
Revision history

| ISSUE | DATE | CONTENTS OF CHANGES |
|-----------|---------|--|
| ISSUE 1.0 | 2004.08 | Initial Release |
| ISSUE 1.1 | 2005.10 | Added Networking Feature and IP LDK Version 3.3 |
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Abbreviations and Keywords Table

| Abbreviation / Keywords | Full Spelling | Description |
|---|-----------------------------|---|
| [CALLBK] or [CB] or [CALLBACK] | - | The fixed button for the call back function. |
| [CONF] | - | The fixed button for the conference function. |
| [DND] or [FWD] or [CFW] or [FOR] or [DND/FWD] | - | The fixed button for the DND and call forward function. |
| [FLASH] | - | The fixed button for the flash function. |
| [HOLD] or [SAVE] or [HOLD/SAVE] | - | The fixed button for the hold and save function. |
| [ICM] or [Intercom] | - | The fixed button for the intercom function. |
| [MON] | - | The fixed button for the on-hook and off-hook function. |
| [MUTE] | - | The fixed button for the (speech) mute function. |
| [REDIAL] | - | The fixed button for the redial function. |
| [SPD] or [SPEED] | - | The fixed button for the speed function. |
| [TRANS] or [TRANS/PGM] | - | The fixed button for the transfer and ADMIN program function. |
| [UP]/[DOWN] or [VOLUME UP]/[VOLUME DOWN] | - | The fixed button for the volume up and down function. |
| {COL} | - | The flexible button for CO line access function about one CO line. |
| {LOOP} or LOOP | - | The flexible button for CO line access function about all accessible CO lines. |
| {POOL} or {CO Group} | - | The flexible button for CO line access function about CO group. |
| Absent Text Message | - | The software service of displaying the absent reason of person on station LCD. |
| Account Code or Authorization Code | - | The password to check the authority of user. 'Authorization Code' is used as a synonym in this document. |
| ACD | Automatic Call Distribution | The software service of hunt call distribution method. |
| ACNR | Auto Call Number Redial | The software service that makes a redial call automatically. |
| ADMIN (program) | Administration | The data base programming mode of the keyphone system. |
| AOC | Advice Of Charge | The outgoing call cost charging service in the public ISDN. |
| Assign Attendant | - | The operator station assignment. |
| ATD or Attendant (Station) | Attendant Station | A telephone operator of IP LDK. |
| Attendant Recall | - | The software service of the call routing to attendant about the unanswered call. |

| Abbreviation / Keywords | Full Spelling | Description |
|-------------------------------------|---|--|
| BGM | Back Ground Music | The software service of providing BGM through the station speaker. |
| BLF | Busy Lamp Field | The software service of presentation of the network station status via button LED. |
| BRI | Basic Rate Interface | ISDN BRI CO line. |
| BRIB | Basic Rate Interface Board | BRI CO line board for IP LDK. |
| FLEX | Button | The Abbreviated presentation of 'button'. |
| Call Back | - | The software service that the caller can leave a message to unanswered station, and the station user can check the leaved message. |
| Call Park | - | The software service that hold a call to retrieve by any other station. |
| Called Party | - | The opposite side of the caller. |
| Calling Party | - | The caller. |
| Camp On | - | The software service of indicating the another call waiting signal. |
| CAPI | Common ISDN Application Programming Interface | ISDN protocol. |
| CAS | Centralized Attendant Service | The software service of attendant call on network connection. |
| CCBS | Completion of Call to Busy Subscriber | The call back service protocol of QSIG and H.450. |
| CCNR | Completion of Call to No Reply | The call back service protocol of QSIG and H.450. |
| CCR | Customer Call Routing | The software service of CO incoming call via multi-level VMIB announcement. |
| CFW | Call Forward | The Abbreviated presentation of 'call forward'. |
| CID | Caller ID | The analog CO line caller ID. |
| CIDU | Caller ID Unit | IP LDK board to serve the analog CO line caller ID. |
| Circular Group | - | The call distribution method of hunt group. |
| CLI | Calling Line Identification | The telephone number of the caller. |
| CLIP | Calling Line Identification Presentation | The software service of CLI display. |
| CLIR | Calling Line Identification Restriction | Prohibit the transmission of CLI. |
| CMU | Call Metering Unit | IP LDK hardware board to detects call metering signals from CO line. |
| CO Group or CO GRP or CO Line Group | Central Office Line Group | The truck line group of analog, ISDN, IP, etc. |
| CO or COL or CO Line | Central Office Line | The truck line of analog, ISDN, IP, etc. |

| Abbreviation / Keywords | Full Spelling | Description |
|---|--|---|
| COLP | Connected Line Identification Presentation | The software service of the answerer's CLI display. |
| COLR | Connected Line Identification Restriction | Prohibit the transmission of answerer's CLI. |
| CONP | Connected Line Name Presentation | The software service of the answerer's name display. |
| CONV | Conversion | The Abbreviated presentation of 'conversion'. |
| COS | Class Of Service | The separated accessibility class about keyphone system service. |
| CPN | Called Party Number | The destination number of the call. |
| CPSN | Called Party Sub-address | The destination sub-address number of the call. |
| CPTU | Call Progress Tone detection Unit | IP LDK hardware board to detect the call progress tone from CO line. |
| CRC | Cyclic Redundancy Check | The digital data error check protocol. |
| CTI | Computer Telephony Integration | The telephone network protocol for PC telephone. |
| CTIU | Computer Telephony Integration Unit | IP LDK hardware module to serve CTI. |
| Day/Night/Weekend/On Demand (Service or Mode) | - | The separated IP LDK software manage service according the time and date. |
| DCOB | Digital Central Office Board | IP LDK hardware board to serve R2-DCO line. |
| DECT | Digital European Cordless Telephone | The protocol of European digital cordless telephone. |
| DEST | Destination | The Abbreviated presentation of 'destination'. |
| Destination | - | The destination of the call routing. The destination type may be a station, a hunt group, VMIB announcement, system speed dial bin, internal/external page zone, network station. |
| DGT | Digit | The Abbreviated presentation of 'digit'. |
| DID or DDI | Direct Inward Dialing | The public telephone network service of CO incoming call to specific destination. |
| DID Type 0/1/2 | - | The software service of the received DID digit conversion service type. |
| DISA | Direct Inward System Access | The software service of CO incoming call via VMIB announcement. |
| DKTU | Digital Key Telephone Unit | Digital keyset terminal. |
| DLS | Direct CO Line Selection | The flexible button that is assigned for seizing CO line. |
| DMT | Digit Modification Table | The table that is saved the digit modification data of LCR. |

| Abbreviation / Keywords | Full Spelling | Description |
|---|--------------------------------------|---|
| DND | Do Not Disturb | The software service of prohibiting the call receiving. |
| DNIS | Dialed Number Identification Service | The CLI service protocol of R2-DCO line. |
| DNS | Domain Name System | Domain Name System of the Internet protocol. |
| DRAM | Dynamic Random Access Memory | Hardware memory. |
| DSS | Direct Station Selection | The flexible button that is assigned for ICM call to specific station. |
| DTMF | Dual Tone Multi Frequency | The tone signaling protocol of the telephone network. |
| E&M | Ear & Mouth | E&M CO line. |
| EMIB | Ear & Mouth Interface Board | E&M Co line board for IP LDK. |
| Exception Table A | - | The table that is saved the toll restriction digits data about COS 2 & 4. |
| Exception Table B | - | The table that is saved the toll restriction digits data about COS 3 & 4. |
| EXE/SEC | Executive/Secretary | The software service of secretary station. |
| EXT | External | The Abbreviated presentation of 'external'. |
| Facility IE | Facility Information Element | ISDN information element message. |
| FLEX | Flexible (Button) | The user programmable button on DKTU. |
| Flexible DID Table | - | The DID call routing table of DID type 2 case. |
| GRP | Group | The Abbreviated presentation of 'group'. |
| HF | Hands Free | The intercom answer mode of hands free. |
| Hunt Group or Hunt | - | The group of stations. |
| ICM | Intercom | The Abbreviated presentation of 'intercom'. |
| ICM Box | Intercom Box | The telephone terminal that can be used only intercom call. |
| ICM Call | Intercom Call | The call between two stations. |
| ICM Tenancy Group or Intercom Tenancy Group | - | The software service of separating the station zone. |
| INT | Internal | The Abbreviated presentation of 'internal'. |
| Intrusion | - | The software service of intruding in the intercom call or CO call conversation. |
| IP | Internet Protocol | The Abbreviated presentation of 'Internet protocol'. |
| ISDN | Integrated Service Digital Network | ISDN protocol. |
| ISDN-SS | ISDN Supplementary Service | The protocol of ISDN supplementary service. |

| Abbreviation / Keywords | Full Spelling | Description |
|-------------------------|--------------------------------------|--|
| Keypad | - | Telephone that is served as keyphone terminal. DKTU, SLT, ISDN Phone, IP Phone, ICM Box, etc. |
| LAN | Local Area Network | LAN protocol. |
| LBC | Loud Bell Control | The software service of serving the external loud bell device. |
| LCD | Liquid Crystal Display | - |
| LCO | Loop start CO line (interface Board) | Loop start CO line. Analog CO line. |
| LCOB | Loop start CO line interface Board | LG loop start CO line interface board. |
| LCR | Least Cost Routing | The software service of CO outgoing call to the least cost path. |
| LDK | - | LG digital key telephone system. |
| LDT | Leading Digit Table | The table that is saved the LCR activation code data. |
| LED | Light Emitting Diode | - |
| LNR | Last Number Redial | The software service that makes a redial call of the last dialed. |
| MAX | Maximum | The Abbreviated presentation of 'maximum'. |
| MCID | Malicious Caller ID | ISDN supplementary service. |
| MIN | Minute | The Abbreviated presentation of 'minute'. |
| MOH | Music On Hold | The software service of providing a music to the held caller. |
| MSG | Message | The Abbreviated presentation of 'message'. |
| MSN | Multiple Subscriber Number | The public ISDN network service of multiple ISDN numbers to a single interface. |
| Multi Line Conference | - | The conference communication more than 2 members. |
| MWI | Message Wait Indication | The software service of indicating the leaved message existing. |
| My Area Code | - | The local area number of telephone network. |
| NET | Network(ing) | The software service of QSIG and H.450 networking. |
| Net Call | - | The intercom call on the network connection. |
| NO. | Number | The Abbreviated presentation of 'number'. |
| On Hook Dialing | - | The software service of dialing the dial pad without lifting handset. |
| Overflow Destination | - | The new call routing destination of unanswered hunt call. |
| Override | - | The software service of overriding the status of DND. |

| Abbreviation / Keywords | Full Spelling | Description |
|-------------------------|-----------------------------------|---|
| PABX | Private Automatic Branch Exchange | The private switch system or network. |
| Paging Conference | - | The software service of one way speech conference. |
| PC ADMIN (program) | - | ADMIN program mode via IP LDK PC application software. |
| PGM | Program | The abbreviated presentation of 'ADMIN program' or 'station program'. |
| Pick Up | - | The software service that a station can answer about the ringing call at other station. |
| PLA | Preferred Line Answer | The software service of choosing the first answer call among the multiple incoming calls. |
| PRI | Primary Rate Interface | ISDN PRI CO line. |
| PRIB | Primary Rate Interface Board | PRI CO line board for IP LDK. |
| PSTN | Public Switched Telephone Network | The public switched telephone network that is served by the central office. |
| PV | Call announcing with privacy | - |
| PX | Public Exchange | The central office switching system. |
| QSIG | Q Signaling | ISDN Q signaling protocol. |
| R2 | Register 2 | R2 signaling protocol. |
| RBT | Ring Back Tone | The Abbreviated presentation of 'ring back tone'. |
| RCV | Receive | The Abbreviated presentation of 'receive'. |
| Ring Group | - | The call distribution method of hunt group. |
| RS-232C | - | The serial communication interface protocol. |
| SCRL | Scroll | The Abbreviated presentation of 'scroll'. |
| SETUP (Message) | - | ISDN SETUP message. The call start request signaling message. |
| SLT | Single Line Telephone | Single line telephone terminal. |
| SMDI | Simplified Message Desk Interface | The interface message of voice mail device. |
| SMDR | Station Message Detail Record | The software service of the detail station log information about incoming/outgoing CO call. |
| SNR | Save Number Redial | The software service that makes a redial call of the saved dial. |
| SOS Paging | - | The software service of emergency help paging. |
| SPD | Speed | The Abbreviated presentation of 'speed'. |
| Speed Bin | - | The index value among the saved speed dial data. |
| Abbreviation / Keywords | Full Spelling | Description |

| | | |
|------------------------------------|-------------------------------|--|
| STA | Station | An extension (terminal) of IP LDK. |
| Station | - | An extension (terminal) of IP LDK. |
| Station Speed Dial | - | The speed dial data that is saved by each station. |
| Sub-address | - | ISDN supplementary service. |
| System Attendant | - | The first programmed attendant among the main attendant. |
| System Speed Dial | - | The speed dial data that is saved by attendant station. |
| TEL | Telephone | The Abbreviated presentation of 'telephone'. |
| Terminal Group | - | The call distribution method of hunt group. |
| TN | Tone ring | |
| UCD (Group) | Uniform Call Distribution | The call distribution method of hunt group. |
| UNA | Universal Night Answer | The software service that allows the pickup by any station at night mode. |
| Unsupervised Conference | - | The supervisor omitted conference communication. |
| VM or VM Group or Voice Mail Group | Voice Mail Group | The hunt group that the call is distributed to voice mail device. |
| VMIB | Voice Mail Interface Board | IP LDK hardware board to serve the voice mail service. |
| VOIB (VOIM in IP LDK-20) | Voice Over IP Interface Board | IP LDK hardware board to serve the voice over IP. |
| Weekly Time Table | - | The table that is saved the day working time and work finish time during week. |
| WHTU | Wireless Hand Telephone Unit | Wireless DECT telephone terminal. |
| Wrap Up Timer | - | The guarantee timer that remains the station status busy. |

Section 1. Introduction

This programming manual is designed to provide as general features for the IP LDK-20 System.

It also explains the procedure of ADMIN Programming of the IP LDK-20 System using DKTU and PC.

1.1 The structure of programming manual

This manual contains the following sections :

Section 1. Introduction

Introduces the structure of this manual and usage of this programming manual.

Section 2. System features

Describes details about the system features.

Section 3. System Basic ADMIN Programming

Describes the procedures about Admin program.

Section 4. ADMIN programming

Provides the procedure of ADMIN Programming.

Section 5. Quick reference ADMIN Programming table

Provides the quick ADMIN Programming table for expert.

Section 6. Index

1.2 Manual usage

As you can see from the introduction, this manual is divided into 6 parts.

Abbreviation table

Before getting started, you understand the terms and abbreviations in contents. Therefore we summarized the abbreviations and keyword table using this programming manual on first page.

Section 2. System feature

In section 2, the feature is grouped according to the situation. The structure is divided into 5 parts : *Description, Operation, Condition, Reference, Admin programming.*

Each part briefly describes as below :

- ∅ *Description : explains the feature.*
- ∅ *Operation : operates the feature.*
- ∅ *Condition : explains the condition of feature according to the configuration.*
- ∅ *Reference : to help reader understand the contents, link to the related part.*
- ∅ *Admin programming : to operate the feature, the list of admin programming must be set.*
 - ***link to the section 4 Admin programming.***

Section 3. System basic programming

This section explains the function of each button used for ADMIN programming in section 3 and section 4. Also describes basic programming from 100 to 108 when the IP LDK system is installed.

Some PGM have already been programmed at factory. Others are needed to ADMIN programming to operate normally. The detailed information is described in section 3.

Section 4. ADMIN Programming

This section is related to the section 2 “ADMIN programming” to operate the feature.

This section focuses on the procedure of ADMIN programming. And briefly explains the item of ADMIN programming on description. To help the item understand, link to the related feature and contents on reference. The detailed information is described in section 4.

Section 5. Quick ADMIN Programming table for expert

This section provide the table for expert. So beginner or intermedicator refer to the section 3 or section 4 in ADMIN programming.

Section 2. System Feature

2.1 How to get incoming call

2.1.1 Ring Assignment

Description

If there is an incoming call through CO Line which is ring assigned, the pre-assigned destination gets the call. The destination can be Station, Hunt Group(see Ref.1), or VMIB announcement(see Ref.2). If a destination station is busy, the incoming call gives muted ring signal, so the station user can notice the incoming CO Call.

Following Figure 2.1.1 describes the Ring Assignment of incoming CO call. The ring can be assigned to stations, hunt group or VMIB announcement.

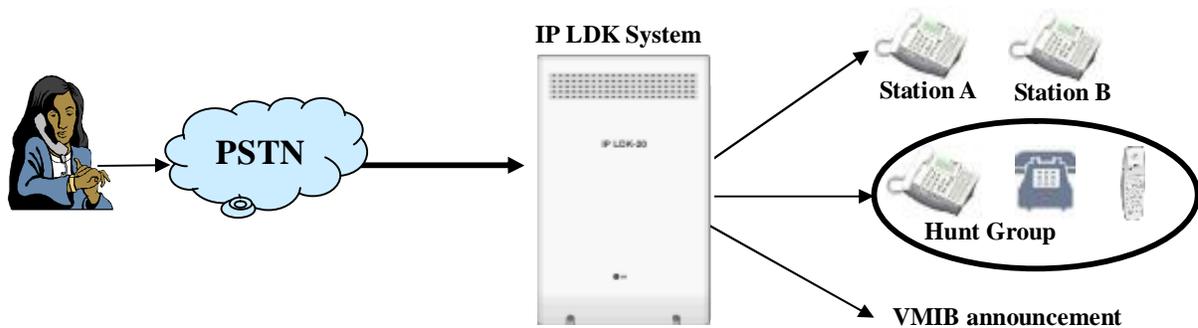


Figure 2.1.1 Ring Assignment Destination

Operation

Example

Make Station 100 ~ 105 ring at the incoming call from CO Line 1~8 at Day Mode, and station 110 start to ring after 9 seconds.

1. Set CO Service type as Normal at ADMIN 140.
 2. At ADMIN 144, select CO Line range 01~08 and press FLEX 1 (Day Mode)
 3. Dial 1 (Station), and enter station range 100105.
 4. To make the stations ring instantly, dial delay value 0 (without delay)
 5. Save the changed setting by pressing [HOLD/SAVE] button.
 6. Press FLEX 1(Day Mode) again without exiting ADMIN 144, and press 1 (Station) again.
 7. Enter station range as 110110, and dial 3 as delay value. Save it again.
- When there's an incoming CO Call through CO Line 1 ~ 8 at Day mode, the station 100 ~ 105 starts to ring instantly. If one of the station answer the call, other stations stop to ring. After 9 seconds, if the call is still not answered, station 110 starts to ring.

Make Hunt group 620 ring at the incoming call from CO Line 1~8 at Night Mode.

1. Check if CO Service type is set to Normal at ADMIN 140.
2. Check if Hunt group 620 is assigned properly at ADMIN 190.
3. At ADMIN 144, select CO Line range 01~08 and press FLEX 2 (Night Mode)
4. Dial 2 (Hunt), and enter Hunt group number 620.
5. Save the changed setting by pressing [HOLD/SAVE] button.
→ When there's an incoming CO Call through CO Line 1 ~ 8 at Night mode, the Hunt group starts to ring. The ringing station is decided by hunt group type (see Ref.4)

Make the VMIB announcement 01 played at the incoming call from CO Line 1~8 at Weekend Mode.

1. Check if CO Service type is set to Normal at ADMIN 140.
2. Check if VMIB announcement 01 is recorded properly at system attendant's station (see Ref.4)
3. At ADMIN 144, select CO Line range 01~08 and press FLEX 3 (Weekend Mode)
4. Dial 3 (VMIB), and enter VMIB announcement number 01.
5. To make the CO Line released after VMIB announcement, enter #.
6. Save the changed setting by pressing [HOLD/SAVE] button.
→ When there's an incoming CO Call through CO Line 1 ~ 8 at Weekend mode, the VMIB announcement played. If # is entered, the line is released.

Condition

1. Any CO Line Ring can be assigned to multiple stations.
(All CO Line Ring may be assigned to all station)
2. Each ring to station can be delayed by ADMIN programming.
3. The ring assignment is individually applied to Day, Night, weekend or On-demand ring mode.
(see Ref.3)
4. To receive incoming CO Call, the DKTU should have {CO} button or {LOOP} button.
5. Every CO Line ring is assigned to *Attendant* station by default.

Reference

1. Hunt Group : 2.6
2. VMIB announcement : 2.11
3. Ring Mode : 2.13.8
4. System Attendant : 2.13 (description - main Attendant)

Admin Programming

- n CO Service Type **4.2.1 (PGM 140 – FLEX 9)**
- n CO Line Ring Assignment **4.2.5 (PGM 144)**
- n Weekly Time Table **4.10.6 (PGM 233)**
- n Station Group Assign **4.6.1(PGM 190)**

2.1.2 PLA (Preferred Line Answer)

Description

If PLA service is enabled and there're several incoming CO Calls(type of Transferred Call, Recalled Call, queued Call, and Normal Incoming Call) at the same time, the first answered Call is chosen by PLA priority.

Default :

Transferred Call → Recalled Call → Normal Incoming Call → CO Line Queued Call

Operation

Example

If there's multiple CO Call is ringing at a station and the station answers the call, the call which has the highest priority is answered first. Refer to Figure 2.1.2.

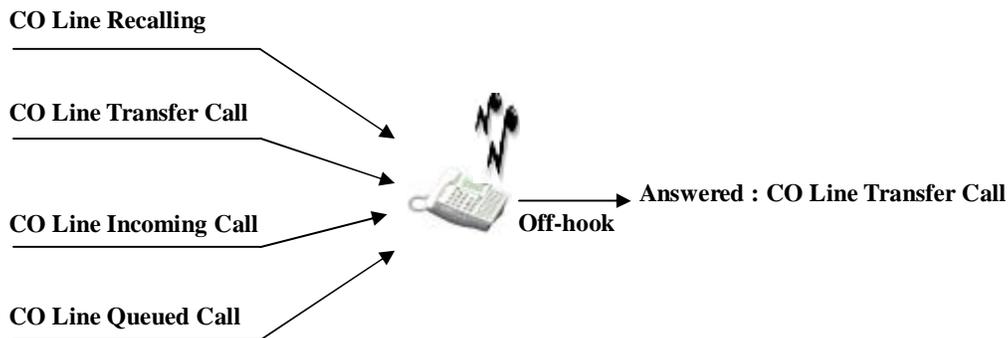


Figure 2.1.2 Preferred Line Answer

Condition

1. When more than one line is ringing at a station and Preferred Line Answer is enabled, the priority of answer is as follows by default.

CO Line Transfer Call → CO Line Recalling → CO Line Incoming Call → CO Line Queued Call

2. "Automatic Speaker Select" feature should be enabled for Preferred Line Answer.
3. The priority of CO Line for preferred line answer can be changed by Admin Programming.

Admin Programming

- n Preferred Line Answer **4.1.3.7 (PGM 112 – FLEX 7)**
- n Automatic Speaker Selection **4.1.2.1 (PGM 111 – FLEX 1)**
- n PLA Priority **4.4.14 (PGM 173)**

2.1.3 DID(Direct Inward Dialing)

Description

This feature allows CO incoming calls to access to specific destination. There is no relation with Attendant, and this feature enables direct access to desired station, Hunt group, VMIB announcement, Speed, and Page.

There are 3 types of DID Conversion and it can be set by ADMIN Programming (ADMIN 143-FLEX 4)

- **Type 0:** In an incoming DID digits, select some digits which are received digits by ADMIN Programming. The selected digits will be converted by DID Conversion type(ADMIN 146 – FLEX 5/FLEX 6)
- **Type 1:** *The incoming DID digits are the destination number. There is no conversion.*
- **Type 2:** *With result of DID Conversion type 1, convert by the Flexible DID table (ADMIN 231) additionally.*

Operation

Example . 1

To make DID call by DID Digit Conversion as the figure 2.1.3 below.

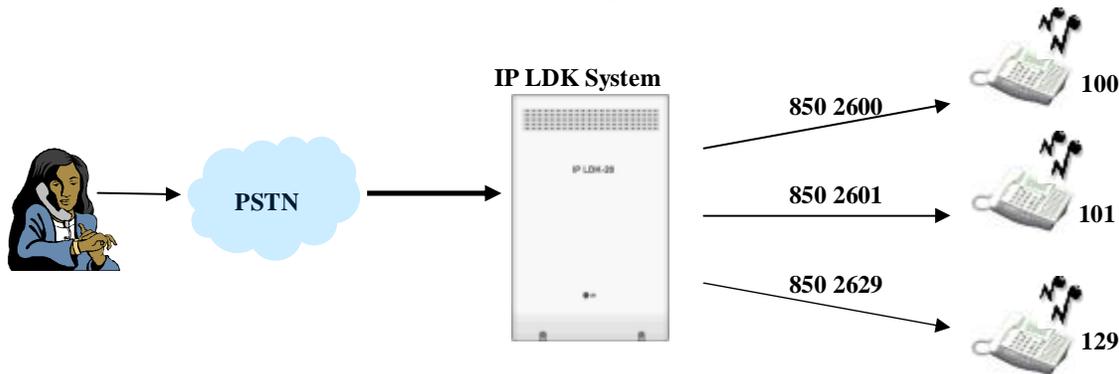


Figure 2.1.3. DID call routing by Digit Conversion

1. Check if DID Digit Receive number is set to 3 at ADMIN 146.
2. Set DID Conversion Type as 0 (using Digit Mask) at ADMIN 143 – FLEX 4.
3. Set DID Digit Mask as #1**. Then the first digit 2 is ignored and second digit 6 is converted to 1 and the last two digits are bypassed (see Ref.1)

Example . 2

To make DID call by Flexible DID Table as the figure 2.1.4 below.

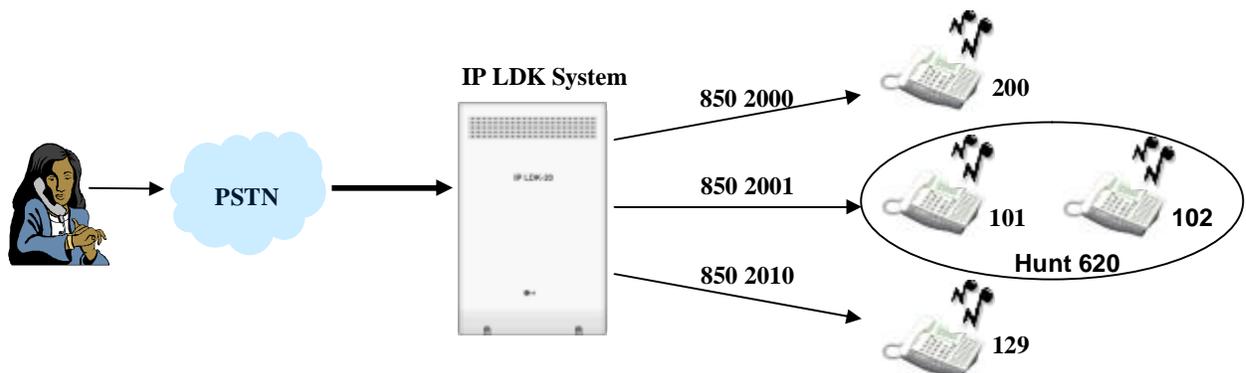


Figure 2.1.4 DID call routing by Flexible DID Table

1. Check if DID Digit Receive number is set to 3 at ADMIN 146.
2. Set DID Conversion Type as 2 (using Flexible DID Table) at ADMIN 143 – FLEX 4.
3. Program Flexible DID Table as below at ADMIN 231.

ADMIN 231 FLEX DID CONVERSION TABLE

| | | | |
|-----|-------------------|-------|---------|
| 000 | DAY : Station 200 | NIGHT | WEEKEND |
| 001 | DAY : Hunt 620 | NIGHT | WEEKEND |
| : | : | : | : |
| 010 | DAY : Station 129 | NIGHT | WEEKEND |

Condition

1. When a DID is received at a busy station, the call is waited in the station for DID/DISA Answer timer.
2. Flexible DID Table is applied according to Day/Night Ring Mode (see Ref.2)
3. Destination of Flexible DID Table can be station, Hunt group, VMIB announcement, Drop after VMIB announcement, System Speed(see Ref.3), Internal Page, External Page or, Internal/External/All Call Page(see Ref.4)
4. If the call is not answered or the number was invalid, the call is routed by DID/DISA Destination.
5. The DID call to a busy station can be placed on a waiting stage according to admin programming to KTU and SLT.

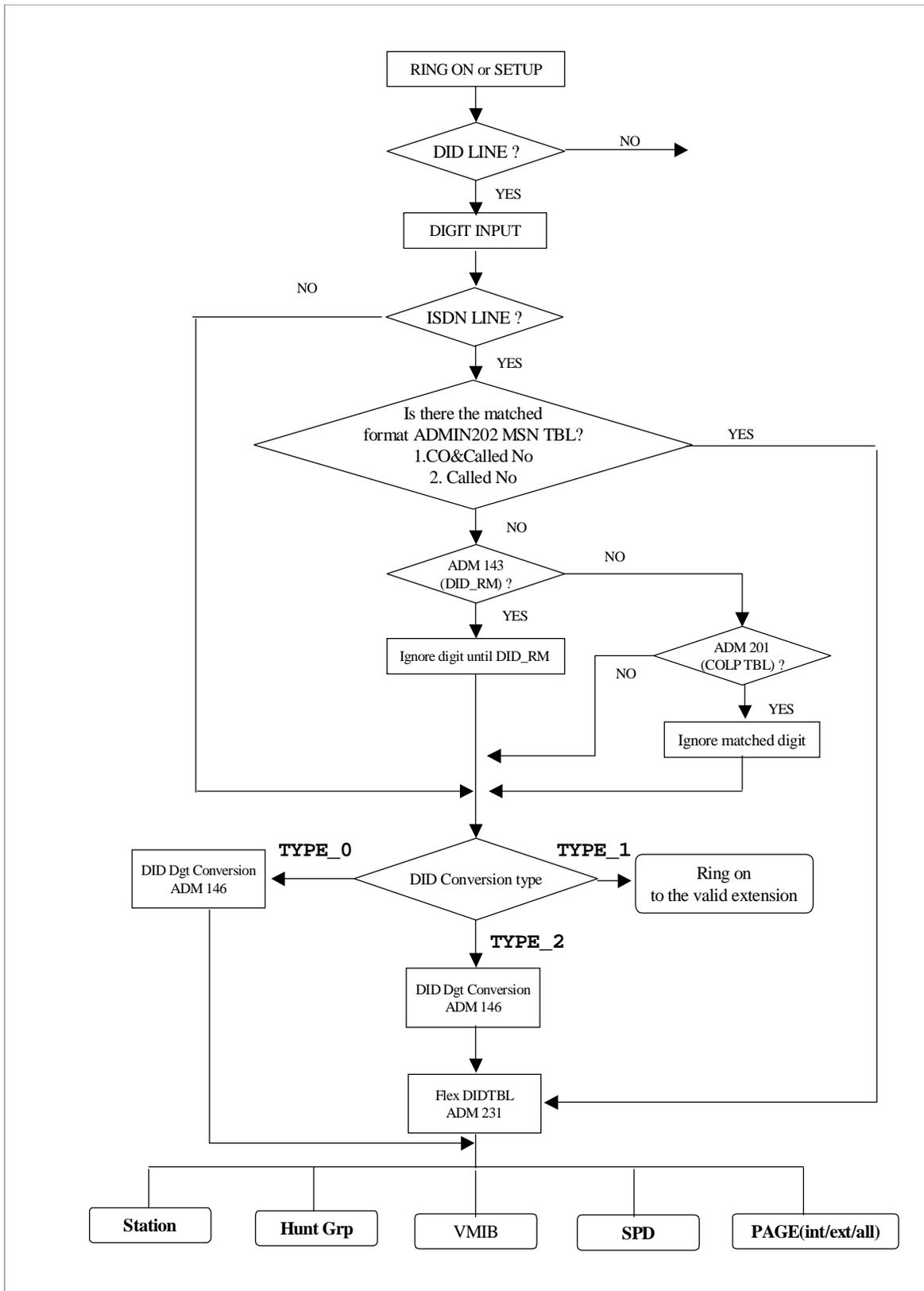
Reference

1. DID Digit Conversion Mask : 4.2.7.6
2. Weekly Time Table : 4.11.6
3. System Speed Dialing : 2.2.8.5
4. Paging Features : 2.8

Admin Programming

- n DID Conversion Type **4.2.4.4 (PGM 143 – FLEX 4)**
- n DID Digit Conversion Mask **4.2.7.6 (PGM 146 – FLEX 2)**
- n Automatic Speaker Selection **4.1.2.1 (PGM 111 – FLEX 1)**
- n DID/DISA Destination **4.4.8 (PGM 167)**
- n DID Call Wait **4.1.5.16 (PGM 114 – FLEX 17)**

[Flow chart]



2.1.4 DISA(Direct Inward System Access)

Description

This feature allows CO incoming calls to access to specific destination without attendant's answering. Compared with DID(see Ref.1), there is no digit conversion in DISA.

On seizing incoming CO Line, system gives VMIB announcement(see Ref.2) or dial tone. Then the caller dials additional digit to access desired destination.

Operation

DISA Line Assignment

1. **[TRANS/PGM]** + 140
2. Enter the CO Line range to be assigned to DISA Line.
3. **[FLEX 2]** + Ring type + **[FLEX 1]** + '1' + **[HOLD/SAVE]** : DISA Activate.
- Ring type : FLEX 1-Day, FLEX 2-Night, FLEX 3-Weekend, FLEX 4-On-demand.
4. **[FLEX 2]** + Ring type + **[FLEX 2]** + '01~70' + **[HOLD/SAVE]** : VMIB Greeting Assign.

To use DISA.

1. Seize the DISA Line of the system.
2. When the tone or announcement is heard, dial the desired station/ hunt group number then the station/hunt group receives the call .
3. After connected with the system, user can dial the CO Access Code(e.g : 8801) to call outside of the system again by seizing another CO Line.

Condition

1. You can assign VMIB announcement instead of intercom dial tone for DISA line.
2. If the DISA Authorization Code is enabled for a DISA Line, DND warning tone or VMIB announcement, guiding to enter DISA Authorization Code, is heard and the Authorization Code(see Ref.3) should be entered. And the dial tone will be heard.
3. Each DISA Line may be assigned as a full-time DISA or night mode only. Night mode DISA operates as normal CO Line in the Day mode.
4. If the VMIB announcement number is stored with "#", the CO Line will be dropped after the VMIB announcement is played.
5. If the DISA Authorization Code is enabled for a DISA CO Line, the user should enter DISA Authorization Code to access the CO Line.
6. If the DISA Authorization Code is disabled, the permission is determined by "CO to CO COS" & "CO COS" (see Ref.4).
7. If the DISA Authorization Code is enabled, the Authorization Code should be entered to access outgoing CO Line. If the Authorization Code is matched with the Authorization Code of station, the user may access the CO Line depending on "STA COS" & "CO COS". If the Authorization Code is matched with the Authorization Code of system, it is determined by "CO to CO COS" and "CO COS".

Reference

1. DID : 2.1.3
2. VMIB announcement : 2.11
3. Authorization Code : 2.5.2
4. COS : 2.5.4

Admin Programming

- n DISA Line Assignment **4.2.1.3 (PGM 140 – FLEX 2)**
- n DISA Account Code **4.2.2.3 (PGM 141 – FLEX 3)**
- n *DISA Retry Counter* **4.4.1.4 (PGM 160 – FLEX 4)**
- n CO to CO COS Assignment **4.4.7 (PGM 166)**
- n Weekly Time Table **4.10.6 (PGM 233)**

2.1.5 CCR(Customer Call Routing) with VMIB

Description

CCR is incoming CO Call type of DISA/DID(see Ref.1, Ref.2), the user can route the destination by pressing only one digit. If user press a certain digit, corresponding VMIB announcement is played. Then, user press the desired digit again. In that way, call routing is established.

Or a user may access the desired destination directly by dialing the station number, hunt group number or VMIB announcement (see Ref.3)

The Figure 2.1.5 below describes the CO incoming call using CCR with VMIB announcement.

