reader connected with no card inserted 1: Card reader not connected or connected with card inserted (1: Ready to copy, 0: Not ready to copy)	1
DATA-CON	Copy data controller connection status 0: Not connected 1: Connected	1
RAM	Capacity of the memory on the main controller circuit board 256 MB, 512 MB	1
NIB	Network board connection status 0: No board connected 1: Ethernet board connected 2: Token ring board connected 3: Ethernet board and token ring board connected	1
PS/PCL	Not used	1
RIP1	Not used	1
NETWARE	Netware firmware installation status 0: Not installed 1: Installed	1
SEND	Send function addition status 0: Send function not added 1: Send function added	1
TRIM-CN	Display the connection status of trimmer **Setting range** 0: Not connect 1: Connect	1
PDL-FNC1/2	Valid PDL 0000 0000 0000 0000 to 1111 1111 1111 1111 (0:OFF,1:ON) b31 to b16 for PDL-FNC1 b15 to b0 for PDL-FNC2 b31: BDL, b30: PS, b29: PCL, b28: PDF, b27: LIPS, b26: N201, b25: I5577, b24: ESC/P, b23: HPGL, b22: HPGL2, b21: IMAGING, b20: KS, b19 to b0: Reserved	1
HDD	Model name of the hard disk drive	1
PCI1/2/3	PCI1/2/3 board name Not connected: Hyphen (-) displayed Connected: Board name displayed	1

<ANALOG>

T-17-24

COPIER > DISPLAY > ANALOG		
Sub-item	**Description**	**Level**
TEMP	In-machine temperature (environment sensor): Unit: deg C	1
HUM	In-machine humidity (environment sensor): Unit: %RH	1
ABS-HUM	Water content (environment sensor): Unit: g	1
OPTICS	Photoconductor drum ambient temperature (drum sensor): Unit: deg C	1
FIX-C	Fixing heater temperature (main thermistor): Unit: deg C	1
FIX-E	Fixing heater edge temperature (sub-thermistor): Unit: deg C	1

<CST-STS>

T-17-25

COPIER > DISPLAY > CST-STS		
Sub-item	**Description**	**Level**
WIDTH-C3	Indicates the paper width of the cassette 3 in terms of paper size.	2
WIDTH-C4	Indicates the paper width of the cassette 4 in terms of paper size.	2
WIDTH-MF	Indicates the paper width of the manual feeder in terms of paper size.	2

<JAM>

F-17-30

Touch an arbitrary jam display screen to see details about the jam.
(1) To previous page
(2) To next page
(3) Jam sequential number
(4) Jam type
(5) Corresponding sensor
(6) To next jam screen
(7) To previous jam screen
<No.> Jam sequential number: 1 to 50 (The oldest jam has the greatest number.)
<DATE> Jam occurrence date
<TIME1> Jam occurrence time
<TIME2> Jam reset time
<L>Location of the jam: 0 - 2 (0:host machine, 1:Feeder, 2:Finisher)
<CODE>Jam Code
<P> Paper feed position
1: Cassette 1, 2: Cassette 2, 3: Cassette 3, 4: Cassette 4, 5: Side paper deck, 6: Manual feed tray, 7: Duplex section
<CNTR> Software counter value of the paper feed stage
<SIZE> Paper size
<ERR>

F-17-31

<No.> Error sequential number: 1 to 50 (The oldest error has the greatest number.)

<DATE> Error occurrence date
<TIME1> Error occurrence time
<TIME2> Error reset time
<CODE> Error code
<DTL> Error detail code (0000 for none)
<1> Error location
0: Main controller 1: DADF 2: Finisher 3: Not used 4: Reader unit 5: Printer unit
6: Various PDL board
<P> Not used
<HV-STS>

T-17-26

COPIER > DISPLAY > HV-STS		
Sub-item	**Description**	**Level**
PRIMARY	Primary charge current at photoconductor drum Registrationance detection control (APVC) Unit: uA	1
PRI-GRID	Indicates the grid voltage of primary charging. (V)	1
PRE-TR	Indicates the level of current for pre-transfer (post) charging.	1
TR	Indicates the level of transfer charging current.	1
SP	Indicates the level of separation charging current.	1
BIAS	Developing bias setting for the job executed last Unit: V	1

<DPOT>

T-17-27

COPIER > DISPLAY > DPOT		
Sub-item	**Description**	**Level**
DPOT-K	indicates the surface potential of the photosensitive drum.	1
VLIT	indicates the light area potential target value.	1
VLIM	indicates the light area measurement value.	1
VDT	indicates the dark area target value.	1
VDM	indicates the dark area measurement value.	1
VDM-P	indicates the dark area potential measurement value for printer (PDL) images.	1
VDT-P	indicates the dark area potential target value for printer (PDL) images.	1

<SENSOR>

T-17-28

COPIER > DISPLAY > SENSOR		
Sub-item	**Description**	**Level**
DOC-SZ	Indicates the original size detected by the original size sensor.	2
DOC-SZ1	Indicates the sensor output detected by the original size sensor 1.	2
DOC-SZ2	Indicates the sensor output detected by the original size sensor 2.	2
DOC-SZ3	Indicates the sensor output detected by the original size sensor 3.	2
DOC-SZ4	Indicates the sensor output detected by the original size sensor 4.	2

<MISC>

T-17-29

COPIER > DISPLAY > MISC		
Sub-item	**Description**	**Level**
FL-LIFE	indicates the duty of the fluorescence lamp.	1
SYM-P-L	indicates the mirror base stop position in stream reading mode (large size) **<Setting range>**:0 to 6	2
STM-P-S	indicates the mirror base stop point in stream reading mode (small size) **<Setting range>**:0 to 6	2
SCAN-LMP	indicates the counter reading showing how many times the scanning lamp has gone on.	2

<ALARM-2>

F-17-32

<No.> Alarm sequential number: 1 to 50 (The oldest alarm has the greatest number.)
<DATE> Alarm occurrence date
<TIME1> Alarm occurrence time
<TIME2> Alarm reset time
<CODE> Alarm location code and alarm code
<DTL> Alarm detail code
<CNTR> Total counter value at alarm occurrence

17.2.2 FEEDER

17.2.2.1 Feeder List

0008-4907

iR105i/iR105+ / iR9070

FEEDER >DISPLAY

T-17-30

FEEDER >DISPLAY		
Sub-item	Description	Level
FEEDSIZE	Document size detected by the feeder	1

17.2.2.2 Feeder List

0008-7950

/ iR8070

FEEDER >DISPLAY

T-17-31

FEEDER >DISPLAY		
Sub-item	Description	Level
FEEDSIZE	Document size detected by the feeder	1

17.2.2.3 Feeder List

0008-7952

FEEDER >DISPLAY

T-17-32

FEEDER >DISPLAY		
Sub-item	Description	Level
FEEDSIZE	Document size detected by the feeder	1

17.3 I/O (I/O Display Mode)

17.3.1 Overview

0007-0651

iR105i/iR105+ / iR9070 / iR85+ / iR8070

The following shows the Input/Output screen (COPIER> I/O):

F-17-33

Guide to the Screen

F-17-34

17.3.2 Overview

0009-1482

iR85+

The following shows the Input/Output screen (COPIER> I/O):

F-17-35

Guide to the Screen

F-17-36

17.3.3 DC-CON

0007-0654

iR105i/iR105+ / iR9070

T-17-33

Address	Bit	Description	Notation	Remarks
P001	0	laser motor cooling fan stop detection signal	FM1	1: stop
	1	fixing heat discharge fan stop detection signal	FM2	1: stop
	2	laser scanner fan stop detection signal	FM3	1: stop
	3	laser drive cooling fan stop detection signal	FM5	1: stop
	4	curl-reducing fan stop detection signal	FM6	1: stop
	5	not used		
	6	drum fan stop detection signal	FM8	1: stop
	7	pre-transfer charging assembly fan stop	FM10	1: stop
	8	power supply cooling fan 1 stop detection signal	FM11	1: stop
	9	power supply cooling fan 2 stop detection signal	FM12	1: stop
	10	separation fan stop detection signal	FM13	1: stop
	11	not used		
	12	delivery adhesion prevention fan stop detection signal		
	13	developing fan stop detection signal	FM15	1: stop
	14	not used		
	15	not used		
P002	0	not used		
	1	duplex reversal sensor	PS12	1: paper present
	2	duplex outlet sensor	PS61	1: paper present
	3	pre-confluence sensor	PS14	1: paper present
	4	post-confluence sensor	PS15	1: paper present
	5	image write start sensor	PS60	1: paper present
	6	not used		
	7	not used		
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	not used		
	13	DDI		
	14	DDI		
	15	DDI		
P003	0	inside hopper toner sensor	TS1	0: toner absent
	1	inside hopper toner lower limit sensor	TS2	0: toner absent
	2	inside developing assembly toner sensor	TS3	0: toner absent
	3	fixing web length sensor	PS7	1: web absent
	4	fixing web length warning sensor	PS8	1: web absent pre-caution
	5	cartridge detection	MSW1	0: present
	6	waste toner clog detection	MSW2	0: clogged
	7	waste toner case full sensor	PS19	1: toner case full
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	not used		
	13	not used		
	14	not used		
	15	not used		

Address	Bit	Description	Notation	Remarks
P004	0	right deck lifter sensor	PS21	1: paper present
	1	left deck lifter sensor	PS31	1: paper present
	2	cassette 3 lifter sensor	PS38	1: paper present
	3	cassette 4 lifter sensor	PS43	1: paper present
	4	right deck paper level middle sensor	PS51	1: paper present
	5	right deck paper level high sensor	PS52	1: paper present
	6	left deck paper level middle sensor	PS54	1: paper present
	7	left deck paper level high sensor	PS55	1: paper present
	8	right deck paper sensor	PS22	1: paper present
	9	left deck paper sensor	PS32	1: paper present
	10	cassette 3 paper sensor	PS39	1: paper present
	11	cassette 4 paper sensor	PS44	1: paper present
	12	manual feed tray paper sensor	PS17	1: paper present
	13	finisher connector		0: connected
	14	right deck limit sensor	PS24	1: limit
	15	left deck limit sensor	PS34	1: limit
P005	0	cassette 3 paper length sensor	SV1	
	1	cassette 3 paper length sensor	SV1	
	2	cassette 4 paper length sensor	SV2	
	3	cassette 4 paper length sensor	SV2	
	4	right deck open/closed sensor	PS23	1: closed
	5	left deck open/closed sensor	PS33	1: closed
	6	cassette 3 open/closed sensor	PS40	1: closed
	7	cassette 4 open/closed sensor	PS45	1: closed
	8	right upper cover open/closed sensor	PS58	1: closed
	9	right lower cover open/closed sensor	PS48	1: closed
	10	manual feed tray cover open/closed sensor	PS56	1: closed
	11	front cover open/closed detection	MSW7	0: closed
	12	through path tray attached/detached sensor	PS59	1: closed
	13	through path tray in/out detection		0: attached
	14	fixing feeder unit release lever sensor	PS28	1: released
	15	BD error detection		1: error
P006	0	drum motor lock detection	M0	0: low speed
	1	laser scanner motor lock detection	M4	0: low speed
	2	fixing motor lock detection	M3	0: low speed
	3	primary charging error detection	PCB11	1: error
	4	transfer charging error detection	PCB11	1: error
	5	separation/pre-transfer charging error detection	PCB11	1: error
	6	inside hopper toner feed motor error detection		1: error (E020)
	7	inside cartridge toner feed motor error detection		1: error (E025)
	8	not used		
	9	separation heat discharge fan stop detection		1: stop
	10	not used		
	11	duplex feed fan stop detection		1: stop
	12	not used		
	13	AC relay shut-off open circuit detection		1: error
	14	overcurrent notice (24 V)	PCB14	1: overcurrent
	15	overcurrent notice (38 V)	PCB14	1: overcurrent

Address	Bit	Description	Notation	Remarks
P007	0	primary charging wire cleaner drive	M8	1: move to rear
	1	primary charging wire cleaner drive	M8	1: move to front
	2	pre-transfer charging wire cleaner drive	M7	1: move to front
	3	pre-transfer charging wire cleaner drive	M7	1: move to rear
	4	transfer/separation charging wire cleaner drive	M9	1: move to rear
	5	transfer/separation charging wire cleaner drive	M9	1: move to front
	6	not used		
	7	not used		
	8	drum motor drive	M0	0: ON
	9	main motor drive	M1	0: ON
	10	pickup motor drive	M2	0: ON
	11	fixing motor drive	M3	0: ON
	12	laser scanner motor drive	M4	0: ON
	13	cartridge motor drive	M6	1: ON
	14	hopper motor drive	M18	1: ON
	15	laser scanner motor switch-over	M4	0: high-speed
P008	0	fixing main heater		1: ON
	1	fixing sub heater		1: ON
	2	cassette heater		0: ON
	3	drum heater		1: ON
	4	drum heater full wave/half wave		0: half-wave
	5	separation heat discharge fan full wave	FM20	0: current up
	6	not used		
	7	separation heat discharge fan half speed	FM20	0: stop
	8	laser motor cooling fan full speed	FM1	1: ON
	9	laser motor cooling fan half speed	FM1	1: ON
	10	laser scanner fan full speed	FM3	1: ON
	11	laser scanner fan half speed	FM3	1: ON
	12	pre-transfer charging assembly fan full speed	FM10	1: ON
	13	pre-transfer charging assembly fan half speed	FM10	1: ON
	14	laser scanner motor cooling fan full speed	FM14	1: ON
	15	duplex feeding fan full speed	FM19	1: ON
P009	0	not used		
	1	not used		
	2	separation fan full speed	FM13	1: ON
	3	not used		
	4	curl-reducing fan full speed	FM6	1: ON
	5	developing fan full speed	FM15	1: ON
	6	developing fan half speed	FM15	1: ON
	7	not used		
	8	fixing heat discharge fan full speed	FM2	1: ON
	9	fixing heat discharge fan half speed	FM2	1: ON
	10	not used		
	11	delivery adhesion prevention fan full speed	FM17	1: ON
	12	drum fan full speed	FM8	1: ON
	13	drum fan half speed	FM8	1: ON
	14	power supply fan full speed	FM11/12	1: ON
	15	power supply fan half speed	FM11/12	1: ON

Address	Bit	Description	Notation	Remarks
P010	0	right deck pickup sensor	PS20	1: paper present
	1	left deck pickup sensor	PS25	1: paper present
	2	cassette 3 pickup sensor	PS37	1: paper present
	3	cassette 4 pickup sensor	PS42	1: paper present
	4	vertical path 1 paper sensor	PS47	1: paper present
	5	vertical path 2 paper sensor	PS49	1: paper present
	6	vertical path 3 paper sensor	PS41	1: paper present
	7	vertical path 4 paper sensor	PS46	1: paper present
	8	right deck feed sensor	PS27	1: paper present
	9	left deck feed sensor	PS26	1: paper present
	10	manual feed sensor	PS35	1: paper present
	11	registration paper sensor	PS5	1: paper present
	12	internal delivery sensor	PS9	1: paper present
	13	external delivery sensor	PS10	1: paper present
	14	fixing feeder unit outlet sensor	PS11	1: paper present
	15	fixing claw jam sensor	PS6	1: paper present
P011	0	not used		
	1	right deck pickup clutch	CL10	1: ON
	2	left deck pickup clutch	CL11	1: ON
	3	cassette 3 pickup clutch	CL12	1: ON
	4	cassette 4 pickup clutch	CL14	1: ON
	5	vertical path 1 clutch	CL8	1: ON
	6	vertical path 2 clutch	CL9	1: ON
	7	vertical path 3 clutch	CL13	1: ON
P012	0	not used		
	1	vertical path 4 clutch	CL15	1: ON
	2	manual feed tray pickup clutch	CL7	1: ON
	3	manual feed tray feed clutch	CL18	1: ON
	4	pre-registration clutch	CL5	1: ON
	5	left deck feed clutch	CL19	1: ON
	6	lower feed middle clutch	CL16	1: ON
	7	lower feed right clutch	CL17	1: ON
P013	0	not used		
	1	not used		
	2	speed switch-over delivery clutch		
	3	inside hopper magnet roller drive clutch	CL1	1: ON
	4	developing cylinder clutch	CL4	1: ON
	5	developing cylinder deceleration clutch	CL20	1: ON
	6	vibration motor 1		1: ON
	7	vibration motor 2		1: ON
P014	0	not used		
	1	right deck pickup solenoid	SL7	1: ON
	2	left deck pickup solenoid	SL8	1: ON
	3	cassette 3 pickup solenoid	SL9	1: ON
	4	cassette 4 pickup solenoid	SL10	1: ON
	5	manual feed pickup latch solenoid (return)	SL6	1: ON
	6	manual feed pickup latch solenoid (draw)	SL6	1: ON
	7	delivery flapper solenoid	SL3	1: ON
P015	0	not used		
	1	reversing flapper solenoid	SL11	1: ON
	2	fixing web solenoid	SL2	1: ON
	3	fixing feeder unit lock solenoid (return)	SL4	0: ON
	4	fixing feeder unit lock solenoid (draw)	SL4	1: ON
	5	not used		
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P016	0	not used		
	1	pre-exposure lamp	LED1	1: ON
	2	potential sensor	PCB19	1: ON
	3	HVT DC component	HVT	0: high-voltage output ON
	4	HVT developing AC component	HVT	0: ON
	5	HVT pre-transfer AC/separation AC component	HVT	0: ON
	6	paper feed guide bias	PCB11	0: ON
	7	paper feed guide bias switch-over	PCB11	0: 200 V, 1: 600 V
P017	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	duplex reversal motor ON/OFF		0: ON
	7	duplex reversal motor current switch-over		1: excited
P018	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	duplex feed motor (right/let) ON/OFF		0: ON
	7	duplex feed motor current switch-over		1: excited
P019	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	horizontal registration motor ON/OFF		0: ON
	7	horizontal registration motor switch-over		1: excited
P020	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P021	0	not used		
	1	not sued		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	waste toner case full detection reset		0: reset
	7	shut off	SW1	1: shut off
P022	0	not used		
	1	not used		
	2	DDI spare		
	3	DDI spare		
	4	printer power ready		L: READY, H: Not READY
	5	printer command reception ready		L: ready
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P023	0	not used		
	1	not used		
	2	right deck lifter	PS21	0:paper present 1:paper absent
	3	left deck lifter	PS31	0:paper present 1:paper absent
	4	cassette 3 lifter	PS38	0:paper present 1:paper absent
	5	cassette 4 lifter	PS43	0:paper present 1:paper absent
	6	not used		
	7	not used		
P024	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P025	0	not used		
	1	not used		
	2	relay ON signal state detection		L: relay ON, H: relay OFF
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	horizontal registration sensor		H: detected
P026	0	Paper Deck LED		
	1	Paper Deck pickup roller release solenoid		
	2	Paper Deck drawing clutch		
	3	Paper Deck pickup clutch		
	4	Paper Deck pickup motor		
	5	Paper Deck lifter motor		
	6	Paper Deck lifter motor up/down		
	7	Paper Deck open solenoid		
	8	Paper Deck chip select		(H: CL, etc., L: sensor)
	9	Paper Deck latch IC control		(ON only at power-on)
	10	Paper Deck sensor switch-over		(L: pickup, H: draw)
	11	Paper Deck sensor LED		(H: forced OFF, L: ON)
	12	Paper Deck speed switch-over 1		
	13	Paper Deck speed switch-over 2		
	14	not used		
P027	0	Paper Deck open switch		L: OPEN
	1	Paper Deck paper present		H: present
	2	Paper Deck pickup position sensor		H: ON
	3	Paper Deck pickup sensor ON		H: ON
	4	Paper Deck draw sensor ON		H: ON
	5	Paper Deck feed solenoid ON		H: ON
	6	Paper Deck motor lock detection		H: detected
	7	Paper Deck paper supply position sensor		H: ON
	8	Paper Deck paper level detection		H: detected
	9	Paper Deck lifter lower limit detection		H: detected
	10	Paper Deck connection to copier detection		H: set
	11	Paper Deck closed		H: closed
	12	Paper Deck lifter motor overcurrent detection		H: detected
	13	not used		
	14	Paper Deck connection detection		(H: detected)
	15	Paper Deck connection detection		(L: detected)

Address	Bit	Description	Notation	Remarks
P028	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	not used		
	13	not used		
	14	not used		
	15	not used		
P029	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P030	0	sub SSR error		H: short circuit
	1	main SSR error	E004	H: short circuit
	2	fixing thermistor 2 error detection		H: error
	3	fixing thermistor 1 error detection	B001	H: error
	4	fixing thermistor 2 open circuit detection		H: open circuit
	5	fixing thermistor 1 open circuit detection		H: open circuit
	6	fixing motor zero-cross error		H: error
	7	not used		
	8	open by sub SSR		H: open
	9	open by main SSR		H: open
	10	open by fixing thermistor 2 error		H: open
	11	open by fixing thermistor 1 error		H: open
	12	open by fixing thermistor 2 open circuit		H: open
	13	open by fixing thermistor 1 open circuit		H: open
	14	not used		
	15	not used		

17.3.4 DC-CON

0008-9072

/ iR85+ / iR8070

T-17-34

Address	Bit	Description	Notation	Remarks
P001	0	right deck pickup sensor	PS20	1: paper present
	1	left deck pickup sensor	PS25	1: paper present
	2	cassette 3 pickup sensor	PS37	1: paper present
	3	cassette 4 pickup sensor	PS42	1: paper present
	4	vertical path 1 paper sensor	PS47	1: paper present
	5	vertical path 2 paper sensor	PS49	1: paper present
	6	vertical path 3 paper sensor	PS41	1: paper present
	7	vertical path 4 paper sensor	PS46	1: paper present
	8	right deck feed sensor	PS27	1: paper present
	9	left deck feed sensor	PS26	1: paper present
	10	manual feed sensor	PS35	1: paper present
	11	registration paper sensor	PS5	1: paper present
	12	inside delivery sensor	PS9	1: paper present
	13	outside delivery sensor	PS10	1: paper present
	14	fixing feed unit outlet sensor	PS11	1: paper present
	15	fixing claw jam sensor	PS6	1: paper present
P002	0	reversal sensor	PS16	1: paper present
	1	duplex reversal sensor	PS12	1: paper present
	2	U-turn sensor	PS13	1: paper present
	3	pre-confluence sensor	PS14	1: paper present
	4	post-confluence sensor	PS15	1: paper present
	5	not used		
	6	not used		
	7	not used		
	8	DDI		
	9	DDI		
	10	not used		
	11	not used		
	12	not used		
	13	DDI		
	14	DDI		
	15	DDI		
P003	0	hopper inside toner sensor	TS1	0: toner absent
	1	hopper inside toner lower limit sensor	TS2	0: toner absent
	2	developing assembly inside toner sensor	TS3	0: toner absent
	3	fixing web length sensor	PS7	1: web absent
	4	fixing web length warning sensor	PS8	1: web absent warning
	5	cartridge detection	MSW1	0: present
	6	waste toner clogging detection	MSW2	0: clogging
	7	waste toner full sensor	PS19	1: toner full
	8	for factory use		
	9	for factory use		
	10	for factory use		
	11	for factory use		
	12	for factory use		
	13	for factory use		
	14	for factory use		
	15	for factory use		

Address	Bit	Description	Notation	Remarks
P004	0	right deck lifter sensor	PS21	1: paper present
	1	left deck lifter sensor	PS31	1: paper present
	2	cassette 3 lifter sensor	PS38	1: paper present
	3	cassette 4 lifter sensor	PS43	1: paper present
	4	right deck paper level middle sensor	PS51	1: paper present
	5	right deck paper level high sensor	PS52	1: paper present
	6	left deck paper level middle sensor	PS54	1: paper present
	7	left deck paper level high sensor	PS55	1: paper present
	8	right deck paper sensor	PS22	1: paper present
	9	left deck paper sensor	PS32	1: paper present
	10	cassette 3 paper sensor	PS39	1: paper present
	11	cassette 4 paper sensor	PS44	1: paper present
	12	manual feed tray paper sensor	PS17	1: paper present
	13	finisher connector		0: connected
	14	right deck limit sensor	PS24	1: limit
	15	left deck limit sensor	PS34	1: limit
P005	0	cassette 3 paper length sensor	SV1	
	1	cassette 3 paper length sensor	SV1	
	2	cassette 4 paper length sensor	SV2	
	3	cassette 4 paper length sensor	SV2	
	4	right deck open/closed sensor	PS23	1: closed
	5	left deck open/closed sensor	PS33	1: closed
	6	cassette 3 open/closed sensor	PS40	1: closed
	7	cassette 4 open/closed sensor	PS45	1: closed
	8	right upper cover open/closed sensor	PS58	1: closed
	9	right lower cover open/closed sensor	PS48	1: closed
	10	manual feed tray cover open/closed sensor	PS56	1: closed
	11	front cover open/closed detection	MSW7	1: closed
	12	toner cartridge cover open/closed sensor	PS59	1: closed
	13	through path tray in/out detection		0: in
	14	fixing/feeding unit releasing lever sensor	PS28	1: released
	15	BD error detection		1: error
P006	0	drum motor lock detection	M0	0: low-speed
	1	laser scanner motor lock detection	M4	0: low-speed
	2	fixing motor lock detection	M3	0: low-speed
	3	primary charging error detection	PCB11	1: error
	4	transfer charging error detection	PCB11	1: error
	5	separation/pre-transfer charging error detection	PCB11	1: error
	6	hopper inside toner feed motor error detection		1: error (E020)
	7	inside cartridge toner feed motor error detection		1: error (E025)
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	AC relay shut-off open circuit detection		1: error
	13	not used		
	14	overcurrent notice (24 V)	PCB14	1: overcurrent
	15	overcurrent notice (38 V)	PCB14	1: overcurrent

Address	Bit	Description	Notation	Remarks
P007	0	primary charging assembly fan stop detection signal	FM1	1: stop
	1	fixing heat discharge fan stop detection signal	FM2	1: stop
	2	laser scanner fan stop detection signal	FM3	1: stop
	3	laser driver cooling fan stop detection signal	FM5	1: stop
	4	de-curling fan stop detection signal	FM6	1: stop
	5	feeding fan stop detection signal	FM7	1: stop
	6	drum fan stop detection signal	FM8	1: stop
	7	pre-transfer charging assembly fan stop detection signal	FM10	1: stop
	8	power supply cooling fan 1 stop detection signal	FM11	1: stop
	9	power supply cooling fan 2 stop detection signal	FM12	1: stop
	10	separation fan stop detection signal	FM13	1: stop
	11	laser scanner motor cooling fan stop detection signal	FM14	1: stop
	12	delivery anti-adhesion fan stop detection signal	FM17	1: stop
	13	developing fan stop detection signal	FM15	1: stop
	14	not used		
	15	not used		
P008	0	right deck pickup clutch	CL10	1: ON
	1	left deck pickup clutch	CL11	1: ON
	2	cassette 3 pickup cutch	CL12	1: ON
	3	cassette 4 pickup clutch	CL14	1: ON
	4	vertical path 1 clutch	CL8	1: ON
	5	vertical path 2 clutch	CL9	1: ON
	6	vertical path 3 clutch	CL13	1: ON
	7	vertical path 4 clutch	CL15	1: ON
	8	manual feed tray pickup clutch	CL7	1: ON
	9	manual feed tray feed clutch	CL18	1: ON
	10	pre-registration clutch	CL5	1: ON
	11	left deck feed clutch	CL19	1: ON
	12	lower feed middle clutch	CL16	1: ON
	13	lower feed right clutch	CL17	1: ON
	14	registrations brake clutch	CL3	1: ON
	15	delivery speed switch clutch	CL21	1: reversal
P009	0	inside hopper magnet roller drive clutch	CL1	1: ON
	1	developing cylinder clutch	CL4	1: ON
	2	developing cylinder deceleration clutch	CL20	1: ON
	3	right deck pickup solenoid	SL7	1: ON
	4	left deck pickup solenoid	SL8	1: ON
	5	cassette 3 pickup solenoid	SL9	1: ON
	6	cassette 4 pickup solenoid	SL10	1: ON
	7	manual feed pickup latch solenoid (return)	SL6	1: ON
	8	manual feed pickup latch solenoid (pull)	SL6	1: ON
	9	delivery flapper solenoid	SL3	1: ON
	10	reversing flapper solenoid	SL11	1: ON
	11	not used		
	12	not used		
	13	fixing web solenoid	SL2	1: ON
	14	fixing feeding unit lock solenoid (return)	SL4	0: ON
	15	fixing feeding unit lock solenoid (pull)	SL4	1: ON
P010	0	primary charging wire cleaner drive	M8	1: shift to rear
	1	primary charging wire cleaner drive	M8	1: shift to front
	2	pre-transfer charging wire drive	M7	1: shift to front
	3	pre-transfer charging wire cleaner drive	M7	1: shift to rear
	4	transfer/separation charging wire cleaner drive	M9	1: shift to rear
	5	transfer/separation charging wire cleaner drive	M9	1: shift to front
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P011	0	drum motor drive	M0	0: ON
	1	main motor drive	M1	0: ON
	2	pickup motor drive	M2	0: ON
	3	fixing motor drive	M3	0: ON
	4	laser scanner motor drive	M4	1: ON
	5	cartridge motor drive	M6	1: ON
	6	hopper motor drive	M18	0: ON
	7	laser scanner motor switch	M4	0: high speed
P012	0	fixing main heater		1: ON
	1	fixing sub heater		1: ON
	2	cassette heater		0: ON
	3	drum heater		1: ON
	4	drum heater full wave/half wave		0: half wave
	5	horizontal registration current switch	M15	0: current increase
	6	lower feed motor stop	M12	0: stop
	7	reversal motor stop	M11	0: stop
P013	0	primary charging assembly fan full speed	FM1	1: ON
	1	primary charging assembly fan half speed	FM1	1: ON
	2	laser scanner fan full speed	FM3	1: ON
	3	laser scanner fan half speed	FM3	1: ON
	4	pre-transfer charging assembly fan full speed	FM10	1: ON
	5	pre-transfer charging assembly fan half speed	FM10	1: ON
	6	laser scanner motor cooling fan full speed	FM14	1: ON
	7	not used		
P014	0	feeding fan full peed	FM7	1: ON
	1	feeding fan half speed	FM7	1: ON
	2	separation fan full speed	FM13	1: ON
	3	separation fan half speed	FM13	1: ON
	4	de-curling fan full speed	FM6	1: ON
	5	developing fan full speed	FM15	1: ON
	6	developing fan half speed	FM15	1: ON
	7	not used		
P015	0	fixing heat discharge fan full speed	FM2	1: ON
	1	fixing heat discharge fan half speed	FM2	1: ON
	2	laser driver cooling fan full speed	FM5	1: ON
	3	delivery adhesion proofing fan full speed	FM17	0: ON
	4	drum fan full speed	FM8	1: ON
	5	drum fan half speed	FM8	1: ON
	6	power supply fan full speed	FM11/12	1: ON
	7	power supply fan half speed	FM11/12	1: ON
P016	0	pre-exposure lamp	LED1	1: ON
	1	potential sensor	PCB19	1: ON
	2	HVT DC component	HVT	HVT 0: high-voltage output ON
	3	HVT developing AC component	HVT	0: ON
	4	HVT pre-transfer AC/separation AC component	HVT	0: ON
	5	feed guide bias	PCB11	0: ON
	6	feed guide bias switch	PCB11	0: 200V, 1: 600V
	7	DDI		
P017	0	right deck lifter	PS21	1: ON
	1	left deck lifter	PS31	1: ON
	2	cassette 3 lifter	PS38	1: ON
	3	cassette 4 lifter	PS43	1: ON
	4	DDI		
	5	DDI		
	6	DDI		
	7	DDI		

Address	Bit	Description	Notation	Remarks
P018	0	waste toner full detection reset		0: reset
	1	shut-off	SW1	1: shut-off
	2	not used		
	3	DDI		
	4	DDI		
	5	DDI		
	6	DDI		
	7	DDI		
P019	0	deck open indication	LED100	1: ON
	1	deck pickup solenoid		1: ON
	2	deck feed clutch	CL101	1: ON
	3	deck pickup clutch	CL102	1: ON
	4	deck main motor speed switch signal	DBIT0	at all time '0'
	5	deck main motor speed switch signal	DBIT1	at all time '0'
	6	deck main motor	M101	1: ON
	7	deck lifter motor	M102	1: ON
	8	deck UP/DW switch		1: down, 0: up
	9	deck open solenoid	SL102	1: ON
	10	not used		
	11	not used		
	12	not used		
	13	not used		
	14	not used		
	15	not used		
P020	0	deck open switch	SW100	1: ON
	1	deck paper detection		1: paper present
	2	deck lifter upper limit sensor	PS103	1: upper limit
	3	deck pickup sensor	PS101	1: paper present
	4	deck feed sensor	PS106	1: paper present
	5	deck pickup roller release solenoid	SL101	1: ON
	6	deck main motor lock detection		1: ON
	7	deck lifter position sensor	PS104	1: ON
	8	deck paper level sensor	PS108	1: paper present
	9	deck lifter lower limit detect switch	SW102	1: lower limit
	10	deck open sensor	PS109	1: ON
	11	deck open detect switch	SW101	1: open
	12	ID detection 1		1: connected
	13	ID detecting 2		1: connected
	14	not used		
	15	not used		
P021	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	not used		
	13	not used		
	14	not used		
	15	not used		

Address	Bit	Description	Notation	Remarks
P022	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P023	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
	8	not used		
	9	not used		
	10	not used		
	11	not used		
	12	not used		
	13	not used		
	14	not used		
	15	not used		
P024	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		

17.3.5 R-CON

0007-0800

iR105i/iR105+ / iR9070

T-17-35

Address	Bit	Description	Notation	Remarks
P001	0	original size detection 1		0: detected
	1	original size detection 2		0: detected
	2	original size detention 3		0: detected
	3	original size detection 4		0: detected
	4	copyboard open/closed detection		1: closed
	5	not used		
	6	not used		
	7	not used		
P002	0	fluorescent lamp absent		1: absent
	1	fluorescent lamp ON detection		1: ON, 0: OFF
	2	not used		
	3	not used		
	4	scanner motor cooling fan		1: stop
	5	stream reading fan		1: stop
	6	inverter fan		1: stop
	7	not used		

Address	Bit	Description	Notation	Remarks
P003	0	original orientation detection PCB power detection		0: connected
	1	original orientation detection PCB busy detection		0: busy
	2	original orientation detection PCB error detection		0: error
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	CCD/AP type detection		
P004	0	inverter fan full speed		1: ON (24 V)
	1	inverter fan half speed		1: ON (12 V)
	2	scanner motor cooling fan full speed		1: ON (24 V)
	3	scanner motor cooling fan half speed		1: ON (12 V)
	4	stream reading fan ON		1: ON (24 V)
	5	not used		
	6	image leading select		1: copier, 0: ADF
	7	size detection on/off		1: ON
P005	0	scanner motor D0		
	1	scanner motor D1		
	2	scanner motor D2		
	3	scanner motor D3		
	4	scanner motor CDWN0		
	5	scanner motor CDWN1		
	6	scanner motor CDWN2		
	7	not used		
P006	0	scanner motor CW/CCW		1: CW, 0: CCW
	1	scanner motor OFF		0: OFF
	2	not used		
	3	not used		
	4	fluorescent lamp pre-heat ON		0: ON
	5	fluorescent lamp heater ON		0: ON
	6	fluorescent lamp ON		0: ON
	7	not used		
P007	0	CCD/AP ON/OFF		1: stop, 0: operate
	1	CCD/AP sync clock		
	2	CCD/AP sync data		
	3	CCD/AP RING2 load signal		
	4	CCD/AP F-AP load signal		
	5	CCD/AP B-AP load signal		
	6	not used		
	7	not used		
P008	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		

17.3.6 R-CON

0008-9073

/ iR8070

T-17-36

Address	Bit	Description	Notation	Remarks
P001	0	scanner motor clock signal	M3	when 1->0, ON
	1	scanner motor CCW/CW switch signal		0: CCW, 1: CW
	2	scanner motor HOLD/OFF switch signal	M3	0: current hold, 1: current OFF
	3	scanner motor driver reset signal	M3	1: reset
	4	scanner motor stream reading current switch signal	M3	0: stream reading current
	5	original sensor ON switch signal	PS43	0: sensor ON
	6	fan error signal		not used
	7	scanning lamp ON switch signal	LA2	0: lamp ON
P002	0	SK signal to EEPROM		normal clock
	1	DDI-SPI (1)		not used
	2	DDI-SPI (2)		not used
	3	DI signal to EEPROM		DATA area
	4	DDI-SCTS		0: DDI reception ready
	5	DDI-SPRDY		0: DDI power ready
	6	DDI-SCPRDY		0: DDI power ready
	7	scanning lamp inverter error signal		1: error
P003	0	DDI-S transmission		DATA area
	1	RS232C transmission (factory terminal transmission)		DATA area
	2	DDI-S reception		DATA area
	3	RS232C reception (factory terminal reception)		DATA area
	4	ITOP transmission (image leading edge signal)		not used
	5	DDI-SRTS		0: DDI transmission ready
	6	not used		
	7	not used		
P004	0	DDI-SPO (0)		not used
	1	DDI-SPO (1)		not used
	2	DDI-SPO (2)		not used
	3	not used		
	4	not used		
	5	not used		
	6	original sensor 3 signal (AB input)	PS43	0: original present
	7	original sensor 4 signal (Inch input)	PS43	0: original present
P005	0	DDI-SPRTST		0: DDI-SPRTST signal ON
	1	serial data to CCD		DATA area
	2	clock to CCD		when 0->1->0, data transmitted
	3	output to RING2		when 0->1->0, data transmitted
P006	0	not used		
	1	PCB check mode (for factory)		0: check mode
	2	scanning lamp (LOW/HI) switch signal	LA2	not used
	3	CS output to EEPROM		1: CP
	4	scanner HP sensor signal	PS39	1:HP
	5	ADF-ITOP (image leading edge) signal		0: ADF original image leading edge interrupt
	6	copyboard cover sensor (used as interrupt)	PS40	1:ADF (copyboard) closed
	7	copyboard cover sensor	PS40	1:ADF (copyboard) closed

Address	Bit	Description	Notation	Remarks
P007	0	WATCH-DOG pulse output		normal clock
	1	output to analog processor		when 0 ->1 ->0, data transmitted
	2	DO signal from EEPROM		Data area
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P008	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P009	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	scanner motor drive control 2	M3	default setting
	5	scanner motor drive control 3	M3	default setting
	6	scanner motor drive control 4	M3	default setting
	7	scanner motor drive control (RETURN)	M3	default setting
P010	0	scanner motor drive control 0,1	M3	default setting
	1	scanner motor drive control 0,1	M3	default setting
	2	scanner motor drive control	M3	default setting
	3	scanner motor drive control	M3	default setting
	4	scanner motor drive control	M3	default setting
	5	scanner motor drive control	M3	default setting
	6	scanner motor drive control	M3	default setting
	7	not used		

17.3.7 FEEDER

0007-0805

iR105i/iR105+ / iR9070

The indication will be '0' while the machine is in operation (reading an original).

T-17-37

Address	Bit	Description	Notation	Remarks
P001	0	pre-reversal solenoid	SL3	1: ON
	1	belt motor cooling fan		0: ON
	2	reversal solenoid	SL1	1: ON
	3	delivery solenoid (position 1)	SL4	1: ON
	4	delivery solenoid (position 2)	SL4	1: ON
	5	stopper plate solenoid (position 1)	SL2	1: ON
	6	stopper plate solenoid (position 2)	SL2	1: ON
	7	solenoid timer		0: ON

Address	Bit	Description	Notation	Remarks
P002	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	pickup roller home position	PI7	1: HP
	5	pickup roller height sensor 2	PI9	1: original present
	6	pickup roller height sensor 1	PI8	1: original present
	7	pre-reversal sensor	PI4	1: original present
P003	0	not used		
	1	original detection sensor LED		0: emit
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P004	0	original sensor	S6	0: original present
	1	original trailing edge sensor		1: original present
	2	last original front sensor	S8	1: original present
	3	not used		
	4	separation motor	M4	
	5	delivery motor	M5	
	6	24 V logic down detection		
	7	24 V power down detection		
P005	0	separation sensor	S4	0: original present
	1	separation sheet-to-sheet clock		during outputs, repeats '0' and '1'
	2	belt motor clock detection	PI1	during outputs, repeats '0' and '1'
	3	registration roller rear paper sensor	S3	0: original present
	4	manual feed registration roller paper	S9	1: original present
	5	not used		
	6	not used		
	7	not used		
P006	0	serial data output		1: transmit
	1	D/A load path		1: transmit
	2	EEPROM serial input		1: receive
	3	EEPROM chip select		0: select EEPROM
	4	serial reference clock		during outputs, repeats '0' and '1'
	5	separation motor clock detection	PI2	during outputs, repeats '0' and '1'
	6	not used		
	7	not used		
P007	0	belt motor mode 1	M2	at all times, '0'
	1	belt motor mode 2	M2	at all times, '0'
	2	belt motor reference clock	M2	during outputs, repeats '0' and '1'
	3	belt motor CW/CCW	M2	0: delivery direction
	4	separation motor PWM	M4	during outputs, repeats '0' and '1'
	5	reversal motor phase B	M1	during outputs, repeats '0' and '1'
	6	delivery motor PWM	M5	during outputs, repeats '0' and '1'
	7	reversal motor phase A	M1	during outputs, repeats '0' and '1'

Address	Bit	Description	Notation	Remarks
P008	0	image leading edge signal		1: leading edge
	1	pre-registration roller paper sensor	S2	0: original present
	2	separation motor reference clock		during outputs, repeats '0' and '1'
	3	delivery motor clock detection	PI11	during outputs, repeats '0' and '1'
	4	pickup motor phase A		during outputs, repeats '0' and '1'
	5	pickup motor phase B		during outputs, repeats '0' and '1'
	6	pickup motor hold		1: output present
	7	AD trigger		1: output present
P009	0	not used		
	1	separation clutch	CL	1: ON
	2	skew sensor	S5	1: original present
	3	original delivery sensor	PI13	1: original present
	4	manual feed set sensor	PI12	1: original present
	5	not used		
	6	reversal sensor	S1	1: original present
	7	registration roller rotation detection	PI5	during outputs, repeats '0' and '1'
P010	0	DIP switch (DIPSW1)		0: ON
	1	signal DIP switch (DIPSW2) signal		0: ON
	2	DIP switch (DIPSW3) signal		0: ON
	3	DIP switch (DIPSW4) signal		0: ON
	4	DIP switch (DIPSW5) signal		0: ON
	5	DIP switch (DIPSW6) signal		0: ON
	6	upper cover front sensor (front)		1: closed
	7	upper cover rear sensor (rear)		1: closed
P011	0	7-segment LED0		0: ON
	1	7-segment LED1		0: ON
	2	7-segment LED2		0: ON
	3	7-segment LED3		0: ON
	4	7-segment LED4		0: ON
	5	7-segment LED5		0: ON
	6	7-segment LED6		0: ON
	7	ADF open/closed sensor		1: closed
P012	0	original width detecting switch 0		1: ON
	1	original width detection switch 1		1: ON
	2	original width detecting switch 2		1: ON
	3	original width detecting switch 3		1: ON
	4	original width detecting switch 4		1: ON
	5	push switch 1		0: ON
	6	push switch 2		0: ON
	7	push switch 3		0: ON
P013		tray volume		(hereafter, analog ports)
P014		separation rear sensor analog input		
P015		read sensor analog input		
P016		delivery reversal sensor analog input		
P017		not used		
P018		not used		
P019		not used		
P020		not used		
P021		reversal motor		(hereafter, analog ports)
P022		belt motor		
P023		original sensor adjustment		
P024		trailing edge sensor adjustment		
P025		separation rear sensor adjustment		
P026		skew sensor adjustment		
P027		pre-registration-roller sensor adjustment		
P028		post-registration-roller sensor adjustment		

Address	Bit	Description	Notation	Remarks
P029		reversal sensor adjustment		
P030		manual feed registration sensor adjustment		
P031		pre-cycle end sensor adjustment		
P032		separation motor		

17.3.8 FEEDER

0008-9074

/ iR8070

The indication will be '0' while the machine is in operation (reading an original).

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Address	Bit	Description	Notation	Remarks
P001	0	feed motor drive clock	M2	
	1	not used		
	2	feed motor clock LB	M2	
	3	pickup motor clock LB	M1	
	4	not used		
	5	delivery reversal motor clock LB	M3	
	6	large/small identification sensor signal	PI3	1: paper present (large)
	7	A4R/LTRR identification sensor signal	PI4	1: A4R
P002	0	pickup motor drive clock signal	M1	
	1	pickup motor mode signal	M1	
	2	pickup motor CW/CCW signal	M1	
	3	pickup motor enable output	M1	
	4	not used		
	5	feed motor enable output	M2	1: enable
	6	pickup clutch drive signal	CL1	1: ON
	7	locking solenoid signal	SL1	1: attracted
P003	0	serial communication		transmission (TxD0)
	1	image leading edge signal		
	2	serial communication		reception (RxD0)
	3	EEPROM data output		transmission (TxD1)
	4	EEPROM clock		(SCK0)
	5	EEPROM chip select		
	6	not used		
	7	not used		
P004	0	original width VR signal	VR1	(AN0)
	1	post-separation sensor analog signal	S3	(AN1)
	2	read sensor analog signal	S2	(AN2)
	3	delivery reversal sensor analog signal	S1	(AN3)
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P005	0	external WDT clock output		
	1	D/A data output		
	2	D/A clock output		
	3	D/A load signal		
	4	not used		
	5	not used		
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P006	0	EEPROM data input		
	1	cooling fan lock signal	FM1	1: locked
	2	cooling fan	FM1	
	3	not used		
	4	post-separation sensor signal	S3	(IRQ0)
	5	registration 1 sensor signal	PI1	(IRQ1)
	6	read sensor signal	S2	(IRQ2)
	7	delivery reversal sensor signal	S1	(IRQ3)
P007	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	cover open switch	SW1	1: opened
P008	0	ADF open/closed sensor signal	PI2	1: opened
	1	delivery reversing motor excitation phase (A) output	M3	during output, alternately '0' and '1'
	2	delivery reversing motor excitation phase (*A) output	M3	during output, alternately '0' and '1'
	3	delivery reversing motor excitation phase (B) output	M3	during output, alternately key '0' and '1'
	4	delivery reversing motor excitation phase (*B) output	M3	during output, alternately '0' and '1'
	5	feed motor mode output	M2	
	6	feed motor mode output	M2	
	7	feed motor (CW/CCW) switch signal	M2	1: CCW
P009	0	DIP switch (DIPSW8) signal		0: ON
	1	DIP switch (DIPSW7) signal		0: ON
	2	DIP switch (DIPSW6) signal		0: ON
	3	DIP switch (DIPSW5) signal		0: ON
	4	DIP switch (DIPSW4) signal		0: ON
	5	DIP switch (DIPSW3) signal		0: ON
	6	DIP switch (DIPSW2) signal		0: ON
	7	DIP switch (DIPSW1) signal		0: ON
P010	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P011	0	LED ON signal	LED4	0: ON
	1	LED ON signal	LED3	0: ON
	2	LED ON signal	LED2	0: ON
	3	LED ON signal	LED1	0: ON
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P012		tray volume	VR1	(hereafter, analog ports)
P013		post-separation sensor analog input	S3	
P014		read sensor analog input	S2	
P015		delivery paper reversal sensor analog input	S1	
P016		not used		
P017		not used		
P018		not used		
P019		not used		

Address	Bit	Description	Notation	Remarks
P020		pickup motor	M1	(hereafter, analog ports)
P021		feed motor	M2	
P022		delivery reversal motor	M3	
P023		post-separation sensor_DA	S3	
P024		post-separation sensor_TH	S3	
P025		read sensor DA	S2	
P026		read sensor TH	S2	
P027		delivery reversal sensor_DA	S1	
P028		delivery reversal sensor_TH	S1	
P029		not used		
P030		not used		
P031		not used		

17.3.9 SORTER

0007-0845

iR105i/iR105+ / iR9070 / iR85+ / iR8070

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Address	Bit	Description	Notation	Remarks
P001	0	buffer motor A	M2	during output, repeats '0' and '1'
	1	buffer motor B	M2	during output, repeats '0' and '1'
	2	buffer motor A*	M2	during output, repeats '0' and '1'
	3	buffer motor B*	M2	during output, repeats '0' and '1'
	4	delivery motor A	M3	during output, repeats '0' and '1'
	5	delivery motor B	M3	during output, repeats '0' and '1'
	6	upper path switch-over solenoid	SL2	0: ON
	7	buffer path switch-over solenoid	SL1	1: wrap, 0: release
P002	0	front aligning plate motor B	M4	during output, repeats '0' and '1'
	1	front aligning plate motor A	M4	during output, repeats '0' and '1'
	2	inlet motor brake	M1	1: braking
	3	buffer path rear paper sensor	PI3	1: paper present
	4	rear aligning plate motor B	M5	during output, repeats '0' and '1'
	5	rear aligning plate motor A	M5	during output, repeats '0' and '1'
	6	stack delivery motor clock	M7	during output, repeats '0' and '1'
	7	inlet motor clock	M1	during output, repeats '0' and '1'
P003	0	EEPROM serial output	-	-
	1	slave write serial output	-	-
	2	EEPROM serial output	-	-
	3	slave write serial output	-	-
	4	EEPROM serial clock	-	-
	5	EEPROM load signal	-	-
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P004	0	tray A paper detection	PI20	1: paper present
	1	puncher identification 1	-	-
	2	puncher identification 2	-	-
	3	lower path paper sensor	PI4	1: paper present
	4	delivery sensor	PI32	1: paper present
	5	upper path paper sensor	PI6	1: paper present
	6	inlet path paper sensor	PI2	1: paper present
	7	buffer path paper sensor	PI3	1: paper present
P005	0	delivery motor ON	M3	1: stop, 0: ON
	1	delivery motor current switch-over	M3	1: constant speed,
	2	inlet motor On	M1	0: accelerate
	3	inlet motor CW*/CCW	M1	1: OFF, 0: ON
	4	not used		1: CCW, 0: CW
	5	not used		
	6	not used		
	7	not used		
P006	0	trimmer connection detected		1: connected
	1	DRAM chip select		0: cs
	2	stapler interference position detection		1: interfere, 0: ready
	3	staple cartridge indication		1: 50 sheets, 0: 100 sheets
	4	punch path sensor	S1	0: paper present
	5	stack delivery motor FG	PI11	during output, repeats '0' and '1'
	6	inserter motor FG*	PI67	during output, repeats '0' and '1'
	7	buffer motor FG*	M2	during output, repeats '0' and '1'
P007	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	delivery motor FG*	M3	during output, repeats '0' and '1'
	6	inlet motor FG*	M1	during output, repeats '0' and '1'
	7	fold motor FG*	M71	during output, repeats '0' and '1'
P008	0	slave write signal		1: normal, 0: write
	1	slave CPU reset		0: reset
	2	master busy signal		0: busy
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P009	0	handling tray solenoid ON		1: ON, 0: OFF
	1	expander chip select		0: cs
	2	IPC chip sleet		0: cs
	3	PIO chip select		0: cs
	4	EPROM chip select		0: cs
	5	not used		
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P010	0	staple absent detection		1: staple absent, 0: staple present
	1	READY detection		1: NO, 0: ready
	2	stack tray approach detection		0: ON
	3	door 24V down detection		1: down
	4	feed path paper detection 1	PI76	1: paper present
	5	feed path paper detection 2	S7	1: paper present
	6	feed path paper detection 3	S8	1: paper present
	7	feed path paper detection 4	PI75	1: paper present
P011	0	inserter cover open/closed detection		1: open
	1	stack wall safety detection		1: error
	2	inserter unit detection		1: absent, 0: present
	3	punch unit detection		1: absent, 0: present
	4	paper folding unit detection		1: absent, 0: present
	5	saddle unit detection		1: absent, 0: present
	6	stapler interference sensor connection detection		1: connected
	7	fan rotation error detection		1: at rest, 0: normal
P012	0	swing motor high-speed setting	M8	1: ON
	1	swing motor medium speed setting	M8	1: ON
	2	swing motor low speed setting	M8	1: ON
	3	swing motor ON*	M8	1: OFF, 0: ON
	4	power fan ON signal	FM1	1: ON, 0: OFF
	5	buffer motor ON signal	M2	1: OFF, 0: ON
	6	buffer motor current switch-over	M2	1: constant speed, 0: acceleration
	7	trailing edge drop solenoid ON	SL5	0: ON
P013	0	stack delivery motor CW*	M7	1: CCW, 0: CW
	1	stack delivery motor ON*	M7	1: OFF, 0: ON
	2	stack delivery start-up current switch-over		1: up, 0: down
	3	front aligning plate motor ON	M4	1: OFF, 0: ON
	4	rear aligning plate motor ON	M5	1: OFF, 0: ON
	5	tray sub plate motor A		
	6	tray sub plate motor B		
	7	tray sub plate motor ON		1: OFF, 0: ON
P014	0	knurled belt motor phase A	M20	
	1	knurled belt motor phase B	M20	
	2	knurled belt motor ON	M20	1: OFF, 0: ON
	3	paddle motor A	M9	
	4	paddle motor B	M9	
	5	paddle motor ON	M9	1: OFF, 0: ON
	6	folder motor gain switch-over	M71	1: high-speed, 0: low-speed
	7	not used		
P015	0	paddle home position detection	PI13	0: HP
	1	folder set detection	PI71	1: present, 0: absent
	2	inserter open detection	PI66	1: closed, 0: open
	3	front door switch open detection		1: closed, 0: open
	4	upper cover open/closed detection	PI5	1: closed, 0: open
	5	upper cover open/closed detection	PI72	1: closed, 0: open
	6	fold path residual paper detection 1	PI73	1: present, 0: absent
	7	saddle inlet front path sensor	PI59	1: paper present, 0: paper absent
P016	0	puncher waste feed motor ON	M16	1: ON
	1	sub tray solenoid ON		
	2	punch power supply ON		1: ON
	3	inlet motor gain adjustment		1: high speed, 0: low speed
	4	power OFF		1: down
	5	saddle path flapper solenoid ON	SL44	0: ON
	6	inserter motor ON	M61	1: OFF, 0: ON
	7	unit identification signal		1: identified