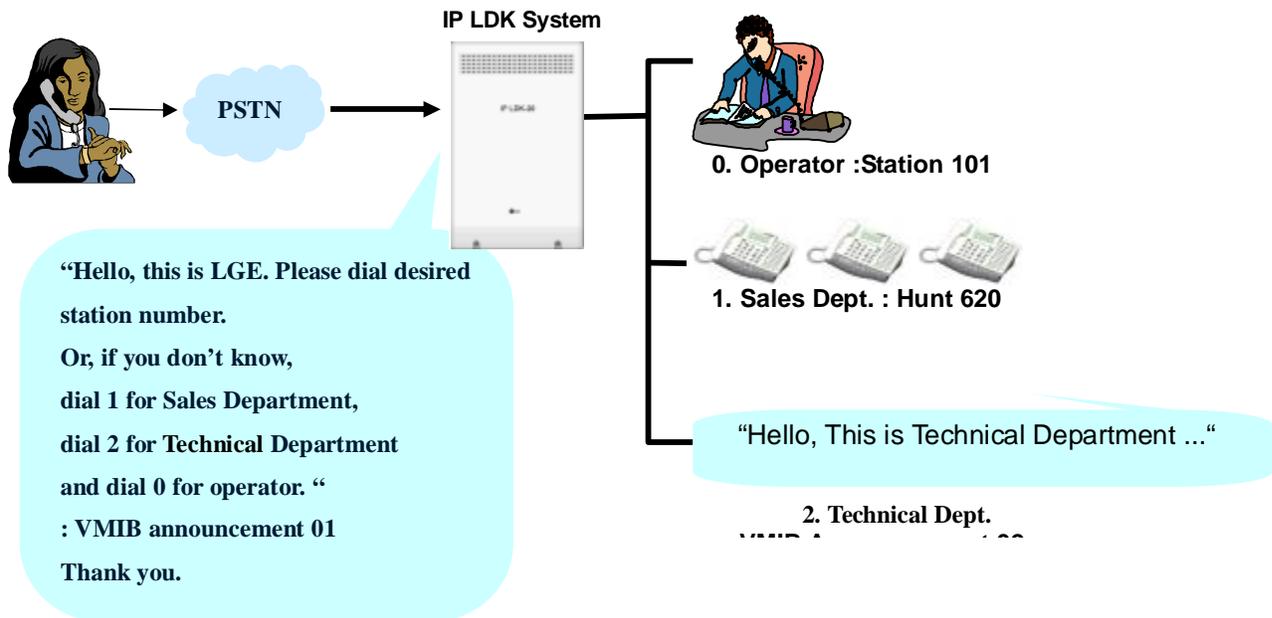


Figure 2.1.5 CCR Call

Operation

1. When a call is answered by a system programmed with CCR, system gives a VMIB announcement to caller. VMIB announcement gives a choice of destination.
2. The caller may select a destination by dialing according to VMIB announcement.

To Use DISA CCR as described at Figure 2.1.5.

1. Check if the CO Service Type is set to Normal at ADMIN 140 – FLEX 1.
2. Check if the DISA Service is set to ON at ADMIN 140 – FLEX 2 (see Ref.4)
3. Set VMIB Message Number 01 ADMIN 140 – FLEX 2 (see Ref.4)

To Use DID CCR as described at Figure 2.1.5.

1. Check if the CO Service Type is set to DID/MSN at ADMIN 140 – FLEX 1.
2. Check if DID Digit Receive number is set to 3 at ADMIN 146.
3. Set DID Conversion Type as 2(using Flexible DID Table) at ADMIN 143 – FLEX 4.
4. Set destination type as 3(VMIB) and enter announcement number 01 at Flexible DID Table at ADMIN 231.

To Program CCR Table as described at Figure 2.1.5.

1. Select CCR Table 01(match with VMIB announcement number) at ADMIN 228.
2. Press FLEX 1 to set Sales Dept. The Flexible button number should be same with the dialing digit number.
3. Select destination type as Hunt group by dialing 2. Enter desired Hunt group number 620.
4. Press FLEX 2 to set Technical Dept. Select destination type as VMIB by dialing 2 or 3 and enter announcement number 02. If type 3(VMIB Drop) is selected, the call will be dropped after announcement. If type 2(VMIB) is selected and CCR Table 02 is programmed, CCR for Technical Dept. is applied.
5. Press FLEX 10 to set Operator. Select destination type as Station by dialing 1 and enter Desired station number 101.

Condition

1. The CCR feature is only supported for DID and DISA.
2. To use CCR feature for DID, VMIB should be assigned for Flexible DID Destination (ADMIN 231)
3. If a caller dials full destination number, the call will be routed to the destination directly by system numbering plan.
4. If a caller dials one digit and wait for a while, the IP LDK system will compare the digit with CCR Table. If the digit is matched with CCR Table, of which the bin number is same with VMIB announcement, the call is routed to programmed destination.
5. If the dialed digit is invalid, the caller can retry to enter digit for 3 times. DISA Retry counter is also programmable. If the caller fails until the counter expired, the call is routed to recall destination or disconnected after error tone.
6. VMIB announcement 01~70 may be used for CCR.
7. Call routing will be operated with current VMIB announcement.
8. The maximum CCR depth is 10.
9. The external user can dial digit while the VMIB announcement is being played or the digit should be entered within inter-digit time (5sec) after the announcement is ended.
10. If the caller does not dial any digit within inter-digit time (5sec), the call will be routed to the ring assigned stations or disconnected after error tone.
11. If a user presses '#' button while CCR is operated, CCR goes to the first step.
12. If a user presses '.' button, CCR goes to the previous step.
13. The call can be dropped directly after VMIB announcement if VMIB drop is selected at CCR Table.
14. If a call is routed to System Speed Dial, the call is routed to the Speed Dial destination. If the CO Call is assigned at the System Speed Dial, the routing is same as Incoming CO Off-net Call Forward.

Reference

1. DID : 2.1.3
2. DISA : 2.1.4
3. VMIB announcement : 2.11
4. DISA Account Code : 4.2.2.3
5. System Speed Dial : 2.2.8.5

Admin Programming

- n Flexible DID Table 4.11.4 (PGM 231)
- n DID Digit Conversion Table 4.2.7.5 / 4.2.7.6 (PGM 146 – FLEX 5/ FLEX 6)
- n DISA Retry Counter 4.4.1.4 (PGM 160 – FLEX 4)
- n CCR Inter-digit Timer 4.5.1.15 (PGM 180 – FLEX 15)
- n Inter-digit Timer 4.5.2.8 (PGM 181 – FLEX 8)
- n DID/DISA Destination 4.4.8 (PGM 167)
- n CCR Table 4.10.2 (PGM 228)

2.1.6 CO Line Name

Description

This feature assign name to each CO Line. The stations with LCD, including the attendant, display the programmed CO Line name in place of the 'LINE XXX' message.

This is applied to all conditions where the 'LINE XXX' message is displayed. However, SMDR (see Ref.1) continues to print out the line number in place of the programmed name. If the CO Line name is not programmed, the 'LINE XXX' display is default.

Condition

1. CO Line name can be assigned to each CO Line.
2. Each CO Line name can be assigned up to 12 characters.
3. If CO Line Name Display is set to OFF at ADMIN 142 – FLEX 1, the CO Line Name is not displayed even if the name is programmed.

Reference

1. SMDR : 2.12

Admin Programming

- n CO Line Name Display **4.2.3.1(PGM 142 – FLEX 1)**
- n CO Line Name Assignment **4.2.3.2(PGM 142 – FLEX 2)**

2.1.7 UNA (UNIVERSAL NIGHT ANSWER)

Description

If the CO Line is Programmed to UNA, user can pick up incoming CO Calls by dialing Night Answer code 569 (see Ref.1) regardless of the pick-up group.

Figure 2.1.7 below describes the UNA service. If there's incoming CO Call at Night Mode (see Ref.2), the station B can pick up the call although station A and B is not belong to a pick up group.

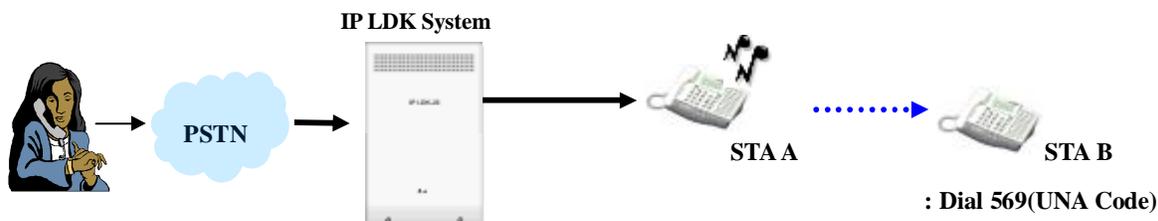


Figure 2.1.7 Universal Night Answer

Operation

To pick-up a call in night mode,

1. Lift the handset or press the **[MON]** button then intercom dial tone will be heard.
2. Dial **5 6 9** (UNA code).
3. The call is connected.

Condition

1. UNA feature is activated when the Ring Mode is night.
2. If there's no ringing CO Call when the station dialed Night Answer Code, error tone will be heard.
3. The connected CO Line may be transferred or disconnected in the usual manner.
4. If External Night Ringing is set to On, the call is routed to External Page (see Ref.3) by LBC1(see Ref.4).

Reference

1. Night Answer Code : 3.6.7
2. Ring Mode : 2.13.8
3. External Page : 4.10.2.7
4. LBC : 4.4.9.1

Admin Programming

- n UNA **4.2.2.8 (PGM 141 – FLEX 8)**
- n External Night Ring **4.4.1.7 (PGM 160 – FLEX 7)**

2.2 How to Access outgoing call

2.2.1 Basic access

Description

Each station is allowed or denied to access particular CO Lines or CO Groups. Station user may use flexible buttons which are assigned as a **{CO}** button or **{CO Group}** button including **{POOL}** button and **{LOOP}** button. By Numbering Plan, station users can access individual CO Lines by dialing CO Access codes.

| Feature | Description | Accessing method | Access code |
|---|--|---|-------------|
| Idle Line Access (88 + CO Line number) | Selects an idle CO Line automatically from the assigned CO Groups. | Dial the idle Line Access number. Or press a CO Line button. Dial the idle Line Access Code : 9 | 8801~8812 |
| CO Group Access (8 + CO Group number) | Selects an idle CO Line from the corresponding CO Group. | Dial the CO Group Access number and a CO Group number. Or press a CO Group button. | 801-808 |

Figure 2.2.1 describes to access CO Lines by dialing CO Access codes(9 or 0, depend on a nation) By dialing 9 (see Ref.1), the user can seize the first idle line among CO groups permitted to access (see Ref.4). And if Dial 8801 (see Ref.2), the user can seize the CO Line 001 if it is idle. Or, by dialing 801 (see Ref.3), the user can seize the first idle CO Line among CO Group 1.

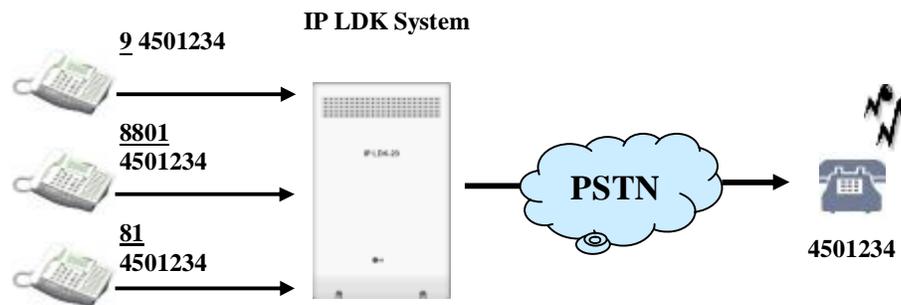


Figure 2.2.1 Accessing CO Line

Operation

CO Line Access

To access a CO Line from a DKTU,

1. Lift the Handset or press the **[MON]** button.
2. Press the desired CO Line, **{POOL}** button, or **{LOOP}** button.
3. Or, dial the individual CO Line access code, CO group access code, or the first CO Line access code from the accessible group.

To access a CO Line from a SLT.

1. Lift the handset.
2. Dial the individual CO Line, CO group access code, or the first CO Line access code from the accessible group.

To access a CO Line Group.

1. The number of CO Group in IP LDK-20 is 8.
2. You can access a CO Group by dialing 8, 8 and the CO Group number(see Ref.1)

Condition

1. A DKTU should have an idle appearance (CO Line/Pool button/Loop button) to access an outgoing CO Line/incoming CO Line.
2. To assign the **{LOOP}** button.
[TRANS/PGM] + {FLEX} + [TRANS/PGM] + 8 4 + [HOLD/SAVE]
3. When the Override 1st CO Line Group is enabled, the system will search for the next accessible CO group until a CO Line is available if there is no available CO Line by dialing CO Line group access code ('9' or '0')
4. A station which is not permitted to access a CO Line will hear error while trying to access a CO Line, but the station can receive a transferred CO Line call.
5. The CO Line choice (Round-robin or Last Choice) is determined by Admin Programming (ADMIN 160-FLEX 3)
6. If the CO Line is BRI, when a user tries to seize B1 but the network requests to serve B2, the system can change CO Line to B2. (There is a **{B2 CO}** button or **{LOOP}** button)
7. Unused CO Lines should be assigned to unused CO group 9 to prevent to be accessed by a station.
8. The first CO Line group (00) is directed line group and it can be used with **{CO Line}** button (Private Line)

Reference

1. Access CO in 1st CO Group Code : 3.6.7 (PGM 107 – FLEX 12)
2. Access Individual CO Code : 3.6.7 (PGM 107 – FLEX 8)
3. Access CO Group Code : 3.6.7 (PGM 107 – FLEX 7)
4. CO Group Access : 4.1.8

Admin Programming

- n CO Line Choice **4.4.1.3 (PGM 160 – FLEX 3)**
- n Inter-digit Timer **4.5.2.8 (PGM 181 – FLEX 8)**
- n CO Line Group Access **4.1.8 (PGM 117)**
- n CO Line Group **4.2.2.1 (PGM 141 – FLEX 1)**
- n Override 1st CO Line Group **4.4.2.3 (PGM 161 – FLEX 3)**

2.2.2 Call time restriction

Description

This feature is used to restrict an outgoing CO call time. In a station programming, user set the CO Call Drop Timer, the call will be disconnected automatically when the timer is expired. The caller and called parties will hear warning tone 15sec before the CO call is disconnected.

Condition

1. This feature can be assigned on a station base.
2. It is applied to just outgoing CO call.
3. If the CO Call Drop timer enabled in a station, the timer is still applied even a call is transferred to another station.
4. On the add-on conference, the CO Call Drop timer enabled station will be restricted to the outgoing CO call time.
5. The CO Call Drop timer is not released even the caller holds, transfers, or flashes the CO Line.

Admin Programming

- n CO Call Time Restriction **4.1.3.3 (PGM 112 – FLEX 3)**
- n CO Call Restriction Timer **4.5.1.17 (PGM 180 – FLEX 17)**

2.2.3 CO Line Queuing

Description

When station user receives a busy tone during an attempt to access a CO Line, the user may request a call back(queue). The station will receive a call back when the busy CO Line becomes available.

Operation

To activate queuing while receiving busy tone.

1. Press and release hook-switch if the station is SLT.
2. Dial **5 5 6**(see Ref.1) or press **[CALL BK]** button.
3. Confirmation tone is heard and then replace the handset.
4. When the CO Line becomes idle, callback ring is received at the station. On Lifting handset, CO dial tone is heard to make a call.

Condition

1. A CO Line may have any number of queues at one time.
2. When the queued CO Line becomes idle or a CO Line becomes available in the group, the oldest queued station will receive signal.
3. A station can make only one CO Line queuing request at one time. If the station tries to make another CO Line queuing, the previous one is canceled and the later one is available.
4. If the waiting station is busy and the queued CO Line is available, the available CO Line will be directed to the next station which is idle.
5. If the waiting station is idle, the queued CO Line will give signal to the station for 15 seconds. If the signal is not received at the station, the queue is canceled and the next station in the queue will receive signal.

Reference

1. Message Wait Enable Code : **3.6.7**

Admin Programming

- n CO Line Queuing **4.1.3.5 (PGM 112 – FLEX 5)**

2.2.4 CO Step Call – Analog Only

Description

When a station receives a busy tone after accessing a CO Line, the user can dial a CO Line number which has the same first digits as the called busy CO Line without dialing the full number.

Operation

To use CO Step Call when receiving busy tone, press the **[SPEED]** button and dial the last 1 digit. Then the previous call is terminated and new call is established.

2.2.5 Emergency Call service

Description

The user can dial the emergency service code regardless of lower station COS.

Condition

1. An emergency call can be dialed by pressing CO Line though the station which is assigned to COS 7.
2. If the dialed number for emergency code is the same with station number or LCR number, the call is operated as an emergency call. The preference of programmed dial number which is sent to external CO Line is, Emergency Call code → LCR Table → Station Number.

Admin Programming

n Emergency Call **4.9.3.1 (PGM 226)**

2.2.6 Hot Line & Warm Line

Description

A station user can make an outgoing call by only going off-hook, if the user has previously stored the destination.

The following figure 2.2.2 describes Hot Line / Warm Line operation. The destination can be CO Line / CO Line Group, the function which is set at Flexible button, or another station.

Hot Line can be activated immediately upon an off-hook, Warm Line can be activated after Warm Line Timer expired. If the user dial other number within Warm Line Time, the call activates as normal call, not as Warm Line call.

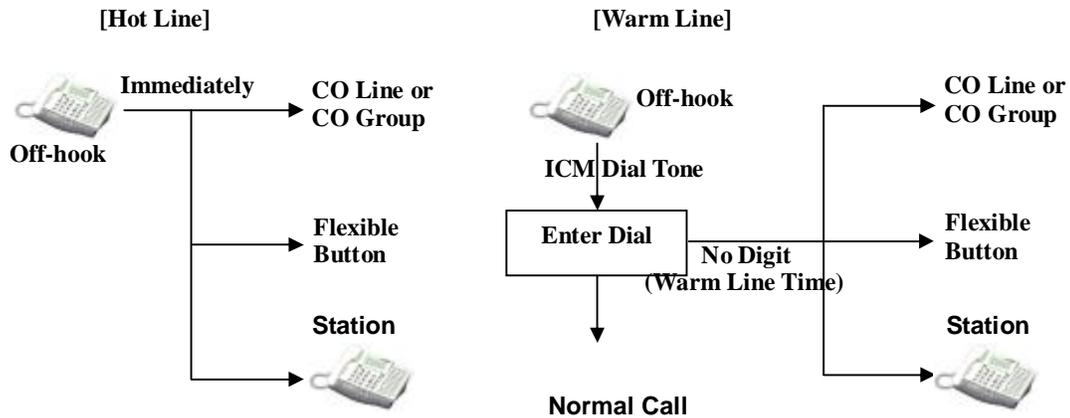


Figure 2.2.6 Hot Line & Warm Line

Operation

To activate Hot Line,

1. Lift the handset at a station, which is assigned to Hot Line.
2. The assigned hot line feature is activated immediately.

To activate Warm Line,

1. Lift the handset at a station, which is assigned to Warm Line.
2. If no dialing for assigned warm line timer, the assigned warm line feature is activated.

Condition

1. A station can be assigned to Hot line or Warm line by Admin Programming (ADMIN 113-FLEX 7).
2. If there is no flexible button in a station, the number is operated as speed dial number.
3. The setting value of Warm Line timer should be less than that of Dial Tone timer.
4. A flexible button may be assigned as **{Idle Line Selection}** button. When lifting handset or pressing the **[MON]** button, the system will be activated as a predefined button is pressed.
5. It is possible to activate in SLT station.

Admin Programming

- n Warm Line Timer 4.5.3.8 (PGM 182 – FLEX 8)
- n Warm Line 4.1.4.7 (PGM 113 – FLEX 7)
- n Idle Line Selection 4.1.13 (PGM 122)

2.2.7 LCR (Least Call Routing)

Description

LCR is a system programmable feature that is automatically selected the least expensive available route when an outgoing CO call is made. This programming eliminates the necessity for the user to dial the access code of the least expensive carrier. There are three types of operation to activate LCR;

Internal LCR - It can be activated during internal dial tone. If the dialed digits are matched with internal LCR code, the system will seize a CO Line from the programmed CO group and send the modified digits according to LCR programming.

Loop LCR - It can be activated by dialing the first accessible CO group code ('9' or '0') or by pressing Loop button. If the dialed digits are matched with COL LCR code, the system will seize a CO Line from the programmed CO group and send the modified digits according to LCR programming.

Direct CO LCR - It can be activated during CO dial tone. After dialing CO Line or CO group code(9 or 0, depend on nation), or pressing CO Line or CO group button, it can be activated. If the dialed digits are matched with COL LCR code, the system will seize a CO Line from the programmed CO group and send the modified digits according to LCR programming.

The following figure 2.2.7 describes LCR.

When a user seizes CO Line and dial destination number, the system checks the LCR programming and send the call to least cost route according to the ADMIN program.

Assuming LCR code is '9', the 001 network is least cost during the daytime, and the 002 network is least cost during the night. Caller dials same number and system routes it through least cost network.

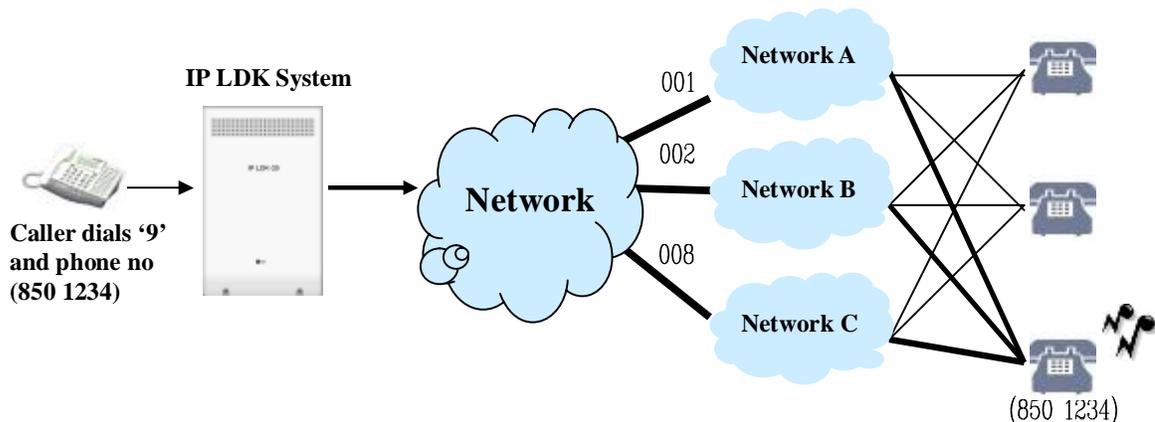


Figure 2.2.7 LCR

Operation

Internal LCR

1. Dial internal LCR code after lifting handset or pressing the **[MON]** button. On-hook dialing can also activate LCR call.
2. It is an internal LCR code if the code is programmed with internal or both in Leading Digit Table.

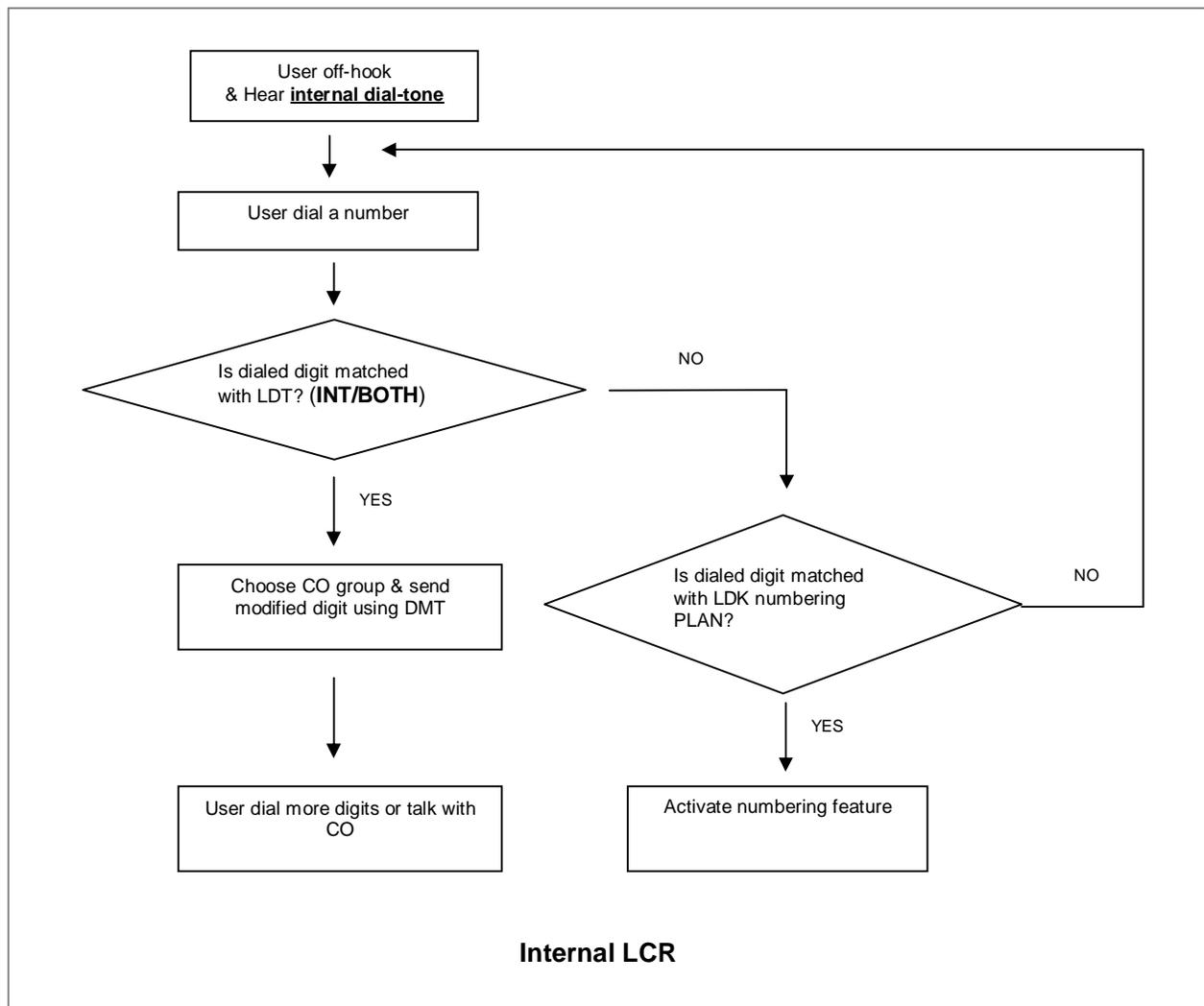
Loop LCR

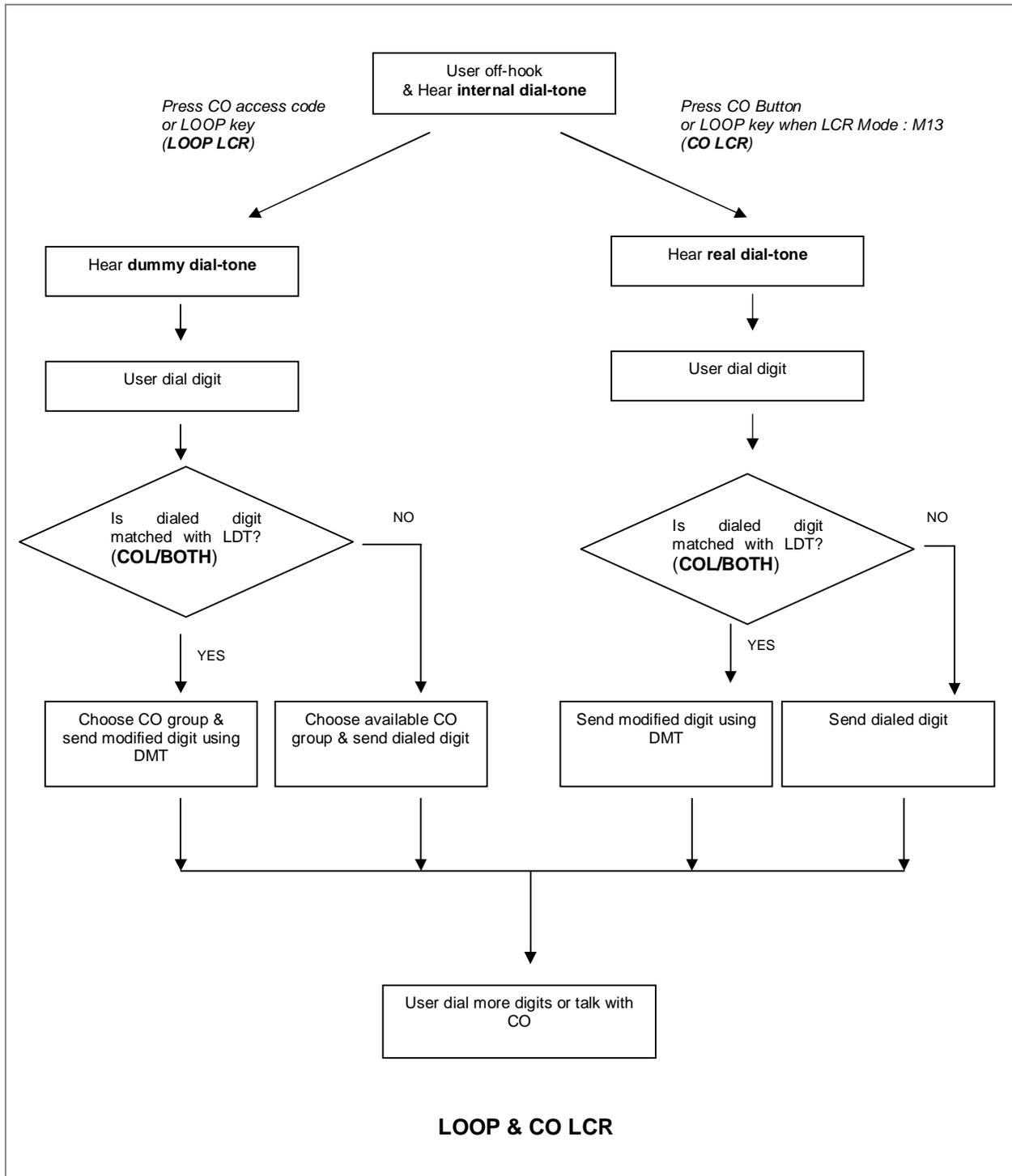
1. Dial COL LCR code after dialing the first accessible CO Line or CO group access code ('0' or '9') or press the Loop button.
2. It is a COL LCR code if the code is programmed with COL or BOTH in Leading Digit Table.

Direct CO LCR

1. Dial COL LCR code after dialing CO or CO group access code or pressing CO or CO group button.
2. It is a COL LCR code if the code is programmed with COL or BOTH in Leading Digit Table.

Flow Chart





Condition

1. There are 6 LCR modes. The mode is determined by ADMIN 220 – FLEX 1.
 - LCR Access Mode 00 (M00): LCR call is disabled.
 - LCR Access Mode 01 (M01): Only Loop LCR is activated.
 - LCR Access Mode 02 (M02): Internal LCR and Loop LCR are activated.
 - LCR Access Mode 11 (M11): Loop LCR and CO LCR are activated.
 - LCR Access Mode 12 (M12): All types of LCR are activated.
 - (When dialing '9' or pressing Loop key, the system will wait next digits to compare LCR table without seizing CO Line)
 - LCR Access Mode 13 (M13): All types of LCR are activated.
 - (When dial '9' or press Loop key, the system will seize the first available CO Line and wait next digits to compare LCR table)
2. The leading digits can be duplicated. FLEX 2 and DMT index make each entry unique.
3. Leading digit table is sorted by leading digits, FLEX 2 in LDT (INT, COL, BOTH) and DMT index.
4. Internal LCR is applied if the dialed digits are matched with one of leading digits and FLEX 2 is INT or BOTH.
5. Loop LCR is applied if the dialed digits are matched with one of leading digits and FLEX 2 is COL or BOTH.
6. Direct CO LCR is applied if the dialed digits are matched with one of leading digits and FLEX 2 is COL or BOTH and the seized CO Line belongs to the programmed CO group in DMT.
7. To work Loop LCR and Direct CO LCR differently with the same leading digits, there should be the leading digit entry for loop LCR prior to the leading digits for direct CO LCR. It is possible if the DMT index for loop LCR is smaller than the DMT index for direct CO LCR.
8. While direct CO LCR is applied to ISDN CO, an ISDN Information message with called party IE, which includes only numbering plan and numbering type, is sent to the network when a user dials a digit. It is for the network not to disconnect the line.
9. For direct CO LCR, leading digits should be programmed in consideration for the dial tone time provided by network.
10. Direct CO LCR does not use an alternative DMT index because a CO Line is already seized.
11. LCR always has the higher precedence than flexible numbering plan table.
12. LCR can be applied to the following cases;
 - Dialing after seizing CO Line by dialing CO Line access code (**0** or **9**) only
 - Dialing after seizing CO Line by **{LOOP}** button
 - Dialing without seizing CO Line
 - Speed Dial
 - Off-net Call Forward
 - Redial (if the previous call is LCR applied)
 - ACNR (If the call is LCR applied when activating ACNR)
13. Any leading digit string at the LDT table can be sub-string another leading digit string as '012' and '0123'.
14. Capacity for LCR Table:
 - 3 Day Zones
 - 3 Time Zones
 - Number of 'Dialed Code Bins': 250 bins
 - Number of 'Modification Code Bins': 100 bins
 - Maximum number of 'Dialed digits': 12 digits
 - Maximum number of 'Added digits': 25 digits
 - Alternative DMT index: 1EA

Admin Programming

- n LCR Attributes **4.8.1 (PGM 220)**
- n LCR – LDT Table **4.8.2 (PGM 221)**
- n LCR – DMT Table **4.8.3 (PGM 222)**
- n LCR Table Initialization **4.8.4 (PGM 223)**

[LCR Admin Example]

1. Situation 1 (add prefix digit)

The long distance call access code starts with '0'. example) 02, 031, 051

There is a cheaper carrier exist, user can access it with carrier access code '082' and long distance access code without '0'.

IP LDK system administrator wants to use this cheaper carrier for all long distance call.

| ADMIN 220 | ADMIN 221 (LDT) | ADMIN 222 (DMT) |
|--|---|--|
| LCR MODE M01, M02, M11, M12 (LOOP LCR enabled) | Bin 000 LCR TYPE : COL LCR CODE : 0 DMT : 00 00 00 | Bin 00 Remove Position : 01 Remove Number : 01 Add Position : 01 Add Digit : 082 |

example) user dial 0314502628, 082314504628

2. Situation 2 (select CO group)

IP LDK system is connected with two carrier.

(Let assume one carrier is carrier 'A', the other carrier is carrier 'B')

The carrier 'B' is used for international calls, and the carrier 'A' is used for normal calls.

The international call access code is '001'.

IP LDK system administrator wants to use the carrier 'B' only for international calls.

| ADMIN 141 | ADMIN 117 | ADMIN 161-3 |
|--|----------------------------------|--|
| set CO Lines from the carrier 'A' to CO group 1 set CO Lines from the carrier 'B' to CO group 2 | enable access CO group 01, 02 | Override 1 st CO Group : OFF |

| ADMIN 220 | ADMIN 221 (LDT) | ADMIN 222 (DMT) |
|--|---|-------------------------|
| LCR MODE M01, M02, M11, M12 (LOOP LCR enabled) | Bin 000 LCR TYPE : COL LCR CODE : 001 DMT : 00 00 00 | Bin 00 Co Group : 02 |

3. Situation 3 (make another co access code)

IP LDK system has VOIP CO Lines and normal CO Lines.