Address	Bit	Description	Notation	Remarks
P017	0	inserter separation detection 1	PI62	1: paper present, 0: paper absent
	1	inserter separation detection 2	PI63	1: paper prevent, 0: paper absent
	2	inserter feed detection 3	PI61	1: paper prevent, 0: paper absent
	3	tray B paper detection	PI17	1: paper prevent, 0: paper absent
	4	tray A paper detection	PI20	1: paper prevent, 0: paper absent
	5	swing guide closed detection	PI14	0: closed
	6	swing guide home position detection	PI15	1: HP
	7	handling tray paper detection	PI32	1: paper present, 0: paper absent
P018	0	punch waste case detection	PI26	1: set
	1	punch waste feedscrew motor operation detection	PI27	1: at rest 0: in operating
	2	feeding assembly cooling fan operation detection	FM2	1: at rest 0: in operating
	3	knurled belt home position detection	PI31	1: HP
	4	shutter home position sensor		0: HP
	5	rear aligning plate home position sensor	PI8	1: HP
	6	front aligning plate home position sensor	PI7	1: HP
	7	tray sub plate withdraw sensor	PI11	1: HP
P019	0	check switch 1 (SW973 for test mode)		0: ON
	1	check switch 2 (SW973 for test mode)		0: ON
	2	check switch 3 (SW973 for test mode)		0: ON
	3	check switch 4 (SW973 for test mode)		0: ON
	4	check switch 5 (SW973 for test mode)		0: ON
	5	check switch 6 (SW973 for test mode)		0: ON
	6	check switch 7 (SW973 for test mode)		0: ON
	7	check switch 8 (SW973 for test mode)		0: ON
P020	0	P switch for ENTER		0: ON
	1	P switch for +		0: ON
	2	P switch for -		0: ON
	3	puncher identification		
	4	for adjustment 0		0: ON
	5	for adjustment 1		0: ON
	6	for adjustment 2		0: ON
	7	for adjustment 3		0: ON
P021	0	segment a (dot)		1: ON
	1	segment b (middle)		1: ON
	2	segment c (left upper)		1: ON
	3	segment d (left lower)		1: ON
	4	segment e (lower)		1: ON
	5	segment f (right lower)		1: ON
	6	segment g (right upper)		1: ON
	7	segment dot (upper)		1: ON
P022	0	not used		
	1	inserter motor speed switch-over 1	M61	
	2	inserter motor speed switch-over 2	M61	1: ON
	3	inserter separation sensor	PI61/62	1: paper present, 0: paper absent
	4	inserter paper set sensor	S9	1: paper present, 0: paper absent
	5	inserter pickup solenoid	SL61	1: ON
	6	inserter stopper plate solenoid	SL62	0: ON
	7	inserter separation clutch	CL61	1: ON

Address	Bit	Description	Notation	Remarks
P023	0	fold feed motor ON		1: ON
	1	folder inlet solenoid ON		1: ON
	2	decompression solenoid ON		1: ON
	3	B4 fold No. 2 stopper solenoid ON	SL72	1: ON
	4	locking solenoid ON		1: ON
	5	B4 fold No. 1 stopper solenoid ON	SL75	1: ON
	6	fold path residual paper detection 2	PI77	1: paper present
	7	fold path residual paper detection 3	PI74	1: paper present
P024	0	address bus 8		
	1	address bus 9		
	2	address bus 10		
	3	punch 2/3-hole detection	PI33	1: 3-hole, 0: 2-hole
	4	punch motor home position detection	PI22	1: HP
	5	sample tray position detection 1		1: light-block
	6	sample tray position detection 2		1: light-block
	7	sample tray position detection 3		1: light-block
P025	0	tray B lift motor A	M12	
	1	tray B lift motor B	M12	
	2	tray B lift motor A*	M12	
	3	tary B lift motor B*	M12	
	4	tray A lift motor A	M13	
	5	tray A lift motor B	M13	
	6	tray A lift motor A*	M13	
	7	tray A lift motor B*	M13	
P026	0	stack tray position detection 1		1: light-block
	1	stack tray position detection 2		1: light-block
	2	stack tray position detection 3		1: light-block
	3	stapler home position detection		0: HP
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P027	0	salve busy R		0: busy
	1	stapler shift home position detection	PI16	1: HP
	2	punch home position detection	PI24	
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	paper edge sensor slide home position detection	PI23	1: HP
P028	0	waste detection sensor		0: paper waste absent, 1: paper waste present
	1	lower path sensor adjustment		1: normal, 0: error
	2	tray A sensor	S5	1: absent, 0: present
	3	tray B sensor	S4	1: absent, 0: present
	4	not used		
	5	not used		
	6	punch feed path detection	S1	1: absent, 0: present
	7	buffer path sensor	PI3	
P029	0	punch paper edge detection 1	PI21	
	1	punch paper edge detection 2	PI21	1: absent, 0: present
	2	tray B idle rotation detection	PI18	idle rotation repeatedly 0 and 1
	3	tray A idle rotation detection	PI19	idle rotation repeatedly 0 and 1
	4	punch position detection	PI25	1: rear, 0: front
	5	not used		
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P030	0	D/A serial output		
	1	flash serial output		
	2	punch motor ON	M18	1: OFF, 0: ON
	3	flash serial input		
	4	D/A serial lock		
	5	not used		
	6	not used		
	7	not used		
P031	0	stapler shift motor ON*	M10	1: retain, 0: drive
	1	D/A load signal		
	2	stapler shift motor A	M10	
	3	stapler shift more B	M10	
	4	stapler shift motor A*	M10	
	5	stapler shift motor B*	M10	
	6	stapler motor CCW*	M11	0: CCW
	7	stapler motor CW*	M11	0: CW
P032	0	punch motor PWM	M18	
	1	DRAM chip select		
	2	punch slide motor clock	PI34	1: ON, 0: OFF
	3	punch motor	M18	
	4	punch slide motor direction switch-over		1: rear, 0: front
	5	punch motor direction switch-over CW	M18	1: OFF, 0: ON
	6	punch motor direction switch-over CCW	M18	1: OFF, 0: ON
	7	punch slide motor current switch-over		1: constant speed, 0: accelerate
P033	0	stitch motor (rear) CW signal	M46	0: CW
	1	stitch motor (rear) CCW signal	M46	0: CCW
	2	stitch motor (front) CW signal	M47	0: CW
	3	stitcher motor (front) CCW signal	M47	0: CCW
	4	paper fold motor CW drive signal	M42	0: CW
	5	paper fold motor CCW drive signal	M42	0: CCW
	6	No. 1 paper deflect solenoid drive signal	SL41	0: ON
	7	No. 2 paper deflect solenoid drive signal	SL42	0: ON
P034	0	not used		
	1	not used		
	2	not used		
	3	not used		
	4	not used		
	5	feed roller contact drive signal	SL43	1: ON
	6	solenoid timer (full suction) output		0: ON
	7	paper portioning plate motor power	M44	0: ON
P035	0	24 V power supply down detection		1: down
	1	paper pushing plate leading edge position	PI56	1: leading edge
	2	delivery detection	PI52	0: paper present
	3	not used		
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P036	0	not used		
	1	not used		
	2	paper pushing plate home position detection	PI55	1: HP
	3	aligning plate home position detection	PI48	0: HP
	4	saddle tray home position detection	PI41	0: HP
	5	not used		
	6	not used		
	7	not used		

Address	Bit	Description	Notation	Remarks
P037	0	paper positioning plate home position detection	PI49	0: HP
	1	not used		
	2	inlet cover open detection connector connection	PI51	0: connected
	3	vertical path detection	PI57	0: paper absent 1: paper present
	4	feed roller phase detection	PI53	1: flag present
	5	not used		
	6	not used		
	7	not used		
P038	0	paper positioning plate motor phase A	M44	
	1	paper positioning plate motor phase B	M44	
	2	paper pushing plate motor PWM	M48	
	3	feed motor	M41	0: ON
	4	feed motor phase A	M41	
	5	feed motor phase B	M41	
	6	feed motor reference clock	M41	
	7	paper pushing plate motor CCW	M48	0: CCW
P039	0	alignment motor phase A	M45	
	1	alignment motor phase B	M45	
	2	paper fold motor PWM	M42	
	3	paper pushing plate motor CW	M48	0: CW
	4	guide motor phase A	M43	
	5	guide motor phase B	M43	
	6	guide motor	M43	0: ON
	7	alignment motor	M45	0: ON
P040	0	No. 2 paper detection(inserter)	PI61	0: paper present
	1	No. 3 paper detection(inserter)	PI62	0: paper present
	2	stitching home position detection (rear)	MS32	1: HP
	3	stitching home position detection (front)	MS34	1: HP
	4	paper position plate detection	PI50	0: paper present
	5	No. 1 paper detection	PI60	0: paper present
	6 to 15	not used		
P041	0	aligning plate home position detection connector connection	PI48	1: connected
	1	not used		
	2	outlet cover open detection connector connection	PI46	1: connected
	3	not used		
	4	not used		
	5	not used		
	6	saddle tray paper detection 2	PI43	0: paper present 1: paper absent
	7	saddle tray paper detection 3	PI44	0: paper present 1: paper absent
P042	0	not used		
	1	LED1 drive		
	2	saddle tray motor phase A	M49	
	3	saddle tray motor phase B	M49	
	4	not used		
	5	not used		
	6	not used		
	7	not used		
P043	0	staple present detection (front)	MS33	0: staple absent
	1	staple present detection (rear)	MS31	0: staple absent
	2	not used		
	3	not used		
	4	outlet over open detection	PI46	0: open
	5	not used		
	6	inlet cover open detection		
	7	not used	PI51	0: open

Address	Bit	Description	Notation	Remarks
P044	0	DIPSW1 Bit 8(saddle switcher PCB SW1)		0: ON
	1	DISPW1 Bit 7(saddle switcher PCB SW1)		0: ON
	2	DIPSW1 Bit 6(saddle switcher PCB SW1)		0: ON
	3	DIPSW1 Bit 5(saddle switcher PCB SW1)		0: ON
	4	DIPSW1 Bit 4(saddle switcher PCB SW1)		0: ON
	5	DIPSW1 Bit 3(saddle switcher PCB SW1)		0: ON
	6	DIPSW1 Bit 2(saddle switcher PCB SW1)		0: ON
	7	DIPSW1 Bit 1(saddle switcher PCB SW1)		0: ON
P045	AN1	not used		
P046	AN6	not used		
P047	AN7	not used		
P048	DA1	not used		
P049	DA2	not used		
P050	DA3	not used		
P051	DA4	not used		
P052	DA5	not used		
P053	DA6	not used		
P054	DA7	not used		
P055	DA8	not used		
P056	DA9	not used		
P057	DA10	not used		
P058	DA11	not used		
P059	DA12	not used		
P060	AN0	staple present (rear)	MS31	if 92 or higher, staple present
P061	AN1	staple present (front)	MS33	if 92 or higher, staple present
P062	AN2	not used		
P063	AN3	inlet over open detection connector connection	PI51	if 128 or higher, connected
P064	AN4	saddle tray home position detection connector connection	PI41	if 128 or higher, connected
P065	AN5	guide home position detection connector connection	PI54	if 128 or higher, connected
P066	AN6	not used		
P067	AN7	paper pushing plate leading edge detection connector connection	PI56	if 128 or higher, connected

17.3.10 MN-CON(iR105)

0007-1039

iR105

T-17-40

Address	Bit	Description	Notation	Remarks
P001	0	not used (fixed to 1)		
	1	not used (fixed to 1)		
	2	not used (fixed to 1)		
	3	not used (fixed to 1)		
P002	0	DDI-S general-purpose input		not used
	1	DDI-S general-purpose input		not used
	2	DDI-S general-purpose input		not used
	3	SPRTST signal, printer start-up signal	SP1	0: reader image start

Address	Bit	Description	Notation	Remarks
P003	0	DDI-P general-purpose input		not used
	1	DDI-P general-purpose input		not used
	2	DDI-P general-purpose input		not used
	3	PSCNTST signal (scanner start-up signal)	PPI	0: reader start
P004	0	DDI-S general-purpose output		not used
	1	DDI-S general-purpose output		not used
	2	3.3 V emergency power-off signal		0: normal (ON), 1= 5W (OFF) sleep mode
	3	SSCNST signal	SP0	not used
P005	0	DDI-P general-purpose output		not used
	1	DDI-P general-purpose output		not used
	2	DDI-P general-purpose output		not used
	3	PPRTST signal	PP0	0: printer image start
P006	0	battery alarm		0: normal, 1: error
	1	parallel EEPROM R/B#		0: busy, 1: ready
	2	flash ROM R/B#		0: busy, 1: ready
	3	serial ROM connection detection		1: connected
	4	operation enable (card reader)		0: enabled
	5	operation enable (coin robot)		0: enabled (not used)
	6	serial EERPOM DO		access port to EEPROM
	7	HD connection detecting	GPI	0: HD present, 1: HD absent
P007	0	battery charge control		0: Enable, 1: Disable
	1	not used		
	2	not used		
	3	not used		
	4	PCI (PDL) soft reset		0: LIPS board forced reset
	5	serial EEPROM CS		for factory adjustment
	6	serial EEPROM SCK		for factory adjustment
	7	serial EEPOM DIN		for factory adjustment
	8	pickup count		1: count
	9	delivery count		1: count
	10	coin robot pickup count		1: count (not used)
	11	coin robot delivery count		1: count (not used)
	12	LCD back-light control		1: ON
	13	not used		
	14	parallel EEPROM write protect		0: Write, 1: Protect
	15	not used		
P008	0	not used		
	1	not used		
	2	not used		
	3	color UI detection		0: color UI present
	4	B&W UI detection		0: B&W UI present
	5	BAT board detection		0: present
	6	not used		
	7	not used		

17.4 ADJUST (Adjustment Mode)

17.4.1 COPIER

17.4.1.1 Copier List

0008-4932

iR105i/iR105+ / iR9070

<LAMP>

T-17-41

COPIER > ADJUST > LAMP		
Sub-item	**Description**	**Level**
L-DATA	Use it to enter the scanning lamp intensity data.	1
	<Setting range> 0 to 1023 - A higher input value increases the intensity. - A lower input value decreases the intensity. If the output shows faulty images after execution of the following, enter the values indicated on the service sheet: COPIER> FUNCTION> CCD> CCDADJ.	

<AE>

T-17-42

COPIER > ADJUST > AE		
Sub-item	**Description**	**Level**
AE-TBL	Adjusting the character density at image density adjustment	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value makes characters darker. Setting a smaller value makes characters lighter. If RAM on the reader controller circuit board has been cleared, enter the value from the service label. 	

<ADJ-XY>

T-17-43

COPIER > ADJUST > ADJ-XY		
Sub-item	**Description**	**Level**
Adjusting the mage read start position - If RAM on the reader controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. - If the setting of this item has been changed, enter the new value into the service label.		

COPIER > ADJUST > ADJ-XY		
Sub-item	**Description**	**Level**
ADJ-X	Adjusting the optical image head position (image read start position in the subscan direction)	1
	<Setting range> 0 to 2970 Increasing the value by 1 shifts the image read start position 0.1 mm backward. 	
ADJ-Y	Adjusting the CCD read start cell position (image read start position in the main scan direction)	1
	<Setting range> 0 to 1000 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	
ADJ-S	Adjusting the optical shading measuring position	1
	<Setting range> 0 to 4 Increasing the value by 1 shifts the shading measuring position 0.1 mm forward. 	
ADJ-Y-DF	Adjusting the main scan position at DF flow read	1
	<Setting range> 0 to 1000 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	

<CCD>

T-17-44

COPIER > ADJUST > CCD		
Sub-item	**Description**	**Level**
Making CCD- and Shading-Related Adjustments **If faulty images are noted after executing COPIER>FUNCTION>CCD>CCD-ADJ, enter the settings indicated on the service label.**		
SH-TRGT	Use it to enter the white level target value for shading correction. 1 to 2043 [at time of shipment/after RAM initialization:900]	1
GAIN-E-R	Use it to enter the gain value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-O-R	Use it to enter the gain value of the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-E-F	Use it to enter the gain value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-O-F	Use it to enter the gain value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
OFST-E-R	Use it to enter the offset value for the last half even-numbered pixels of the CCD. 0 to 1023[at time of shipment/after RAM initialization:128]	1
OFST-O-R	Use it to enter the offset value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
OFST-E-F	Use it to enter the offset value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
OFST-O-F	Use it to enter the offset value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
LUT-O-R1	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R2	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R3	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R4	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R5	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R1	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R2	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R3	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R4	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R5	Use it to enter the link correction data value of the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F1	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F2	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F3	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F4	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1

COPIER > ADJUST > CCD		
Sub-item	**Description**	**Level**
Making CCD- and Shading-Related Adjustments **If faulty images are noted after executing COPIER>FUNCTION>CCD>CCD-ADJ, enter the settings indicated on the service label.**		
LUT-O-F5	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F1	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F2	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F3	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F4	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F5	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1

<LASER>

T-17-45

COPIER > ADJUST > LASER		
Sub-item	**Description**	**Level**
Adjusting the Laser Output **If you have cleared the RAM on the DC controller PCB, be sure to enter the settings indicated on the service label.**		
PVE-OFST	Use it to adjust the position of laser projection.	1
	<Setting range> -300 to 300 - A higher value moves the spot toward the rear. - A smaller value moves the stop to the front. The laser A spot moves in keeping with the laser B spot.	
LA-DELAY	Entering a delay value after laser unit displacement (Matching the laser main scan)	1
	<Setting range> 0 to 4807 ⚠Enter the delay value peculiar to the unit affixed to the unit at laser unit replacement.	
LA-PWR-A	Use it to enter the power adjustment value for the laser A.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser A indicated on the label attached to the unit.	
LA-PWR-B	Use it to enter the power adjustment value for the laser B.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser B indicated on the label attached to the unit.	
DLY-FINE	Use it to fine-adjust the displacement of the laser A or laser B.	1
	<Setting range> -16 to 16	

<DEVELOP>

T-17-46

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
DE-DC	Use it to enter the DC output value for image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
DE-NO-DC	Use it to enter the development DC output value for non-image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
HVT-DE	Use it to enter the offset value for the developing high-voltage output of the high-voltage unit.	1
	<Setting range> -50 to 50 ⚠ If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠ There are cases that the actual input and the indication after input do not match.	
D-HV-DE	Use it to enter the offset value for the developing high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠ If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠ There are cases that the actual input and the indication after input do not match.	

<DENS>

T-17-47

COPIER > ADJUST > DENS		
Sub-item	**Description**	**Level**
DENS-ADJ	Correcting the image (copy/print) density The F-value table is corrected if an image becomes fogged or blurred.	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value reduces fogging. Setting a smaller value reduces blurring. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. 	

<BLANK>

T-17-48

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-T	Use it to enter a value for the image leading edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-B	Use it to enter a value for the image trailing edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-TE	Use it to enter a value of the non-image width in image main scanning direction (left, right).	1
	<Setting range> 10 to 50 (unit: 0.1 mm), default: 25 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<V-CONT>

T-17-49

COPIER > ADJUST > V-CONT		
Sub-item	**Description**	**Level**
If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.		
EPOTOFST	Use it to enter an offset value for the voltage potential sensor	1
	<Setting range> 0 to 30	
VL-OFST	Use it to enter an offset value for the voltage potential control light-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
VD-OFST	Use it to enter an offset value for the voltage potential control dark-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
DE-OFST	Use it to enter an offset value for voltage potential control Vdc.	1
	<Setting range> -50 to 50 (unit: 1 V)	
OHP-OFST	Use it to enter an offset value for Vdc for transparency voltage potential control.	2
	<Setting range> -50 to 50 (unit: 1 V)	

<HV-PRI>

T-17-50

COPIER > ADJUST > HV-PRI		
Sub-item	**Description**	**Level**
GRID	Use it to enter an adjustment value for the grid current of the primary charging assembly.	1
	<Setting range> 400 to 900 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<HV-TR>

T-17-51

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
TR-N1	Use it to enter an output adjustment value for the transfer charging current (for printing on a single-sided print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
TR-N2	Use it to enter an output adjustment value for the transfer charging current (for printing on 2nd side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter an output adjustment value for the pre-transfer charging.	1
	<Setting range> 0 to 300 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
HVT-TR	Use it to enter an offset value for the transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
H-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-Voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-HV-TR	Use it to enter an offset value for the transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

<HV-SP>

T-17-52

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
SP-N1	Use it to enter an output adjustment value for the separation charging current (for printing on a single-side print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet.	
SP-N2	Use it to enter an output adjustment value for the separation charging current (for printing on the 2nd side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
HVT-SP	Use it to enter an offset value for the separation high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
D-HV-SP	Use it to enter an offset value for the separation high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

<FEED-ADJ>

T-17-53

COPIER > ADJUST > FEED-ADJ		
Sub-item	**Description**	**Level**
REGIST	Use it to adjust the timing at which the registration roller clutch goes ON.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) MEMO: A higher value delays the timing at which the registration roller clutch goes ON, thus decreasing the leading edge margin.	
ADJ-REFE	Use it to adjust the horizontal registration for re-pickup. - If the image is displaced to the front, increase the value.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. ⚠After setting the value, please turn the power switch off and then on.	

<CST-ADJ>

T-17-54

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
C3-STMTR	Use it to enter a paper width basic value for the cassette 3. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following service mode: FUNCTION> CST.	
C3-A4R	Use it to enter a paper width basic value for the cassette 3. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-STMTR	Use it to enter a paper width basic value for the cassette 4. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-A4R	Use it to enter a paper width basic value for the cassette 4. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detection VR, execute the following in service mode: FUNCTION> CST.	
MF-A4R	Use it to enter a paper basic value for the manual feed tray. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
MF-A6R	Use it to enter a paper width basic value for the manual feed tray. (A6R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, be sure to execute the following service mode: FUNCTION> CST.	
MF-A4	Use it to enter a paper width basic value for the manual feed tray. (A4)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C3-LVOL	Use it to enter a stack height for the cassette 3. (50 sheets)	1
	<Setting range> 0 to 255	
C3-HVOL	Use it to enter a stack height for the cassette 3. (250 sheets)	1
	<Setting range> 0 to 255	
C4-LVOL	Use it to enter a stack height for the cassette 4. (50 sheets)	1
	<Setting range> 0 to 255	
C4-HVOL	Use it to enter a stack height for the cassette 4. (250 sheets)	1
	<Setting range> 0 to 255	

<EXP-LED>

T-17-55

COPIER > ADJUST > EXP-LED		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter the output adjustment value for the pre-transfer exposure lamp.	1
	<Setting range> 20 to 80	

17.4.1.2 Copier List

0008-7956

/ iR8070

<AE>

T-17-56

COPIER > ADJUST > AE		
Sub-item	**Description**	**Level**
AE-TBL	Adjusting the character density at image density adjustment	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value makes characters darker. Setting a smaller value makes characters lighter. If RAM on the reader controller circuit board has been cleared, enter the value from the service label. 	

<ADJ-XY>

T-17-57

COPIER > ADJUST > ADJ-XY		
Sub-item	**Description**	**Level**
Adjusting the mage read start position - If RAM on the reader controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. - If the setting of this item has been changed, enter the new value into the service label.		
ADJ-X	Adjusting the optical image head position (image read start position in the subscan direction)	1
	<Setting range> 250 to 290 Increasing the value by 1 shifts the image read start position 0.1 mm backward. 	
ADJ-Y	Adjusting the CCD read start cell position (image read start position in the main scan direction)	1
	<Setting range> 100 to 400 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	
ADJ-S	Adjusting the optical shading measuring position	1
	<Setting range> 16 to 128 Increasing the value by 1 shifts the shading measuring position 0.1 mm forward. 	
ADJ-Y-DF	Adjusting the main scan position at DF flow read	1
	<Setting range> 100 to 400 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	
STRD_POS	Adjusting the CCD read start position at DF flow read	1
	<Setting range> 0 to 60 Increasing the value by 1 shifts the image read start position 0.1 mm to left.	

<CCD>

T-17-58

COPIER > ADJUST > CCD		
Sub-item	**Description**	**Level**
Making CCD- and Shading-Related Adjustments **If faulty images are noted after executing COPIER>FUNCTION>CCD>CCD-ADJ, enter the settings indicated on the service label.**		
SH-TRGT	Use it to enter the white level target value for shading correction. 130 to 255	1
SH-RATIO	Use it to enter the data on the white level ratio (standard white paper and standard white plate) for shading correction. 150 to 300	1
EGGN-ST	Use it to enter an adjustment value for the edge gain correction start posi-tion for the CCD. 100 to 250	1
EGGN-END	Use it to enter an adjustment value for the edge gain correction end position for the CCD. 100 to 250	1

<LASER>

T-17-59

COPIER > ADJUST > LASER		
Sub-item	**Description**	**Level**
Adjusting the Laser Output **If you have cleared the RAM on the DC controller PCB, be sure to enter the settings indicated on the service label.**		
PVE-OFST	Use it to adjust the position of laser projection.	1
	<Setting range> -300 to 300 - A higher value moves the spot toward the rear. - A smaller value moves the stop to the front. The laser A spot moves in keeping with the laser B spot.	
LA-DELAY	Entering a delay value after laser unit displacement (Matching the laser main scan)	1
	<Setting range> 0 to 4807 ⚠Enter the delay value peculiar to the unit affixed to the unit at laser unit replacement.	
LA-PWR-A	Use it to enter the power adjustment value for the laser A.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser A indicated on the label attached to the unit.	
LA-PWR-B	Use it to enter the power adjustment value for the laser B.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser B indicated on the label attached to the unit.	
DLY-FINE	Use it to fine-adjust the displacement of the laser A or laser B.	1
	<Setting range> -16 to 16	

<DEVELOP>

T-17-60

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
DE-DC	Use it to enter the DC output value for image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
DE-NO-DC	Use it to enter the development DC output value for non-image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
HVT-DE	Use it to enter the offset value for the developing high-voltage output of the high-voltage unit.	1
	<Setting range> -50 to 50 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	
D-HV-DE	Use it to enter the offset value for the developing high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	

<DENS>

T-17-61

COPIER > ADJUST > DENS		
Sub-item	**Description**	**Level**
DENS-ADJ	Correcting the image (copy/print) density The F-value table is corrected if an image becomes fogged or blurred.	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value reduces fogging. Setting a smaller value reduces blurring. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. 	

<BLANK>

T-17-62

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-T	Use it to enter a value for the image leading edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-B	Use it to enter a value for the image trailing edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-TE	Use it to enter a value of the non-image width in image main scanning direction (left, right).	1
	<Setting range> 10 to 50 (unit: 0.1 mm), default: 25 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<V-CONT>

T-17-63

COPIER > ADJUST > V-CONT		
Sub-item	**Description**	**Level**
If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.		
EPOTOFST	Use it to enter an offset value for the voltage potential sensor	1
	<Setting range> 0 to 30	
VL-OFST	Use it to enter an offset value for the voltage potential control light-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
VD-OFST	Use it to enter an offset value for the voltage potential control dark-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
DE-OFST	Use it to enter an offset value for voltage potential control Vdc.	1
	<Setting range> -80 to 80 (unit: 1 V)	
OHP-OFST	Use it to enter an offset value for Vdc for transparency voltage potential control.	1
	<Setting range> -50 to 50 (unit: 1 V)	

<HV-PRI>

T-17-64

COPIER > ADJUST > HV-PRI		
Sub-item	**Description**	**Level**
GRID	Use it to enter an adjustment value for the grid current of the primary charging assembly.	1
	<Setting range> 400 to 900 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<HV-TR>

T-17-65

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
TR-N1	Use it to enter an output adjustment value for the transfer charging current (for printing on a single-sided print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
TR-N2	Use it to enter an output adjustment value for the transfer charging current (for printing on 2nd side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter an output adjustment value for the pre-transfer charging.	1
	<Setting range> 0 to 300 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
HVT-TR	Use it to enter an offset value for the transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
H-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-Voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-HV-TR	Use it to enter an offset value for the transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

<HV-SP>

T-17-66

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
SP-N1	Use it to enter an output adjustment value for the separation charging current (for printing on a single-side print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet.	
SP-N2	Use it to enter an output adjustment value for the separation charging current (for printing on the 2nd side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
HVT-SP	Use it to enter an offset value for the separation high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
D-HV-SP	Use it to enter an offset value for the separation high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

<FEED-ADJ>

T-17-67

COPIER > ADJUST > FEED-ADJ		
Sub-item	**Description**	**Level**
REGIST	Use it to adjust the timing at which the registration roller clutch goes ON.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) MEMO: A higher value delays the timing at which the registration roller clutch goes ON, thus decreasing the leading edge margin.	
ADJ-REFE	Use it to adjust the horizontal registration for re-pickup. - If the image is displaced to the front, increase the value.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. ⚠After setting the value, please turn the power switch off and then on.	

<CST-ADJ>

T-17-68

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
C3-STMTR	Use it to enter a paper width basic value for the cassette 3. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following service mode: FUNCTION> CST.	
C3-A4R	Use it to enter a paper width basic value for the cassette 3. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-STMTR	Use it to enter a paper width basic value for the cassette 4. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-A4R	Use it to enter a paper width basic value for the cassette 4. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detection VR, execute the following in service mode: FUNCTION> CST.	
MF-A4R	Use it to enter a paper basic value for the manual feed tray. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
MF-A6R	Use it to enter a paper width basic value for the manual feed tray. (A6R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, be sure to execute the following service mode: FUNCTION> CST.	
MF-A4	Use it to enter a paper width basic value for the manual feed tray. (A4)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C3-LVOL	Use it to enter a stack height for the cassette 3. (50 sheets)	1
	<Setting range> 0 to 255	
C3-HVOL	Use it to enter a stack height for the cassette 3. (250 sheets)	1
	<Setting range> 0 to 255	
C4-LVOL	Use it to enter a stack height for the cassette 4. (50 sheets)	1
	<Setting range> 0 to 255	
C4-HVOL	Use it to enter a stack height for the cassette 4. (250 sheets)	1
	<Setting range> 0 to 255	

<EXP-LED>

T-17-69

COPIER > ADJUST > EXP-LED		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter the output adjustment value for the pre-transfer exposure lamp.	1
	<Setting range> 20 to 80	

17.4.1.3 Copier List

0008-7957

iR85+

<LASER>

T-17-70

COPIER > ADJUST > LASER		
Sub-item	**Description**	**Level**
Adjusting the Laser Output **If you have cleared the RAM on the DC controller PCB, be sure to enter the settings indicated on the service label.**		
PVE-OFST	Use it to adjust the position of laser projection.	1
	<Setting range> -300 to 300 - A higher value moves the spot toward the rear. - A smaller value moves the stop to the front. The laser A spot moves in keeping with the laser B spot.	
LA-DELAY	Entering a delay value after laser unit displacement (Matching the laser main scan)	1
	<Setting range> 0 to 4807 ⚠ Enter the delay value peculiar to the unit affixed to the unit at laser unit replacement.	
LA-PWR-A	Use it to enter the power adjustment value for the laser A.	1
	<Setting range> 0 to 255 ⚠ If you have replaced the laser unit, enter the power adjustment value for the laser A indicated on the label attached to the unit.	
LA-PWR-B	Use it to enter the power adjustment value for the laser B.	1
	<Setting range> 0 to 255 ⚠ If you have replaced the laser unit, enter the power adjustment value for the laser B indicated on the label attached to the unit.	
DLY-FINE	Use it to fine-adjust the displacement of the laser A or laser B.	1
	<Setting range> -16 to 16	

<DEVELOP>

T-17-71

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
DE-DC	Use it to enter the DC output value for image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
DE-NO-DC	Use it to enter the development DC output value for non-image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
HVT-DE	Use it to enter the offset value for the developing high-voltage output of the high-voltage unit.	1
	<Setting range> -50 to 50 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	
D-HV-DE	Use it to enter the offset value for the developing high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	

<DENS>

T-17-72

COPIER > ADJUST > DENS		
Sub-item	**Description**	**Level**
DENS-ADJ	Correcting the image (copy/print) density The F-value table is corrected if an image becomes fogged or blurred.	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value reduces fogging. Setting a smaller value reduces blurring. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. 	

<BLANK>

T-17-73

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-T	Use it to enter a value for the image leading edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-B	Use it to enter a value for the image trailing edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-TE	Use it to enter a value of the non-image width in image main scanning direction (left, right).	1
	<Setting range> 10 to 50 (unit: 0.1 mm), default: 25 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<V-CONT>

T-17-74

COPIER > ADJUST > V-CONT		
Sub-item	**Description**	**Level**
If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.		
EPOTOFST	Use it to enter an offset value for the voltage potential sensor	1
	<Setting range> 0 to 30	
VL-OFST	Use it to enter an offset value for the voltage potential control light-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
VD-OFST	Use it to enter an offset value for the voltage potential control dark-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
DE-OFST	Use it to enter an offset value for voltage potential control Vdc.	1
	<Setting range> -80 to 80 (unit: 1 V)	
OHP-OFST	Use it to enter an offset value for Vdc for transparency voltage potential control.	2
	<Setting range> -50 to 50 (unit: 1 V)	

<HV-PRI>

T-17-75

COPIER > ADJUST > HV-PRI		
Sub-item	**Description**	**Level**
GRID	Use it to enter an adjustment value for the grid current of the primary charging assembly.	1
	<Setting range> 400 to 900 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<HV-TR>

T-17-76

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
TR-N1	Use it to enter an output adjustment value for the transfer charging current (for printing on a single-sided print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 If you have replaced the DC controller PCB or cleared the RAM on the DC controller, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
TR-N2	Use it to enter an output adjustment value for the transfer charging current (for printing on 2nd side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 If you have replaced the DC controller PCB or cleared the RAM on the controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
PRE-TR	Use it to enter an output adjustment value for the pre-transfer charging.	1
	<Setting range> 0 to 300 If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
HVT-TR	Use it to enter an offset value for the transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
H-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-Voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
D-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	
D-HV-TR	Use it to enter an offset value for the transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. The value entered and the value displayed after making the entry may fail to match.	

<HV-SP>

T-17-77

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
SP-N1	Use it to enter an output adjustment value for the separation charging current (for printing on a single-side print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet.	
SP-N2	Use it to enter an output adjustment value for the separation charging current (for printing on the 2nd side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 If you have replaced the controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
HVT-SP	Use it to enter an offset value for the separation high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
D-HV-SP	Use it to enter an offset value for the separation high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

<FEED-ADJ>

T-17-78

COPIER > ADJUST > FEED-ADJ		
Sub-item	**Description**	**Level**
REGIST	Use it to adjust the timing at which the registration roller clutch goes ON.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) **MEMO:** A higher value delays the timing at which the registration roller clutch goes ON, thus decreasing the leading edge margin.	
ADJ-REFE	Use it to adjust the horizontal registration for re-pickup. - If the image is displaced to the front, increase the value.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. After setting the value, please turn the power switch off and then on.	

<CST-ADJ>

T-17-79

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
C3-STMTR	Use it to enter a paper width basic value for the cassette 3. (STMTR)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, execute the following service mode: FUNCTION> CST.	
C3-A4R	Use it to enter a paper width basic value for the cassette 3. (A4R)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
C4-STMTR	Use it to enter a paper width basic value for the cassette 4. (STMTR)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-A4R	Use it to enter a paper width basic value for the cassette 4. (A4R)	1
	<Setting range> 0 to 255 If you have replaced the paper width detection VR, execute the following in service mode: FUNCTION> CST.	
MF-A4R	Use it to enter a paper basic value for the manual feed tray. (A4R)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
MF-A6R	Use it to enter a paper width basic value for the manual feed tray. (A6R)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, be sure to execute the following service mode: FUNCTION> CST.	
MF-A4	Use it to enter a paper width basic value for the manual feed tray. (A4)	1
	<Setting range> 0 to 255 If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C3-LVOL	Use it to enter a stack height for the cassette 3. (50 sheets)	1
	<Setting range> 0 to 255	
C3-HVOL	Use it to enter a stack height for the cassette 3. (250 sheets)	1
	<Setting range> 0 to 255	
C4-LVOL	Use it to enter a stack height for the cassette 4. (50 sheets)	1
	<Setting range> 0 to 255	
C4-HVOL	Use it to enter a stack height for the cassette 4. (250 sheets)	1
	<Setting range> 0 to 255	

<EXP-LED>

T-17-80

COPIER > ADJUST > EXP-LED		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter the output adjustment value for the pre-transfer exposure lamp.	1
	<Setting range> 20 to 80	

17.4.1.4 Copier List

0008-7958

<LAMP>

T-17-81

COPIER > ADJUST > LAMP		
Sub-item	**Description**	**Level**
L-DATA	Use it to enter the scanning lamp intensity data.	1
	<Setting range> 0 to 1023 - A higher input value increases the intensity. - A lower input value decreases the intensity. If the output shows faulty images after execution of the following, enter the values indicated on the service sheet: COPIER> FUNCTION> CCD> CCD-ADJ.	

<AE>

T-17-82

COPIER > ADJUST > AE		
Sub-item	**Description**	**Level**
AE-TBL	Adjusting the character density at image density adjustment	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value makes characters darker. Setting a smaller value makes characters lighter. If RAM on the reader controller circuit board has been cleared, enter the value from the service label. 	

<ADJ-XY>

T-17-83

COPIER > ADJUST > ADJ-XY		
Sub-item	**Description**	**Level**
Adjusting the mage read start position - If RAM on the reader controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. - If the setting of this item has been changed, enter the new value into the service label.		
ADJ-X	Adjusting the optical image head position (image read start position in the subscan direction)	1
	<Setting range> 0 to 2970 Increasing the value by 1 shifts the image read start position 0.1 mm backward. 	
ADJ-Y	Adjusting the CCD read start cell position (image read start position in the main scan direction)	1
	<Setting range> 0 to 1000 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	

COPIER > ADJUST > ADJ-XY		
Sub-item	**Description**	**Level**
ADJ-S	Adjusting the optical shading measuring position **<Setting range>** 0 to 4 Increasing the value by 1 shifts the shading measuring position 0.1 mm forward. 	1
ADJ-Y-DF	Adjusting the main scan position at DF flow read **<Setting range>** 0 to 1000 Increasing the value by 1 shifts the image read start position 0.1 mm outward. 	1

<CCD>

T-17-84

COPIER > ADJUST > CCD		
Sub-item	**Description**	**Level**
Making CCD- and Shading-Related Adjustments **If faulty images are noted after executing COPIER>FUNCTION>CCD>CCD-ADJ, enter the settings indicated on the service label.**		
SH-TRGT	Use it to enter the white level target value for shading correction. 1 to 2043 [at time of shipment/after RAM initialization:900]	1
GAIN-E-R	Use it to enter the gain value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-O-R	Use it to enter the gain value of the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-E-F	Use it to enter the gain value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
GAIN-O-F	Use it to enter the gain value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:116]	1
OFST-E-R	Use it to enter the offset value for the last half even-numbered pixels of the CCD. 0 to 1023[at time of shipment/after RAM initialization:128]	1
OFST-O-R	Use it to enter the offset value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
OFST-E-F	Use it to enter the offset value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
OFST-O-F	Use it to enter the offset value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:128]	1
LUT-O-R1	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R2	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1

COPIER > ADJUST > CCD		
Sub-item	**Description**	**Level**
Making CCD- and Shading-Related Adjustments **If faulty images are noted after executing COPIER>FUNCTION>CCD>CCD-ADJ, enter the settings indicated on the service label.**		
LUT-O-R3	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R4	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-R5	Use it to enter the link correction data value for the last half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R1	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R2	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R3	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R4	Use it to enter the link correction data value for the last half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-R5	Use it to enter the link correction data value of the last even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F1	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F2	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F3	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F4	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-O-F5	Use it to enter the link correction data value for the first half odd-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F1	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F2	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F3	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F4	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1
LUT-E-F5	Use it to enter the link correction data value for the first half even-numbered pixels of the CCD. 0 to 1023 [at time of shipment/after RAM initialization:0]	1

<LASER>

T-17-85

COPIER > ADJUST > LASER		
Sub-item	**Description**	**Level**
Adjusting the Laser Output **If you have cleared the RAM on the DC controller PCB, be sure to enter the settings indicated on the service label.**		
PVE-OFST	Use it to adjust the position of laser projection.	1
	<Setting range> -300 to 300 - A higher value moves the spot toward the rear. - A smaller value moves the stop to the front. The laser A spot moves in keeping with the laser B spot.	

COPIER > ADJUST > LASER		
Sub-item	**Description**	**Level**
Adjusting the Laser Output **If you have cleared the RAM on the DC controller PCB, be sure to enter the settings indicated on the service label.**		
LA-DELAY	Entering a delay value after laser unit displacement (Matching the laser main scan)	1
	<Setting range> 0 to 4807 ⚠Enter the delay value peculiar to the unit affixed to the unit at laser unit replacement.	
LA-PWR-A	Use it to enter the power adjustment value for the laser A.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser A indicated on the label attached to the unit.	
LA-PWR-B	Use it to enter the power adjustment value for the laser B.	1
	<Setting range> 0 to 255 ⚠If you have replaced the laser unit, enter the power adjustment value for the laser B indicated on the label attached to the unit.	
DLY-FINE	Use it to fine-adjust the displacement of the laser A or laser B.	1
	<Setting range> -16 to 16	

<DEVELOP>

T-17-86

COPIER > ADJUST > DEVELOP		
Sub-item	**Description**	**Level**
DE-DC	Use it to enter the DC output value for image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
DE-NO-DC	Use it to enter the development DC output value for non-image formation.	1
	<Setting range> 0 to 600 ⚠There are cases that the actual input and the indication after input do not match.	
HVT-DE	Use it to enter the offset value for the developing high-voltage output of the high-voltage unit.	1
	<Setting range> -50 to 50 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	
D-HV-DE	Use it to enter the offset value for the developing high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠There are cases that the actual input and the indication after input do not match.	

<DENS>

T-17-87

COPIER > ADJUST > DENS		
Sub-item	**Description**	**Level**
DENS-ADJ	Correcting the image (copy/print) density The F-value table is corrected if an image becomes fogged or blurred.	1
	<Setting range> 1 to 9 (Default: 5) Setting a greater value reduces fogging. Setting a smaller value reduces blurring. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. 	

<BLANK>

T-17-88

COPIER > ADJUST > BLANK		
Sub-item	**Description**	**Level**
BLANK-T	Use it to enter a value for the image leading edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-B	Use it to enter a value for the image trailing edge non-image width.	1
	<Setting range> 0 to 2362 (Default: 0) Setting a greater value increases the chipping width. If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	
BLANK-TE	Use it to enter a value of the non-image width in image main scanning direction (left, right).	1
	<Setting range> 10 to 50 (unit: 0.1 mm), default: 25 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<V-CONT>

T-17-89

COPIER > ADJUST > V-CONT		
Sub-item	**Description**	**Level**
If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.		
EPOTOFST	Use it to enter an offset value for the voltage potential sensor	1
	<Setting range> 0 to 30	
VL-OFST	Use it to enter an offset value for the voltage potential control light-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	

COPIER > ADJUST > V-CONT		
Sub-item	**Description**	**Level**
If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.		
VD-OFST	Use it to enter an offset value for the voltage potential control dark-area target voltage potential.	1
	<Setting range> -50 to 50 (unit: 1 V)	
DE-OFST	Use it to enter an offset value for voltage potential control Vdc.	1
	<Setting range> -80 to 80 (unit: 1 V)	
OHP-OFST	Use it to enter an offset value for Vdc for transparency voltage potential control.	2
	<Setting range> -50 to 50 (unit: 1 V)	

<HV-PRI>

T-17-90

COPIER > ADJUST > HV-PRI		
Sub-item	**Description**	**Level**
GRID	Use it to enter an adjustment value for the grid current of the primary charging assembly.	1
	<Setting range> 400 to 900 If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label.	

<HV-TR>

T-17-91

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
TR-N1	Use it to enter an output adjustment value for the transfer charging current (for printing on a single-sided print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
TR-N2	Use it to enter an output adjustment value for the transfer charging current (for printing on 2nd side of a double-sided print using plain paper).	1
	<Setting range> -650 to 0 ⚠If you have replaced the DC controller PCB or cleared the RAM on the controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
PRE-TR	Use it to enter an output adjustment value for the pre-transfer charging.	1
	<Setting range> 0 to 300 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
HVT-TR	Use it to enter an offset value for the transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have replaced the DC controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

COPIER > ADJUST > HV-TR		
Sub-item	**Description**	**Level**
H-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-Voltage unit. If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-PRE-TR	Use it to enter an offset value for the pre-transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	
D-HV-TR	Use it to enter an offset value for the transfer high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet. ⚠The value entered and the value displayed after making the entry may fail to match.	

<HV-SP>

T-17-92

COPIER > ADJUST > HV-SP		
Sub-item	**Description**	**Level**
SP-N1	Use it to enter an output adjustment value for the separation charging current (for printing on a single-side print or on the 1st side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the DC controller PCB or cleared the RAM on the DC controller PCB, be sure to enter the value indicated on the service sheet.	
SP-N2	Use it to enter an output adjustment value for the separation charging current (for printing on the 2nd side of a double-sided print using plain paper).	1
	<Setting range> 0 to 800 ⚠If you have replaced the controller PCB or cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
HVT-SP	Use it to enter an offset value for the separation high-voltage output of the high-voltage unit.	1
	<Setting range> -100 to 100 ⚠If you have replaced the high-voltage unit, be sure to enter the value indicated on the label attached to the new high-voltage unit. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	
D-HV-SP	Use it to enter an offset value for the separation high-voltage output of the DC controller PCB.	1
	<Setting range> -100 to 100 ⚠If you have replaced the DC controller PCB, be sure to enter the value indicated on the label attached to the new DC controller PCB. If you have cleared the RAM of the DC controller PCB, be sure to enter the value indicated on the service sheet.	

<FEED-ADJ>

T-17-93

COPIER > ADJUST > FEED-ADJ		
Sub-item	**Description**	**Level**
REGIST	Use it to adjust the timing at which the registration roller clutch goes ON.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) MEMO: A higher value delays the timing at which the registration roller clutch goes ON, thus decreasing the leading edge margin.	
ADJ-REFE	Use it to adjust the horizontal registration for re-pickup. - If the image is displaced to the front, increase the value.	1
	<Setting range> -100 to 100 (unit: 0.1 mm) If RAM on the DC controller circuit board has been cleared or the board itself has been replaced, enter the value from the service label. ⚠After setting the value, please turn the power switch off and then on.	

<CST-ADJ>

T-17-94

COPIER > ADJUST > CST-ADJ		
Sub-item	**Description**	**Level**
Making Cassette-/Manual Feed-Related Adjustments **If you have cleared the RAM on the DC controller PCB, enter the settings indicated on the service label.**		
C3-STMTR	Use it to enter a paper width basic value for the cassette 3. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following service mode: FUNCTION> CST.	
C3-A4R	Use it to enter a paper width basic value for the cassette 3. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-STMTR	Use it to enter a paper width basic value for the cassette 4. (STMTR)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C4-A4R	Use it to enter a paper width basic value for the cassette 4. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detection VR, execute the following in service mode: FUNCTION> CST.	
MF-A4R	Use it to enter a paper basic value for the manual feed tray. (A4R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
MF-A6R	Use it to enter a paper width basic value for the manual feed tray. (A6R)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, be sure to execute the following service mode: FUNCTION> CST.	
MF-A4	Use it to enter a paper width basic value for the manual feed tray. (A4)	1
	<Setting range> 0 to 255 ⚠ If you have replaced the paper width detecting VR, execute the following in service mode: FUNCTION> CST.	
C3-LVOL	Use it to enter a stack height for the cassette 3. (50 sheets)	1
	<Setting range> 0 to 255	
C3-HVOL	Use it to enter a stack height for the cassette 3. (250 sheets)	1
	<Setting range> 0 to 255	
C4-LVOL	Use it to enter a stack height for the cassette 4. (50 sheets)	1
	<Setting range> 0 to 255	
C4-HVOL	Use it to enter a stack height for the cassette 4. (250 sheets)	1
	<Setting range> 0 to 255	

<EXP-LED>

T-17-95

COPIER > ADJUST > EXP-LED		
Sub-item	**Description**	**Level**
PRE-TR	Use it to enter the output adjustment value for the pre-transfer exposure lamp.	1
	<Setting range> 20 to 80	

17.4.2 FEEDER

17.4.2.1 Feeder List

0008-4949

iR105i/iR105+ / iR9070

FEEDER >ADJUST

T-17-96

FEEDER >ADJUST		
Sub-item	**Description**	**Level**
DOCST	Use it to adjust the original stop position when the ADF is used (original tray pickup).	1
	<Setting range> -30 to 30 (unit: 0.5 mm) MEMO: - A higher value decreases the leading edge margin. - The data is retained by the ADF controller PCB. <Using the Mode> 1) Place an original in the original tray. 2) Select the item, check the setting, and press the OK key. 3) Press the OK key. The original will be picked up. 4) Open the ADF, and check the original stop position. 5) Press the OK key. The original will be delivered. 	
DOCST-M	Use it to adjust the original stop position when the ADF is used (manual feed tray).	1
	<Setting range> -30 to 30 (unit: 0.5 mm) Using the Mode Same as in FEEDER> ADJUST> DOCST.	
LA-SPEED	Use it to adjust the original feed speed in ADF stream reading mode.	1
	<Setting range> -30 to 30 (unit: 0.1%) MEMO: - A higher value increases the speed. - The data is retained by the ADF controller PCB.	

FEEDER >ADJUST		
Sub-item	**Description**	**Level**
STRD-S	Use it to adjust the scanner stop position for stream reading mode (smallsize). Make image position changed on the sheet	1
	<Setting range> -25 to 25 (unit: 0.1 mm) If the set figure is big, the image will shift to the right. If the set figure is small, the image will shift to the left. 	
STRD-L	Use it to adjust the scanner stop position for stream reading mode (largesize).	1
	<Setting range> -25 to 25 (unit: 0.1 mm) <Using the Mode> Same as in FEEDER> ADJUST> STRD-S.	
RVM-SPD	Use it to adjust the speed of the reversal motor.	1
	MEMO: A higher value increases the speed. **<Setting range>** -30 to 30 (unit: 0.1%)	

17.4.2.2 Feeder List

0008-7959

/ iR8070

FEEDER >ADJUST

T-17-97

FEEDER >ADJUST		
Sub-item	Description	Level

DOCST	Use it to adjust the original stop position when the ADF is used (original tray pickup).	1
	<Setting range> -10 to 10 (unit: 0.5 mm) MEMO: - A higher value decreases the leading edge margin. - The data is retained by the ADF controller PCB. <Using the Mode> 1) Make a print of the test chart, and check the position of the image. 2) Select the mode item, and change the setting to make adjustments. 3) Press the OK key. 4) Make a print of the test chart once again, and check to see the position of the image is as indicated. 	
LA-SPEED	Use it to adjust the original feed speed in ADF stream reading mode.	1
	<Setting range> -30 to 30 (unit: 0.1%) **MEMO:** - A higher value increases the speed. - The data is retained by the ADF controller PCB.	

17.4.2.3 Feeder List

0008-7961

FEEDER >ADJUST

T-17-98

FEEDER >ADJUST		
Sub-item	Description	Level
DOCST	Use it to adjust the original stop position when the ADF is used (original tray pickup).	1
	<Setting range> -30 to 30 (unit: 0.5 mm) MEMO: - A higher value decreases the leading edge margin. - The data is retained by the ADF controller PCB. <Using the Mode> 1) Place an original in the original tray. 2) Select the item, check the setting, and press the OK key. 3) Press the OK key. The original will be picked up. 4) Open the ADF, and check the original stop position. 5) Press the OK key. The original will be delivered. 	
DOCST-M	Use it to adjust the original stop position when the ADF is used (manual feed tray).	1
	<Setting range> -30 to 30 (unit: 0.5 mm) Using the Mode Same as in FEEDER> ADJUST> DOCST.	
LA-SPEED	Use it to adjust the original feed speed in ADF stream reading mode.	1
	<Setting range> -30 to 30 (unit: 0.1%) MEMO: - A higher value increases the speed. - The data is retained by the ADF controller PCB.	

STRD-S	Use it to adjust the scanner stop position for stream reading mode (smallsize).	1
	<Setting range> -25 to 25 (unit: 0.1 mm) 	
STRD-L	Use it to adjust the scanner stop position for stream reading mode (largesize).	1
	<Setting range> -25 to 25 (unit: 0.1 mm) <Using the Mode> Same as in FEEDER> ADJUST> STRD-S.	
RVM-SPD	Use it to adjust the speed of the reversal motor.	2
	MEMO: A higher value increases the speed. **<Setting range>** -30 to 30 (unit: 0.1%)	

17.4.3 SORTER

17.4.3.1 Sorter List

0008-4951

iR105i/iR105+ / iR9070

SORTER > ADJUST

T-17-99

SORTER > ADJUST		
Sub-item	Description	Level
PNCH-HLE	Use it to adjust the punch hole position (paper feed direction) when the puncher unit is used.	1
	<Setting range> -23 to 23 (unit: about 0.5 mm) <Using the Mode> 1) Make a print of the Test Chart, and check the position of the holes. 2) Select the item, and change the setting to adjust. 3) Press the OK key. 4) Make a print of the Test Chart once again, and check to see if the position of the holes is as indicated. 	

17.4.3.2 Sorter List

0008-7962

/ iR8070

SORTER > ADJUST

T-17-100

SORTER > ADJUST		
Sub-item	Description	Level

PNCH-HLE	Use it to adjust the punch hole position (paper feed direction) when the puncher unit is used.	1
	<Setting range> -23 to 23 (unit: about 0.5 mm) <Using the Mode> 1) Make a print of the Test Chart, and check the position of the holes. 2) Select the item, and change the setting to adjust. 3) Press the OK key. 4) Make a print of the Test Chart once again, and check to see if the position of the holes is as indicated. 	

17.4.3.3 Sorter List

0008-7963

iR85+

SORTER > ADJUST

T-17-101

SORTER > ADJUST		
Sub-item	**Description**	**Level**
PNCH-HLE	Use it to adjust the punch hole position (paper feed direction) when the puncher unit is used.	1
	<Setting range> -23 to 23 (unit: about 0.5 mm) <Using the Mode> 1) Make a print of the Test Chart, and check the position of the holes. 2) Select the item, and change the setting to adjust. 3) Press the OK key. 4) Make a print of the Test Chart once again, and check to see if the position of the holes is as indicated. 	

17.4.3.4 Sorter List

0008-7964

SORTER > ADJUST

T-17-102

SORTER > ADJUST

Sub-item	Description	Level
PNCH-HLE	Use it to adjust the punch hole position (paper feed direction) when the puncher unit is used.	1
	<Setting range> -23 to 23 (unit: about 0.5 mm) <Using the Mode> 1) Make a print of the Test Chart, and check the position of the holes. 2) Select the item, and change the setting to adjust. 3) Press the OK key. 4) Make a print of the Test Chart once again, and check to see if the position of the holes is as indicated. 	