IP LDK system administrator wants to access VOIP CO using code '7'.

and access normal CO Lines using code '9' (let assume this is a default co access code)

| |
|--|
| ADMIN 106 |
| remove / change numbering plan which starts with '7' |

| | | |
|--|----------------------------------|---|
| ADMIN 141 | ADMIN 117 | ADMIN 161-3 |
| set normal CO Lines to CO group 1 set VOIP CO Lines to CO group 2 | enable access CO group 01, 02 | Override 1 st CO Group : OFF |

| | | |
|---|---|---|
| ADMIN 220 | ADMIN 221 (LDT) | ADMIN 222 (DMT) |
| LCR MODE M02, M12, M13 (Internal LCR enabled) | Bin 000 LCR TYPE : INT LCR CODE : 7 DMT : 00 00 00 | Bin 00 Remove Position : 01 Remove Number : 01 Co Group : 02 |

4. Situation 4 (password for specific dial number)

The international access code is '001'

IP LDK system administrator allows international calls only who knows system password.

| | | |
|---|--|-------------------------|
| ADMIN 220 | ADMIN 221 (LDT) | ADMIN 222 (DMT) |
| LCR MODE M12, M13 (LOOP/CO LCR enabled) | Bin 000 LCR TYPE : COL LCR CODE : 001 DMT : 00 00 00 Check Password : ON | Bin 00 Co Group : 01 |

2.2.8 Memory dialing

2.2.8.1 ACNR (Auto Call Number Redial)

Description

If Call destination is busy or no answer, Redialing is operated repeatedly within ACNR retry counter. The system will retry the number based on programming with appropriate pauses in between dialing. (default: 3 times)

Operation

To use ACNR while receiving busy/no answer on a CO Line.

1. Press the **[REDIAL]** button.
2. Replace the handset or go on-hook.
3. The system will automatically retry the call at programmed intervals.
4. When the called party answers, lift handset or press **[MUTE]** button to make the call.

To cancel.

Press the flashing **[REDIAL]** button. Or, Lift handset or press **[MUTE]** button while a CO Line is seized to make ACNR.

Condition

1. A DKTU which doesn't have **[REDIAL]** button, should be programmed with a **[REDIAL]** Flexible Button to use ACNR.
[TRANS/PGM] + Flex. FLEX + [TRANS/PGM] + 9 7 + [HOLD/SAVE] (2/8 Button only)
2. The analog CO Lines in the system should be equipped with Call Progress Tone detection Units (CPTU)
3. When predefined CO Line is busy in ACNR mode, an available CO Line in the same group will be seized.

Admin Programming

- n ACNR Pause Timer **4.5.1.10 (PGM 180 – FLEX 10)**
- n ACNR Delay Timer **4.5.1.8 (PGM 180 – FLEX 8)**
- n ACNR Tone Detect Timer **4.5.1.13 (PGM 180 – FLEX 13) – applicable to analog CO Line only**
- n ACNR No Answer Timer **4.5.1.9 (PGM 180 – FLEX 9)**
- n ACNR Retry Counter **4.5.1.11 (PGM 180 – FLEX 11)**
- n ACNR Tone Cadence **4.14.1 (PGM 423)**

2.2.8.2 Last Number Redialing

Description

The last dialed number with CO Line can be stored (up to 48 digits) in the station's Last Number Redial buffer. The user may request the system redial the last number without redialing the full number. Each DKTU with LCD in the system has 10 individual last dialed number directory.

Operation

To use Last Number Redial at DKTU,

1. Lift the handset or press the **[MON]** button.
2. Press the **[REDIAL]** button. Or, press the **[SPEED]** button and dial *.
3. Press **[HOLD/SAVE]** button.

To use one of dialed number in the Last Number Directory by scrolling at DKTU with LCD,

1. When last dialed number is displayed, press **[UP]** or **[DOWN]** button to find a phone number. (Max. 10 last dialed number can be stored in the directory)
2. To make a call, press **[HOLD/SAVE]** button when the phone number is displayed.

To use Last Number Redial at SLT,

1. Lift handset on the SLT.
2. Dial **5 5 2**(see Ref.1). Or, press the **[REDIAL]** button on the SLT.

Condition

1. When the used CO Line is busy, an idle CO Line in the group is seized and the last dialed number is dialed.
2. The last dialed number directory allows a duplicated phone number.
3. If you use Last Number Redial while the Auto-redial is activated, the auto-redial is canceled.

Reference

1. SLT Last Speed Dial Code : 3.6.7 (PGM 106 – FLEX 9)

2.2.8.3 Save Number Redialing

Description

Any dialed number can be saved temporarily and used at any time. This number is saved until a new number is stored.

Operation

To save a number in the Save Number Redial buffer from a DKTU,

1. Press the **[SPEED]** button twice, while conversation with external party.
2. Replace the handset and go on-hook.

To dial a number from the Save Number Redial buffer from a DKTU.

1. Lift the handset or press the **[MON]** button.
2. Press the **[SPEED]** button.
3. Dial # button.

Condition

1. When the used CO Line is busy, an idle CO Line in the group is seized and the saved number is dialed.
2. The stored save number is not deleted at when the system power is off.
3. If you press **[SPEED]** button twice after seizing a CO Line with dialing and go idle state, the save number redial bin will be erased.

2.2.8.4 Station Speed Dialing

Description

A DKTU user can store frequently used station number to station Speed Bin(000~099) up to 100. Station numbers are saved up to 24 digits including pauses, Flash commands, pulse-to-tone switchover, and no-display characters. A pause is automatically inserted after a flash. The station speed bin numbers of IP LDK-20 is 500.

Operation

To make a call using Station Speed Dial from a DKTU.

1. Lift the handset or press the **[MON]** button.
2. Press the **[SPEED]** button.
3. Dial the station speed dial bin (000~099)

To store Station Speed Dial numbers from a DKTU.

1. Press the **[TRANS/PGM]** button.
2. Press the **[SPEED]** button.
3. Dial the station speed dial bin (000~099)
4. If desired, press the CO Line or group button.
5. Dial the desired telephone number and include these special codes:

[CALLBK] – Insert Pause

‘*’ – Display Security.

If it is stored as the first digit, its function is Display Security. Otherwise, its function is Pulse to DTMF Switchover.

[DND/FOR] – If CO Dial Tone Detect(see Ref.1) is set to ON and it is stored as the first or second digit and the seized CO Line is behind PBX mode, its function is Dial Tone Detect. Otherwise, its function is ‘*’.

[FLASH] – Inserts a Flash into the speed number.

If seized CO Line is analog line, its function is Flash to PX (or PBX). If seized CO Line is ISDN(2.14) line and it is stored as the first digit, it makes remaining digits sent with enveloped not in calling party number IE but in keypad facility IE

6. Press the **[HOLD/SAVE]** button.

7. If desired, enter the name (Max. 12 characters) by dialing 2-digit for each character.
8. Press the **[HOLD/SAVE]** button.
 - *. To store continuously, repeat the above procedure from 3.

To delete a Station Speed Dial bin,

1. Press the **[TRANS/PGM]** button.
2. Press the **[SPEED]** button.
3. Dial the speed bin number to be erased.
4. Press the **[HOLD/SAVE]** button. Then, the stored speed number is erased in the speed bin.

To display and enter a speed dial bin by scrolling,

1. Press the **[TRANS/PGM]** button.
2. Press the **[SPEED]** button.
3. Dial the speed bin number.
4. Press the **[UP]** or **[DOWN]** key to display the next/previous speed dial number.

To store Station Speed Dial numbers from a SLT,

1. Lift the handset.
2. Dial the Speed Dial program code **5 5 5**(see Ref.2)
3. Dial the Speed Dial bin number (000~099).
4. Dial the desired phone number (max.24 digits)
5. Press and release the hook-switch.

To make a call using Station Speed Dial from a SLT,

1. Lift the handset.
2. Dial the Speed Dial access code **5 5 8**(see Ref.3)
3. Dial the Station Speed dial bin (000~099)

To delete a Station Speed Dial from a SLT,

1. Lift the handset.
2. Dial the Speed Dial access code **5 5 5**(see Ref.2)
3. Dial the Station Speed dial bin (000~099)
4. Press and release the hook-switch.

Condition

1. CPTU should be installed to detect dial tone.
2. The Station Speed Dial is secured in data protect mode when the power is off.
3. There can be max. 24 digits in a station speed dial number including some digits and special function codes.
4. If you dial an empty station speed bin, error tone will be heard.
5. If you select a CO Line before dialing speed bin number, the selected CO Line is used though there is programmed CO Line in the speed bin number.
6. You can program a station name (max. 7 characters) in the DKTU to be presented instead of station number. The name is programmed in the speed bin 000. When the station name is programmed, the speed bin is not used as a station speed bin.

Reference

1. CO Dial Tone Detect : 4.4.1.6 (ADMIN 160 – FLEX 6)
2. Speed Dial program code : 3.6.7 (ADMIN 106 – FLEX 12)
3. Speed Dial access code : 3.6.7 (ADMIN 106 – FLEX 15)

Admin Programming

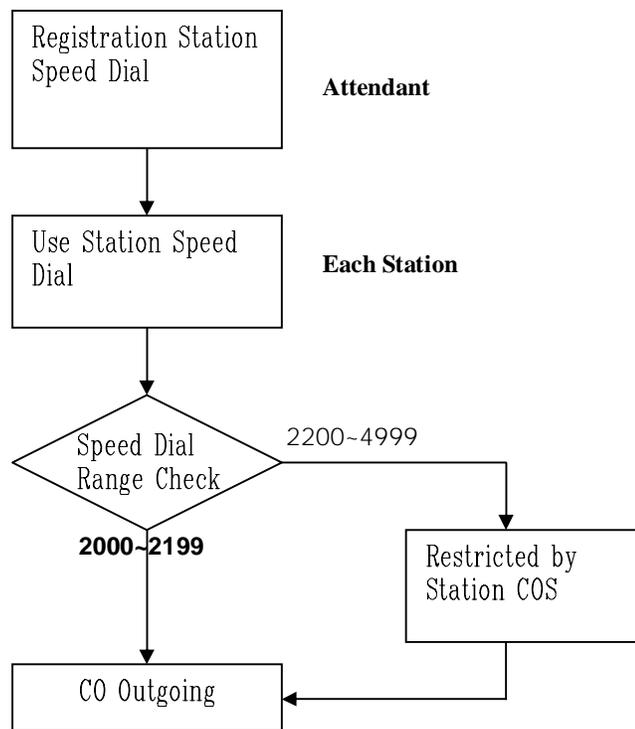
- n Speed Dial Access 4.1.3.9 (PGM 112 - FLEX 9)
- n CO Dial Tone Detect 4.4.1.6 (PGM 160 – FLEX 6)

2.2.8.5 System Speed Dialing

Description

The system speed dial bins are programmed by system attendant. These numbers are available for easy access by all stations allowed in the system. Max. system speed dial capacity is 500 in IP LDK-20.

[Flow chart]



| Speed Dial Range | Description |
|------------------|---------------------------|
| 2000 ~ 2199 | Unrestricted |
| 2200 ~ 2499 | Restricted by Station COS |

Station COS

| | |
|-------|---|
| COS 1 | There is no restriction to dial. |
| COS 2 | Monitored by Exception Table A. |
| COS 3 | Monitored by Exception Table B. |
| COS 4 | Monitored by Exception Table A & B. |
| COS 5 | Long distance call is not allowed. (The dialed digits can be longer than 7 digits) |
| COS 6 | Long distance call is not allowed. Only max. 7 digits may be dialed. |
| COS 7 | Only intercom, paging and emergency call are allowed. No dialing allowed on CO Lines. |

Operation

To store a number in a System Speed Dial from the system attendant,

1. Press the **[TRANS/PGM]** button.
2. Press the **[SPEED]** button.
3. Dial the system speed dial bin.
4. If desired, press the CO Line or Group button.
5. Dial the desired phone number and include these special codes.(max. 24 digits)

[CALLBK] – Insert Pause

‘*’ – Display Security.

If it is stored as the first digit, its function is Display Security. Otherwise, its function is Pulse to DTMF Switchover.

[DND/FOR] – If CO Dial Tone Detect (see Ref.1) is set to ON and it is stored as the first or second digit and the seized CO Line is behind PBX mode, its function is Dial Tone Detect. Otherwise, its function is ‘*’.

[FLASH] – Inserts a Flash into the speed number.

If seized CO Line is analog line, its function is Flash to PX (or PBX). If seized CO Line is ISDN(2.14) line and it is stored as the first digit, it makes remaining digits sent with enveloped not in calling party number IE but in keypad facility IE

6. Press the **[HOLD/SAVE]** button.
7. If desired, enter the name (Max. 12 characters) by dialing 2-digit for each character.
8. Press the **[HOLD/SAVE]** button.

* **Note:** To store continuously, repeat the above procedure from 3.

To make a call using System Speed Dial from a DKTU,

1. Lift the Handset or press the **[MON]** button.
2. Press the **[SPEED]** button.
3. Dial the System Speed Dial bin.

To make a call using System Speed Dial from a SLT,

1. Lift the handset.
2. Dial the Speed Dial access code : **5 5 8**(see Ref.2).
3. Dial the System Speed dial bin.

Condition

1. The CPTU should be installed for dial tone detect.
2. System Speed Dial is restricted by Station COS.
3. There can be max. 24 digits in a system speed dial number including some digits and special function codes.

4. If you dial an empty system speed bin, error tone will be heard.
5. If you select a CO Line before dialing system speed bin number, the selected CO Line is used though there is programmed CO Line in the system speed bin number.
6. If all CO Lines in the group are busy, busy tone will be received when accessing a system speed number.
7. System Speed numbers are protected when the system power is off.

Reference

1. CO Dial Tone Detect : **4.4.1.6** (ADMIN 160 – FLEX 6)
2. Speed Dial access code : **3.6.7** (ADMIN 106 – FLEX 15)

Admin Programming

- n Speed Dial Access **4.1.3.9** (PGM 112 – FLEX 9)
- n System Speed Zone Access **4.11.5** (PGM 232)
- n CO Dial Tone Detect **4.4.1.6** (PGM 160 - FLEX 6)

2.2.9 Private Line

Description

CO Lines in the system can be assigned for exclusive use by one or more DKTU users. Private lines are assigned to CO Line Group 00 and an appearance (Flexible CO button) is required at the DKTU. (Loop or Pool keys cannot be used)

Operation

A private line will operate as a normal CO Line except access is limited to assigned stations.

Condition

1. Private line cannot be picked up.

Admin Programming

- n CO Line Group **4.2.2.1** (PGM 141 – FLEX 1)

2.3 Rerouting feature

2.3.1 Call Forward

Description

A station user can forward calls to any station, station group or VMIB in the system, by activating feature codes. Figure 2.3.1 Describes destination types of Call Forwarding. Each Call forwarding is decided by Call Forward type.

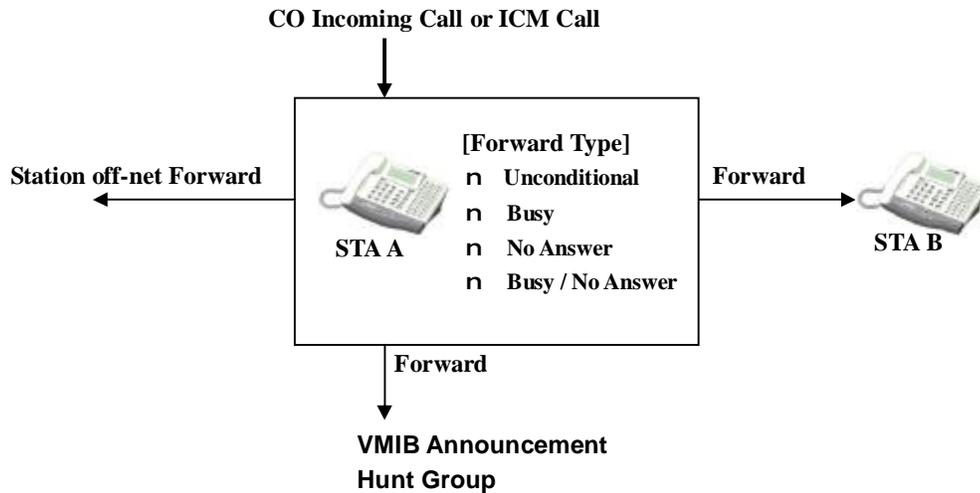


Figure 2.3.1 Call Forwarding



Figure 2.3.2 Forwarded, Forwarding, Forwarded-to stations

Condition

1. To use Call Forward, a station should be permitted at ADMIN programming.
2. There're several types of call forwarding ; Unconditional, Busy, No Answer, Busy/No Answer, Unconditional Station Off-net Call Forward, No Answer Station Off-net Call Forward, Incoming CO Off-net Call Forward and Follow Me Call Forward.
3. To deactivating Call Forward, set call forward type # which means to remove call forward setting.

Admin Programming

- n Allow Off-net FWD 4.1.2.18 (PGM 111 – FLEX 18)
- n Authorization Code Table 4.10.1 (PGM 227)

2.3.1.1 Call Forward, Unconditional

Description

A user forwards all calls immediately to other station, Hunt Group or VMIB.

Operation

To activate Unconditional Call Forward.

1. Lift the Handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Code 1.
4. Dial station or group pilot number to receive the calls.
5. Replace the handset and go on-hook.

To assign {CALL FORWARD} button at a flexible button.

1. Press the **[TRANS/PGM]** button.
2. Press a flexible button.
3. Press the **[DND/FOR]** button.
4. Assign Call Forward Type (1)
5. Dial the destination to receive the call.
6. Press the **[HOLD/SAVE]** button.

To deactivate Call Forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Cancel Code #.

2.3.1.2 Call Forward, Busy

Description

When the station user's line is busy.

Operation

To make call forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial a Call Forward type code: **2**
4. Dial station, group number or # (VMIB) to receive the call.

To assign {CALL FORWARD} button at a flexible button.

1. Press the **[TRANS/PGM]** button.
2. Press a flexible button.
3. Press the **[DND/FOR]** button.
4. Assign Call Forward Type (**2**)
5. Dial the destination to receive the call.
6. Press the **[HOLD/SAVE]** button.

To activate Call Forward.

1. Press the assigned flexible button.
2. The LED of **[DND/FOR]** button is flashing and the function assigned to the flexible button is activated.

To activate Call Forward to VMIB.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Code (1~4)
4. Dial VMIB selection code # to receive the call.
5. Replace the handset and go on-hook.

To deactivate Unconditional Call Forward.

1. In idle state;
Press **[DND/FOR]** button.
2. In off-hook state,
Press **[DND/FOR]** button and dial #.

To deactivate Call Forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Cancel Code #.

2.3.1.3 Call Forward, No Answer

Description

When the station user does not answer within a predetermined timer.
(Call Forward No Answer Timer **4.5.2.1 (ADMIN 181 – FLEX 1)**)

Operation

To make call forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial a Call Forward type code: **3**
4. Dial station, group number or VMIB number to receive the call.

To assign {CALL FORWARD} button at a flexible button.

1. Press the **[TRANS/PGM]** button.
2. Press a flexible button.
3. Press the **[DND/FOR]** button.
4. Assign Call Forward Type (**3**)
5. Dial the destination to receive the call.
6. Press the **[HOLD/SAVE]** button.

To activate Call Forward.

1. Press the assigned flexible button.
2. The LED of **[DND/FOR]** button is flashing and the function assigned to the flexible button is activated.

To deactivate Call Forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Cancel Code #.

2.3.1.4 Call Forward, Busy/No Answer

Description

A user can direct the system to re-route call to other station, group or VMIB when the user's station is busy and/or does not answer in a predefined 'No Answer' time. Incoming CO Line, transferred CO Line and ringing Intercom calls are forwarded.

Operation

To make call forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial a Call Forward type code: **4**
4. Dial station, group number or VMIB number to receive the call.

To assign {CALL FORWARD} button at a flexible button.

1. Press the **[TRANS/PGM]** button.
2. Press a flexible button.
3. Press the **[DND/FOR]** button.
4. Assign Call Forward Type (**4**)
5. Dial the destination to receive the call.
6. Press the **[HOLD/SAVE]** button.

To activate Call Forward.

1. Press the assigned flexible button.
2. The LED of **[DND/FOR]** button is flashing and the function assigned to the flexible button is activated.

To deactivate Call Forward.

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Cancel Code #.

2.3.1.5 Call Forward, Station Off-net (Unconditional, No answer)

Description

Stations allowed call forward access can forward intercom and transferred CO Line calls to a directory number (telephone number) outside of the system. When a call is received, the system will access an outgoing CO Line and dial the telephone number entered by the user.

If a station assigned off-net call forward received a call from internal caller and external caller, the call is forwarded to off-net unconditionally (Code 5) or after No Answer Ring timer is expired (Code 6)

Operation

To activate unconditional Off-Net Call Forward,

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Code **5**.
4. Seize a CO Line, if required.
5. Dial the Speed Dial bin number with the desired phone number.
6. Replace the handset and go on-hook.

To activate no answer off-net call forward,

1. Lift handset or press **[MON]** button.
2. Press **[DND/FOR]** button.
3. Dial Call Forward Code **6**.
4. Seize a CO Line, if required.
5. Dial a speed bin number with the desired phone number.
6. Replace the handset and go on-hook.

To deactivate Call Forward,

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Cancel Code #.

2.3.1.6 Call Forward, Incoming CO Off-net (ATD only)

Description

The system attendant can direct the system to re-route(forward) incoming CO Line calls to a directory (telephone) number outside the system. When a call is received, the system will access an outgoing CO Line and dial the telephone number assigned by the attendant. Note that the system will automatically disconnect the call after the Unsupervised Conference Timer has expired.

| Field | Access code |
|-----------------------|-------------|
| CO Group Access | 801~808 |
| Individual CO Access | 88XX |
| Retrieve Held CO Line | 8* |

Operation

To activate Follow-me Call Forward from any station,

1. Lift the handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward code '7'.
4. Dial CO Line/group access code (9, 801-8xx, 8801-88xx, or 8* for all CO Lines) or press {CO Line} button.
5. Dial the Speed Dial bin number with the desired telephone number.
6. Replace the Handset and go on-hook.

To deactivate CO Line Off-Net Call Forward from the attendant;

1. Lift the Handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward code '7'.
4. Dial CO Line/group access code (9, 801-8xx, 8801-88xx, or 8*) or press **{CO Line}** button.
5. Dial #.

Condition

1. If there is no idle CO Line, Off-net Call Forward is not activated.
2. This feature is not applicable for DID line.
3. It is unconditional and forwarded immediately when the CO Line rings in the system.
4. If a speed bin is programmed in a Flexible button, you may press the Flexible button instead of 5. dialing the speed bin number.
5. Toll restriction will be based on the COS of outgoing CO Line. But, it doesn't care CO authorization code.

2.3.1.7 Call Forward, Follow Me**Description**

Follow-Me Call Forward can be activated at the user's station or from any other station in the system allowed access to Call Forward. It must be programmed from the station that you will be forwarded to and a user password must be entered at the user's station first.

Operation

To activate Follow-me Call Forward from any station,

1. Lift the Handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Code '0'.
4. Dial forwarding station number.
5. Dial forwarding station authorization code.
6. Replace the Handset and go on-hook.

To deactivate Follow-me Call Forward from the station,

(only the user's station, not at any other station)

1. In idle state;
Press the **[DND/FOR]** button.
2. In off-hook state,
Press the **[DND/FOR]** button and dial #.

To register the authorization code in a station

1. Press **[TRANS/PGM]** button.
2. Dial 31 and Enter desired Authorization Code
3. Press **[HOLD/SAVE]** button to Save.

Condition

1. Authorization code should be registered to use Follow-me Call Forward.

Admin Programming

- n Allow Off-net FWD 4.1.2.18 (PGM 111 – FLEX 18)
- n Authorization Code Table 4.10.1 (PGM 227)
- n Call Forward 4.1.2.2 (PGM 111 – FLEX 2)
- n Call Forward No Answer Timer 4.5.2.1 (PGM 181 – FLEX 1)
- n Off-net Call Mode 4.1.3.12 (PGM 112 – FLEX 12)
- n Unsupervised Conference Timer 4.5.3.6 (PGM 182 – FLEX 6)

2.3.1.8 SLT Call Forward

Description

A user of single line telephone can forward a call to other stations, CO Lines or VMIB in the system.

Operation

To activate call forward from a SLT,

1. Lift the handset.
2. Dial call forward code **5 5 4** (see Ref.1)
3. Dial call forward type.
4. Dial station number or Group speed number to receive call. Or, press **#** key to forward to VMIB.
5. Replace the handset and go on-hook.

To deactivate call forward from a SLT,

1. Lift the handset.
2. Dial call forward code **5 5 4** and **#**. Or, dial **5 5 9**(see Ref.2)
3. Confirmation tone is heard and replace the handset.

Condition

1. Call forward is maintained until it is released.
2. A call cannot be forwarded to a station which is in DND. When trying to forward to the station, error tone will be heard.
3. A call forwarding station cannot make a message wait.
4. The call forward feature may be canceled by code **5 5 9**. It is unified cancel code for DND/Call Forward/Message for SLT.
5. Dial pulse SLT cannot be forwarded to VMIB.

Reference

1. Call forward Code : 3.6.7 (ADMIN 106 – FLEX 11)
2. DND/FWD Cancel Code : 3.2.7 (ADMIN 106 – FLEX 16)

Admin Programming

- n Call Forward **4.1.2.2 (PGM 111 – FLEX 2)**
- n VMIB Access **4.1.4.2 (PGM 113 – FLEX 2)**

2.3.1.9 Preset Call Forward**Description**

When a station receives incoming CO Call and the station is programmed to Preset Call Forward, the call is routed to Preset Call Forward destination if the station does not answer within Preset Call Forward Timer.

The destination can be other station or hunt group.

Condition

1. In Preset Call Forward, a busy station will not receive a CO Line ring and the next assigned station will receive the CO Line ring. If the station is not forwarded to other destination, then the call will not be forwarded and continue to ring at the station until answered.
2. The loop of Preset Call Forward is not available. (A→B→ C→ A)
3. When a CO Line is forwarded with Preset Call Forward, the original station will stop ringing. (The LED of **{CO }** button will be flashing continuously)
4. If there is no direct **{CO}** button or **{LOOP}** button at destination station, the station will be bypassed.

Admin Programming

- n Preset Call Forward **4.1.12 (PGM 121)**
- n Preset Call Forward Timer **4.5.2.12 (PGM 181 – FLEX 12)**

2.3.1.10 DID/DISA Reroute Destination (UK only)

Description

DID calls can be rerouted by no answer forward/CCR. In this case, if rerouted destination is busy/no answer/error case, calls follows by second reroute destination(PGM 167-Flexible button5,6,7)

Condition

1. This feature is only for UK.

2.3.2 Call Transfer

Description

An Intercom Call or CO Call can be transferred to other station or CO Line during conversation. There are 2 kinds of call transfer ; Screened Transfer and Unscreened Transfer. If the transferring user(originator) makes a conversation with transferred-to user(destination) before Call Transfer completed, it is Screened Transfer. Otherwise if the transferring user replaces the handset while listening ring back tone just after dialing transferred-to destination, it is Unscreened Transfer.

| Feature | Transferring method |
|--|--|
| Screened Transfer (With Announcement) | Transfer is completed after announcing the destination party. |
| Unscreened Transfer (Without Announcement) | Transfer is completed without an announcement. After dialing the destination, while hearing a ring back tone, the originator can replace the handset. |

Figure 2.3.2 Describes Transferred, Transferring, Transferred-to stations.



Figure 2.3.2-1 Transferred, Transferring, Transferred-to stations

2.3.2.1 Call Transfer to CO Line

Description

A station user may transfer connected Call to new CO Call. If an external party on ISDN does not answer the transferred call within Transfer Hold Recall time, the transferring station will receive recall ring. If the call remains unanswered, the attendant will receive recalling ring for Attendant Recall time. After that, the CO Line will be disconnected and returned to idle state.

Operation

Unscreened CO Line Call Transfer:

1. Press the [TRANS/PGM] button.
2. Intercom dial tone is heard and the previous call is placed on hold.
3. Seize a CO Line and dial the number of external party to receive the call.
4. Replace the handset and go on-hook.

Screened CO Line Call Transfer:

1. Press the [TRANS/PGM] button.
2. Intercom dial tone is heard and the previous call is placed on hold.
3. Seize a CO Line and dial the number of external party to receive the call.
4. When the called party answers, announce the call transfer.
5. Replace the handset and go on-hook.

Condition

1. For this feature, CO Lines (transferred CO Line and transferring CO Line) must be able to detect loop lost or disconnection condition.
2. If the transferred CO Line doesn't have answer information (analog CO), recalling will not be presented when it is not answered. And, the call will be disconnected after Unsupervised Conference timer.
3. If the transferred line is ISDN CO, recall ring will be presented to the CO Line after Transfer Hold Recall time while the line is released.
4. If you press the original incoming CO Line button while making transfer to an external number (Screened Transfer), the outgoing call is disconnected and the original incoming call is connected.

Admin Programming

- n Transfer Recall Timer **4.5.1.7 (PGM 180 – FLEX 7)**
- n I-Hold Recall Timer **4.5.1.5 (PGM 180 – FLEX 5)**
- n Attendant Recall Timer **4.5.1.1 (PGM 180 – FLEX 1)**
- n Open Loop Detect Timer **4.2.3.13 (PGM N 142 – FLEX 13)**
- n Unsupervised Conference timer **4.5.3.6 (PGM 182 – FLEX 6)**

2.3.2.2 Call Transfer to Station**Description**

A Call can be transferred to another station within the system. The transfer can be screened(announced) or unscreened to an idle/busy station or Hunt Group. The transferred call rings and provides Exclusive Hold flashing indication to the receiving party's DKTU.

If the receiving station does not answer the call in the Transfer Recall time, the transferring station and the transferred station will receive recall. If the call still remains unanswered, the attendant will also receive a recall for the Attendant Recall time. After that, the transferred call will be disconnected.

Operation

To transfer to an idle station,

To make an unscreened transfer,

1. Press the [TRANS/PGM] button.
2. Intercom dial tone is heard and the previous call is placed on exclusive hold.

3. Dial the station number to receive the transfer.
4. Replace the handset or go on-hook.

To make a screened transfer by DKTU,

1. Press the **[TRANS/PGM]** button.
2. Intercom dial tone is heard and the previous call is placed on exclusive hold.
3. Dial the station number to receive the transfer.
4. When the station answers, announce transfer.
5. Replace the handset or go on-hook.

To transfer to a busy station,

1. Press the **[TRANS/PGM]** button.
2. The CO Line is automatically placed on exclusive hold and ICM busy tone is heard.
3. The transferred station will receive muted transferred CO Line ring.
4. If the call is not answered within Transfer Recall time, the CO Line will be recalled to the transferring station and the attendant will receive recall ring if the call remains unanswered.

To make an unscreened transfer by SLT

1. Press and release the hook-switch and intercom dial tone is heard.
2. The CO Line is placed on exclusive hold and the Transfer Recall timer is activated.
3. Dial the station number to be transferred.
4. Replace the handset and go on-hook.

To make a screened transfer by SLT

1. Press and release the hook-switch and intercom dial tone is heard.
2. The CO Line is placed on exclusive hold and the Recall timer is activated.
3. Dial the station number to be transferred.
4. When the station answers, announce transfer.
5. Replace the handset and go on-hook.

Condition

1. When the attendant has a DSS and a station of programmed in DSS receives transferred call, the LED of DSS button in attendant will flashing.
2. When the SLT user is in the screened transfer mode and tries to converse both transferred station and CO Line, the user can activate brokers call with hook-flash.
3. It is impossible to transfer a call to another busy SLT from a SLT. When receiving busy tone, SLT user can be connected to the CO Line with hook-flash.

Admin Programming

- n Transfer Recall Timer **4.5.1.7 (PGM 180 – FLEX 7)**
- n I-Hold Recall Timer **4.5.1.5 (PGM 180 – FLEX 5)**
- n Attendant Recall Timer **4.5.1.1 (PGM 180 – FLEX 1)**
- n No Touch Answer **4.1.2.7 (PGM 111 – FLEX 7)**

2.3.3 Holding and Parking

Description

A station user can hold a call. The following features are available depending on the result.

| Feature | Description |
|-----------------------|--|
| System Hold | Any Station can retrieve a held call. Other station in the group can seize the CO Line and answer. |
| Exclusive Hold | Only the station user who held the call can retrieve it. Other station in the group cannot seize the CO Line. |

The result of the holding operation can be determined by ADMIN programming.

2.3.3.1 Hold

Description

There are 2 kinds of Hold ; System Hold and Exclusive Hold.

If a Call is held by System hold, the call may be retrieved by any station. Otherwise if it is held by Exclusive Hold, only the station who has held the call can retrieve.

Operation

To make a CO Line on Exclusive/System Hold from a DKTU,

Press the [HOLD/SAVE] button once or twice. (It depends on Hold Preference)

To make a CO Line on Exclusive/System Hold from a SLT (depends on Hold Preference)

Make hook-flash and dial 5 6 0(System Hold Code (Ref.1))

To access a CO Line on Exclusive/System Hold from the holding DKTU,

1. Lift the handset.
2. Press the {CO} button.
3. Or dial **8 #** and the CO Line number(Access Held Individual CO Line Code (Ref.2))

To access a CO Line on Exclusive/System Hold from the holding SLT,

1. Lift the handset.
2. Dial **8 • (Access Held CO Group Code (Ref.3))**

Condition

1. The CO Line placed on Exclusive Hold will flash in the station and the LED of CO Line will light in other stations.
2. The CO Line placed on System Hold will flash in all stations.
3. When Exclusive Hold is set in a station, Exclusive Hold Recall Timer is initiated. After Exclusive Hold Recall Timer is expired, the original station will receive recall for I-Hold Recall Timer. Also, When System Hold is set in a station, System Hold Recall Timer is initiated. After System Hold Recall Timer is expired, the original station will receive recall for I-Recall Timer.
4. When the I-Hold Recall Timer is expired, attendant will also receive a recall for Attendant Recall Timer. If the call remains unanswered for Attendant Recall time, the call is disconnected.

Reference

1. System Hold Code : 3.6.7 (ADMIN106 – FLEX 17)
2. Held Individual CO Line Code : 3.6.7 (ADMIN107 – FLEX 11)
3. Access Held CO Group Code : 3.6.7 (ADMIN107 – FLEX 10)

Admin Programming

- n Hold Preference **4.4.1.8 (PGM 160 – FLEX 8)**
- n Attendant Recall Timer **4.5.1.1 (PGM 180 – FLEX 1)**
- n Exclusive Hold Recall Timer **4.5.1.4 (PGM 180 – FLEX 4)**
- n I-Hold Recall Timer **4.5.1.5 (PGM 180 – FLEX 5)**
- n System Hold Recall Timer **4.5.1.6 (PGM 180 – FLEX 6)**
- n Transfer Recall Timer **4.5.1.7 (PGM 180 – FLEX 7)**

2.3.3.2 Hold Preference**Description**

Preferred Hold type is set by ADMIN programming. When user presses **[HOLD]** button, the preferred type of Hold is activated. If the user presses **[HOLD]** button twice, the other type is activated.

That is, if System Hold is set as preferred Hold and the user held the call by pressing **[HOLD]** button once, the call can be retrieved by any user who access the held call. Otherwise System Hold is set as preferred hold and the original user held the call by pressing **[HOLD]** button twice, the hold type is Exclusive at this time and other users are not permitted to access the held call.

Operation

1. If System Hold is set as preferred Hold and the user presses the held the **[HOLD]** button once, the call is held by System Hold (Ref.1).
2. If System Hold is set as preferred Hold and the user presses the held the **[HOLD]** button twice, the call is held by Exclusive Hold (Ref.1).
3. When the Exclusive Hold is assigned, other station in the group cannot seize the held call.
4. When the System Hold is assigned, other station in the group can seize the held call and answer.

Reference

1. System Hold / Exclusive Hold : 2.3.3.1

Admin Programming

- n Hold Preference **4.4.1.8 (PGM 160 – FLEX 8)**

2.3.3.3 Automatic Hold

Description

When a station is connected to a CO Call, the station user can make another intercom call just by pressing DSS button. In this case, the previous CO Call is held automatically.

It is also able to applied to CO Call to CO Call. That is, when a station user makes another CO call by pressing **{CO}** button without disconnecting previous CO Call, the previous Call is holed by Auto Hold ADMIN programming. The held CO line follows preferred hold type by ADMIN programming.

Operation

To use Automatic Hold while on a CO Line call.

1. Press a **{CO}** button.
2. When the new CO Line is connected, the previous CO Call is placed on preferred hold state.

Admin Programming

n Automatic Hold **4.1.3.2 (PGM 112 – FLEX 2)**

n Hold Preference **4.4.1.8 (PGM 160 – FLEX 8)**

2.3.3.4 Park

Description

A user can park a call in a virtual location. The user may make a page announcement for the desired user to pick-up the parked call. The call retrieve the call by dialing the location number. If the station neither have the **{CO}** button nor **{LOOP}** button, the user cannot retrieve.