17.5 FUNCTION (Operation/Inspection Mode)

17.5.1 COPIER

17.5.1.1 Copier List

0008-4952

iR105i/iR105+ / iR9070

<INSTALL>

T-17-103

COPIER > FUNCTION > INSTALL		
Sub-item	**Description**	**Level**
TONER-S	Stirring toner in the developer at installation	1
	<Operating procedure> 1. Select an item to reverse its display. 2. "Check the Developer" is displayed. Check that the developer connector is connected. 3. Press the OK key to start operation. The operation automatically stops after count-down. **<Reference>** "Check the Developer" is displayed to prevent the connector from being disconnected when the developer is replaced. Therefore, this message is not necessary when the machine is shipped with the developer for installation.	
CARD	Installing and setting the card reader	1
	<Operating procedure> Enter the card number (1 to 2001) and press the OK key. (One thousand cards can be used from the input card number.) Then the card management information (department ID and PIN) is initialized.	
E-RDS	Reserved for future.	1
RGW-PORT	Reserved for future.	1
COM-TEST	Reserved for future.	1
COM-LOG	Reserved for future.	1
RGW-ADR	Reserved for future.	1

<CCD>

T-17-104

COPIER > FUNCTION > CCD		
Sub-item	**Description**	**Level**
CCD-ADJ	Automatically adjusting CCD **<Operating procedure>** 1) Place about 10 or more sheets of standard white paper (whitest paper used by the user, excluding color print paper) on the document table. 2) Select <CCD-ADJ> to reverse its display. Then press the OK key. 3) Adjustment is executed automatically (about 15 seconds). During adjustment, <ACTIVE> is displayed at the upper right of the screen. 4) The LED lamp (for document lighting) lights twice and the automatic adjustment ends with <OK> displayed on the screen. 5) Since all items are updated in this service mode (COPIER>ADJUST>CCD), enter the values into the service label. 	1
LUT-ADJ	Use it to execute CCD gain simplified correction. **MEMO:** - After executing CCD-ADJ, execute this mode to adjust the density along the middle of images. - Be sure to execute CCD-ADJ before executing this mode. <Using the Mode> 1) Select the item, and press the OK key. 2) Execute auto adjustment. 3) See that the machine automatically stops after adjustment. 4) All items under the following are updated; print out a service sheet, and store it away: COPIER> ADJUST> LAMP, COPIER> ADJUST> CCD.	1
LUT-ADJ2	Use it to execute CCD gain detail correction. - If the density is not corrected using LUT-ADJ (CCD gain simplified correction), execute this mode using the 10-gradation chart. **<Using the Mode>** 1) As shown, place the 10-gradation chart (D-10 Test Sheet) on the copyboard glass. 2) Select the item, and press the OK key. 3) See that the machine executes auto adjustment. 4) See that the machine stops automatically after adjustment. 5) All items under the following are updated; print out a service sheet, and store it away: COPIER> ADJUST> LAMP, COPIER> ADJUST> CCD. 	2

<LASER>

T-17-105

COPIER > FUNCTION > LASER		
Sub-item	**Description**	**Level**
POWER-A	Use it to turn on the laser A.	1
	<Using the Mode> 1) Select <POWER-A> to highlight, and press the OK key. 2) See that the laser goes ON, and the display indicates 'Start -> ACTIVE' (flashing); the upper right of the screen indicates <SERVICE>. 3) See that the message goes OFF automatically in about 60 sec, and the display indicates 'OK!'.	
POWER-B	Use it to turn on the laser B.	1
	<Using the Mode> 1) See the instructions under POWER-A.	

<DPC>

T-17-106

COPIER > FUNCTION > DPC		
Sub-item	**Description**	**Level**
OFST	Use it to execute offset adjustment of the potential sensor.	1
	⚠This mode is part of the procedure to be performed when replacing the potential sensor unit; do not execute it on its own. <Using the Mode> 1) Select the item, and press the OK key. 2) See that the machine automatically stops after offset adjustment.	

<CST>

T-17-107

COPIER > FUNCTION > CST		
Sub-item	**Description**	**Level**
Use it to execute size auto adjustment for the cassette/manual feed tray.		
C3-STMTR C3-A4R C4-STMTR C4-A4R	Use it to register a paper width basic value for the cassette 3/4. STMTR width: 139.5 mm, A4R width: 210 mm	1
	To make find adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>C3-STMTR, C3-A4R, C4-STMTR, C4-A4R. <Using the Mode> 1) Place STMTR paper in the cassette, and see the side guide plate to STMTR width. 2) Select C3-STMTR (C4-STMTR), and press the OK key. - The machine performs auto adjustment and stores the value. 3) Likewise, repeat steps 1) and 2) to enter a basic value.	
MF-A4R MF-A6R MF-A4	Use it to enter a paper width basic value for the manual feed tray. A4R width: 210 mm, A6R width: 105 mm, A4 width: 297 mm	1
	To make fine adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>MF-A4R, MF-A6R, MF-A4. <Using the Mode> 1) Place A4R paper in the manual feed tray, and set the side guide to A4R width. 2) Select MF-A4R, and press the OK key. - The machine performs auto adjustment and registers the value. 3) Likewise, repeat steps 1) and 2) for A6R and A4.	

<CLEANING>

T-17-108

COPIER > FUNCTION > CLEANING		
Sub-item	**Description**	**Level**
WIRE-CLN	Use it to execute auto cleaning of the charging wire 5 tines continuously (round trip).	1
	If you have replaced the primary charging wire or the transfer charg-ing wire, be sure to execute this mode. **<Using the Mode>** 1) Select the item, and press the OK key. 2) See that the machine performs auto cleaning of the charging wire 5 times continuously. 3) See that the machine automatically stops after cleaning.	

<FIXING>

T-17-109

COPIER > FUNCTION > FIXING		
Sub-item	**Description**	**Level**
NIP-CHK	Use it to generate output for measuring the fixing nip width.	1
	<Using the Item> 1) Make about 20 A4 prints using the test sheet. 2) Place A4 paper in the tray. 3) Select the item to highlight, and press the OK key. - The paper will be picked up and is stopped between the fixing rollers once, and then will be delivered in about 20 sec. 4) Measure the width of the area shaded in the figure. a and b are measurements at 10 mm from either edge of paper.	

<PANEL>

T-17-110

COPIER > FUNCTION > PANEL		
Sub-item	**Description**	**Level**
LCD-CHK	Checking the LCD display for missing dots	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The front of the panel lights repeatedly in order of white, black, red, green, and blue. (Check this lighting.) 2) Press the Stop key to terminate the operation.	
LED-CHK	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The LED lamps light sequentially. 2) Press LED-OFF to terminate the operation.	
LED-OFF	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item to terminate LED-CHK operation.	
KEY-CHK	Checking key input	1
	<Operating procedure> 1) Select KEY-CHK to display the input key numbers and names. 2) Press a key to check. If the key is normal, the touchpanel displays the corresponding key. (See the attached table.) 3) Select KEY-CHK again to exit from key input check.	

COPIER > FUNCTION > PANEL		
Sub-item	**Description**	**Level**
TOUCHCHK	Adjusting the coordinate positions on the analog touchpanel	1
	<Operating procedure> - Align the press positions on the touchpanel and the coordinate positions on the LCD section. - If the LCD section has been replaced, execute this service mode. 1) Select TOUCHCHK to reverse its display. Then press the OK key. 2) Press sequentially the nine positive signs (+) that appear on the touchpanel in order.	

<Input Key Numbers and Names>

T-17-111

Key	Screen Display
0 to 9, #, and *	0 to 9, #, and *
Reset	RESET
Stop	STOP
User Mode	USER
Start	START
Clear	CLEAR
PIN	ID
Help	?
Counter Check	BILL

<PART-CHK>

T-17-112

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
CL	Specifying a clutch to check its operation (Range: 1 to 21)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the clutch from the ten-key pad. 3) Press the OK key. 4) Press CL-ON to check its operation.	
CL-ON	Starting the clutch operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON ->10-second OFF -> 0.5-second ON -> 10-second OFF -> 0.5-second ON -> OFF	
MTR	Specifying a motor to check its operation (Range: 1 to 13)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the motor from the ten-key pad. 3) Press the OK key. 4) Press MTR-ON to check its operation.	
MTR-ON	Starting the motor operation check	1
	<Operating procedure> 1) Select the item, and press the OK key. - 20 sec ON -> OFF - for hopper and duplex horizontal registration motor, 10 sec ON -> OFF - for shift tray motor, stops at front/rear HP - for vibration motor (M10/M20), ON/OFF operation repeats at intervals of about 5 sec	
SL	Specifying a solenoid to check its operation (Range: 1 to 14)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the solenoid from the ten-key pad. 3) Press the OK key. 4) Press SOL-ON to check its operation.	

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
SL-ON	Starting the solenoid operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON -> 5-second OFF -> 0.5-second ON -> 5-second OFF -> 0.5-second ON -> OFF	

T-17-113

Code	Name	Code	Name
1	manual feed tray pickup clutch (CL7)	12	lower feeder right clutch (CL17)
2	cassette 3 pickup clutch (CL12)	13	deck (left) feed clutch (CL19)
3	vertical path 3 clutch (CL13)	14	delivery speed switch-over clutch (CL21)
4	cassette 4 pickup clutch (CL14)	15	registration brake clutch (CL3)
5	vertical path 4 clutch (CL15)	16	manual feed tray feed clutch (CL18)
6	deck (right) pickup clutch (CL10)	17	inside hopper magnet roller drive clutch (CL1)
7	vertical path 1 clutch (CL8)	18	developing sleeve clutch (CL4)
8	deck (left) pickup clutch (CL11)	19	registration clutch (CL2)
9	vertical path 2 clutch (CL9)	20	side paper deck feed clutch (CL101)
10	pre-registration clutch (CL5)	21	side paper deck pickup clutch (CL102)
11	lower feeder middle cutch (CL6)		

T-17-114

Code	Name	Code	Name
1	Drum motor (M0)	8	Horizontal registration motor (M15)
2	Main motor (M1)	9	Duplex reversal motor (M11)
3	Pickup motor (M2)	10	duplex feed motor (M12)
4	Fixing motor (M3)	11	deck main motor (M101)
5	Laser scanner motor (M4)	12	vibration motor 1 (M10)
6	Inside cartridge toner feed motor (M6)	13	vibration motor 2 (M20)
7	Inside hopper toner feed motor (M18)		

T-17-115

Code	Name	Code	Name
1	deck (right) pickup solenoid (SL7)	8	reversal flapper solenoid (SL11)
2	deck (left) pickup solenoid (SL8)	9	fixing web solenoid (SL2)
3	cassette 3 pickup solenoid (SL9)	10	fixing feed unit lock solenoid (SL4)locked
4	cassette 4 pickup solenoid (SL10)	11	fixing feed unit lock solenoid (SL4)released
5	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves up.	12	Not-used
6	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves down	13	side paper deck pickup solenoid
7	delivery flapper solenoid (SL3)	14	Not-used

<CLEAR>

T-17-116

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
ERR	Clearing an error code (Object error code: E000/E001/E002/E003)	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
DC-CON	Clearing RAM on the DC controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
R-CON	Clearing RAM on the reader controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
JAM-HIST	Clearing the jam history The jam history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ERR-HIST	Clearing the error history The error history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
PWD-CLR	Clearing the password of the system administrator set in user mode The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ADRS-BK	Clearing the address book on the reader controller circuit board The address book is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CNT-MCON	Clearing the service counter incremented by the main controller circuit board The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
CNT-DCON	Clearing a service counter incremented by the DC controller circuit board The password is cleared when the OK key is pressed. This applies to SORT, FIN-STPR, SADDLE, and SDL-STPL under COPIER>COUNTER>DRBL-2.	1
	<Operating procedure> 1) Select this item and press the OK key.	
MMI	Clearing the following settings in User mode - Backup data (user-defined values) for copy operations - Backup data (user-defined values) of common settings - Various backup data (user-defined values), excluding fax The settings are cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
MN-CON	Clearing RAM on the main controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
CARD	Clearing the card ID (department) related data The card ID related data is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
ALARM	Clearing the alarm log The alarm log is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
SLT-CLR	Clearing the salutation setting	1
	<Operating procedure> 1) Select this item and press the OK key.	

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
SND-STUP	Clearing the send-read settings The send-read settings are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CA-KEY	Clearing the CA certificate and key pair The CA certificate and key pair are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

<MISC-R>

T-17-117

COPIER > FUNCTION > MISC-R		
Sub-item	**Description**	**Level**
SCANLAMP	Lighting the LED lamp (for document lighting)	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. The LED lamp (for document lighting) is lit for three seconds.	

<MISC-P>

T-17-118

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
P-PRINT	Printing out the service mode settings	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
USER-PRT	Printing out the user mode list	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
LBL-PRNT	Printing out the service label	1
	<Operating procedure> 1) Load A4 or LTR paper on Cassette 1. 2) Select this item. 3) Press the OK key to start printing.	
PRE-EXP	Checking the pre-exposure lamp (LED)	1
	<Operating procedure> 1) Press this item to reverse its display. 2) Press the OK key. After executing each operation for several seconds, the machine stops automatically. (All lit) 3) Press the OK key to start printing. **Reference** If the lighting of the pre-exposure lamp gives a problem to the photoconductor drum, rotate the drum.	
KEY-HIST	Printing out the operating section key input history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
HIST-PRT	Printing out the jam history and error history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
TRS-DATA	Transferring memory received data to the box	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start data transfer.	

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
P-TR-EXP	Use it to check the activation of the pre-transfer exposure lamp.	2
	<Using the Mode> 1) Select the item, and press the OK key. - The pre-transfer exposure lamp goes ON. 2) See that the pre-transfer exposure lamp remains ON for several seconds and go OFF automatically.	
CL-ADJ	changes the timing at which the clutch goes on/off.	2

<SENS-ADJ>

T-17-119

COPIER > FUNCTION > SENS-ADJ		
Sub-item	**Description**	**Level**
OP-SENS	Use it to adjust optical sensor.	2
	<Using the Mode> 1) Check to make sure that paper is found in all paper cassettes. 2) Select the item, and press the OK key. 3) See that the machine indicates 'ACTIVE' during adjustment and 'OK' when the sensor is normal; otherwise, it will indicate 'NG'.	

<SYSTEM>

T-17-120

COPIER > FUNCTION > SYSTEM		
Sub-item	**Description**	**Level**
DOWNLOAD	Switching to Download mode	1
	<Operating procedure> 1) Select this item. 2) Press the OK button to enter Download mode.	
CHK-TYPE	Specifying a partition number for executing HD-CHECK and HD-CLEAR	1
	<Operating procedure> 1) Select this item. 2) Select a partition number with the ten-key pad. 0: Entire HDD (*1, *2) 1: Image accumulation area 2: General-purpose file (user-defined data/various log data/PDL spool data/image data management information) storage area 3: PDL-related file storage area 4: Firmware storage area (*1, *2) 5: MEAP area 6: Address book area (*1) *1: Initialization in HD-CLEAR is not allowed. *2: Initialization in SST is possible.	
HD-CHECK	Checking and restoring the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. 3) The result (1:OK, 2:NG (hardware), 3:NG (software) restored/alternative sector) is displayed.	
HD-CLEAR	Initializing the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key.	

17.5.1.2 Copier List

0008-7965

/ iR8070

<INSTALL>

T-17-121

COPIER > FUNCTION > INSTALL		
Sub-item	**Description**	**Level**
TONER-S	Stirring toner in the developer at installation	1
	<Operating procedure> 1. Select an item to reverse its display. 2. "Check the Developer" is displayed. Check that the developer connector is connected. 3. Press the OK key to start operation. The operation automatically stops after count-down. **<Reference>** "Check the Developer" is displayed to prevent the connector from being disconnected when the developer is replaced. Therefore, this message is not necessary when the machine is shipped with the developer for installation.	
STRD-POS	Automatically adjusting the CCD read position at flow read - This is necessary when DF is installed and when ADF is removed and mounted again.	1
	<Operating procedure> 1) Select an item to reverse its display. Then press the OK key. - Adjustment automatically starts and stops. 2) Since the value is updated in the service mode, COPIER>ADJUST>ADJ-XY>STRD-POSenter the value into the service label.	
CARD	Installing and setting the card reader	1
	<Operating procedure> Enter the card number (1 to 2001) and press the OK key. (One thousand cards can be used from the input card number.) Then the card management information (department ID and PIN) is initialized.	
E-RDS	Reserved for future.	1
RGW-PORT	Reserved for future.	1
COM-TEST	Reserved for future.	1
COM-LOG	Reserved for future.	1
RGW-ADR	Reserved for future.	1

<CCD>

T-17-122

COPIER > FUNCTION > CCD		
Sub-item	**Description**	**Level**
CCD-ADJ	Automatically adjusting CCD	1
	<Operating procedure> 1) Place about 10 or more sheets of standard white paper (whitest paper used by the user, excluding color print paper) on the document table. 2) Select <CCD-ADJ> to reverse its display. Then press the OK key. 3) Adjustment is executed automatically (about 15 seconds). During adjustment, <ACTIVE> is displayed at the upper right of the screen. 4) The LED lamp (for document lighting) lights twice and the automatic adjustment ends with <OK> displayed on the screen. 5) Since all items are updated in this service mode (COPIER>ADJUST>CCD), enter the values into the service label. 	

COPIER > FUNCTION > CCD		
Sub-item	**Description**	**Level**
SHDG-POS	Use it to enter data for changing the position of measurement on the standard white plate used for shading correction.	1
	<Setting range> 216 to 296 (a multiple of 8 causes a shift of about 0.189 mm) ⚠ - If dirt is found on the copyboard glass, execute this mode to avoid the area when reading the standard white plate. - You must execute the following if you have changed the setting: COPIER>FUNCTION>CCD>SH-PS-ST.	
SH-PS-ST	Use it to execute optimum position auto adjustment for the standard white plate for shading correction.	1
	⚠ - You must execute COPIER>FUNCTION>CCD>CCD-ADJ before executing this move. - Execute this mode if you have replaced the copyboard glass (standard white plate) or a white line is noted in halftone areas. Using the Mode 1)Clean the back of the copyboard glass. 2)Open the ADF (copyboard cover). 3)Select <SH-PS-ST> to highlight, and press the OK key. 4)The machine executes automatic adjustment (about 10 sec). 5)When done, the machine stops automatically indicating the result (OK/NG). - If 'NG' is indicated, perform the following, and execute the mode once again: a.Is the ADF (copyboard cover) open? b.Is the copyboard glass mounted correctly? c.Is the standard white plate (attached to the copyboard glass) normal? d.Does the scanning lamp go ON? 6)The items under COPIER>ADJUST>ADJ-XY and ADJ-S are updated. Record the new settings on the service label.	
EGGN-POS	Use it to execute auto adjustment for the edge gain correction position for the CCD. (The CCD edge gain correction mechanism is effective only when an ADF is in use.)	1
	⚠ - If the CCD unit has been replaced, be sure to execute the following in advance: COPIER>FUNCTION>CCD>CCD-ADJ. - If the CCD unit, No. 1 mirror mount, or No. 2 mirror mount has been replaced, execute this mode. Using the Mode 1)Open the ADF (copyboard cover; be sure to do so). 2)Select the item, and press the OK key. 3)Wait until auto adjustment ends (about 1 sec). 4)See that auto adjustment ends automatically and the results (OK/NG) are displayed. - If NG is indicated, check the following, and execute adjustment once a.Is the ADF (copyboard cover) open? b.Is the reading glass mounted correctly? c.Is the edge gain correcting plate attached to the reading glass normal? d.Is the scanning lamp on? 5)When the following has been updated, enter the new settings: COPIER>ADJUST>CCD-EGGN-ST and -EGGN-END.	

<LASER>

T-17-123

COPIER > FUNCTION > LASER		
Sub-item	**Description**	**Level**
POWER-A	Use it to turn on the laser A.	1
	<Using the Mode> 1) Select <POWER-A> to highlight, and press the OK key. 2) See that the laser goes ON, and the display indicates 'Start -> ACTIVE' (flashing); the upper right of the screen indicates <SERVICE>. 3) See that the message goes OFF automatically in about 60 sec, and the display indicates 'OK!'.	
POWER-B	Use it to turn on the laser B.	1
	<Using the Mode> 1) See the instructions under POWER-A.	

<DPC>

T-17-124

COPIER > FUNCTION > DPC		
Sub-item	**Description**	**Level**
OFST	Use it to execute offset adjustment of the potential sensor.	1
	⚠This mode is part of the procedure to be performed when replacing the potential sensor unit; do not execute it on its own. <Using the Mode> 1) Select the item, and press the OK key. 2) See that the machine automatically stops after offset adjustment.	

<CST>

T-17-125

COPIER > FUNCTION > CST		
Sub-item	**Description**	**Level**
Use it to execute size auto adjustment for the cassette/manual feed tray.		
C3-STMTR C3-A4R C4-STMTR C4-A4R	Use it to register a paper width basic value for the cassette 3/4. STMTR width: 139.5 mm, A4R width: 210 mm	1
	To make find adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>C3-STMTR, C3-A4R, C4-STMTR, C4-A4R. <Using the Mode> 1) Place STMTR paper in the cassette, and see the side guide plate to STMTR width. 2) Select C3-STMTR (C4-STMTR), and press the OK key. - The machine performs auto adjustment and stores the value. 3) Likewise, repeat steps 1) and 2) to enter a basic value.	
MF-A4R MF-A6R MF-A4	Use it to enter a paper width basic value for the manual feed tray. A4R width: 210 mm, A6R width: 105 mm, A4 width: 297 mm	1
	To make fine adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>MF-A4R, MF-A6R, MF-A4. <Using the Mode> 1) Place A4R paper in the manual feed tray, and set the side guide to A4R width. 2) Select MF-A4R, and press the OK key. - The machine performs auto adjustment and registers the value. 3) Likewise, repeat steps 1) and 2) for A6R and A4.	

<CLEANING>

T-17-126

COPIER > FUNCTION > CLEANING		
Sub-item	**Description**	**Level**
WIRE-CLN	Use it to execute auto cleaning of the charging wire 5 tines continuously (round trip).	1
	⚠If you have replaced the primary charging wire or the transfer charg-ing wire, be sure to execute this mode. **<Using the Mode>** 1) Select the item, and press the OK key. 2) See that the machine performs auto cleaning of the charging wire 5 times continuously. 3) See that the machine automatically stops after cleaning.	

<FIXING>

T-17-127

COPIER > FUNCTION > FIXING		
Sub-item	**Description**	**Level**
NIP-CHK	Use it to generate output for measuring the fixing nip width.	1
	<Using the Item> 1) Make about 20 A4 prints using the test sheet. 2) Place A4 paper in the tray. 3) Select the item to highlight, and press the OK key. - The paper will be picked up and is stopped between the fixing rollers once, and then will be delivered in about 20 sec. 4) Measure the width of the area shaded in the figure. a and b are measurements at 10 mm from either edge of paper.	

<PANEL>

T-17-128

COPIER > FUNCTION > PANEL		
Sub-item	**Description**	**Level**
LCD-CHK	Checking the LCD display for missing dots	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The front of the panel lights repeatedly in order of white, black, red, green, and blue. (Check this lighting.) 2) Press the Stop key to terminate the operation.	
LED-CHK	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The LED lamps light sequentially. 2) Press LED-OFF to terminate the operation.	
LED-OFF	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item to terminate LED-CHK operation.	
KEY-CHK	Checking key input	1
	<Operating procedure> 1) Select KEY-CHK to display the input key numbers and names. 2) Press a key to check. If the key is normal, the touchpanel displays the corresponding key. (See the attached table.) 3) Select KEY-CHK again to exit from key input check.	
TOUCHCHK	Adjusting the coordinate positions on the analog touchpanel	1
	<Operating procedure> - Align the press positions on the touchpanel and the coordinate positions on the LCD section. - If the LCD section has been replaced, execute this service mode. 1) Select TOUCHCHK to reverse its display. Then press the OK key. 2) Press sequentially the nine positive signs (+) that appear on the touchpanel in order.	

<Input Key Numbers and Names>

T-17-129

Key	**Screen Display**
0 to 9, #, and *	0 to 9, #, and *
Reset	RESET
Stop	STOP
User Mode	USER

Key	Screen Display
Start	START
Clear	CLEAR
PIN	ID
Help	?
Counter Check	BILL

<PART-CHK>

T-17-130

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
CL	Specifying a clutch to check its operation (Range: 1 to 21)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the clutch from the ten-key pad. 3) Press the OK key. 4) Press CL-ON to check its operation.	
CL-ON	Starting the clutch operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON ->10-second OFF -> 0.5-second ON -> 10-second OFF -> 0.5-second ON -> OFF	
MTR	Specifying a motor to check its operation (Range: 1 to 11)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the motor from the ten-key pad. 3) Press the OK key. 4) Press MTR-ON to check its operation.	
MTR-ON	Starting the motor operation check	1
	<Operating procedure> 1) Select the item, and press the OK key. - 20 sec ON -> OFF - for hopper and duplex horizontal registration motor, 10 sec ON -> OFF - for shift tray motor, stops at front/rear HP	
SL	Specifying a solenoid to check its operation (Range: 1 to 13)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the solenoid from the ten-key pad. 3) Press the OK key. 4) Press SOL-ON to check its operation.	
SL-ON	Starting the solenoid operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON -> 5-second OFF -> 0.5-second ON -> 5-second OFF -> 0.5-second ON -> OFF	

T-17-131

Code	Name	Code	Name
1	manual feed tray pickup clutch (CL7)	12	lower feeder right clutch (CL17)
2	cassette 3 pickup clutch (CL12)	13	deck (left) feed clutch (CL19)
3	vertical path 3 clutch (CL13)	14	delivery speed switch-over clutch (CL21)
4	cassette 4 pickup clutch (CL14)	15	registration brake clutch (CL3)
5	vertical path 4 clutch (CL15)	16	manual feed tray feed clutch (CL18)
6	deck (right) pickup clutch (CL10)	17	inside hopper magnet roller drive clutch (CL1)
7	vertical path 1 clutch (CL8)	18	developing sleeve clutch (CL4)
8	deck (left) pickup clutch (CL11)	19	registration clutch (CL2)
9	vertical path 2 clutch (CL9)	20	side paper deck feed clutch (CL101)
10	pre-registration clutch (CL5)	21	side paper deck pickup clutch (CL102)
11	lower feeder middle cutch (CL6)		

T-17-132

Code	Name	Code	Name
1	Drum motor (M0)	8	Horizontal registration motor (M15)
2	Main motor (M1)	9	Duplex reversal motor (M11)
3	Pickup motor (M2)	10	duplex feed motor (M12)
4	Fixing motor (M3)	11	deck main motor (M101)
5	Laser scanner motor (M4)		
6	Inside cartridge toner feed motor (M6)		
7	Inside hopper toner feed motor (M18)		

T-17-133

Code	Name	Code	Name
1	deck (right) pickup solenoid (SL7)	8	reversal flapper solenoid (SL11)
2	deck (left) pickup solenoid (SL8)	9	fixing web solenoid (SL2)
3	cassette 3 pickup solenoid (SL9)	10	fixing feed unit lock solenoid (SL4)locked
4	cassette 4 pickup solenoid (SL10)	11	fixing feed unit lock solenoid (SL4)released
5	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves up.	12	Not-used
6	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves down	13	side paper deck pickup solenoid
7	delivery flapper solenoid (SL3)		

<CLEAR>

T-17-134

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
ERR	Clearing an error code (Object error code: E000/E001/E002/E003)	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
DC-CON	Clearing RAM on the DC controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
R-CON	Clearing RAM on the reader controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
JAM-HIST	Clearing the jam history The jam history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ERR-HIST	Clearing the error history The error history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
PWD-CLR	Clearing the password of the system administrator set in user mode The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ADRS-BK	Clearing the address book on the reader controller circuit board The address book is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
CNT-MCON	Clearing the service counter incremented by the main controller circuit board The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
CNT-DCON	Clearing a service counter incremented by the DC controller circuit board The password is cleared when the OK key is pressed. This applies to SORT, FIN-STPR, SADDLE, and SDL-STPL under COPIER>COUNTER>DRBL-2.	1
	<Operating procedure> 1) Select this item and press the OK key.	
MMI	Clearing the following settings in User mode - Backup data (user-defined values) for copy operations - Backup data (user-defined values) of common settings - Various backup data (user-defined values), excluding fax The settings are cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
MN-CON	Clearing RAM on the main controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
CARD	Clearing the card ID (department) related data The card ID related data is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
ALARM	Clearing the alarm log The alarm log is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
SND-STUP	Clearing the send-read settings The send-read settings are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CA-KEY	Clearing the CA certificate and key pair The CA certificate and key pair are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

<MISC-R>

T-17-135

COPIER > FUNCTION > MISC-R		
Sub-item	**Description**	**Level**
SCANLAMP	Lighting the LED lamp (for document lighting)	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. The LED lamp (for document lighting) is lit for three seconds.	

<MISC-P>

T-17-136

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
P-PRINT	Printing out the service mode settings	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
USER-PRT	Printing out the user mode list	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
LBL-PRNT	Printing out the service label	1
	<Operating procedure> 1) Load A4 or LTR paper on Cassette 1. 2) Select this item. 3) Press the OK key to start printing.	
PRE-EXP	Checking the pre-exposure lamp (LED)	1
	<Operating procedure> 1) Press this item to reverse its display. 2) Press the OK key. After executing each operation for several seconds, the machine stops automatically. (All lit) 3) Press the OK key to start printing. **Reference** If the lighting of the pre-exposure lamp gives a problem to the photoconductor drum, rotate the drum.	
KEY-HIST	Printing out the operating section key input history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
HIST-PRT	Printing out the jam history and error history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
TRS-DATA	Transferring memory received data to the box	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start data transfer.	
P-TR-EXP	Use it to check the activation of the pre-transfer exposure lamp.	2
	<Using the Mode> 1) Select the item, and press the OK key. - The pre-transfer exposure lamp goes ON. 2) See that the pre-transfer exposure lamp remains ON for several seconds and go OFF automatically.	

<SYSTEM>

T-17-137

COPIER > FUNCTION > SYSTEM		
Sub-item	**Description**	**Level**
DOWNLOAD	Switching to Download mode	1
	<Operating procedure> 1) Select this item. 2) Press the OK button to enter Download mode.	
CHK-TYPE	Specifying a partition number for executing HD-CHECK and HD-CLEAR	1
	<Operating procedure> 1) Select this item. 2) Select a partition number with the ten-key pad. 0: Entire HDD (*1, *2) 1: Image accumulation area 2: General-purpose file (user-defined data/various log data/PDL spool data/image data management information) storage area 3: PDL-related file storage area 4: Firmware storage area (*1, *2) 5: MEAP area 6: Address book area (*1) *1: Initialization in HD-CLEAR is not allowed. *2: Initialization in SST is possible.	

COPIER > FUNCTION > SYSTEM		
Sub-item	**Description**	**Level**
HD-CHECK	Checking and restoring the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. 3) The result (1:OK, 2:NG (hardware), 3:NG (software) restored/alternative sector) is displayed.	
HD-CLEAR	Initializing the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key.	

17.5.1.3 Copier List

0008-7966

iR85+

<INSTALL>

T-17-138

COPIER > FUNCTION > INSTALL		
Sub-item	**Description**	**Level**
TONER-S	Stirring toner in the developer at installation	1
	<Operating procedure> 1. Select an item to reverse its display. 2. "Check the Developer" is displayed. Check that the developer connector is connected. 3. Press the OK key to start operation. The operation automatically stops after count-down. **<Reference>** "Check the Developer" is displayed to prevent the connector from being disconnected when the developer is replaced. Therefore, this message is not necessary when the machine is shipped with the developer for installation.	
CARD	Installing and setting the card reader	1
	<Operating procedure> Enter the card number (1 to 2001) and press the OK key. (One thousand cards can be used from the input card number.) Then the card management information (department ID and PIN) is initialized.	
E-RDS	Reserved for future.	1
RGW-PORT	Reserved for future.	1
COM-TEST	Reserved for future.	1
COM-LOG	Reserved for future.	1
RGW-ADR	Reserved for future.	1

<LASER>

T-17-139

COPIER > FUNCTION > LASER		
Sub-item	**Description**	**Level**
POWER-A	Use it to turn on the laser A.	1
	<Using the Mode> 1) Select <POWER-A> to highlight, and press the OK key. 2) See that the laser goes ON, and the display indicates 'Start -> ACTIVE' (flashing); the upper right of the screen indicates <SERVICE>. 3) See that the message goes OFF automatically in about 60 sec, and the display indicates 'OK!'.	
POWER-B	Use it to turn on the laser B.	1
	<Using the Mode> 1) See the instructions under POWER-A.	

<DPC>

T-17-140

COPIER > FUNCTION > DPC		
Sub-item	**Description**	**Level**
OFST	Use it to execute offset adjustment of the potential sensor.	1
	⚠This mode is part of the procedure to be performed when replacing the potential sensor unit; do not execute it on its own. <Using the Mode> 1) Select the item, and press the OK key. 2) See that the machine automatically stops after offset adjustment.	

<CST>

T-17-141

COPIER > FUNCTION > CST		
Sub-item	**Description**	**Level**
Use it to execute size auto adjustment for the cassette/manual feed tray.		
C3-STMTR C3-A4R C4-STMTR C4-A4R	Use it to register a paper width basic value for the cassette 3/4. STMTR width: 139.5 mm, A4R width: 210 mm	1
	To make find adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>C3-STMTR, C3-A4R, C4-STMTR, C4-A4R. <Using the Mode> 1) Place STMTR paper in the cassette, and see the side guide plate to STMTR width. 2) Select C3-STMTR (C4-STMTR), and press the OK key. - The machine performs auto adjustment and stores the value. 3) Likewise, repeat steps 1) and 2) to enter a basic value.	
MF-A4R MF-A6R MF-A4	Use it to enter a paper width basic value for the manual feed tray. A4R width: 210 mm, A6R width: 105 mm, A4 width: 297 mm	1
	To make fine adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>MF-A4R, MF-A6R, MF-A4. <Using the Mode> 1) Place A4R paper in the manual feed tray, and set the side guide to A4R width. 2) Select MF-A4R, and press the OK key. - The machine performs auto adjustment and registers the value. 3) Likewise, repeat steps 1) and 2) for A6R and A4.	

<CLEANING>

T-17-142

COPIER > FUNCTION > CLEANING		
Sub-item	**Description**	**Level**
WIRE-CLN	Use it to execute auto cleaning of the charging wire 5 tines continuously (round trip).	1
	⚠If you have replaced the primary charging wire or the transfer charg-ing wire, be sure to execute this mode. **<Using the Mode>** 1) Select the item, and press the OK key. 2) See that the machine performs auto cleaning of the charging wire 5 times continuously. 3) See that the machine automatically stops after cleaning.	

<FIXING>

T-17-143

COPIER > FUNCTION > FIXING		
Sub-item	**Description**	**Level**
NIP-CHK	Use it to generate output for measuring the fixing nip width.	1
	<Using the Item> 1) Make about 20 A4 prints using the test sheet. 2) Place A4 paper in the tray. 3) Select the item to highlight, and press the OK key. - The paper will be picked up and is stopped between the fixing rollers once, and then will be delivered in about 20 sec. 4) Measure the width of the area shaded in the figure. a and b are measurements at 10 mm from either edge of paper.	

<PANEL>

T-17-144

COPIER > FUNCTION > PANEL		
Sub-item	**Description**	**Level**
LCD-CHK	Checking the LCD display for missing dots	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The front of the panel lights repeatedly in order of white, black, red, green, and blue. (Check this lighting.) 2) Press the Stop key to terminate the operation.	
LED-CHK	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The LED lamps light sequentially. 2) Press LED-OFF to terminate the operation.	
LED-OFF	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item to terminate LED-CHK operation.	
KEY-CHK	Checking key input	1
	<Operating procedure> 1) Select KEY-CHK to display the input key numbers and names. 2) Press a key to check. If the key is normal, the touchpanel displays the corresponding key. (See the attached table.) 3) Select KEY-CHK again to exit from key input check.	
TOUCHCHK	Adjusting the coordinate positions on the analog touchpanel	1
	<Operating procedure> - Align the press positions on the touchpanel and the coordinate positions on the LCD section. - If the LCD section has been replaced, execute this service mode. 1) Select TOUCHCHK to reverse its display. Then press the OK key. 2) Press sequentially the nine positive signs (+) that appear on the touchpanel in order.	

<Input Key Numbers and Names>

T-17-145

Key	Screen Display
0 to 9, #, and *	0 to 9, #, and *
Reset	RESET
Stop	STOP
User Mode	USER

Key	Screen Display
Start	START
Clear	CLEAR
PIN	ID
Help	?
Counter Check	BILL

<PART-CHK>

T-17-146

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
CL	Specifying a clutch to check its operation (Range: 1 to 21)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the clutch from the ten-key pad. 3) Press the OK key. 4) Press CL-ON to check its operation.	
CL-ON	Starting the clutch operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON ->10-second OFF -> 0.5-second ON -> 10-second OFF -> 0.5-second ON -> OFF	
MTR	Specifying a motor to check its operation (Range: 1 to 11)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the motor from the ten-key pad. 3) Press the OK key. 4) Press MTR-ON to check its operation.	
MTR-ON	Starting the motor operation check	1
	<Operating procedure> 1) Select the item, and press the OK key. - 20 sec ON -> OFF - for hopper and duplex horizontal registration motor, 10 sec ON -> OFF - for shift tray motor, stops at front/rear HP	
SL	Specifying a solenoid to check its operation (Range: 1 to 13)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the solenoid from the ten-key pad. 3) Press the OK key. 4) Press SOL-ON to check its operation.	
SL-ON	Starting the solenoid operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON -> 5-second OFF -> 0.5-second ON -> 5-second OFF -> 0.5-second ON -> OFF	

T-17-147

Code	Name	Code	Name
1	manual feed tray pickup clutch (CL7)	12	lower feeder right clutch (CL17)
2	cassette 3 pickup clutch (CL12)	13	deck (left) feed clutch (CL19)
3	vertical path 3 clutch (CL13)	14	delivery speed switch-over clutch (CL21)
4	cassette 4 pickup clutch (CL14)	15	registration brake clutch (CL3)
5	vertical path 4 clutch (CL15)	16	manual feed tray feed clutch (CL18)
6	deck (right) pickup clutch (CL10)	17	inside hopper magnet roller drive clutch (CL1)
7	vertical path 1 clutch (CL8)	18	developing sleeve clutch (CL4)
8	deck (left) pickup clutch (CL11)	19	registration clutch (CL2)
9	vertical path 2 clutch (CL9)	20	side paper deck feed clutch (CL101)
10	pre-registration clutch (CL5)	21	side paper deck pickup clutch (CL102)
11	lower feeder middle cutch (CL6)		

T-17-148

Code	Name	Code	Name
1	Drum motor (M0)	8	Horizontal registration motor (M15)
2	Main motor (M1)	9	Duplex reversal motor (M11)
3	Pickup motor (M2)	10	duplex feed motor (M12)
4	Fixing motor (M3)	11	deck main motor (M101)
5	Laser scanner motor (M4)		
6	Inside cartridge toner feed motor (M6)		
7	Inside hopper toner feed motor (M18)		

T-17-149

Code	Name	Code	Name
1	deck (right) pickup solenoid (SL7)	8	reversal flapper solenoid (SL11)
2	deck (left) pickup solenoid (SL8)	9	fixing web solenoid (SL2)
3	cassette 3 pickup solenoid (SL9)	10	fixing feed unit lock solenoid (SL4)locked
4	cassette 4 pickup solenoid (SL10)	11	fixing feed unit lock solenoid (SL4)released
5	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves up.	12	Not-used
6	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves down	13	side paper deck pickup solenoid
7	delivery flapper solenoid (SL3)		

<CLEAR>

T-17-150

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
ERR	Clearing an error code **<Operating procedure>** 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	1
DC-CON	Clearing RAM on the DC controller circuit board The RAM is cleared when the main power switch is turned OFF and ON. **<Operating procedure>** 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	1
JAM-HIST	Clearing the jam history The jam history is cleared when the OK key is pressed. **<Operating procedure>** 1) Select this item and press the OK key.	1
ERR-HIST	Clearing the error history The error history is cleared when the OK key is pressed. **<Operating procedure>** 1) Select this item and press the OK key.	1
PWD-CLR	Clearing the password of the system administrator set in user mode The password is cleared when the OK key is pressed. **<Operating procedure>** 1) Select this item and press the OK key.	1
ADRS-BK	Clearing the address book on the reader controller circuit board The address book is cleared when the main power switch is turned OFF and ON. **<Operating procedure>** 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	1
CNT-MCON	Clearing the service counter incremented by the main controller circuit board The password is cleared when the OK key is pressed. **<Operating procedure>** 1) Select this item and press the OK key.	1
CNT-DCON	Clearing a service counter incremented by the DC controller circuit board The password is cleared when the OK key is pressed. This applies to SORT, FIN-STPR, SADDLE, and SDL-STPL under COPIER>COUNTER>DRBL-2. **<Operating procedure>** 1) Select this item and press the OK key.	1

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
MMI	Clearing the following settings in User mode - Backup data (user-defined values) of common settings - Various backup data (user-defined values), excluding fax The settings are cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
MN-CON	Clearing RAM on the main controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
CARD	Clearing the card ID (department) related data The card ID related data is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
ALARM	Clearing the alarm log The alarm log is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
SND-STUP	Clearing the send-read settings The send-read settings are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CA-KEY	Clearing the CA certificate and key pair The CA certificate and key pair are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

<MISC-P>

T-17-151

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
P-PRINT	Printing out the service mode settings	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
USER-PRT	Printing out the user mode list	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
LBL-PRNT	Printing out the service label	1
	<Operating procedure> 1) Load A4 or LTR paper on Cassette 1. 2) Select this item. 3) Press the OK key to start printing.	
PRE-EXP	Checking the pre-exposure lamp (LED)	1
	<Operating procedure> 1) Press this item to reverse its display. 2) Press the OK key. After executing each operation for several seconds, the machine stops automatically. (All lit) 3) Press the OK key to start printing. **Reference** If the lighting of the pre-exposure lamp gives a problem to the photoconductor drum, rotate the drum.	
KEY-HIST	Printing out the operating section key input history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
HIST-PRT	Printing out the jam history and error history **<Operating procedure>** 1) Select this item. 2) Press the OK key to start printing.	2
TRS-DATA	Transferring memory received data to the box **<Operating procedure>** 1) Select this item. 2) Press the OK key to start data transfer.	2
P-TR-EXP	Use it to check the activation of the pre-transfer exposure lamp. **<Using the Mode>** 1) Select the item, and press the OK key. - The pre-transfer exposure lamp goes ON. 2) See that the pre-transfer exposure lamp remains ON for several seconds and go OFF automatically.	2

<SYSTEM>

T-17-152

COPIER > FUNCTION > SYSTEM		
Sub-item	**Description**	**Level**
DOWNLOAD	Switching to Download mode **<Operating procedure>** 1) Select this item. 2) Press the OK button to enter Download mode.	1
CHK-TYPE	Specifying a partition number for executing HD-CHECK and HD-CLEAR **<Operating procedure>** 1) Select this item. 2) Select a partition number with the ten-key pad. 0: Entire HDD (*1, *2) 1: Image accumulation area 2: General-purpose file (user-defined data/various log data/PDL spool data/image data management information) storage area 3: PDL-related file storage area 4: Firmware storage area (*1, *2) 5: MEAP area 6: Address book area (*1) *1: Initialization in HD-CLEAR is not allowed. *2: Initialization in SST is possible.	1
HD-CHECK	Checking and restoring the partition specified by CHK-TYPE **<Operating procedure>** 1) Select this item. 2) Press the OK key. 3) The result (1:OK, 2:NG (hardware), 3:NG (software) restored/alternative sector) is displayed.	1
HD-CLEAR	Initializing the partition specified by CHK-TYPE **<Operating procedure>** 1) Select this item. 2) Press the OK key.	1

17.5.1.4 Copier List

0008-7968

<INSTALL>

T-17-153

COPIER > FUNCTION > INSTALL		
Sub-item	**Description**	**Level**
TONER-S	Stirring toner in the developer at installation	1
	<Operating procedure> 1. Select an item to reverse its display. 2. "Check the Developer" is displayed. Check that the developer connector is connected. 3. Press the OK key to start operation. The operation automatically stops after count-down. **<Reference>** "Check the Developer" is displayed to prevent the connector from being disconnected when the developer is replaced. Therefore, this message is not necessary when the machine is shipped with the developer for installation.	
CARD	Installing and setting the card reader	1
	<Operating procedure> Enter the card number (1 to 2001) and press the OK key. (One thousand cards can be used from the input card number.) Then the card management information (department ID and PIN) is initialized.	
E-RDS	Reserved for future.	1
RGW-PORT	Reserved for future.	1
COM-TEST	Reserved for future.	1
COM-LOG	Reserved for future.	1
RGW-ADR	Reserved for future.	1

<CCD>

T-17-154

COPIER > FUNCTION > CCD		
Sub-item	**Description**	**Level**
CCD-ADJ	Automatically adjusting CCD	1
	<Operating procedure> 1) Place about 10 or more sheets of standard white paper (whitest paper used by the user, excluding color print paper) on the document table. 2) Select <CCD-ADJ> to reverse its display. Then press the OK key. 3) Adjustment is executed automatically (about 15 seconds). During adjustment, <ACTIVE> is displayed at the upper right of the screen. 4) The LED lamp (for document lighting) lights twice and the automatic adjustment ends with <OK> displayed on the screen. 5) Since all items are updated in this service mode (COPIER>ADJUST>CCD), enter the values into the service label. 	
LUT-ADJ	Use it to execute CCD gain simplified correction.	1
	MEMO: - After executing CCD-ADJ, execute this mode to adjust the density along the middle of images. - Be sure to execute CCD-ADJ before executing this mode. **<Using the Mode>** 1) Select the item, and press the OK key. 2) Execute auto adjustment. 3) See that the machine automatically stops after adjustment. 4) All items under the following are updated; print out a service sheet, and store it away: COPIER> ADJUST> LAMP, COPIER> ADJUST> CCD.	

COPIER > FUNCTION > CCD		
Sub-item	**Description**	**Level**
LUT-ADJ2	Use it to execute CCD gain detail correction.	2
	- If the density is not corrected using LUT-ADJ (CCD gain simplified correction), execute this mode using the 10-gradation chart. **<Using the Mode>** 1) As shown, place the 10-gradation chart (D-10 Test Sheet) on the copyboard glass. 2) Select the item, and press the OK key. 3) See that the machine executes auto adjustment. 4) See that the machine stops automatically after adjustment. 5) All items under the following are updated; print out a service sheet, and store it away: COPIER> ADJUST> LAMP, COPIER> ADJUST> CCD. 	

<LASER>

T-17-155

COPIER > FUNCTION > LASER		
Sub-item	**Description**	**Level**
POWER-A	Use it to turn on the laser A.	1
	<Using the Mode> 1) Select <POWER-A> to highlight, and press the OK key. 2) See that the laser goes ON, and the display indicates 'Start -> ACTIVE' (flashing); the upper right of the screen indicates <SERVICE>. 3) See that the message goes OFF automatically in about 60 sec, and the display indicates 'OK!'.	
POWER-B	Use it to turn on the laser B.	1
	<Using the Mode> 1) See the instructions under POWER-A.	

<DPC>

T-17-156

COPIER > FUNCTION > DPC		
Sub-item	**Description**	**Level**
OFST	Use it to execute offset adjustment of the potential sensor.	1
	⚠This mode is part of the procedure to be performed when replacing the potential sensor unit; do not execute it on its own. <Using the Mode> 1) Select the item, and press the OK key. 2) See that the machine automatically stops after offset adjustment.	

<CST>

T-17-157

COPIER > FUNCTION > CST		
Sub-item	**Description**	**Level**
Use it to execute size auto adjustment for the cassette/manual feed tray.		

COPIER > FUNCTION > CST		
Sub-item	**Description**	**Level**
C3-STMTR C3-A4R C4-STMTR C4-A4R	Use it to register a paper width basic value for the cassette 3/4. STMTR width: 139.5 mm, A4R width: 210 mm	1
	To make find adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>C3-STMTR, C3-A4R, C4-STMTR, C4-A4R. <Using the Mode> 1) Place STMTR paper in the cassette, and see the side guide plate to STMTR width. 2) Select C3-STMTR (C4-STMTR), and press the OK key. - The machine performs auto adjustment and stores the value. 3) Likewise, repeat steps 1) and 2) to enter a basic value.	
MF-A4R MF-A6R MF-A4	Use it to enter a paper width basic value for the manual feed tray. A4R width: 210 mm, A6R width: 105 mm, A4 width: 297 mm	1
	To make fine adjustments after registering the basic value, execute the following: ADJUST>CST-ADJ>MF-A4R, MF-A6R, MF-A4. <Using the Mode> 1) Place A4R paper in the manual feed tray, and set the side guide to A4R width. 2) Select MF-A4R, and press the OK key. - The machine performs auto adjustment and registers the value. 3) Likewise, repeat steps 1) and 2) for A6R and A4.	

<CLEANING>

T-17-158

COPIER > FUNCTION > CLEANING		
Sub-item	**Description**	**Level**
WIRE-CLN	Use it to execute auto cleaning of the charging wire 5 tines continuously (round trip).	1
	⚠ If you have replaced the primary charging wire or the transfer charg-ing wire, be sure to execute this mode. **<Using the Mode>** 1) Select the item, and press the OK key. 2) See that the machine performs auto cleaning of the charging wire 5 times continuously. 3) See that the machine automatically stops after cleaning.	

<FIXING>

T-17-159

COPIER > FUNCTION > FIXING		
Sub-item	**Description**	**Level**
NIP-CHK	Use it to generate output for measuring the fixing nip width.	1
	<Using the Item> 1) Make about 20 A4 prints using the test sheet. 2) Place A4 paper in the tray. 3) Select the item to highlight, and press the OK key. - The paper will be picked up and is stopped between the fixing rollers once, and then will be delivered in about 20 sec. 4) Measure the width of the area shaded in the figure. ⚠ a and b are measurements at 10 mm from either edge of paper.	

<PANEL>

T-17-160

COPIER > FUNCTION > PANEL		
Sub-item	**Description**	**Level**
LCD-CHK	Checking the LCD display for missing dots	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The front of the panel lights repeatedly in order of white, black, red, green, and blue. (Check this lighting.) 2) Press the Stop key to terminate the operation.	
LED-CHK	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item and press the OK key to start operation. The LED lamps light sequentially. 2) Press LED-OFF to terminate the operation.	
LED-OFF	Checking LED lighting in the operating section	1
	<Operating procedure> 1) Select this item to terminate LED-CHK operation.	
KEY-CHK	Checking key input	1
	<Operating procedure> 1) Select KEY-CHK to display the input key numbers and names. 2) Press a key to check. If the key is normal, the touchpanel displays the corresponding key. (See the attached table.) 3) Select KEY-CHK again to exit from key input check.	
TOUCHCHK	Adjusting the coordinate positions on the analog touchpanel	1
	<Operating procedure> - Align the press positions on the touchpanel and the coordinate positions on the LCD section. - If the LCD section has been replaced, execute this service mode. 1) Select TOUCHCHK to reverse its display. Then press the OK key. 2) Press sequentially the nine positive signs (+) that appear on the touchpanel in order.	

<Input Key Numbers and Names>

T-17-161

Key	Screen Display
0 to 9, #, and *	0 to 9, #, and *
Reset	RESET
Stop	STOP
User Mode	USER
Start	START
Clear	CLEAR
PIN	ID
Help	?
Counter Check	BILL

<PART-CHK>

T-17-162

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
CL	Specifying a clutch to check its operation (Range: 1 to 21)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the clutch from the ten-key pad. 3) Press the OK key. 4) Press CL-ON to check its operation.	
CL-ON	Starting the clutch operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON ->10-second OFF -> 0.5-second ON -> 10-second OFF -> 0.5-second ON -> OFF	

COPIER > FUNCTION > PART-CHK		
Sub-item	**Description**	**Level**
MTR	Specifying a motor to check its operation (Range: 1 to 11)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the motor from the ten-key pad. 3) Press the OK key. 4) Press MTR-ON to check its operation.	
MTR-ON	Starting the motor operation check	1
	<Operating procedure> 1) Select the item, and press the OK key. - 20 sec ON -> OFF - for hopper and duplex horizontal registration motor, 10 sec ON -> OFF - for shift tray motor, stops at front/rear HP	
SL	Specifying a solenoid to check its operation (Range: 1 to 13)	1
	<Operating procedure> 1) Select this item. 2) Enter the code of the solenoid from the ten-key pad. 3) Press the OK key. 4) Press SOL-ON to check its operation.	
SL-ON	Starting the solenoid operation check	1
	<Operating procedure> 1) Select this item and press the OK key to repeat ON and OFF in the following pattern: 0.5-second ON -> 5-second OFF -> 0.5-second ON -> 5-second OFF -> 0.5-second ON -> OFF	

T-17-163

Code	Name	Code	Name
1	manual feed tray pickup clutch (CL7)	12	lower feeder right clutch (CL17)
2	cassette 3 pickup clutch (CL12)	13	deck (left) feed clutch (CL19)
3	vertical path 3 clutch (CL13)	14	delivery speed switch-over clutch (CL21)
4	cassette 4 pickup clutch (CL14)	15	registration brake clutch (CL3)
5	vertical path 4 clutch (CL15)	16	manual feed tray feed clutch (CL18)
6	deck (right) pickup clutch (CL10)	17	inside hopper magnet roller drive clutch (CL1)
7	vertical path 1 clutch (CL8)	18	developing sleeve clutch (CL4)
8	deck (left) pickup clutch (CL11)	19	registration clutch (CL2)
9	vertical path 2 clutch (CL9)	20	side paper deck feed clutch (CL101)
10	pre-registration clutch (CL5)	21	side paper deck pickup clutch (CL102)
11	lower feeder middle cutch (CL6)		

T-17-164

Code	Name	Code	Name
1	Drum motor (M0)	8	Horizontal registration motor (M15)
2	Main motor (M1)	9	Duplex reversal motor (M11)
3	Pickup motor (M2)	10	duplex feed motor (M12)
4	Fixing motor (M3)	11	deck main motor (M101)
5	Laser scanner motor (M4)		
6	Inside cartridge toner feed motor (M6)		
7	Inside hopper toner feed motor (M18)		

T-17-165

Code	Name	Code	Name
1	deck (right) pickup solenoid (SL7)	8	reversal flapper solenoid (SL11)
2	deck (left) pickup solenoid (SL8)	9	fixing web solenoid (SL2)
3	cassette 3 pickup solenoid (SL9)	10	fixing feed unit lock solenoid (SL4)locked
4	cassette 4 pickup solenoid (SL10)	11	fixing feed unit lock solenoid (SL4)released
5	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves up.	12	Not-used
6	manual feed pickup clutch solenoid (SL6) The manual feed pickup roller moves down	13	side paper deck pickup solenoid
7	delivery flapper solenoid (SL3)		

<CLEAR>

T-17-166

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
ERR	Clearing an error code (Object error code: E000/E001/E002/E003)	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
DC-CON	Clearing RAM on the DC controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
R-CON	Clearing RAM on the reader controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print out the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	
JAM-HIST	Clearing the jam history The jam history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ERR-HIST	Clearing the error history The error history is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
PWD-CLR	Clearing the password of the system administrator set in user mode The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
ADRS-BK	Clearing the address book on the reader controller circuit board The address book is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CNT-MCON	Clearing the service counter incremented by the main controller circuit board The password is cleared when the OK key is pressed.	1
	<Operating procedure> 1) Select this item and press the OK key.	
CNT-DCON	Clearing a service counter incremented by the DC controller circuit board The password is cleared when the OK key is pressed. This applies to SORT, FIN-STPR, SADDLE, and SDL-STPL under COPIER>COUNTER>DRBL-2.	1
	<Operating procedure> 1) Select this item and press the OK key.	
MMI	Clearing the following settings in User mode - Backup data (user-defined values) for copy operations - Backup data (user-defined values) of common settings - Various backup data (user-defined values), excluding fax The settings are cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
MN-CON	Clearing RAM on the main controller circuit board The RAM is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select COPIER>FUNCTION>MISC-P>P-PRINT to print the contents of the service mode. 2) Select this item and press the OK key. 3) Turn the main power switch OFF and ON. 4) Enter the P-PRINT output data as required.	