If the call remains unanswered for the Call Park Recall time, the original station which parking the call receives recall. If the call is still unanswered, then the attendant will receive recall at this time. If attendant doesn't answer again in the Attendant Recall time, the CO Line call will be disconnected and returned to idle.

Operation

To park a call.

1. Press the **[TRANS/PGM]** button.
2. Dial the parking location 601~608(Call Park Location Code (Ref.1))
3. Replace the handset or go on-hook
4. If desired, page to the desired user to retrieve the call.

To retrieve the parked call from a DKTU.

1. Lift the Handset or press the **[MON]** button.
2. Dial the parking location to retrieve the parked call.

Condition

1. To receive the parked call, the station should have **{CO}** button or **{LOOP}** button.

Reference

1. Call Park Location Code : 3.6.7 (ADMIN107 – FLEX 5)

Admin Programming

- n Call Park Recall Timer **4.5.1.2 (PGM 180 – FLEX 2)**

2.3.4 Pickup

Description

A station user can pick up other station's call.

In intercom Calls, incoming CO Calls, recalling CO Calls and transferred CO Calls can be picked up instead of the ringing station.

The following pick-up types are available.

| Type | Description |
|------------------------------|---|
| Directed Call Pick up | To pick up a call ringing at other station within accessible Intercom Tenancy Group (Ref.1) |
| Group Call Pick up | To pick up a call ringing other station in the same pick-up group (Ref.2) |

Reference

1. Intercom Tenancy Group : 2.4.15
2. Pick up Attribute : 4.6.1.2

2.3.4.1 Directed Call Pick Up

Description

A station can pick up a call ringing other station by dialing the direct call pick up code (Ref.1) and the ringing station number.

Operation

To answer a call ringing at another station,

1. Lift the handset or press the **[MON]** button.
2. Dial Direct Call Pick-up code **7** (Ref. 1). Or, press **{Direct Call Pick-up}** button.
3. Dial the intercom number of the ringing station.

Condition

1. To assign **{DIRECT CALL PICK-UP}** button at a flexible button, **[TRANS/PGM] + FLEX button + '7' + [HOLD/SAVE]**
2. You should have a **{CO Line}** button, **{POOL}** button or **{LOOP}** button to pick up a CO Line call.
3. When several calls are queued at a station or hunt group, the pick-up depends on the Pick-up Priority (ADMIN 173)
4. Queued callback and private line cannot be picked up.
5. An intercom call to 'H' or 'P' mode station cannot be picked up.
6. When the same type of CO Lines are queued, the first queued CO Line is picked up.
7. Direct call pick-up is allowed within the intercom tenancy group. A station cannot pick up any call to the station which belongs to denied intercom tenancy group (ADMIN 120)
8. A station can answer an intercom call placed to an ICM box using directed call pick-up.

Reference

1. Intercom Tenancy Group : 2.4.15
2. Pick up Attribute : 4.7.1.2
3. Direct Call Pick up Code : 3.6.7 (ADMIN107 – FLEX 6)

Admin Programming

n PLA Priority Setting **4.4.14 (PGM 173)** - Pick-up Priority

2.3.4.2 Group Call Pick Up**Description**

A station can pick up a call ringing at other station in the same pick-up group. Ringing intercom calls, incoming CO Lines, recalling CO Lines and transferred CO Lines can be answered by a station instead of the ringing station if the stations belong to the same pick-up group (Ref.1)

Operation

To answer a call ringing at a station in your Pick-up group,

1. Lift the handset or press the **[MON]** button.
2. Dial Group Pick-up code **5 6 6** (Ref.2)

Condition

1. To assign **{GROUP CALL PICK-UP}** button at a flexible button, **[TRANS/PGM] + FLEX + 5 6 6** (Ref.2) + **[HOLD/SAVE]**
2. An intercom call to 'H' or 'P' mode station cannot be picked up.
3. You should have **{CO Line}** button, **{LOOP}** or **{POOL}** button to pick-up a CO Line call.
4. Queued callback and private line cannot be picked up.
5. A station can answer an intercom call placed to an ICM box using group call pick-up.
6. When several calls are queued at a station or hunt group, the pick-up depends on the Pick-up Priority (ADMIN 173).
7. When the same type of CO Lines are queued, the first queued CO Line is picked up.
8. Group call pick-up is allowed within the intercom tenancy group. A station cannot pick up any call to the station which belongs to denied intercom tenancy group (Ref.3)

Reference

1. Pick up Attribute : 4.6.1.2
2. Group Call Pick Up Code : 3.6.7 (ADMIN107 – FLEX2)
3. Intercom Tenancy Group : 2.4.15

Admin Programming

n Pick-up Attribute **4.6.1.2 (PGM 190 – FLEX 2)**
n Pick-up Group Attributes **4.6.2.5 (PGM 191)**
n PLA Priority Setting **4.4.14 (PGM 173)** - Pick-up Priority

2.4 Call Handling

2.4.1 Absent Text Message

Custom Message

Description

Each station can select from ten(11~20) possible custom message to display on the LCD of DKTU. These messages are programmed from the system attendant(see Ref.1) for system-wide use. Individual users may program message 00 as it's own custom message. When set, the chosen message is displayed on LCD of the caller.

Operation

To program Custom Message 00 from a station,

1. Press the **[TRANS/PGM]** button.
2. Dial **5 2**. (see Ref.2)
3. Enter the message (see Figure 2.4.1).
4. The message can be entered up to 24 characters.
5. Press the **[HOLD/SAVE]** button and confirmation tone is heard.

| | | |
|------------|--------|--------|
| Q - 11 | A - 21 | D - 31 |
| Z - 12 | B - 22 | E - 32 |
| . - 13 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 7* | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| *1 - Blank | | |
| *2 - : | 0-00 | # |
| *3 - , | | |

Figure 2.4.1 Entering Character with Dial Pad

To program Custom Messages 11~20 from the system attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 5 3** and the message number (11~20)
3. Enter the message(see Figure 2.4.1)
4. The message can be entered up to 24 characters.
5. Press the **[HOLD/SAVE]** button and confirmation tone is heard.

To activate LCD Messages (Custom/Pre-selected) from a station or from the system attendant.

1. Press the **[TRANS/PGM]** button.
2. Dial **5 1**.
3. Dial the 2-digit message code 00 or 11~20.
4. Press the **[HOLD/SAVE]** button.

To cancel LCD Messages (Custom/Pre-selected) from a station.

1. Press the flashing **[DND/FOR]** button or, Press the **[TRANS/PGM]** button.
2. Dial **5 1** and **#**.
3. Press the **[HOLD/SAVE]** button.

To cancel LCD Messages (Custom/Pre-selected) from the system attendant.

1. Press the **[TRANS/PGM]** button.
2. Dial **0 5 2**.
3. Press the **[HOLD/SAVE]** button.

Reference

1. Attendant : 2.13
2. Numbering Plan : 5.1 (set custom message)

2.4.1.2 Pre-selected Message

Description

A user can select pre-assigned messages from 1 to 10 to be shown on the LCD of the calling party. Detail information is entered by each user (e.g. Time, Date or Station number)

The Pre-selected Messages are as follows:

- Message 01: LUNCH, RETURN AT HH:MM
- Message 02: ON VACATION /RETURN AT DATE MM:DD
- Message 03: OUT OF OFFICE/RETURN TIME HH:MM
- Message 04: OUT OF OFFICE/RETURN AT DATE MM:DD
- Message 05: OUT OF OFFICE/RETURN UNKNOWN
- Message 06: CALL: (Telephone No: Up to 17 digits)
- Message 07: IN OFFICE: STA XXXX
- Message 08: IN A MEETING/RETURN TIME HH:MM
- Message 09: AT HOME
- Message 10: AT BRANCH OFFICE

Operation

To program Custom Message 00 from a station.

1. Press the **[TRANS/PGM]** button.
 2. Dial **5 2**.(see Ref.2)
 3. Enter the message(see Figure 2.4.1)
 4. The message can be entered up to 24 characters.
 5. Press the **[HOLD/SAVE]** button and confirmation tone is heard.
-

To activate LCD Messages (Custom/Pre-selected) from a station or from the system attendant.

1. Press the **[TRANS/PGM]** button.
2. Dial **5 1**.
3. Dial the 2-digit message code 00 or 01~10.
4. Press the **[HOLD/SAVE]** button.

To cancel LCD Messages (Custom/Pre-selected) from a station.

1. Press the flashing **[DND/FOR]** button or, Press the **[TRANS/PGM]** button.
2. Dial **5 1** and **#**.
3. Press the **[HOLD/SAVE]** button.

Condition

1. If a station assigns call forward while pre-selected message is activated, the pre-selected message is canceled automatically(see Ref.1)
2. User can leave a message in DKTU and SLT. When leave a message in SLT, DND warning tone will be heard to notify it as soon as the handset is lifted.
3. When a pre-selected message is selected in a DKTU, the **[DND/FOR]** button will be flashing if exists.

Reference

1. Call Forward : 2.3.1
2. Numbering Plan : 5.1 (set custom message)

2.4.2 Alarm

Description

The system can be programmed to recognize the status of an external contact (normally open or closed) from a relay. When activated, the system will signal programmed stations with a single tone repeated per 1-min. interval or a continuous tone. This capability is commonly employed to provide remote alarm signals. When used as an alarm, the assigned stations receive the programmed signal. To stop the signal, the alarm should be deactivated (reset) from a station assigned to receive the alarm signal.

Operation

At detecting the Alarm contact, the system sends the appropriate alarm signal to assigned stations.

To terminate the alarm signal while idle status:

Dial **5 6 5** and confirmation tone is heard. The alarm signal is terminated at all assigned stations.

To reset alarm:

Clear the alarm condition and reset (terminate) the alarm signal. The proceeding steps can be done in any order to reset.

Condition

1. An external contact should be connected to the alarm input.
2. The alarm contacts should be "dry" (no voltage/current source connected).
3. SLT cannot receive alarm signal.
4. Alarm reset can be programmed in a flexible button.

Admin Programming

- n Alarm Enable **4.4.4.1 (PGM 163 – FLEX 1)**
- n Alarm Contact Type **4.4.4.2 (PGM 163 – FLEX 2)**
- n Alarm Mode **4.4.4.3 (PGM163 – FLEX 3)**
- n Alarm Signal Mode **4.4.4.4 (PGM 163 – FLEX 4)**
- n Station Alarm Attribute **4.1.4.10 (PGM 113 – FLEX10)**

2.4.3 Automatic Privacy

Description

By default, all conversation which take place on CO lines, intercom, and conference are protected by privacy(Automatic privacy)

Automatic privacy allows a station user to suspend automatic privacy for an existing CO line conversation without invitation.

ADMIN programming(ADMIN program 161 – FLEX 5) is required to enable or disable this feature.

If automatic privacy is set “enable” by ADMIN programming and press a busy CO line button, busy tone will be heard.

If automatic privacy is set “disabled” by ADMIN programming and press a busy CO line button, the station is connected to the conversation.

Condition

1. A station cannot override the other station during a conference though the privacy of conference station is disabled.
2. While Automatic Privacy is disabled, privacy is still assured for intercom and conference calls.
3. A station can only override privacy-disabled station.
4. the station is heard Intrusion tone when another station accesses the line.

Admin Programming

- n Auto Privacy 4.4.2.5 (PGM 161 – FLEX 5)
- n Privacy Warning Tone 4.4.2.6 (PGM 161 – FLEX 6)
- n Override Privilege 4.1.4.4 (PGM 113 – FLEX 4)

2.4.4 BGM (Background Music)

Description

A user can listen to BGM through the speaker while on-hook and idle.

Music from the source is heard over the station speaker and will be shut-off during ringing, paging announcement or when the station is off-hook.

Operation

To assign background music at a station,

1. Press the **[TRANS/PGM]** button.
2. Dial **7 3** and the music is heard.

To transmit a background music with external page port at attendant station,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 6** (External port)
3. Dial the background music channel number and the selected background music is heard.
4. Press the **[HOLD/SAVE]** button. After confirmation tone, the station will go to idle state and the selected background music is transferred to external port.

To transmit a background music through intercom box at attendant station,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 5**.
3. Dial the background music channel number and the selected background music is heard.
4. Press the **[HOLD/SAVE]** button. After confirmation tone, the station will go to idle state and the selected background music is transferred to intercom box.

Condition

1. When lifting handset or pressing **[MON]** button at a station, the music is not heard.
2. When an external music is assigned, the music source should be connected to MBU.
3. The same music source can be used with MOH.
4. Press the **[VOLUME]** button to adjust volume while the background music is heard.
5. The BGM may be blocked in an intercom box by pressing **[DND/FOR]** button.

Reference

1. MOH : 2.4.17

Admin Programming

- n Background Music Type **4.4.12.1 (PGM 171 – FLEX 1)**

2.4.5 Camp-on

Description

When a user calls a busy station, busy tone is heard and the user can give a signal to the busy station. The busy station (off-hook or on speakerphone) is notified of the call waiting by a camp-on tone and flashing LED of the **[HOLD/SAVE]** button.

A user of SLT(single line telephone) may notify a busy station that an outside CO call or internal call is waiting. The busy station is notified of the call by a camp-on tone.

Operation

To activate Call Wait while receiving intercom busy tone,

Dial • or the last digit of the busy station or press the busy DSS flexible button, or flexible button assigned as **{Camp-On}**

To answer a Call Wait while receiving intercom busy tone,

Press the **[HOLD/SAVE]** button, the active CO line is placed on exclusive hold and the call waiting is connected. By pressing **[HOLD/SAVE]** button, you can talk two parties in turns.

Ø In case of SLT

To activate Call Waiting while receiving intercom busy tone,

1. Off-hook and dial * or the last digit of the dialed station number.
2. Await answer to announce the call.
3. Or, replace the handset and go on-hook.

To answer the call waiting/camp-on,

1. A SLT station is busy and camp-on tone is heard.
2. Make hook-flash and dial **5 6 0**(System Hold Code : see Ref.1)
3. Then the SLT station is connected to the station which made call waiting/camp-on.
4. Make hook-flash and dial **5 6 0** again, then the station is connected to the original station.

Condition

1. To assign the **{Camp-On}** button at a flexible button,
[TRANS/PGM] + Flex. FLEX(to be assigned) + [TRANS/ PGM] + 8 5 + [HOLD/SAVE]
2. During a conference or paging, Call Waiting is not activated.(see Ref 2, Ref 3)
3. Camp-on is not applied to a station which is in DND.(see Ref.4)
4. The attendant can override a station using Camp-on feature.(see Ref.5)
5. If the 'Stop Camp-on Tone'(ADMIN program 112 – FLEX 15) is set to 'ENABLE', the camp-on tone will not be heard.

Reference

1. System Hold Code : 3.6.7(ADMIN 106 – FLEX 17)
2. Conference : 2.7
3. Paging : 2.8
4. DND : 2.4.9
5. Attendant Override : 2.13.5

Admin Programming

n Stop Camp-on Tone **4.1.3.15 (PGM 112 – FLEX 15)**

n Voice Over **4.1.4.6 (PGM 113 – FLEX 6)** : Voice over is also applied to SLT.

2.4.6 Change Ring Type

Description

The ring tone signal used to notify stations of an incoming call can be changed in ADMIN programming to provide distinctive ringing on per CO line basis. A distinctive ring tone can be programmed for each CO line that is used to ring each station.

| FLEX | ITEM | RANGE | DEFAULT | REAMRK |
|------|--------|-------------|----------------|-----------------|
| 1 | Ring 1 | 0000 - 9999 | T1: - T2: - | Nation specific |
| 2 | Ring 2 | 0000 - 9999 | T1: - T2: - | Nation specific |
| 3 | Ring 3 | 0000 – 9999 | T1: - T2: - | Nation specific |
| 4 | Ring 4 | 0000 – 9999 | T1: - T2: - | Nation specific |

(PGM 422) Button Configuration for Distinct Ring Frequency

Admin Programming

- n CO Distinct Ring 4.2.3.5 (PGM 142 – FLEX 5)
- n Ring Frequency 5.3.25 (PGM 422)

2.4.7 Data Line Security

Description

Once Data Line Security(ADMIN program 111 – FLEX 4) is set on a station, communication between the station and the other party is protected from signals such as overriding, Camp-on to the station(see Ref.1).

Modems and fax stations should usually be given this status.

[Example]

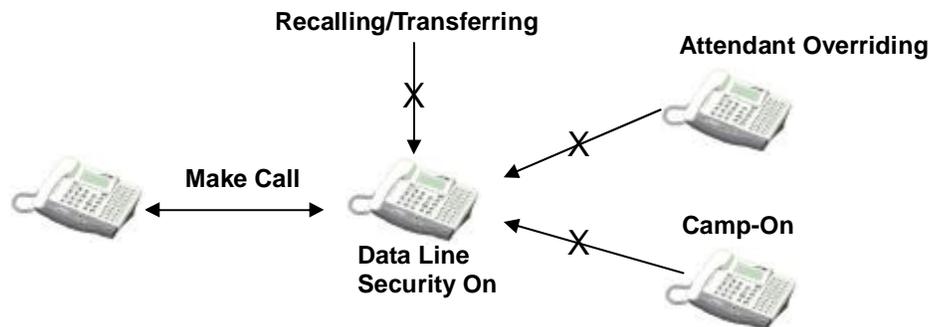


Figure 2.4.7 Data Line Security.

The figure 2.4.7 describes that the station which is set Data Line Security to ON can be protected from Recalling, Transferring, Attendant Overriding, Camp-On.(see Ref.2, Ref.3)

Condition

1. If an analog extension (Data, Fax, Modem), which is assigned to data line security, makes an external call via ISDN line, 3.1KHz Setup message will be sent to ISDN CO line instead of speech Setup message.
2. If a busy station, which is assigned to data line security, receives an incoming CO call, the call is disconnected with cause busy regardless of the DID/DISA Destination setting.

Reference

1. Camp-On : 2.4.5
2. Attendant Overriding : 2.13.5
3. Call transfer : 2.3.2

Admin Programming

n Data Line Security 4.1.2.4 (PGM 111 – FLEX 4)

2.4.8 Dialing Security

Description

The dialed phone number may not be displayed on the LCD of called station in calling with a speed dial(see Ref.1)

Operation

To activate Dialing Security in calling with a speed dial

If pressing '•' button in front of the first digit in calling with a speed dial, it is operated with dialing security.

1. Lift the Handset or press the **[MON]** button.
2. Press **[SPEED]** button.
3. Press '*' button.
4. Dial speed number.

Ex) in case calling with speed number 001
[SPEED] button + '*' button + 001

Condition

1. Dialed phone numbers with Dialing Security are included in the SMDR information(see Ref.2)
2. This feature applies to the transferred or recalled CO calls.
3. This feature applies to Redial operation(see Ref.3)

Reference

1. Speed Dialing : **2.2.8.4, 2.2.8.5**
2. SMDR : **2.12**
3. Redial : **2.2.8.1, 2.2.8.2, 2.2.8.3**

2.4.9 DND(Do Not Disturb)

Description

Placing a station in DND eliminates incoming outside line ringing, intercom calls, transfers and paging announcements. While in DND, the station will not receive ring for CO lines. The Attendant can override a station in DND(see Ref.1). Stations in DND can continue to make normal outgoing calls. Station users can individually have the ability to place their station in DND(ADMIN program 114 – FLEX 3). By default, DND is enabled at all stations.

Operation

To activate DND from a DKTU,

1. Press the **[DND/FOR]** button.

To deactivate DND from a DKTU,

1. Press the **[DND/FOR]** button again.

Condition

1. Pressing the **[DND/FOR]** button during call forward or pre-selected message, DND is not activated and call forward or pre-selected message is released.
2. When a station, which is assigned to preset call forward, is in DND, an incoming call is received to the next station by ring assignment(see Ref.2)
3. Attendant can override a station which is in DND by Camp-on or Intrusion(see Ref.1)
4. Attendant may cancel DND for a station or all stations.

Reference

1. Attendant Intrusion, Override : 2.13.4, 2.13.5
2. Ring Assignment : 2.1.1

Admin Programming

n Do-Not-Disturb 4.1.2.3 (PGM 111 – FLEX 3)

2.4.10 DND - One Time DND

Description

One Time DND allows a station user to turn off muted ringing that occurs while off hook(handset or **[MON]**) on another call. Useful when having an important conversation and do not wish to be disturbed by ringing. The station, while off hook, depresses the DND button which eliminates muted ringing. When the station goes on-hook the DND button is extinguished and DND is cancelled.

Operation

To activate One-time DND from a DKTU.

1. While off-hook state or connecting a CO line or intercom call, press the **[DND/FOR]** button.
2. The station is in DND. (The LED of **[DND/FOR]** button will light)
3. When the station goes to idle state, DND is released in the station. (The LED of **[DND/FOR]** button will be extinguished)

Admin Programming

n Do-Not-Disturb 4.1.2.3 (PGM 111 – FLEX 3)

2.4.11 Flash

Description

CO Flash

Provides station users with the ability to terminate an outside call or transfer a call behind a key phone system and restore dial tone without hanging up. A **[FLASH]** button is located on each DKTU. The flash type and duration time of each CO line are assigned by the system.

FLASH ON ICM CALL

This feature enables station users to utilize the **[FLASH]** button to terminate pages and intercom calls. While paging or intercom call pressing the **[FLASH]** button will terminate the call and return intercom dial tone.

Operation

To generate a flash while on a CO line:

1. Press the **[FLASH]** button.

To generate a flash while on a CO line from a SLT:

1. Press the hook-switch slightly and dial 5 5 1 (Flash Command to CO Line Code : see Ref.1)

Condition

1. The Flash command is not activated in ISDN CO line.
2. A station that isn't permitted to access CO line cannot initiate a flash.
3. During a flash, the LED of CO line will be flashing.

Reference

1. Flash Command to CO Line Code : 3.6.7(ADMIN 106 – FLEX 8)

Admin Programming

- n Flash Type **4.2.2.7 (PGM 141 – FLEX 7)**
- n CO Flash Timer **4.2.3.12 (PGM 142 - FLEX 12)**
- n SLT Hook-switch Bounce Timer **4.5.3.1 (PGM 182 – FLEX 1)**
- n SLT Maximum Hook-switch Flash Timer **4.5.3.2 (PGM 182 – FLEX 2)**
- n SLT Minimum Hook-switch Flash Timer **4.5.3.3 (PGM 182 – FLEX 3)**

2.4.12 Flexible Button

Description

Flexible buttons are customized by either ADMIN or station programming.

The list of programmable functions are summarized below:

- Ø CO Line – Automatically accesses assigned line.(User Programmable)
- Ø DSS/BLF – Automatically signal assigned station and provides BLF for off-hook and DND.(User Programmable)
- Ø Flexible Numbering Plan Code – Any Feature with a dialing code(Paging, Account code, Call Park, etc) can be assigned to a flexible button. (User Programmable)
- Ø Speed Dial – Automatically dials Speed Number.(System, Station, Saved Number Redial, Last number Redial)(User Programmable)
- Ø Group Access – Hunt Group pilot number.(User Programmable)
- Ø Pool Group Access – Some or all outside lines can be grouped; pressing this button accesses the highest numbered unused CO line in that group.(User Programmable)
- Ø Loop – Used to answer a transferred call on I line for which a user does not have a button assigned.(User Programmable)
- Ø Station Assignment – Allows assignment of stations and complete flexibility within the system numbering plan. A station can be assigned a number between 100-399.
- Ø Telephone Number Assignment - Automatically dials outside Telephone Number.
(It can be possible LDP-6000/7000 which has 3 soft key)
- Ø 4/8 button – Feature code assign

| Feature Button | Feature Code |
|----------------|--------------|
| Conference | 91 |
| Call Back | 92 |
| DND/Forward | 93 |
| Flash | 94 |
| Mute | 95 |
| MON | 96 |
| Redial | 97 |

Operation

The Flexible buttons are programmable individually at each keyset as follows;

1. DSS/BLF: Pressing the flexible button, it signals automatically the assigned station. (The LED will light or flash in DND state)
2. Features: Pressing the flexible button, it activates as dialing a feature code. (The LED will illuminate)
3. Speed Dial: Pressing the flexible button, CO line is seized and the stored phone number in the bin is dialed.
4. POOL button: Pressing the flexible button, a CO line based on last choice or round robin in the group is selected.
5. LOOP button: Pressing the flexible button, a CO line may be accessed
6. Telephone Number: Pressing the flexible button, it activates

Condition

1. A flexible button that is not assigned as **{CO Line}** button is considered as “Feature” button and is programmable at each station. When ADMIN program 112 - FLEX 6 (CO Line Programming) is enabled, the flexible button that is assigned as **{CO line}** button can be programmed.
2. To assign flexible button,
[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + Feature Code + [HOLD/SAVE]
(Refer to 5.1.4: Flex Button Programming Code)
3. To assign direct button, (e.g. CO button or DSS button)
[TRANS/PGM] + Flex. BTN + Desired Code + [HOLD/SAVE]
4. To assign Telephone Number, (It can be possible LDP-6000/7000 which has 3 soft key)
[TRANS/PGM] + Flex. BTN + [TEL NUM] + Desired Code + [HOLD/SAVE]

Admin Programming

- n Flexible Button Assignment **4.1.6 (PGM 115)**
- n CO Line Programming **4.1.3.6 (PGM 112 – FLEX 6)**

2.4.13 Headset

Description

An industry standard headset can be connected to a station instead of handset. The station is programmed for headset operation in place of speakerphone operation. A user can use headset instead of handset to make or answer a call.

Operation

To change the station mode between Speakerphone or Headset,

1. Press the **[TRANS/PGM]** button.
2. Dial code 7 5.
3. The Station Answer mode is displayed on the LCD.
4. Dial code 1 (Speaker mode) or 0 (Headset mode)

To change the Headset Ring mode,

1. Press the **[TRANS/PGM]** button.
2. Dial code 7 6.
3. The Station Answer mode is displayed on the LCD.
4. Dial code 1 (Speaker ring only), code 2 (Headset only) or 3 (Both)

Condition

1. The intercom signaling mode (HF/TN/PV – **[TRANS/PGM]+1+2**) can be set in headset mode keyset as the Speakerphone mode keyset.
2. In Headset mode, user can select an incoming ring mode to hear ring with speaker, headset or both by Admin programming.
3. The station will receive paging with speaker of the station.
4. To answer an intercom call in Tone mode, user should press the **[MON]** button.
5. When an intercom call is received in Privacy mode, the station will be mute state automatically. User should press the **[MUTE]** button to answer the intercom call.

Admin Programming

- n Headset Ring Mode 4.1.2.10 (PGM 111 – FLEX 10)
- n Speakerphone/Headset 4.1.2.11 (PGM 111 – FLEX 11)

2.4.14 Intercom Signal Mode

Description

Users can control the method by which they receive intercom calls and signals. stations equipped with the speakerphone can select one from the 3 signaling modes as below;

HF - Call announcing with hands free answer-back

The station user, upon hearing a tone burst and voice announcement over the speaker, can reply hands free.

TN - Tone ringing

A standard tone ring notifies the party of an incoming intercom call. The called party answers by lifting the handset or press **[MON]** button.

PV - Call announcing with privacy

The station user receives a burst of tone and a voice announcement over their speaker. The microphone is deactivated for privacy. The called party must lift the handset or press the **[MUTE]** button to answer the call.

Operation

To assign the Intercom Signal mode from a keyset,

1. Press the **[TRANS/PGM]** button.
2. Dial **1 2** and confirmation tone is heard.
3. Dial the signal mode type (1 = HF/2 = TN/3 = PV)
4. Press the **[HOLD/SAVE]** button and confirmation tone is heard.

Condition

1. In Message Wait/ICM Queuing/Call Transfer/ Attendant Override, the ring is received with TN mode regardless of the assigned Intercom Signal mode(see Ref.1, Ref.2, Ref.3)
2. Intercom signal mode will not affect the voice announcements from internal/all call paging(see Ref.4)

Reference

1. Message Wait : 2.4.16
2. Call Transfer : 2.3.2
3. Attendant Override : 2.13.5
4. Paging : 2.8

2.4.15 Intercom Tenancy Group

Description

A station can be assigned to one of the Intercom Tenancy Groups. Each Intercom Tenancy Group can be operated independently and the stations in the group can be assigned an individual CO group to use. Maximum 5 Intercom Tenancy Groups can be assigned in the IP LDK-20.

Each group can be assigned with attendant(intercom tenancy group attendant) and can be programmed to allow or deny calls to other groups (allowed access groups). Stations in a group are allowed access to other stations based on the allowed access of the calling group (setting with station base).

| FLEX | DEFAULT | RANGE | REMARK |
|------|----------|---------|--|
| 1 | - | STA No. | Attendant station of assigned Intercom tenancy group |
| 2 | GROUP 01 | FLEX1-5 | Intercom tenancy groups allow to access for assigned group |

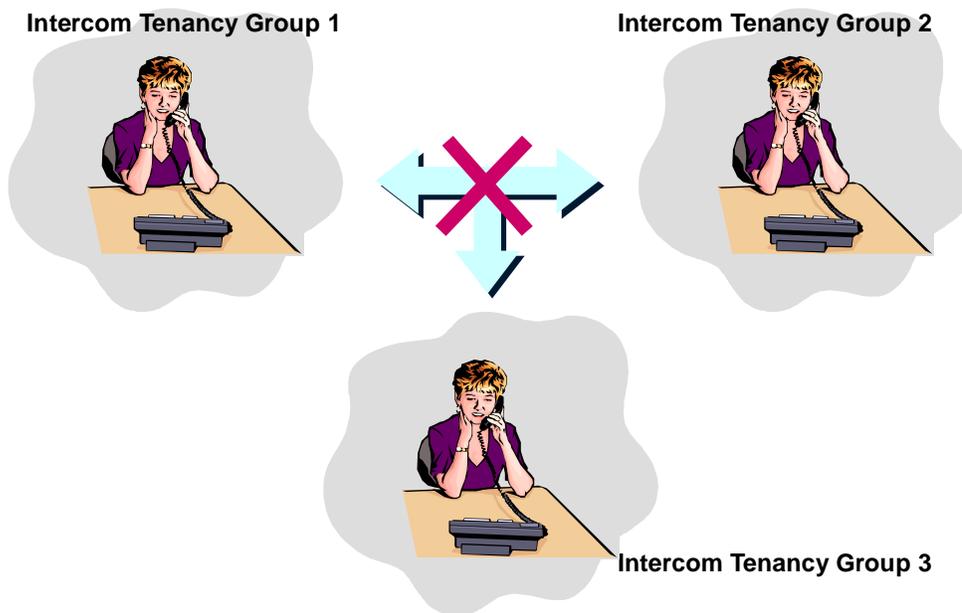


Figure 2.4.15 Don't allow to access of among Intercom Tenancy Groups

The figure 2.4.15 describes that when a call to other intercom tenancy group is not allowed, CO line call or Station call, pick-up or transfer cannot be activated and each group will be operated as different system.

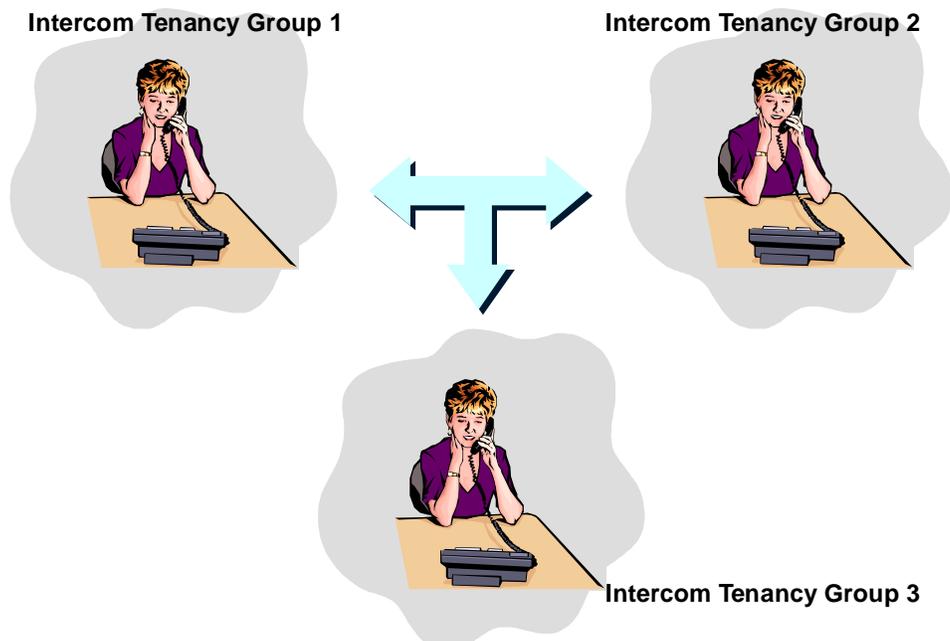


Figure 2.4.15-1 Allow to access of among Intercom Tenancy Groups

The figure 2.4.15-1 describes that when a call to other intercom tenancy group is allowed, CO line call or Station call, pick-up or transfer is activated.

Condition

1. When a call to other Intercom Tenancy Group is denied, pick-up cannot be activated.
2. It is not allowed to stations to have the same station numbers though they belong to different intercom tenancy group.
3. The attendant of Intercom Tenancy Group can be any station in the system and it is not affected by Intercom Tenancy Group access.
4. When the attendant of Intercom Tenancy Group sets Day/Night/Weekend mode, it will affect only the Intercom Tenancy Group.

Reference

1. Pick-Up : 2.3.4

Admin Programming

- n Intercom Group Number **4.1.2.13 (PGM 111 – FLEX 13)**
- n Intercom Tenancy Group **4.1.11 (PGM 120)**

2.4.16 Message Wait / Call Back

Description

Message Wait

A station user can notify another station user that he wishes to talk to the user. The notified station user can return the call or the message left on the station. When responding to the station, the user can answer the message left on the station in sequential order. There are up to 5 messages left at one station.

Call Back

A station can initiate a call back request to a busy station. Once that station becomes idle, the station that left the call back request is signaled.

A station with a message waiting can receive a periodic audible reminder of the message waiting. This tone is sent to stations only while idle and is presented over the speaker.

Operation

To leave a message wait to an idle station that does not answer,

1. Press the [**CALLBK**] button and receive confirmation tone.
2. The LED of the [**CALLBK**] button at the receiving station will flash.

To leave a message wait to a station in DND,

1. Press the [**CALLBK**] button and receive confirmation tone.
2. The LED of the [**CALLBK**] button at the receiving station will flash.

To answer a message wait,

1. Press the flashing [**CALLBK**] button.
2. The station which left the message will receive intercom ring.

To leave a call back to a busy station,

1. Press the [**CALLBK**] button and receive confirmation tone.
2. Hang up.
3. When the receiving station hangs up the current call, the station leaving the message will receive intercom ring.
4. When the intercom call is answered, the callback request is removed.

Ø In case of SLT

To leave a message wait,

1. Press hook-switch.
2. Dial **5 5 6**(Message Wait/Callback Enable : see Ref.1)
3. Confirmation tone is heard and replace the handset.

To answer the message wait,

1. Lift the handset. (Indication tone is heard.)
2. Dial **5 5 7**(Message Wait/Callback Return : see Ref.2)
3. The station leaving the message will receive intercom ring.

To leave a call back to a busy SLT,

1. Make hook flash.
2. Dial **5 5 6** while busy tone is heard.
3. Confirmation tone is heard and replace the handset.
4. When the SLT becomes idle state, intercom ring is received.

Condition

1. The callback will ring with Tone mode regardless of intercom signaling mode(see Ref.3)
2. A station can leave only one callback or message. A new request will override the previous one.
3. Message wait data will be protected with power failure.
4. When dialing the station number instead of pressing the **[CALLBK]** button to answer a message wait, the message wait will be canceled in the calling station.
5. Message wait reminder tone is programmable from 00 to 60 min. If you don't want to present the tone, the timer may be set to 00.
6. Message wait reminder tone is not heard at a busy station.
7. Message wait reminder tone will continue until all the messages are retrieved.

When a station attempts to leave a message at a station which has already 5 messages and one of those is not equal to the attempting station, error tone will be heard. When VMIB access is allowed in the station, after recording VMIB message, it turns to normal message in the station. In this case, error tone will not be provided in the attempting station.

Ø In case of SLT

1. If a voice message is recorded in a SLT, the recorded message will be played by dialing message wait retrieval code (**5 5 7**). The played message will be deleted automatically after being played.
2. When user dials **5 5 7** to retrieve voice message wait, the only one message is played. After the first message is played, warning tone will be heard to indicate remained messages. To retrieve another message, dial **5 5 7** again.