COPIER > FUNCTION > CLEAR		
Sub-item	**Description**	**Level**
CARD	Clearing the card ID (department) related data The card ID related data is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
ALARM	Clearing the alarm log The alarm log is cleared when the main power switch is turned OFF and ON.	1
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
SLT-CLR	Clearing the salutation setting	1
	<Operating procedure> 1) Select this item and press the OK key.	
SND-STUP	Clearing the send-read settings The send-read settings are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	
CA-KEY	Clearing the CA certificate and key pair The CA certificate and key pair are cleared when the main power switch is turned OFF and ON.	2
	<Operating procedure> 1) Select this item and press the OK key. 2) Turn the main power switch OFF and ON.	

<MISC-R>

T-17-167

COPIER > FUNCTION > MISC-R		
Sub-item	**Description**	**Level**
SCANLAMP	Lighting the LED lamp (for document lighting)	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. The LED lamp (for document lighting) is lit for three seconds.	

<MISC-P>

T-17-168

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
P-PRINT	Printing out the service mode settings	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
USER-PRT	Printing out the user mode list	1
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
LBL-PRNT	Printing out the service label	1
	<Operating procedure> 1) Load A4 or LTR paper on Cassette 1. 2) Select this item. 3) Press the OK key to start printing.	
PRE-EXP	Checking the pre-exposure lamp (LED)	1
	<Operating procedure> 1) Press this item to reverse its display. 2) Press the OK key. After executing each operation for several seconds, the machine stops automatically. (All lit) 3) Press the OK key to start printing. **Reference** If the lighting of the pre-exposure lamp gives a problem to the photoconductor drum, rotate the drum.	

COPIER > FUNCTION > MISC-P		
Sub-item	**Description**	**Level**
KEY-HIST	Printing out the operating section key input history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
HIST-PRT	Printing out the jam history and error history	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start printing.	
TRS-DATA	Transferring memory received data to the box	2
	<Operating procedure> 1) Select this item. 2) Press the OK key to start data transfer.	
P-TR-EXP	Use it to check the activation of the pre-transfer exposure lamp.	2
	<Using the Mode> 1) Select the item, and press the OK key. - The pre-transfer exposure lamp goes ON. 2) See that the pre-transfer exposure lamp remains ON for several seconds and go OFF automatically.	

<SYSTEM>

T-17-169

COPIER > FUNCTION > SYSTEM		
Sub-item	**Description**	**Level**
DOWNLOAD	Switching to Download mode	1
	<Operating procedure> 1) Select this item. 2) Press the OK button to enter Download mode.	
CHK-TYPE	Specifying a partition number for executing HD-CHECK and HD-CLEAR	1
	<Operating procedure> 1) Select this item. 2) Select a partition number with the ten-key pad. 0: Entire HDD (*1, *2) 1: Image accumulation area 2: General-purpose file (user-defined data/various log data/PDL spool data/image data management information) storage area 3: PDL-related file storage area 4: Firmware storage area (*1, *2) 5: MEAP area 6: Address book area (*1) *1: Initialization in HD-CLEAR is not allowed. *2: Initialization in SST is possible.	
HD-CHECK	Checking and restoring the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key. 3) The result (1:OK, 2:NG (hardware), 3:NG (software) restored/alternative sector) is displayed.	
HD-CLEAR	Initializing the partition specified by CHK-TYPE	1
	<Operating procedure> 1) Select this item. 2) Press the OK key.	

17.5.2 FEEDER

17.5.2.1 Feeder List

0008-4955

iR105i/iR105+ / iR9070

FEEDER >FUNCTION

T-17-170

FEEDER >FUNCTION		
Sub-item	**Description**	**Level**
SENS-INT	Use it to adjust the sensitivity of each sensor of the ADF.	1
	⚠Be sure to clean the sensor first. **<Using the Mode>** 1) Select the item, and press the OK key. 2) Set that the machine stops automatically after adjustment.	
BLT-CLN	Use it to clean the separation belt of the ADF.	1
	<Using the Mode> 1) Select the item, and press the OK key. 2) Set that the machine drives the separation belt. Press the Stop key to stop the operation.	
REG-CLN	Use it to clean the registration roller of the ADF.	1
	<Using the Mode> 1) Select the mode, and press the OK key. 2) Set that the machine rotates the registration roller. Press the Stop key to stop the operation.	

17.5.2.2 Feeder List

0008-7969

/ iR8070

FEEDER >FUNCTION

T-17-171

FEEDER >FUNCTION		
Sub-item	**Description**	**Level**
SENS-INT	Use it to adjust the sensitivity of each sensor of the ADF.	1
	⚠Be sure to clean the sensor first. **<Using the Mode>** 1) Select the item, and press the OK key. 2) Set that the machine stops automatically after adjustment.	

17.5.2.3 Feeder List

0008-7971

FEEDER >FUNCTION

T-17-172

FEEDER >FUNCTION		
Sub-item	**Description**	**Level**
SENS-INT	Use it to adjust the sensitivity of each sensor of the ADF.	1
	⚠Be sure to clean the sensor first. **<Using the Mode>** 1) Select the item, and press the OK key. 2) Set that the machine stops automatically after adjustment.	
BLT-CLN	Use it to clean the separation belt of the ADF.	1
	<Using the Mode> 1) Select the item, and press the OK key. 2) Set that the machine drives the separation belt. Press the Stop key to stop the operation.	
REG-CLN	Use it to clean the registration roller of the ADF.	1
	<Using the Mode> 1) Select the mode, and press the OK key. 2) Set that the machine rotates the registration roller. Press the Stop key to stop the operation.	

17.6 OPTION (Machine Settings Mode)

17.6.1 COPIER

17.6.1.1 Copier List

0008-4956

iR105i/iR105+ / iR9070

<BODY>

T-17-173

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
PO-CNT	Use it to turn on/off potential control.	1
	<Setting value> 0: off, 1: on (default)	
TRNSG-SW	Use it to select toner guide bias control mode.	1
	<Setting value> 0: 200 V for absolute water content of 22 g or more; 600 V for others 1: fixed to 600 V 2: fixed to 200 V 3: 200 V for absolute water content of 18 g or more; 600 V for others (default) 4: 200 V for absolute water content of 14 g or more; 600 V for others	
MODEL-SZ	Switching regular resized display and ADF document size detection	1
	<Setting value> 0: AB (6R5E) [Default] 1: INCH (5R4E) 2: A (3R3E) 3: AB/INCH (6R5E)	
FIX-TEMP	Setting the down sequence start temperature for thick paper mode	1
	<Setting value> 0: 194 deg C 1: 189 deg C (default) 2: 184 deg C	
FUZZY	Use it to turn on/off fuzzy control and to make environment settings.	1
	MEMO: - The selection will affect pre-transfer, transfer, and separation charging currents. - Selecting 1 through 3 will make the operation independent of the environment sensor. **<Setting value>** 0: fuzzy control ON (default), 1: low humidity environment mode (current level lower than standard), 2: normal humidity environment mode, 3: high humidity environment mode (current level higher than standard)	
CNT-W/PR	Use it to turn ON/OFF the mechanism to change density during printing (PDL input).	1
	<Setting value> 0: correct target value to enable change of density during printing (default) 1: do not change density during printing	
CONFIG	Selecting several types of firmware installed on the hard disk and switching the country, language, and paper size type of this machine	1
	<Adjustment method> XXYYZZAAXX: Country (UP), YY: Language (ja), ZZ (00) Destination (00:CANON 01:OEM), AA (00): Paper size type (00:AB 01:Inch 02:A 03:All size) **<Operating procedure>** 1) Select <CONFIG>. 2) Select an item to reverse its display. Then press the + or - key to change the contents. 3) Each time the + or - key is pressed, the contents change sequentially. 4) Display the intended contents at all items and press the OK key. 5) Turn the main power switch OFF and ON.	
TR-SP-C1	Use it to set the transfer/separation output setting when the right deck is selected, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
TR-SP-C2	Use it to set the transfer/separation output setting when the left deck is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C3	Use it to set the transfer/separation output setting when the cassette 3 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C4	Use it to set the transfer/separation output setting when the cassette 4 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-MF	Use it to set the transfer/separation output setting when the manual feed tray is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-DK	Use it to set the transfer/separation output setting when the side paper deck is used.	1
	<Setting value> 0: setting for plain power (default) 1: setting for recycled paper 2: setting for tracing paper	
DEV-SLOW	Use it to set the speed of the developing sleeve.	1
	<Setting value> 0: in relation to environment 1: fixed to high speed 2: fixed to low speed (default)	
STPL-SFT	Use it to specify where to execute shift stacking in staple mode.	1
	<Setting value> 0: perform shift stacking in staple mode (as it is: default) 1: do not perform shift stacking in staple mode	
BASE-SW	Switching from the MEAP-Full mode to the Base model	1
	<Setting value> 0: OFF (Base model), 1: ON (Full model)	
SC-L-CNT	switches the thresh value for the scan counter (large/small).	1
	Setting value: 0 (B4 as threshold) or 1 (LTR as threshold) default: 0	
IDL-MODE	Use it to select idle rotation mode for the developing assembly.	2
	MEMO: Set it to '2' or '3' if the image becomes distorted or too light. **<Setting value>** 0: OFF (no idle rotation) 1: auto control based on readings of environment sensor (default) 2: start idle rotation when fixing roller temperature reaches 100 deg C 3: start idle rotation when main power switch goes ON	
SCANSLCT	Turning ON or OFF the function of calculating a scan area from the selected paper size	2
	<Setting value> 0: OFF (Determining the scan area by document detection) 1: ON (Determining the scan area by paper size)	
OHP-TEMP	Use it to switch among temperature settings for transparency mode.	2
	MEMO: The fixing temperature will be lowered to improve separation of transparencies from the fixing roller. **<Setting value>** 0: 198 deg C (default) 1: 193 deg C 2: 188 deg C 3: 183 deg C	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
OHP-CNT	Use it to turn ON/OFF the potential control mechanism for transparency mode.	2
	<Setting value> 0: use target value obtained in potential control of transparency mode (default) 1: do not use potential control in transparency mode	
FIX-TMP1	Use it to select a temperature for starting down-sequence for plain paper.	2
	MEMO: If the user wants priority on image quality, set it to '0'; on speed, set it to '2'. **<Setting value>** 0: 183 deg C 1: 178 deg C (default) 2: 173 deg C	
TRSW-P-B	Use it to turn ON/OFF the transfer current output correction mechanism at the trailing edge of paper.	2
	<Setting value> 0: ON 1: OFF (default)	
SP-MODE	Use it to turn ON/OFF the separation current output correction mechanism.	2
	<Setting value> 0: standard mode (default) 1: low voltage mode	
FTMP-DWN	USE it to select enhanced stacking mode.	2
	MEMO: The fixing temperature is lowered to enhance stacking in the finisher. **<Setting value>** 0: OFF (default) 1: decrease by -5 deg C 2: decrease by -10 deg C 3: decrease by -15 deg C	
DRUM-CLN	Use it to select enhanced drum cleaning mode (stop sequence).	2
	MEMO: - The rotation of the drum is stopped for about 1 sec as soon as a specific number of prints have been made during copying, thereby recovering the cleaning performance of the cleaning blade. - If cleaning faults occur, use this mode to change the setting. - A higher setting brings stronger results. **<Setting value>** 0: 1000 single-sided copies (500 double-sided copies) (default) 1: 500 single-sided copies (250 double-sided copies) 2: 250 single-sided copies (125 double-sided copies) 3: if absolute water content is 9 g or more, 1000 single-sided copies (500 double-sided copies) after passage of paper if absolute water content is less than 9 g, 250 single-sided copies (125 double-sided copies) after passage of paper 4: do not stop rotation	
DRM-IDL	Use it to set idle rotation mode for the photosensitive drum executed at time of power-on.	2
	MEMO: The photosensitive drum is rotated idly to prevent adhesion of toner to the drum. Set it between '1' and '4' if the image is distorted or too light. **<Setting value>** 0: do not use idle rotation (default) 1: if absolute water content is 18 g or more, rotate for 30 sec 2: if absolute water content is 18 g or more, rotate for 2 min 3: regardless of environment, rotate for 30 sec 4: regardless of environment, rotate for 2 min	
RAW-DATA	Setting whether or not to print out received data with no change If a received image has a problem, the problem is used to isolate the data contents and image processing.	2
	<Setting value> 0: Usual operation [Default] 1: Print out with no change	
SHARP	Use it to change the sharpness level of images. - A higher value makes images sharper.	2
	<Setting value> 1 to 5 (default: 3)	
FDW-DLV	Use it to switch between face-up and face-down delivery mode, thereby ensuring good stacking when making multiple prints.	2
	<Setting value> 0: normal (face-up for all when using 1 original) 1: when using 1 original, face-up if for one set; face-down if for multiple sets (default)	

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Sub-item	**Description**	**Level**
COTDPC-D	Use it to set toner save mode.	2
	<Setting value> 0: do not use toner save mode (default) 1: VDT-20V of coy image, VDT-P25V of print image (target of -10 %, approx.) 2: VDT-40V of copy image, VDT-P-50V of print image (target of -20 %, approx.) 3: VDT-60V of copy image, VDT-P-75V of print image (target of -30 %, approx.)	
RMT-LANG	Changing the remote UI language from web	2
	<Adjustment method> Select a language code with the + or - key.	
IFAX-LIM	Limiting the number of output lines when a large amount of data has been received by IFAX.	2
	<Setting value> 0: No limit 0 to 999 [Default: 500]	
DF-BLINE	Taking corrective measures against a black line caused by dust on the platen at flow read	2
	<Setting value> 0: No corrective measures [Default] 1: Corrective measures	
THICK-PR	Use it to set the potential control mechanism for thick paper mode.	2
	<Setting value> 0: use value determined by potential control in plain paper mode (default) 1: use value determined by potential control in transparency mode	
TEMP-TBL	Use it to select a fixing temperature.	2
	<Setting value> 200 V 0: 183 deg C 1: 193 deg C 2: 178 deg C 3: 173 deg C 4: 168 deg C 208 V/230 V 0: 193 deg C 1: 198 deg C 2: 188 deg C 3: 183 deg C 4: 178 deg C	
DRM-H-SW	Use it to set the night drum heater OFF mode.	2
	<Setting value> 0: night drum heater ON (default) 1: monitor ambient humidity every 2 hr; turn off drum heater if absolute water content is 9 g or less	
DEV-IDLR	Use it to set black band developing forced idle rotation mode used at time of power-on.	2
	<Setting value> 0: execute black band developing idle rotation sequence at power-on if 2000 copies or more were made on previous day and, in addition, absolute water content is 16 g or more (default) 1: execute black band developing idle rotation sequence at power-on at all times	
BK-BD-1	Use it to set black band monthly remedial mode (for January).	2
	<Setting value> 0: do not execute if absolute water content is less than 9 g execute every 200 copies if absolute water content is 9 g or more (default) 1: execute black band sequence every 60 copies 2: execute black band sequence every 20 copies 3: execute black band sequence every 6 copies	
BK-BD-2	Use it to set black band monthly remedial mode (for February).	2
	<Setting value> Same as for January.	
BK-BD-3	Use it to set black band monthly remedial mode (for March).	2
	<Setting value> Same as for January.	
BK-BD-4	Use it to set black band monthly remedial mode (for April).	2
	<Setting value> Same as for January.	
BK-BD-5	Use it to set black band monthly remedial mode (for May).	2
	<Setting value> Same as for January.	

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Sub-item	**Description**	**Level**
BK-BD-6	Use it to set black band monthly remedial mode (for June). **<Setting value>** Same as for January.	2
BK-BD-7	Use it to set black band monthly remedial mode (for July). **<Setting value>** Same as for January.	2
BK-BD-8	Use it to set black band monthly remedial mode (for August). **<Setting value>** Same as for January.	2
BK-BD-9	Use it to set black band monthly remedial mode (for September). **<Setting value>** Same as for January.	2
BK-BD-10	Use it to set black band monthly remedial mode (for October). **<Setting value>** Same as for January.	2
BK-BD-11	Use it to set black band monthly remedial mode (for November). **<Setting value>** Same as for January.	2
BK-BD-12	Use it to set black band monthly remedial mode (for December). **<Setting value>** Same as for January.	2
SMTPTXPN	Use it to change the number of the SMTP transmission port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
SMTPRXPN	Use it to change the number of the SMTP reception port. **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
POP3PN	Use it to change the number of the P0P3 reception port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 110 After a change, be sure to re-boot the machine.	2
RUI-DSP	Setting whether to display a copy screen for RUI (Option switch conforming to the Disability Law) **<Setting value>** 0: Do not display [Default] 1: Display	2
ORG-LGL	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: FLSC (Default) 1: M_OFFICIO 2: A_FFLSC 3: FORIO 4: G_LGL 5: OFFICIO 6: E_OFFICIO 7: A_OFFICIO 8: A_LGL	2
ORG-LTR	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: LTR (default) 1: G_LTR 2: EXECTIVE 3: K_LGL 4: A_LTR	2
ORG-LDR	Use it to set the sequence in which double-sided originals are read when the original orientation detection mechanism is enabled. **<Setting value>** 0: LGL (default) 1: B_OFFICIO	2
UI-BOX	Setting whether or not to display the box screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2

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Sub-item	**Description**	**Level**
UI-SEND	Setting whether or not to display the send screen of the operating section	2
	<Setting value> 0: Do not display 1: Display [Default]	
UI-FAX	Setting whether or not to display the fax screen of the operating section	2
	not used	
UI-EXT	Setting whether or not to display the extended screen of the operating section	2
	<Setting value> 0: Do not display 1: Display [Default]	
NW-SPEED	Selecting the data transfer speed at service network connection	2
	<Setting value> 0: Auto [Default] 1: 100Base-TX 2: 100Base-T	
TRY-CHG	Use it to change the control mechanism used to switch over trays when one becomes full. **MEMO:** This item is displayed only at the time of Stacker-A1 connection.	2
STS-PORT	Turning the TOT synchronous command communication port ON or OFF The port for Inquiry/Response (synchronous) command communication in TUIF over TCP/IP is turned ON or OFF.	2
	<Setting value> 0: OFF [Default] 1: ON	
CMD-PORT	Turning the TOT asynchronous status communication port ON or OFF The port for asynchronous status communication in TUIF over TCP/IP is turned ON or OFF.	2
	<Setting value> 0: OFF [Default] 1: ON	
NS-CMD5	Limiting the use of CRAM-MD5 in SMTP authentication This is set to limit the use of CRAM-MD5 in SMTP authentication	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-GSAPI	Limiting the use of GSSAPI in SMTP authentication This is set to limit the use of GSSAPI in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-NTLM	Limiting the use of NTLM in SMTP authentication This is set to limit the use of NTLM in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLNWS	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment of communication packet encryption This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLN	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are not encrypted.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-LGN	Limiting the use of LOGIN for SMTP authentication This is set to limit the use of LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
MEAP-PN	Changing the HTTP port number of the MEAP application	2
	<Setting value> 0 to 65535 (Default: 8000)	

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Sub-item	**Description**	**Level**
SVMD-ENT	Switching how to enter service mode	2
	<Setting value> 0: [User mode key] -> Simultaneous press of [2] and [*]-> [User mode] (Default) 1: [User mode key] -> Simultaneous press of [4] and [9]-> [User mode]	
DA-CNCT	Reserved for future	2
CHNG-STS	indicates the ToT status component number.	2
	sets the port number for the status connection when TUIF over TTCP/IP is in use. setting range: 1-65535 setting: 20010	
CHNG-CMD	Setting of ToT command connection port number	2
	sets the port number for the status connection when TUIF over TTCP/IP is in use. setting range: 1-65535 setting: 20010	
MEAP-DSP	Turning screen transition from MEAP to Native ON or OFF	2
	<Setting value> 0: OFF (Transition to the Native screen) [Default] 1: ON (No transition to the Native screen)	
ANIM-SW	Turn MEAP application error/jam screen display ON or OFF	2
	<Setting value> 0: OFF (Display warning screen) [Default] 1: ON (Do not display warning screen)	
MEAP-SSL	Setting the MEAP HTTPS port	2
	<Setting value> 0 to 65535 (same as the setting of another network port system) [Default: 8443]	

<USER>

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Sub-item	**Description**	**Level**
COPY-LIM	Changing the upper limit of copy count	1
	<Setting value> 1 to 9999 [Default: 9999]	
SLEEP	Turning the sleep function ON or OFF	1
	<Setting value> 0: OFF 1: ON [Default] The sleep function is set with Timer in User Mode.	
WEB-DISP	Use it to turn ON/OFF the fixing web length message.	1
	MEMO: 0: OFF (do not issued; but issued only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
W-TONER	Use it to turn ON/OFF the waste toner case full warning message.	1
	MEMO: 0: OFF (do not issue; but issue only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
COUNTER1	Setting Software counter 1 on the User mode screen	1
	<Setting value> 101: Total 1 [Value at shipping / Value after RAM clearance = 101 -> Cannot be changed]	
COUNTER2to6	Setting Software counters 2 to 6 on the User mode screen	1
	<Setting value> 0 to 999	
CONTROL	Limiting the user of a control card for a PDL job	1
	<Setting value> 0: Do not use [Default] 1: Use	

COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
B4-L-CNT	Setting whether to count B4 as the large size or the small size on Software counters 1 to 6	1
	<Setting value> 0: Small size [Default] 1: Large size	
COPY-JOB	Prohibiting copy job reservation when a card reader and a coin robot are used	1
	<Setting value> 0: Copy job reserved [Default] 1: Copy job not reserved	
TAB-ROT	If the image is a PDL landscape in PDL, use it to specify whether to rotate it 180 deg.	1
	<Setting value> 0: do not rotate 1: rotate	
PR-PSESW	Setting whether or not to display the print pause function switch	1
	<Setting value> 0: No print pause function [Default] The user screen does not display the print pause function. (Conventional specification) 1: Print pause function [Default] The user screen does not display the print output stop and restart settings.	
IDPRN-SW	switches over count job types of the group control counter.	2
	0: increases the count for the PRINT category (Box print, Report print, SendLocal print, PDL print (default)). increase the count for the COPY category (COPY). 1: increases the count for the PRINT category (Report print, SendLocal print, PDL print) increases the count for the COPY category (COPY, Box print)	
CNT-SW	Switching the charging counter and default display items	1
	<Setting value> - When the set value is 0 [Default] 101: Total 1 - When the set value is 1 102: Total 2 202: Copy total 2 127: Total A2 - When the set value is 2 101: Total 1 104: Total small 103: Total large 501: Scan total 1	
TAB-ACC	Set the tab paper (index paper) and the setting tab paper (index paper) if ACC is available.	1
	<Setting value> 0: ACC is not available between tab papers (Default: 0) 1: ACC is available between tab papers	
FRM-RPT	Use it to specify a margin in image repeat mode:	1
	<Setting value> 0: erform image repeat without margin 1: erform image repeat with margin	
BCNT-AST	Switching the job type of counting box prints by ASSIST	1
	<Setting value> 0: Count as PDL job [Default] 1: Count as Copy job	
DOC-REM	turns on or off the message indicated to prompt removal of originals.	1
	After an original has been read in copyboard mode, an attempt to start reading with an original in the feeder without opening and then closing the feeder will cause the machine to indicate a message promoting the removal of the original. Use this switch to enable or disable the message. **<Setting value>** 0 (do not indicate) or 1 (indicate) **<Setting value>** 0	
TRAY-SEL	delivery tray position switch (Finisher-K1)	1
	Use it to switch over the target of output when the following settings are made: multiple originals, copy count at 1, sort mode, special tray A & B. 0: use sample tray for output 1: use tray B for output	
SIZE-DET	Turning the document size detection function ON or OFF	2
	<Setting value> 0: OFF (When the platen is opened, the user will not be dazzled because the lamp does not light.) 1: ON [Default]	

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Sub-item	**Description**	**Level**
DATE-DSP	Switching the date display format	2
	<Setting value> 0: YYMM/DD 1: DD/MM/YY 2: MM/DD/YY	
MB-CCV	Limiting the mailbox control card user	2
	<Setting value> 0: No [Default] 1: Yes	
PR-D-SEL	Use it to set the density of printing (PDL input).	2
	<Setting value> 0 to 8 (4: default) 0 (light) <=> 4 (standard) <=> 8 (dark)	
TRY-STP	Setting output or no output in the tray full state	2
	<Setting value> 0: Ordinary mode (Interrupt when the finisher tray is full) [Default] 1: Interrupt by height detection only	
MF-LG-ST	Setting the long mode key	2
	<Setting value> 0: Ordinary [Default] 1: Display a long mode key on the corresponding mode screen	
SPECK-DP	Use it to enable/disable indication of a warning for dust detection in streamreading.	2
	<Setting value> 0: disable indication (default), 1: enable indication	
CNT-DISP	Setting whether or not to display a serial number when the counter confirmation key is pressed	2
	<Setting value> 0: Display a serial number [Default] 1: Do not display a serial number	
PH-D-SEL	Setting the number of lines for printing in Photo mode	2
	<Setting value> 0: 141 lines [Default] 1: 134 lines	
NW-SCAN	Enabling or disabling the network scan function	2
	<Setting value> 0: Network scan function disabled [Default] 1: Network scan function enabled **MEMO:** Not changeable for anything in Japan Always 1 for PSPCL outside Japan Changeable for other outside Japan	
INS-C/S	Use it to expand the inserter function.	2
	<Setting value> 0: support cover only (default) 1: support cover + interleaf (multi inserter)	
TBIC-RNK	Use it to reduce uneven intervals.	2
	<Setting value> 1 to 5 (default: 1)	
ORG-ODR	Use it to set the sequence of reading double-sided original when original orientation detection is enabled.	2
	<Setting value> 0: read from back to face (default) 1: read from face to back	
HDCR-DSP	Setting whether or not display HDD clearance in User mode and changing the contents of clearance	2
	<Setting value> 1: Clear once with 0 [Default] 2: Clear once with random data 3: Clear three times with random data	
BCK-CVR	Use it to enable or disable the back cover mode function.	2
	<Setting value> 0: disable back cover mode 1: enable back cover mode	
JOB-INVL	Setting the job interval at interrupt	2
	<Setting value> 0: Output the next job continuously in interrupt copying (Standard) [Default] 1: Start outputting the next job after the last paper of the interrupted copy job is output 2: Start outputting the next job after the last paper of all jobs is output	

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Sub-item	**Description**	**Level**
LGSW-DSP	Setting whether or not to display [Log display ON/OFF] on the User mode screen	2
	[Default] 0: Do not display [Log display ON/OFF] [Default] 1: Display [Log display ON/OFF]	
PCL-COPY	Supporting the PCL command [COPIES Meru/Pinatubo/Hood]	2
	<Setting value> 0: Control each page according to the command of the COPIES command specified to the page [Default] 1: Meru/Pinatubo/Hood compatible mode 2 to 65535: Reserved	
OUT-FD	Use it to select face-down (FD) delivery at all times.	2
	<Setting value> 0: use facedown output normally 1: use facedown output at all times	
PRJOB-CP	Setting the CCV count pulse at reception and report output	2
	<Setting value> 0: Do not output count pulse [Default] 1: Output count pulse	
DPT-ID-7	Registering the department ID and entering 7 digits for authentication	2
	<Setting value> 0: Conventional [Default] 1: 7-digit input	
RUI-RJT	Disconnecting the HTTP port from RUI by three authentication failures	2
	<Setting value> 0: Invalid [Default] 1: Valid	
CTM-S06	Setting whether or not to erase the password from the export file of the file send address	2
	<Setting value> 0: Do not erase the password from the export file. [Default] 1: Erase the password from the export file.	
FREG-SW	Setting whether or not to display the free section of the MEAP counter (SEND)	2
	<Setting value> 0: Do not display [Default] 1: Display	
IFAX-SZL	Enabling or disabling the send size limit in IFAX transmission (not via server only)	2
	<Setting value> 0: Send size limit enabled (via server/not via server) 1: Send size limit disabled (not via server only) [Default]	
IFAX-PGD	Setting whether or not to permit split send in pages (only beyond the upper limit of the send data size)	2
	<Setting value> 0: Do not permit split send in IFAX Simple mode transmission [Default] 1: Permit split send in IFAX Simple mode transmission	
MEAPSAFE	Turning the MEAP Safe mode ON or OFF	2
	<Setting value> 0: OFF [Default] 1: ON (Safe mode)	
TRAY-FLL	Use it to enable or disable notification in response to the tray becoming full.	2
	0: indicate that the output tray has become full when all available trays have become full 1: indicate that the output tray has become full only when the special tray (if selected) has become full or all trays have been identified as being full	
PRNT-POS	Use it to specify whether to stop or not to stop all subsequent jobs when a job is canceled in the event of an error.	2
	<Setting value> 0: do not stop all 1: stop all	
AFN-PSWD	Limiting access in User mode	2
	<Setting value> 0: OFF (Transition to the User mode screen with no password request) [Default] 1: ON (Transition to the User mode screen after password matching)	
PTJAM-RC	Turning PDL jam recovery ON or OFF	2
	<Setting value> 0: OFF (Do not recover) 1: ON (Recover) [Default]	

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Sub-item	**Description**	**Level**
SLP-SLCT	Switch of the existing network application	2
	<Setting value> 0: Not use [Default] 1: Use ⚠ When the machine is set its range as "1", it will not move to the sleep mode 3.	
PS-MODE	Setting PS internal mode	2
	<Setting value> 0 to 65535 0: Not compatible [Default] 1: PS Type 3 Halftone command compatible (conventional) (Dither growth forward and reverse) 2 to 65535: Reserved	
CNCT-RLZ	Use it to specify whether to use or not to use the connection serialization function.	2
	<Setting value> 0: OFF (disable connection serialization function) 1: ON (enlarge connection serialization function)	

Software counter specifications
100 - 199: Total
200 - 299: Copy (001 to 099 added in case of shortage)
300 - 399: Print
400 - 499: Copy and print
500 - 599: Scan
600 - 699: Box print
700 - 799: Receive print
800 - 899: Report print
900 - 999: Send
Explanations of symbols and terms in the table
- YES: Counter valid in this machine
- Large size: Paper greater than B4
- Small size: Paper of B4 or smaller
- Counter Description: Numerals 1 and 2 indicate the counts of large size paper.
In service mode (COPIER>OPTION>USER>B4-L-CNT), B4 or greater can be set as the large size.
- Total A: Total excluding local and remote copies
- Total B: Total excluding local and remote copies and box prints
- Copy: Local and remote copies
- Copy A: Local and remote copies and box prints
- Print: PDL, report, and box prints
- Print A: PDL and report prints
- Scan: Black-and-white and color scans

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No.	Counter Description	Support
101	Total 1	yes
102	Total 2	yes
103	Total (Large)	yes
104	Total (Small)	yes
105	Total (Full-color 1)	
106	Total (Full-color 2)	
108	Total (Black-and-white 1)	yes
109	Total (Black-and-white 2)	yes
110	Total (Monochrome / Large)	
111	Total (Monochrome / Small)	
112	Total (Black-and-white / Large)	yes
113	Total (Black-and-white / Small)	yes
114	Total 1 (Duplex)	yes
115	Total 2 (Duplex)	yes
116	Large (Duplex)	yes
117	Small (Duplex)	yes
118	Total (Monochrome 1)	
119	Total (Monochrome 2)	
120	Total (Full-color / Large)	
121	Total (Full-color / Small)	
122	Total (Full-color + Monochrome / Large)	
123	Total (Full-color + Monochrome / Small)	
124	Total (Full-color + Monochrome 2)	
125	Total (Full-color + Monochrome 1)	

No.	Counter Description	Support
126	Total A1	yes
127	Total A2	yes
128	Total A (Large)	yes
129	Total A (Small)	yes
130	Total A (Full-color 1)	
131	Total A (Full-color 2)	
132	Total A (Black-and-white 1)	yes
133	Total A (Black-and-white 2)	yes
134	Total A (Monochrome / Large)	
135	Total A (Monochrome / Small)	
136	Total A (Black-and-white / Large)	yes
137	Total A (Black-and-white / Small)	yes
138	Total A1 (Duplex)	
139	Total A2 (Duplex)	
140	Large A (Duplex)	
141	Small A (Duplex)	
142	Total A (Monochrome 1)	
143	Total A (Monochrome 2)	
144	Total A (Full-color / Large)	
145	Total A (Full-color / Small)	
146	Total A (Full-color + Monochrome / Large)	
147	Total A (Full-color + Monochrome / Small)	
148	Total A (Full-color + Monochrome 2)	
149	Total A (Full-color + Monochrome 1)	
150	Total B1	yes
151	Total B2	yes
152	Total B (Large)	yes
153	Total B (Small)	yes
154	Total B (Full-color 1)	
155	Total B (Full-color 2)	
156	Total B (Black-and-white 1)	yes
157	Total B (Black-and-white 2)	yes
158	Total B (Monochrome / Large)	
159	Total B (Monochrome / Small)	
160	Total B (Black-and-white / Large)	yes
161	Total B (Black-and-white / Small)	yes
162	Total B1 (Duplex)	
163	Total B2 (Duplex)	
164	Large B (Duplex)	
165	Small B (Duplex)	
166	Total B (Monochrome 1)	
167	Total B (Monochrome 2)	
168	Total B (Full-color / Large)	
169	Total B (Full-color / Small)	
170	Total B (Full-color + Monochrome / Large)	
171	Total B (Full-color + Monochrome / Small)	
172	Total B (Full-color + Monochrome 2)	
173	Total B (Full-color + Monochrome 1)	
201	Copy (Total 1)	yes
202	Copy (Total 2)	yes
203	Copy (Large)	yes
204	Copy (Small)	yes
205	Copy A (Total 1)	yes
206	Copy A (Total 2)	yes
207	Copy A (Large)	yes
208	Copy A (Small)	yes
209	Local copy (Total 1)	yes
210	Local copy (Total 2)	yes
211	Local copy (Large)	yes
212	Local copy (Small)	yes
213	Remote copy (Total 1)	yes

No.	Counter Description	Support
214	Remote copy (Total 2)	yes
215	Remote copy (Large)	yes
216	Remote copy (Small)	yes
217	Copy (Full-color 1)	
218	Copy (Full-color 2)	
219	Copy (Monochrome 1)	
220	Copy (Monochrome 2)	
221	Copy (Black-and-white 1)	yes
222	Copy (Black-and-white 2)	yes
223	Copy (Full-color / Large)	
224	Copy (Full-color / Small)	
225	Copy (Monochrome / Large)	
226	Copy (Monochrome / Small)	
227	Copy (Black-and-white / Large)	yes
228	Copy (Black-and-white / Small)	yes
229	Copy (Full-color + Monochrome / Large)	
230	Copy (Full-color + Monochrome / Small)	
231	Copy (Full-color + Monochrome / 2)	
232	Copy (Full-color + Monochrome / 1)	
233	Copy (Full-color / Large / Duplex)	
234	Copy (Full-color / Small / Duplex)	
235	Copy (Monochrome / Large / Duplex)	
236	Copy (Monochrome / Small / Duplex)	
237	Copy (Black-and-white / Large / Duplex)	
238	Copy (Black-and-white / Small / Duplex)	
245	Copy A (Full-color 1)	
246	Copy A (Full-color 2)	
247	Copy A (Monochrome 1)	
248	Copy A (Monochrome 2)	
249	Copy A (Black-and-white 1)	yes
250	Copy A (Black-and-white 2)	yes
251	Copy A (Full-color / Large)	
252	Copy A (Full-color / Small)	
253	Copy A (Monochrome / Large)	
254	Copy A (Monochrome / Small)	
255	Copy A (Black-and-white / Large)	yes
256	Copy A (Black-and-white / Small)	yes
257	Copy A (Full-color + Monochrome / Large)	
258	Copy A (Full-color + Monochrome / Small)	
259	Copy A (Full-color + Monochrome / 2)	
260	Copy A (Full-color + Monochrome / 1)	
261	Copy A (Full-color / Large / Duplex)	
262	Copy A (Full-color / Small / Duplex)	
263	Copy A (Monochrome / Large / Duplex)	
264	Copy A (Monochrome / Small / Duplex)	
265	Copy A (Black-and-white / Large / Duplex)	
266	Copy A (Black-and-white / Small / Duplex)	
273	Local copy (Full-color 1)	
274	Local copy (Full-color 2)	
275	Local copy (Monochrome 1)	
276	Local copy (Monochrome 2)	
277	Local copy (Black-and-white 1)	yes
278	Local copy (Black-and-white 2)	yes
279	Local copy (Full-color / Large)	
280	Local copy (Full-color / Small)	
281	Local copy (Monochrome / Large)	
282	Local copy (Monochrome / Small)	
283	Local copy (Black-and-white / Large)	yes
284	Local copy (Black-and-white / Small)	yes
285	Local copy (Full-color + Monochrome / Large)	
286	Local copy (Full-color + Monochrome / Small)	

No.	Counter Description	Support
287	Local copy (Full-color + Monochrome / 2)	
288	Local copy (Full-color + Monochrome / 1)	
289	Local copy (Full-color / Large / Duplex)	
290	Local copy (Full-color / Small / Duplex)	
291	Local copy (Monochrome / Large / Duplex)	
292	Local copy (Monochrome / Small / Duplex)	
293	Local copy (Black-and-white / Large / Duplex)	
294	Local copy (Black-and-white / Small / Duplex)	
002	Remote copy (Full-color 1)	
003	Remote copy (Full-color 2)	
004	Remote copy (Monochrome 1)	
005	Remote copy (Monochrome 2)	
006	Remote copy (Black-and-white 1)	yes
007	Remote copy (Black-and-white 2)	yes
008	Remote copy (Full-color / Large)	
009	Remote copy (Full-color / Small)	
010	Remote copy (Monochrome / Large)	
011	Remote copy (Monochrome / Small)	
012	Remote copy (Black-and-white / Large)	yes
013	Remote copy (Black-and-white / Small)	yes
014	Remote copy (Full-color + Monochrome / Large)	
015	Remote copy (Full-color + Monochrome / Small)	
016	Remote copy (Full-color + Monochrome / 2)	
017	Remote copy (Full-color + Monochrome / 1)	
018	Remote copy (Full-color / Large / Duplex)	
019	Remote copy (Full-color / Small / Duplex)	
020	Remote copy (Monochrome / Large / Duplex)	
021	Remote copy (Monochrome / Small / Duplex)	
022	Remote copy (Black-and-white / Large / Duplex)	
023	Remote copy (Black-and-white / Small / Duplex)	
301	Print (Total 1)	yes
302	Print (Total 2)	yes
303	Print (Large)	yes
304	Print (Small)	yes
305	Print A (Total 1)	yes
306	Print A (Total 2)	yes
307	Print A (Large)	yes
308	Print A (Small)	yes
309	Print (Full-color 1)	
310	Print (Full-color 2)	
311	Print (Monochrome 1)	
312	Print (Monochrome 2)	
313	Print (Black-and-white 1)	yes
314	Print (Black-and-white 2)	yes
315	Print (Full-color / Large)	
316	Print (Full-color / Small)	
317	Print (Monochrome / Large)	
318	Print (Monochrome / Small)	
319	Print (Black-and-white / Large)	yes
320	Print (Black-and-white / Small)	yes
321	Print (Full-color + Monochrome / Large)	
322	Print (Full-color + Monochrome / Small)	
323	Print (Full-color + Monochrome / 2)	
324	Print (Full-color + Monochrome / 1)	
325	Print (Full-color / Large / Duplex)	
326	Print (Full-color / Small / Duplex)	
327	Print (Monochrome / Large / Duplex)	
328	Print (Monochrome / Small / Duplex)	
329	Print (Black-and-white / Large / Duplex)	
330	Print (Black-and-white / Small / Duplex)	
331	PDL print (Total 1)	yes

No.	Counter Description	Support
332	PDL print (Total 2)	yes
333	PDL print (Large)	yes
334	PDL print (Small)	yes
335	PDL print (Full-color 1)	
336	PDL print (Full-color 2)	
339	PDL print (Black-and-white 1)	yes
340	PDL print (Black-and-white 2)	yes
341	PDL print (Full-color / Large)	
342	PDL print (Full-color / Small)	
345	PDL print (Black-and-white / Large)	yes
346	PDL print (Black-and-white / Small)	yes
351	PDL print (Full-color / Large / Duplex)	
352	PDL print (Full-color / Small / Duplex)	
355	PDL print (Black-and-white / Large / Duplex)	
356	PDL print (Black-and-white / Small / Duplex)	
401	Copy + Print (Full-color / Large)	
402	Copy + Print (Full-color / Small)	
403	Copy + Print (Monochrome / Large)	
404	Copy + Print (Monochrome / Small)	
405	Copy + Print (Monochrome 2)	
406	Copy + Print (Monochrome 1)	
407	Copy + Print (Full-color + Monochrome / Large)	
408	Copy + Print (Full-color + Monochrome / Small)	
409	Copy + Print (Full-color + Monochrome / 2)	
410	Copy + Print (Full-color + Monochrome / 1)	
411	Copy + Print (Large)	
412	Copy + Print (Small)	
413	Copy + Print (2)	
414	Copy + Print (1)	
415	Copy + Print (Monochrome / Large)	
416	Copy + Print (Monochrome / Small)	
417	Copy + Print (Full-color / Large / Duplex)	
418	Copy + Print (Full-color / Small / Duplex)	
419	Copy + Print (Monochrome / Large / Duplex)	
420	Copy + Print (Monochrome / Small / Duplex)	
421	Copy + Print (Black-and-white / Large / Duplex)	
422	Copy + Print (Black-and-white / Small / Duplex)	
501	Scan (Total 1)	yes
502	Scan (Total 2)	yes
503	Scan (Large)	yes
504	Scan (Small)	yes
505	Black-and-white scan (Total 1)	yes
506	Black-and-white scan (Total 2)	yes
507	Black-and-white scan (Large)	yes
508	Black-and-white scan (Small)	yes
509	Color scan (Total 1)	
510	Color scan (Total 2)	
511	Color scan (Large)	
512	Color scan (Small)	
601	Box print (Total 1)	yes
602	Box print (Total 2)	yes
603	Box print (Large)	yes
604	Box print (Small)	yes
605	Box print (Full-color 1)	
606	Box print (Full-color 2)	
607	Box print (Monochrome 1)	
608	Box print (Monochrome 2)	
609	Box print (Black-and-white 1)	yes
610	Box print (Black-and-white 2)	yes
611	Box print (Full-color / Large)	
612	Box print (Full-color / Small)	

No.	Counter Description	Support
613	Box print (Monochrome / Large)	
614	Box print (Monochrome / Small)	
615	Box print (Black-and-white / Large)	yes
616	Box print (Black-and-white / Small)	yes
617	Box print (Full-color + Monochrome / Large)	
618	Box print (Full-color + Monochrome / Small)	
619	Box print (Full-color + Monochrome / 2)	
620	Box print (Full-color + Monochrome / 1)	
621	Box print (Full-color / Large / Duplex)	
622	Box print (Full-color / Small / Duplex)	
623	Box print (Monochrome / Large / Duplex)	
624	Box print (Monochrome / Small / Duplex)	
625	Box print (Black-and-white / Large / Duplex)	
626	Box print (Black-and-white / Small / Duplex)	
701	Receive print (Total 1)	yes
702	Receive print (Total 2)	yes
703	Receive print (Large)	yes
704	Receive print (Small)	yes
705	Receive print (Full-color 1)	
706	Receive print (Full-color 2)	
707	Receive print (Gray-scale 1)	
708	Receive print (Gray-scale 2)	
709	Receive print (Monochrome 1)	yes
710	Receive print (Monochrome 2)	yes
711	Receive print (Full-color / Large)	
712	Receive print (Full-color / Small)	
713	Receive print (Gray-scale / Large)	
714	Receive print (Gray-scale / Small)	
715	Receive print (Monochrome / Large)	yes
716	Receive print (Monochrome / Small)	yes
717	Receive print (Full-color + Gray-scale / Large)	
718	Receive print (Full-color + Gray-scale / Small)	
719	Receive print (Full-color + Gray-scale 2)	
720	Receive print (Full-color + Gray-scale 1)	
721	Receive print (Full-color / Large / Duplex)	
722	Receive print (Full-color / Small / Duplex)	
723	Receive print (Gray-scale / Large / Duplex)	
724	Receive print (Gray-scale / Small / Duplex)	
725	Receive print (Monochrome / Large / Duplex)	
726	Receive print (Monochrome / Small / Duplex)	
801	Report print (Total 1)	yes
802	Report print (Total 2)	yes
803	Report print (Large)	yes
804	Report print (Small)	yes
805	Report print (Full-color 1)	
806	Report print (Full-color 2)	
807	Report print (Gray-scale 1)	
808	Report print (Gray-scale 2)	
809	Report print (Monochrome 1)	yes
810	Report print (Monochrome 2)	yes
811	Report print (Full-color / Large)	
812	Report print (Full-color / Small)	
813	Report print (Gray-scale / Large)	
814	Report print (Gray-scale / Small)	
815	Report print (Monochrome / Large)	yes
816	Report print (Monochrome / Small)	yes
817	Report print (Full-color + Gray-scale / Large)	
818	Report print (Full-color + Gray-scale / Small)	
819	Report print (Full-color + Gray-scale 2)	
820	Report print (Full-color + Gray-scale 1)	
821	Report print (Full-color / Large / Duplex)	

No.	Counter Description	Support
822	Report print (Full-color / Small / Duplex)	
823	Report print (Gray-scale / Large / Duplex)	
824	Report print (Gray-scale / Small / Duplex)	
825	Report print (Monochrome / Large / Duplex)	
826	Report print (Monochrome / Small / Duplex)	
901	Copy scan total 1 (Color)	
902	Copy scan total 1 (Black-and-white)	
903	Copy scan total 2 (Color)	
904	Copy scan total 2 (Black-and-white)	
905	Copy scan total 3 (Color)	
906	Copy scan total 3 (Black-and-white)	
907	Copy scan total 4 (Color)	
908	Copy scan total 4 (Black-and-white)	
909	Local copy scan (Color)	
910	Local copy scan (Black-and-white)	
911	Remote copy scan (Color)	
912	Remote copy scan (Black-and-white)	
913	Send scan total 1 (Color)	
914	Send scan total 1 (Black-and-white)	
915	Send scan total 2 (Color)	
916	Send scan total 2 (Black-and-white)	yes
917	Send scan total 3 (Color)	
918	Send scan total 3 (Black-and-white)	yes
919	Send scan total 4 (Color)	
920	Send scan total 4 (Black-and-white)	
921	Send scan total 5 (Color)	
922	Send scan total 5 (Black-and-white)	yes
929	Send scan total 6 (Color)	
930	Send scan total 6 (Black-and-white)	yes
931	Send scan total 7 (Color)	
932	Send scan total 7 (Black-and-white)	
933	Send scan total 8 (Color)	
934	Send scan total 8 (Black-and-white)	
935	Universal send scan total (Color)	
936	Universal send scan total (Black-and-white)	
937	Box scan (Color)	
938	Box scan (Black-and-white)	
939	Remote scan (Color)	
940	Remote scan (Black-and-white)	yes
941	Send scan / FAX (Color)	
942	Send scan / FAX (Black-and-white)	
943	Send scan / IFAX (Color)	
944	Send scan / IFAX (Black-and-white)	
945	Send scan / E-mail (Color)	
946	Send scan / E-mail (Black-and-white)	
947	Send scan / FTP (Color)	
948	Send scan / FTP (Black-and-white)	
949	Send scan / SMB (Color)	
950	Send scan / SMB (Black-and-white)	
951	Send scan / IPX (Color)	
952	Send scan / IPX (Black-and-white)	
953	Send scan / Database (Color)	
954	Send scan / Database (Black-and-white)	
955	Send scan / Local print (Color)	
956	Send scan / Local print (Black-and-white)	
957	Send scan / Box (Color)	
958	Send scan / Box (Black-and-white)	

<CST>

T-17-176

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
P-SZ-C1/C2	Use it to specify paper size used in the front deck (C1: right deck, C2: left deck).	1
	⚠ After electing the appropriate paper size, be sure to turn off and then on the main power switch. **<Setting value>** 6: A4 (default), 15: B5, 18: LTR	
U1-NAME to U4-NAME	Setting whether or not to display a paper name when a paper size group (U1 to U4) has been detected	2
	<Setting value> 0: Display U1, U2, U3, or U4 on the touchpanel. 1: Display the paper name set in service mode (CST-U1/U2/U3/U4).	
CST-U1	Specify paper names which are used in the paper size group The paper sizes of U1 can be recognized as special size papers with the universal cassette when special size papers below are registered to U1.	2
	<Setting value> 22: K-LGL (Default) 31: Governmental LETTER	
CST-U2	Specify paper names which are used in the paper size group The paper sizes of U2 can be recognized as special size papers with the universal cassette when special size papers below are registered to U2.	2
	<Setting value> 24: FOOLSCAP (Default) 26: OFFICIO 27: Ecuadorian OFFICIO 33: Argentine LEGAL 36: Argentine OFFICIO 37: Mexican OFFICIO	
CST-U3	Specify paper names which are used in the paper size group The paper sizes of U3 can be recognized as special size papers with the universal cassette when special size papers below are registered to U3.	2
	<Setting value> 25: Australian FOOLSCAP 34: Governmental LEGAL (Default) 35: FOLIO	
CST-U4	Specify paper names which are used in the paper size group The paper sizes of U4 can be recognized as special size papers with the universal cassette when special size papers below are registered to U4.	2
	<Setting value> 18: LTR 29: Argentine LETTER (Default)	

<ACC>

T-17-177

COPIER > OPTION > ACC		
Sub-item	**Description**	**Level**
COIN	Switching the coin vendor Set whether the coin vendor management mode can be entered or not.	1
	<Setting value> 0: OFF [Default] 1: ON	
DK-P	Setting a paper size for use on a paper deck (option)	1
	<Setting value> 0: A4 [Default] 1: B5 2: LTR	

COPIER > OPTION > ACC		
Sub-item	**Description**	**Level**
PD-SIZE	Setting the Paper Deck Size	1
	<Setting value> 0: [Default] 22: K-LGL 23: K-LGLR 24: FLSC 25: A-FLS 26: OFI 27: E-OFI 28: B-OFI 29: A-LTR 30: A-LTRR 31: G-LTR 32: G-LTRR 33: A-LGL 34: G-LGL 35: FGLI 36: A-OFI 37: M-OFI	
CC-SPSW	Setting whether or not to support the control card (CC IV /CCV) interface	2
	<Setting value> 0: Do not support [Default] 1: Support	

<INT-FACE>

T-17-178

COPIER > OPTION > INT-FACE		
Sub-item	**Description**	**Level**
IMG-CONT	Use it to recognize an external EFI controller.	1
	<Setting value> 0: There is no external controller. 1 to 4 There is an external controller.	
AP-OPT	Permitting or prohibiting printing from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0: Printing is allowed with unspecified ID [Default: 0] 1: Printing is allowed with specified account 2: Printing is rejected	
AP-ACCNT	Setting a department ID for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	
AP-CODE	Setting a CPCA path for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	

<LCNS-TR>
Example of display: ST-XXXX 1 ( ) {0 to 0}
[1] [2]
[1] Status display 0: Not installed [Default] 1: Installed
[2] Invalidation 0: Invalidate (Only 0 can be entered.)

Transfer invalidation procedure
1. Select ST-XXXX, enter 0, and press the OK key.
2. A transfer license number (24 digits) is displayed at TR-XXXX.