Reference

1. Message Wait/Callback Enable Code : 3.2.7(ADMIN 106 – FLEX 13)
2. Message Wait/Callback Enable Code : 3.2.7(ADMIN 106 – FLEX 14)
3. Intercom Signaling Mode : 2.4.14
4. DND : 2.4.9

2.4.17 MOH (Music On Hold)

Description

When a CO call is placed on hold (system, exclusive, transfer, conference, etc), the external party will hear music. In this way, the CO line party can be notified that the connection is still established.

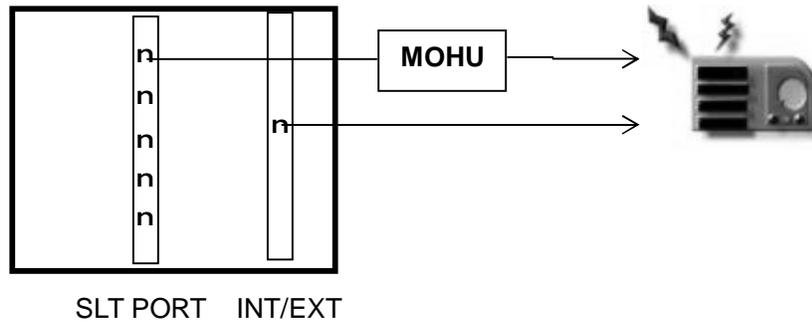


Figure 2.4.17 MOH

The figure 2.4.17 describes that MOH is supplied through various music sources.

Music can be played to any party on hold. The following music sources are available:

- Ø Internal Music
- Ø External Music
- Ø SLT MOH
- Ø VMIB MOH (VMIB MOH Recording 2.4.17.2)

- 0: Not assigned by this field.
- 1: Internal Music
- 2: External Music
- 3: VMIB MOH
- 4 - 8: SLT MOH
- 9: Hold Tone

Condition

1. Only 1 MOH channels are supported.
2. SLT ports connected with MOHU can provide MOH channels.

Reference

1. Hold : 2.3.3.1

Admin Programming

- n CO Line MOH 4.2.3.6 (PGN 142 – FLEX 6)
- n MOH Type 4.4.12.2 (PGM 171 – FLEX 2)

2.4.17.1 SLT MOH

Description

When a CO line call is placed in the hold state (system, exclusive, transfer, conference, etc), the external party will hear music. In this way, the CO line party can be notified that the connection is still established.

- 0: Not assigned by this field.
- 4 - 8: SLT MOH
- 9: Hold Tone

Operation

1. SLT MOH Type Assign
 [TRANS/PGM] + 171 + [FLEX 4] + Enter SLT Station Number + [HOLD/SAVE]
 [TRANS/PGM] + 171 + [FLEX 2] + Enter SLT MOH type(4 ~ 8) + [HOLD/SAVE]

Condition

1. SLT ports connected with MOHU can provide MOH channels.
2. Up to 5 SLT ports can be used as MOH channel.
3. To use SLT port as a MOH channel, assign desired SLT port with MOH channel and then connect MOHU to the SLT port.

Admin Programming

- n CO Line MOH 4.2.3.6 (PGN 142 – FLEX 6)
- n MOH Type 4.4.12.2 (PGM 171 – FLEX 2)
- n Assign SLT MOH 4.4.12.4 (PGM 171 – FLEX 4)

2.4.17.2 VMIB MOH

Description

Attendant can record VMIB MOH announcement and it can be used as the MOH source of the system.

- 0: Not assigned by this field.
- 3 : VMIB MOH
- 9: Hold Tone

Operation

To set the VMIB MOH as MOH source.

Set the MOH type as VMIB MOH type by Admin programming.

[TRANS/PGM] + 171 + [FLEX 2] + Enter VMIB Port No.(3) + [HOLD/SAVE]

Condition

1. VMIB MOH message should be recorded before setting VMIB MOH as system MOH source.
2. While attendant operates system greetings and prompt including VMIB MOH, VMIB MOH is stopped.
3. When VMIB MOH is used as system MOH, 1 port of VMIB should be always reserved for MOH even though MOH is not used.

Admin Programming

n MOH Type 4.4.12.2 (PGM 171 – FLEX 2)

2.4.18 Mute

Description

During a conversation, if pressing the **[MUTE]** button, a station user can disable the handset or the speakerphone to consult privately with others while listening to the other party on the phone through the handset or speaker. If pressing the **[MUTE]** button again, it reactivates the microphone.

Operation

To mute the transmitting audio.

Press the **[MUTE]** button, and LED of the **[MUTE]** button is illuminated. The connected party cannot hear the voice of muted station.

To restore transmission.

Press the illuminated **[MUTE]** button. LED of **[MUTE]** button is extinguished and transmission is restored.

Condition

1. Changing from the speakerphone to handset, the mute is released.
2. Selecting another DSS button, mute state will not be changed.

2.4.19 MWI (Message Wait Indication) – SLT Feature

Description

If the SLT station that has the message wait indication lamp receives message from another users, then the lamp of SLT will flash. It indicates that it has the waiting message.

Condition

1. When lifting handset, user will hear DND warning tone for indicating message waiting.
2. When message waiting indication prompt is recorded in system greeting 097, voice announcement will be heard instead of DND warning tone.

Admin Programming

n Station ID Assignment 4.1.1.1 (PGM 110 - FLEX 1)

2.4.20 On-Hook dialing

Description

A station can make a call without lifting the handset by using a speakerphone or monitor mode. If this feature dose not operate, check the speakerphone “able” or “enable”. the station without speakerphone dose not operate.

Operation

When Auto Speaker Selection(ADMIN program 111 – FLEX 1) is ON,

Assign CO line/Intercom/Speed Dial to a flexible button and press the flexible button. Then it is operated immediately.

When Auto Speaker Selection(ADMIN program 111 – FLEX 1) is OFF,

Assign CO line/Intercom/Speed Dial to a flexible button and press the flexible button. Then 'LIFT HANDSET' is displayed on the LCD. Lift handset or press the **[MON]** button to operate.

Admin Programming

n Auto Speaker Selection 4.1.2.1 (PGM 111 – FLEX 1)

2.4.21 Station Name

Description

The system will allow station users to dial station numbers by entering a name that has been programmed for the station (intercom). Also each station may be assigned with a name up to 7 characters and speed dial (system and station) number may be assigned with a name of up to 16 characters. When the names are programmed in the digital display keyset, the user may select a station or speed dial number by the name. The user selects from one of three directories (intercom, user speed dial or system speed dial) and enters alpha-numeric data with 2 dial pad keystrokes per character. The system finds and displays the first matched name based on the characters stored. The user may at any point scroll using [•]/[•] buttons through the names in the directory and select a name to call. If user wants to display the matched phone number to the selected name, press [FLASH] button.

Operation

To register Station Name

1. [TRANS/PGM] + 74 + Enter Name(7 Characters) + [HOLD/SAVE]

| | | |
|------------|--------|--------|
| Q - 11 | A - 21 | D - 31 |
| Z - 12 | B - 22 | E - 32 |
| . - 13 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 7* | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| *1 - Blank | | |
| *2 - : | 0-00 | # |
| *3 - , | | |

To access Dial by Name,

1. Press the [SPEED] button twice.
2. Dial the desired directory (1, 2, or 3) and confirmation tone is heard.
1 = Intercom / 2 = Station Speed Dial / 3 = System Speed Dial
3. The stored names in the speed bin are displayed in alphabetical order.

To search a name by entering a character,

1. While two names are displayed on the LCD, enter alpha-numeric data with 2-dial keypad strokes per the character.
2. The LCD displays 2 names which are started with the entered character. (The cursor points to the first name in the LCD)

3. Entering another alpha-numeric data, then LCD will display names started with the updated input. It will be continued until you stops entering the character.
4. When the matched name is displayed, move the cursor to the name (The cursor points to the first name in the LCD) and press **[HOLD/SAVE]** button to make a call.

To search a name by scrolling,

1. While two names are displayed on the LCD,
2. Press the **[▼]** key with the cursor on the first line and the cursor points to the second line on the LCD.
3. Press the **[▲]** key with the cursor on the second line, then the cursor points to the first line on the LCD.
4. Press the **[▼]** key with the cursor on the second line, the next two lists are displayed on the LCD.
5. When the matched name is displayed, move the cursor and press the **[HOLD/SAVE]** button to make a call.

To register the name in SLT,

1. Lift the handset.
2. Dial **5 6 3 (Programming Mode Enter Code : see Ref.1)**. And confirmation tone will be heard.
3. Dial **7 4** (Name Register code)
4. Enter the name. (Up to 7 letters; Refer to the below English Character Set)
5. Make hook-flash to save.

Condition

1. Dial by name is only available to a DKTU with LCD for programmed names.
2. The name should be registered to use 'Dial By Name'.
3. If you dial a group (I/S/U) which has no entry, error tone will be heard.
4. In SLT and DKTU with no LCD, only the station name can be entered.
5. The speed dial which has only phone number without name will not be listed by Dial By Name.
6. Pressing the **[CALLBK]** button, the last letter of user input is deleted and the previous matched name is displayed. Pressing the **[CALLBK]** button without entering any letter, there is no action in the system.
7. For entering alpha-numeric data, see the English Character Set.

Reference

1. Programming Mode Enter Code : 3.6.7(ADMIN 106 – FLEX 20)

2.4.22 Station Program

Description

The system supports multiple hierarchical menus based on station programming. User can make station programming by selecting desired menu. Attendant also can make station programming and attendant programming with the same way. (Ref.1)

2.4.22.1 Station Program Menu

| Main Menu | Sub Menu | Sub Menu-2 | Selection | Remark |
|--------------------------------|--------------------------|------------|----------------------|--------------|
| [1] RING | [1] TYPE | | 1,2,3,4 | DKTU |
| | [2] ANSWER MODE | | H(1)/T(2)/P(3) | |
| | [3] SMS MSG DISPLAY | | | |
| | [4] ENBLOCK MODE | | 1:ON/0OFF | |
| [2] COS | [1] COS DOWN | | ICM/COS7 | |
| | [2] COS RESTORE | | ENTER AUTHO CODE | |
| | [3] WALKING COS | | ENTER AUTHO CODE | |
| | [4] COS CHANGE | | | India Only |
| [3] AUTHORIZATION / MOBILE-EXT | [1] AUTH REGISTER | | | |
| | [2] AUTH CHANGE | | | |
| | [3] REG MOBILE-EXT | | | |
| | [4] ACTIVE MOBILE-EXT | | | |
| [4] TIME | [1] SET WAKE UP TIME | | ONCE/PERMANENT | |
| | [2] WAKE UP DISABLE | | | |
| [5] MESSAGE | [1] SET PRESELECTED MSG | | 00 – 10 | |
| | [2] SET CUSTOM MSG | | None | |
| [6] ANNOUNCEMENT | [1] RECORD USER GREETING | | | |
| | [2] LISTEN TIME / DATE | | | |
| | [3] LISTEN STA NUMBER | | | |
| | [4] LISTEN STA STATUS | | | |
| | [5] RECORD PAGE MSG | | | |
| | [6] ERASE USER GREETING | | | |
| | [7] ERASE PAGE MSG | | | |
| [7] SUPPLEMENTARY | [1] LCD DISPLAY LANGUAGE | | DOMESTIC/ENGLISH | DKTU |
| | [2] MBU VERSION DISPLAY | | | |
| | [3] BGM | | | |
| | [4] REGISTER STA NAME | | | 2/8 FLEX/SLT |
| | [5] SPK/HEADSET | | SPEAKER/HEADSET | |
| | [6] HEADSET RING MODE | | SPEAKER/HEADSET/BOTH | |
| | [7] WTU STA NUM RCVR | | | |
| | [8] SERIAL NUMBER | | | |
| | [9] PC-PHONE LOCK KEY | | | |
| [0] ATTENDANT | | | | ATD ONLY |
| [*] SYSTEM | [#] ENTER ADMIN | | | ADMIN ONLY |

Operation

To enter programming mode.

1. Press the **[TRANS/PGM]** button.
2. You may find the following menu;(Description : 2.4.22.1)

To search other programming menu.

1. With **[UP]/[DOWN]** key, you can search the previous/next menu.

To select a menu.

1. Dial the number of desired menu item to select the menu.
2. If the selected menu is programming item, it enters to programming mode.
3. If there is available sub-menu, selectable menu is displayed on the LCD.

Condition

1. Press the **[TRANS/PGM]** button to move the top menu.
2. Press the **[REDIAL]** button to move the previous menu.
3. After a menu is programmed, the previous menu list is displayed on the LCD.
4. Pressing a flexible button in main menu mode, it enters flexible button programming mode.

Reference

1. Station Programming : 5.1.2
2. Attendant Programming : 5.1.3

2.4.23 Station Relocation

Description

The Station Relocation Feature lets a user unplug their station and plug it into another location. Dialing a code followed by the old station number brings all the station attributes including station number, button mapping, speed dial, and class of service(see Ref.3) to the new location.

Operation

To store the station attributes to a temporary buffer.

1. Dial the feature code **[TRANS] * 1** (Station Relocation Backup)
2. Unplug the station.

To retrieve stored station attributes.

1. Plugging it at another properly wired jack, dial **[TRANS] * 2.**(Station Relocation Retrieve)
2. The station will be relocated. Then, the all station attributes are copied to the current station.

Condition

1. All information for the port of destination station will be retained so that it may be copied or relocated to another port.
2. It is possible for the same station type.
3. If a different station type is plugged, preprogrammed **{DSS}** buttons are not guaranteed.
4. DKTUs must be relocated to another digital port, DKTUs cannot be relocated to an SLT port.

Reference

1. Class of Service : 2.5.4

2.4.24 Station Serial Call

Description

With DSS flexible buttons, users can place consecutive intercom calls without the need for regaining intercom dial tone (no need to hang-up) between calls. The user can simply press the appropriate DSS flexible button.

Operation

To use serial calling.

Press the appropriate DSS flexible button, the old call is disconnected and the new call will be established.

2.4.25 Time & Date setup by digital network

Description

In an outgoing call, the ISDN network will send time & date in CONNECT message when the called party answers. The time & date of the system may be modified by next time & date optionally one time in a day.

Operation

To set the time & date by Digital Network.

1. Press the **[TRANS/PGM]** button.
2. Dial **0 4 6** and **1** (Yes).
3. Press the **[HOLD/SAVE]** button.

Condition

1. This feature may be set at Attendant station and by Admin Programming.
2. It may set time & date to default value or be useful to assign summer time.

2.4.26 Voice Over

Description

This feature provides voice announcements for a busy station without interrupting the existing conversation. The announcement is received over the existing conversation so that only the busy station hears both incoming parties. The user can talk back to other party and alternate conversation between the parties.

Operation

1. A busy station is called and camped-on by a new caller(see Ref.1)
2. The busy station hears a warning tone over the current voice path.
3. The busy station is connected with both a current caller and a new caller. (the busy station can send and receive voice to both simultaneously (both mean the current caller and the new caller), in other words both hear the voice of the busy station simultaneously and the busy station hear the voice of both simultaneously. But a new caller and a current caller can not send and receive voice each other).
4. The **[HOLD/SAVE]** LED flashes at 60 ipm.
5. Press the flashing **[HOLD/SAVE]** button of the busy station.
6. A current caller hears MOH if provided.
7. The busy station is connected with a new caller.
8. Alternate between calls by pressing **[HOLD/SAVE]** button again.

Condition

1. Placing a station in DND disables Voice over.
2. Attendant can activate Voice over for the station in DND.
3. After Voice over is activated, the calls will be dropped if Voice over master which receives voice over request hangs up. If one party except Voice over master hangs up, the **[HOLD/SAVE]** LED is extinguished and the call is connected as normal talking state preceded by confirmation tone.
4. The holding party will receive MOH if provided(see Ref.2)
5. The recall timer is not activated at Voice over state.
6. Every time Voice partner is switched, confirmation tone should be provided.
7. If a busy station's voice channel is handset, voice over is activated via handset. It is same in the case of speaker.

Reference

1. Camp-On : 2.4.5
2. MOH : 2.4.17

Admin Programming

- n Voice Over **4.1.4.6 (PGM 113 – FLEX 6)**

2.4.27 Wakeup

Description

Each attendant or station user can set an alarm for any time as a wake-up call or reminder. This feature can be programmed to activate only once or daily. If the user goes off-hook during the alarm, he hears special dial tone.

Operation

To register a wake-up time from the attendant station,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 4 2**.
3. Dial the station range to be alerted, if a single station is to receive alarm, enter '•' instead of the second station.
4. Dial 2-digit hour and minute for alerting (24-hour mode)
5. Dial '#' for wake-up alarm until canceled, if not it is canceled automatically after the first wake-up alarm ringing.
6. Press the **[HOLD/SAVE]** button.

To cancel a wake-up alarm from the attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 4 3**.
3. Dial the station range to be alerted, if a single station is to receive alarm, enter '•' instead of the second station.
4. Press the **[HOLD/SAVE]** button.

To register wake-up time from a station,

1. Press the **[TRANS/PGM]** button.
2. Dial **4 1**.
3. Dial 2-digit hour and minute to for alerting.
4. Dial '#' for wake-up alarm until canceled, if not it is canceled automatically after the first wake-up alarm ringing.
5. Press the **[HOLD/SAVE]** button.

To cancel a wake-up time from a station,

1. Press the **[TRANS/PGM]** button.
2. Dial **4 2**.
3. Press the **[HOLD/SAVE]** button.

Condition

1. If the wake-up alarm is registered at a station, '•' is displayed in front of the present time on the LCD.
2. If the VMIB is installed, voice message for the wake-up time is heard 3 times and MOH is heard
3. If the wake-up ring is not answered for 3 times, it is canceled.
4. If system attendant dials to wake-up fail station to erase wake-up fail ring, the fail ring will disappear with confirmation tone. But when the Wake-up Fail Ring timer expires, confirmation tone will not be provided and just the fail ring will disappear.
5. If [Wake-up Fail Ring Timer] is **0**, wake-up fail ring will not disappear automatically.
6. If [Wake-up Fail Ring Timer] is **99**, the fail ring is not given to attendant station.
7. If [Wake-up Fail Ring Timer] is **1~98**, after Wake-up Fail Ring Timer expires, the wake-up fail ring will disappear automatically.

Admin Programming

n Wake-up Fail Ring Timer 4.5.3.7 (PGM 182 - FLEX 7)

2.4.28 Automatic Fax Transfer**Description**

The system can determine if an incoming call from the preprogrammed CO line is for FAX (facsimile) or for speech terminal by detecting the tone of the call (1100Hz, 0.5s ON/3s OFF repeated). When the system detects a FAX tone from the incoming line within predetermined time, the system transfers the call to the station that is a Fax machine. If the FAX tone is not detected within predetermined time, system gives rings to stations that are programmed to ring.

Condition

1. Only one CO line can be programmed as a FAX CO line. If the FAX CO line is not programmed, Automatic Fax Transfer will not be activated.
2. Station 17 is used as the FAX Station So, FAX machine should be connected to the port for station 17 to use this feature. In compact type KSU, station 15 is used for FAX station.
3. If the FAX tone is not detected within the FAX tone detection time, the system will give rings to the stations that are programmed to ring.
4. If the FAX CO line is not answered within the FAX CO call time, the line will be released.
5. Outside caller connected to the FAX CO line can hear the ring back tone while system is detecting a FAX tone.
6. In order to transfer calls only from FAX to the FAX station, do not assign CO ring to the FAX station 17.
7. If a CO line is programmed for DISA and for Automatic FAX Transfer as well, incoming calls from that CO line are served as DISA calls. So, if a user wants to call the FAX station, just call station 17 by exploiting DISA call.
8. When the FAX machine goes to idle after a FAX call, the associated CO line is released
9. If the FAX CO line is disconnected ("disconnect clear") during a FAX call, CO line is released and FAX machine becomes idle.
10. Only Analog lines are possible to use this feature.

Admin Programming

- n Auto FAX Transfer CO 4.4.2.17(PGM161, FLEX17)
n FAX tone Detect Timer 4.5.3.13(PGM182, FLEX13)
n FAX CO Call Timer 4.5.3.14(PGM182,FLEX14)

2.4.29 Mobile Extension

Description

A mobile user is able to use the phone as extension of IP LDK system. So he can receive the incoming call and make the outgoing call when a user registers the mobile phone number to IP LDK system.

Operation

To register the mobile extension number in DKT.

1. Press the [PGM] + 33.
2. Dial the mobile number
3. Press the [HOLD] button.

To activate(deactivate) Mobile extension feature.

1. Press the [PGM] + 34 .
2. Dial the '1' to activate, or '0' to deactivate
3. Press the [HOLD] button.

Incoming call in DID line

1. If the CLI matches with preprogrammed mobile extension table, the incoming call is routed to both an extension and a mobile extension
2. When incoming call is answered at an extension or a mobile extension, the other will stop ringing.

Transferring call from the mobile extension through IP LDK system

1. Dial the transfer code (*) during the talk state in Mobile extension.
2. The mobile extension user hears the internal dial tone and the calling party hears the MOH.
3. Dial the extension number.
4. The call will be transferred after the mobile extension user goes on-hook state.
5. The mobile extension user can reconnect the call by pressing the code (#) in case extension does not answer.

Outgoing call from the mobile extension through IP LDK system

1. The mobile extension user dials his DID number of IP LDK system.
2. Then he receives the internal dial tone
3. He can do internal call or outgoing call with CLI number of extension.

Condition

1. If the extension is busy, forward or DND state, a call is not routed to the mobile extension.
2. If the mobile extension does the external call through IP LDK system, it sends the CLI number of extension. But, in this case, the mobile extension does not use the transfer feature
3. After no answer timer, a call is routed to DID no answer destination. (In case the no answer timer of IP LDK system is shorter than GSM)
4. This feature is applied to only ISDN DID Line.
5. The Message wait or Call Back feature is not supported to the mobile extension.
6. The networking feature is not supported to the mobile extension.
7. If mobile extension converse through IP LDK, DTMF receiver is dedicated for mobile extension.

Admin Programming

1. Mobile extension register **4.10.8(PGM 236)**

2.4.30 Extend CO-to-CO connection

When call is made between two analog CO lines by DISA or Off-net call forward, the call duration is limited by unsupervised conference timer. After the unsupervised conference timer, the call is dropped by IP LDK system. This feature enable to extend unsupervised conference time as long as the caller wants. If this feature is activated, DTMF receiver device is assigned to caller side CO lines.

Operation

When 'CO to CO unsupervised conference timer extend' feature is activated, two analog CO lines on connection hears warning tone before 15 seconds of the unsupervised conference timer expired. the warning tone is provided to indicate the disconnection.

To extend call duration

Dial unsupervised conference timer extension code(##) and the extension time multiple digit data(1~9)

IP LDK system re-assigns the unsupervised conference timer to multiple of entered digit. For example, the unsupervised conference timer is set to 10 minute and the entered digit is 3, then the timer is extended to 30 minutes.

Condition

1. To use this feature, at least one IDLE DTMF devices must be existed.
2. This feature is only available at analog CO-to-CO connection by DISA or off-net call forward.

Admin Programming

1. Unsupervised Conference Timer Extend Enable **4.5.1.18(PGM 160 – FLEX button 18)**
2. Unsupervised Conference Timer Extend Code **3.6.9.6 (PGM 109 – FLEX Button 6)**
3. Unsupervised Conference Timer **4.5.3.6(PGM182 – FLEX Button 6)**

2.4.31 Forced Hands free Mode

Description

A DKTU caller can change the answer mode of called party DKT temporary.(tone mode -> hands free mode)

Operation

To activate forced hands free mode.

1. Call to DKT which is a tone mode.
2. When user hears a ring back tone, dial Forced hands free Code ('#')
3. Called party DKT stop ringing and speaker and microphone are activated.
(Operate as hands free mode)

Condition

1. If DKT is changed to hands free mode, the connection tone is provided and the voice path is connected.
2. If called party DKT is set a linked-pair station, the answer mode of called party will be not changed.
3. If calling party DKT is set a linked-pair station, the calling party DKT can use the Forced Hands free Mode.
4. Only the calling party DKT of which value of PGM 111-19 is ON can use this feature.
5. After connection, related feature with hands free mode is not applied.(ex. call back)

Admin Programming

1. Forced hands free mode enable/disable issue for Caller **4.1.2.19(PGM 111-19)**

2.4.32 Hot Desk

Description

A hot desk enables that user can dynamically select a station by login / logout operation without having a fixed station. For a call center, marketing department people can share working place with one another. A user can use dummy station using log-in operation. And a user log-out when station becomes useless.

Operation

Login operation at dummy station

1. User offhook or press [MON] button.
2. Dial the authorization code and '#'
(end mark of authorization code. If 5 digits authorization mode, '#' is no need)
3. Station restore user database (station number, COS, ring assign, etc...) and can receive incoming ring.

Logout operation

1. Press [PGM] + * + * (User Logout) or press [Agent Logout] flex button.
2. User select call forward type using volume up/down key.
Supported forward type : offnet speed 000, Mobile extension, VMIB or VM group.
3. Press [HOLD] button.
4. User database is saved and station becomes dummy.

Condition

1. A dummy station shows "DUMMY STATION (xxx)". ("xxx" is the physical station number)
2. A dummy station only allows login operation. all other operations are not allowed.
3. A logout operation is only allowed for dummy station which a user has logged-in.
4. Total number of user is restricted by system station capacity.
(Total number of hot-desk user = 26(26 : From the total number of station 28, last station port is used for modem and one extra port is reserved))
For example in IP LDK-20;
If DTIB8 is installed, the total station number installed are 16, then maximum number of hot-desk User is 10 (26 – 16)
5. A hot-desk user must have their own password.
6. Saved user database are;
 - Station Number
 - Station Attribute (PGM 111-124)
 - CO routing (Ring Assign, DID routing)
 - Hunt membership
 - Voice Mail
7. If user tries to log-in to another station without log-out operation, the previous used station become to dummy station automatically.
8. The hot-desk will be automatically log-off if the KTU does not operate any action within "Auto Log-out Timer".
9. The button map of hot-desk will not be changed even though he log-on to the different type of DKTU. (Recommend to connect the same type of DKTU for Hot-Desk station due to the button map)
10. Only DKT (has more than 12 button) and WKT can be used as a dummy station

11. Modem associated station cannot log in. (which is set at PGM [170])
12. When system reset happens, all login agents are logout automatically.
13. The Agent can't be the slave station of linked pair stations.

Admin Programming

1. Dummy station on / off **4.1.3.23(PGM 112 / B TN 23)**
2. Assign Number of agents **3.6.10.1** (PGM 250 / BTN 1)
3. View Assigned station number of agents **3.6.10.2** (PGM 250 / BTN 2)
4. Agent auto logout timer **3.6.10.3** (PGM 250 / BTN 3)

2.4.33 Analogue CLI Display

Description

IP LDK-20 system supports Type I CID protocol of following specifications.

- Bellcore GR-30-CORE & SR-TSV-002476 & ETSI ETS 300 659, ETSI ETS 300 778
- Denmark, TDK-TS 900 216
- UK, BT SIN 227 & SIN 242
- Sweden, Telecom specification 8211-A112, Standard SS 63 63 25

Operation

1. Incoming call arrives to a LCOB line which has a FSK or DTMF CID detection optional board(CPCU for FSK CID, CPCUD for DTMF CID).
2. Optional board on LCOB detects CID signal.
3. Ring is distributed to ring-assigned stations with CLI.

Condition

1. If an incoming CO is assigned to multiple SLTs of a same slot, the CO rings are generated sequentially with 1 second interval to the SLTs. And CLI is displayed on SLT after first ring.
2. For CLI display on SLT, ring phase (PGM 182, Button 4) more than 4 seconds is recommended. If Ring phase is less than 4 seconds, some of the SLT can not receive CLI display signal.
3. CLI is not transferred to the SLT for screened transfer because type I CID is serviced for SLT.
4. For CID detection on LCOB, optional board(CPCU for FSK CID, CPCUD for DTMF CID) should be installed on LCOB.

Admin Programming

n CIDU Setting **4.4.21(PGM 185)**

2.4.34 Call Log

Description

The call log feature enables the LDP series or LKD series user to view a log of the last (15-50) incoming and outgoing calls. The user can scroll the list of numbers stored, select the desired number and activate a redial to that number.

The log includes the CLI (or dialed number), the time, the date and station/system speed name of the call, it is stored on the MPB and so is retained if the Key Station is unplugged or replaced. The call-logs for Incoming/Outgoing/Lost call are available. (Incoming/Outgoing call log list number per station: PGM160-Flex19, range15-50). Outgoing call log is same as Redial list and Lost call log is same as CLI Message wait. To use call log, "**CALL LOG** button" program is need.

To program a flexible button as the "call log button"

1. Press the **[TRANS/PGM]** button and the flexible button to be assigned.
2. Dial the Call log code (**TRANS/PGM + 5 7**)
3. Press the **[HOLD/SAVE]** button.

Operation

LDP-7016D & LDP-7024D

To use Call log feature

1. Press the flexible button that has been programmed as the **CALL LOG** button.
2. To select the call type(Received Call/ Dialed Call/Lost Call), press {UP} or {DOWN}of navigation key.
3. The user can scroll through the numbers by pressing the **Navigation Up/Down** buttons.
When the CLI of the desired number is displayed, press the **OK key** and the system will establish a call to that number.
4. Select the '**LOST CALL**' Menu to view the CLI MSG-Wait numbers.
The number in Lost call can be answered, deleted or saved by pressing SELECT soft button.
User can choose ANSWER/ DELETE CURRENT/DELETE ALL/ SAVE/ NAME-TEL by pressing the SELECT soft button.

LDP-7024LD

1. Press the flexible button that has been programmed as the **CALL LOG** button.
2. Select the call log type by pressing UP or DOWN of navigation key.
3. The user can select the desired number and press **SEND** to establish a call to that number or press **DETAIL** to display the time and date of the selected call before pressing **SEND**.

LKD-30D

To use Call log feature

1. Press the flexible button that has been programmed as the **CALL LOG** button.
To select the call type, press {Up} or {Down} of Volume key.
2. To select the call type(Received Call/ Dialed Call), press {UP} or {DOWN}.
3. The user can scroll through the numbers by pressing the **Volume Up/Down** buttons.
When the CLI of the desired number is displayed, press the **{HOLD} key** and the system will establish a call to that number.
4. To view Lost call(CLI MSG Wait), press **[CALLBK]** button.

Condition

1. To use this feature, a user should program 'Call Log button' in flexible button.
2. A user can program 'Call log list number' per station. (PGM160-Flex19, Range 15-50)
3. In case a user program 'call log list number', all call log database will be initialized.
4. Maximum call log list per system is 500 for IP LDK-20.
5. The system assigns the call log list from the physical port 1 in order.
6. Must enable CLI MSG-Wait for the LOST call log.

Admin Programming

1. CALL LOG List number **4.5.1.19(PGM160-Flex19)**
2. CLI MSG-Wait **4.1.5.4(PGM 114 Flex 4)**

2.5 Call Barring Feature

2.5.1 Account Code

Description

An account code is used to identify outgoing call for accounting and billing purposes, the account code is appended to SMDR Call record. So company use account code for each station user so that the company can determine what calls were made for station users, and can submit a bill to the station users according to the station user's account code on the SMDR call record.

An account code may use the digits "0" through "11"(Maximum 12)

Operation

To enter an account code before accessing a CO line,

1. Press the {**ACCOUNT CODE**} flexible button.
2. Dial the account code (max. 12 digits) or mark • , then reconnected to the external party.
3. Intercom dial tone is heard.
4. Seize a CO line to make a call.

To enter an account code during a conversation with an external party:

1. Press the {**ACCOUNT CODE**} flexible button.
2. Dial the account code (max. 12 digits).
3. Press the {**ACCOUNT CODE**} flexible button, the user is reconnected to the external party.

To enter an account code without {ACCOUNT CODE} flexible button during a conversation with an external party,

1. Press the [TRANS/PGM] button.
2. Dial 5 5 0(SMDR Account Enter Code : see Ref.1)
3. Dial the account code (maximum 12 digits) or mark • , then reconnected to the external party.

Condition

1. For DKTUs, you may assign a flexible button as {**ACCOUNT CODE**} to access the account code feature.
[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + 8 0 + [HOLD/SAVE]
2. While entering account code, it is impossible to talk to the other party.
3. The user may enter the account code before a call conversation is established.

Reference

1. SMDR Account Enter Code : 3.6.7(ADMIN 106 – FLEX 7)

2.5.2 Authorization Code

Description

When a station user can make a CO line call, if the station is programmed to enter the authorization code by ADMIN programming, the authorization code must be entered. An authorization code must be assigned through ADMIN programming.

An authorization code can be used for SMDR, a DISA account code.

If a third party discovers the personal authorization code, there will be a risk that they will make fraudulent phone calls using the telephone, and the cost will be charged to your account. In order to avoid this problem, 1) specify a complicated authorization code as random as you can make it, 2) change the authorization code frequently.

An authorization code is assigned as 5 digits or variable length(3~11digits). Authorization code can not be duplicated.

Operation

To access a CO line when authorization codes are required.

1. Attempt a CO line access, and DND warning tone is heard.
2. Enter the authorization code and '#' (end mark of authorization code, If 5 digits authorization mode, '#' is no need)
3. If valid, the CO line is connected and if not valid, you will hear error tone.

Condition

1. The total number of authorization code in the system is 200 for IP LDK-20.
2. The same authorization code cannot be assigned.
3. To register the authorization code in a station,
[TRANS/PGM] + 3 1 + authorization code + [HOLD/SAVE]
4. To change the authorization code in a station,
5 Digits Authorization Mode
[TRANS/PGM] + 3 2 + current authorization code + new authorization code + [HOLD/SAVE]

Variable Authorization Mode
[TRANS/PGM] + 3 2 + current authorization code + '#' + new authorization code + [HOLD/SAVE]
5. If Loop LCR ACNT is set about a station, the authorization code is required when the station dials Loop LCR CO Access code(see Ref.1)

Reference

1. LCR : 2.2.7

Admin Programming

- n Authorization Code 4.11.1 (PGM 227)
- n DISA Account Code 4.2.2.3 (PGM 141 – FLEX 3)
- n CO Line Group Account 4.2.2.9 (PGM 141 – FLEX 9)
- n Loop LCR Account Code 4.1.2.16 (PGM111 – FLEX 16)
- n 5 Digits Authorization Code usage 4.4.2.21 (PGM161 – FLEX 21)

2.5.3 Automatic Call Release

Description

When a station does not initiate dialing on an outgoing CO line or receive no answer on an intercom call, the system will return the CO line or the called station to idle based on the assigned Auto Release Timer (ADMIN program 180 – FLEX 14). If on the speaker phone or monitor mode, the station will return to idle, otherwise the station will receive error tone if using the handset.

Condition

1. Intercom call in H/P mode (see Ref.1) is regarded that it is answered and Station Auto Release is not activated.
2. When the Automatic Release time is assigned to 0, Auto Call Release is not activated.
3. While making a call without lifting handset and Auto Release timer is expired, the call is canceled and the station will go idle state automatically.
4. While making a call with lifting handset and the Auto Release timer is expired, the call is canceled and the station will receive error tone.

Reference

1. Intercom Signal Mode : 2.4.14

Admin Programming

- n Automatic CO Release Timer **4.5.1.14 (PGM 180 – FLEX 14)**
- n Station Auto Release Timer **4.5.3.5 (PGM 182 – FLEX 5)**

2.5.4 COS (Class Of Service)

Description

Each station and CO line may be assigned to have different class to allow or restrict call service. The level of COS assignments are programmed to each station and CO line. Applied dialing restrictions are the result of the interaction of COS assignments as shown below.

Ø Class of service

| CO Line COS | | | | | | |
|--------------------------------|---|--------------------|--------------------|--------------------|--------------------|---------------|
| | | 1 | 2 | 3 | 4 | 5 |
| S T A C O S | 1 | Unrestricted | Unrestricted | Unrestricted | Canned Restricted | Unrestricted |
| | 2 | Table A | Table A | Unrestricted | Canned Restricted | Unrestricted |
| | 3 | Table B | Unrestricted | Table B | Canned Restricted | Unrestricted |
| | 4 | Table A,B | Table A | Table B | Canned Restricted | Unrestricted |
| | 5 | Canned Restricted2 | Canned Restricted2 | Canned Restricted2 | Canned Restricted1 | Unrestricted |
| | 6 | Canned Restricted1 | Canned Restricted1 | Canned Restricted1 | Canned Restricted1 | Unrestricted |
| | 7 | Intercom Only | Intercom Only | Intercom Only | Intercom Only | Intercom Only |
| | 8 | Table C | Table C | Unrestricted | Canned Restricted1 | Unrestricted |
| | 9 | Table D | Table D | Unrestricted | Canned Restricted1 | Unrestricted |

- I Canned, Restricted1 : Long distance call is not allowed.(allows 8 digits dialing maximum)
- I Canned, Restricted2 : Long distance call is not allowed.
(The dialed digits can be longer then 8 digits)

Ø Station COS

| | |
|-------|---|
| COS 1 | There is no restriction to dial. |
| COS 2 | Monitored by Exception Table A |
| COS 3 | Monitored by Exception Table B |
| COS 4 | Monitored by Exception Table A & B |
| COS 5 | Long distance call is not allowed. (The dialed digits can be longer than 8 digits.) |
| COS 6 | Long distance call is not allowed. Only max. 8 digits may be dialed. |
| COS 7 | Only intercom, paging and emergency call are allowed. No dialing allowed on CO lines. |
| COS 8 | Monitored by Exception Table C |
| COS 9 | Monitored by Exception Table D |

∅ CO COS

| | |
|-------|---|
| COS 1 | There is no restriction. Monitored by STA COS. |
| COS 2 | Monitored by Exception Table A & STA COS 2/4. |
| COS 3 | Monitored by Exception Table B & STA COS 2/4. |
| COS 4 | Long distance call is not allowed for all STA COS. Max. 8 digits may be dialed. |
| COS 5 | Overrides STA COS 2,3,4,5,6. (No COS restriction) |

∅ CO to CO line COS

| | |
|-------|---|
| COS 1 | There is no restriction to dial. |
| COS 2 | Monitored by Exception Table A |
| COS 3 | Monitored by Exception Table B |
| COS 4 | Monitored by Exception Table A & B |
| COS 5 | Long distance call is not allowed. (The dialed digits can be longer than 8 digits) |
| COS 6 | Long distance call is not allowed. Only max. 8 digits may be dialed. |
| COS 7 | Only intercom, paging and emergency call are allowed. No dialing allowed on CO lines. |
| COS 8 | Monitored by Exception Table C |
| COS 9 | Monitored by Exception Table D |

∅ PBX Dialing Codes

There are 5 PBX access codes (2 digits) to enter the system and access a CO line via PBX. A CO line marked as a PBX line will not be governed by any station or CO line COS until a recognized PBX code is dialed.

∅ Exception Table A & B

There are two exception tables with COS. Each table has 20 allow codes and 10 deny codes and a code may have eight entries.

Condition

1. Rule of COS

- In STA COS 7, no dialing is allowed to CO line.
- In CO COS 5, STA COS 1~6 is ignored and there is no restriction to access CO line.
- In CO COS 4, STA COS 1~6 is ignored. The long distance call is not allowed and max. 8 digits may be dialed.
- In CO COS 1, it is restricted by STA COS.
- In CO COS 2 and STA COS 2/4, it is restricted by Exception Table A. There is no restriction in STA COS 1/3. In STA COS 5, long distance call is not allowed and max. 8 digits can be dialed.

2. Rule of CO line Allow/Deny Restriction

- If there is no entries, no restriction is provided by the table.
- If there are entries in the Deny table, then restriction is on a 'Deny Only' basis.
- If there are entries in the Allow table, then restriction is on a 'Allow Only' basis.
- If there are entries in both the Allow and Deny Tables, the Allow Table is searched, if the dialed number matches an entry in the Allow Table, the call is allowed. If a match is not found the Deny Table is searched and, if a match is found in the Deny Table, the number is restricted otherwise, the number is allowed.

3. General Conditions

If 'Incoming CO Call Toll Check' is set, the COS rule is applied when the station dials digits after answering the incoming CO call.

Admin Programming

- n Station COS 4.1.7 (PGM 116)
- n CO line COS 4.2.2.2 (PGM 141 – FLEX 2)
- n CO to CO COS 4.4.7 (PGM 166)
- n Toll Exception Table 4.9.1 (PGM 224)
- n Canned Toll Exception Tables 4.9.2 (PGM 225)
- n Incoming Toll Check 4.4.2.16 (PGM 161 – FLEX 16)

2.5.5 System Speed Zone

Description

Up to 10 speed number zones can be defined. Speed bins & stations can be allocated to these zones. Toll checks based on COS can be applied to zones(see Ref.1). Only stations allocated to zones can access these bins. Speed bins not allocated to zones can be accessed by all stations and no toll checks are applied.

Reference

1. COS : 2.5.4

Admin Programming

- n Speed Dial Access 4.1.3.9 (PGM 112 – FLEX 9)
- n System Speed Zone Range 4.10.5.1 (PGM 232)
- n System Speed Zone Access 4.10.5.2 (PGM 232)
- n CO Dial Tone Detect 4.4.1.6 (PGM 160 – FLEX 6)

2.5.6 Walking COS

Description

This feature allows to temporarily override toll restriction and makes a toll call from toll restricted phone. It is activated by entering a feature code or pressing programmed **{Walking COS}** flexible button and the authorization code before accessing a CO line. The authorization code(see Ref.1) can be used as a verified account code for SMDR(see Ref.2)

Operation

To activate this feature from a DKTU,

1. Press the **[TRANS/PGM]** button.
2. Dial **2 3**.
3. Confirmation tone will be heard and enter the authorization code.
4. If the authorization code is accorded, intercom dial tone will be heard. (At this time, the used extension COS(see Ref.3) is changed to the station's COS that is accorded to the entered authorization code temporarily)
5. You can place a CO line call only one time.

Condition

1. To program **{Walking COS}** flexible button,
[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + 2 3 + [HOLD/SAVE]
2. This feature can be used at DKTU and SLT.
3. This feature is available for only one time. While you are activating this feature, if you hang up or press the **[TRANS/PGM]** button to hold the call and seize other line, then the COS of station used is recovered to original COS.
4. When you dialed wrong number, press the **[FLASH]** button to dial again without changing CO line.
5. The fee for a call with Walking COS will be charged to the station which is accorded to the authorization code, not the actual using station.
6. When a user tries to make Walking COS to a station which is set to COS 7 with temporary COS, COS of the call will follow the original COS of the station.

Reference

1. Authorization : 2.5.2
2. SMDR : 2.12
3. COS : 2.5.4

Admin Programming

n Authorization Code **4.10.1 (PGM 227)**

2.6 Hunt Group

Description

Stations can be grouped so that incoming calls may be routed to an idle station in the group. The number of Hunt group and the number of station in a group as follows;

| Hunt Group | Station in a Hunt Group |
|------------|-------------------------|
| 10 | 26 |

Several VMIB announcements may be provided to the Hunt group. If a call is not answered until the 1st Announcement Timer expires. The second announcement will be provided if the call continues to wait beyond the queue to the 2nd Announcement Timer. The second announcement may be repeated until the call is answered or disconnected by user's choice.

Hunt group may be assigned as one of the following 5 types:

These Types are described in detail below.

| | |
|--|---|
| Circular | A call is routed to hunt group. If first destination is unavailable or unanswered, the call is routed to the next station in the group. |
| Terminal | If the call is unanswered or unavailable, it is directed to the next listed station in the group. The call will continue to be routed until reaching the last station in the group. |
| UCD (Unified Call Distribution) | Calls are routed to the station in the group that has been idle for the longest time. |
| Ring | All stations in the group will receive ring for a call of Hunt group when a call is received. |
| VM (Voice Mail) | This group is assigned for Voice Mail and only SLT is assigned as the member of the VM group. |

2.6.1 Common features for Hunt Group

The common features for hunt group are as followings:

[VMIB announcement]

IP LDK system supports first and secondary VMIB announcements for hunt group. When a call is arrived to hunt group, pre-assigned VMIB announcement will be played to the caller, if VMIB announcement is set and its timer is expired. Furthermore if the call is not answered until second announcement timer is expired, this announcement will be played. Also, this secondary announcement can be repeated as its programming.(see Ref.1)

[Overflow destination]

If overflow timer is expired and nobody answers a call, the call will be diverted to overflow destination. This overflow destination can be a extension, a group, VMIB announcement, and system speed.

[Wrap-up Timer]

When a member of hunt group goes to idle, IP LDK system will not give a call to that member. After wrap-up timer goes, the member goes to real idle state which can serve a hunt call.

[Music source]

IP LDK system supports 8 kinds of music source for hunt group instead of ring back tone. When a call goes to queue, a caller will hear any music source which is pre-assigned. (see Ref.2)

[Multiple member assignment]

A station can be a member of one or more hunt groups. But a kind of hunt groups which a member belongs to should be same.

Condition

1. A station can be a member of plural Hunt groups and the group should be the same type of Hunt group.
2. A station in DND/Forward state will not receive group call.
3. Transferred ring to Hunt group is not recalled.
4. When a call is received in a Hunt group, the call will be in the ring process before receiving the announcement for Hunt group Announcement time. If no Hunt group announcement is assigned, the timer is ignored. If the timer is set to 0, the call will receive the announcement prior to the ring process.
5. When a Hunt group has guaranteed announcement (the 1st announcement timer is set to 0), Overflow timer is stated and ring is provided after the announcement is completely played.
6. Only the 1st announcement may be used for guaranteed announcement.
7. If all stations in the group are busy when a call is received, the call continues to wait for an available station in the group. If queued, the call may be sent to MOH until the call is answered or disconnected.
8. If there is no available member in a group because every member sets DND, UCD DND, or call forward, all new calls to the group and all queued calls in the group are rerouted to another destination. One of the following is determined as to destination in the listed order;
 - Overflow destination if assigned.
 - Alternative destination if the group is UCD group and it is assigned.
9. If a call is not answered until Overflow Timer expires, it will be sent to overflow destination while the VMIB announcement is being played.
10. If overflow destination is not assigned, the call will be dropped when overflow timer expires.
11. If an Announcement Timer is set and no VMIB number is assigned, the announcement is ignored.

12. When the number of queued incoming calls are over the pre-defined in UCD group, the incoming CO calls will be dropped. If alternative destination is set and all members are busy, incoming calls are not queued. All calls are routed to alternative destination. If overflow destination is programmed, the queued call is re-routed to overflow destination after overflow timer is expired.
13. Pick-up Hunt group is for only intercom call.
14. ISDN phone can be a member of Hunt group. But, it only works for answering a hunt call.
15. Group pick-up doesn't work with a call of Hunt group pilot number. While trying to do it, you will hear error tone.
16. ISDN phone can not be the first hunt group member. And two number entrance for one ISDN phone does not permit.

Reference

1. Recording System VMIB Announcement : 2.11.1
2. ICM Box Music Selection : 2.13.10

Admin Programming

- n Station Group Assign **4.6.1 (PGM 190)**
- n Station Group Attribute **4.6.2 (PGM 191)**

2.6.2 Terminal Group

Calls to a station in the group or a pilot number will go to the first station in the group. If unanswered or unavailable, the call proceeds to the next listed station in the group. The call will continue to be rerouted until reaching the last station in the group where the call will remain or can be sent to an overflow station/group. A terminal Hunt group can be assigned with a pilot number (Hunt group number) and only calls to the pilot number will hunt.

[Example]

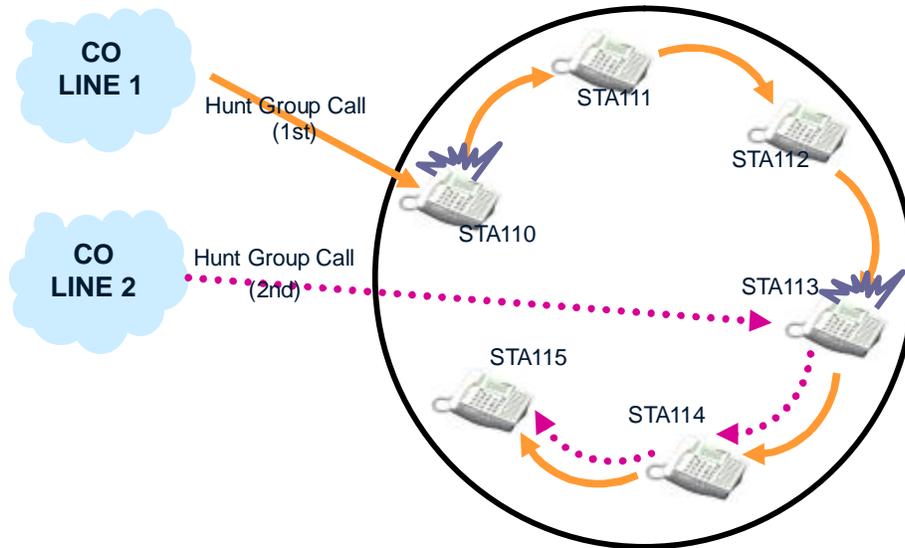


Figure 2.6.2 Terminal Group

2.6.3 Circular Group

In Circular Hunt, calls to a station in the group or a pilot number will go to the station or an idle station in the group. If unavailable or unanswered in the hunt no answer time, the call is directed to the next station in the group. The call will continue to route until each station in the group has been tried. The call will remain at the last station in the group or will be passed to the assigned overflow station or the assigned overflow group. A circular Hunt group can be assigned with a pilot number (Hunt group number) and only calls to the pilot number will hunt.

[Example]

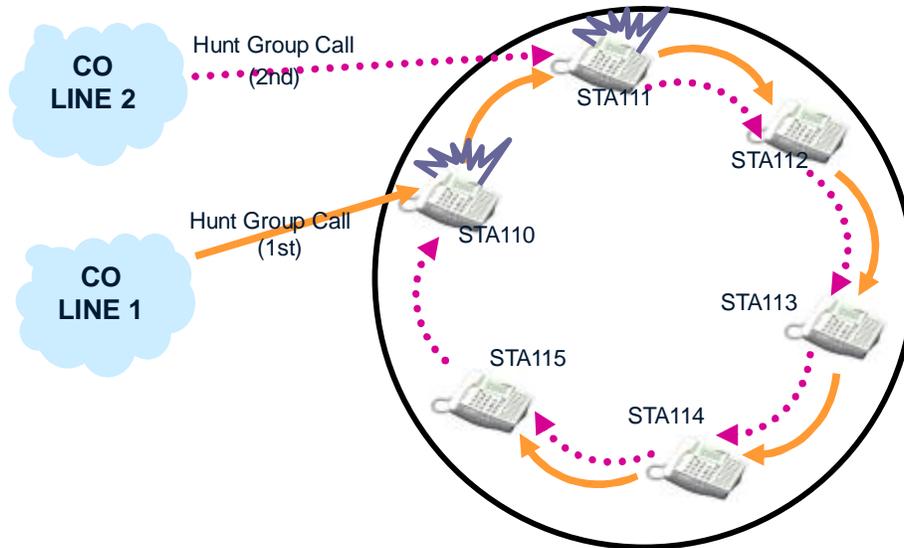


Figure 2.6.3 Circular Group

2.6.4 Ring Group

All the stations in the group receive ring simultaneously for a call of Hunt group until one of stations received ring answers the call. If call is not answered until overflow timer, it will be sent to an overflow destination, if assigned.

[Example]

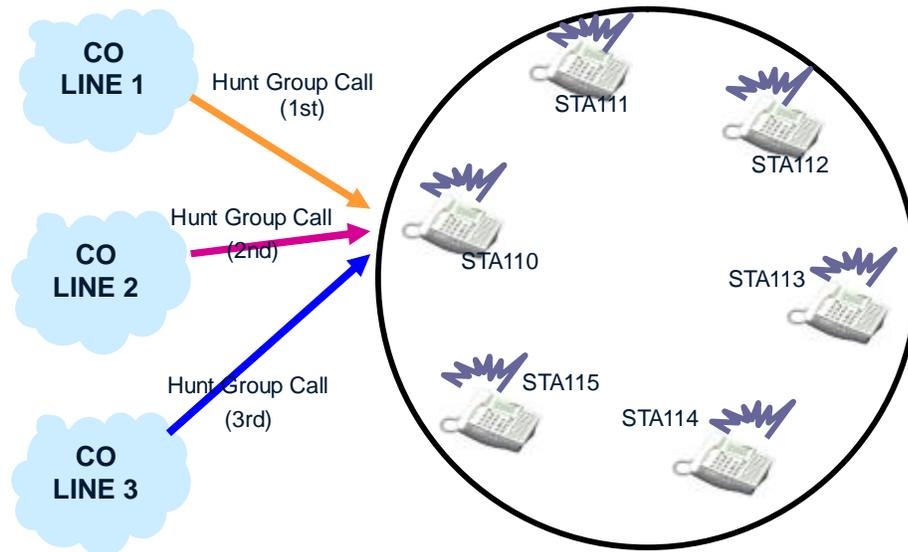


Figure 2.6.4 Ring Group

2.6.5 Voice Mail Group

This group is assigned for voice mail and only SLT can be assigned as a member of Hunt group. Calling VM group, the system will search an idle member in the calling VM group with Terminal type or Circular type.

2.6.6 UCD Group(Unified Call Distribution Group)

Calls are sent to the group by dialing the pilot number (Hunt group Number) or assigning CO lines to directly terminate to the group. Calls are directed to the station in the group that has been idle for the longest time. If all stations in the group are busy when a call is received for the group, the call may be routed to an alternate location, or may continue to wait (queue) for an available station in the group. Based on programming, the queued call may be taken out of the group and directed to an overflow station.

The member of UCD group can assign DND. The station assigned UCD-DND will not receive ring.

To assign UCD-DND button,

[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + 8 7 + Hunt Group No. + [HOLD/SAVE]

* **Note:** Do not make a loop with UCD group alternative destination.

[Example]

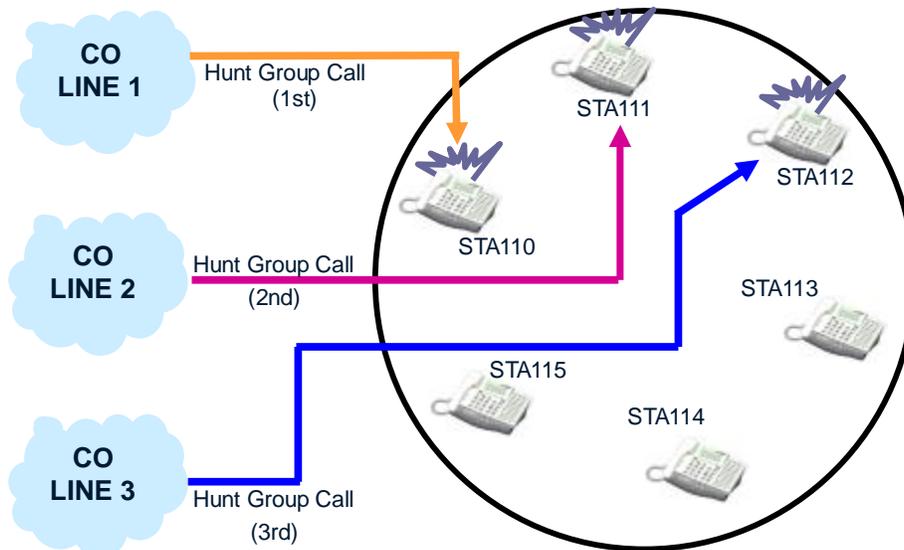


Figure 2.6.6 UCD Group

Condition

IP LDK system supports the VMIB announcements for hunt group. And when a call is arrived to secondary VMIB announcements, caller can be connected another station by the entered number with CCR service. **(PGM 228)**

2.6.7 ACD (Automatic Call Distribution)

Description

A separate supervisor or common supervisor can be assigned in UCD group. And, the supervisor can monitor the status of the group. When a call is queued to a group for longer than a predefined time or when a predefined number of calls are queued, the supervisor's LCD will indicate the number of calls in queue, and the queued time for the longest queue. The supervisor can change overflow destination and timing. The system will provide traffic (see Ref.1) and on line status reports, based on the supervisor's request for the UCD group including the following group statistics:

- Total calls
- Number of unanswered calls
- Average and the longest queued calls
- Number and total time when all agents are busy
- Average ringing time before answer
- Average service time after answer

Operation

To monitor an agent's conversation at ACD supervisor,

1. Call the busy agent and receive busy tone.
2. Press **{ACD}** flexible button.
3. The supervisor can monitor the agent, but will not send audio to the agent.

To report ACD status,

1. Press the **{ACD}** flexible button.
2. Dial ACD Status Feature code.
(1-Status / 2-Database / 3-Duty / #-Print)

In the Status mode, the supervisor can initialize the group statistics by pressing the **[MUTE]** button.

Condition

1. The user should assign a flexible button for {ACD}
[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + 8* + ACD Group No + [HOLD/SAVE]
2. The user can see the group status by ACD supervisor or by printing periodically to RS-232C print.
3. To print ACD statistics periodically, set the ACD Print Timer (PGM 161-FLEX 10: 10sec base)
4. The agents can also print and view the ACD statistics as the supervisor.
5. The agent can login and logout using Hot Desk feature.

Reference

1. Traffic Analysis : 2.18

Admin Programming

- n Station Group Assign **4.6.1 (PGM 190)**
- n Station Group Attribute **4.6.2 (PGM 191)**
- n ACD Print Enable **4.4.2.9 (PGM 161 – FLEX 9)**
- n ACD Print Timer **4.4.2.10 (PGM 161 – FLEX 10)**
- n ACD Clear Database after Print **4.4.2.11 (PGM 161 – FLEX 11)**

2.7 Conference Feature

Description

A station user(Supervisor) can make a call with intercom stations and CO Lines. Supervisor invite station user or CO Line user one by one with **[CONF]** button. Connected users can speak and hear with each other at the same time.

In Multi-Line conference, Max. 3 parties(intercom/CO Line) can enter a conference. Max. 2 CO lines can be have a conference with one intercom station.

Unsupervised Conference is that leaved members are still preserve conference status, though the conference initiator(supervisor) may exit a conference.

| Conference Type | Description |
|-------------------------|---|
| Conference | A station user can make a call with internal STA and CO lines. |
| Multi Line Conference | One internal party can make conference with max. 2 CO lines. |
| Unsupervised Conference | In unsupervised conference, it is restricted to Unsupervised Conference timer if there is no internal station in the conference. (Default: 10min) |
| Paging Conference | It is possible for the second originator to page with the first originator during the paging announcement. |

[Add On Conference]

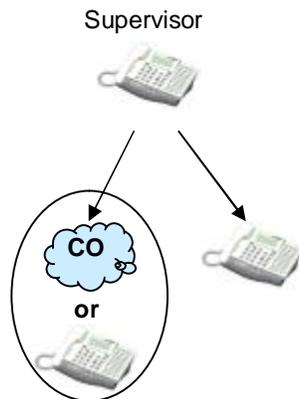


Figure 2.7.1 Add On Conference

[Multi Line Conference]

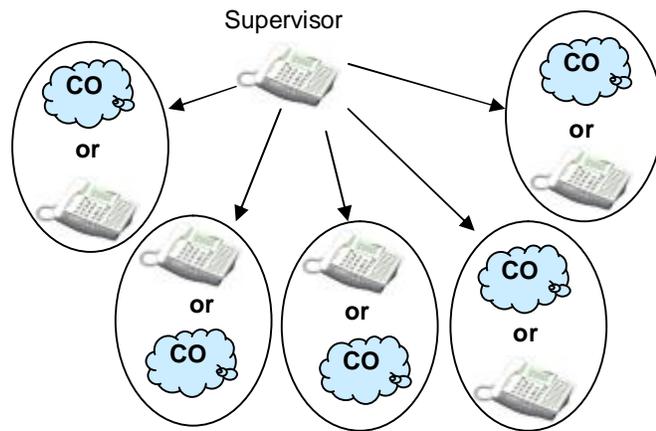


Figure 2.7.2 Multi Line Conference

Operation

To establish an Add-on Conference.

1. With established the first call, press the **[CONF]** button. The existing call is on hold and intercom dial tone is heard.
2. Make a call to internal party.
3. When answered, press the **[CONF]** button.
4. When all parties have been called, press the **[CONF]** button again. And all parties can converse.

To make a Multi-line Conference.

1. With established the first call with a CO line, press the **[CONF]** button. The existing call is on hold and intercom dial tone is heard.
2. Place a call to an external party.
3. When answered, press the **[CONF]** button.
4. When all parties have been called, press the **[CONF]** button again. And all parties can converse.

To make Unsupervised Conference.

1. During a conference, press the **[CONF]** button in supervisor.
2. The conference is still connected and the LED of **[CONF]** button of supervisor is flashing.
3. To re-enter the conference, lift handset and flashing **[CONF]** button in supervisor.

Condition

1. In unsupervised conference, it is restricted to Unsupervised Conference timer if there is no internal station in the conference. (Default: 10min)
2. The Unsupervised Conference timer will be reset if the internal party re-enters the conference.
3. Max. 3 parties (internal/external) can enter a conference in IP LDK-20. But 3 parties can be members for conference.
4. In Multi-line conference, max. 2 CO lines can make a conference with one internal party.
5. If the supervisor in a conference receives error or busy tone from the internal party while making a conference, he can receive intercom dial tone again by pressing the **[CONF]** button.

Admin Programming

- n Unsupervised Conference Timer **4.5.3.6 (PGM 182 – FLEX 6)**
- n Multi-line Conference **4.4.1.9 (PGM 160 – FLEX 9)**

2.7.1 Conference – SLT (BROKERS Call)

Description

A single line telephone user can initiate a 3-way conference with any combination of CO line or internal users.

A single line telephone user can alternate between two calls maintaining private conversations with both parties. The parties may be either internal (stations connected to the system) or external CO line calls, and may be incoming or outgoing.

Operation

To set up a conference from SLT,

1. Make the first call.
2. Press and release hook switch and intercom dial tone will be heard. The existing call is placed on exclusive hold and the recall timer is activated.
3. Place the second call and announce conference.
4. Press and release hook switch and you will be connected to the first call.
5. Within 2 seconds, press hook switch to establish a conference.

Condition

1. If you make hook-flash after 2 seconds, brokers call will be initiated.

2.7.2 Paging Conference

Description

During the Paging by conference page zone(at this manual, Paging means broadcast to pre-assigned destination), second originator can page with first originator together. It is possible for any paged station user to be the second page originator by off-hook and pressing the [**CONF**] button. SLT users might make Hook flash and dial conference join code(58)

At that time, if another second page originator exist, then the previous second originator goes to idle status and the new second originator can page with the first originator.

Operation

During the conference Page is being activated

Keyset user.

1. Lift handset and press [**CONF**] button.

SLT user.

1. Lift handset to answer the page.
2. Hook flash and dial conference page join code(58)

Condition

1. Page Timer is not applied to Paging Conference Group.
2. If there is the second page originator, it is impossible to "Meet Me Page".
3. If the first originator goes on-hook, the conference group paging connection is released.
4. The second originator can make paging regardless of page access privilege.

Admin Programming

- n Paging Warning Tone **4.4.2.4 (PGM 161 – FLEX 4)**
- n Paging Access **4.1.2.8 (PGM 111 – FLEX 8)**
- n Conference Page Zone **4.1.10 (PGM 119)**
- n SLT Conference Page Join Code. **3.6.9.5 (PGM109-FLEX 5)**

2.7.3 Conference Room

Description

This feature allows internal users or CO callers to join a conference without being invited by the conference supervisor. This conference feature has the conference join codes, and each conference room has an own join code (room number). A DID and transferred CO call can be a member of conference. This feature terminates only when deactivation code is dialed.

Operation

To Activate a conference room

1. Press the [PGM] + 4 + 3 + Room Number (1~9)
2. Dial 5-digit password (It is optional)
3. Press the [HOLD] button.

To Deactivate a conference room

1. Press the [PGM] + 4 + 4 + Room Number (1~9)
2. Press the [HOLD] button.

To join a conference room in case of internal call

1. Dial the activated conference room number. (571 ~ 579)
2. Enter 5 digits password for entering conference room if password is enabled.

To join a conference room in case of DID call

(In using of DID type 2, DID destination is assigned conference room)

1. DID call is routed to conference room

To Transfer CO Call to conference room

1. Press the Trans/PGM button at attendant.
2. Dial the activated conference room number. (571 ~ 579)
3. Enter password for entering conference room by the transferring station.

To check room status by ATD

1. At ATD, dial a conference room status code [PGM] + 047.
2. ATD's LCD is indicated room activating station, member and etc.

Condition

1. The Maximum number of conference room is 9.
2. Up to Maximum 3 members can enter each room. (Same present conference feature)
3. Assigning and entering PASSWORD is Optional.
4. CONF ROOM status can be checked by ATD.
(How many members are joining the conference room)
5. For CO party, only ISDN line can enter a conference room. LCO line cannot be a member of conference room.
6. If system attendant has a conference room button, she can check the status of conference room with LED;
ON – Conference room is activated, but there is no member.
OFF – The conference room is deactivated.
Flash 60 IPM – The number of members are 1 to 3.

2.8 Paging feature

2.8.1 Internal page / External page / All-Call page / Meet-me Page

Description

Stations can individually be allowed or denied the ability to make pages. This applies to all internal zone paging and all external zone paging. A station denied access to paging may still answer a Meet-Me Page announcement.

There is one External Paging Zone available. External paging requires an externally provided amplifier and paging system. External page can have a relay contact associated to it.

There are ten internal paging zones available. A station can be in any or all zones or in no zone at all. Stations not assigned to a page group can still make page announcements, if allowed in station programming. Stations can be assigned to a page group in order to receive pages but not allowed to make page announcements.

Stations to receive pages for a given zone are assigned to the zone. A page warning tone, if assigned, will be provided to the page zone(s) prior to the audio connection. The user is allowed to continue the page for a specified period. After the time is expired, the user is disconnected and the page zone(s) is returned to idle.

A user can respond to a page from any station and connect to the paging party for a private conversation. The user should respond to the page in the Page Time-out duration to connect the paging party.

Paging Code:

| Access Code | ITEM |
|-------------|--|
| 501-510 | Internal Page Zone 506-510:Conference page zone |
| 543 | Internal All Call Page |
| 544 | Meet Me Page |
| 545 | External Page Zone |
| 549 | All Call Page (Internal & External) |

Operation

To make a page.

1. Lift the handset or press the **[MON]** button.
2. Dial the desired paging code.
3. If assigned, after page warning tone, make announcement.
4. Replace the handset and go on-hook.

To respond a Meet-me Page.

1. Lift the handset or press the **[MON]** button.
2. Dial Meet-me Page code 5 4 4 or press the **[HOLD/SAVE]** button.
3. The call with paging party is established and the zone returns to idle.

Condition

1. When external paging is required, appropriate external equipment should be attached to the proper external page connections on the MBU.
2. A station which is in DND or busy, it cannot receive a page.
3. A station which is not allowed to page cannot make a page.
4. When a paging is used in the system, another paging is not allowed.
5. Page warning tone may be controlled by Admin. Programming.
6. When the page timer is expired, paging connection is automatically released and ICM busy tone is presented to the paging station.
7. You should lift the handset to make a page. When trying to make a page without lifting handset, "LIFT HANDSET TO PAGE" is displayed on the LCD.
8. Paging can be programmed to a Flex. button.
9. If an intercom call is received to the paging station, the caller will hear intercom busy tone.
10. If a CO line call is received to the paging station, the station will receive off-hook ring.

Meet-me Page

1. To assign **{MEET-ME PAGE}** at a flexible button,
[TRANS/PGM] + Flex. BTN + 5 4 4 + [HOLD/SAVE]
2. A station may respond meet me page regardless of assignment of pick-up/paging group assignment/page access.
3. Page from CO line can't be answered by pressing the **[HOLD/SAVE]** button or the code of meet-me answer. If a user tries to answer a meet me page request from CO line, error tone is heard and LCD message for error will be displayed.

Admin Programming

- n Paging Timeout Timer **4.5.2.10 (PGM 181 – FLEX 10)**
- n Page Warning Tone **4.4.2.4 (PGM 161 – FLEX 4)**
- n Page Access **4.1.2.8 (PGM 111 – FLEX 8)**
- n Internal Page Zone **4.1.9 (PGM 118)**
- n External Control Contact **4.4.9 (PGM 168)**

2.8.2 Pre-recorded MSG

Description

User can record VMIB message for paging.

Operation

To record VMIB paging message.

1. Press the **[TRANS/PGM]** button.
2. Dial **6 5**.
3. You will hear the announcement “Press # button to record” If there is already a recorded message in the number dialed, the recorded message will be played.
4. Dial # to start recording. Start the recording after hearing the announcement “Record your message” and confirmation tone.
5. Press the **[HOLD/SAVE]** button or the **[MON]** button to finish the recording. Then confirmation tone is heard.
6. Pressing the **[SPEED]** button while playing, then the announcement is deleted and confirmation tone is heard.

To activate VMIB message for paging.

1. Dial the page code (5xx) and lift handset.
2. The recorded VMIB message is paged.

To delete VMIB message for paging.

1. Press the **[TRANS/PGM]** button.
2. Dial **6 7**.
3. Then the recorded message is deleted.
4. Or, press the **[SPEED]** button while playing, then the message is deleted and confirmation tone is heard.

Condition

1. You should lift handset to make a page.
2. If there is any recorded message, it is paged and if there is no recorded message, user’s voice is paged.

Admin Programming

n Paging Timeout Timer **4.5.2.10 (PGM 181 – FLEX 10)**

2.8.3 SOS Paging

Description

The system allows of being recorded multiple VMIB messages for pre-recorded paging. Depending on circumstance, user can use pre-recorded messages for paging. Recorded VMIB message is paged to a page zone at emergency.

Operation

To assign {VMIB SOS Paging} at a flexible button,

1. Press the **[TRANS/PGM]** button.
2. Press a flexible button to assign.
3. Dial paging code (5xx).
4. Dial Message number (001~070)
5. Press the **[HOLD/SAVE]** button.

To activate VMIB SOS paging,

1. Press the assigned **{VMIB SOS Paging}** flexible button.

Condition

1. This feature can be only activated by pressing assigned flexible button on a DKTU in idle state.
2. The VMIB message for SOS Paging can be recorded only at attendant station.
3. Paging zone includes internal, external and all call paging area.
4. VMIB SOS paging is not restricted by VMIB Paging timer. The whole VMIB SOS paging can be paged even though Paging Timeout timer expires.

2.9 Linked Stations

2.9.1 Executive/Secretary

Description

Stations in the system can be assigned as Executive pairs and Secretary pairs. When an Executive station is busy or in DND(see Ref.1), intercom calls and transfer calls are automatically routed to the designated secretary. The maximum number of Executive pairs and Secretary pairs is 6.

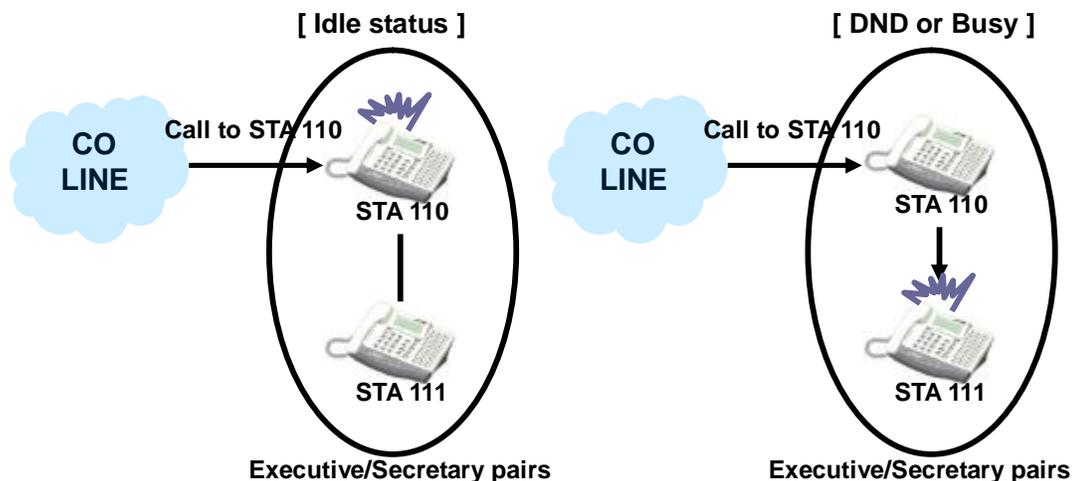


Figure 2.9.1 Ringing in Executive/Secretary pairs

The figure 2.9.1 describes that there is CO call to executive station in Executive/Secretary pairs,

1. if executive station is idle, executive station will receive the ring of the CO call.
2. if executive station is busy or in DND, designated secretary station will receive the ring of the CO call.