T-17-179

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
ST-SEND	Displaying the send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SEND	Acquiring a transfer license key for the send function in transfer invalidation	2
ST-ENPDF	Displaying the encrypted PDF send function installation status in transfer invalidation and executing transfer invalidation	2

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
TR-ENPDF	Acquiring a transfer license key for the encrypted PDF send function in transfer invalidation	2
ST-SPDF	Displaying the searchable PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SPDF	Acquiring a transfer license key for the searchable PDF send function in transfer invalidation	2
ST-EXPDF	Displaying the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation and executing transfer invalidation	2
TR-EXPDF	Acquiring a transfer license key for the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation	2
ST-LIPS	Displaying the LIPS installation status in transfer invalidation and executing transfer invalidation	2
TR-LIPS	Acquiring a transfer license key for LIPS in transfer invalidation	2
ST-PDFDR	Displaying the PDF direct function installation status in transfer invalidation and executing transfer invalidation	2
TR-PDFDR	Acquiring a transfer license key for the PDF direct function in transfer invalidation	2
ST-SCR	Displaying the encrypted secure print function installation status in transfer invalidation and executing transfer invalidation	2
TR-SCR	Acquiring a transfer license key for the encrypted secure print function in transfer invalidation	2
ST-HDCLR	Displaying the HDD encryption/complete erasure function installation status in transfer invalidation and executing transfer invalidation	2
TR-HDCLR	Acquiring a transfer license key for the HDD encryption/complete erasure function in transfer invalidation	2
ST-BRDIM	Displaying the BarDIMM installation status in transfer invalidation and executing transfer invalidation	2
TR-BRDIM	Acquiring a transfer license key for BarDIMM in transfer invalidation	2
ST-TMDM	Use it to indicate the status installation in conjunction with transfer invalidation (for tandem configuration)	2
TR-TMDM	Use it to obtain a transfer license key in conjunction with transfer invalidation (for tandem configuration).	2

17.6.1.2 Copier List

0008-7972

/ iR8070

<BODY>

T-17-180

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
PO-CNT	Use it to turn on/off potential control.	1
	Setting value 0: off 1: on (default)	
TRNSG-SW	Use it to select toner guide bias control mode.	1
	<Setting value> 0: 200 V for absolute water content of 22 g or more; 600 V for others 1: fixed to 600 V 2: fixed to 200 V 3: 200 V for absolute water content of 18 g or more; 600 V for others (default) 4: 200 V for absolute water content of 14 g or more; 600 V for others	
MODEL-SZ	Switching regular resized display and ADF document size detection	1
	<Setting value> 0: AB (6R5E) [Default] 1: INCH (5R4E) 2: A (3R3E) 3: AB/INCH (6R5E)	
FIX-TEMP	Setting the down sequence start temperature for thick paper mode	1
	<Setting value> 0: 194 deg C 1: 189 deg C (default) 2: 184 deg C	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
FUZZY	Use it to turn on/off fuzzy control and to make environment settings.	1
	MEMO: - The selection will affect pre-transfer, transfer, and separation charging currents. - Selecting 1 through 3 will make the operation independent of the environment sensor. **<Setting value>** 0: fuzzy control ON (default), 1: low humidity environment mode (current level lower than standard), 2: normal humidity environment mode, 3: high humidity environment mode (current level higher than standard)	
CNT-W/PR	Use it to turn ON/OFF the mechanism to change density during printing (PDL input).	1
	<Setting value> 0: correct target value to enable change of density during printing (default) 1: do not change density during printing	
CONFIG	Selecting several types of firmware installed on the hard disk and switching the country, language, and paper size type of this machine	1
	<Adjustment method> XXYYZZAAXX: Country (UP), YY: Language (ja), ZZ (00) Destination (00:CANON 01:OEM), AA (00): Paper size type (00:AB 01:Inch 02:A 03:All size) **<Operating procedure>** 1) Select <CONFIG>. 2) Select an item to reverse its display. Then press the + or - key to change the contents. 3) Each time the + or - key is pressed, the contents change sequentially. 4) Display the intended contents at all items and press the OK key. 5) Turn the main power switch OFF and ON.	
TR-SP-C1	Use it to set the transfer/separation output setting when the right deck is selected, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C2	Use it to set the transfer/separation output setting when the left deck is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C3	Use it to set the transfer/separation output setting when the cassette 3 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C4	Use it to set the transfer/separation output setting when the cassette 4 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-MF	Use it to set the transfer/separation output setting when the manual feed tray is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-DK	Use it to set the transfer/separation output setting when the side paper deck is used.	1
	<Setting value> 0: setting for plain power (default) 1: setting for recycled paper 2: setting for tracing paper	
DEV-SLOW	Use it to set the speed of the developing sleeve.	1
	<Setting value> 0: in relation to environment 1: fixed to high speed 2: fixed to low speed (default)	
STPL-SFT	Use it to specify where to execute shift stacking in staple mode.	1
	<Setting value> 0: perform shift stacking in staple mode (as it is: default) 1: do not perform shift stacking in staple mode	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
BASE-SW	Switching from the MEAP-Full mode to the Base model **<Setting value>** 0: OFF (Base model), 1: ON (Full model)	1
SC-L-CNT	switches the thresh value for the scan counter (large/small). **Setting value:** 0 (B4 as threshold) or 1 (LTR as threshold) default: 0	1
IDL-MODE	Use it to select idle rotation mode for the developing assembly. **MEMO:** Set it to '2' or '3' if the image becomes distorted or too light. **<Setting value>** 0: OFF (no idle rotation) 1: auto control based on readings of environment sensor (default) 2: start idle rotation when fixing roller temperature reaches 100 deg C 3: start idle rotation when main power switch goes ON	2
SCANSLCT	Turning ON or OFF the function of calculating a scan area from the selected paper size **<Setting value>** 0: OFF (Determining the scan area by document detection) 1: ON (Determining the scan area by paper size)	2
OHP-TEMP	Use it to switch among temperature settings for transparency mode. **MEMO:** The fixing temperature will be lowered to improve separation of transparencies from the fixing roller. **<Setting value>** 0: 198 deg C (default) 1: 193 deg C 2: 188 deg C 3: 183 deg C	2
OHP-CNT	Use it to turn ON/OFF the potential control mechanism for transparency mode. **<Setting value>** 0: use target value obtained in potential control of transparency mode (default) 1: do not use potential control in transparency mode	2
FIX-TMP1	Use it to select a temperature for starting down-sequence for plain paper. **MEMO:** If the user wants priority on image quality, set it to '0'; on speed, set it to '2'. **<Setting value>** 0: 183 deg C 1: 178 deg C (default) 2: 173 deg C	2
TRSW-P-B	Use it to turn ON/OFF the transfer current output correction mechanism at the trailing edge of paper. **<Setting value>** 0: ON 1: OFF (default)	2
SP-MODE	Use it to turn ON/OFF the separation current output correction mechanism. **<Setting value>** 0: standard mode (default) 1: low voltage mode	2
FTMP-DWN	USE it to select enhanced stacking mode. **MEMO:** The fixing temperature is lowered to enhance stacking in the finisher. **<Setting value>** 0: OFF (default) 1: decrease by -5 deg C 2: decrease by -10 deg C 3: decrease by -15 deg C	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
DRUM-CLN	Use it to select enhanced drum cleaning mode (stop sequence). **MEMO:** - The rotation of the drum is stopped for about 1 sec as soon as a specific number of prints have been made during copying, thereby recovering the cleaning performance of the cleaning blade. - If cleaning faults occur, use this mode to change the setting. - A higher setting brings stronger results. **<Setting value>** 0: 1000 single-sided copies (500 double-sided copies) (default) 1: 500 single-sided copies (250 double-sided copies) 2: 250 single-sided copies (125 double-sided copies) 3: if absolute water content is 9 g or more, 1000 single-sided copies (500 double-sided copies) after passage of paper if absolute water content is less than 9 g, 250 single-sided copies (125 double-sided copies) after passage of paper 4: do not stop rotation	2
DRM-IDL	Use it to set idle rotation mode for the photosensitive drum executed at time of power-on. **MEMO:** The photosensitive drum is rotated idly to prevent adhesion of toner to the drum. Set it between '1' and '4' if the image is distorted or too light. **<Setting value>** 0: do not use idle rotation (default) 1: if absolute water content is 18 g or more, rotate for 30 sec 2: if absolute water content is 18 g or more, rotate for 2 min 3: regardless of environment, rotate for 30 sec 4: regardless of environment, rotate for 2 min	2
FX-FANSW	Use it to switch fixing heat discharge fan control. **MEMO:** Setting it to '1' will use half-speed control for the fan after copying/ printing. **<Setting value>** 0: Full speed (default) 1: Half speed	2
RAW-DATA	Setting whether or not to print out received data with no change If a received image has a problem, the problem is used to isolate the data contents and image processing. **<Setting value>** 0: Usual operation [Default] 1: Print out with no change	2
SHARP	Use it to change the sharpness level of images. - A higher value makes images sharper. **<Setting value>** 1 to 5 (default: 3)	2
FDW-DLV	Use it to switch between face-up and face-down delivery mode, thereby ensuring good stacking when making multiple prints. **<Setting value>** 0: normal (face-up for all when using 1 original) 1: when using 1 original, face-up if for one set; face-down if for multiple sets (default)	2
COTDPC-D	Use it to set toner save mode. **<Setting value>** 0: do not use toner save mode (default) 1: VDT-20V of coy image, VDT-P25V of print image (target of -10 %, approx.) 2: VDT-40V of copy image, VDT-P-50V of print image (target of -20 %, approx.) 3: VDT-60V of copy image, VDT-P-75V of print image (target of -30 %, approx.)	2
RMT-LANG	Changing the remote UI language from web **<Adjustment method>** Select a language code with the + or - key.	2
IFAX-LIM	Limiting the number of output lines when a large amount of data has been received by IFAX. **<Setting value>** 0: No limit 0 to 999 [Default: 500]	2
DF-BLINE	Taking corrective measures against a black line caused by dust on the platen at flow read **<Setting value>** 0: No corrective measures [Default] 1: Corrective measures	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
THICK-PR	Use it to set the potential control mechanism for thick paper mode.	2
	<Setting value> 0: use value determined by potential control in plain paper mode (default) 1: use value determined by potential control in transparency mode	
TEMP-TBL	Use it to select a fixing temperature.	2
	<Setting value> 0: 198 deg C (default) 1: 203 deg C 2: 193 deg C 3: 188 deg C 4: 183 deg C	
DRM-H-SW	Use it to set the night drum heater OFF mode.	2
	<Setting value> 0: night drum heater ON (default) 1: monitor ambient humidity every 2 hr; turn off drum heater if absolute water content is 9 g or less	
DEV-IDLR	Use it to set black band developing forced idle rotation mode used at time of power-on.	2
	<Setting value> 0: execute black band developing idle rotation sequence at power-on if 2000 copies or more were made on previous day and, in addition, absolute water content is 16 g or more (default) 1: execute black band developing idle rotation sequence at power-on at all times	
BK-BD-1	Use it to set black band monthly remedial mode (for January).	2
	<Setting value> 0: do not execute if absolute water content is less than 9 g execute every 200 copies if absolute water content is 9 g or more (default) 1: execute black band sequence every 60 copies 2: execute black band sequence every 20 copies 3: execute black band sequence every 6 copies	
BK-BD-2	Use it to set black band monthly remedial mode (for February).	2
	<Setting value> Same as for January.	
BK-BD-3	Use it to set black band monthly remedial mode (for March).	2
	<Setting value> Same as for January.	
BK-BD-4	Use it to set black band monthly remedial mode (for April).	2
	<Setting value> Same as for January.	
BK-BD-5	Use it to set black band monthly remedial mode (for May).	2
	<Setting value> Same as for January.	
BK-BD-6	Use it to set black band monthly remedial mode (for June).	2
	<Setting value> Same as for January.	
BK-BD-7	Use it to set black band monthly remedial mode (for July).	2
	<Setting value> Same as for January.	
BK-BD-8	Use it to set black band monthly remedial mode (for August).	2
	<Setting value> Same as for January.	
BK-BD-9	Use it to set black band monthly remedial mode (for September).	2
	<Setting value> Same as for January.	
BK-BD-10	Use it to set black band monthly remedial mode (for October).	2
	<Setting value> Same as for January.	
BK-BD-11	Use it to set black band monthly remedial mode (for November).	2
	<Setting value> Same as for January.	
BK-BD-12	Use it to set black band monthly remedial mode (for December).	2
	<Setting value> Same as for January.	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
SMTPTXPN	Use it to change the number of the SMTP transmission port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
SMTPRXPN	Use it to change the number of the SMTP reception port. **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
POP3PN	Use it to change the number of the P0P3 reception port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 110 After a change, be sure to re-boot the machine.	2
RUI-DSP	Setting whether to display a copy screen for RUI (Option switch conforming to the Disability Law) **<Setting value>** 0: Do not display [Default] 1: Display	2
ORG-LGL	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: LEGAL (default) 1: FOOLSCAP 2: M-OFFICIO 3: A-FOOLSCAP 4: FORIO 5: G-LEGAL 6: OFFICIO 7: E-OFFICIO 8: A-OFFICIO 9: B-OFFICIO 10: A-LEAGAL	2
ORG-LTR	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: LTR (default) 1: G_LTR 2: EXECTIVE 3: K_LGL 4: A_LTR	2
UI-BOX	Setting whether or not to display the box screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
UI-SEND	Setting whether or not to display the send screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
UI-FAX	Setting whether or not to display the fax screen of the operating section not used	2
UI-EXT	Setting whether or not to display the extended screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
NW-SPEED	Selecting the data transfer speed at service network connection **<Setting value>** 0: Auto [Default] 1: 100Base-TX 2: 100Base-T	2
TRY-CHG	Use it to change the control mechanism used to switch over trays when one becomes full. **MEMO:** This item is displayed only at the time of Stacker-A1 connection.	2
STS-PORT	Turning the TOT synchronous command communication port ON or OFF The port for Inquiry/Response (synchronous) command communication in TUIF over TCP/IP is turned ON or OFF. **<Setting value>** 0: OFF [Default] 1: ON	2

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Sub-item	**Description**	**Level**
CMD-PORT	Turning the TOT asynchronous status communication port ON or OFF The port for asynchronous status communication in TUIF over TCP/IP is turned ON or OFF.	2
	<Setting value> 0: OFF [Default] 1: ON	
VBK-TBL	changes the Vback environment control mechanism. **<Setting value>** 0: default 1: new Vback control	2
NS-CMD5	Limiting the use of CRAM-MD5 in SMTP authentication This is set to limit the use of CRAM-MD5 in SMTP authentication	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-GSAPI	Limiting the use of GSSAPI in SMTP authentication This is set to limit the use of GSSAPI in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-NTLM	Limiting the use of NTLM in SMTP authentication This is set to limit the use of NTLM in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLNWS	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment of communication packet encryption This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLN	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are not encrypted.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-LGN	Limiting the use of LOGIN for SMTP authentication This is set to limit the use of LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
MEAP-PN	Changing the HTTP port number of the MEAP application	2
	<Setting value> 0 to 65535 (Default: 8000)	
SVMD-ENT	Switching how to enter service mode	2
	<Setting value> 0: [User mode key] -> Simultaneous press of [2] and [*]-> [User mode] (Default) 1: [User mode key] -> Simultaneous press of [4] and [9]-> [User mode]	
DA-CNCT	Reserved for future	2
CHNG-STS	indicates the ToT status component number. sets the port number for the status connection when TUIF over TTCP/IP is in use. **Setting value:** 1-65535 **Setting value:** 20010	2
CHNG-CMD	sets the port number for command connection when TUIF over TCP/IP is in use. **Setting value:** 1-65535 **Setting value:** 20000	2
MEAP-DSP	Turning screen transition from MEAP to Native ON or OFF	2
	<Setting value> 0: OFF (Transition to the Native screen) [Default] 1: ON (No transition to the Native screen)	

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Sub-item	**Description**	**Level**
ANIM-SW	Turn MEAP application error/jam screen display ON or OFF	2
	<Setting value> 0: OFF (Display warning screen) [Default] 1: ON (Do not display warning screen)	
MEAP-SSL	Setting the MEAP HTTPS port	2
	<Setting value> 0 to 65535 (same as the setting of another network port system) [Default: 8443]	

<USER>

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Sub-item	**Description**	**Level**
COPY-LIM	Changing the upper limit of copy count	1
	<Setting value> 1 to 9999 [Default: 9999]	
SLEEP	Turning the sleep function ON or OFF	1
	<Setting value> 0: OFF 1: ON [Default] The sleep function is set with Timer in User Mode.	
WEB-DISP	Use it to turn ON/OFF the fixing web length message.	1
	MEMO: 0: OFF (do not issued; but issued only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
W-TONER	Use it to turn ON/OFF the waste toner case full warning message.	1
	MEMO: 0: OFF (do not issue; but issue only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
COUNTER1	Setting Software counter 1 on the User mode screen	1
	<Setting value> 101: Total 1 [Value at shipping / Value after RAM clearance = 101 -> Cannot be changed]	
COUNTER2to6	Setting Software counters 2 to 6 on the User mode screen	1
	<Setting value> 0 to 999	
CONTROL	Limiting the user of a control card for a PDL job	1
	<Setting value> 0: Do not use [Default] 1: Use	
B4-L-CNT	Setting whether to count B4 as the large size or the small size on Software counters 1 to 6	1
	<Setting value> 0: Small size [Default] 1: Large size	
COPY-JOB	Prohibiting copy job reservation when a card reader and a coin robot are used	1
	<Setting value> 0: Copy job reserved [Default] 1: Copy job not reserved	
TAB-ROT	If the image is a PDL landscape in PDL, use it to specify whether to rotate it 180 deg.	1
	<Setting value> 0: do not rotate 1: rotate	
PR-PSESW	Setting whether or not to display the print pause function switch	1
	<Setting value> 0: No print pause function [Default] The user screen does not display the print pause function. (Conventional specification) 1: Print pause function [Default] The user screen does not display the print output stop and restart settings.	

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Sub-item	**Description**	**Level**
IDPRN-SW	switches over count job types of the group control counter. 0: increases the count for the PRINT category (Box print, Report print, SendLocal print, PDL print (default)). increase the count for the COPY category (COPY). 1: increases the count for the PRINT category (Report print, SendLocal print, PDL print) increases the count for the COPY category (COPY, Box print)	1
CNT-SW	Switching the charging counter and default display items	1
	<Setting value> - When the set value is 0 [Default] 101: Total 1 - When the set value is 1 102: Total 2 202: Copy total 2 127: Total A2 - When the set value is 2 101: Total 1 104: Total small 103: Total large 501: Scan total 1	
TAB-ACC	Set the tab paper (index paper) and the setting tab paper (index paper) if ACC is available.	1
	<Setting value> 0: ACC is not available between tab papers (Default) 1: ACC is available between tab papers	
FRM-RPT	Use it to specify a margin in image repeat mode:	1
	<Setting value> 0: erform image repeat without margin 1: erform image repeat with margin	
BCNT-AST	Switching the job type of counting box prints by ASSIST	1
	<Setting value> 0: Count as PDL job [Default] 1: Count as Copy job	
DOC-REM	turns on or off the message indicated to prompt removal of originals. After an original has been read in copyboard mode, an attempt to start reading with an original in the feeder without opening and then closing the feeder will cause the machine to indicate a message promoting the removal of the original. Use this switch to enable or disable the message. **<Setting value>** 0 (do not indicate) or 1 (indicate) setting 0	1
TRAY-SEL	delivery tray position switch (Finisher-K1)	1
	Use it to switch over the target of output when the following settings are made: multiple originals, copy count at 1, sort mode, special tray A & B. 0: use sample tray for output 1: use tray B for output	
SIZE-DET	Turning the document size detection function ON or OFF	2
	<Setting value> 0: OFF (When the platen is opened, the user will not be dazzled because the lamp does not light.) 1: ON [Default]	
DATE-DSP	Switching the date display format	2
	<Setting value> 0: YY/MM/DD 1: DD/MM/YY 2: MM/DD/YY	
MB-CCV	Limiting the mailbox control card user	2
	<Setting value> 0: No [Default] 1: Yes	
PR-D-SEL	Use it to set the density of printing (PDL input).	2
	<Setting value> 0 to 8 (4: default) 0 (light) <=> 4 (standard) <=> 8 (dark)	
TRY-STP	Setting output or no output in the tray full state	2
	<Setting value> 0: Ordinary mode (Interrupt when the finisher tray is full) [Default] 1: Interrupt by height detection only	

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Sub-item	**Description**	**Level**
MF-LG-ST	Setting the long mode key	2
	<Setting value> 0: Ordinary [Default] 1: Display a long mode key on the corresponding mode screen	
SPECK-DP	Use it to enable/disable indication of a warning for dust detection in streamreading.	2
	<Setting value> 0: disable indication (default), 1: enable indication	
CNT-DISP	Setting whether or not to display a serial number when the counter confirmation key is pressed	2
	<Setting value> 0: Display a serial number [Default] 1: Do not display a serial number	
PH-D-SEL	Setting the number of lines for printing in Photo mode	2
	<Setting value> 0: 141 lines [Default] 1: 134 lines	
OP-SZ-DT	switches on or off the original size detection function with the copyboard cover open. 0: disable size detection if the copyboard cover is open (default; the appropriate original size must be entered manually on the control panel). 1: enable original size detection when the copyboard cover is open (use it if auto size detection is desired as when copying a book; detection is executed in response to a press on the Start key).	2
NW-SCAN	Enabling or disabling the network scan function	2
	<Setting value> 0: Network scan function disabled [Default] 1: Network scan function enabled **MEMO:** Not changeable for anything in Japan Always 1 for PSPCL outside Japan Changeable for other outside Japan	
INS-C/S	Use it to expand the inserter function.	2
	<Setting value> 0: support cover only (default) 1: support cover + interleaf (multi inserter)	
TBIC-RNK	Use it to reduce uneven intervals.	2
	<Setting value> 1 to 5 (default: 1)	
HDCR-DSP	Setting whether or not display HDD clearance in User mode and changing the contents of clearance	2
	<Setting value> 1: Clear once with 0 [Default] 2: Clear once with random data 3: Clear three times with random data	
BCK-CVR	Use it to enable or disable the back cover mode function.	2
	<Setting value> 0: disable back cover mode 1: enable back cover mode	
JOB-INVL	Setting the job interval at interrupt	2
	<Setting value> 0: Output the next job continuously in interrupt copying (Standard) [Default] 1: Start outputting the next job after the last paper of the interrupted copy job is output 2: Start outputting the next job after the last paper of all jobs is output	
LGSW-DSP	Setting whether or not to display [Log display ON/OFF] on the User mode screen	2
	[Default] 0: Do not display [Log display ON/OFF] [Default] 1: Display [Log display ON/OFF]	
PCL-COPY	Supporting the PCL command [COPIES Meru/Pinatubo/Hood]	2
	<Setting value> 0: Control each page according to the command of the COPIES command specified to the page [Default] 1: Meru/Pinatubo/Hood compatible mode 2 to 65535: Reserved	
OUT-FD	Use it to select face-down (FD) delivery at all times.	2
	<Setting value> 0: use facedown output normally 1: use facedown output at all times	

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Sub-item	**Description**	**Level**
PRJOB-CP	Setting the CCV count pulse at reception and report output	2
	<Setting value> 0: Do not output count pulse [Default] 1: Output count pulse	
DPT-ID-7	Registering the department ID and entering 7 digits for authentication	2
	<Setting value> 0: Conventional [Default] 1: 7-digit input	
RUI-RJT	Disconnecting the HTTP port from RUI by three authentication failures	2
	<Setting value> 0: Invalid [Default] 1: Valid	
CTM-S06	Setting whether or not to erase the password from the export file of the file send address	2
	<Setting value> 0: Do not erase the password from the export file. [Default] 1: Erase the password from the export file.	
FREG-SW	Setting whether or not to display the free section of the MEAP counter (SEND)	2
	<Setting value> 0: Do not display [Default] 1: Display	
IFAX-SZL	Enabling or disabling the send size limit in IFAX transmission (not via server only)	2
	<Setting value> 0: Send size limit enabled (via server/not via server) 1: Send size limit disabled (not via server only) [Default]	
IFAX-PGD	Setting whether or not to permit split send in pages (only beyond the upper limit of the send data size)	2
	<Setting value> 0: Do not permit split send in IFAX Simple mode transmission [Default] 1: Permit split send in IFAX Simple mode transmission	
MEAPSAFE	Turning the MEAP Safe mode ON or OFF	2
	<Setting value> 0: OFF [Default] 1: ON (Safe mode)	
TRAY-FLL	Use it to enable or disable notification in response to the tray becoming full.	2
	0: indicate that the output tray has become full when all available trays have become full 1: indicate that the output tray has become full only when the special tray (if selected) has become full or all trays have been identified as being full	
PRNT-POS	Use it to specify whether to stop or not to stop all subsequent jobs when a job is canceled in the event of an error.	2
	<Setting value> 0: do not stop all 1: stop all	
AFN-PSWD	Limiting access in User mode	2
	<Setting value> 0: OFF (Transition to the User mode screen with no password request) [Default] 1: ON (Transition to the User mode screen after password matching)	
PTJAM-RC	Turning PDL jam recovery ON or OFF	2
	<Setting value> 0: OFF (Do not recover) 1: ON (Recover) [Default]	
SLP-SLCT	Switch of the existing network application	2
	<Setting value> 0: Not use [Default] 1: Use ⚠ When the machine is set its range as "1", it will not move to the sleep mode 3.	
PS-MODE	Setting PS internal mode	2
	<Setting value> 0 to 65535 0: Not compatible [Default] 1: PS Type 3 Halftone command compatible (conventional) (Dither growth forward and reverse) 2 to 65535: Reserved	
CNCT-RLZ	Use it to specify whether to use or not to use the connection serialization function.	2
	<Setting value> 0: OFF (disable connection serialization function) 1: ON (enlarge connection serialization function)	

Software counter specifications
100 - 199: Total
200 - 299: Copy (001 to 099 added in case of shortage)
300 - 399: Print
400 - 499: Copy and print
500 - 599: Scan
600 - 699: Box print
700 - 799: Receive print
800 - 899: Report print
900 - 999: Send
Explanations of symbols and terms in the table
- YES: Counter valid in this machine
- Large size: Paper greater than B4
- Small size: Paper of B4 or smaller
- Counter Description: Numerals 1 and 2 indicate the counts of large size paper.
In service mode (COPIER>OPTION>USER>B4-L-CNT), B4 or greater can be set as the large size.
- Total A: Total excluding local and remote copies
- Total B: Total excluding local and remote copies and box prints
- Copy: Local and remote copies
- Copy A: Local and remote copies and box prints
- Print: PDL, report, and box prints
- Print A: PDL and report prints
- Scan: Black-and-white and color scans

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No.	Counter Description	Support
101	Total 1	yes
102	Total 2	yes
103	Total (Large)	yes
104	Total (Small)	yes
105	Total (Full-color 1)	
106	Total (Full-color 2)	
108	Total (Black-and-white 1)	yes
109	Total (Black-and-white 2)	yes
110	Total (Monochrome / Large)	
111	Total (Monochrome / Small)	
112	Total (Black-and-white / Large)	yes
113	Total (Black-and-white / Small)	yes
114	Total 1 (Duplex)	yes
115	Total 2 (Duplex)	yes
116	Large (Duplex)	yes
117	Small (Duplex)	yes
118	Total (Monochrome 1)	
119	Total (Monochrome 2)	
120	Total (Full-color / Large)	
121	Total (Full-color / Small)	
122	Total (Full-color + Monochrome / Large)	
123	Total (Full-color + Monochrome / Small)	
124	Total (Full-color + Monochrome 2)	
125	Total (Full-color + Monochrome 1)	
126	Total A1	yes
127	Total A2	yes
128	Total A (Large)	yes
129	Total A (Small)	yes
130	Total A (Full-color 1)	
131	Total A (Full-color 2)	
132	Total A (Black-and-white 1)	yes
133	Total A (Black-and-white 2)	yes
134	Total A (Monochrome / Large)	
135	Total A (Monochrome / Small)	
136	Total A (Black-and-white / Large)	yes
137	Total A (Black-and-white / Small)	yes
138	Total A1 (Duplex)	
139	Total A2 (Duplex)	
140	Large A (Duplex)	
141	Small A (Duplex)	
142	Total A (Monochrome 1)	
143	Total A (Monochrome 2)	

No.	Counter Description	Support
144	Total A (Full-color / Large)	
145	Total A (Full-color / Small)	
146	Total A (Full-color + Monochrome / Large)	
147	Total A (Full-color + Monochrome / Small)	
148	Total A (Full-color + Monochrome 2)	
149	Total A (Full-color + Monochrome 1)	
150	Total B1	yes
151	Total B2	yes
152	Total B (Large)	yes
153	Total B (Small)	yes
154	Total B (Full-color 1)	
155	Total B (Full-color 2)	
156	Total B (Black-and-white 1)	yes
157	Total B (Black-and-white 2)	yes
158	Total B (Monochrome / Large)	
159	Total B (Monochrome / Small)	
160	Total B (Black-and-white / Large)	yes
161	Total B (Black-and-white / Small)	yes
162	Total B1 (Duplex)	
163	Total B2 (Duplex)	
164	Large B (Duplex)	
165	Small B (Duplex)	
166	Total B (Monochrome 1)	
167	Total B (Monochrome 2)	
168	Total B (Full-color / Large)	
169	Total B (Full-color / Small)	
170	Total B (Full-color + Monochrome / Large)	
171	Total B (Full-color + Monochrome / Small)	
172	Total B (Full-color + Monochrome 2)	
173	Total B (Full-color + Monochrome 1)	
201	Copy (Total 1)	yes
202	Copy (Total 2)	yes
203	Copy (Large)	yes
204	Copy (Small)	yes
205	Copy A (Total 1)	yes
206	Copy A (Total 2)	yes
207	Copy A (Large)	yes
208	Copy A (Small)	yes
209	Local copy (Total 1)	yes
210	Local copy (Total 2)	yes
211	Local copy (Large)	yes
212	Local copy (Small)	yes
213	Remote copy (Total 1)	yes
214	Remote copy (Total 2)	yes
215	Remote copy (Large)	yes
216	Remote copy (Small)	yes
217	Copy (Full-color 1)	
218	Copy (Full-color 2)	
219	Copy (Monochrome 1)	
220	Copy (Monochrome 2)	
221	Copy (Black-and-white 1)	yes
222	Copy (Black-and-white 2)	yes
223	Copy (Full-color / Large)	
224	Copy (Full-color / Small)	
225	Copy (Monochrome / Large)	
226	Copy (Monochrome / Small)	
227	Copy (Black-and-white / Large)	yes
228	Copy (Black-and-white / Small)	yes
229	Copy (Full-color + Monochrome / Large)	
230	Copy (Full-color + Monochrome / Small)	
231	Copy (Full-color + Monochrome / 2)	

No.	Counter Description	Support
232	Copy (Full-color + Monochrome / 1)	
233	Copy (Full-color / Large / Duplex)	
234	Copy (Full-color / Small / Duplex)	
235	Copy (Monochrome / Large / Duplex)	
236	Copy (Monochrome / Small / Duplex)	
237	Copy (Black-and-white / Large / Duplex)	
238	Copy (Black-and-white / Small / Duplex)	
245	Copy A (Full-color 1)	
246	Copy A (Full-color 2)	
247	Copy A (Monochrome 1)	
248	Copy A (Monochrome 2)	
249	Copy A (Black-and-white 1)	yes
250	Copy A (Black-and-white 2)	yes
251	Copy A (Full-color / Large)	
252	Copy A (Full-color / Small)	
253	Copy A (Monochrome / Large)	
254	Copy A (Monochrome / Small)	
255	Copy A (Black-and-white / Large)	yes
256	Copy A (Black-and-white / Small)	yes
257	Copy A (Full-color + Monochrome / Large)	
258	Copy A (Full-color + Monochrome / Small)	
259	Copy A (Full-color + Monochrome / 2)	
260	Copy A (Full-color + Monochrome / 1)	
261	Copy A (Full-color / Large / Duplex)	
262	Copy A (Full-color / Small / Duplex)	
263	Copy A (Monochrome / Large / Duplex)	
264	Copy A (Monochrome / Small / Duplex)	
265	Copy A (Black-and-white / Large / Duplex)	
266	Copy A (Black-and-white / Small / Duplex)	
273	Local copy (Full-color 1)	
274	Local copy (Full-color 2)	
275	Local copy (Monochrome 1)	
276	Local copy (Monochrome 2)	
277	Local copy (Black-and-white 1)	yes
278	Local copy (Black-and-white 2)	yes
279	Local copy (Full-color / Large)	
280	Local copy (Full-color / Small)	
281	Local copy (Monochrome / Large)	
282	Local copy (Monochrome / Small)	
283	Local copy (Black-and-white / Large)	yes
284	Local copy (Black-and-white / Small)	yes
285	Local copy (Full-color + Monochrome / Large)	
286	Local copy (Full-color + Monochrome / Small)	
287	Local copy (Full-color + Monochrome / 2)	
288	Local copy (Full-color + Monochrome / 1)	
289	Local copy (Full-color / Large / Duplex)	
290	Local copy (Full-color / Small / Duplex)	
291	Local copy (Monochrome / Large / Duplex)	
292	Local copy (Monochrome / Small / Duplex)	
293	Local copy (Black-and-white / Large / Duplex)	
294	Local copy (Black-and-white / Small / Duplex)	
002	Remote copy (Full-color 1)	
003	Remote copy (Full-color 2)	
004	Remote copy (Monochrome 1)	
005	Remote copy (Monochrome 2)	
006	Remote copy (Black-and-white 1)	yes
007	Remote copy (Black-and-white 2)	yes
008	Remote copy (Full-color / Large)	
009	Remote copy (Full-color / Small)	
010	Remote copy (Monochrome / Large)	
011	Remote copy (Monochrome / Small)	

No.	Counter Description	Support
012	Remote copy (Black-and-white / Large)	yes
013	Remote copy (Black-and-white / Small)	yes
014	Remote copy (Full-color + Monochrome / Large)	
015	Remote copy (Full-color + Monochrome / Small)	
016	Remote copy (Full-color + Monochrome / 2)	
017	Remote copy (Full-color + Monochrome / 1)	
018	Remote copy (Full-color / Large / Duplex)	
019	Remote copy (Full-color / Small / Duplex)	
020	Remote copy (Monochrome / Large / Duplex)	
021	Remote copy (Monochrome / Small / Duplex)	
022	Remote copy (Black-and-white / Large / Duplex)	
023	Remote copy (Black-and-white / Small / Duplex)	
301	Print (Total 1)	yes
302	Print (Total 2)	yes
303	Print (Large)	yes
304	Print (Small)	yes
305	Print A (Total 1)	yes
306	Print A (Total 2)	yes
307	Print A (Large)	yes
308	Print A (Small)	yes
309	Print (Full-color 1)	
310	Print (Full-color 2)	
311	Print (Monochrome 1)	
312	Print (Monochrome 2)	
313	Print (Black-and-white 1)	yes
314	Print (Black-and-white 2)	yes
315	Print (Full-color / Large)	
316	Print (Full-color / Small)	
317	Print (Monochrome / Large)	
318	Print (Monochrome / Small)	
319	Print (Black-and-white / Large)	yes
320	Print (Black-and-white / Small)	yes
321	Print (Full-color + Monochrome / Large)	
322	Print (Full-color + Monochrome / Small)	
323	Print (Full-color + Monochrome / 2)	
324	Print (Full-color + Monochrome / 1)	
325	Print (Full-color / Large / Duplex)	
326	Print (Full-color / Small / Duplex)	
327	Print (Monochrome / Large / Duplex)	
328	Print (Monochrome / Small / Duplex)	
329	Print (Black-and-white / Large / Duplex)	
330	Print (Black-and-white / Small / Duplex)	
331	PDL print (Total 1)	yes
332	PDL print (Total 2)	yes
333	PDL print (Large)	yes
334	PDL print (Small)	yes
335	PDL print (Full-color 1)	
336	PDL print (Full-color 2)	
339	PDL print (Black-and-white 1)	yes
340	PDL print (Black-and-white 2)	yes
341	PDL print (Full-color / Large)	
342	PDL print (Full-color / Small)	
345	PDL print (Black-and-white / Large)	yes
346	PDL print (Black-and-white / Small)	yes
351	PDL print (Full-color / Large / Duplex)	
352	PDL print (Full-color / Small / Duplex)	
355	PDL print (Black-and-white / Large / Duplex)	
356	PDL print (Black-and-white / Small / Duplex)	
401	Copy + Print (Full-color / Large)	
402	Copy + Print (Full-color / Small)	
403	Copy + Print (Monochrome / Large)	

No.	Counter Description	Support
404	Copy + Print (Monochrome / Small)	
405	Copy + Print (Monochrome 2)	
406	Copy + Print (Monochrome 1)	
407	Copy + Print (Full-color + Monochrome / Large)	
408	Copy + Print (Full-color + Monochrome / Small)	
409	Copy + Print (Full-color + Monochrome / 2)	
410	Copy + Print (Full-color + Monochrome / 1)	
411	Copy + Print (Large)	
412	Copy + Print (Small)	
413	Copy + Print (2)	
414	Copy + Print (1)	
415	Copy + Print (Monochrome / Large)	
416	Copy + Print (Monochrome / Small)	
417	Copy + Print (Full-color / Large / Duplex)	
418	Copy + Print (Full-color / Small / Duplex)	
419	Copy + Print (Monochrome / Large / Duplex)	
420	Copy + Print (Monochrome / Small / Duplex)	
421	Copy + Print (Black-and-white / Large / Duplex)	
422	Copy + Print (Black-and-white / Small / Duplex)	
501	Scan (Total 1)	yes
502	Scan (Total 2)	yes
503	Scan (Large)	yes
504	Scan (Small)	yes
505	Black-and-white scan (Total 1)	yes
506	Black-and-white scan (Total 2)	yes
507	Black-and-white scan (Large)	yes
508	Black-and-white scan (Small)	yes
509	Color scan (Total 1)	
510	Color scan (Total 2)	
511	Color scan (Large)	
512	Color scan (Small)	
601	Box print (Total 1)	yes
602	Box print (Total 2)	yes
603	Box print (Large)	yes
604	Box print (Small)	yes
605	Box print (Full-color 1)	
606	Box print (Full-color 2)	
607	Box print (Monochrome 1)	
608	Box print (Monochrome 2)	
609	Box print (Black-and-white 1)	yes
610	Box print (Black-and-white 2)	yes
611	Box print (Full-color / Large)	
612	Box print (Full-color / Small)	
613	Box print (Monochrome / Large)	
614	Box print (Monochrome / Small)	
615	Box print (Black-and-white / Large)	yes
616	Box print (Black-and-white / Small)	yes
617	Box print (Full-color + Monochrome / Large)	
618	Box print (Full-color + Monochrome / Small)	
619	Box print (Full-color + Monochrome / 2)	
620	Box print (Full-color + Monochrome / 1)	
621	Box print (Full-color / Large / Duplex)	
622	Box print (Full-color / Small / Duplex)	
623	Box print (Monochrome / Large / Duplex)	
624	Box print (Monochrome / Small / Duplex)	
625	Box print (Black-and-white / Large / Duplex)	
626	Box print (Black-and-white / Small / Duplex)	
701	Receive print (Total 1)	yes
702	Receive print (Total 2)	yes
703	Receive print (Large)	yes
704	Receive print (Small)	yes

No.	Counter Description	Support
705	Receive print (Full-color 1)	
706	Receive print (Full-color 2)	
707	Receive print (Gray-scale 1)	
708	Receive print (Gray-scale 2)	
709	Receive print (Monochrome 1)	yes
710	Receive print (Monochrome 2)	yes
711	Receive print (Full-color / Large)	
712	Receive print (Full-color / Small)	
713	Receive print (Gray-scale / Large)	
714	Receive print (Gray-scale / Small)	
715	Receive print (Monochrome / Large)	yes
716	Receive print (Monochrome / Small)	yes
717	Receive print (Full-color + Gray-scale / Large)	
718	Receive print (Full-color + Gray-scale / Small)	
719	Receive print (Full-color + Gray-scale 2)	
720	Receive print (Full-color + Gray-scale 1)	
721	Receive print (Full-color / Large / Duplex)	
722	Receive print (Full-color / Small / Duplex)	
723	Receive print (Gray-scale / Large / Duplex)	
724	Receive print (Gray-scale / Small / Duplex)	
725	Receive print (Monochrome / Large / Duplex)	
726	Receive print (Monochrome / Small / Duplex)	
801	Report print (Total 1)	yes
802	Report print (Total 2)	yes
803	Report print (Large)	yes
804	Report print (Small)	yes
805	Report print (Full-color 1)	
806	Report print (Full-color 2)	
807	Report print (Gray-scale 1)	
808	Report print (Gray-scale 2)	
809	Report print (Monochrome 1)	yes
810	Report print (Monochrome 2)	yes
811	Report print (Full-color / Large)	
812	Report print (Full-color / Small)	
813	Report print (Gray-scale / Large)	
814	Report print (Gray-scale / Small)	
815	Report print (Monochrome / Large)	yes
816	Report print (Monochrome / Small)	yes
817	Report print (Full-color + Gray-scale / Large)	
818	Report print (Full-color + Gray-scale / Small)	
819	Report print (Full-color + Gray-scale 2)	
820	Report print (Full-color + Gray-scale 1)	
821	Report print (Full-color / Large / Duplex)	
822	Report print (Full-color / Small / Duplex)	
823	Report print (Gray-scale / Large / Duplex)	
824	Report print (Gray-scale / Small / Duplex)	
825	Report print (Monochrome / Large / Duplex)	
826	Report print (Monochrome / Small / Duplex)	
901	Copy scan total 1 (Color)	
902	Copy scan total 1 (Black-and-white)	
903	Copy scan total 2 (Color)	
904	Copy scan total 2 (Black-and-white)	
905	Copy scan total 3 (Color)	
906	Copy scan total 3 (Black-and-white)	
907	Copy scan total 4 (Color)	
908	Copy scan total 4 (Black-and-white)	
909	Local copy scan (Color)	
910	Local copy scan (Black-and-white)	
911	Remote copy scan (Color)	
912	Remote copy scan (Black-and-white)	
913	Send scan total 1 (Color)	

No.	Counter Description	Support
914	Send scan total 1 (Black-and-white)	
915	Send scan total 2 (Color)	
916	Send scan total 2 (Black-and-white)	yes
917	Send scan total 3 (Color)	
918	Send scan total 3 (Black-and-white)	yes
919	Send scan total 4 (Color)	
920	Send scan total 4 (Black-and-white)	
921	Send scan total 5 (Color)	
922	Send scan total 5 (Black-and-white)	yes
929	Send scan total 6 (Color)	
930	Send scan total 6 (Black-and-white)	yes
931	Send scan total 7 (Color)	
932	Send scan total 7 (Black-and-white)	
933	Send scan total 8 (Color)	
934	Send scan total 8 (Black-and-white)	
935	Universal send scan total (Color)	
936	Universal send scan total (Black-and-white)	
937	Box scan (Color)	
938	Box scan (Black-and-white)	
939	Remote scan (Color)	
940	Remote scan (Black-and-white)	yes
941	Send scan / FAX (Color)	
942	Send scan / FAX (Black-and-white)	
943	Send scan / IFAX (Color)	
944	Send scan / IFAX (Black-and-white)	
945	Send scan / E-mail (Color)	
946	Send scan / E-mail (Black-and-white)	
947	Send scan / FTP (Color)	
948	Send scan / FTP (Black-and-white)	
949	Send scan / SMB (Color)	
950	Send scan / SMB (Black-and-white)	
951	Send scan / IPX (Color)	
952	Send scan / IPX (Black-and-white)	
953	Send scan / Database (Color)	
954	Send scan / Database (Black-and-white)	
955	Send scan / Local print (Color)	
956	Send scan / Local print (Black-and-white)	
957	Send scan / Box (Color)	
958	Send scan / Box (Black-and-white)	

<CST>

T-17-183

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
P-SZ-C1/C2	Use it to specify paper size used in the front deck (C1: right deck, C2: left deck).	1
	After electing the appropriate paper size, be sure to turn off and then on the main power switch. **<Setting value>** 6: A4 (default), 15: B5, 18: LTR	
U1-NAME to U4-NAME	Setting whether or not to display a paper name when a paper size group (U1 to U4) has been detected	2
	<Setting value> 0: Display U1, U2, U3, or U4 on the touchpanel. 1: Display the paper name set in service mode (CST-U1/U2/U3/U4).	
CST-U1	Specify paper names which are used in the paper size group The paper sizes of U1 can be recognized as special size papers with the universal cassette when special size papers below are registered to U1.	2
	<Setting value> 22: K-LGL (Default) 31: Governmental LETTER	

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
CST-U2	Specify paper names which are used in the paper size group The paper sizes of U2 can be recognized as special size papers with the universal cassette when special size papers below are registered to U2.	2
	<Setting value> 24: FOOLSCAP (Default) 26: OFFICIO 27: Ecuadorian OFFICIO 33: Argentine LEGAL 36: Argentine OFFICIO 37: Mexican OFFICIO	
CST-U3	Specify paper names which are used in the paper size group The paper sizes of U3 can be recognized as special size papers with the universal cassette when special size papers below are registered to U3.	2
	<Setting value> 25: Australian FOOLSCAP 34: Governmental LEGAL (Default) 35: FOLIO	
CST-U4	Specify paper names which are used in the paper size group The paper sizes of U4 can be recognized as special size papers with the universal cassette when special size papers below are registered to U4.	2
	<Setting value> 18: LTR 29: Argentine LETTER (Default)	

<ACC>

T-17-184

COPIER > OPTION > ACC		
Sub-item	**Description**	**Level**
COIN	Switching the coin vendor Set whether the coin vendor management mode can be entered or not.	1
	<Setting value> 0: OFF [Default] 1: ON	
DK-P	Setting a paper size for use on a paper deck (option)	1
	<Setting value> 0: A4 [Default] 1: B5 2: LTR	
PD-SIZE	Setting the Paper Deck Size	1
	<Setting value> 0: [Default] 22: K-LGL 23: K-LGLR 24: FLSC 25: A-FLS 26: OFI 27: E-OFI 28: B-OFI 29: A-LTR 30: A-LTRR 31: G-LTR 32: G-LTRR 33: A-LGL 34: G-LGL 35: FGLI 36: A-OFI 37: M-OFI	
CC-SPSW	Setting whether or not to support the control card (CC IV /CCV) interface	2
	<Setting value> 0: Do not support [Default] 1: Support	

<INT-FACE>

T-17-185

COPIER > OPTION > INT-FACE		
Sub-item	**Description**	**Level**
IMG-CONT	Use it to recognize an external EFI controller.	1
	<Setting value> 0: There is no external controller. 1 to 4: There is an external controller.	
AP-OPT	Permitting or prohibiting printing from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0: Printing is allowed with unspecified ID (Default: 0) 1: Printing is allowed with specified account 2: Printing is rejected	
AP-ACCNT	Setting a department ID for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	
AP-CODE	Setting a CPCA path for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	

<LCNS-TR>
Example of display: ST-XXXX 1 ( ) {0 to 0}
[1] [2]
[1] Status display 0: Not installed [Default] 1: Installed
[2] Invalidation 0: Invalidate (Only 0 can be entered.)

Transfer invalidation procedure
1. Select ST-XXXX, enter 0, and press the OK key.
2. A transfer license number (24 digits) is displayed at TR-XXXX.

T-17-186

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
ST-SEND	Displaying the send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SEND	Acquiring a transfer license key for the send function in transfer invalidation	2
ST-ENPDF	Displaying the encrypted PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-ENPDF	Acquiring a transfer license key for the encrypted PDF send function in transfer invalidation	2
ST-SPDF	Displaying the searchable PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SPDF	Acquiring a transfer license key for the searchable PDF send function in transfer invalidation	2
ST-EXPDF	Displaying the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation and executing transfer invalidation	2
TR-EXPDF	Acquiring a transfer license key for the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation	2
ST-LIPS	Displaying the LIPS installation status in transfer invalidation and executing transfer invalidation	2
TR-LIPS	Acquiring a transfer license key for LIPS in transfer invalidation	2
ST-PDFDR	Displaying the PDF direct function installation status in transfer invalidation and executing transfer invalidation	2
TR-PDFDR	Acquiring a transfer license key for the PDF direct function in transfer invalidation	2
ST-SCR	Displaying the encrypted secure print function installation status in transfer invalidation and executing transfer invalidation	2
TR-SCR	Acquiring a transfer license key for the encrypted secure print function in transfer invalidation	2
ST-HDCLR	Displaying the HDD encryption/complete erasure function installation status in transfer invalidation and executing transfer invalidation	2
TR-HDCLR	Acquiring a transfer license key for the HDD encryption/complete erasure function in transfer invalidation	2
ST-BRDIM	Displaying the BarDIMM installation status in transfer invalidation and executing transfer invalidation	2
TR-BRDIM	Acquiring a transfer license key for BarDIMM in transfer invalidation	2
ST-TMDM	Use it to indicate the status installation in conjunction with transfer invalidation (for tandem configuration)	2

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
TR-TMDM	Use it to obtain a transfer license key in conjunction with transfer invalidation (for tandem configuration).	2

17.6.1.3 Copier List

0008-7973

iR85+

<BODY>

T-17-187

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
PO-CNT	Use it to turn on/off potential control.	1
	<Setting value> 0: off, 1: on (default)	
TRNSG-SW	Use it to select toner guide bias control mode.	1
	<Setting value> 0: 200 V for absolute water content of 22 g or more; 600 V for others 1: fixed to 600 V 2: fixed to 200 V 3: 200 V for absolute water content of 18 g or more; 600 V for others (default) 4: 200 V for absolute water content of 14 g or more; 600 V for others	
MODEL-SZ	Switching regular resized display and ADF document size detection	1
	<Setting value> 0: AB (6R5E) [Default] 1: INCH (5R4E) 2: A (3R3E) 3: AB/INCH (6R5E)	
FIX-TEMP	Setting the down sequence start temperature for thick paper mode	1
	<Setting value> 0: 194 deg C 1: 189 deg C (default) 2: 184 deg C	
FUZZY	Use it to turn on/off fuzzy control and to make environment settings.	1
	MEMO: - The selection will affect pre-transfer, transfer, and separation charging currents. - Selecting 1 through 3 will make the operation independent of the environment sensor. **<Setting value>** 0: fuzzy control ON (default), 1: low humidity environment mode (current level lower than standard), 2: normal humidity environment mode, 3: high humidity environment mode (current level higher than standard)	
CNT-W/PR	Use it to turn ON/OFF the mechanism to change density during printing (PDL input).	1
	<Setting value> 0: correct target value to enable change of density during printing (default) 1: do not change density during printing	
CONFIG	Selecting several types of firmware installed on the hard disk and switching the country, language, and paper size type of this machine	1
	<Adjustment method> XXYYZZAAXX: Country (UP), YY: Language (ja), ZZ (00) Destination (00:CANON 01:OEM), AA (00): Paper size type (00:AB 01:Inch 02:A 03:All size) **<Operating procedure>** 1) Select <CONFIG>. 2) Select an item to reverse its display. Then press the + or - key to change the contents. 3) Each time the + or - key is pressed, the contents change sequentially. 4) Display the intended contents at all items and press the OK key. 5) Turn the main power switch OFF and ON.	
TR-SP-C1	Use it to set the transfer/separation output setting when the right deck is selected, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
TR-SP-C2	Use it to set the transfer/separation output setting when the left deck is used, thereby preventing faults otherwise occurring. **<Setting value>** 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	1
TR-SP-C3	Use it to set the transfer/separation output setting when the cassette 3 is used, thereby preventing faults otherwise occurring. **<Setting value>** 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	1
TR-SP-C4	Use it to set the transfer/separation output setting when the cassette 4 is used, thereby preventing faults otherwise occurring. **<Setting value>** 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	1
TR-SP-MF	Use it to set the transfer/separation output setting when the manual feed tray is used, thereby preventing faults otherwise occurring. **<Setting value>** 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	1
TR-SP-DK	Use it to set the transfer/separation output setting when the side paper deck is used. **<Setting value>** 0: setting for plain power (default) 1: setting for recycled paper 2: setting for tracing paper	1
DEV-SLOW	Use it to set the speed of the developing sleeve. **<Setting value>** 0: in relation to environment 1: fixed to high speed 2: fixed to low speed (default)	1
STPL-SFT	Use it to specify where to execute shift stacking in staple mode. **<Setting value>** 0: perform shift stacking in staple mode (as it is: default) 1: do not perform shift stacking in staple mode	1
BASE-SW	Switching from the MEAP-Full mode to the Base model **<Setting value>** 0: OFF (Base model), 1: ON (Full model)	1
IDL-MODE	Use it to select idle rotation mode for the developing assembly. **MEMO:** Set it to '2' or '3' if the image becomes distorted or too light. **<Setting value>** 0: OFF (no idle rotation) 1: auto control based on readings of environment sensor (default) 2: start idle rotation when fixing roller temperature reaches 100 deg C 3: start idle rotation when main power switch goes ON	2
OHP-TEMP	Use it to switch among temperature settings for transparency mode. **MEMO:** The fixing temperature will be lowered to improve separation of transparencies from the fixing roller. **<Setting value>** 0: 198 deg C (default) 1: 193 deg C 2: 188 deg C 3: 183 deg C	2
OHP-CNT	Use it to turn ON/OFF the potential control mechanism for transparency mode. **<Setting value>** 0: use target value obtained in potential control of transparency mode (default) 1: do not use potential control in transparency mode	2
FIX-TMP1	Use it to select a temperature for starting down-sequence for plain paper. **MEMO:** If the user wants priority on image quality, set it to '0'; on speed, set it to '2'. **<Setting value>** 0: 183 deg C 1: 178 deg C (default) 2: 173 deg C	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
TRSW-P-B	Use it to turn ON/OFF the transfer current output correction mechanism at the trailing edge of paper.	2
	<Setting value> 0: ON 1: OFF (default)	
SP-MODE	Use it to turn ON/OFF the separation current output correction mechanism.	2
	<Setting value> 0: standard mode (default) 1: low voltage mode	
FTMP-DWN	USE it to select enhanced stacking mode.	2
	MEMO: The fixing temperature is lowered to enhance stacking in the finisher. **<Setting value>** 0: OFF (default) 1: decrease by -5 deg C 2: decrease by -10 deg C 3: decrease by -15 deg C	
DRUM-CLN	Use it to select enhanced drum cleaning mode (stop sequence).	2
	MEMO: - The rotation of the drum is stopped for about 1 sec as soon as a specific number of prints have been made during printing, thereby recovering the cleaning performance of the cleaning blade. - If cleaning faults occur, use this mode to change the setting. - A higher setting brings stronger results. **<Setting value>** 0: 1000 single-sided prints (500 double-sided prints) (default) 1: 500 single-sided prints (250 double-sided prints) 2: 250 single-sided prints (125 double-sided prints) 3: if absolute water content is 9 g or more, 1000 single-sided prints (500 double-sided prints) after passage of paper if absolute water content is less than 9 g, 250 single-sided prints (125 double-sided prints) after passage of paper 4: do not stop rotation	
DRM-IDL	Use it to set idle rotation mode for the photosensitive drum executed at time of power-on.	2
	MEMO: The photosensitive drum is rotated idly to prevent adhesion of toner to the drum. Set it between '1' and '4' if the image is distorted or too light. **<Setting value>** 0: do not use idle rotation (default) 1: if absolute water content is 18 g or more, rotate for 30 sec 2: if absolute water content is 18 g or more, rotate for 2 min 3: regardless of environment, rotate for 30 sec 4: regardless of environment, rotate for 2 min	
FX-FANSW	Use it to switch fixing heat discharge fan control.	2
	MEMO: Setting it to '1' will use half-speed control for the fan after copying. **<Setting value>** 0: Full speed (default) 1: Half speed	
RAW-DATA	Setting whether or not to print out received data with no change If a received image has a problem, the problem is used to isolate the data contents and image processing.	2
	<Setting value> 0: Usual operation [Default] 1: Print out with no change	
FDW-DLV	Use it to switch between face-up and face-down delivery mode, thereby ensuring good stacking when making multiple prints.	2
	<Setting value> 0: normal (face-up for all when using 1 original) 1: when using 1 original, face-up if for one set; face-down if for multiple sets (default)	
COTDPC-D	Use it to set toner save mode.	2
	<Setting value> 0: do not use toner save mode (default) 1: VDT-20V of print image, VDT-P25V of print image (target of -10 %, approx.) 2: VDT-40V of print image, VDT-P-50V of print image (target of -20 %, approx.) 3: VDT-60V of print image, VDT-P-75V of print image (target of -30 %, approx.)	
RMT-LANG	Changing the remote UI language from web	2
	<Adjustment method> Select a language code with the + or - key.	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
IFAX-LIM	Limiting the number of output lines when a large amount of data has been received by IFAX. **<Setting value>** 0: No limit 0 to 999 [Default: 500]	2
THICK-PR	Use it to set the potential control mechanism for thick paper mode. **<Setting value>** 0: use value determined by potential control in plain paper mode (default) 1: use value determined by potential control in transparency mode	2
TEMP-TBL	Use it to select a fixing temperature. **<Setting value>** 0: 198 deg C (default) 1: 203 deg C 2: 193 deg C 3: 188 deg C 4: 183 deg C	2
DRM-H-SW	Use it to set the night drum heater OFF mode. **<Setting value>** 0: night drum heater ON (default) 1: monitor ambient humidity every 2 hr; turn off drum heater if absolute water content is 9 g or less	2
DEV-IDLR	Use it to set black band developing forced idle rotation mode used at time of power-on. **<Setting value>** 0: execute black band developing idle rotation sequence at power-on if 2000 copies or more were made on previous day and, in addition, absolute water content is 16 g or more (default) 1: execute black band developing idle rotation sequence at power-on at all times	2
BK-BD-1	Use it to set black band monthly remedial mode (for January). **<Setting value>** 0: do not execute if absolute water content is less than 9 g execute every 200 copies if absolute water content is 9 g or more (default) 1: execute black band sequence every 60 copies 2: execute black band sequence every 20 copies 3: execute black band sequence every 6 copies	2
BK-BD-2	Use it to set black band monthly remedial mode (for February). **<Setting value>** Same as for January.	2
BK-BD-3	Use it to set black band monthly remedial mode (for March). **<Setting value>** Same as for January.	2
BK-BD-4	Use it to set black band monthly remedial mode (for April). **<Setting value>** Same as for January.	2
BK-BD-5	Use it to set black band monthly remedial mode (for May). **<Setting value>** Same as for January.	2
BK-BD-6	Use it to set black band monthly remedial mode (for June). **<Setting value>** Same as for January.	2
BK-BD-7	Use it to set black band monthly remedial mode (for July). **<Setting value>** Same as for January.	2
BK-BD-8	Use it to set black band monthly remedial mode (for August). **<Setting value>** Same as for January.	2
BK-BD-9	Use it to set black band monthly remedial mode (for September). **<Setting value>** Same as for January.	2
BK-BD-10	Use it to set black band monthly remedial mode (for October). **<Setting value>** Same as for January.	2
BK-BD-11	Use it to set black band monthly remedial mode (for November). **<Setting value>** Same as for January.	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
BK-BD-12	Use it to set black band monthly remedial mode (for December). **<Setting value>** Same as for January.	2
SMTPTXPN	Use it to change the number of the SMTP transmission port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
SMTPRXPN	Use it to change the number of the SMTP reception port. **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
POP3PN	Use it to change the number of the P0P3 reception port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 110 After a change, be sure to re-boot the machine.	2
RUI-DSP	Setting whether to display a copy screen for RUI (Option switch conforming to the Disability Law) **<Setting value>** 0: Do not display [Default] 1: Display	2
TRY-CHG	Use it to change the control mechanism used to switch over trays when one becomes full.	2
STS-PORT	Turning the TOT synchronous command communication port ON or OFF The port for Inquiry/Response (synchronous) command communication in TUIF over TCP/IP is turned ON or OFF. **<Setting value>** 0: OFF [Default] 1: ON	2
CMD-PORT	Turning the TOT asynchronous status communication port ON or OFF The port for asynchronous status communication in TUIF over TCP/IP is turned ON or OFF. **<Setting value>** 0: OFF [Default] 1: ON	2
VBK-TBL	changes the Vback environment control mechanism. **<Setting value>** 0: default 1: new Vback control	2
NS-CMD5	Limiting the use of CRAM-MD5 in SMTP authentication This is set to limit the use of CRAM-MD5 in SMTP authentication **<Setting value>** 0: Dependent on the SMTP server [Default] 1: Do not use	2
NS-GSAPI	Limiting the use of GSSAPI in SMTP authentication This is set to limit the use of GSSAPI in SMTP authentication. **<Setting value>** 0: Dependent on the SMTP server [Default] 1: Do not use	2
NS-NTLM	Limiting the use of NTLM in SMTP authentication This is set to limit the use of NTLM in SMTP authentication. **<Setting value>** 0: Dependent on the SMTP server [Default] 1: Do not use	2
NS-PLNWS	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment of communication packet encryption This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are encrypted **<Setting value>** 0: Dependent on the SMTP server [Default] 1: Do not use	2
NS-PLN	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are not encrypted. **<Setting value>** 0: Dependent on the SMTP server [Default] 1: Do not use	2

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Sub-item	**Description**	**Level**
NS-LGN	Limiting the use of LOGIN for SMTP authentication This is set to limit the use of LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
MEAP-PN	Changing the HTTP port number of the MEAP application	2
	<Setting value> 0 to 65535 (Default: 8000)	
SVMD-ENT	Switching how to enter service mode	2
	<Setting value> 0: [User mode key] -> Simultaneous press of [2] and [*]-> [User mode] (Default) 1: [User mode key] -> Simultaneous press of [4] and [9]-> [User mode]	
DA-CNCT	Reserved for future	2
CHNG-STS	indicates the ToT status component number.	2
	sets the port number for the status connection when TUIF over TTCP/IP is in use. **Setting value:**1-65535 **Setting value**: 20010	
CHNG-CMD	Setting of ToT command connection port number	2
	sets the port number for command connection when TUIF over TCP/IP is in use. **Setting value**: 1-65535 **Setting value**: 20000	
MEAP-DSP	Turning screen transition from MEAP to Native ON or OFF	2
	<Setting value> 0: OFF (Transition to the Native screen) [Default] 1: ON (No transition to the Native screen)	
ANIM-SW	Turn MEAP application error/jam screen display ON or OFF	2
	<Setting value> 0: OFF (Display warning screen) [Default] 1: ON (Do not display warning screen)	
MEAP-SSL	Setting the MEAP HTTPS port	2
	<Setting value> 0 to 65535 (same as the setting of another network port system) [Default: 8443]	

<USER>

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Sub-item	**Description**	**Level**
COPY-LIM	Changing the upper limit of copy count	1
	<Setting value> 1 to 9999 [Default: 9999]	
SLEEP	Turning the sleep function ON or OFF	1
	<Setting value> 0: OFF 1: ON [Default] The sleep function is set with Timer in User Mode.	
WEB-DISP	Use it to turn ON/OFF the fixing web length message.	1
	MEMO: 0: OFF (do not issued; but issued only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
W-TONER	Use it to turn ON/OFF the waste toner case full warning message.	1
	MEMO: 0: OFF (do not issue; but issue only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
COUNTER1	Setting Software counter 1 on the User mode screen	1
	<Setting value> 101: Total 1 [Value at shipping / Value after RAM clearance = 101 -> Cannot be changed]	

COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
COUNTER2to6	Setting Software counters 2 to 6 on the User mode screen **<Setting value>** 0 to 999	1
CONTROL	Limiting the user of a control card for a PDL job **<Setting value>** 0: Do not use [Default] 1: Use	1
B4-L-CNT	Setting whether to count B4 as the large size or the small size on Software counters 1 to 6 **<Setting value>** 0: Small size [Default] 1: Large size	1
TAB-ROT	If the image is a PDL landscape in PDL, use it to specify whether to rotate it 180 deg. **<Setting value>** 0: do not rotate [Default] 1: rotate	1
PR-PSESW	Setting whether or not to display the print pause function switch **<Setting value>** 0: No print pause function [Default] The user screen does not display the print pause function. (Conventional specification) 1: Print pause function [Default] The user screen does not display the print output stop and restart settings.	1
IDPRN-SW	switches over count job types of the group control counter. 0: increases the count for the PRINT category (Box print, Report print, SendLocal print, PDL print (default)). increase the count for the COPY category (COPY). 1: increases the count for the PRINT category (Report print, SendLocal print, PDL print) increases the count for the COPY category (COPY, Box print)	1
CNT-SW	Switching the charging counter and default display items **<Setting value>** - When the set value is 0 [Default] 101: Total 1 - When the set value is 1 102: Total 2 202: Copy total 2 127: Total A2 - When the set value is 2 101: Total 1 104: Total small 103: Total large 501: Scan total 1	1
TAB-ACC	Set the tab paper (index paper) and the setting tab paper (index paper) if ACC is available. **<Setting value>** 0: ACC is not available between tab papers (Default: 0) 1: ACC is available between tab papers	1
BCNT-AST	Switching the job type of counting box prints by ASSIST **<Setting value>** 0: Count as PDL job [Default] 1: Count as Copy job	1
DOC-REM	turns on or off the message indicated to prompt removal of originals. After an original has been read in copyboard mode, an attempt to start reading with an original in the feeder without opening and then closing the feeder will cause the machine to indicate a message promoting the removal of the original. Use this switch to enable or disable the message. **<Setting value>** 0 (do not indicate) or 1 (indicate) **<Setting value>** **0**	1
TRAY-SEL	delivery tray position switch (Finisher-K1) Use it to switch over the target of output when the following settings are made: multiple originals, copy count at 1, sort mode, special tray A & B. 0: use sample tray for output [Default] 1: use tray B for output	1
DATE-DSP	Switching the date display format **<Setting value>** 0: YYMM/DD [Default] 1: DD/MM/YY 2: MM/DD/YY	2

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Sub-item	**Description**	**Level**
MB-CCV	Limiting the mailbox control card user	2
	<Setting value> 0: No 1: Yes [Default]	
PR-D-SEL	Use it to set the density of printing (PDL input).	2
	<Setting value> 0 to 8 (4: default) 0 (light) <=> 4 (standard) <=> 8 (dark)	
TRY-STP	Setting output or no output in the tray full state	2
	<Setting value> 0: Ordinary mode (Interrupt when the finisher tray is full) [Default] 1: Interrupt by height detection only	
MF-LG-ST	Setting the long mode key	2
	<Setting value> 0: Ordinary [Default] 1: Display a long mode key on the corresponding mode screen	
CNT-DISP	Setting whether or not to display a serial number when the counter confirmation key is pressed	2
	<Setting value> 0: Display a serial number [Default] 1: Do not display a serial number	
INS-C/S	Use it to expand the inserter function.	2
	<Setting value> 0: support cover only (default) 1: support cover + interleaf (multi inserter)	
TBIC-RNK	Use it to reduce uneven intervals.	2
	<Setting value> 1 to 5 (default: 1)	
HDCR-DSP	Setting whether or not display HDD clearance in User mode and changing the contents of clearance	2
	<Setting value> 1: Clear once with 0 [Default] 2: Clear once with random data 3: Clear three times with random data	
JOB-INVL	Setting the job interval at interrupt	2
	<Setting value> 0: Output the next job continuously in interrupt copying (Standard) [Default] 1: Start outputting the next job after the last paper of the interrupted copy job is output 2: Start outputting the next job after the last paper of all jobs is output	
LGSW-DSP	Setting whether or not to display [Log display ON/OFF] on the User mode screen	2
	[Default] 0: Do not display [Log display ON/OFF] [Default] 1: Display [Log display ON/OFF]	
PCL-COPY	Supporting the PCL command [COPIES Meru/Pinatubo/Hood]	2
	<Setting value> 0: Control each page according to the command of the COPIES command specified to the page [Default] 1: Meru/Pinatubo/Hood compatible mode 2 to 65535: Reserved	
PRJOB-CP	Setting the CCV count pulse at reception and report output	2
	<Setting value> 0: Do not output count pulse [Default] 1: Output count pulse	
DPT-ID-7	Registering the department ID and entering 7 digits for authentication	2
	<Setting value> 0: Conventional [Default] 1: 7-digit input	
RUI-RJT	Disconnecting the HTTP port from RUI by three authentication failures	2
	<Setting value> 0: Invalid [Default] 1: Valid	
CTM-S06	Setting whether or not to erase the password from the export file of the file send address	2
	<Setting value> 0: Do not erase the password from the export file. [Default] 1: Erase the password from the export file.	

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Sub-item	**Description**	**Level**
FREG-SW	Setting whether or not to display the free section of the MEAP counter (SEND)	2
	<Setting value> 0: Do not display [Default] 1: Display	
IFAX-SZL	Enabling or disabling the send size limit in IFAX transmission (not via server only)	2
	<Setting value> 0: Send size limit enabled (via server/not via server) 1: Send size limit disabled (not via server only) [Default]	
IFAX-PGD	Setting whether or not to permit split send in pages (only beyond the upper limit of the send data size)	2
	<Setting value> 0: Do not permit split send in IFAX Simple mode transmission [Default] 1: Permit split send in IFAX Simple mode transmission	
MEAPSAFE	Turning the MEAP Safe mode ON or OFF	2
	<Setting value> 0: OFF [Default] 1: ON (Safe mode)	
TRAY-FLL	Use it to enable or disable notification in response to the tray becoming full.	2
	0: indicate that the output tray has become full when all available trays have become full [Default] 1: indicate that the output tray has become full only when the special tray (if selected) has become full or all trays have been identified as being full	
PRNT-POS	Use it to specify whether to stop or not to stop all subsequent jobs when a job is canceled in the event of an error.	2
	<Setting value> 0: do not stop all [Default] 1: stop all	
AFN-PSWD	Limiting access in User mode	2
	<Setting value> 0: OFF (Transition to the User mode screen with no password request) [Default] 1: ON (Transition to the User mode screen after password matching)	
PTJAM-RC	Turning PDL jam recovery ON or OFF	2
	<Setting value> 0: OFF (Do not recover) 1: ON (Recover) [Default]	
SLP-SLCT	Switch of the existing network application	2
	<Setting value> 0: Not use [Default] 1: Use ⚠ When the machine is set its range as "1", it will not move to the sleep mode 3.	
PS-MODE	Setting PS internal mode	2
	<Setting value> 0 to 65535 0: Not compatible [Default] 1: PS Type 3 Halftone command compatible (conventional) (Dither growth forward and reverse) 2 to 65535: Reserved	
CNCT-RLZ	Use it to specify whether to use or not to use the connection serialization function.	2
	<Setting value> 0: OFF (disable connection serialization function) [Default] 1: ON (enlarge connection serialization function)	

Software counter specifications
100 - 199: Total
200 - 299: Copy (001 to 099 added in case of shortage)
300 - 399: Print
400 - 499: Copy and print
500 - 599: Scan
600 - 699: Box print
700 - 799: Receive print
800 - 899: Report print
900 - 999: Send
Explanations of symbols and terms in the table
- YES: Counter valid in this machine
- Large size: Paper greater than B4
- Small size: Paper of B4 or smaller
- Counter Description: Numerals 1 and 2 indicate the counts of large size paper.
In service mode (COPIER>OPTION>USER>B4-L-CNT), B4 or greater can be set as the large size.
- Total A: Total excluding local and remote copies

- Total B: Total excluding local and remote copies and box prints
- Copy: Local and remote copies
- Copy A: Local and remote copies and box prints
- Print: PDL, report, and box prints
- Print A: PDL and report prints
- Scan: Black-and-white and color scans

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No.	Counter Description	Support
101	Total 1	yes
102	Total 2	yes
103	Total (Large)	yes
104	Total (Small)	yes
105	Total (Full-color 1)	
106	Total (Full-color 2)	
108	Total (Black-and-white 1)	yes
109	Total (Black-and-white 2)	yes
110	Total (Monochrome / Large)	
111	Total (Monochrome / Small)	
112	Total (Black-and-white / Large)	yes
113	Total (Black-and-white / Small)	yes
114	Total 1 (Duplex)	yes
115	Total 2 (Duplex)	yes
116	Large (Duplex)	yes
117	Small (Duplex)	yes
118	Total (Monochrome 1)	
119	Total (Monochrome 2)	
120	Total (Full-color / Large)	
121	Total (Full-color / Small)	
122	Total (Full-color + Monochrome / Large)	
123	Total (Full-color + Monochrome / Small)	
124	Total (Full-color + Monochrome 2)	
125	Total (Full-color + Monochrome 1)	
126	Total A1	yes
127	Total A2	yes
128	Total A (Large)	yes
129	Total A (Small)	yes
130	Total A (Full-color 1)	
131	Total A (Full-color 2)	
132	Total A (Black-and-white 1)	yes
133	Total A (Black-and-white 2)	yes
134	Total A (Monochrome / Large)	
135	Total A (Monochrome / Small)	
136	Total A (Black-and-white / Large)	yes
137	Total A (Black-and-white / Small)	yes
138	Total A1 (Duplex)	
139	Total A2 (Duplex)	
140	Large A (Duplex)	
141	Small A (Duplex)	
142	Total A (Monochrome 1)	
143	Total A (Monochrome 2)	
144	Total A (Full-color / Large)	
145	Total A (Full-color / Small)	
146	Total A (Full-color + Monochrome / Large)	
147	Total A (Full-color + Monochrome / Small)	
148	Total A (Full-color + Monochrome 2)	
149	Total A (Full-color + Monochrome 1)	
150	Total B1	yes
151	Total B2	yes
152	Total B (Large)	yes
153	Total B (Small)	yes
154	Total B (Full-color 1)	
155	Total B (Full-color 2)	

No.	Counter Description	Support
156	Total B (Black-and-white 1)	yes
157	Total B (Black-and-white 2)	yes
158	Total B (Monochrome / Large)	
159	Total B (Monochrome / Small)	
160	Total B (Black-and-white / Large)	yes
161	Total B (Black-and-white / Small)	yes
162	Total B1 (Duplex)	
163	Total B2 (Duplex)	
164	Large B (Duplex)	
165	Small B (Duplex)	
166	Total B (Monochrome 1)	
167	Total B (Monochrome 2)	
168	Total B (Full-color / Large)	
169	Total B (Full-color / Small)	
170	Total B (Full-color + Monochrome / Large)	
171	Total B (Full-color + Monochrome / Small)	
172	Total B (Full-color + Monochrome 2)	
173	Total B (Full-color + Monochrome 1)	
201	Copy (Total 1)	yes
202	Copy (Total 2)	yes
203	Copy (Large)	yes
204	Copy (Small)	yes
205	Copy A (Total 1)	yes
206	Copy A (Total 2)	yes
207	Copy A (Large)	yes
208	Copy A (Small)	yes
209	Local copy (Total 1)	yes
210	Local copy (Total 2)	yes
211	Local copy (Large)	yes
212	Local copy (Small)	yes
213	Remote copy (Total 1)	yes
214	Remote copy (Total 2)	yes
215	Remote copy (Large)	yes
216	Remote copy (Small)	yes
217	Copy (Full-color 1)	
218	Copy (Full-color 2)	
219	Copy (Monochrome 1)	
220	Copy (Monochrome 2)	
221	Copy (Black-and-white 1)	yes
222	Copy (Black-and-white 2)	yes
223	Copy (Full-color / Large)	
224	Copy (Full-color / Small)	
225	Copy (Monochrome / Large)	
226	Copy (Monochrome / Small)	
227	Copy (Black-and-white / Large)	yes
228	Copy (Black-and-white / Small)	yes
229	Copy (Full-color + Monochrome / Large)	
230	Copy (Full-color + Monochrome / Small)	
231	Copy (Full-color + Monochrome / 2)	
232	Copy (Full-color + Monochrome / 1)	
233	Copy (Full-color / Large / Duplex)	
234	Copy (Full-color / Small / Duplex)	
235	Copy (Monochrome / Large / Duplex)	
236	Copy (Monochrome / Small / Duplex)	
237	Copy (Black-and-white / Large / Duplex)	
238	Copy (Black-and-white / Small / Duplex)	
245	Copy A (Full-color 1)	
246	Copy A (Full-color 2)	
247	Copy A (Monochrome 1)	
248	Copy A (Monochrome 2)	
249	Copy A (Black-and-white 1)	yes

No.	Counter Description	Support
250	Copy A (Black-and-white 2)	yes
251	Copy A (Full-color / Large)	
252	Copy A (Full-color / Small)	
253	Copy A (Monochrome / Large)	
254	Copy A (Monochrome / Small)	
255	Copy A (Black-and-white / Large)	yes
256	Copy A (Black-and-white / Small)	yes
257	Copy A (Full-color + Monochrome / Large)	
258	Copy A (Full-color + Monochrome / Small)	
259	Copy A (Full-color + Monochrome / 2)	
260	Copy A (Full-color + Monochrome / 1)	
261	Copy A (Full-color / Large / Duplex)	
262	Copy A (Full-color / Small / Duplex)	
263	Copy A (Monochrome / Large / Duplex)	
264	Copy A (Monochrome / Small / Duplex)	
265	Copy A (Black-and-white / Large / Duplex)	
266	Copy A (Black-and-white / Small / Duplex)	
273	Local copy (Full-color 1)	
274	Local copy (Full-color 2)	
275	Local copy (Monochrome 1)	
276	Local copy (Monochrome 2)	
277	Local copy (Black-and-white 1)	yes
278	Local copy (Black-and-white 2)	yes
279	Local copy (Full-color / Large)	
280	Local copy (Full-color / Small)	
281	Local copy (Monochrome / Large)	
282	Local copy (Monochrome / Small)	
283	Local copy (Black-and-white / Large)	yes
284	Local copy (Black-and-white / Small)	yes
285	Local copy (Full-color + Monochrome / Large)	
286	Local copy (Full-color + Monochrome / Small)	
287	Local copy (Full-color + Monochrome / 2)	
288	Local copy (Full-color + Monochrome / 1)	
289	Local copy (Full-color / Large / Duplex)	
290	Local copy (Full-color / Small / Duplex)	
291	Local copy (Monochrome / Large / Duplex)	
292	Local copy (Monochrome / Small / Duplex)	
293	Local copy (Black-and-white / Large / Duplex)	
294	Local copy (Black-and-white / Small / Duplex)	
002	Remote copy (Full-color 1)	
003	Remote copy (Full-color 2)	
004	Remote copy (Monochrome 1)	
005	Remote copy (Monochrome 2)	
006	Remote copy (Black-and-white 1)	yes
007	Remote copy (Black-and-white 2)	yes
008	Remote copy (Full-color / Large)	
009	Remote copy (Full-color / Small)	
010	Remote copy (Monochrome / Large)	
011	Remote copy (Monochrome / Small)	
012	Remote copy (Black-and-white / Large)	yes
013	Remote copy (Black-and-white / Small)	yes
014	Remote copy (Full-color + Monochrome / Large)	
015	Remote copy (Full-color + Monochrome / Small)	
016	Remote copy (Full-color + Monochrome / 2)	
017	Remote copy (Full-color + Monochrome / 1)	
018	Remote copy (Full-color / Large / Duplex)	
019	Remote copy (Full-color / Small / Duplex)	
020	Remote copy (Monochrome / Large / Duplex)	
021	Remote copy (Monochrome / Small / Duplex)	
022	Remote copy (Black-and-white / Large / Duplex)	
023	Remote copy (Black-and-white / Small / Duplex)	

No.	Counter Description	Support
301	Print (Total 1)	yes
302	Print (Total 2)	yes
303	Print (Large)	yes
304	Print (Small)	yes
305	Print A (Total 1)	yes
306	Print A (Total 2)	yes
307	Print A (Large)	yes
308	Print A (Small)	yes
309	Print (Full-color 1)	
310	Print (Full-color 2)	
311	Print (Monochrome 1)	
312	Print (Monochrome 2)	
313	Print (Black-and-white 1)	yes
314	Print (Black-and-white 2)	yes
315	Print (Full-color / Large)	
316	Print (Full-color / Small)	
317	Print (Monochrome / Large)	
318	Print (Monochrome / Small)	
319	Print (Black-and-white / Large)	yes
320	Print (Black-and-white / Small)	yes
321	Print (Full-color + Monochrome / Large)	
322	Print (Full-color + Monochrome / Small)	
323	Print (Full-color + Monochrome / 2)	
324	Print (Full-color + Monochrome / 1)	
325	Print (Full-color / Large / Duplex)	
326	Print (Full-color / Small / Duplex)	
327	Print (Monochrome / Large / Duplex)	
328	Print (Monochrome / Small / Duplex)	
329	Print (Black-and-white / Large / Duplex)	
330	Print (Black-and-white / Small / Duplex)	
331	PDL print (Total 1)	yes
332	PDL print (Total 2)	yes
333	PDL print (Large)	yes
334	PDL print (Small)	yes
335	PDL print (Full-color 1)	
336	PDL print (Full-color 2)	
339	PDL print (Black-and-white 1)	yes
340	PDL print (Black-and-white 2)	yes
341	PDL print (Full-color / Large)	
342	PDL print (Full-color / Small)	
345	PDL print (Black-and-white / Large)	yes
346	PDL print (Black-and-white / Small)	yes
351	PDL print (Full-color / Large / Duplex)	
352	PDL print (Full-color / Small / Duplex)	
355	PDL print (Black-and-white / Large / Duplex)	
356	PDL print (Black-and-white / Small / Duplex)	
401	Copy + Print (Full-color / Large)	
402	Copy + Print (Full-color / Small)	
403	Copy + Print (Monochrome / Large)	
404	Copy + Print (Monochrome / Small)	
405	Copy + Print (Monochrome 2)	
406	Copy + Print (Monochrome 1)	
407	Copy + Print (Full-color + Monochrome / Large)	
408	Copy + Print (Full-color + Monochrome / Small)	
409	Copy + Print (Full-color + Monochrome / 2)	
410	Copy + Print (Full-color + Monochrome / 1)	
411	Copy + Print (Large)	
412	Copy + Print (Small)	
413	Copy + Print (2)	
414	Copy + Print (1)	
415	Copy + Print (Monochrome / Large)	

No.	Counter Description	Support
416	Copy + Print (Monochrome / Small)	
417	Copy + Print (Full-color / Large / Duplex)	
418	Copy + Print (Full-color / Small / Duplex)	
419	Copy + Print (Monochrome / Large / Duplex)	
420	Copy + Print (Monochrome / Small / Duplex)	
421	Copy + Print (Black-and-white / Large / Duplex)	
422	Copy + Print (Black-and-white / Small / Duplex)	
501	Scan (Total 1)	yes
502	Scan (Total 2)	yes
503	Scan (Large)	yes
504	Scan (Small)	yes
505	Black-and-white scan (Total 1)	yes
506	Black-and-white scan (Total 2)	yes
507	Black-and-white scan (Large)	yes
508	Black-and-white scan (Small)	yes
509	Color scan (Total 1)	
510	Color scan (Total 2)	
511	Color scan (Large)	
512	Color scan (Small)	
601	Box print (Total 1)	yes
602	Box print (Total 2)	yes
603	Box print (Large)	yes
604	Box print (Small)	yes
605	Box print (Full-color 1)	
606	Box print (Full-color 2)	
607	Box print (Monochrome 1)	
608	Box print (Monochrome 2)	
609	Box print (Black-and-white 1)	yes
610	Box print (Black-and-white 2)	yes
611	Box print (Full-color / Large)	
612	Box print (Full-color / Small)	
613	Box print (Monochrome / Large)	
614	Box print (Monochrome / Small)	
615	Box print (Black-and-white / Large)	yes
616	Box print (Black-and-white / Small)	yes
617	Box print (Full-color + Monochrome / Large)	
618	Box print (Full-color + Monochrome / Small)	
619	Box print (Full-color + Monochrome / 2)	
620	Box print (Full-color + Monochrome / 1)	
621	Box print (Full-color / Large / Duplex)	
622	Box print (Full-color / Small / Duplex)	
623	Box print (Monochrome / Large / Duplex)	
624	Box print (Monochrome / Small / Duplex)	
625	Box print (Black-and-white / Large / Duplex)	
626	Box print (Black-and-white / Small / Duplex)	
701	Receive print (Total 1)	yes
702	Receive print (Total 2)	yes
703	Receive print (Large)	yes
704	Receive print (Small)	yes
705	Receive print (Full-color 1)	
706	Receive print (Full-color 2)	
707	Receive print (Gray-scale 1)	
708	Receive print (Gray-scale 2)	
709	Receive print (Monochrome 1)	yes
710	Receive print (Monochrome 2)	yes
711	Receive print (Full-color / Large)	
712	Receive print (Full-color / Small)	
713	Receive print (Gray-scale / Large)	
714	Receive print (Gray-scale / Small)	
715	Receive print (Monochrome / Large)	yes
716	Receive print (Monochrome / Small)	yes

No.	Counter Description	Support
717	Receive print (Full-color + Gray-scale / Large)	
718	Receive print (Full-color + Gray-scale / Small)	
719	Receive print (Full-color + Gray-scale 2)	
720	Receive print (Full-color + Gray-scale 1)	
721	Receive print (Full-color / Large / Duplex)	
722	Receive print (Full-color / Small / Duplex)	
723	Receive print (Gray-scale / Large / Duplex)	
724	Receive print (Gray-scale / Small / Duplex)	
725	Receive print (Monochrome / Large / Duplex)	
726	Receive print (Monochrome / Small / Duplex)	
801	Report print (Total 1)	yes
802	Report print (Total 2)	yes
803	Report print (Large)	yes
804	Report print (Small)	yes
805	Report print (Full-color 1)	
806	Report print (Full-color 2)	
807	Report print (Gray-scale 1)	
808	Report print (Gray-scale 2)	
809	Report print (Monochrome 1)	yes
810	Report print (Monochrome 2)	yes
811	Report print (Full-color / Large)	
812	Report print (Full-color / Small)	
813	Report print (Gray-scale / Large)	
814	Report print (Gray-scale / Small)	
815	Report print (Monochrome / Large)	yes
816	Report print (Monochrome / Small)	yes
817	Report print (Full-color + Gray-scale / Large)	
818	Report print (Full-color + Gray-scale / Small)	
819	Report print (Full-color + Gray-scale 2)	
820	Report print (Full-color + Gray-scale 1)	
821	Report print (Full-color / Large / Duplex)	
822	Report print (Full-color / Small / Duplex)	
823	Report print (Gray-scale / Large / Duplex)	
824	Report print (Gray-scale / Small / Duplex)	
825	Report print (Monochrome / Large / Duplex)	
826	Report print (Monochrome / Small / Duplex)	
901	Copy scan total 1 (Color)	
902	Copy scan total 1 (Black-and-white)	
903	Copy scan total 2 (Color)	
904	Copy scan total 2 (Black-and-white)	
905	Copy scan total 3 (Color)	
906	Copy scan total 3 (Black-and-white)	
907	Copy scan total 4 (Color)	
908	Copy scan total 4 (Black-and-white)	
909	Local copy scan (Color)	
910	Local copy scan (Black-and-white)	
911	Remote copy scan (Color)	
912	Remote copy scan (Black-and-white)	
913	Send scan total 1 (Color)	
914	Send scan total 1 (Black-and-white)	
915	Send scan total 2 (Color)	
916	Send scan total 2 (Black-and-white)	yes
917	Send scan total 3 (Color)	
918	Send scan total 3 (Black-and-white)	yes
919	Send scan total 4 (Color)	
920	Send scan total 4 (Black-and-white)	
921	Send scan total 5 (Color)	
922	Send scan total 5 (Black-and-white)	yes
929	Send scan total 6 (Color)	
930	Send scan total 6 (Black-and-white)	yes
931	Send scan total 7 (Color)	

No.	Counter Description	Support
932	Send scan total 7 (Black-and-white)	
933	Send scan total 8 (Color)	
934	Send scan total 8 (Black-and-white)	
935	Universal send scan total (Color)	
936	Universal send scan total (Black-and-white)	
937	Box scan (Color)	
938	Box scan (Black-and-white)	
939	Remote scan (Color)	
940	Remote scan (Black-and-white)	yes
941	Send scan / FAX (Color)	
942	Send scan / FAX (Black-and-white)	
943	Send scan / IFAX (Color)	
944	Send scan / IFAX (Black-and-white)	
945	Send scan / E-mail (Color)	
946	Send scan / E-mail (Black-and-white)	
947	Send scan / FTP (Color)	
948	Send scan / FTP (Black-and-white)	
949	Send scan / SMB (Color)	
950	Send scan / SMB (Black-and-white)	
951	Send scan / IPX (Color)	
952	Send scan / IPX (Black-and-white)	
953	Send scan / Database (Color)	
954	Send scan / Database (Black-and-white)	
955	Send scan / Local print (Color)	
956	Send scan / Local print (Black-and-white)	
957	Send scan / Box (Color)	
958	Send scan / Box (Black-and-white)	

<CST>

T-17-190

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
P-SZ-C1/C2	Use it to specify paper size used in the front deck (C1: right deck, C2: left deck).	1
	⚠ After electing the appropriate paper size, be sure to turn off and then on the main power switch. **<Settings value>** 6: A4 (default), 15: B5, 18: LTR	
U1-NAME to U4-NAME	Setting whether or not to display a paper name when a paper size group (U1 to U4) has been detected	2
	<Settings value> 0: Display U1, U2, U3, or U4 on the touchpanel. 1: Display the paper name set in service mode (CST-U1/U2/U3/U4).	
CST-U1	Specify paper names which are used in the paper size group The paper sizes of U1 can be recognized as special size papers with the universal cassette when special size papers below are registered to U1.	2
	<Settings value> 22: K-LGL (Default) 31: Governmental LETTER	
CST-U2	Specify paper names which are used in the paper size group The paper sizes of U2 can be recognized as special size papers with the universal cassette when special size papers below are registered to U2.	2
	<Settings value> 24: FOOLSCAP (Default) 26: OFFICIO 27: Ecuadorian OFFICIO 33: Argentine LEGAL 36: Argentine OFFICIO 37: Mexican OFFICIO	

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
CST-U3	Specify paper names which are used in the paper size group The paper sizes of U3 can be recognized as special size papers with the universal cassette when special size papers below are registered to U3.	2
	<Settings value> 25: Australian FOOLSCAP 34: Governmental LEGAL (Default) 35: FOLIO	
CST-U4	Specify paper names which are used in the paper size group The paper sizes of U4 can be recognized as special size papers with the universal cassette when special size papers below are registered to U4.	2
	<Settings value> 18: LTR 29: Argentine LETTER (Default)	

<ACC>

T-17-191

COPIER > OPTION > ACC		
Sub-item	**Description**	**Level**
COIN	Switching the coin vendor Set whether the coin vendor management mode can be entered or not.	1
	<Setting value> 0: OFF [Default] 1: ON	
DK-P	Setting a paper size for use on a paper deck (option)	1
	<Setting value> 0: A4 [Default] 1: B5 2: LTR	
PD-SIZE	Setting the Paper Deck Size	1
	<Setting value> 0: [Default] 22: K-LGL 23: K-LGLR 24: FLSC 25: A-FLS 26: OFI 27: E-OFI 28: B-OFI 29: A-LTR 30: A-LTRR 31: G-LTR 32: G-LTRR 33: A-LGL 34: G-LGL 35: FGLI 36: A-OFI 37: M-OFI	
CC-SPSW	Setting whether or not to support the control card (CC IV /CCV) interface	2
	<Setting value> 0: Do not support [Default] 1: Support	

<INT-FACE>

T-17-192

COPIER > OPTION > INT-FACE		
Sub-item	**Description**	**Level**
IMG-CONT	Use it to recognize an external EFI controller.	1
	<Setting value> 0: There is no external controller.(default) 1 to 4 There is an external controller.	

<LCNS-TR>
Example of display: ST-XXXX 1 ( ) {0 to 0}
[1] [2]

[1] Status display 0: Not installed [Default] 1: Installed
[2] Invalidation 0: Invalidate (Only 0 can be entered.)

Transfer invalidation procedure
1. Select ST-XXXX, enter 0, and press the OK key.
2. A transfer license number (24 digits) is displayed at TR-XXXX.

T-17-193

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
ST-SEND	Displaying the send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SEND	Acquiring a transfer license key for the send function in transfer invalidation	2
ST-ENPDF	Displaying the encrypted PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-ENPDF	Acquiring a transfer license key for the encrypted PDF send function in transfer invalidation	2
ST-SPDF	Displaying the searchable PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SPDF	Acquiring a transfer license key for the searchable PDF send function in transfer invalidation	2
ST-EXPDF	Displaying the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation and executing transfer invalidation	2
TR-EXPDF	Acquiring a transfer license key for the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation	2
ST-LIPS	Displaying the LIPS installation status in transfer invalidation and executing transfer invalidation	2
TR-LIPS	Acquiring a transfer license key for LIPS in transfer invalidation	2
ST-PDFDR	Displaying the PDF direct function installation status in transfer invalidation and executing transfer invalidation	2
TR-PDFDR	Acquiring a transfer license key for the PDF direct function in transfer invalidation	2
ST-SCR	Displaying the encrypted secure print function installation status in transfer invalidation and executing transfer invalidation	2
TR-SCR	Acquiring a transfer license key for the encrypted secure print function in transfer invalidation	2
ST-HDCLR	Displaying the HDD encryption/complete erasure function installation status in transfer invalidation and executing transfer invalidation	2
TR-HDCLR	Acquiring a transfer license key for the HDD encryption/complete erasure function in transfer invalidation	2
ST-BRDIM	Displaying the BarDIMM installation status in transfer invalidation and executing transfer invalidation	2
TR-BRDIM	Acquiring a transfer license key for BarDIMM in transfer invalidation	2
ST-TMDM	Use it to indicate the status installation in conjunction with transfer invalidation (for tandem configuration)	2
TR-TMDM	Use it to obtain a transfer license key in conjunction with transfer invalidation (for tandem configuration).	2

17.6.1.4 Copier List

0008-7974

<BODY>

T-17-194

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
PO-CNT	Use it to turn on/off potential control. **<Setting value>** 0: off, 1: on (default)	1
TRNSG-SW	Use it to select toner guide bias control mode. **<Setting value>** 0: 200 V for absolute water content of 22 g or more; 600 V for others 1: fixed to 600 V 2: fixed to 200 V 3: 200 V for absolute water content of 18 g or more; 600 V for others (default) 4: 200 V for absolute water content of 14 g or more; 600 V for others	1

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
MODEL-SZ	Switching regular resized display and ADF document size detection	1
	<Setting value> 0: AB (6R5E) [Default] 1: INCH (5R4E) 2: A (3R3E) 3: AB/INCH (6R5E)	
FIX-TEMP	Setting the down sequence start temperature for thick paper mode	1
	<Setting value> 0: 194 deg C 1: 189 deg C (default) 2: 184 deg C	
FUZZY	Use it to turn on/off fuzzy control and to make environment settings.	1
	MEMO: - The selection will affect pre-transfer, transfer, and separation charging currents. - Selecting 1 through 3 will make the operation independent of the environment sensor. **<Setting value>** 0: fuzzy control ON (default), 1: low humidity environment mode (current level lower than standard), 2: normal humidity environment mode, 3: high humidity environment mode (current level higher than standard)	
CNT-W/PR	Use it to turn ON/OFF the mechanism to change density during printing (PDL input).	1
	<Setting value> 0: correct target value to enable change of density during printing (default) 1: do not change density during printing	
CONFIG	Selecting several types of firmware installed on the hard disk and switching the country, language, and paper size type of this machine	1
	<Adjustment method> XXYYZZAAXX: Country (UP), YY: Language (ja), ZZ (00) Destination (00:CANON 01:OEM), AA (00): Paper size type (00:AB 01:Inch 02:A 03:All size) **<Operating procedure>** 1) Select <CONFIG>. 2) Select an item to reverse its display. Then press the + or - key to change the contents. 3) Each time the + or - key is pressed, the contents change sequentially. 4) Display the intended contents at all items and press the OK key. 5) Turn the main power switch OFF and ON.	
TR-SP-C1	Use it to set the transfer/separation output setting when the right deck is selected, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C2	Use it to set the transfer/separation output setting when the left deck is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C3	Use it to set the transfer/separation output setting when the cassette 3 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-C4	Use it to set the transfer/separation output setting when the cassette 4 is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	
TR-SP-MF	Use it to set the transfer/separation output setting when the manual feed tray is used, thereby preventing faults otherwise occurring.	1
	<Setting value> 0: setting for plain paper (default) 1: setting for recycled paper 2: setting for tracing paper	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
TR-SP-DK	Use it to set the transfer/separation output setting when the side paper deck is used. **<Setting value>** 0: setting for plain power (default) 1: setting for recycled paper 2: setting for tracing paper	1
DEV-SLOW	Use it to set the speed of the developing sleeve. **<Setting value>** 0: in relation to environment 1: fixed to high speed 2: fixed to low speed (default)	1
STPL-SFT	Use it to specify where to execute shift stacking in staple mode. **<Setting value>** 0: perform shift stacking in staple mode (as it is: default) 1: do not perform shift stacking in staple mode	1
BASE-SW	Switching from the MEAP-Full mode to the Base model **<Setting value>** 0: OFF (Base model), 1: ON (Full model)	1
SC-L-CNT	switches the thresh value for the scan counter (large/small). **<Setting value>**:0 (B4 as threshold) or 1 (LTR as threshold) default:0	1
IDL-MODE	Use it to select idle rotation mode for the developing assembly. **MEMO:** Set it to '2' or '3' if the image becomes distorted or too light. **<Setting value>** 0: OFF (no idle rotation) 1: auto control based on readings of environment sensor (default) 2: start idle rotation when fixing roller temperature reaches 100 deg C 3: start idle rotation when main power switch goes ON	2
SCANSLCT	Turning ON or OFF the function of calculating a scan area from the selected paper size **<Setting value>** 0: OFF (Determining the scan area by document detection) 1: ON (Determining the scan area by paper size)	2
OHP-TEMP	Use it to switch among temperature settings for transparency mode. **MEMO:** The fixing temperature will be lowered to improve separation of transparencies from the fixing roller. **<Setting value>** 0: 198 deg C (default) 1: 193 deg C 2: 188 deg C 3: 183 deg C	2
OHP-CNT	Use it to turn ON/OFF the potential control mechanism for transparency mode. **<Setting value>** 0: use target value obtained in potential control of transparency mode (default) 1: do not use potential control in transparency mode	2
FIX-TMP1	Use it to select a temperature for starting down-sequence for plain paper. **MEMO:** If the user wants priority on image quality, set it to '0'; on speed, set it to '2'. **<Setting value>** 0: 183 deg C 1: 178 deg C (default) 2: 173 deg C	2
TRSW-P-B	Use it to turn ON/OFF the transfer current output correction mechanism at the trailing edge of paper. **<Setting value>** 0: ON 1: OFF (default)	2
SP-MODE	Use it to turn ON/OFF the separation current output correction mechanism. **<Setting value>** 0: standard mode (default) 1: low voltage mode	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
FTMP-DWN	USE it to select enhanced stacking mode.	2
	MEMO: The fixing temperature is lowered to enhance stacking in the finisher. **<Setting value>** 0: OFF (default) 1: decrease by -5 deg C 2: decrease by -10 deg C 3: decrease by -15 deg C	
DRUM-CLN	Use it to select enhanced drum cleaning mode (stop sequence).	2
	MEMO: - The rotation of the drum is stopped for about 1 sec as soon as a specific number of prints have been made during copying, thereby recovering the cleaning performance of the cleaning blade. - If cleaning faults occur, use this mode to change the setting. - A higher setting brings stronger results. **<Setting value>** 0: 1000 single-sided copies (500 double-sided copies) (default) 1: 500 single-sided copies (250 double-sided copies) 2: 250 single-sided copies (125 double-sided copies) 3: if absolute water content is 9 g or more, 1000 single-sided copies (500 double-sided copies) after passage of paper if absolute water content is less than 9 g, 250 single-sided copies (125 double-sided copies) after passage of paper 4: do not stop rotation	
DRM-IDL	Use it to set idle rotation mode for the photosensitive drum executed at time of power-on.	2
	MEMO: The photosensitive drum is rotated idly to prevent adhesion of toner to the drum. Set it between '1' and '4' if the image is distorted or too light. **<Setting value>** 0: do not use idle rotation (default) 1: if absolute water content is 18 g or more, rotate for 30 sec 2: if absolute water content is 18 g or more, rotate for 2 min 3: regardless of environment, rotate for 30 sec 4: regardless of environment, rotate for 2 min	
FX-FANSW	Use it to switch fixing heat discharge fan control.	2
	MEMO: Setting it to '1' will use half-speed control for the fan after copying/ printing. **<Setting value>** 0: Full speed (default) 1: Half speed	
RAW-DATA	Setting whether or not to print out received data with no change If a received image has a problem, the problem is used to isolate the data contents and image processing.	2
	<<Setting value>> 0: Usual operation [Default] 1: Print out with no change	
SHARP	Use it to change the sharpness level of images. - A higher value makes images sharper.	2
	<Setting value> 1 to 5 (default: 3)	
FDW-DLV	Use it to switch between face-up and face-down delivery mode, thereby ensuring good stacking when making multiple prints.	2
	<Setting value> 0: normal (face-up for all when using 1 original) 1: when using 1 original, face-up if for one set; face-down if for multiple sets (default)	
COTDPC-D	Use it to set toner save mode.	2
	<Setting value> 0: do not use toner save mode (default) 1: VDT-20V of coy image, VDT-P25V of print image (target of -10 %, approx.) 2: VDT-40V of copy image, VDT-P-50V of print image (target of -20 %, approx.) 3: VDT-60V of copy image, VDT-P-75V of print image (target of -30 %, approx.)	
RMT-LANG	Changing the remote UI language from web	2
	<Adjustment method> Select a language code with the + or - key.	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
IFAX-LIM	Limiting the number of output lines when a large amount of data has been received by IFAX. **<Setting value>** 0: No limit 0 to 999 [Default: 500]	2
DF-BLINE	Taking corrective measures against a black line caused by dust on the platen at flow read **<Setting value>** 0: No corrective measures [Default] 1: Corrective measures	2
THICK-PR	Use it to set the potential control mechanism for thick paper mode. **<Setting value>** 0: use value determined by potential control in plain paper mode (default) 1: use value determined by potential control in transparency mode	2
TEMP-TBL	Use it to select a fixing temperature. **<Setting value>** 0: 198 deg C (default) 1: 203 deg C 2: 193 deg C 3: 188 deg C 4: 183 deg C	2
DRM-H-SW	Use it to set the night drum heater OFF mode. **<Setting value>** 0: night drum heater ON (default) 1: monitor ambient humidity every 2 hr; turn off drum heater if absolute water content is 9 g or less	2
DEV-IDLR	Use it to set black band developing forced idle rotation mode used at time of power-on. **<Setting value>** 0: execute black band developing idle rotation sequence at power-on if 2000 copies or more were made on previous day and, in addition, absolute water content is 16 g or more (default) 1: execute black band developing idle rotation sequence at power-on at all times	2
BK-BD-1	Use it to set black band monthly remedial mode (for January). **<Setting value>** 0: do not execute if absolute water content is less than 9 g execute every 200 copies if absolute water content is 9 g or more (default) 1: execute black band sequence every 60 copies 2: execute black band sequence every 20 copies 3: execute black band sequence every 6 copies	2
BK-BD-2	Use it to set black band monthly remedial mode (for February). **<Setting value>** Same as for January.	2
BK-BD-3	Use it to set black band monthly remedial mode (for March). **<Setting value>** Same as for January.	2
BK-BD-4	Use it to set black band monthly remedial mode (for April). **<Setting value>** Same as for January.	2
BK-BD-5	Use it to set black band monthly remedial mode (for May). **<Setting value>** Same as for January.	2
BK-BD-6	Use it to set black band monthly remedial mode (for June). **<Setting value>** Same as for January.	2
BK-BD-7	Use it to set black band monthly remedial mode (for July). **<Setting value>** Same as for January.	2
BK-BD-8	Use it to set black band monthly remedial mode (for August). **<Setting value>** Same as for January.	2
BK-BD-9	Use it to set black band monthly remedial mode (for September). **<Setting value>** Same as for January.	2
BK-BD-10	Use it to set black band monthly remedial mode (for October). **<Setting value>** Same as for January.	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
BK-BD-11	Use it to set black band monthly remedial mode (for November). **<Setting value>** Same as for January.	2
BK-BD-12	Use it to set black band monthly remedial mode (for December). **<Setting value>** Same as for January.	2
SMTPTXPN	Use it to change the number of the SMTP transmission port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
SMTPRXPN	Use it to change the number of the SMTP reception port. **<Setting value>** 0 to 65535 (in increments of 1) Default: 25 After a change, be sure to re-boot the machine.	2
POP3PN	Use it to change the number of the P0P3 reception port: **<Setting value>** 0 to 65535 (in increments of 1) Default: 110 After a change, be sure to re-boot the machine.	2
RUI-DSP	Setting whether to display a copy screen for RUI (Option switch conforming to the Disability Law) **<Setting value>** 0: Do not display [Default] 1: Display	2
ORG-LGL	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: FLSC (Default) 1: M_OFFICIO 2: A_FFLSC 3: FORIO 4: G_LGL 5: OFFICIO 6: E_OFFICIO 7: A_OFFICIO 8: A_LGL	2
ORG-LTR	Use it to set the size of a special paper type not recognized by the feeder. **<Setting value>** 0: LTR (default) 1: G_LTR 2: EXECTIVE 3: K_LGL 4: A_LTR	2
ORG-LDR	Use it to set the sequence in which double-sided originals are read when the original orientation detection mechanism is enabled. **<Setting value>** 0: LGL (default) 1: B_OFFICIO	2
UI-BOX	Setting whether or not to display the box screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
UI-SEND	Setting whether or not to display the send screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
UI-FAX	Setting whether or not to display the fax screen of the operating section not used	2
UI-EXT	Setting whether or not to display the extended screen of the operating section **<Setting value>** 0: Do not display 1: Display [Default]	2
NW-SPEED	Selecting the data transfer speed at service network connection **<Setting value>** 0: Auto [Default] 1: 100Base-TX 2: 100Base-T	2

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
TRY-CHG	Use it to change the control mechanism used to switch over trays when one becomes full. **MEMO:** This item is displayed only at the time of Stacker-A1 connection.	2
STS-PORT	Turning the TOT synchronous command communication port ON or OFF The port for Inquiry/Response (synchronous) command communication in TUIF over TCP/IP is turned ON or OFF.	2
	<Setting value> 0: OFF [Default] 1: ON	
CMD-PORT	Turning the TOT asynchronous status communication port ON or OFF The port for asynchronous status communication in TUIF over TCP/IP is turned ON or OFF.	2
	<Setting value> 0: OFF [Default] 1: ON	
NS-CMD5	Limiting the use of CRAM-MD5 in SMTP authentication This is set to limit the use of CRAM-MD5 in SMTP authentication	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-GSAPI	Limiting the use of GSSAPI in SMTP authentication This is set to limit the use of GSSAPI in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-NTLM	Limiting the use of NTLM in SMTP authentication This is set to limit the use of NTLM in SMTP authentication.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLNWS	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment of communication packet encryption This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-PLN	Limiting the use of PLAIN and LOGIN for SMTP authentication in an environment This is set to limit the use of PLAIN and LOGIN for SMTP authentication in an environment where communication packets are not encrypted.	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
NS-LGN	Limiting the use of LOGIN for SMTP authentication This is set to limit the use of LOGIN for SMTP authentication in an environment where communication packets are encrypted	2
	<Setting value> 0: Dependent on the SMTP server [Default] 1: Do not use	
MEAP-PN	Changing the HTTP port number of the MEAP application	2
	<Setting value> 0 to 65535 (Default: 8000)	
SVMD-ENT	Switching how to enter service mode	2
	<Setting value> 0: [User mode key] -> Simultaneous press of [2] and [*]-> [User mode] (Default) 1: [User mode key] -> Simultaneous press of [4] and [9]-> [User mode]	
DA-CNCT	Reserved for future	2
CHNG-STS	indicates the ToT status component number. sets the port number for the status connection when TUIF over TTCP/IP is in use. **<Setting value>:**1-65535 setting:20010	2
CHNG-CMD	sets the port number for command connection when TUIF over TCP/IP is in use. **<Setting value>:**1-65535 setting:20000	2
MEAP-DSP	Turning screen transition from MEAP to Native ON or OFF	2
	<Setting value> 0: OFF (Transition to the Native screen) [Default] 1: ON (No transition to the Native screen)	

COPIER > OPTION > BODY		
Sub-item	**Description**	**Level**
ANIM-SW	Turn MEAP application error/jam screen display ON or OFF	2
	<Setting value> 0: OFF (Display warning screen) [Default] 1: ON (Do not display warning screen)	
MEAP-SSL	Setting the MEAP HTTPS port	2
	<Setting value> 0 to 65535 (same as the setting of another network port system) [Default: 8443]	

<USER>

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COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
COPY-LIM	Changing the upper limit of copy count	1
	<Setting value> 1 to 9999 [Default: 9999]	
SLEEP	Turning the sleep function ON or OFF	1
	<Setting value> 0: OFF 1: ON [Default] The sleep function is set with Timer in User Mode.	
WEB-DISP	Use it to turn ON/OFF the fixing web length message.	1
	MEMO: 0: OFF (do not issued; but issued only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
W-TONER	Use it to turn ON/OFF the waste toner case full warning message.	1
	MEMO: 0: OFF (do not issue; but issue only when in service mode) **<Setting value>** 0: OFF (do not issue; default) 1: ON (issue)	
COUNTER1	Setting Software counter 1 on the User mode screen	1
	<Setting value> 101: Total 1 [Value at shipping / Value after RAM clearance = 101 -> Cannot be changed]	
COUNTER2to6	Setting Software counters 2 to 6 on the User mode screen	1
	<Setting value> 0 to 999	
CONTROL	Limiting the user of a control card for a PDL job	1
	<Setting value> 0: Do not use [Default] 1: Use	
B4-L-CNT	Setting whether to count B4 as the large size or the small size on Software counters 1 to 6	1
	<Setting value> 0: Small size [Default] 1: Large size	
COPY-JOB	Prohibiting copy job reservation when a card reader and a coin robot are used	1
	<Setting value> 0: Copy job reserved [Default] 1: Copy job not reserved	
TAB-ROT	If the image is a PDL landscape in PDL, use it to specify whether to rotate it 180 deg.	1
	<Setting value> 0: do not rotate 1: rotate	
PR-PSESW	Setting whether or not to display the print pause function switch	1
	<Setting value> 0: No print pause function [Default] The user screen does not display the print pause function. (Conventional specification) 1: Print pause function [Default] The user screen does not display the print output stop and restart settings.	

COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
IDPRN-SW	switches over count job types of the group control counter. 0:increases the count for the PRINT category (Box print, Report print, SendLocal print, PDL print (default)). 1:increase the count for the COPY category (COPY). 1:increases the count for the PRINT category (Report print, SendLocal print, PDL print) 0:increases the count for the COPY category (COPY, Box print)	1
CNT-SW	Switching the charging counter and default display items	1
	<Setting value> - When the set value is 0 [Default] 101: Total 1 - When the set value is 1 102: Total 2 202: Copy total 2 127: Total A2 - When the set value is 2 101: Total 1 104: Total small 103: Total large 501: Scan total 1	
TAB-ACC	Set the tab paper (index paper) and the setting tab paper (index paper) if ACC is available.	1
	<Setting value> 0: ACC is not available between tab papers (Default) 1: ACC is available between tab papers	
FRM-RPT	Use it to specify a margin in image repeat mode:	1
	<Setting value> 0: erform image repeat without margin 1: erform image repeat with margin	
BCNT-AST	Switching the job type of counting box prints by ASSIST	1
	<Setting value> 0: Count as PDL job [Default] 1: Count as Copy job	
DOC-REM	turns on or off the message indicated to prompt removal of originals. After an original has been read in copyboard mode, an attempt to start reading with an original in the feeder without opening and then closing the feeder will cause the machine to indicate a message promoting the removal of the original. Use this switch to enable or disable the message. **<Setting value>:**0 (do not indicate) or 1 (indicate) **<Setting value>:**0	1
TRAY-SEL	delivery tray position switch (Finisher-K1)	1
	Use it to switch over the target of output when the following settings are made: multiple originals, copy count at 1, sort mode, special tray A & B. 0: use sample tray for output 1: use tray B for output	
SIZE-DET	Turning the document size detection function ON or OFF	2
	<Setting value> 0: OFF (When the platen is opened, the user will not be dazzled because the lamp does not light.) 1: ON [Default]	
DATE-DSP	Switching the date display format	2
	<Setting value> 0: YY/MM/DD 1: DD/MM/YY 2: MM/DD/YY	
MB-CCV	Limiting the mailbox control card user	2
	<Setting value> 0: No [Default] 1: Yes	
PR-D-SEL	Use it to set the density of printing (PDL input).	2
	<Setting value> 0 to 8 (4: default) 0 (light) <=> 4 (standard) <=> 8 (dark)	
TRY-STP	Setting output or no output in the tray full state	2
	<Setting value> 0: Ordinary mode (Interrupt when the finisher tray is full) [Default] 1: Interrupt by height detection only	
MF-LG-ST	Setting the long mode key	2
	<Setting value> 0: Ordinary [Default] 1: Display a long mode key on the corresponding mode screen	

COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
SPECK-DP	Use it to enable/disable indication of a warning for dust detection in streamreading.	2
	<Setting value> 0: disable indication (default), 1: enable indication	
CNT-DISP	Setting whether or not to display a serial number when the counter confirmation key is pressed	2
	<Setting value> 0: Display a serial number [Default] 1: Do not display a serial number	
PH-D-SEL	Setting the number of lines for printing in Photo mode	2
	<Setting value> 0: 141 lines [Default] 1: 134 lines	
NW-SCAN	Enabling or disabling the network scan function	2
	<Setting value> 0: Network scan function disabled [Default] 1: Network scan function enabled **MEMO:** Not changeable for anything in Japan Always 1 for PSPCL outside Japan Changeable for other outside Japan	
INS-C/S	Use it to expand the inserter function.	2
	<Setting value> 0: support cover only (default) 1: support cover + interleaf (multi inserter)	
TBIC-RNK	Use it to reduce uneven intervals.	2
	<Setting value> 1 to 5 (default: 1)	
ORG-ODR	Use it to set the sequence of reading double-sided original when original orientation detection is enabled.	2
	<Setting value> 0: read from back to face (default) 1: read from face to back	
HDCR-DSP	Setting whether or not display HDD clearance in User mode and changing the contents of clearance	2
	<Setting value> 1: Clear once with 0 [Default] 2: Clear once with random data 3: Clear three times with random data	
BCK-CVR	Use it to enable or disable the back cover mode function.	2
	<Setting value> 0: disable back cover mode 1: enable back cover mode	
JOB-INVL	Setting the job interval at interrupt	2
	<Setting value> 0: Output the next job continuously in interrupt copying (Standard) [Default] 1: Start outputting the next job after the last paper of the interrupted copy job is output 2: Start outputting the next job after the last paper of all jobs is output	
LGSW-DSP	Setting whether or not to display [Log display ON/OFF] on the User mode screen	2
	[Default] 0: Do not display [Log display ON/OFF] [Default] 1: Display [Log display ON/OFF]	
PCL-COPY	Supporting the PCL command [COPIES Meru/Pinatubo/Hood]	2
	<Setting value> 0: Control each page according to the command of the COPIES command specified to the page [Default] 1: Meru/Pinatubo/Hood compatible mode 2 to 65535: Reserved	
OUT-FD	Use it to select face-down (FD) delivery at all times.	2
	<Setting value> 0: use facedown output normally 1: use facedown output at all times	
PRJOB-CP	Setting the CCV count pulse at reception and report output	2
	<Setting value> 0: Do not output count pulse [Default] 1: Output count pulse	
DPT-ID-7	Registering the department ID and entering 7 digits for authentication	2
	<Setting value> 0: Conventional [Default] 1: 7-digit input	

COPIER > OPTION >USER		
Sub-item	**Description**	**Level**
RUI-RJT	Disconnecting the HTTP port from RUI by three authentication failures	2
	<Setting value> 0: Invalid [Default] 1: Valid	
CTM-S06	Setting whether or not to erase the password from the export file of the file send address	2
	<Setting value> 0: Do not erase the password from the export file. [Default] 1: Erase the password from the export file.	
FREG-SW	Setting whether or not to display the free section of the MEAP counter (SEND)	2
	<Setting value> 0: Do not display [Default] 1: Display	
IFAX-SZL	Enabling or disabling the send size limit in IFAX transmission (not via server only)	2
	<Setting value> 0: Send size limit enabled (via server/not via server) 1: Send size limit disabled (not via server only) [Default]	
IFAX-PGD	Setting whether or not to permit split send in pages (only beyond the upper limit of the send data size)	2
	<Setting value> 0: Do not permit split send in IFAX Simple mode transmission [Default] 1: Permit split send in IFAX Simple mode transmission	
MEAPSAFE	Turning the MEAP Safe mode ON or OFF	2
	<Setting value> 0: OFF [Default] 1: ON (Safe mode)	
TRAY-FLL	Use it to enable or disable notification in response to the tray becoming full.	2
	0: indicate that the output tray has become full when all available trays have become full 1: indicate that the output tray has become full only when the special tray (if selected) has become full or all trays have been identified as being full	
PRNT-POS	Use it to specify whether to stop or not to stop all subsequent jobs when a job is canceled in the event of an error.	2
	<Setting value> 0: do not stop all 1: stop all	
AFN-PSWD	Limiting access in User mode	2
	<Setting value> 0: OFF (Transition to the User mode screen with no password request) [Default] 1: ON (Transition to the User mode screen after password matching)	
PTJAM-RC	Turning PDL jam recovery ON or OFF	2
	<Setting value> 0: OFF (Do not recover) 1: ON (Recover) [Default]	
SLP-SLCT	Switch of the existing network application	2
	<Setting value> 0: Not use [Default] 1: Use ⚠ When the machine is set its range as "1", it will not move to the sleep mode 3.	
PS-MODE	Setting PS internal mode	2
	<Setting value> 0 to 65535 0: Not compatible [Default] 1: PS Type 3 Halftone command compatible (conventional) (Dither growth forward and reverse) 2 to 65535: Reserved	
CNCT-RLZ	Use it to specify whether to use or not to use the connection serialization function.	2
	<Setting value> 0: OFF (disable connection serialization function) 1: ON (enlarge connection serialization function)	

Software counter specifications
100 - 199: Total
200 - 299: Copy (001 to 099 added in case of shortage)
300 - 399: Print
400 - 499: Copy and print
500 - 599: Scan
600 - 699: Box print
700 - 799: Receive print

800 - 899: Report print
900 - 999: Send
Explanations of symbols and terms in the table
- YES: Counter valid in this machine
- Large size: Paper greater than B4
- Small size: Paper of B4 or smaller
- Counter Description: Numerals 1 and 2 indicate the counts of large size paper.
In service mode (COPIER>OPTION>USER>B4-L-CNT), B4 or greater can be set as the large size.
- Total A: Total excluding local and remote copies
- Total B: Total excluding local and remote copies and box prints
- Copy: Local and remote copies
- Copy A: Local and remote copies and box prints
- Print: PDL, report, and box prints
- Print A: PDL and report prints
- Scan: Black-and-white and color scans

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No.	Counter Description	Support
101	Total 1	yes
102	Total 2	yes
103	Total (Large)	yes
104	Total (Small)	yes
105	Total (Full-color 1)	
106	Total (Full-color 2)	
108	Total (Black-and-white 1)	yes
109	Total (Black-and-white 2)	yes
110	Total (Monochrome / Large)	
111	Total (Monochrome / Small)	
112	Total (Black-and-white / Large)	yes
113	Total (Black-and-white / Small)	yes
114	Total 1 (Duplex)	yes
115	Total 2 (Duplex)	yes
116	Large (Duplex)	yes
117	Small (Duplex)	yes
118	Total (Monochrome 1)	
119	Total (Monochrome 2)	
120	Total (Full-color / Large)	
121	Total (Full-color / Small)	
122	Total (Full-color + Monochrome / Large)	
123	Total (Full-color + Monochrome / Small)	
124	Total (Full-color + Monochrome 2)	
125	Total (Full-color + Monochrome 1)	
126	Total A1	yes
127	Total A2	yes
128	Total A (Large)	yes
129	Total A (Small)	yes
130	Total A (Full-color 1)	
131	Total A (Full-color 2)	
132	Total A (Black-and-white 1)	yes
133	Total A (Black-and-white 2)	yes
134	Total A (Monochrome / Large)	
135	Total A (Monochrome / Small)	
136	Total A (Black-and-white / Large)	yes
137	Total A (Black-and-white / Small)	yes
138	Total A1 (Duplex)	
139	Total A2 (Duplex)	
140	Large A (Duplex)	
141	Small A (Duplex)	
142	Total A (Monochrome 1)	
143	Total A (Monochrome 2)	
144	Total A (Full-color / Large)	
145	Total A (Full-color / Small)	
146	Total A (Full-color + Monochrome / Large)	
147	Total A (Full-color + Monochrome / Small)	
148	Total A (Full-color + Monochrome 2)	

No.	Counter Description	Support
149	Total A (Full-color + Monochrome 1)	
150	Total B1	yes
151	Total B2	yes
152	Total B (Large)	yes
153	Total B (Small)	yes
154	Total B (Full-color 1)	
155	Total B (Full-color 2)	
156	Total B (Black-and-white 1)	yes
157	Total B (Black-and-white 2)	yes
158	Total B (Monochrome / Large)	
159	Total B (Monochrome / Small)	
160	Total B (Black-and-white / Large)	yes
161	Total B (Black-and-white / Small)	yes
162	Total B1 (Duplex)	
163	Total B2 (Duplex)	
164	Large B (Duplex)	
165	Small B (Duplex)	
166	Total B (Monochrome 1)	
167	Total B (Monochrome 2)	
168	Total B (Full-color / Large)	
169	Total B (Full-color / Small)	
170	Total B (Full-color + Monochrome / Large)	
171	Total B (Full-color + Monochrome / Small)	
172	Total B (Full-color + Monochrome 2)	
173	Total B (Full-color + Monochrome 1)	
201	Copy (Total 1)	yes
202	Copy (Total 2)	yes
203	Copy (Large)	yes
204	Copy (Small)	yes
205	Copy A (Total 1)	yes
206	Copy A (Total 2)	yes
207	Copy A (Large)	yes
208	Copy A (Small)	yes
209	Local copy (Total 1)	yes
210	Local copy (Total 2)	yes
211	Local copy (Large)	yes
212	Local copy (Small)	yes
213	Remote copy (Total 1)	yes
214	Remote copy (Total 2)	yes
215	Remote copy (Large)	yes
216	Remote copy (Small)	yes
217	Copy (Full-color 1)	
218	Copy (Full-color 2)	
219	Copy (Monochrome 1)	
220	Copy (Monochrome 2)	
221	Copy (Black-and-white 1)	yes
222	Copy (Black-and-white 2)	yes
223	Copy (Full-color / Large)	
224	Copy (Full-color / Small)	
225	Copy (Monochrome / Large)	
226	Copy (Monochrome / Small)	
227	Copy (Black-and-white / Large)	yes
228	Copy (Black-and-white / Small)	yes
229	Copy (Full-color + Monochrome / Large)	
230	Copy (Full-color + Monochrome / Small)	
231	Copy (Full-color + Monochrome / 2)	
232	Copy (Full-color + Monochrome / 1)	
233	Copy (Full-color / Large / Duplex)	
234	Copy (Full-color / Small / Duplex)	
235	Copy (Monochrome / Large / Duplex)	
236	Copy (Monochrome / Small / Duplex)	

No.	Counter Description	Support
237	Copy (Black-and-white / Large / Duplex)	
238	Copy (Black-and-white / Small / Duplex)	
245	Copy A (Full-color 1)	
246	Copy A (Full-color 2)	
247	Copy A (Monochrome 1)	
248	Copy A (Monochrome 2)	
249	Copy A (Black-and-white 1)	yes
250	Copy A (Black-and-white 2)	yes
251	Copy A (Full-color / Large)	
252	Copy A (Full-color / Small)	
253	Copy A (Monochrome / Large)	
254	Copy A (Monochrome / Small)	
255	Copy A (Black-and-white / Large)	yes
256	Copy A (Black-and-white / Small)	yes
257	Copy A (Full-color + Monochrome / Large)	
258	Copy A (Full-color + Monochrome / Small)	
259	Copy A (Full-color + Monochrome / 2)	
260	Copy A (Full-color + Monochrome / 1)	
261	Copy A (Full-color / Large / Duplex)	
262	Copy A (Full-color / Small / Duplex)	
263	Copy A (Monochrome / Large / Duplex)	
264	Copy A (Monochrome / Small / Duplex)	
265	Copy A (Black-and-white / Large / Duplex)	
266	Copy A (Black-and-white / Small / Duplex)	
273	Local copy (Full-color 1)	
274	Local copy (Full-color 2)	
275	Local copy (Monochrome 1)	
276	Local copy (Monochrome 2)	
277	Local copy (Black-and-white 1)	yes
278	Local copy (Black-and-white 2)	yes
279	Local copy (Full-color / Large)	
280	Local copy (Full-color / Small)	
281	Local copy (Monochrome / Large)	
282	Local copy (Monochrome / Small)	
283	Local copy (Black-and-white / Large)	yes
284	Local copy (Black-and-white / Small)	yes
285	Local copy (Full-color + Monochrome / Large)	
286	Local copy (Full-color + Monochrome / Small)	
287	Local copy (Full-color + Monochrome / 2)	
288	Local copy (Full-color + Monochrome / 1)	
289	Local copy (Full-color / Large / Duplex)	
290	Local copy (Full-color / Small / Duplex)	
291	Local copy (Monochrome / Large / Duplex)	
292	Local copy (Monochrome / Small / Duplex)	
293	Local copy (Black-and-white / Large / Duplex)	
294	Local copy (Black-and-white / Small / Duplex)	
002	Remote copy (Full-color 1)	
003	Remote copy (Full-color 2)	
004	Remote copy (Monochrome 1)	
005	Remote copy (Monochrome 2)	
006	Remote copy (Black-and-white 1)	yes
007	Remote copy (Black-and-white 2)	yes
008	Remote copy (Full-color / Large)	
009	Remote copy (Full-color / Small)	
010	Remote copy (Monochrome / Large)	
011	Remote copy (Monochrome / Small)	
012	Remote copy (Black-and-white / Large)	yes
013	Remote copy (Black-and-white / Small)	yes
014	Remote copy (Full-color + Monochrome / Large)	
015	Remote copy (Full-color + Monochrome / Small)	
016	Remote copy (Full-color + Monochrome / 2)	

No.	Counter Description	Support
017	Remote copy (Full-color + Monochrome / 1)	
018	Remote copy (Full-color / Large / Duplex)	
019	Remote copy (Full-color / Small / Duplex)	
020	Remote copy (Monochrome / Large / Duplex)	
021	Remote copy (Monochrome / Small / Duplex)	
022	Remote copy (Black-and-white / Large / Duplex)	
023	Remote copy (Black-and-white / Small / Duplex)	
301	Print (Total 1)	yes
302	Print (Total 2)	yes
303	Print (Large)	yes
304	Print (Small)	yes
305	Print A (Total 1)	yes
306	Print A (Total 2)	yes
307	Print A (Large)	yes
308	Print A (Small)	yes
309	Print (Full-color 1)	
310	Print (Full-color 2)	
311	Print (Monochrome 1)	
312	Print (Monochrome 2)	
313	Print (Black-and-white 1)	yes
314	Print (Black-and-white 2)	yes
315	Print (Full-color / Large)	
316	Print (Full-color / Small)	
317	Print (Monochrome / Large)	
318	Print (Monochrome / Small)	
319	Print (Black-and-white / Large)	yes
320	Print (Black-and-white / Small)	yes
321	Print (Full-color + Monochrome / Large)	
322	Print (Full-color + Monochrome / Small)	
323	Print (Full-color + Monochrome / 2)	
324	Print (Full-color + Monochrome / 1)	
325	Print (Full-color / Large / Duplex)	
326	Print (Full-color / Small / Duplex)	
327	Print (Monochrome / Large / Duplex)	
328	Print (Monochrome / Small / Duplex)	
329	Print (Black-and-white / Large / Duplex)	
330	Print (Black-and-white / Small / Duplex)	
331	PDL print (Total 1)	yes
332	PDL print (Total 2)	yes
333	PDL print (Large)	yes
334	PDL print (Small)	yes
335	PDL print (Full-color 1)	
336	PDL print (Full-color 2)	
339	PDL print (Black-and-white 1)	yes
340	PDL print (Black-and-white 2)	yes
341	PDL print (Full-color / Large)	
342	PDL print (Full-color / Small)	
345	PDL print (Black-and-white / Large)	yes
346	PDL print (Black-and-white / Small)	yes
351	PDL print (Full-color / Large / Duplex)	
352	PDL print (Full-color / Small / Duplex)	
355	PDL print (Black-and-white / Large / Duplex)	
356	PDL print (Black-and-white / Small / Duplex)	
401	Copy + Print (Full-color / Large)	
402	Copy + Print (Full-color / Small)	
403	Copy + Print (Monochrome / Large)	
404	Copy + Print (Monochrome / Small)	
405	Copy + Print (Monochrome 2)	
406	Copy + Print (Monochrome 1)	
407	Copy + Print (Full-color + Monochrome / Large)	
408	Copy + Print (Full-color + Monochrome / Small)	

No.	Counter Description	Support
409	Copy + Print (Full-color + Monochrome / 2)	
410	Copy + Print (Full-color + Monochrome / 1)	
411	Copy + Print (Large)	
412	Copy + Print (Small)	
413	Copy + Print (2)	
414	Copy + Print (1)	
415	Copy + Print (Monochrome / Large)	
416	Copy + Print (Monochrome / Small)	
417	Copy + Print (Full-color / Large / Duplex)	
418	Copy + Print (Full-color / Small / Duplex)	
419	Copy + Print (Monochrome / Large / Duplex)	
420	Copy + Print (Monochrome / Small / Duplex)	
421	Copy + Print (Black-and-white / Large / Duplex)	
422	Copy + Print (Black-and-white / Small / Duplex)	
501	Scan (Total 1)	yes
502	Scan (Total 2)	yes
503	Scan (Large)	yes
504	Scan (Small)	yes
505	Black-and-white scan (Total 1)	yes
506	Black-and-white scan (Total 2)	yes
507	Black-and-white scan (Large)	yes
508	Black-and-white scan (Small)	yes
509	Color scan (Total 1)	
510	Color scan (Total 2)	
511	Color scan (Large)	
512	Color scan (Small)	
601	Box print (Total 1)	yes
602	Box print (Total 2)	yes
603	Box print (Large)	yes
604	Box print (Small)	yes
605	Box print (Full-color 1)	
606	Box print (Full-color 2)	
607	Box print (Monochrome 1)	
608	Box print (Monochrome 2)	
609	Box print (Black-and-white 1)	yes
610	Box print (Black-and-white 2)	yes
611	Box print (Full-color / Large)	
612	Box print (Full-color / Small)	
613	Box print (Monochrome / Large)	
614	Box print (Monochrome / Small)	
615	Box print (Black-and-white / Large)	yes
616	Box print (Black-and-white / Small)	yes
617	Box print (Full-color + Monochrome / Large)	
618	Box print (Full-color + Monochrome / Small)	
619	Box print (Full-color + Monochrome / 2)	
620	Box print (Full-color + Monochrome / 1)	
621	Box print (Full-color / Large / Duplex)	
622	Box print (Full-color / Small / Duplex)	
623	Box print (Monochrome / Large / Duplex)	
624	Box print (Monochrome / Small / Duplex)	
625	Box print (Black-and-white / Large / Duplex)	
626	Box print (Black-and-white / Small / Duplex)	
701	Receive print (Total 1)	yes
702	Receive print (Total 2)	yes
703	Receive print (Large)	yes
704	Receive print (Small)	yes
705	Receive print (Full-color 1)	
706	Receive print (Full-color 2)	
707	Receive print (Gray-scale 1)	
708	Receive print (Gray-scale 2)	
709	Receive print (Monochrome 1)	yes

No.	Counter Description	Support
710	Receive print (Monochrome 2)	yes
711	Receive print (Full-color / Large)	
712	Receive print (Full-color / Small)	
713	Receive print (Gray-scale / Large)	
714	Receive print (Gray-scale / Small)	
715	Receive print (Monochrome / Large)	yes
716	Receive print (Monochrome / Small)	yes
717	Receive print (Full-color + Gray-scale / Large)	
718	Receive print (Full-color + Gray-scale / Small)	
719	Receive print (Full-color + Gray-scale 2)	
720	Receive print (Full-color + Gray-scale 1)	
721	Receive print (Full-color / Large / Duplex)	
722	Receive print (Full-color / Small / Duplex)	
723	Receive print (Gray-scale / Large / Duplex)	
724	Receive print (Gray-scale / Small / Duplex)	
725	Receive print (Monochrome / Large / Duplex)	
726	Receive print (Monochrome / Small / Duplex)	
801	Report print (Total 1)	yes
802	Report print (Total 2)	yes
803	Report print (Large)	yes
804	Report print (Small)	yes
805	Report print (Full-color 1)	
806	Report print (Full-color 2)	
807	Report print (Gray-scale 1)	
808	Report print (Gray-scale 2)	
809	Report print (Monochrome 1)	yes
810	Report print (Monochrome 2)	yes
811	Report print (Full-color / Large)	
812	Report print (Full-color / Small)	
813	Report print (Gray-scale / Large)	
814	Report print (Gray-scale / Small)	
815	Report print (Monochrome / Large)	yes
816	Report print (Monochrome / Small)	yes
817	Report print (Full-color + Gray-scale / Large)	
818	Report print (Full-color + Gray-scale / Small)	
819	Report print (Full-color + Gray-scale 2)	
820	Report print (Full-color + Gray-scale 1)	
821	Report print (Full-color / Large / Duplex)	
822	Report print (Full-color / Small / Duplex)	
823	Report print (Gray-scale / Large / Duplex)	
824	Report print (Gray-scale / Small / Duplex)	
825	Report print (Monochrome / Large / Duplex)	
826	Report print (Monochrome / Small / Duplex)	
901	Copy scan total 1 (Color)	
902	Copy scan total 1 (Black-and-white)	
903	Copy scan total 2 (Color)	
904	Copy scan total 2 (Black-and-white)	
905	Copy scan total 3 (Color)	
906	Copy scan total 3 (Black-and-white)	
907	Copy scan total 4 (Color)	
908	Copy scan total 4 (Black-and-white)	
909	Local copy scan (Color)	
910	Local copy scan (Black-and-white)	
911	Remote copy scan (Color)	
912	Remote copy scan (Black-and-white)	
913	Send scan total 1 (Color)	
914	Send scan total 1 (Black-and-white)	
915	Send scan total 2 (Color)	
916	Send scan total 2 (Black-and-white)	yes
917	Send scan total 3 (Color)	
918	Send scan total 3 (Black-and-white)	yes

No.	Counter Description	Support
919	Send scan total 4 (Color)	
920	Send scan total 4 (Black-and-white)	
921	Send scan total 5 (Color)	
922	Send scan total 5 (Black-and-white)	yes
929	Send scan total 6 (Color)	
930	Send scan total 6 (Black-and-white)	yes
931	Send scan total 7 (Color)	
932	Send scan total 7 (Black-and-white)	
933	Send scan total 8 (Color)	
934	Send scan total 8 (Black-and-white)	
935	Universal send scan total (Color)	
936	Universal send scan total (Black-and-white)	
937	Box scan (Color)	
938	Box scan (Black-and-white)	
939	Remote scan (Color)	
940	Remote scan (Black-and-white)	yes
941	Send scan / FAX (Color)	
942	Send scan / FAX (Black-and-white)	
943	Send scan / IFAX (Color)	
944	Send scan / IFAX (Black-and-white)	
945	Send scan / E-mail (Color)	
946	Send scan / E-mail (Black-and-white)	
947	Send scan / FTP (Color)	
948	Send scan / FTP (Black-and-white)	
949	Send scan / SMB (Color)	
950	Send scan / SMB (Black-and-white)	
951	Send scan / IPX (Color)	
952	Send scan / IPX (Black-and-white)	
953	Send scan / Database (Color)	
954	Send scan / Database (Black-and-white)	
955	Send scan / Local print (Color)	
956	Send scan / Local print (Black-and-white)	
957	Send scan / Box (Color)	
958	Send scan / Box (Black-and-white)	

<CST>

T-17-197

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
P-SZ-C1/C2	Use it to specify paper size used in the front deck (C1: right deck, C2: left deck).	1
	⚠ After electing the appropriate paper size, be sure to turn off and then on the main power switch. **<Settings value>** 6: A4 (default), 15: B5, 18: LTR	
U1-NAME to U4-NAME	Setting whether or not to display a paper name when a paper size group (U1 to U4) has been detected	2
	<Settings value> 0: Display U1, U2, U3, or U4 on the touchpanel. 1: Display the paper name set in service mode (CST-U1/U2/U3/U4).	
CST-U1	Specify paper names which are used in the paper size group The paper sizes of U1 can be recognized as special size papers with the universal cassette when special size papers below are registered to U1.	2
	<Settings value> 22: K-LGL (Default) 31: Governmental LETTER	

COPIER > OPTION > CST		
Sub-item	**Description**	**Level**
CST-U2	Specify paper names which are used in the paper size group The paper sizes of U2 can be recognized as special size papers with the universal cassette when special size papers below are registered to U2.	2
	<Settings value> 24: FOOLSCAP (Default) 26: OFFICIO 27: Ecuadorian OFFICIO 33: Argentine LEGAL 36: Argentine OFFICIO 37: Mexican OFFICIO	
CST-U3	Specify paper names which are used in the paper size group The paper sizes of U3 can be recognized as special size papers with the universal cassette when special size papers below are registered to U3.	2
	<Settings value> 25: Australian FOOLSCAP 34: Governmental LEGAL (Default) 35: FOLIO	
CST-U4	Specify paper names which are used in the paper size group The paper sizes of U4 can be recognized as special size papers with the universal cassette when special size papers below are registered to U4.	2
	<Settings value> 18: LTR 29: Argentine LETTER (Default)	

<ACC>

T-17-198

COPIER > OPTION > ACC		
Sub-item	**Description**	**Level**
COIN	Switching the coin vendor Set whether the coin vendor management mode can be entered or not.	1
	<Setting value> 0: OFF [Default] 1: ON	
DK-P	Setting a paper size for use on a paper deck (option)	1
	<Setting value> 0: A4 [Default] 1: B5 2: LTR	
PD-SIZE	Setting the Paper Deck Size	1
	<Setting value> 0: [Default] 22: K-LGL 23: K-LGLR 24: FLSC 25: A-FLS 26: OFI 27: E-OFI 28: B-OFI 29: A-LTR 30: A-LTRR 31: G-LTR 32: G-LTRR 33: A-LGL 34: G-LGL 35: FGLI 36: A-OFI 37: M-OFI	
CC-SPSW	Setting whether or not to support the control card (CC IV /CCV) interface	2
	<Setting value> 0: Do not support [Default] 1: Support	

<INT-FACE>

T-17-199

COPIER > OPTION > INT-FACE		
Sub-item	**Description**	**Level**
IMG-CONT	Use it to recognize an external EFI controller.	1
	<Setting value> 0:There is no external controller. 1 to 4: There is an external controller.	
AP-OPT	Permitting or prohibiting printing from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0: Printing is allowed with unspecified ID (Default: 0) 1: Printing is allowed with specified account 2: Printing is rejected	
AP-ACCNT	Setting a department ID for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	
AP-CODE	Setting a CPCA path for a print job from the PrintMe application installed in the PS print server unit	2
	<Setting value> 0 to 99999999 [Default: 0]	

<LCNS-TR>
Example of display: ST-XXXX 1 ( ) {0 to 0}
[1] [2]
[1] Status display 0: Not installed [Default] 1: Installed
[2] Invalidation 0: Invalidate (Only 0 can be entered.)

Transfer invalidation procedure
1. Select ST-XXXX, enter 0, and press the OK key.
2. A transfer license number (24 digits) is displayed at TR-XXXX.

T-17-200

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
ST-SEND	Displaying the send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SEND	Acquiring a transfer license key for the send function in transfer invalidation	2
ST-ENPDF	Displaying the encrypted PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-ENPDF	Acquiring a transfer license key for the encrypted PDF send function in transfer invalidation	2
ST-SPDF	Displaying the searchable PDF send function installation status in transfer invalidation and executing transfer invalidation	2
TR-SPDF	Acquiring a transfer license key for the searchable PDF send function in transfer invalidation	2
ST-EXPDF	Displaying the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation and executing transfer invalidation	2
TR-EXPDF	Acquiring a transfer license key for the PDF extension kit (compound function of encrypted PDF and searchable PDF) installation status in transfer invalidation	2
ST-LIPS	Displaying the LIPS installation status in transfer invalidation and executing transfer invalidation	2
TR-LIPS	Acquiring a transfer license key for LIPS in transfer invalidation	2
ST-PDFDR	Displaying the PDF direct function installation status in transfer invalidation and executing transfer invalidation	2
TR-PDFDR	Acquiring a transfer license key for the PDF direct function in transfer invalidation	2
ST-SCR	Displaying the encrypted secure print function installation status in transfer invalidation and executing transfer invalidation	2
TR-SCR	Acquiring a transfer license key for the encrypted secure print function in transfer invalidation	2
ST-HDCLR	Displaying the HDD encryption/complete erasure function installation status in transfer invalidation and executing transfer invalidation	2
TR-HDCLR	Acquiring a transfer license key for the HDD encryption/complete erasure function in transfer invalidation	2
ST-BRDIM	Displaying the BarDIMM installation status in transfer invalidation and executing transfer invalidation	2
TR-BRDIM	Acquiring a transfer license key for BarDIMM in transfer invalidation	2
ST-TMDM	Use it to indicate the status installation in conjunction with transfer invalidation (for tandem configuration)	2

COPIER >OPTION >LCNS-TR		
Sub-item	**Description**	**Level**
TR-TMDM	Use it to obtain a transfer license key in conjunction with transfer invalidation (for tandem configuration).	2

17.6.2 FEEDER

17.6.2.1 Feeder List

0008-4958

iR105i/iR105+ / iR9070

FEEDER>OPTION

T-17-201

FEEDER > OPTION		
Sub-item	**Description**	**Level**
DOC-F-SW	Use it to turn ON/OFF stream reading mode.	1
	<Setting value> 0: Stream reading [Default] 1: Fixed reading	
SIZE-SW	Setting whether or not to detect a mixed document of A/B size and inch size	1
	<Setting value> 0: Do not detect [Default] 1: Detect	
SLW-SPRT	Use it to decelerate the separation speed for original pickup.	1
	<Setting value> 0: normal mode (default) 1: deceleration mode	

17.6.2.2 Feeder List

0008-7976

/ iR8070

FEEDER>OPTION

T-17-202

FEEDER > OPTION		
Sub-item	Description	Level
SIZE-SW	Setting whether or not to detect a mixed document of A/B size and inch size	1
	<Setting value> 0: Do not detect [Default] 1: Detect	

17.6.2.3 Feeder List

0008-7978

FEEDER>OPTION

T-17-203

FEEDER > OPTION		
Sub-item	Description	Level
DOC-F-SW	Use it to turn ON/OFF stream reading mode.	1
	<Setting value> 0: Stream reading [Default] 1: Fixed reading	
SIZE-SW	Setting whether or not to detect a mixed document of A/B size and inch size	1
	<Setting value> 0: Do not detect [Default] 1: Detect	

SLW-SPRT	Use it to decelerate the separation speed for original pickup. **<Setting value>** 0: normal mode (default) 1: deceleration mode	1

17.6.3 SORTER

17.6.3.1 Sorter List

0008-4959

iR105i/iR105+ / iR9070

SORTER > OPTION>

T-17-204

SORTER > OPTION		
Sub-item	**Description**	**Level**
BLNK-SW	Setting the margin width (W) on each side of the folding position when the saddle stitcher is used **<Setting value>** 0: Ordinary width (5 mm) 1: Large width (10 mm) [Value at shipping/Value after RAM clearance: 1] 	1
CNTR-OUT	Use it to indicate the delivery center position for a 3K stacker. **Setting value** 0: disable center position delivery (default) 1: enable center position delivery	2

17.6.3.2 Sorter List

0008-7979

/ iR8070

SORTER > OPTION>

T-17-205

SORTER > OPTION		
Sub-item	**Description**	**Level**
BLNK-SW	Setting the margin width (W) on each side of the folding position when the saddle stitcher is used	1
	<Setting value> 0: Ordinary width (5 mm) 1: Large width (10 mm) [Value at shipping/Value after RAM clearance: 1] 	
CNTR-OUT	Use it to indicate the delivery center position for a 3K stacker.	2
	Setting value 0: disable center position delivery (default) 1: enable center position delivery	

17.6.3.3 Sorter List

0008-7980

iR85+

SORTER > OPTION>

T-17-206

SORTER > OPTION		
Sub-item	**Description**	**Level**
BLNK-SW	Setting the margin width (W) on each side of the folding position when the saddle stitcher is used	1
	<Setting value> 0: Ordinary width (5 mm) 1: Large width (10 mm) [Value at shipping/Value after RAM clearance: 1] 	

SORTER > OPTION		
Sub-item	**Description**	**Level**
CNTR-OUT	Use it to indicate the delivery center position for a 3K stacker.	2
	Setting value 0: disable center position delivery (default) 1: enable center position delivery	

17.6.3.4 Sorter List

0008-7981

SORTER > OPTION>

T-17-207

SORTER > OPTION		
Sub-item	**Description**	**Level**
BLNK-SW	Setting the margin width (W) on each side of the folding position when the saddle stitcher is used	1
	<Setting value> 0: Ordinary width (5 mm) 1: Large width (10 mm) [Value at shipping/Value after RAM clearance: 1] 	
CNTR-OUT	Use it to indicate the delivery center position for a 3K stacker.	2
	Setting value 0: disable center position delivery (default) 1: enable center position delivery	

17.6.4 BOARD

17.6.4.1 Board List

0008-4961

iR105i/iR105+ / iR9070

BOARD > OPTION

T-17-208

BOARD > OPTION		
Sub-item	**Description**	**Level**
FONTDL	Setting whether or not to display the font service setting screen for list display by the PS kanji font downloader	1
	<Setting value> 0: Do not display [Default] 1: Display	
MENU-1 to MENU-4	Setting whether or not to display Levels 1 to 4 of the printer setting menu	2
	<Setting value> 0: Do not display 1: Display [Value at shipping/Value after RAM clearance: 0]	

17.6.4.2 Board List

0008-7982

/ iR8070

BOARD > OPTION

T-17-209

BOARD > OPTION		
Sub-item	**Description**	**Level**
FONTDL	Setting whether or not to display the font service setting screen for list display by the PS kanji font downloader	1
	<Setting value> 0: Do not display [Default] 1: Display	
MENU-1 to MENU-4	Setting whether or not to display Levels 1 to 4 of the printer setting menu	2
	<Setting value> 0: Do not display 1: Display [Value at shipping/Value after RAM clearance: 0]	

17.6.4.3 Board List

0008-7983

iR85+

BOARD > OPTION

T-17-210

BOARD > OPTION		
Sub-item	**Description**	**Level**
FONTDL	Setting whether or not to display the font service setting screen for list display by the PS kanji font downloader	1
	<Setting value> 0: Do not display [Default] 1: Display	
MENU-1 to MENU-4	Setting whether or not to display Levels 1 to 4 of the printer setting menu	2
	<Setting value> 0: Do not display 1: Display [Value at shipping/Value after RAM clearance: 0]	

17.6.4.4 Board List

0008-7984

BOARD > OPTION

T-17-211

BOARD > OPTION		
Sub-item	**Description**	**Level**
FONTDL	Setting whether or not to display the font service setting screen for list display by the PS kanji font downloader	1
	<Setting value> 0: Do not display [Default] 1: Display	
MENU-1 to MENU-4	Setting whether or not to display Levels 1 to 4 of the printer setting menu	2
	<Setting value> 0: Do not display 1: Display [Value at shipping/Value after RAM clearance: 0]	

17.7 TEST (Test Print Mode)

17.7.1 COPIER

17.7.1.1 Copier List

0008-4962

iR105i/iR105+ / iR9070

<PG>

T-17-212

COPIER>TEST>PG		
Sub-item	**Description**	**Level**
TYPE	Enter a test print type number and press the Start key for test printing. (After test printing, be sure to return the number to 0.) 0: Image from CCD (Ordinary print) 1: Checker 2: 17 tones (Error diffusion method [T0BIC]) 3: 17 tones (Dither screen method) 4: Totally white 00H 5: Halftone 80H (Error diffusion method [T0BIC]) 6: Halftone 80H (Dither screen method) 7: Totally black FFH 8: Horizontal line (space: 27 dots, line width: 40 dots) 9: Horizontal line (space: 50 dots, line width: 60 dots) 10: Horizontal line (space: 3 dots, line width: 2 dots) 11: Halftone 60H (Error diffusion method [T0BIC]) 12: Halftone 60H (Dither screen method) 13: Halftone 30H (Error diffusion method [T0BIC]) 14: Halftone 30H (Dither screen method) 15 - 20: For development	1
TXPH	Use it to switch between text mode and photo mode for test printing. <Setting range> 0 to 4	1
PG-PICK	Selecting an output stage for test printing 1: Cassette 1 2: Cassette 2 3: Cassette 3 4: Cassette 4 5: Side deck 6: Manual feed 7 - 8: Not used	1
2-SIDE	Setting the output mode for test printing 0: Simplex [Default] 1: Duplex	1
PG-QTY	Setting the number of pages for test printing 1 to 999 [Default: 1]	1

<NETWORK>

T-17-213

COPIER>TEST>NETWORK		
Sub-item	**Description**	**Level**
PING	Checking the connection from this machine to the network (TCP/IP only) The network connection is checked when the machine has been installed and when the connection has become faulty.	1

1) Press the switch at the operating section long for the shutdown sequence and turn the main power switch OFF.
2) Connect the network cable to this machine and turn the main power switch ON.
3) Notify the system administrator that the machine has been installed to request network setup.
4) Notify the system administrator of the network connection check plan and check the PING remote host address (IP address of a PC terminal in the user network).
5) Select the service mode (COPIER>TEST>NETWORK>PING), enter the IP address checked at Step 4 from the ten-key pad of the operating section, and press the OK key and the Start key.
   - Once the network has been connected normally, OK is displayed. (End)
   - If NG is displayed, check the connection of the network cable first. If the network cable is connected normally, do Step 6 and later. If the network cable is not connected normally, repeat Step 5.
6) Select the service mode (COPIER>TEST>NETWORK>PING), enter the loopback address *(127.0.0.1), and press the OK key and the Start key.
   - If NG is displayed, the TCP/IP setting of the local machine may be wrong. Return to Step 3 and check the setting again.
   - If OK is displayed, the TCP/IP setting of the local machine seems correct but the network controller (main controller circuit board) may be faulty. Check the controller at Step 7.
   *: Since the loopback address signal is returned before the network controller, the TCP/IP setting of the local machine can be checked.
7) Select the service mode (COPIER>TEST>NETWORK>PING), enter the local host address (IP address of the local machine), and press the OK key.

- If NG is displayed, the IP address of the local machine may be wrong or the network controller may be faulty. Check the IP address with the system administrator or replace the main controller circuit board.
- If OK is displayed, there seem to be no problems about the network setting of the local machine or the network controller.
Then the problem may be attributable to the user network environment. Report this to the system administrator and request action.

F-17-37

17.7.1.2 Copier List

0008-7985

/ iR8070

<PG>

T-17-214

COPIER>TEST>PG		
Sub-item	**Description**	**Level**
TYPE	Enter a test print type number and press the Start key for test printing. (After test printing, be sure to return the number to 0.) 0: Image from CCD (Ordinary print) 1: Checker 2: 17 tones (Error diffusion method [T0BIC]) 3: 17 tones (Dither screen method) 4: Totally white 00H 5: Halftone 80H (Error diffusion method [T0BIC]) 6: Halftone 80H (Dither screen method) 7: Totally black FFH 8: Horizontal line (space: 27 dots, line width: 40 dots) 9: Horizontal line (space: 50 dots, line width: 60 dots) 10: Horizontal line (space: 3 dots, line width: 2 dots) 11: Halftone 60H (Error diffusion method [T0BIC]) 12: Halftone 60H (Dither screen method) 13: Halftone 30H (Error diffusion method [T0BIC]) 14: Halftone 30H (Dither screen method) 15 - 20: For development	1
TXPH	Use it to switch between text mode and photo mode for test printing. <Setting range> 0 to 4	1
PG-PICK	Selecting an output stage for test printing 1: Cassette 1 2: Cassette 2 3: Cassette 3 4: Cassette 4 5: Side deck 6: Manual feed 7 - 8: Not used	1
2-SIDE	Setting the output mode for test printing 0: Simplex [Default] 1: Duplex	1
PG-QTY	Setting the number of pages for test printing 1 to 999 [Default: 1]	1

<NETWORK>

T-17-215

COPIER>TEST>NETWORK		
Sub-item	**Description**	**Level**
PING	Checking the connection from this machine to the network (TCP/IP only) The network connection is checked when the machine has been installed and when the connection has become faulty.	1

1) Press the switch at the operating section long for the shutdown sequence and turn the main power switch OFF.
2) Connect the network cable to this machine and turn the main power switch ON.
3) Notify the system administrator that the machine has been installed to request network setup.
4) Notify the system administrator of the network connection check plan and check the PING remote host address (IP address of a PC terminal in the user network).
5) Select the service mode (COPIER>TEST>NETWORK>PING), enter the IP address checked at Step 4 from the ten-key pad of the operating section, and press the OK key and the Start key.
   - Once the network has been connected normally, OK is displayed. (End)
   - If NG is displayed, check the connection of the network cable first. If the network cable is connected normally, do Step 6 and later. If the network cable is not connected normally, repeat Step 5.
6) Select the service mode (COPIER>TEST>NETWORK>PING), enter the loopback address *(127.0.0.1), and press the OK key and the Start key.
   - If NG is displayed, the TCP/IP setting of the local machine may be wrong. Return to Step 3 and check the setting again.
   - If OK is displayed, the TCP/IP setting of the local machine seems correct but the network controller (main controller circuit board) may be faulty. Check the controller at Step 7.
   *: Since the loopback address signal is returned before the network controller, the TCP/IP setting of the local machine can be checked.
7) Select the service mode (COPIER>TEST>NETWORK>PING), enter the local host address (IP address of the local machine), and press the OK key.
   - If NG is displayed, the IP address of the local machine may be wrong or the network controller may be faulty. Check the IP address with the system administrator or replace the main controller circuit board.
   - If OK is displayed, there seem to be no problems about the network setting of the local machine or the network controller.
   Then the problem may be attributable to the user network environment. Report this to the system administrator and request action.

F-17-38

17.7.1.3 Copier List

0008-7986

iR85+

<PG>

T-17-216

COPIER>TEST>PG		
Sub-item	**Description**	**Level**
TYPE	Enter a test print type number and press the Start key for test printing. (After test printing, be sure to return the number to 0.) 0: Image from CCD (Ordinary print)[Default] 1: Checker 2: 17 tones (Error diffusion method [T0BIC]) 3: 17 tones (Dither screen method) 4: Totally white 00H 5: Halftone 80H (Error diffusion method [T0BIC]) 6: Halftone 80H (Dither screen method) 7: Totally black FFH 8: Horizontal line (space: 27 dots, line width: 40 dots) 9: Horizontal line (space: 50 dots, line width: 60 dots) 10: Horizontal line (space: 3 dots, line width: 2 dots) 11: Halftone 60H (Error diffusion method [T0BIC]) 12: Halftone 60H (Dither screen method) 13: Halftone 30H (Error diffusion method [T0BIC]) 14: Halftone 30H (Dither screen method) 15 - 20: For development	1
TXPH	Use it to switch between text mode and photo mode for test printing. <Setting range> 0 to 4 [Default: 0]	1
PG-PICK	Selecting an output stage for test printing 1: Cassette 1 [Default] 2: Cassette 2 3: Cassette 3 4: Cassette 4 5: Side deck 6: Manual feed 7 - 8: Not used	1
2-SIDE	Setting the output mode for test printing 0: Simplex [Default] 1: Duplex	1
PG-QTY	Setting the number of pages for test printing 1 to 999 [Default: 1]	1

<NETWORK>

T-17-217

COPIER>TEST>NETWORK		
Sub-item	**Description**	**Level**
PING	Checking the connection from this machine to the network (TCP/IP only) The network connection is checked when the machine has been installed and when the connection has become faulty.	1

1) Press the switch at the operating section long for the shutdown sequence and turn the main power switch OFF.
2) Connect the network cable to this machine and turn the main power switch ON.
3) Notify the system administrator that the machine has been installed to request network setup.
4) Notify the system administrator of the network connection check plan and check the PING remote host address (IP address of a PC terminal in the user network).
5) Select the service mode (COPIER>TEST>NETWORK>PING), enter the IP address checked at Step 4 from the ten-key pad of the operating section, and press the OK key and the Start key.
   - Once the network has been connected normally, OK is displayed. (End)
   - If NG is displayed, check the connection of the network cable first. If the network cable is connected normally, do Step 6 and later. If the network cable is not connected normally, repeat Step 5.
6) Select the service mode (COPIER>TEST>NETWORK>PING), enter the loopback address *(127.0.0.1), and press the OK key and the Start key.
   - If NG is displayed, the TCP/IP setting of the local machine may be wrong. Return to Step 3 and check the setting again.
   - If OK is displayed, the TCP/IP setting of the local machine seems correct but the network controller (main controller circuit board) may be faulty. Check the controller at Step 7.
   *: Since the loopback address signal is returned before the network controller, the TCP/IP setting of the local machine can be checked.
7) Select the service mode (COPIER>TEST>NETWORK>PING), enter the local host address (IP address of the local machine), and press the OK key.
   - If NG is displayed, the IP address of the local machine may be wrong or the network controller may be faulty. Check the IP address with the system administrator or replace the main controller circuit board.
   - If OK is displayed, there seem to be no problems about the network setting of the local machine or the network controller.
   Then the problem may be attributable to the user network environment. Report this to the system administrator and request action.

F-17-39

17.7.1.4 Copier List

0008-7987

<PG>

T-17-218

COPIER>TEST>PG		
Sub-item	**Description**	**Level**
TYPE	Enter a test print type number and press the Start key for test printing. (After test printing, be sure to return the number to 0.) 0: Image from CCD (Ordinary print) 1: Checker 2: 17 tones (Error diffusion method [T0BIC]) 3: 17 tones (Dither screen method) 4: Totally white 00H 5: Halftone 80H (Error diffusion method [T0BIC]) 6: Halftone 80H (Dither screen method) 7: Totally black FFH 8: Horizontal line (space: 27 dots, line width: 40 dots) 9: Horizontal line (space: 50 dots, line width: 60 dots) 10: Horizontal line (space: 3 dots, line width: 2 dots) 11: Halftone 60H (Error diffusion method [T0BIC]) 12: Halftone 60H (Dither screen method) 13: Halftone 30H (Error diffusion method [T0BIC]) 14: Halftone 30H (Dither screen method) 15 - 20: For development	1
TXPH	Use it to switch between text mode and photo mode for test printing. <Setting range> 0 to 4	1
PG-PICK	Selecting an output stage for test printing 1: Cassette 1 2: Cassette 2 3: Cassette 3 4: Cassette 4 5: Side deck 6: Manual feed 7 - 8: Not used	1
2-SIDE	Setting the output mode for test printing 0: Simplex [Default] 1: Duplex	1
PG-QTY	Setting the number of pages for test printing 1 to 999 [Default: 1]	1

<NETWORK>

T-17-219

COPIER>TEST>NETWORK		
Sub-item	**Description**	**Level**
PING	Checking the connection from this machine to the network (TCP/IP only) The network connection is checked when the machine has been installed and when the connection has become faulty.	1

1) Press the switch at the operating section long for the shutdown sequence and turn the main power switch OFF.
2) Connect the network cable to this machine and turn the main power switch ON.
3) Notify the system administrator that the machine has been installed to request network setup.
4) Notify the system administrator of the network connection check plan and check the PING remote host address (IP address of a PC terminal in the user network).
5) Select the service mode (COPIER>TEST>NETWORK>PING), enter the IP address checked at Step 4 from the ten-key pad of the operating section, and press the OK key and the Start key.
   - Once the network has been connected normally, OK is displayed. (End)
   - If NG is displayed, check the connection of the network cable first. If the network cable is connected normally, do Step 6 and later. If the network cable is not connected normally, repeat Step 5.
6) Select the service mode (COPIER>TEST>NETWORK>PING), enter the loopback address *(127.0.0.1), and press the OK key and the Start key.
   - If NG is displayed, the TCP/IP setting of the local machine may be wrong. Return to Step 3 and check the setting again.
   - If OK is displayed, the TCP/IP setting of the local machine seems correct but the network controller (main controller circuit board) may be faulty. Check the controller at Step 7.
   *: Since the loopback address signal is returned before the network controller, the TCP/IP setting of the local machine can be checked.
7) Select the service mode (COPIER>TEST>NETWORK>PING), enter the local host address (IP address of the local machine), and press the OK key.
   - If NG is displayed, the IP address of the local machine may be wrong or the network controller may be faulty. Check the IP address with the system administrator or replace the main controller circuit board.
   - If OK is displayed, there seem to be no problems about the network setting of the local machine or the network controller.
   Then the problem may be attributable to the user network environment. Report this to the system administrator and request action.