Operation

To activate Executive/Secretary Transfer from the Executive's DKTU, Press the [DND/FOR] button.

Condition

1. Secretary can pass a call to Executive when in DND state(see Ref.1) by using camp-on feature(see Ref.2).
2. One Executive can have multiple Secretaries within maximum pairs, and one secretary can be assigned to multiple executives within maximum pairs.
3. When the executive is in DND, the secretary can transfer a CO line call or make camp-on.(see Ref.3)
4. It is possible to make a chain to assign Executive/Secretary pairs. It means that a Secretary may be an Executive of another Executive/Secretary pair. If an Executive and the Secretary which has own Secretary are busy, a call will be forwarded to the second Secretary of Executive/Secretary chain. (It cannot be a loop chain.)
5. If an Executive has multiple secretaries and the first secretary is busy, a call will be forwarded to

the next Secretary.

6. If an Executive has multiple secretaries, a secretary can forward a call to another secretary. But, secretary cannot forward a call to Executive.
7. If an Executive makes a call forward to non-secretary station, a call to Executive will be routed to assigned station(see Ref.4).
8. When both Executive and Secretary are busy, camp-on / transferred calls / messages is remained at the last Secretary station in the chain.

Reference

1. DND : 2.4.9
2. Camp-On : 2.4.5
3. Call transfer : 2.3.2
4. Call forward : 2.3.1

Admin Programming

- n Do Not Disturb **4.1.2.3 (PGM 111 – FLEX 3)**
- n Executive/Secretary Transfer **4.10.3 (PGM 229)**

2.9.2 Linked-Pair Station

Description

Two stations can be linked with each other by programming. Linking with a DKTU and a wireless terminal(DECT), the user can use them alternatively. When two stations are linked, the following functions are supported;

[Example]

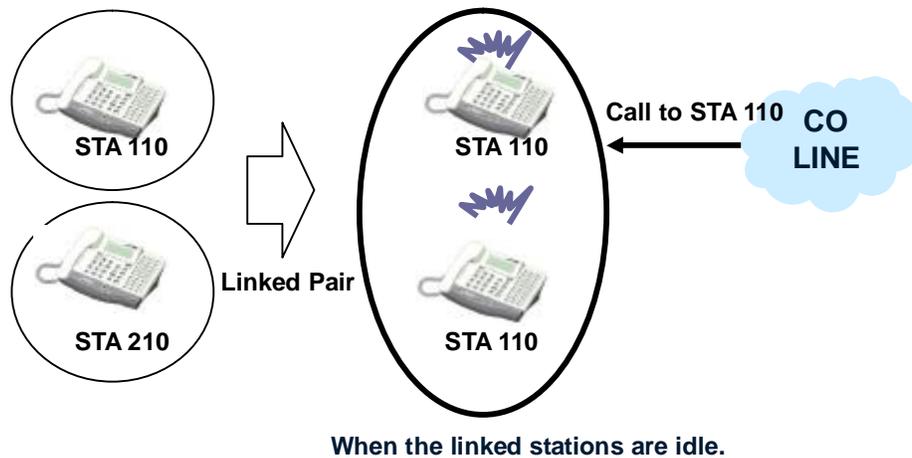


Figure 2.9.2 Ringing in Linked-Pair when two linked stations are idle.

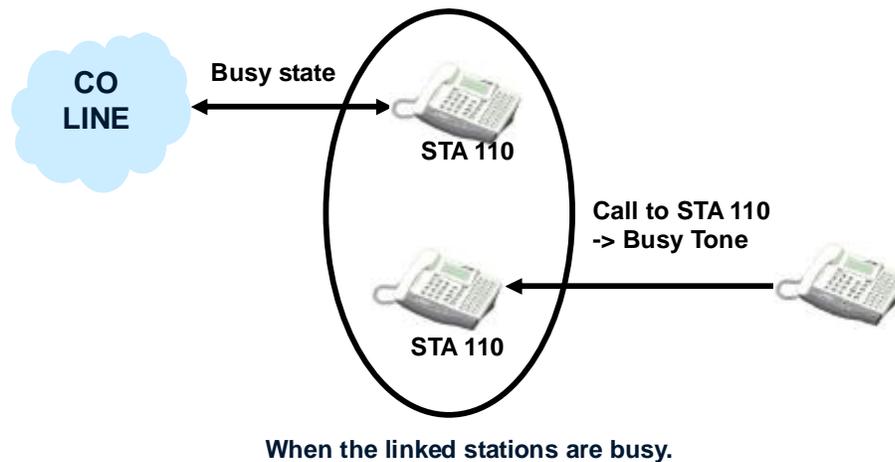


Figure 2.9.3 Ringing in Linked-Pair when one linked station is busy.

The figure 2.9.2 describes that if two linked stations in Linked-Pair are idle and a CO call arrives, two linked stations ring. But the figure 2.9.3 describes that if one linked station in Linked-Pair is busy and a new CO call arrives, the caller will hear the busy tone.

- Ø If one of two linked stations receives intercom calls/CO incoming calls (DISA/DID)/recall ring(system/exclusive hold / transfer), then the other linked station will receive ring together.(see Ref.1, Ref.2)

- Ø If one station of linked pair goes to DND or call forward or pre-selected message display state(see Ref.3, Ref.4), then linked station goes to the same state automatically. Also, if any station in a linked pair comes out of this state, then the other comes out simultaneously.
- Ø If one of linked stations is busy, the LCD of the other station will display "IN USE AT LINK STA".
- Ø When a linked station is busy, the other idle linked station will not receive ring for CO lines, transferred ring or intercom calls.

Condition

1. It is available to make 13 linked station pairs.
2. A station can be linked with only one station.
3. The intercom number of two linked stations is operated as one number for all features.
4. The presented number of linked pair is the first station number (Master) which is assigned by Admin Programming.
5. The station attributes of the second station (Slave) will follow the attributes of Master's. (Ex. Day/Night COS, CO Warning Tone, CO Auto Hold, CO Call Drop, Alarm...)
6. intercom box, DSS/DLS or ISDN phone cannot be linked with a station.
7. It is operated with Tone mode in linked station pair regardless of intercom Answer mode(STA program 1 2)
8. Attendant station can be linked with the other station. But, the linked station cannot use attendant features(see Ref.5)
9. A linked station can call his pair station by dialing his own number. It is possible to make CO line/Intercom Transfer between two pairs.

Reference

1. HOLD : 2.3.3
2. Call transfer : 2.3.2
3. DND : 2.4.9
4. Call forward : 2.3.1
5. Attendant : 2.13

Admin Programming

- n Linked Station Pairs **4.4.20 (PGM 179)**

2.10 External Device Control

2.10.1 Door Open

Description

Maximum 2 relays in IP LDK-20 can be used for Door Open feature.

| Door Open Code | ITEM | REMARK |
|----------------|---------------|--------|
| #*1 | 1st Door Open | |
| #*2 | 2nd Door Open | |

Operation

1. Dial the door open code, or press the programmed **{DOOR OPEN}** button.

To Registered Door Open

[TRANS/PGM] + FLEX button(to be assigned) + #*1 (1st Door open) + [HOLD/SAVE]

Admin Programming

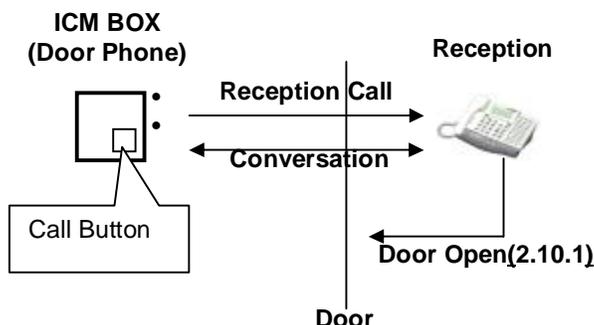
- n Door Open 4.1.3.22 (PGM 112 – FLEX 22)
- n External Control Contact 4.4.9 (PGM 168)
- n Door Open Timer 4.5.2.5 (PGM 181 – FLEX 5)

2.10.2 Door Phone

Description

A convenient intercom box can be connected to the system. The intercom box can receive page announcements and intercom calls. And the intercom box can signal assigned stations in the system. Any combination of DKTUs or intercom boxes can be arranged in the system.

[Example]



The Figure 2.10.2 describes the operation of Door phone.

Operation

To call an intercom box.

1. Lift the handset or press the **[MON]** button.
2. Dial station number of intercom box or press the flexible button for the intercom box.
3. After warning tone, announce the call.

To place a call from an intercom box.

1. Press the **[CALL]** button and assigned station will ring.

To answer an intercom call at a station assigned for intercom box signals.

1. At DKTU : Press flexible button for intercom box.
2. At SLT : Off Hook.

To place intercom box to DND mode(see Ref.1)

1. Press the **[DND]** button.

Condition

1. While hearing music at intercom box, press the **[DND]** button to stop the music.
2. intercom Box cannot attend a conference(see Ref.2)
3. The CO call is not received at intercom box.
4. An intercom box can be a member of page zone group(see Ref.3)
5. To receive intercom box call at SLT, set intercom Box Signaling value to ON (ADMIN program 111– FLEX 6). If Nation code is TELKOM or ISRAEL, DSS button for ICM Box should be assigned to SLT (ADMIN program 115)
6. SLT can receive only one call from intercom box.

Reference

1. DND : 2.4.9
2. Conference : 2.7
3. Paging : 2.8

Admin Programming

- n ICM Box Signaling 4.1.2.6 (PGM 111 – FLEX 6)
- n Station ID Assignment 4.1.1 (PGM 110)
- n ICM Box Music Channel 4.4.12.3 (PGM 171 – FLEX 3)
- n ICM Box Timer 4.5.2.6 (PGM 181 – FLEX 6)

2.10.3 Loud Bell

Description

The LBC(Loud Bell Control) contacts are activated when the assigned station receives ringing from an incoming CO line (if assigned ring), transferred CO line, or intercom call.

Condition

1. Two LBC contacts can be assigned individually to the station. All the contacts may be assigned to the same station but, only the first contact will be activated in the intercom call.
2. The LBC 1 can be programmed to be operated as an external night ring contact as well as a LBC contact.
3. In the night mode, LBC 1 will follow UNA(see Ref.1) ring assignment and will ignore the station ring.
4. An external ringing device should be attached to the contacts.

Reference

1. UNA(Universal Night Answer) : 2.1.7

Admin Programming

- n External Night Ring 4.4.1.7 (PGM 160 – FLEX 7)
- n Universal Night Answer 4.2.2.8 (PGM 141 – FLEX 8)
- n External Control Contacts 4.4.9 (PGM 168)

2.11 Voice Service

2.11.1 Recording System VMIB Announcement

Description

Attendant station in the system can record the voice announcements as system greetings and prompts.

System greetings should be recorded before use.

System prompts in user's language are contained as default in VMIB. But users can also modify those prompts.

Prompts for date and time are contained in VMIB to be used for date and time stamping. With the help of these prompts, users can understand when the voice message has arrived. Prompts for date and time are also built-in and recorded in user's language.

Operation

To record system greetings from Attendant;

1. Press the **[TRANS/PGM]** button and dial **0 6**.
2. Dial the message number. Then you will hear the announcement "Press # button to record" If here is already a recorded message in the number dialed, the recorded message will be played.
3. Dial **#** to start recording. Start the recording after hearing the announcement "Record your message" and confirmation tone.
4. Or, dial ***** to record using external music port on the MBU.
5. Press the **[HOLD/SAVE]** button to finish recording. Then confirmation tone is heard and you can record the next one.
6. Pressing the **[MON]** button while recording, then the recording is stopped and the recorded message is saved.

To delete system greetings from Attendant;

1. Press the **[TRANS/PGM]** button and Code **0 6**.
2. Dial message number. Only when there is a recorded message in the number dialed, the recorded message is played.
3. Press the **[SPEED]** button while the message is playing to delete it.

System Prompt Messages (Fixed)

| No | Messages |
|-----|------------------------------|
| 071 | VMIB MOH |
| 072 | Reserved |
| 073 | Invalid Number Prompt |
| 074 | Time Out Prompt |
| 075 | Retry Prompt |
| 076 | Transfer to Attendant Prompt |
| 077 | Reserved |
| 078 | Leave Message Prompt |
| 079 | Record Start Prompt |
| 080 | Authorization Code Prompt |
| 081 | Busy Prompt |
| 082 | Reserved |

| No | Messages |
|---------|---|
| 083 | Station Off-net Forward Prompt |
| 084 | DND Prompt |
| 085 | No Answer Prompt |
| 086 | Reserved |
| 087 | Reserved |
| 088 | Remote VMIB Control Main Menu Prompt |
| 089 | Remote VMIB Sub-menu for digit 1 in Main Menu |
| 090 | Reserved |
| 091 | Reserved |
| 092 | Reserved |
| 093 | Remote VMIB Sub-menu for digit 2 in Main Menu |
| 094 | Remote VMIB Sub-menu for digit 3 in Main Menu |
| 095 | Remote VMIB Sub-menu for digit * in Main Menu |
| 096 | Leave Message after Tone Prompt |
| 097 | Message waiting indication Prompt |
| 098 | Default User Greeting Prompt |
| 099~100 | |

Condition

1. System Greetings message are 001~070 as default value. User can select one of 70 messages.
2. System Prompt messages are 071~100 as default value. The number is message and user cannot change the numbering plan arbitrarily, but users can also modify those prompts by recording their own messages in the number.
3. System greetings and prompts can be recorded only at system attendant station.
4. There is no time limit to record system greetings and prompts at attendant station.
5. If the VMIB is not installed in the system, it is impossible to record system greetings and prompts. Error tone will be heard.
6. If there is a recorded message in the bin, the already recorded message is played when user dials the message number.
7. If user stops recording by pressing the **[MON]** button or on-hook the receiver while recording, the already recorded message is saved. User should delete the recorded message to cancel the recording.
8. To record or delete a message at attendant station, all the VMIB ports should be idle state.
9. When a call is transferred to the attendant, 'Transfer to Attendant' Prompt will be provided to the caller and ring-back tone will be heard after the announcement.
10. If there is no recorded greetings or prompts, the corresponding tone will be heard.
11. Max. 2000 user messages are available in a VMIB.
12. It is possible to use only 100 messages for system greetings (system greetings, system prompt, VMIB MOH)
13. If you use VMIB MOH as the source of system MOH, a port of VMIB should be always reserved for MOH though MOH is not used now.
14. Only 1 VMIB MOH can be recorded on a VMIB.
15. When the memory is full while recording a system greeting, the recorded message before message full will be saved.
16. It is available for station groups to have different system greetings.
17. When recording system greetings and prompts at attendant station, they will be saved at all VMIB in the system except VMIB MOH.

18. User can record the VMIB MOH with system prompt message number '071'.
19. The system supports system prompts (072~100) basically. But users may use their own prompts by recording the prompts at attendant station.

Admin Programming

- n VMIB Access **4.1.4.2 (PGM 113 – FLEX 2)**
- n VMIB User Record Timer **4.5.2.3 (PGM 181 – FLEX 3)**
- n VMIB Valid User Message Timer **4.5.2.4 (PGM 181 – FLEX 4)**
- n Station Group Attribute Assign **4.6.1 (PGM 190) / 4.7.2 (PGM 191)**

2.11.2 Remote Control

Description

An outside caller through DID/DISA(see Ref.1) can access VMIB after calling a station which is in VMIB Forward mode. Entering VMIB controlling mode, the user can retrieve received messages, change user greeting, release Call Forward to VMIB , etc.

Operation

To enter Remote VMIB Control mode.

1. Dial the station number which is forwarded to VMIB from external party with DID/DISA.
2. User greeting is heard.
3. While user greeting is played, press * key.
4. "Enter your password" is heard.
5. Enter the password (authorization code) and '#' (end mark of authorization code. If 5 Digits authorization mode, '#' is no need)
6. "Listed messages xx" is heard. (xx: the number of listed messages)
7. Press the appropriate dial number with the followings;
 - Dial **1** to retrieve the received voice messages
 - Dial **2** to listen or change user greeting
 - Dial **3** to release Call Forward to VMIB mode
 - Dial * to exit remote VMIB Control mode

To listen to the received messages.

1. Dial **1** in the main menu of Remote VMIB control mode.
2. The recorded time & date and recorded message are heard.
3. At this time, the followings are available;
 - Dial **1** to listen to the current message again
 - Dial **2** to listen to the next message
 - Dial **3** to delete the current message
 - Dial **4** to delete all received messages

To change the user greeting.

1. Dial **2** in the main menu of Remote VMIB control mode.
2. While the user greeting is being played, press the # key to record new user greeting.
3. Record new user greeting.
4. Press * key when the recording is finished and then the step will go to the main menu.

To release Call Forward to VMIB mode.

1. Dial **3** in the main menu of Remote VMIB control mode.
2. The VMIB forward mode of the station is released.

To exit VMIB Control mode.

1. Dial * in the main menu of Remote VMIB control mode.

Reference

1. DID : 2.1.3
2. DISA : 2.1.4

Condition

1. Pressing * key while operating in a sub-menu, the system will go to the main control menu.
2. If the user doesn't enter any digit while Inter-digit time, the connection is dropped automatically.
3. If VMIB User Record Timer expires while recording user greeting, the recording is finished and will go to main menu.

Admin Programming

- n VMIB User Record Timer **4.5.2.3 (PGM 181 – FLEX 3)**
- n Inter-digit Timer **4.5.2.8 (PGM 181 – FLEX 8)**

2.11.3 Two-way Recording

2.11.3.1 Two-way Recording via SMDI

Description

This feature allows a station to record a conversation on the mailbox by pressing a **{RECORD}** button while the station is talking with CO party.

Operation

To set a flexible button programmed for 2-way record feature,

1. Press the **[TRANS/PGM]** button.
2. Dial flexible button(to be assigned)
3. Press the **[TRANS/PGM]** button and dial '54'.
4. Press the **[HOLD/SAVE]** button.

While a station user is the conversation with the CO line caller, the user press the **{RECORD}** button, then the conversation will be recorded on user's mailbox. The user press the **{RECORD}** button again or hang up, then the recording will be canceled.

Protocol;

When user press the **{RECORD}** button, system send SMDI message for this feature to Voice Mail PC through RS-232C cable. The format is same as follows.

```
=>"crlfMD0010mmmmH0xxxxxxxxbbcrLf^Y"
  cr : carriage return,
  lf : line feed,
  mmmm : VM port number,
  H : Action code for recording,
  xxxxxxxx : extension which try to record,
  b : ascii space.
```

If VM receive above message, VM goes recording mode.

Condition

1. During the recording feature is enabled, the **{RECORD}** button will flash at 240 ipm and if it is disabled, the **{RECORD}** button will be extinguished.
2. It is not available to SLT.
3. Recording operation is canceled when station goes off-hook, press **{RECORD}** button again, press **[FLASH]** button or CO party hangs up.
4. This feature is available on SMDI mode only not DTMF mode.
5. Not available to intercom call recording.
6. If the system has VMIB, the conversation will be recorded to VMIB.

Admin Programming

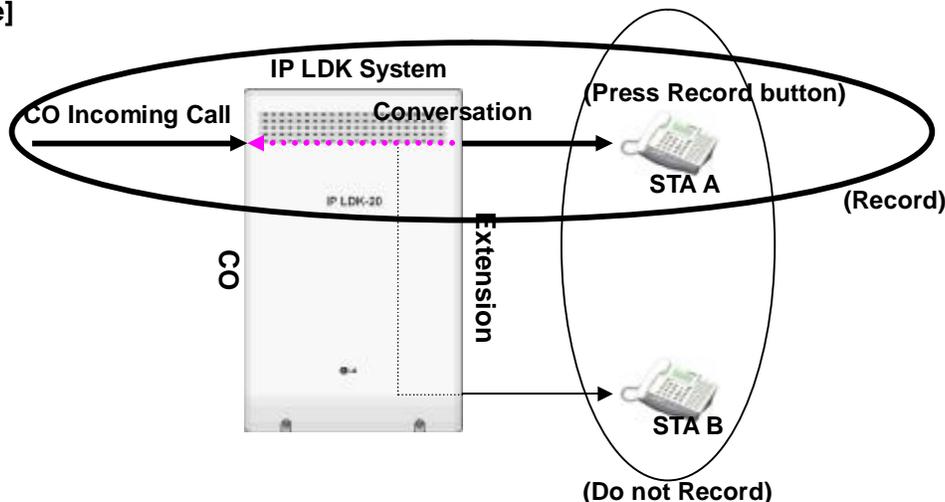
n Two Way Recording 4.1.3.10 (PGM112 – FLEX 10)

2.11.3.2 Two-way Recording via VMIB

Description

This feature allows a station to record a conversation on the mailbox by pressing a **{RECORD}** button while the station is talking with CO party.

[Example]



The Figure 2.11.3.2 describes the operation of Two-way Recording.

Operation

To set a flexible button programmed for 2-way record feature,

1. Press the **[TRANS/PGM]** button.
2. Dial flexible button(to be assigned)
3. Press the **[TRANS/PGM]** button and dial '54'.
4. Press the **[HOLD/SAVE]** button.

While a station user is the conversation with the CO line caller, the user press the **{RECORD}** button, then the conversation will be recorded on user's mailbox. The user presses the **{RECORD}** button again or hangs up, then the recording will be canceled.

Condition

1. During the recording feature is enabled, the **{RECORD}** button will flash at 240 ipm and if it is disabled, the **{RECORD}** button will be extinguished.
2. Not available to SLT.
3. Recording operation is canceled when station goes off-hook, press **{RECORD}** button again, press **[FLASH]** button or CO party hangs up.
4. Not available to intercom call recording.
5. If the system has an external voice mail system, the conversation will be recorded to the external voice mail system.

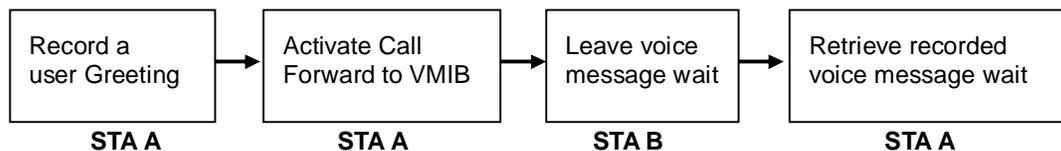
Admin Programming

n Two Way Recording 4.1.3.10 (PGM 112 – FLEX 10)

2.11.4 Recording User VMIB Announcement

Description

If the access to the VMIB is allowed, user can record User Greeting and make a call be forwarded to VMIB port according to forward condition type if user enables forward. And the caller can leave a voice message wait at the station after hearing user greeting.



Operation

To record a user greeting at a station.

1. Press the **[TRANS/PGM]** button.
2. Dial **6 1**.
3. Dial the message number. Then you will hear the announcement "Press # button to record" If there is already a recorded message in the number dialed, the recorded message will be played.
4. Dial **#** to start recording. Start the recording after hearing the announcement "Record your message" and confirmation tone.
5. Press the **[HOLD/SAVE]** button or the **[MON]** button to finish the recording. Then confirmation tone is heard.

To delete a user greeting at a station.

1. Press the **[TRANS/PGM]** button.
2. Dial **6 6**.
3. The user greeting is deleted and forward is deactivated.

To activate call forward to VMIB from a station.

1. Off-hook or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial the forward type (1~4)
4. Dial **#** key.
5. Confirmation tone is heard.

To deactivate call forward to VMIB from a station.

1. Press the **[DND/FOR]** button.

To leave voice message wait.

1. The caller will hear user greeting and "Record your message" announcement.
2. After beep tone, record your message with normal voice.
3. Hang up to finish the recording.

To retrieve recorded voice message wait.

1. Press the flashing **[CALLBK]** button. For SLT and 2/8 BTN DKTU, dial 557(Message Wait/Callback Return : see Ref.1)
2. The message number prompt is heard and the voice message (FIFO or LIFO) and Time & Date prompt for the message is played.
3. Pressing the **[CONF]** button, the current message is deleted and the next message is heard. For SLT and 2/8 BTN DKTU, dial #1.
4. Pressing the **[HOLD/SAVE]** button, the current message is saved and the next message is heard. For SLT and 2/8 BTN DKTU, dial #2.

5. Pressing the **[CALLBK]** button, the current message is played again. For SLT and 2/8 BTN DKTU, dial #3.
6. Pressing the **[ADD]** soft button, you can record the additional message.
(It can be possible LDP-6000/7000 which has 3 soft key)
7. Pressing the **[REWIND]** soft button, you can rewind the current message with VM MSG Rewind Timer. ((It can be possible LDP-6000/7000 which has 3 soft key))

Condition

1. There is no time limit to record user greeting in a station.
2. When a caller leaves a voice message wait, the recording time is controlled by Valid User Message Timer (**ADMIN program 181 – FLEX 4**) and VMIB User Record Timer (**ADMIN program 181 – FLEX 3**). When the recorded message shorter than Valid User Message time, the message is not saved. Also, the User Record Timer expires, confirmation tone is heard and the message is saved in the station.
3. If the station has several messages to be retrieved by pressing the **[CALLBK]** button, the message only with station number will be retrieved at first. (Message wait with station number -> VMIB Message wait -> CLI Message wait -> VM group Message wait)
4. Pressing the **[CALLBK]** button at the calling station before user greeting is played, the message wait with only station number is saved in the called station.
5. When a user calls a station which is forwarded to VMIB, he will hear user greeting and beep tone. After beep tone, user can leave a voice message.
6. Each station may has max.2000 VMIB message waits.
7. If all the VMIB ports are busy, ring-back tone will be provided instead of user greeting. And VMIB Station Forward Timer is started to retry to answer.
8. User can leave and receive message wait using SLT with message wait lamp.
9. Individual user greeting and VMIB message wait are protected with system reset.
10. To retrieve left message wait, the order of playing is changeable. Originally, TIME, DATE, and a left message are played. If the ADMIN is set, DATE, TIME, and a left message are played.
11. To retrieve left message wait, the Message Wait Retrieve Password would be used by ADMIN. If ADMIN PGM 113 & FLEX 8 is set, a user should enter that stations' AUTHORIZE CODE to retrieve.
12. When user listen to the message, user can rewind the message. Rewound Time is controlled by Rewind Message Timer (PGM 181 – Flex 17)

Reference

1. Message Wait/Callback Return Code : 3.6.7(ADMIN 106 – FLEX 14)

Admin Programming

- n VMIB Message Type **4.1.2.17 (PGM 111 – FLEX 17)**
- n VMIB Access **4.1.4.2 (PGM 113 – FLEX 2)**
- n VMIB MSG Retrieve PASSWORD **4.1.4.8 (PGM 113 – FLEX 8)**
- n VMIB MSG Retrieve Date/Time **4.1.4.9 (PGM 113 – FLEX 9)**
- n Call Forward No Answer Timer **4.5.2.1 (PGM 181 – FLEX 1)**
- n VMIB User Record Timer **4.5.2.3 (PGM 181 – FLEX 3)**
- n VMIB Valid User Message Timer **4.5.2.4 (PGM 181 – FLEX 4)**
- n VMIB Message Rewind Timer **4.5.2.17 (PGM 181 – FLEX 17)**

2.11.5 VMIB Announcement for Auto Attendant

Description

Incoming CO calls may be answered by VMIB and rerouted to another station with CCR when attendant does not answer the call until No Answer Timer expires or attendant is busy.

Operation

To operate Auto Attendant,

1. When an incoming call is received at attendant,
2. The call is not answered until No Answer Timer expires by attendant or attendant is busy.
3. The call is forwarded to Auto attendant. The caller will hear VMIB message and can reroute the other user with CCR.

Condition

1. It is for no answered incoming call and not available for recall and transferred call.
2. To use Auto attendant feature, CO ring should be assigned to only attendant.

Admin Programming

n Auto Attendant VMIB Announce # 4.4.6 (PGM 165)

2.11.6 VMIB Message Transfer

Description

The received message in a station may be transferred to the other station.

Operation

To transfer a message to the other station,

1. While hearing a message, dial the station number to be transferred.
2. The message will be transferred to the station.

Condition

1. If a transferring station is empty, user will hear error tone and can retry to the other station within 3 seconds.
2. SLT with MSG wait lamp can also transfer VMIB messages.
3. The transferred station should have allowance of VMIB access.

Admin Programming

n VMIB Access 4.1.4.2 (PGM 113 – FLEX 2)

2.12 SMDR(Station Message Detail Recording)

Description

The IP LDK System SMDR(station message detail recording) provides details information about both incoming calls and outgoing calls. In this feature, it is programmable to record all calls or just outgoing long distance calls. SMDR information includes outgoing CO Line, dialed number, time, date, station that answer the call, duration of call and etc. Authorization codes may also be entered and recorded. Maximum 1000 of SMDR data can be recorded at system memory.

[Example]

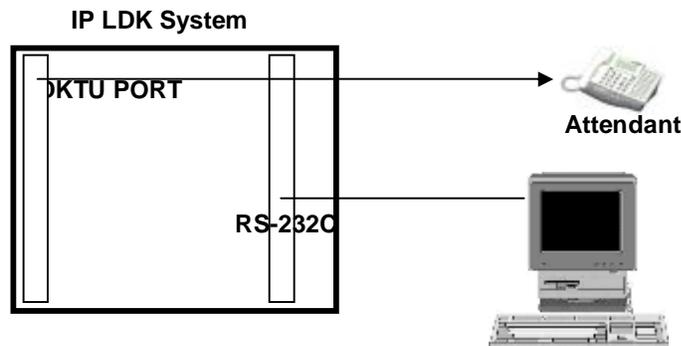


Figure 2.12.1 Connection of SMDR

The figure 2.12.1 describes that there are IP LDK system, PC, attendant station as elements of SMDR and IP LDK system connects with Attendant through DKTU port and with PC through RS-232C.

Operation

To print SMDR,

1. Activate PC utility program on PC.
2. Connect serial port of MPB to the serial port of PC with the cable of RS-232C.
3. At the attendant station, press the **[TRANS/PGM]** button.
4. At the attendant station, dial **0111** (Station Base) or **0113** (Group Base)
5. At the attendant station, enter the station or group range.
6. The SMDR is printed to PC.

To delete SMDR,

1. Press the **[TRANS/PGM]** button.
2. Dial **0112** (Station Base) or **0114** (Group Base)

To abort SMDR printing,

1. Press the **[TRANS/PGM]** button.
2. Dial **0116**.

Condition

1. There is an assignable SMDR record option ADMIN program(PGM177 – FLEX 3). If SMDR – LONG DISTANCE ONLY is selected, only outgoing toll call will be printed, and If SMDR – ALL CALL is selected, incoming and outgoing local and long distance call are printed.
2. If user dials any number with a programmed long distance code as the first and second digit dialed or any number with more than maximum local call digit count, it will be regarded as long distance call. (Max. local call digit count is programmable and the default value is 7)
3. The SMDR output records contain the followings;
 - 5-digit station call originator (terminating for incoming) filed
 - 3-digit used CO line field
 - 8-digit call duration field (HH:MM:SS)
 - 8-digit year, month, and day (YY/MM/DD)
 - 5-digit time of day call originator field
 - 1 digit call identification digit-first digit in digit dial field
 - 18-digit collected dial digit field
 - 2-digit account group number field
 - 5-digit pulse metering count field
 - 10-digit call cost field
 - 12-digit account code field
4. When the SMDR storage pools are almost exhausted, the system gives “Buffer full” warning signal to the attendant. And the LCD of attendant station will indicate how many SMDR records are remained to store for some intervals.
5. Some stations can be grouped to count the billing with a SMDR receipt using a SMDR account group.
6. ‘SLT DTMF RLS TMR’ should be adjusted to reasonable value in order to print all digits that SLT dialed.

Admin Programming

- n SMDR Attribute **4.4.18 (PGM 177)**
- n Metering Unit **4.2.3.3 (PGM 142 – FLEX 3)**
- n SLT DTMF RLS Timer **4.5.2.13 (PGM 181 – FLEX 13)**

2.12.1 AOC (Advice Of Charge)

Description

The AOC service provides outgoing call charging to the user in public ISDN. According to the ADMIN programming, the saved and printed information is provided to the PC or user's LCD. This function is applicable to the most European countries.

Operation

During the conversation or after release a CO call, the ISDN facility IE carry the AOC information. User can see it with SMDR print after a call.

* CHARGE NOT AVAILABLE
al 08 02 01 ** 02 01 23 05 00

* FREE OF CHARGE
al 0a 02 01 ** 02 01 23 30 02 81 00

* NORMAL CHARGING
al 20 02 01 ** 02 01 23 30 18 30 16 al 05
81 03 @@ @@ @@ a2 07 81 05 %% %% %% %% %%
82 01 01 82 01 01

[**] : The rule is changed in each call.

[@@ @@ @@] : It means charging current unit. (IA5)

[%% %% %% %% %%] : It means real current value displayed with
You can see it with SMDR print after the call.

Condition

1. It is displayed on the LCD instead of call timer and changed based on the receipt of each call charging information.
2. The information of AOC includes the Unit or Currency.

Admin Programming

- n Advice Of Charge 4.7.1.1 (PGM 200 – FLEX 1)
- n SMDR Attribute 4.4.18 (PGM 177)

2.12.2 Print-out

Description

Lost call means that the caller gives up and terminates the call before the call is answered. The format of the individual call record is illustrated below, and the contents are focused on each case about the types of lost call.

| NO | STA | CO | TIME | START | DIALED |
|------|-----|-----|----------|----------------|--------------|
| 0001 | EXT | 031 | 00:00:10 | 24/05/99 11:55 | R RING 00:05 |

Normal incoming call is received at an assigned stations of CO 031 during 5 sec.

| | | | | | |
|------|-----|-----|----------|----------------|-------------|
| 0002 | 101 | 003 | 00:01:20 | 25/05/99 16:23 | R RNG 00:09 |
|------|-----|-----|----------|----------------|-------------|

DID call is disconnected during it is being forwarded to ATD STA 101, because the dialed station does not exist.

| | | | | | |
|------|-----|-----|----------|----------------|-----------------|
| 0003 | 100 | 001 | 00:00:20 | 25/05/99 18:11 | R100 RING 00:04 |
|------|-----|-----|----------|----------------|-----------------|

DID call is received at STA 100 during 4sec and disconnected.

| | | | | |
|------|--------|----------|----------------|-----------------|
| 0004 | 102002 | 00:01:20 | 26/05/99 18:37 | R103 RING 00:04 |
|------|--------|----------|----------------|-----------------|

DID call is received at STA 102 via unconditional call forward to STA 103 during 4 sec and disconnected.

| | | | | |
|------|--------|----------|----------------|-----------------|
| 0005 | 621008 | 00:00:20 | 26/05/99 13:02 | G620 RING 00:06 |
|------|--------|----------|----------------|-----------------|

DID call is received at Ring Group 621 during 6sec and disconnected.

| | | | | |
|------|--------|----------|----------------|-----------------|
| 0006 | 100001 | 00:00:04 | 06/05/99 16:04 | H100 RING 00:02 |
|------|--------|----------|----------------|-----------------|

DID call is disconnected while STA 100 is being held it.

| | | | | |
|------|--------|----------|----------------|-----------------|
| 0007 | 102001 | 00:00:07 | 06/05/99 17:04 | H100 RING 00:02 |
|------|--------|----------|----------------|-----------------|

DID call is disconnected while it is being transferred from STA 100 to STA 102.

- I G: Incoming call to hunt group(see Ref.1), but the caller hangs up before answer.
- I H: Answered incoming call was transferred to another station, but the caller hangs up before answer. And incoming call placed on hold state and cleared down in hold state.
- I R: Direct call (DID) to a station, but the call was disconnected before the station answers. Or direct call to station (A), but station (A) does not answer and the call was forwarded to station (B). The call was disconnected before station (B) answers.

Operation

To print the lost call count of record.

1. Press the **[TRANS/PGM]** button.
2. Dial **0117** at Attendant station.
3. The lost call count of record is printed in the PC connected in the system.

To clear the lost call count of record.

1. Press the **[TRANS/PGM]** button.
2. Dial **0118** at Attendant station.
3. "The lost call count is cleared" is printed and the lost call count time is restarted.

Condition

1. This SMDR record is sent to RS-232C automatically as soon as the event takes place.
2. The SMDR record about lost call is not saved. Only the records are counted.
3. To activate this SMDR record, the SMDR field must be set in ADMIN programming.