F-17-40

17.8 COUNTER (Counter Mode)

17.8.1 COPIER

17.8.1.1 Copier List

0008-4963

iR105i/iR105+ / iR9070

<TOTAL>

T-17-220

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
SERVICE1	Total service counter 1 This counter is incremented when paper is ejected out of the printer. Irrespective of the paper size, large or small, the increment is one. After 99999999, the count returns to 00000000.	1
SERVICE2	Total service counter 2 This counter is incremented when paper is ejected out of the printer. The increment is 2 for the large size and 1 for the small size. After 99999999, the count returns to 00000000.	1
COPY	Total copy counter This counter is incremented when a copy is created and ejected out of the printer. After 99999999, the count returns to 00000000.	1
PDL-PRT	PDL print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in PDL printing. The increment is 0 for blank print and 5 each for a large or small print. After 99999999, the count returns to 00000000.	1
FAX-PRT	FAX receive print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in fax reception. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RMT-PRT	Remote print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
BOX-PRT	Box print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in box printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RPT-PRT	Report print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in report printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex copy/print counter This counter is incremented with the charging counter when a duplex copy/print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank copy/print and 1each for a large or small copy/print. The count can be cleared. After 99999999, the count returns to 00000000.	1
SCAN	Scan counter This counter is incremented at the end of a scan. The increment is 1each for the large or small size. The count can be cleared. After 99999999, the count returns to 00000000.	1

<SCANNER>

T-17-221

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
SC-TTL	scanner total scan counter	1
SC-STRM	scanner stream reading counter	1

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
SC-NRM	scanner fixed reading counter	1

<PICK-UP>

T-17-222

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
C1/2/3/4	Cassette 1/2/3/4 paper feed total counter The number of sheets fed from Cassette 1/2/3/4 is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
MF	Manual feed total counter The number of sheets fed from the manual paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
DK	Deck paper feed total counter The number of sheets fed from the deck paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex paper feed total counter The number of duplex fed sheets is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1

<FEEDER>

T-17-223

COPIER>COUNTER>FEEDER		
Sub-item	**Description**	**Level**
FEED	ADF document feed total counter The number of documents fed from ADF is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
L-FEED	large size original feeder pickup total counter	1
S-FEED	small-size original feeder pickup total counter	1
TTL-MF	manual feed pickup total counter	1
DFOP-CNT	ADF hinge open-close counter The ADF hinge open-close count is displayed. After 99999999, the count returns to 00000000.	1

<JAM>

T-17-224

COPIER>COUNTER>JAM		
Sub-item	**Description**	**Level**
TOTAL	Copier total jam counter	1
FEEDER	Feeder total jam counter	1
SORTER	Finisher total jam counter	1
2-SIDE	Duplex unit jam counter	1
MF	Manual paper feed jam counter	1
C1/2/3/4	Cassette 1/2/3/4 jam counter	1
DK	Side paper deck jam counter	1

<MISC>

T-17-225

COPIER>COUNTER>MISC		
Sub-item	**Description**	**Level**
FIX-WEB	fixing web counter (Be sure to clear the reading after replacing the fixing web.)	1

COPIER>COUNTER>MISC		
Sub-item	**Description**	**Level**
WST-TNR	waste toner counter (Be sure to clear the reading after disposing of the waste toner.)	1
R-PD-SEN	right deck pickup sensor	1
L-PD-SEN	left deck pickup sensor	1
C3-SEN	cassette 3 pickup sensor	1
C4-SEN	cassette 4 pickup sensor	1
SDPD-SEN	deck pickup sensor	1
RK-F-SEN	right deck draw sensor	1
LK-F-SEN	left deck draw sensor	1
VPT3-SEN	vertical path 3 sensor	1
VPT4-SEN	vertical path 4 sensor	1
SP-F-SEN	deck feed sensor	1

<PRDC-1>

T-17-226

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRM-WIRE	primary charging wire counter	1
PRM-GRID	primary grid wire counter	1
PO-WIRE	pre-transfer charging wire counter	1
TR-WIRE	transfer charging wire counter	1
PRM-CLN	primary charging wire cleaner counter	1
TR-CLN	transfer charging wire cleaner counter	1
PO-CLN	pre-transfer charging wire cleaner counter	1
FIX-TH1	fixing main thermistor (TH1) counter	1
FIX-TH2	fixing sub thermistor (TH2) counter	1
FX-TSW	fixing thermal switch (TP1) counter	1
OZ-FIL1	ozone filter counter	1
AR-FIL1	air filter counter	1

<DRBL-1>

T-17-227

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
SCN-LMP	scanning lamp activation counter (in sec)	1
PRE-LMP	pre-exposure lamp activation counter	1
LSR-DRV	laser drive counter	1
LSR-MTR	laser scanner motor counter	1
LSR-FAN	laser motor cooling fan counter	1
LSR-FAN	laser cooling fan 1 counter	1
SC-M-FAN	scanner motor cooling fan counter	1
STRM-FAN	stream reading fan counter	1
LSR-FAN2	laser cooling fan 2 counter	1
SCN-MTR	scanner motor counter	1
PRM-UNIT	primary charging assembly counter	1
PO-UNIT	pre-transfer charging assembly counter	1
POST-FAN	pre-transfer charging assembly fan counter	1
PO-SCRPR	pre-transfer charging assembly scraper counter	1
TR-UNIT	transfer charging assembly counter	1
SP-FAN	separation fan counter	1
P-TR-EXP	pre-transfer exposure lamp counter	1
SP-FAN	separation heat discharge fan counter	1
DRM-MTR	drum motor counter	1
DRM-FAN	drum fan counter	1
CLN-BLD	cleaner blade counter	1
SP-CLAW	cleaner separation claw counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
DVG-CYL	Developing cylinder rotation counter Irrespective of the paper size, large or small, this counter is incremented one.	1
DVG-ROLL	developing assembly roll counter	1
TNR-F-CL	developing assembly magnet roller clutch counter	1
DEV-1CL	developing cylinder clutch counter	1
DEV-2CL	developing assembly cylinder clutch counter	1
TNR-FD-M	toner feed motor counter	1
VBR-MTR	vibration motor counter	1
LD/RD/M/C3/C4-PU-RL	LD/RD/M/C3/C4 pickup roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-SP-RL	LD/RD/M/C3/C4 separation roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-PU-CL	LD/RD/M/C3/C4 pickup clutch counter	1
PICK-MTR	pickup motor counter	1
REG-CL	registration clutch counter	1
VP1-CL	vertical path 1 clutch counter	1
VP2-CL	vertical path 2 clutch count	1
LD/RD/M/C3/C4-PL-CL	LD/RD/M/C3/C4 feed tray pickup clutch counter	1
FEED-MTR	feed motor counter	1
REG-B-CL	pre-registration clutch counter	1
P-R-B-CL	pre-registration brake clutch counter	1
DL-SW-CL	delivery speed switch-over clutch counter	1
LD/RD/M/C3/C4-PU-SL	LD/RD/M/C3/C4 pickup solenoid counter	1
RV-FP-SL	reversing flapper solenoid counter	1
DUP-R-CL	lower feed right clutch counter	1
DUP-C-CL	lower feed middle clutch counter	1
DUP-RV-M	duplex reversal motor counter	1
DUP-FD-M	duplex feed motor counter	1
DP-FAN	duplex feed fan counter	1
FX-UP-RL	fixing upper roller counter	1
FX-LW-RL	Lower fixing roller counter This counter is incremented two for the large size and one for the small size.	1
FX-MTR	fixing motor counter	1
FHTR-M	fixing main heater counter	1
FHTR-S	fixing sub heater counter	1
FX-IN-BS	fixing insulating bush counter	1
FX-FAN	fixing fan counter	1
FIX-WEB	fixing web counter	1
FX-BRG-U	fixing upper separation counter	1
FX-BRG-L	fixing lower bearing counter	1
DLV-UCLW	delivery upper separation claw counter	1
DLV-LCLW	delivery lower separation claw counter	1
CURL-FAN	curl-reducing fan counter	1
DEV-FAN	developing fan counter	1
DV-FP-SL	delivery flapper solenoid counter	1
DLV-FAN	delivery adhesion prevention fan counter	1
PWS-FAN	power supply fan counter	1
INV-FAN	inverter cooling fan counter	1

<DRBL-2>

T-17-228

COPIER>COUNTER>DRBL-2		
Sub-item	**Description**	**Level**
DF-PU-RL	ADF paper feed roller counter Irrespective of the paper size, large or small, this counter is incremented one for each read document (not side) both in simplex mode and duplex mode.	1
DF-FD-RL	ADF transport roller counter Irrespective of the paper size, large or small, this counter is incremented one for each document in simplex mode and three for each read document (front, back, and idle transfer) in duplex mode.	1
PD-PU-RL	Paper deck feed roller counter This counter is incremented two for the large size and one for the small size.	1
PD-SP-RL	Paper deck separation roller counter This counter is incremented two for the large size and one for the small size.	1
PD-PU-CL	side paper deck pickup clutch counter	1
PD-PL-CL	side paper deck feed clutch counter	1
PD-PU-MR	side paper deck pickup motor counter	1
PD-PU-SL	side paper deck pickup solenoid counter	1
NON-SORT	non-sort path counter	1
SORT	sort path counter The large and small sizes are not distinguished from each other.	1
FIN-STPR	finisher staple counter	1
SADDLE	Saddle paper transport counter The large and small sizes are not distinguished from each other.	1
FOLD	folder fold path counter	1
SDL-STPL	Saddle stapling counter	1
PUNCH	Punching counter	1
INSERTER	inserter counter	1
U-L-PTH1	finisher upper/lower path counter 1	1
U-L-PTH2	finisher upper/lower path counter 2	1
SORT-2	finisher lower path counter	1
INSRTR2	finisher inserter 2 counter	1
STCK	finisher stack processing counter	1
SDL-STCK	finisher saddle stack processing counter	1

17.8.1.2 Copier List

0008-7988

/ iR8070

<TOTAL>

T-17-229

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
SERVICE1	Total service counter 1 This counter is incremented when paper is ejected out of the printer. Irrespective of the paper size, large or small, the increment is one. After 99999999, the count returns to 00000000.	1
SERVICE2	Total service counter 2 This counter is incremented when paper is ejected out of the printer. The increment is 2 for the large size and 1 for the small size. After 99999999, the count returns to 00000000.	1
COPY	Total copy counter This counter is incremented when a copy is created and ejected out of the printer. After 99999999, the count returns to 00000000.	1
PDL-PRT	PDL print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in PDL printing. The increment is 0 for blank print and 5 each for a large or small print. After 99999999, the count returns to 00000000.	1
FAX-PRT	FAX receive print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in fax reception. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
RMT-PRT	Remote print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
BOX-PRT	Box print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in box printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RPT-PRT	Report print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in report printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex copy/print counter This counter is incremented with the charging counter when a duplex copy/print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank copy/print and 1each for a large or small copy/print. The count can be cleared. After 99999999, the count returns to 00000000.	1
SCAN	Scan counter This counter is incremented at the end of a scan. The increment is 1each for the large or small size. The count can be cleared. After 99999999, the count returns to 00000000.	1

<SCANNER>

T-17-230

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
SC-TTL	scanner total scan counter	1
SC-STRM	scanner stream reading counter	1
SC-NRM	scanner fixed reading counter	1

<PICK-UP>

T-17-231

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
C1/2/3/4	Cassette 1/2/3/4 paper feed total counter The number of sheets fed from Cassette 1/2/3/4 is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
MF	Manual feed total counter The number of sheets fed from the manual paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
DK	Deck paper feed total counter The number of sheets fed from the deck paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex paper feed total counter The number of duplex fed sheets is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1

<FEEDER>

T-17-232

COPIER>COUNTER>FEEDER		
Sub-item	**Description**	**Level**
FEED	ADF document feed total counter The number of documents fed from ADF is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
DFOP-CNT	ADF hinge open-close counter The ADF hinge open-close count is displayed. After 99999999, the count returns to 00000000.	1

<JAM>

T-17-233

COPIER>COUNTER>JAM		
Sub-item	**Description**	**Level**
TOTAL	Copier total jam counter	1
FEEDER	Feeder total jam counter	1
SORTER	Finisher total jam counter	1
2-SIDE	Duplex unit jam counter	1
MF	Manual paper feed jam counter	1
C1/2/3/4	Cassette 1/2/3/4 jam counter	1
DK	Side paper deck jam counter	1

<MISC>

T-17-234

COPIER>COUNTER>MISC		
Sub-item	**Description**	**Level**
FIX-WEB	fixing web counter (Be sure to clear the reading after replacing the fixing web.)	1
WST-TNR	waste toner counter (Be sure to clear the reading after disposing of the waste toner.)	1

<PRDC-1>

T-17-235

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRM-WIRE	primary charging wire counter	1
PRM-GRID	primary grid wire counter	1
PO-WIRE	pre-transfer charging wire counter	1
TR-WIRE	transfer charging wire counter	1
PRM-CLN	primary charging wire cleaner counter	1
TR-CLN	transfer charging wire cleaner counter	1
PO-CLN	pre-transfer charging wire cleaner counter	1
FIX-TH1	fixing main thermistor (TH1) counter	1
FIX-TH2	fixing sub thermistor (TH2) counter	1
FX-TSW	fixing thermal switch (TP1) counter	1
OZ-FIL1	ozone filter counter	1
AR-FIL1	air filter counter	1

<DRBL-1>

T-17-236

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRE-LMP	pre-exposure lamp activation counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
LSR-DRV	laser drive counter	1
LSR-MTR	laser scanner motor counter	1
LSR-FAN	laser motor cooling fan counter	1
LSR-FAN	laser cooling fan 1 counter	1
LSR-FAN2	laser cooling fan 2 counter	1
PRM-UNIT	primary charging assembly counter	1
PRM-FAN	drum fan counter	1
PO-UNIT	pre-transfer charging assembly counter	1
POST-FAN	pre-transfer charging assembly fan counter	1
PO-SCRPR	pre-transfer charging assembly scraper counter	1
TR-UNIT	transfer charging assembly counter	1
SP-FAN	separation fan counter	1
P-TR-EXP	pre-transfer exposure lamp counter	1
DRM-MTR	drum motor counter	1
DRM-FAN	drum fan counter	1
CLN-BLD	cleaner blade counter	1
SP-CLAW	cleaner separation claw counter	1
DVG-CYL	Developing cylinder rotation counter Irrespective of the paper size, large or small, this counter is incremented one.	1
DVG-ROLL	developing assembly roll counter	1
TNR-F-CL	developing assembly magnet roller clutch counter	1
DEV-1CL	developing cylinder clutch counter	1
DEV-2CL	developing assembly cylinder clutch counter	1
TNR-FD-M	toner feed motor counter	1
LD/RD/M/C3/C4-PU-RL	LD/RD/M/C3/C4 pickup roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-SP-RL	LD/RD/M/C3/C4 separation roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-PU-CL	LD/RD/M/C3/C4 pickup clutch counter	1
PICK-MTR	pickup motor counter	1
REG-CL	registration clutch counter	1
VP1-CL	vertical path 1 clutch counter	1
VP2-CL	vertical path 2 clutch count	1
FEED-FAN	feed fan counter	1
LD/RD/M/C3/C4-PL-CL	LD/RD/M/C3/C4 feed tray pickup clutch counter	1
FEED-MTR	feed motor counter	1
REG-B-CL	pre-registration clutch counter	1
P-R-B-CL	pre-registration brake clutch counter	1
DL-SW-CL	delivery speed switch-over clutch counter	1
LD/RD/M/C3/C4-PU-SL	LD/RD/M/C3/C4 pickup solenoid counter	1
RV-FP-SL	reversing flapper solenoid counter	1
DUP-R-CL	lower feed right clutch counter	1
DUP-C-CL	lower feed middle clutch counter	1
DUP-RV-M	duplex reversal motor counter	1
DUP-FD-M	duplex feed motor counter	1
FX-UP-RL	fixing upper roller counter	1
FX-LW-RL	Lower fixing roller counter This counter is incremented two for the large size and one for the small size.	1
FX-MTR	fixing motor counter	1
FHTR-M	fixing main heater counter	1
FHTR-S	fixing sub heater counter	1
FX-IN-BS	fixing insulating bush counter	1
FX-FAN	fixing fan counter	1
FIX-WEB	fixing web counter	1
FX-BRG-U	fixing upper separation counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
FX-BRG-L	fixing lower bearing counter	1
DLV-UCLW	delivery upper separation claw counter	1
DLV-LCLW	delivery lower separation claw counter	1
CURL-FAN	curl-reducing fan counter	1
DEV-FAN	developing fan counter	1
DV-FP-SL	delivery flapper solenoid counter	1
DLV-FAN	delivery adhesion prevention fan counter	1
PWS-FAN	power supply fan counter	1

<DRBL-2>

T-17-237

COPIER>COUNTER>DRBL-2		
Sub-item	**Description**	**Level**
DF-PU-RL	ADF paper feed roller counter Irrespective of the paper size, large or small, this counter is incremented one for each read document (not side) both in simplex mode and duplex mode.	1
DF-SP-PL	ADF separator counter The large and small sizes are not distinguished from each other.	1
DF-SP-PD	ADF separation pad counter Irrespective of the paper size, large or small, this counter is incremented one for each read document (not side) both in simplex mode and duplex mode.	1
DF-FD-RL	ADF transport roller counter Irrespective of the paper size, large or small, this counter is incremented one for each document in simplex mode and three for each read document (front, back, and idle transfer) in duplex mode.	1
LNT-TAPE	represents the ADF dust-collecting tape in terms of the number of sheets passed. provides a guide to when the ADF dust-collecting tape must be replaced in terms of the number of sheets. setting range:00000000 to 99999999	1
PD-PU-RL	Paper deck feed roller counter This counter is incremented two for the large size and one for the small size.	1
PD-SP-RL	Paper deck separation roller counter This counter is incremented two for the large size and one for the small size.	1
PD-PU-CL	side paper deck pickup clutch counter	1
PD-PL-CL	side paper deck feed clutch counter	1
PD-PU-MR	side paper deck pickup motor counter	1
PD-PU-SL	side paper deck pickup solenoid counter	1
NON-SORT	non-sort path counter	1
SORT	sort path counter The large and small sizes are not distinguished from each other.	1
FIN-STPR	finisher staple counter	1
SADDLE	Saddle paper transport counter The large and small sizes are not distinguished from each other.	1
FOLD	folder fold path counter	1
SDL-STPL	Saddle stapling counter	1
PUNCH	Punching counter	1
INSERTER	inserter counter	1
U-L-PTH1	finisher upper/lower path counter 1	1
U-L-PTH2	finisher upper/lower path counter 2	1
SORT-2	finisher lower path counter	1
INSRTR2	finisher inserter 2 counter	1
STCK	finisher stack processing counter	1
SDL-STCK	finisher saddle stack processing counter	1

17.8.1.3 Copier List

0008-7989

iR85+

<TOTAL>

T-17-238

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
SERVICE1	Total service counter 1 This counter is incremented when paper is ejected out of the printer. Irrespective of the paper size, large or small, the increment is one. After 99999999, the count returns to 00000000.	1
SERVICE2	Total service counter 2 This counter is incremented when paper is ejected out of the printer. The increment is 2 for the large size and 1 for the small size. After 99999999, the count returns to 00000000.	1
PDL-PRT	PDL print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in PDL printing. The increment is 0 for blank print and 5 each for a large or small print. After 99999999, the count returns to 00000000.	1
RMT-PRT	Remote print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
BOX-PRT	Box print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in box printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RPT-PRT	Report print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in report printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex copy/print counter This counter is incremented with the charging counter when a duplex copy/print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank copy/print and 1each for a large or small copy/print. The count can be cleared. After 99999999, the count returns to 00000000.	1

<PICK-UP>

T-17-239

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
C1/2/3/4	Cassette 1/2/3/4 paper feed total counter The number of sheets fed from Cassette 1/2/3/4 is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
MF	Manual feed total counter The number of sheets fed from the manual paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
DK	Deck paper feed total counter The number of sheets fed from the deck paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex paper feed total counter The number of duplex fed sheets is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1

<FEEDER>

T-17-240

COPIER>COUNTER>FEEDER		
Sub-item	**Description**	**Level**
DFOP-CNT	ADF hinge open-close counter The ADF hinge open-close count is displayed. After 99999999, the count returns to 00000000.	1

<JAM>

T-17-241

COPIER>COUNTER>JAM		
Sub-item	**Description**	**Level**
TOTAL	Main body total jam counter	1
SORTER	Finisher total jam counter	1
2-SIDE	Duplex unit jam counter	1
MF	Manual paper feed jam counter	1
C1/2/3/4	Cassette 1/2/3/4 jam counter	1
DK	Side paper deck jam counter	1

<MISC>

T-17-242

COPIER>COUNTER>MISC		
Sub-item	**Description**	**Level**
FIX-WEB	fixing web counter (Be sure to clear the reading after replacing the fixing web.)	1
WST-TNR	waste toner counter (Be sure to clear the reading after disposing of the waste toner.)	1

<PRDC-1>

T-17-243

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRM-WIRE	primary charging wire counter	1
PRM-GRID	primary grid wire counter	1
PO-WIRE	pre-transfer charging wire counter	1
TR-WIRE	transfer charging wire counter	1
PRM-CLN	primary charging wire cleaner counter	1
TR-CLN	transfer charging wire cleaner counter	1
PO-CLN	pre-transfer charging wire cleaner counter	1
FIX-TH1	fixing main thermistor (TH1) counter	1
FIX-TH2	fixing sub thermistor (TH2) counter	1
FX-TSW	fixing thermal switch (TP1) counter	1
OZ-FIL1	ozone filter counter	1
AR-FIL1	air filter counter	1

<DRBL-1>

T-17-244

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRE-LMP	pre-exposure lamp activation counter	1
LSR-DRV	laser drive counter	1
LSR-MTR	laser scanner motor counter	1
LSR-FAN	laser motor cooling fan counter	1
LSR-FAN	laser cooling fan 1 counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
LSR-FAN2	laser cooling fan 2 counter	1
PRM-UNIT	primary charging assembly counter	1
PRM-FAN	drum fan counter	1
PO-UNIT	pre-transfer charging assembly counter	1
POST-FAN	pre-transfer charging assembly fan counter	1
PO-SCRPR	pre-transfer charging assembly scraper counter	1
TR-UNIT	transfer charging assembly counter	1
SP-FAN	separation fan counter	1
P-TR-EXP	pre-transfer exposure lamp counter	1
SP-FAN	separation heat discharge fan counter	1
DRM-MTR	drum motor counter	1
DRM-FAN	drum fan counter	1
CLN-BLD	cleaner blade counter	1
SP-CLAW	cleaner separation claw counter	1
DVG-CYL	Developing cylinder rotation counter Irrespective of the paper size, large or small, this counter is incremented one.	1
DVG-ROLL	developing assembly roll counter	1
TNR-F-CL	developing assembly magnet roller clutch counter	1
DEV-1CL	developing cylinder clutch counter	1
DEV-2CL	developing assembly cylinder clutch counter	1
TNR-FD-M	toner feed motor counter	1
LD/RD/M/C3/C4-PU-RL	LD/RD/M/C3/C4 pickup roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-SP-RL	LD/RD/M/C3/C4 separation roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-PU-CL	LD/RD/M/C3/C4 pickup clutch counter	1
PICK-MTR	pickup motor counter	1
REG-CL	registration clutch counter	1
VP1-CL	vertical path 1 clutch counter	1
VP2-CL	vertical path 2 clutch count	1
FEED-FAN	feed fan counter	1
LD/RD/M/C3/C4-PL-CL	LD/RD/M/C3/C4 feed tray pickup clutch counter	1
FEED-MTR	feed motor counter	1
REG-B-CL	pre-registration clutch counter	1
P-R-B-CL	pre-registration brake clutch counter	1
DL-SW-CL	delivery speed switch-over clutch counter	1
LD/RD/M/C3/C4-PU-SL	LD/RD/M/C3/C4 pickup solenoid counter	1
RV-FP-SL	reversing flapper solenoid counter	1
DUP-R-CL	lower feed right clutch counter	1
DUP-C-CL	lower feed middle clutch counter	1
DUP-RV-M	duplex reversal motor counter	1
DUP-FD-M	duplex feed motor counter	1
FX-UP-RL	fixing upper roller counter	1
FX-LW-RL	Lower fixing roller counter This counter is incremented two for the large size and one for the small size.	1
FX-MTR	fixing motor counter	1
FHTR-M	fixing main heater counter	1
FHTR-S	fixing sub heater counter	1
FX-IN-BS	fixing insulating bush counter	1
FX-FAN	fixing fan counter	1
FIX-WEB	fixing web counter	1
FX-BRG-U	fixing upper separation counter	1
FX-BRG-L	fixing lower bearing counter	1
DLV-UCLW	delivery upper separation claw counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
DLV-LCLW	delivery lower separation claw counter	1
CURL-FAN	curl-reducing fan counter	1
DEV-FAN	developing fan counter	1
DV-FP-SL	delivery flapper solenoid counter	1
DLV-FAN	delivery adhesion prevention fan counter	1
PWS-FAN	power supply fan counter	1

<DRBL-2>

T-17-245

COPIER>COUNTER>DRBL-2		
Sub-item	**Description**	**Level**
PD-PU-RL	Paper deck feed roller counter This counter is incremented two for the large size and one for the small size.	1
PD-SP-RL	Paper deck separation roller counter This counter is incremented two for the large size and one for the small size.	1
PD-PU-CL	side paper deck pickup clutch counter	1
PD-PL-CL	side paper deck feed clutch counter	1
PD-PU-MR	side paper deck pickup motor counter	1
PD-PU-SL	side paper deck pickup solenoid counter	1
NON-SORT	non-sort path counter	1
SORT	sort path counter The large and small sizes are not distinguished from each other.	1
FIN-STPR	finisher staple counter	1
SADDLE	Saddle paper transport counter The large and small sizes are not distinguished from each other.	1
FOLD	folder fold path counter	1
SDL-STPL	Saddle stapling counter	1
PUNCH	Punching counter	1
INSERTER	inserter counter	1
U-L-PTH1	finisher upper/lower path counter 1	1
U-L-PTH2	finisher upper/lower path counter 2	1
SORT-2	finisher lower path counter	1
INSRTR2	finisher inserter 2 counter	1
STCK	finisher stack processing counter	1
SDL-STCK	finisher saddle stack processing counter	1

17.8.1.4 Copier List

0008-7990

<TOTAL>

T-17-246

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
SERVICE1	Total service counter 1 This counter is incremented when paper is ejected out of the printer. Irrespective of the paper size, large or small, the increment is one. After 99999999, the count returns to 00000000.	1
SERVICE2	Total service counter 2 This counter is incremented when paper is ejected out of the printer. The increment is 2 for the large size and 1 for the small size. After 99999999, the count returns to 00000000.	1
COPY	Total copy counter This counter is incremented when a copy is created and ejected out of the printer. After 99999999, the count returns to 00000000.	1
PDL-PRT	PDL print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in PDL printing. The increment is 0 for blank print and 5 each for a large or small print. After 99999999, the count returns to 00000000.	1

COPIER>COUNTER>TOTAL		
Sub-item	**Description**	**Level**
FAX-PRT	FAX receive print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in fax reception. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RMT-PRT	Remote print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
BOX-PRT	Box print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in box printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
RPT-PRT	Report print counter This counter is incremented with the charging counter when a print is ejected out of the machine or loaded again for printing the other side in report printing. The increment is 0 for blank print and 1each for a large or small print. The count can be cleared. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex copy/print counter This counter is incremented with the charging counter when a duplex copy/print is ejected out of the machine or loaded again for printing the other side in remote printing. The increment is 0 for blank copy/print and 1each for a large or small copy/print. The count can be cleared. After 99999999, the count returns to 00000000.	1
SCAN	Scan counter This counter is incremented at the end of a scan. The increment is 1each for the large or small size. The count can be cleared. After 99999999, the count returns to 00000000.	1

<SCANNER>

T-17-247

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
SC-TTL	scanner total scan counter	1
SC-STRM	scanner stream reading counter	1
SC-NRM	scanner fixed reading counter	1

<PICK-UP>

T-17-248

COPIER>COUNTER>PICK-UP		
Sub-item	**Description**	**Level**
C1/2/3/4	Cassette 1/2/3/4 paper feed total counter The number of sheets fed from Cassette 1/2/3/4 is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
MF	Manual feed total counter The number of sheets fed from the manual paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
DK	Deck paper feed total counter The number of sheets fed from the deck paper feed unit is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
2-SIDE	Duplex paper feed total counter The number of duplex fed sheets is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1

<FEEDER>

T-17-249

COPIER>COUNTER>FEEDER		
Sub-item	**Description**	**Level**
FEED	ADF document feed total counter The number of documents fed from ADF is displayed. Irrespective of the paper size, large or small, this counter is incremented one. After 99999999, the count returns to 00000000.	1
L-FEED	large size original feeder pickup total counter	1
S-FEED	small-size original feeder pickup total counter	1
TTL-MF	manual feed pickup total counter	1
DFOP-CNT	ADF hinge open-close counter The ADF hinge open-close count is displayed. After 99999999, the count returns to 00000000.	1

<JAM>

T-17-250

COPIER>COUNTER>JAM		
Sub-item	**Description**	**Level**
TOTAL	Copier total jam counter	1
FEEDER	Feeder total jam counter	1
SORTER	Finisher total jam counter	1
2-SIDE	Duplex unit jam counter	1
MF	Manual paper feed jam counter	1
C1/2/3/4	Cassette 1/2/3/4 jam counter	1
DK	Side paper deck jam counter	1

<MISC>

T-17-251

COPIER>COUNTER>MISC		
Sub-item	**Description**	**Level**
FIX-WEB	fixing web counter (Be sure to clear the reading after replacing the fixing web.)	1
WST-TNR	waste toner counter (Be sure to clear the reading after disposing of the waste toner.)	1

<PRDC-1>

T-17-252

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
PRM-WIRE	primary charging wire counter	1
PRM-GRID	primary grid wire counter	1
PO-WIRE	pre-transfer charging wire counter	1
TR-WIRE	transfer charging wire counter	1
PRM-CLN	primary charging wire cleaner counter	1
TR-CLN	transfer charging wire cleaner counter	1
PO-CLN	pre-transfer charging wire cleaner counter	1
FIX-TH1	fixing main thermistor (TH1) counter	1
FIX-TH2	fixing sub thermistor (TH2) counter	1
FX-TSW	fixing thermal switch (TP1) counter	1
OZ-FIL1	ozone filter counter	1
AR-FIL1	air filter counter	1

<DRBL-1>

T-17-253

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
SCN-LMP	scanning lamp activation counter (in sec)	1
PRE-LMP	pre-exposure lamp activation counter	1
LSR-DRV	laser drive counter	1
LSR-MTR	laser scanner motor counter	1
LSR-FAN	laser motor cooling fan counter	1
LSR-FAN	laser cooling fan 1 counter	1
SC-M-FAN	scanner motor cooling fan counter	1
STRM-FAN	stream reading fan counter	1
LSR-FAN2	laser cooling fan 2 counter	1
SCN-MTR	scanner motor counter	1
PRM-UNIT	primary charging assembly counter	1
PRM-FAN	drum fan counter	1
PO-UNIT	pre-transfer charging assembly counter	1
POST-FAN	pre-transfer charging assembly fan counter	1
PO-SCRPR	pre-transfer charging assembly scraper counter	1
TR-UNIT	transfer charging assembly counter	1
SP-FAN	separation fan counter	1
P-TR-EXP	pre-transfer exposure lamp counter	1
DRM-MTR	drum motor counter	1
DRM-FAN	drum fan counter	1
CLN-BLD	cleaner blade counter	1
SP-CLAW	cleaner separation claw counter	1
DVG-CYL	Developing cylinder rotation counter Irrespective of the paper size, large or small, this counter is incremented one.	1
DVG-ROLL	developing assembly roll counter	1
TNR-F-CL	developing assembly magnet roller clutch counter	1
DEV-1CL	developing cylinder clutch counter	1
DEV-2CL	developing assembly cylinder clutch counter	1
TNR-FD-M	toner feed motor counter	1
LD/RD/M/C3/C4-PU-RL	LD/RD/M/C3/C4 pickup roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-SP-RL	LD/RD/M/C3/C4 separation roller counter This counter is incremented two for the large size and one for the small size.	1
LD/RD/M/C3/C4-PU-CL	LD/RD/M/C3/C4 pickup clutch counter	1
PICK-MTR	pickup motor counter	1
REG-CL	registration clutch counter	1
VP1-CL	vertical path 1 clutch counter	1
VP2-CL	vertical path 2 clutch count	1
FEED-FAN	feed fan counter	1
LD/RD/M/C3/C4-PL-CL	LD/RD/M/C3/C4 feed tray pickup clutch counter	1
FEED-MTR	feed motor counter	1
REG-B-CL	pre-registration clutch counter	1
P-R-B-CL	pre-registration brake clutch counter	1
DL-SW-CL	delivery speed switch-over clutch counter	1
LD/RD/M/C3/C4-PU-SL	LD/RD/M/C3/C4 pickup solenoid counter	1
RV-FP-SL	reversing flapper solenoid counter	1
DUP-R-CL	lower feed right clutch counter	1
DUP-C-CL	lower feed middle clutch counter	1
DUP-RV-M	duplex reversal motor counter	1
DUP-FD-M	duplex feed motor counter	1
FX-UP-RL	fixing upper roller counter	1
FX-LW-RL	Lower fixing roller counter This counter is incremented two for the large size and one for the small size.	1
FX-MTR	fixing motor counter	1

COPIER>COUNTER>DRBL-1		
Sub-item	**Description**	**Level**
FHTR-M	fixing main heater counter	1
FHTR-S	fixing sub heater counter	1
FX-IN-BS	fixing insulating bush counter	1
FX-FAN	fixing fan counter	1
FIX-WEB	fixing web counter	1
FX-BRG-U	fixing upper separation counter	1
FX-BRG-L	fixing lower bearing counter	1
DLV-UCLW	delivery upper separation claw counter	1
DLV-LCLW	delivery lower separation claw counter	1
CURL-FAN	curl-reducing fan counter	1
DEV-FAN	developing fan counter	1
DV-FP-SL	delivery flapper solenoid counter	1
DLV-FAN	delivery adhesion prevention fan counter	1
PWS-FAN	power supply fan counter	1
INV-FAN	inverter cooling fan counter	1

<DRBL-2>

T-17-254

COPIER>COUNTER>DRBL-2		
Sub-item	**Description**	**Level**
DF-PU-RL	ADF paper feed roller counter Irrespective of the paper size, large or small, this counter is incremented one for each read document (not side) both in simplex mode and duplex mode.	1
DF-FD-RL	ADF transport roller counter Irrespective of the paper size, large or small, this counter is incremented one for each document in simplex mode and three for each read document (front, back, and idle transfer) in duplex mode.	1
PD-PU-RL	Paper deck feed roller counter This counter is incremented two for the large size and one for the small size.	1
PD-SP-RL	Paper deck separation roller counter This counter is incremented two for the large size and one for the small size.	1
PD-PU-CL	side paper deck pickup clutch counter	1
PD-PL-CL	side paper deck feed clutch counter	1
PD-PU-MR	side paper deck pickup motor counter	1
PD-PU-SL	side paper deck pickup solenoid counter	1
NON-SORT	non-sort path counter	1
SORT	sort path counter The large and small sizes are not distinguished from each other.	1
FIN-STPR	finisher staple counter	1
SADDLE	Saddle paper transport counter The large and small sizes are not distinguished from each other.	1
FOLD	folder fold path counter	1
SDL-STPL	Saddle stapling counter	1
PUNCH	Punching counter	1
INSERTER	inserter counter	1
U-L-PTH1	finisher upper/lower path counter 1	1
U-L-PTH2	finisher upper/lower path counter 2	1
SORT-2	finisher lower path counter	1
INSRTR2	finisher inserter 2 counter	1
STCK	finisher stack processing counter	1
SDL-STCK	finisher saddle stack processing counter	1

Chapter 18 Upgrading

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18.1 Outline

18.1.1 Outline of Version upgrade

0008-9108

iR105i/iR105+ / iR9070 / iR8070

Version upgrade of firmware in this machine and accessories can be done by the ROM replacement or downloading using personal computer (hereafter, describe as PC), which has installed Service Support Tool (hereafter, describe as SST).
Firmware and Upgrade method are shown below.

T-18-1

Machine	Firmware	How to upgrade		Remarks
		SST	ROM Replacement	
Main body	System software	Yes	No	
	Language module	Yes	No	
	Remote UI	Yes	No	
	Boot program	Yes	Yes	
	MEAP library	Yes	No	None depending on sales area
	OCR dictionary	Yes	No	
	Encrypted communication key	Yes	No	
	DC controller	No	Yes	
	Reader controller	No	Yes	
Accessory	ADF controller	No	Yes	
	Finisher controller	No	Yes	
	Saddle stitcher controller	No	Yes	

18.1.2 Outline of Version upgrade

0009-1334

iR85+

Version upgrade of firmware in this machine and accessories can be done by the ROM replacement or downloading using personal computer (hereafter, describe as PC), which has installed Service Support Tool (hereafter, describe as SST).
Firmware and Upgrade method are shown below.

T-18-2

Machine	Firmware	How to upgrade		Remarks
		SST	ROM Replacement	
Main body	System software	Yes	No	
	Language module	Yes	No	
	Remote UI	Yes	No	
	Boot program	Yes	Yes	
	MEAP library	Yes	No	None depending on sales area
	OCR dictionary	Yes	No	
	Encrypted communication key	Yes	No	
	DC controller	No	Yes	
Accessory	Finisher controller	No	Yes	
	Saddle stitcher controller	No	Yes	

18.1.3 Outline of the Service Support Tool

0008-9109

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Service Support Tool (hereafter, describe as SST) has following functions.

F-18-1

In order to use SST, set the mode of the machine in download mode.
There are 2 types of download control program.

- Normal mode (Download mode B)
(Turn ON main power while pressing 1 and 7 in numeric keypad simultaneously, and select Service mode COPIER > FUNCTION >SYSTEM > DOWNLOAD)
- Safe mode (Download mode A)
(Turn ON main power while pressing 2 and 8 in numeric keypad simultaneously.

F-18-2

Use safe mode in the cases below.
- When HDD is replaced.
- When system does not run normally.

The combinations of usable SST function and download mode are shown below.

T-18-3

SST function	Download mode	
	Normal mode (Download mode B)	Safe mode (Download mode A)
Format HDD	- -	All BOOTDEV
	- FSTDEV - TMP_GEN - TMP_PSS - TMP_FAX * - APL_SEND - APL_MEAP - APL_GEN - IMG-MNG - PDL_DEV - FSTCDEV *	- - - - - - - - - -

SST function	Download mode	
	Normal mode (Download mode B)	**Safe mode (Download mode A)**
Download system software	- System - Language - RUI - Boot - SDICT - MEAPCONT - Key	- System - Language - RUI - Boot - SDICT - MEAPCONT - Key
Upload/Download of Backup data	- -	- SramImg - Meapback

*: Not used in this machine

MEMO: Installation of System software
System software, which is downloaded from SST, is stored in the temporary storage area in HDD. When power switch is turned OFF/ON after downloading, System software, which has been stored in the temporary storage area in HDD, is written in the system area and BOOT-ROM in HDD. After that, when power switch is turned OFF/ON again, the machine can start with new version of system software.

F-18-3

18.2 Making Preparations

18.2.1 Registering the Firmware

0009-1335

iR85+ / iR8070

Register System software, which is stored in the system CD, with SST.

[Preparation]
Materials to be prepared:
- PC, which has installed SST V3.03 or later
- System CD of this machine

[System software registration procedure]
1) Start PC.
2) Place System CD in CD-drive of PC.
3) Start SST.
4) Click [Register System software].

F-18-4

5) Select the drive System CD is placed, and click [SEARCH].

F-18-5

6) The list of the system software in the system CD is displayed. Clear the check box for folders or firmware you don't need, and click [REGISTER].

F-18-6

MEMO:
System software for this machine is stored in the folder of either "iR8070" or "iRXXXX".

T-18-4

Firmware	Storage folder
System software	iR8070
Language module	
Remote UI	
MEAP library	
OCR dictionary	
Boot program	
Encrypted communication key	iRXXXX

7) When registration result of system software is displayed, click [OK].

F-18-7

18.2.2 Registering the Firmware

0009-1451

iR105i/iR105+ / iR9070

Register System software, which is stored in the system CD, with SST.

[Preparation]
Materials to be prepared:
- PC, which has installed SST V3.03 or later
- System CD of this machine

[System software registration procedure]
1) Start PC.
2) Place System CD in CD-drive of PC.
3) Start SST.
4) Click [Register System software].

F-18-8

5) Select the drive System CD is placed, and click [SEARCH].

F-18-9

6) The list of the system software in the system CD is displayed. Clear the check box for folders or firmware you don't need, and click [REGISTER].

F-18-10

MEMO:
System software for this machine is stored in the folder of either "iR9070" or "iRXXXX".

T-18-5

Firmware	Storage folder
System software	iR9070
Language module	
Remote UI	
MEAP library	
OCR dictionary	
Boot program	
Encrypted communication key	iRXXXX

7) When registration result of system software is displayed, click [OK].

F-18-11

18.2.3 Making Connections

0008-9111

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Connect the main body and PC.

[Preparation]
Materials to be prepared
- PC, which has installed SST V3.30 or later and registered system software for this machine.
- Twist pair crossing cable
10Base-T: category 3 or 5
100Base-TX: category 5

[Procedure]
1) Start PC.
2) Confirm network setting of PC.
2-1) Start command prompt, input "IPCONFIG" and press Return key.
2-2) Check if the address of the network setting is as follows. If not, change the network setting.
IP address: 172.16.1.160
Subnet Mask: 255.255.255.0
Default Gateway: any

F-18-12

Do not specify following IP address.
- 172.16.1.0
- 172.16.1.100
- 172.16.1.255

3) Confirm "Execute/Memory lamp" of Control unit is turned off. Following next procedure, turn the main power switch OFF.
3-1) Press the power switch of control unit for 3 sec. or longer.
3-2) Operate following the instruction indicated on the control panel, and prepare to turn the main power switch OFF. (Shutdown sequence)
3-3) Turn OFF the main power switch.
4) Connect the machine with PC using crossing cable.
5) Start the machine with proper operation depending on download mode to be used.
- Normal mode
Press 1 and 7 in numeric keypad simultaneously and turn the main power switch ON. After starting, select Service mode COPIER > FUNCTION > SYSTEM > DONWLOAD.
- Safe mode

Press 2 and 8 in numeric keypad simultaneously and turn the main power switch ON.
6) Start SST.
7) Select the model of the machine to connect.

F-18-13

8) Click [START].

F-18-14

18.3 Formatting the HDD

18.3.1 Formatting All Partitions

0008-9112

iR105i/iR105+ / iR9070 / iR85+ / iR8070

When you format all partitions of the HDD, all individual partitions will be initialized and made ready for use by the main controller.
The information needed for partition settings is stored under HDFormat of the iRXXXX.

F-18-15

[1] HDD (service part; without partition setup)
[2] Formatting of all partitions (in safe mode only)
[3] HDD after formatting
[4] Partition setup information

18.3.2 Formatting Selected Partitions

0008-9113

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Format (initialize) selected partitions.

F-18-16

[1] Formatting is possible with normal mode
[2] Formatting is possible with safe mode (*After formatting, SYSTEM, Language and RUI should be downloaded.

Do not select TMP_FAX and extended FSTCDEV to format because an error occurs if you format them.

MEMO:
The format except ALL can be done even if HD Format has not been registered.

18.3.3 Formatting the Partitions

0008-9114

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Select a model to be connected.

MEMO:
You can confirm the connecting model on "Counter confirm screen" of the machine. You should select the model enclosed within parentheses on the screen.

1) Click [Format HDD].

F-18-17

2) Select the partitions you want to format. Or, select 'ALL'.

F-18-18

3) Click [Start].
4) When the Confirmation screen has appeared, click [Execute Formatting].

F-18-19

5) When the session has ended, click [OK].

F-18-20

6) Start a download session. Or, turn off and then on the machine to end the work.

- If you have formatted all partitions or formatted BOOTDEV, be sure to download System newly. (Otherwise, 'E602' will occur when you turn on the main power.)

18.4 Downloading System Software

18.4.1 Downloading System

18.4.1.1 Downloading Procedure

0008-9115

iR105i/iR105+ / iR9070 / iR85+ / iR8070

1) Select a model to be connected, and click [CONNECT].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version to be downloaded, and click [Start].

F-18-21

4) Click [OK] after downloading is completed.
5) Download all required system software programs, and turn OFF and back ON the main power.
6) The control panel screen shows the upgrade status, and will be switched to the screen inducing you to turn OFF and ON the power. Then, turn OFF and back ON the main power of the machine.

F-18-22

Never turn OFF the power of the machine while the following screen is displayed on the control panel. If the power is turned OFF at this time, writing to the HDD is interrupted, and the machine fails to start up as a result.

F-18-23

When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

18.4.2 Downloading RUI, and Language

18.4.2.1 Outline

0008-9116

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-18-24

T-18-6

Language used on the control panel LCD

Check the versions of System and Language.

Language used on the control panel LCD

1) If these versions are matched.
Language can be changed from User Mode>Common Spec Settings>Change Language.

2) If these versions are not matched.
E744 is displayed. System Language will be used by turning OFF and back ON the power.

T-18-7

Language used on the RUI

Select a language on the RUI.
Language can be specified on a PC basis.

<Language Code>	<Language>
de	German
en	English
fr	French
it	Italian
ja	Japanese

F-18-25

18.4.2.2 Downloading Procedure

0008-9117

iR105i/iR105+ / iR9070 / iR85+ / iR8070

MEMO:
Download mode is available in both normal mode and safe mode.

[e.g. Language]

1) Select a model to be connected, and click [CONNECT].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version of Language to be downloaded, and click [Start].

F-18-26

4) Click [OK] after downloading is completed.

F-18-27

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

18.4.3 Downloading SDICT

18.4.3.1 Downloading Procedure

0008-9118

iR105i/iR105+ / iR9070 / iR85+ / iR8070

MEMO:
Download mode is available in both normal mode (press 1+7) and safe mode (press 2+8).

1) Select a model to be connected, and click [CONNECT].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version to be downloaded, and click [Start].

F-18-28

4) Click [OK] after downloading is completed.

F-18-29

5) Turn OFF and back ON the main power.

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

6) Turn OFF and back ON the main power according to the screen on the control panel.

18.4.4 Downloading MEAPCONT

18.4.4.1 Downloading Procedure

0008-9119

iR105i/iR105+ / iR9070 / iR85+ / iR8070

MEMO:
Download mode is available in both normal mode (press 1+7) and safe mode (press 2+8).

1) Select a model to be connected, and click [Connect].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version to be downloaded, and click [Start].

F-18-30

4) Click [OK] after downloading is completed.

F-18-31

5) Turn OFF and back ON the main power.

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

6) Turn OFF and back ON the main power according to the screen on the control panel.

18.4.5 Downloading KEY

18.4.5.1 Outline

0008-9221

iR105i/iR105+ / iR9070 / iR85+ / iR8070

KEY is in common among the models that have the new iR controller, and is registered under "iRXXXX" on the SST.

KEY has 2 types (XXxc and XXxp). Be sure to download both types.

18.4.5.2 Downloading Procedure

0008-9219

iR105i/iR105+ / iR9070 / iR85+ / iR8070

MEMO:
Download mode is available in both normal mode (press 1+7) and safe mode (press 2+8).

1) Select a model to be connected, and click [Connect].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version to be downloaded, and click [Start].

F-18-32

4) Click [OK] after downloading is completed.

F-18-33

5) Turn OFF and back ON the main power.

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

6) Turn OFF and back ON the main power according to the screen on the control panel.

18.4.6 Downloading BOOT

18.4.6.1 Outline

0008-9120

iR105i/iR105+ / iR9070 / iR85+ / iR8070

F-18-34

Replace the BootROM if downloading with the SST ended in failure.

18.4.6.2 Downloading Procedure

0008-9121

iR105i/iR105+ / iR9070 / iR85+ / iR8070

MEMO:
Download mode is available in both normal mode (press 1+7) and safe mode (press 2+8).

1) Select a model to be connected, and click [CONNECT].

MEMO:
Model name can be confirmed on the Counter Confirmation screen of the machine. Select the model displayed in the brackets on the screen.

2) Click [Download System Software].
3) Select a version to be downloaded, and click [Start].

F-18-35

4) Click [OK] after downloading is completed.

F-18-36

5) Turn OFF and back ON the main power.

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

6) Turn OFF and back ON the main power according to the screen on the control panel.

Replace the BootROM if downloading with the SST ended in failure and the machine does not start up as a result.

18.4.7 Downloading Dcon and Rcon

18.4.7.1 Outline

0008-5544

iR105i/iR105+ / iR9070

Versions of the reader controller PCB and DC controller PCB in this machine are upgraded by replacement of the ROM-DIMM.

F-18-37

T-18-8

Reader controller PCB:	by replacement of flash ROM DIMM [1]; J1106
DC controller PCB:	by replacement of flash ROM DIMM [2]; J521

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

MEMO:
Versions of the reader controller PCB and DC controller PCB in this machine cannot be upgraded from PC.

18.4.7.2 Outline

0008-8487

/ iR8070

Versions of the reader controller PCB and DC controller PCB in this machine are upgraded by replacement of the ROM-DIMM.

F-18-38

T-18-9

Reader controller PCB	: by replacement of flash ROM DIMM [1]; J1106
DC controller PCB	: by replacement of flash ROM DIMM [2]; J521

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

MEMO:
Versions of the reader controller PCB and DC controller PCB in this machine cannot be upgraded from PC.

18.4.7.3 Outline

0009-1336

iR85+

Versions of the DC controller PCB in this machine are upgraded by replacement of the ROM-DIMM.

F-18-39

T-18-10

DC controller PCB	: by replacement of flash ROM DIMM [2]; J521

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

MEMO:
Versions of the DC controller PCB in this machine cannot be upgraded from PC.

18.4.8 Other Upgrade Methods

18.4.8.1 Upgrading by Replacing the DIMM/ROM

0008-5564

iR105i/iR105+ / iR9070

The following items may be upgraded by replacing the DIMM/ROM; the DIMM/ROM will be provided as a service part on its own:

T-18-11

Copier	
Reader controller PCB:	by replacement of flash ROM DIMM [1]; J1106
DC controller PCB:	by replacement of flash ROM DIMM [2]; J521
ADF	
ADF Controller PCB:	by replacement of ROM [3]; IC1 (DIP type)
Finisher	
Finisher controller PCB:	by replacement of ROM [4]; IC110 (DIP type)
Saddle stitchere controller PCB:	by replacement of ROM [5]; Q2 (DIP type)

F-18-40

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

18.4.8.2 Upgrading by Replacing the DIMM/ROM

0008-8488

/ iR8070

The following items may be upgraded by replacing the DIMM/ROM; the DIMM/ROM will be provided as a service part on its own:

T-18-12

Copier	
Reader controller PCB	: by replacement of flash ROM DIMM [1]; J1106
DC controller PCB	: by replacement of flash ROM DIMM [2]; J521
ADF	
ADF Controller PCB	: by replacement of ROM [3]; IC1 (DIP type)
Finisher	
Finisher controller PCB	: by replacement of ROM [4]; IC110 (DIP type)
Saddle stitchere controller PCB	: by replacement of ROM [5]; Q2 (DIP type)

F-18-41

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

18.4.8.3 Upgrading by Replacing the DIMM/ROM

0009-1340

iR85+

The following items may be upgraded by replacing the DIMM/ROM; the DIMM/ROM will be provided as a service part on its own:

T-18-13

Main body	
DC controller PCB	: by replacement of flash ROM DIMM [2]; J521
Finisher	
Finisher controller PCB	: by replacement of ROM [4]; IC110 (DIP type)
Saddle stitchere controller PCB	: by replacement of ROM [5]; Q2 (DIP type)

F-18-42

In addition to the program for the master CPU, the ROM of the finisher controller PCB contains programs for the slave CPU, requiring you to upgrade the slave CPU software whenever you have replaced the ROM. For details, see the Service Manual of the finisher.

18.4.9 Uploading and Downloading Backup Data

18.4.9.1 Outline

0008-9122

iR105i/iR105+ / iR9070 / iR85+ / iR8070

Backup data is stored in the main controller PCB.

T-18-14

Backup data	File name used for uploading
Main Controller PCB	Sramlmg.bin
MEAP applications	Meapback.bin
For development	Sublog.bin

F-18-43

18.4.9.2 Uploading Procedure

0008-9123

iR105i/iR105+ / iR9070 / iR85+ / iR8070

[Steps]
Perform uploading in safe mode (turn ON the power while pressing the numeric keys 2 and 8 at the same time).

1) Select [Upload Data].

F-18-44

2) Select data for backup.

F-18-45

3) Click [Start].

F-18-46

4) Click [Save].

F-18-47

5) Click [OK].

F-18-48

Uploaded data cannot be downloaded to other machines (i.e., limited to the machine with the same serial No.).

18.4.9.3 Procedure for Downloading

0008-9124

iR105i/iR105+ / iR9070 / iR85+ / iR8070

[Steps]
Perform uploading in safe mode (turn ON the power while pressing the numeric keys 2 and 8 at the same time).

1) Select [Upload Data].

F-18-49

2) Select data to be downloaded.

F-18-50

3) Click [Start].

F-18-51

4) Click [OK].

F-18-52

5) Turn OFF and back ON the main power.

Never turn OFF the power of the machine while the machine executes writing. If the power is turned OFF at this time, the writing is interrupted, and the machine fails to start up as a result.
When the machine does not start up, format BOOTDEV using the HD format, and then download System, Language, and RUI.

6) Turn OFF and back ON the main power according to the screen on the control panel.

Chapter 19 Service Tools

Contents

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19.1 Service Tools

19.1.1 Special Tools Table

0007-1209

iR105i/iR105+ / iR9070 / iR8070

You will need the following tools in addition to the standard tools set to service the copier.

T-19-1

No.	Tool name	Tool No.	Shape	Rank*	Remarks
1	Digital multimeter	FY9-2002		A	For adjusting the laser intensity together with the laser power checker (for electrical checks).
2	Laser power checker	FY9-4008		A	For adjusting the light intensity together with the digital multimeter.
3	Door switch	TKN-0093		A	
4	Mirror positioning tool (front, rear)	FY9-3040		B	For adjusting the distance between No. 1 and No. 2 mirrors.
5	NA-3 test sheet	FY9-9196		A	For adjusting images and making checks.
6	Potential sensor tester electrode	FY9-3041		B	For checking the zero level of the surface potential sensor.

No.	Tool name	Tool No.	Shape	Rank*	Remarks
7	Environment sensor meter sensor	FY9-3014		B	For checking the environment sensor.
8	Tester extension pin	FY9-3038		A	For making electrical checks (attachment to the meter).
9	Tester extension pin (L-tipped)	FY9-3039		A	For making electrical checks (attachment to the meter).
10	D-10 Test Sheet	FY9-9129-000		B	For adjusting images.
11	Loupe	CK-0056-000		B	For checking images.

***Rank:**
A: Each service person is expected to carry one.
B: Each five or so service persons is expected to carry one.
C: Each workshop is expected to carry one.

19.1.2 Special Tools Table

0008-9142

iR85+

You will need the following tools in addition to the standard tools set to service the machine.

T-19-2

No.	Tool name	Tool No.	Shape	Rank*	Remarks
1	Digital multimeter	FY9-2002		A	For adjusting the laser intensity together with the laser power checker (for electrical checks).
2	Laser power checker	FY9-4008		A	For adjusting the light intensity together with the digital multimeter.
3	Door switch	TKN-0093		A	
4	Mirror positioning tool (front, rear)	FY9-3040		B	For adjusting the distance between No. 1 and No. 2 mirrors.
5	NA-3 test sheet	FY9-9196		A	For adjusting images and making checks.
6	Potential sensor tester electrode	FY9-3041		B	For checking the zero level of the surface potential sensor.
7	Environment sensor meter sensor	FY9-3014		B	For checking the environment sensor.

No.	Tool name	Tool No.	Shape	Rank*	Remarks
8	Tester extension pin	FY9-3038		A	For making electrical checks (attachment to the meter).
9	Tester extension pin (L-tipped)	FY9-3039		A	For making electrical checks (attachment to the meter).
10	D-10 Test Sheet	FY9-9129-000		B	For adjusting images.
11	Loupe	CK-0056-000		B	For checking images.

***Rank:**
A: Each service person is expected to carry one.
B: Each five or so service persons is expected to carry one.
C: Each workshop is expected to carry one.

19.1.3 Solvents/Oils

0007-1236

iR105i/iR105+ / iR9070 / iR8070

T-19-3

No.	Name	Uses	Composition	Remarks
1	Alcohol	Cleaning; e.g., glass, plastic, rubber (external covers)	Hydrocarbon of the fluorine family, alcohol, surface activating agent, water	- Do not bring near fire. - Procure locally. - IPA (isopropyl alcohol)
2	Solvent	Cleaning; e.g., metal areas; removing oil or toner.	Hydrocarbon of fluorine family, hydrocarbon of chlorine family, alcohol	- Do not bring near fire. - Procure locally.
3	Heat-resisting grease	Lubricating; e.g., fixing drive parts.	Lithium soap of mineral family, molybdenum disulfide	- CK-0427 (500 g/can)
4	Lubricant		Mineral oil (paraffin family)	- CK-0524 (100 cc)
5	Lubricant	Lubricating; e.g., friction parts.	Silicone oil	- CK-0551 (20 g)

No.	Name	Uses	Composition	Remarks
6	Drum cleaning powder	Cleaning; e/g., photosensitive drum.	Selenium oxide	- CK-0429
7	Lubricant	Lubricating; e.g., scanner rail.	Silicone oil	- FY9-6011 (50 cc)
8	Conducting grease	Drum heater contact	Fluorine poly ethyl, Poly tetra fluorine ethylene	- FY9-6008 (10 g)

19.1.4 Solvents/Oils

0008-9143

iR85+

T-19-4

No.	Name	Uses	Composition	Remarks
1	Alcohol	Cleaning; e.g., glass, plastic, rubber (external covers)	Hydrocarbon of the fluorine family, alcohol, surface activating agent, water	- Do not bring near fire. - Procure locally. - IPA (isopropyl alcohol)
2	Solvent	Cleaning; e.g., metal areas; removing oil or toner.	Hydrocarbon of fluorine family, hydrocarbon of chlorine family, alcohol	- Do not bring near fire. - Procure locally.
3	Heat-resisting grease	Lubricating; e.g., fixing drive parts.	Lithium soap of mineral family, molybdenum disulfide	- CK-0427 (500 g/can)
4	Lubricant		Mineral oil (paraffin family)	- CK-0524 (100 cc)
5	Lubricant	Lubricating; e.g., friction parts.	Silicone oil	- CK-0551 (20 g)
6	Drum cleaning powder	Cleaning; e/g., photosensitive drum.	Selenium oxide	- CK-0429
7	Conducting grease	Drum heater contact	Fluorine poly ethyl, Poly tetra fluorine ethylene	- FY9-6008 (10 g)

Apr 5 2005

Canon