Reference

1. Hunt group : 2.6

Admin Programming

- n SMDR Print Enable **4.4.18.2 (PGM 177 – FLEX 2)**
- n Long distance/ All Call Recorded **4.4.18.3 (PGM 177 – FLEX 3)**
- n Print Lost Call **4.4.18.6 (PGM 177 – FLEX 6)**

2.13 Attendant Service

Description

An attendant properly controls the incoming calls by transferring calls and accessing the unanswered calls, etc. And an attendant can change simple setting of whole system or intercom tenancy group which belongs to. – changing LCD date/time format, etc.

There are 2 types of attendant in the IP LDK system. The types of attendant and feature of each attendant type are :

Main Attendant - max. 5 stations can be defined as main attendants. Main attendants control the whole system. And operation of main attendants effects on whole system. **The first main attendant is called the system attendant.** The system attendant can be changed, but can't be removed.

Intercom tenancy Group Attendant - each intercom tenancy group(see Ref.1) can have its own attendant. The intercom tenancy group attendant controls the stations belonging to the intercom tenancy group. And operation of intercom tenancy group attendants can effects on only intercom tenancy group which belongs to.

Generally, the attendant of a station is the intercom tenancy group attendant which the station belongs to. If the intercom tenancy group attendant of the station doesn't exist, the main attendants will supply the station with attendant services.

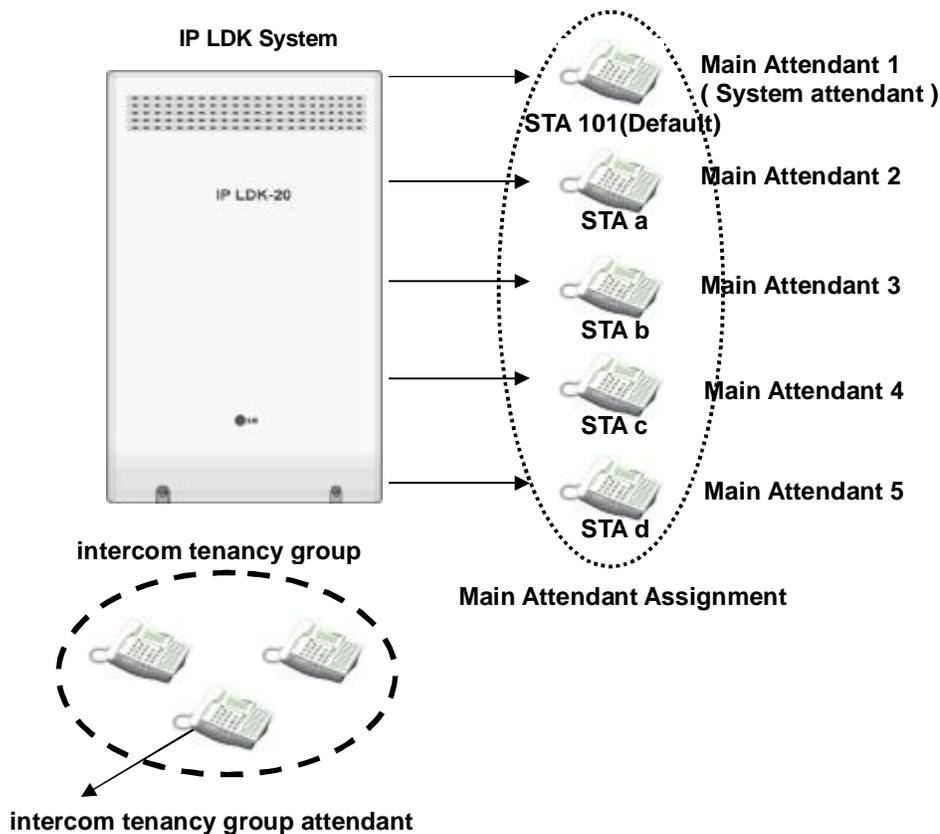


Figure 2.13.1 Attendants of IP LDK-20 system

The figure 2.13.1 describes the arrangement of attendants of IP LDK-20 system generally.

Reference

1. Intercom tenancy Group : 2.4.15

2.13.1 Assign Attendant**Description**

As default, first station(e.g. station100) is assigned as the system attendant, and other attendants are not assigned.

Main attendants can be assigned ADMIN program 164, but Intercom tenancy group attendant can be assigned ADMIN program 120 – FLEX 1.

Reference

1. Intercom tenancy Group : 2.4.15

Admin Programming

n Main Attendant Assignment **4.4.5.1 (PGM 164)**

n Intercom tenancy Group Attendant Assignment **4.1.11.1(PGM 120 – FLEX 1)**

2.13.2 Attendant Call & Queuing

Description

Attendant call is the intercom call and CO call to an attendant.

In order to make an intercom call to the attendant, a user enters the station number of the attendant or dials '0' button.

If a user dials '0' button, it rings at the assigned attendant of the intercom tenancy group which the station belongs to. If there is no assigned station as attendant, it rings at main attendant.

Call to any attendant will be queued, if the attendant is busy. Then, ring-back tone or MOH(see Ref.2) will be provided to the calling party.(ADMIN program 160 – FLEX 1)

Operation

To call an attendant.

1. Lift handset or press [MON] button.
2. Dial '0' button or enter the station number of the attendant.

Condition

1. When an attendant calls another attendant which is busy, the calling attendant will hear the busy tone and can make camp-on(see Ref.3) to called attendant.
2. If attendant activates unconditional call forward(see Ref.4), the calls to attendant will follow the call forward process.

Reference

1. Intercom tenancy Group : 2.4.15
2. MOH(Music On Hold) : 2.4.17
3. Camp-on : 2.4.5
4. Unconditional Call Forward : 2.3.1.4

Admin Programming

- n Main Attendant Assignment **4.4.5 (PGM 164)**
- n MOH Type **4.4.12.2 (PGM 171 – FLEX 2)**
- n Intercom Group Attendant Assignment **4.1.11.1 (PGM 120 – FLEX 1)**
- n Attendant Call Queuing RBT/MOH **4.4.1.1 (PGM 160 – FLEX 1)**

2.13.3 Attendant Forward

Description

The attendant can forward (Unconditional Call Forward) a call to the other station.(see Ref.1) the forwarded-to station will substitute for the attendant temporarily, while the attendant is in forwarding state.

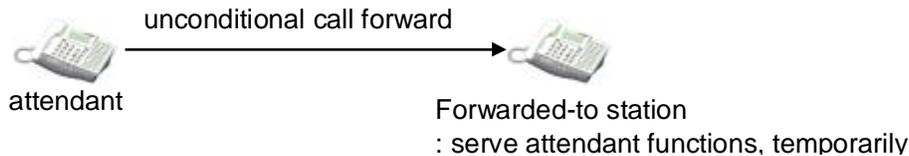


Figure 2.13.3 Attendant Forward

The figure 2.13.3 describes that forwarded-to station serves attendant functions during Attendant Forward.

Operation

It is the same procedure as the Unconditional Call Forward.

To activate Attendant Forward,

1. Lift the Handset or press the **[MON]** button.
2. Press the **[DND/FOR]** button.
3. Dial Call Forward Code 1 (Unconditional Call Forward)
4. Dial station number.
5. Hang up the handset and go on-hook.

To deactivate Attendant Forward,

1. In idle state, Press **[DND/FOR]** button.
2. In off-hook state, Press **[DND/FOR]** button and dial #.

Condition

If the attendant assigns unconditional call forward to SLT or WHTU, the forwarded-to station only serve incoming calls as attendant call, attendant recall and others. The forwarded-to SLT or WHTU cannot activate attendant features.

Reference

1. Unconditional Call Forward : 2.3.1.4

2.13.4 Attendant Intrusion

Description

When an attendant have a urgent message to a station which is conversing with a CO party, the attendant can intrude upon the conversation and converse with the station and the CO line.

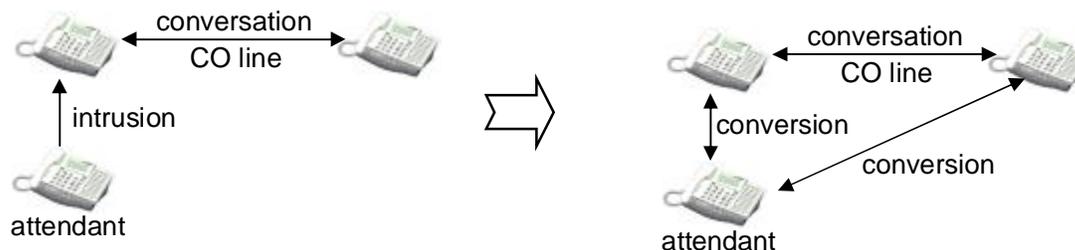


Figure 2.13.4 Attendant Intrusion

The figure 2.13.4 describes that the attendant converses with the other two CO party after attendant intrusion.

Operation

To intrude on a CO call while the attendant is receive intercom busy tone.

1. Press the programmed **{ATD INTRUSION}** FLEX button.
2. After intrusion tone, converse with the CO party.

Condition

1. To assign **{ATD INTRUSION}** FLEX button,
[TRANS/PGM] + FLEX button (to be assigned)+ [TRANS/PGM] + 8 6 + [HOLD/SAVE]
2. In order to use this feature, The Auto Privacy should be OFF(ADMIN program 161 – FLEX 5) and Override Privilege(ADMIN program 113 – FLEX 4) of the attendant should be Enable.

Admin Programming

- n Auto Privacy 4.4.2.5 (PGM161 – FLEX 5)
- n Privacy Warning Tone 4.4.2.6 (PGM 161 – FLEX 6)
- n Override Privilege 4.1.4.4.(PGM 113 – FLEX 4)

2.13.5 Attendant Override

Description

A station in DND state(see Ref.1) can not generally receive an incoming call.

The attendant, however, can temporarily invalidate the DND state. Therefore, the attendant can call and transfer to the station in DND state.

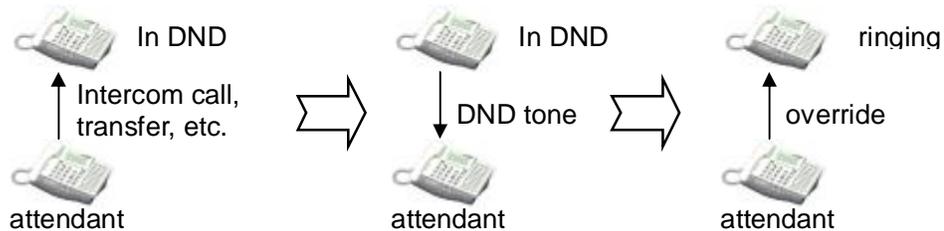


Figure 2.13.5 Attendant Override

The figure 2.13.5 describes that the attendant can call the station in DND state after Attendant Override.

Operation

To override DND state at a station while the attendant is received DND tone.

1. Dial • or the last digit of the dialed station number.
Or, press the programmed **{Camp-On}** FLEX button.
2. DND warning tone will be changed to intercom ring-back tone at attendant.
3. Attendant can call a station in DND state as a normal call.

Condition

1. To assign **{Camp-On}** FLEX button,
[TRANS/PGM] + FLEX. BTN(to be assigned) + [TRANS/PGM] + 8 5 + [HOLD/SAVE]
2. If the attendant with a transferred CO call overrides a station in DND state, and the station has the **{CO}** or **{LOOP}** button, attendant can transfer the CO call to the station in DND state.
But, If the transferred-to station has no the **{CO}** or **{LOOP}** button, the CO call will be recalled to the attendant immediately.

Reference

1. DND : 2.4.9

2.13.6 Attendant Recall

Description

If the recalled CO call(transfer, hold) is unanswered by destination station, the CO call will be directed to the attendant.(see Ref.1,2) This is attendant recall. The attendant will receive the recall ring for a time equal to the Attendant Recall Timer(ADMIN program 180 – FLEX 1). If the attendant doesn't answer the CO call for a time equal to the Attendant Recall Timer, the CO call will be disconnected.

Condition

1. If the attendant of intercom tenancy group is not assigned, the CO call is recalled to the system attendant.
2. When a call in exclusive hold is recalled to attendant, the call is changed to a call in system hold.(see Ref.1)
3. Private CO line will not be recalled to attendant.(see Ref.4)

Reference

1. Hold : 2.3.3.1
2. Call Transfer : 2.3.2
3. Intercom Tenancy Group : 2.4.15
4. Private Line : 2.2.9

Admin Programming

- n Attendant Recall Timer **4.5.1.1 (PGM 180 – FLEX 1)**
- n I-Hold Recall Timer **4.5.1.5 (PGM 180 – FLEX 5)**

2.13.7 Change LCD Date/Time display

Description

The attendant can change the LCD Date/Time display format of stations in system.

Date : MM-DD-YY / DD-MM-YY (ex. August 4, 2004 -> 08-04-03 / 04-08-03)

Time : 12H / 24H (ex. eight thirty P.M. -> 08:30 PM / 20:30)

Operation

To change LCD Date format (toggle),

1. Press the **[TRANS/PGM]** button.
2. Dial **0 4 4**.

To change LCD Time format (toggle),

1. Press the **[TRANS/PGM]** button.
2. Dial **0 4 5**.

Admin Programming

n LCD Time Display Mode **4.4.10.1 (PGM 169 – FLEX 1)**

n LCD Date Display Mode **4.4.10.2 (PGM 169 – FLEX 2)**

2.13.8 Day/Night service

Description

When a CO call come in the system, the destination of CO call can be changed according to the time. Such event is happened because the ring mode can be changed according to the time.

There are 5 ring modes – Day mode/Night mode/Weekend mode/On-demand mode/Automatic Ring mode. The destination of CO call can be set differently at each ring mode, while a user sets the destination of CO call with ADMIN program(see Ref.1). At Day mode/Night mode/Weekend mode, the user set the appropriate destination of CO call according to the situation(day or night or weekend).

On-demand mode among the ring mode is used to supply a different destination of CO call except Day mode/Night mode/Weekend mode.

The ring mode in Automatic Ring mode is classified as Day mode or Night mode or Weekend mode according to Weekly Time Table(ADMIN program 233)

Only attendant can change the ring mode. If a user presses the **[DND/FOR]** button at the attendant station, the ring mode will be changed to Day -> On-demand -> Night -> Weekend -> Automatic Ring mode -> Day in sequence.

Operation

To change Day / On-demand / Night / Weekend / Automatic Ring mode.

1. Whenever pressing the **[DND/FOR]** button at the attendant station, the ring mode will be changed to
Day -> On-demand -> Night -> Weekend -> Automatic Ring mode -> Day in sequence.

To activate automatic ring mode with Attendant Programming Mode.

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 4**.
3. Dial **1** and press the **[HOLD/SAVE]** button to activate Automatic ring mode.

To deactivate automatic ring mode with Attendant Programming mode.

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 4**.
3. Dial **0** and press the **[HOLD/SAVE]** button to deactivate Auto ring mode.
4. The type of time will be changed to the previous type of time.

Condition

1. The default value of Weekly Time Table is as follows(entry number : 00). The first table entry (00) is for main attendants and others (01~15) are for intercom tenancy group attendants.

| Date | Day Start Time | Night Start Time | Weekend Start Time |
|------|----------------|------------------|--------------------|
| Mon | 09:00 | 18:00 | -- : -- |
| Tue | 09:00 | 18:00 | -- : -- |
| Wed | 09:00 | 18:00 | -- : -- |
| Thu | 09:00 | 18:00 | -- : -- |
| Fri | 09:00 | -- : -- | 18:00 |
| Sat | -- : -- | -- : -- | 00:00 |
| Sun | -- : -- | -- : -- | 00:00 |

2. On-demand mode is not available in the Automatic Ring mode.
3. The attendants of intercom tenancy group can change ring mode as well as main attendants. If an attendant of intercom tenancy group changes ring mode, only the ring mode of intercom tenancy group which the attendant belongs to is changed. But if a main attendant changes the ring mode, ring mode of the system will be changed.
4. When the ring mode is set to Automatic Ring mode by main attendant, the ring mode of the system will follow the first table entry (entry number : 00) of Weekly Time Table .
5. If the system ring mode is changed from the night/weekend/on-demand/auto ring mode to day mode, the ring mode of all intercom tenancy group will change to the previous ring mode.
6. If external night ring is enabled and the system is in night mode, the LBC 1 Contact will follow the incoming UNA assigned CO lines.

Reference

1. Ring assignment : 2.1.1

Admin Programming

- n CO Line Ring Assignment **4.2.5 (PGM 144)**
- n External Control Contact **4.4.9 (PGM 168)**
- n Weekly Time Table **4.10.6 (PGM 233)**

2.13.9 Disable Outgoing Access

Description

The attendant can make a particular CO line out-of-outgoing-service. Then a user can't make a CO call through the CO line. Incoming CO call is not affected.

Operation

To set a CO line in/out-of-outgoing service from the attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial 0 7 3.
3. Press the desired **{CO line}** FLEX button. Confirmation tone will be heard when the status(in or out-of-outgoing-service) of the selected CO line is changed.
4. Press the **[MON]** button to return to idle.

Condition

1. Any attendant can use this feature.
2. The LED of **{CO line}** FLEX button which is out-of-outgoing-service is flashing in attendant station but lightening in other stations.
3. To release the-out-of-outgoing-service, press the flashing **{CO line}** FLEX button in attendant station.
4. Though the desired CO line is busy, the attendant can still make the CO line out-of-outgoing-service. The out-of-outgoing-service feature will take effect after the CO line goes to idle.

2.13.10 ICM Box Music Selection

Description

The attendant can select the music channel source to provide the intercom Box.

Operation

To select the music source from the attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 5**.
3. Dial the music source (00~12)

Channel 00 : Music is not used.

Channel 01 : internal music

Channel 02 : External music

Channel 03 : VMIB BGM (see Ref.1)

Channel 04 ~08 : SLT MOH (see Ref.2)

And music source will be heard. But if the music channel has no music source, no music is heard

4. Press the **[HOLD/SAVE]** button.

Reference

1. BGM(Background Music) : **2.4.4**
2. MOH(Music On Hold) : **2.4.17**

Admin Programming

- n Intercom Box Music Channel **4.4.12.3 (PGM 171 – FLEX 3)**

2.13.11 Station Feature Cancel

Description

The attendants can cancel features - such as DND, Call Forward and pre-selected messages - of other stations.(see Ref.1, Ref.2, Ref.3)

Operation

To disable active features at a station from the attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial **0 7 1**.
3. Dial the desired station range.
4. Press the **[HOLD/SAVE]** button.

Reference

1. DND : 2.4.9
2. Call Forward : 2.3.1
3. Pre-selected Message : 2.4.1.2

2.13.12 DSS/DLS Consoles

Description

Attendants and other DKTU may be equipped with DSS/DLS consoles which provide additional buttons for more convenient operation. The consoles are arranged as flexible mapped units. The DSS/DLS consoles are assigned with programming as one of the 3 maps. All buttons of any map are programmable.

The DSS/DLS consoles each require a separate line connection to the KSU, and take up a station number.

Condition

1. There is no limit to the number of DSS/DLS consoles in a system.
2. The default value for DSS/DLS is as follows;

| | |
|-------|--|
| MAP 1 | Flex 1 – Intrusion Flex 2 – All Call Page Flex 3 – Call Park 01 Flex 4 – Station Group 1 Flex 5 – Camp-on Flex 6 – Internal All Call Page Flex 7 – Call Park 02 Flex 8 – Station Group 2 Flex 9 – Group Call Pick-up Flex 10 – External All Call Page Flex 11 – Call Park 03 Flex 12 – Station Group 3 Station 10-37 |
| MAP 2 | Empty |
| MAP 3 | Empty |

Admin Programming

- n Station ID Assignment **4.1.1.1 (PGM 110 – FLEX 1)**
- n DSS/DLS ID Assignment **4.1.1.2 (PGM 110 – FLEX 2)**

2.14 ISDN service

IP LDK-20 system Basic Rate Interface (BRI) Integrated Services Digital Network (ISDN) circuits. The BRI provides two bearer channels and one data channel (2B+D)

Calling Number and Called Number services are supported. Calling Number services will be routed in the same way as ANI(automatic number identification) calls using the DID route table .

The rules and conditions of ANI are the same, and still apply to Calling Number service on ISDN lines. Called Number services will be routed using the DID route table. The rules and conditions of DID and still apply to ISDN Called Number service on ISDN lines.

Channels

The bearer channels (B channels) transport voice information to and from the Central

Office.

The data channel (D channel) controls all signaling information for the bearer channels.

2.14.1 Call Deflection / Rerouting

Description

IP LDK system is supporting ISDN-SS-CD/CR (ISDN Supplementary Service – Call Deflection/Rerouting). The protocol standard about CD/CR can be referred the ETS 300-202/204/205/206/207.

Operation

To activate ISDN-SS-CD/CR about CO lines:

1. In ADMIN program 143, enter CO lines range that serve ISDN-SS CD/CR.
2. Press the flexible button 9, and set ISDN-SS CD or CR .

Station Off-net Call Forward at Station:

1. Set the station off-net call forward at station according to the following step: **[On/Off] + [DND/FWD] + '5' (or 6) + 'Speed Dial Bin' + [Hold]**
2. If there is ISDN incoming call through CO line that set ISDN-SS CD/CR, then the call deflection/rerouting request message is sent with the station number that is saved in the speed dial bin to use new divert destination.

Condition

1. This feature can be used within only ISDN network that supports ISDN-SS CD/CR service.

Admin Programming

n ISDN-SS Call Deflection/Rerouting **4.2.4.9 (PGM 143 – FLEX 9)**

2.14.2 CLI(Calling Line Identification Presentation)

Description

The term of CLI is the telephone number of caller. By using of this, IP LDK station user can recognize the incoming CO caller's information and send the telephone number of the caller when he make an outgoing CO call.

2.14.2.1 Incoming CLI Service

Description

When a station of IP LDK system receives an incoming CO call that has a telephone number of the caller, the station user can see the telephone number of incoming CO caller on LCD of station.

The figure 2.14.2 describes an example of incoming CLI process in IP LDK system. In the figure, the outside CO caller defines the CALLING PARTY, and the station of IP LDK system defines the called party. The calling party makes a call to IP LDK system and IP LDK system receives the CLI of this call as '04318502824'. At first step, IP LDK system check whether the start digits information is matched with the MY AREA CODE(ADMIN program 200 – FLEX 9). In this example, my area code of '0431' is matched with the incoming CLI. So, IP LDK system is removing '0431' automatically from CLI data, and the rest CLI data is sent to the called party, station 100. The station 100 displays the incoming CLI '8502824' on the LCD, if the ADMIN program of CLI display is set to ON(see Operation.1). If the station 100 has the same speed dial data as the incoming CLI data '8502824', then the matched speed dial data name can be displayed on LCD according to the ADMIN program of CLI NAME DISPLAY(see Operation.2)

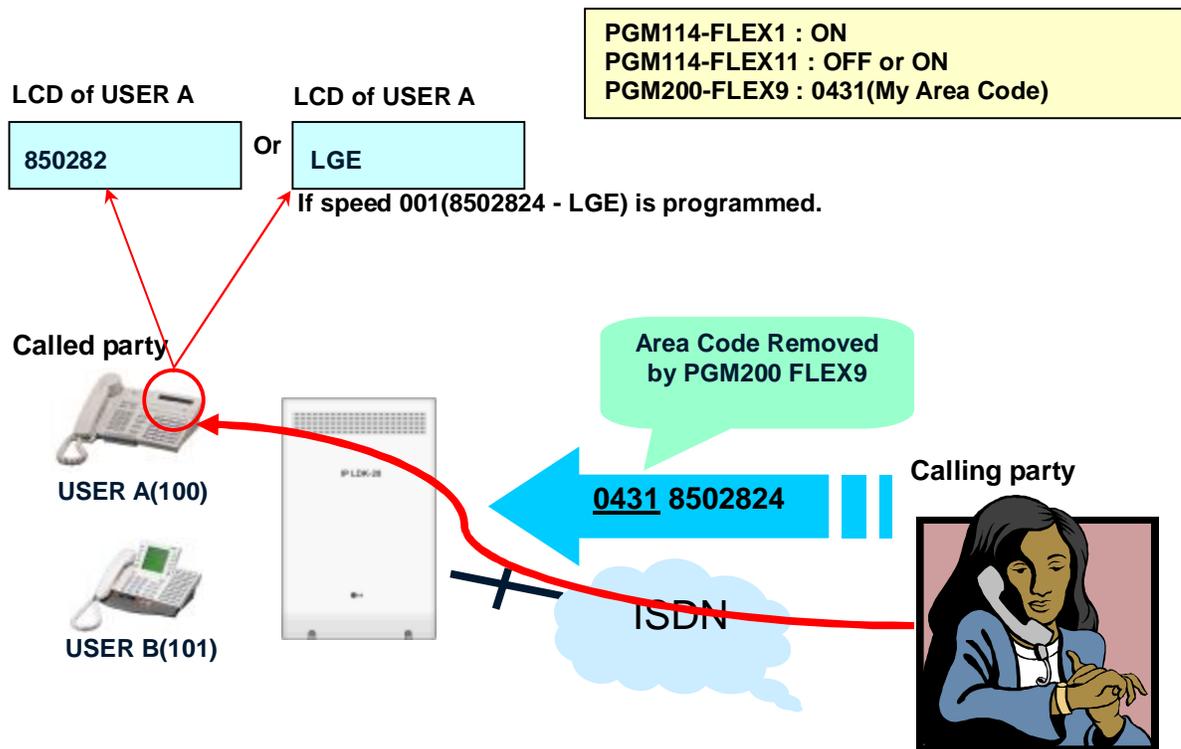


Figure 2.14.2 The example of incoming CLI process in IP LDK system.

Operation

In IP LDK system, the various operations about the incoming CLI is provided according to the ADMIN program setting.

1. If the CLIP DISPLAY(ADMIN program 114 – FLEX 1) is set to ON, the incoming CLI is displayed on station LCD.
2. If the CLI NAME DISPLAY(ADMIN program 114 – FLEX 11) is set to ON, the incoming CLI digit display can be replaced to the matched station speed dial data name.
3. If the CLI print(ADMIN program 200 – FLEX 6) is set to ON, the incoming CLI can be printed to RS-232C port.
4. If the MY AREA CODE(ADMIN program 200 – FLEX 9) is set, and this value is matched with the start digits of the incoming CLI, then the matched digits are removed automatically.
5. If the MY AREA PREFIX CODE(ADMIN program 200 – FLEX 10) is set, it can be used at the operation 4 with combination of MY AREA CODE.
6. If the CLI MESSAGE WAIT(ADMIN program 114 – FLEX 4) is set to ON, the unanswered CLI data will be save at the station memory. (see Ref.1)

Condition

1. Max. 12 digits will be displayed on DKTU as a CLI number.
2. Though the power of system is off, the stored CLI messages is not erased.
3. The CLI can be shown at SLT which has a CLI display LCD in IP LDK-20. But secondary SLT of 2B DKTU can't display CLI information.

Reference

1. CLI Message Wait : 2.14.2.3

Admin Programming

- n CLIP LCD Display **4.1.5.1 (PGM 114 – FLEX 1)**
- n CLI Name Display **4.1.5.10 (PGM 114 – FLEX 11)**
- n CLI Message Wait **4.1.5.4 (PGM 114 – FLEX 4)**
- n CLI Print **4.7.1.3 (PGM 200 – FLEX 3)**
- n My Area Code **4.7.1.5 (PGM 200 – FLEX 9)**
- n My Area Prefix Code **4.7.1.6 (PGM 200 – FLEX 10)**

2.14.2.2 Outgoing CLI Service**Description**

When a station of IP LDK system makes an outgoing CO call, it can send the telephone number.

The figure 2.14.2.2 describes an example of outgoing CLI process in IP LDK system. In the figure, the outside CO caller is defined the called party, and the station 100 of IP LDK system is defined the calling party. The calling party, station 100, makes an outgoing CO call to the called party, and IP LDK generates the CLI of station 100 and transmit it to the called party.

At this example, the CLI of station 100 is '04313283100'. This CLI data is combined with three parts. The start digits of CLI is '0431'. It is generated from the MY AREA CODE(ADMIN program 200 – FLEX 9). The insertion/omission of this value is managed by the CALL TYPE(ADMIN program 143 –

FLEX 3). The end digits of CLI is '100'. It generated from the ISDN CLI of station(ADMIN program 114 – FLEX 12). At default, this ADMIN value is set as the same value as the station number. The middle digits of CLI is '3283'. It is generated from the CLIP/COLP TABLE value of CO line(ADMIN program 201, and 143 – FLEX 2)

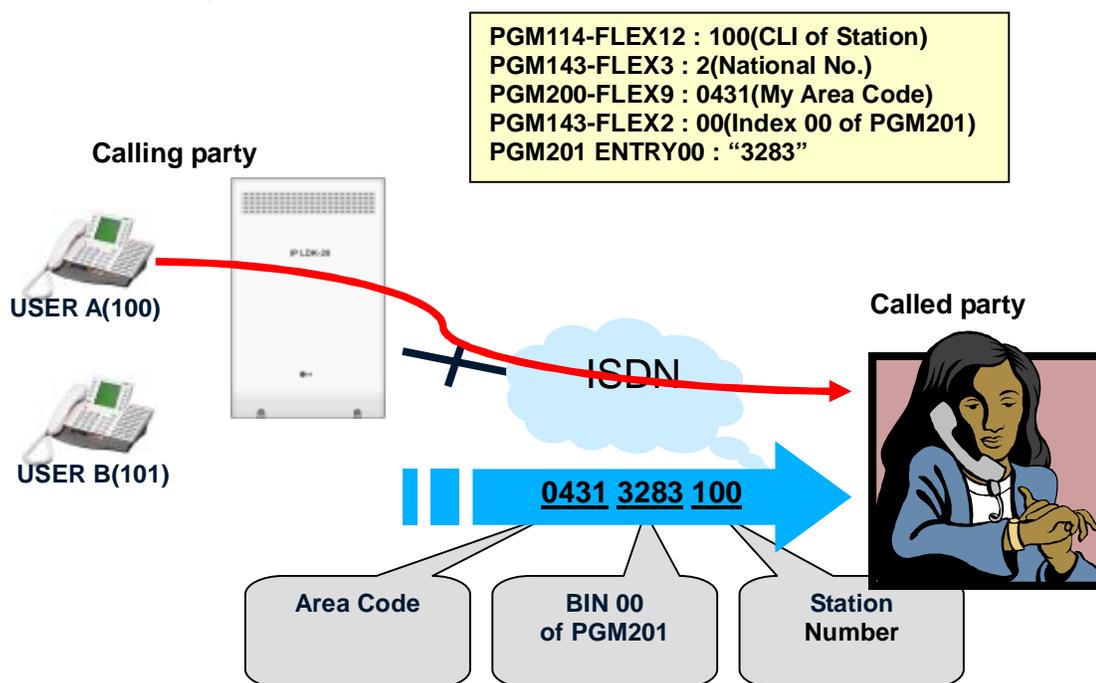


Figure 2.14.2.2 The example of outgoing CLI process in IP LDK system.

Operation

In IP LDK system, if the CALL TYPE(ADMIN program 143 – FLEX 3) is set to NATIONAL, the outgoing CLI is generated as illustrated figure 2.14.2, according to the ADMIN program setting.

1. If the ISDN CLI of STATION(ADMIN program 114 – FLEX 12) is set, this value is used as the end part of CLI when the outgoing CLI is generated.
2. If the MY AREA CODE(ADMIN program 200 – FLEX 9) is set, and this value is used as the first part of CLI when the outgoing CLI is generated.
3. If the entry of CLIP/COLP TABLE(ADMIN program 201) is set, and if the CLIP TABLE INDEX(ADMIN program 143 – FLEX 2) is set to the front entry number, then it can be used as the middle part of CLI when the outgoing CLI is generated.
4. If the CLI RESTRICTION(ADMIN program 114 – FLEX 14) is set to ON, CLI transmission is restricted.

Condition

1. Though the power of system is off, the stored CLI messages is not erased.

Admin Programming

- n CLIP/COLP Table 4.7.2 (PGM 201)
- n CLIP Table Index 4.2.4.2 (PGM 143 – FLEX 2)
- n Call Type 4.2.4.3 (PGM 143 – FLEX 3)
- n ISDN CLI of STATION 4.1.5.11 (PGM 114 – FLEX 12)
- n ISDN CLIR 4.1.5.13 (PGM 114 – FLEX 14)
- n My Area Code 4.7.1.5 (PGM 200 – FLEX 9)
- n My Area Prefix Code 4.7.1.6 (PGM 200 – FLEX 10)

2.14.3 CLIR/COLR

Description

When a call exists through ISDN DID line, calling line identification (CLI) of the incoming call will be displayed on the LCD of the station. And if the DID external party hangs up before an Attendant or called station answer, the CLI provided by digital network will be stored in the CO message wait queue of the original called station.

Operation

CLI message wait feature summary

| | | | |
|----------|---|-------------------------|---|
| [CALLBK] | — | None | - Retrieve CLI message. |
| | — | [VOL UP/DOWN] | - See next CLI message. |
| | — | [HOLD] | - Make a recall according to CLI message. |
| | — | [CALLBK] | - Toggle CLI message and SPEED Name. |
| | — | [SPEED] + Bin# + [CONF] | - Store CLI message in SPEED dial bin. |
| | — | [CONF] | - Delete current CLI message. |
| | — | [DND] | - Delete all CLI message. |
| | — | At ATD: [TRANS/PGM]+055 | - Delete all CLI message at ATD station. |

To activate CLI Message Wait

1. CLIP should be programmed as ON(1)
2. Then message contents will be shown on LCD.

MSG: CLI(3)

To retrieve CLI Message

1. Press [**CALLBK**] button.
2. Then message contents (CLI number, date and time, the calling count from the same CLI) will be shown on LCD. According to admin date LCD display format, DATE will be display as MM/DD or DD/MM. But, TIME is always displayed the 24-hour mode.

03434507902
DATE TIME CNT:xx

To delete the current CLI Message and see the next one

1. Press [**CONF**] button.
2. Then the station user can see the next CLI message and current CLI message will be deleted.

To delete all CLI messages

1. Press [**CALLBK**] button
2. Press [**DND**] button and [**HOLD**] button.

To make a call back

1. Press [**HOLD**] button.
2. Then system seizes an available CO line in a first accessible CO group and dials it like speed dialing.

To see the next or previous CLI message

1. Press [**UP/DOWN**] button

To delete all CLI messages at attendant

1. Press **[TRANS/PGM]** button
2. Dial 055 and station range.
3. Press **[HOLD]** button.

To program the SPEED BIN no. with CLI message

1. At the retrieve CLI message LCD, press **[SPEED]** button.
2. LCD display message changes as usual station speed dial program, except that displays the CLI message using indication.

| |
|---|
| ENTER SPEED BIN NO(001) CLI MSG USED |
|---|

3. Then user can press station speed bin number or **[HOLD/SAVE]** button.
4. After entering speed bin number, CLI message using indication is displayed onto speed dial digit position. It means that CLI can be entered pressing **[CONF]** button. If user want to assign the CO for speed, it must be prior to **[CONF]** button pressing.

| |
|---|
| CLI MSG USED ENTER CO-BTN/DIGIT(001) |
|---|

5. Press **[HOLD/SAVE]** button to store the speed dial number.

Condition

1. CLI display works about any type of co service, if co line is ISDN. But CLI message wait only works about DID/MSN co service type of ISDN line.
2. The total number of CLI message wait is 500. (on System base)
3. Station without LCD can not receive CLI message wait even though CLIP is set to ON.
4. CLI messages are saved against power failure.
5. When the call is routed to Ring Group, CLI Message is waited only the first member of Ring Group.
6. When the call is routed to a member of UCD/ Circular/ Terminal station group, the CLI Message Wait will be provided to the first ringing station.
7. If the external party release the line during the VMIB announcement, the CLI Message Wait is not saved to any stations. But the external party release the line during that a station is ringing after the VMIB announcement, the CLI Message Wait will be remained at the first ringing station.
8. Though the call is routed to the station(A) that is forwarded to the other station(B), the CLI Message Wait is provided to the original station(A). The basic rule for CLI Message Wait follows the rule of "Message Wait" feature.
9. If there is no buffer, following warning message will be printed out through RS-232C.
"WARNING: CLI MESSAGE WAITING BUFFER FULL"
10. If the CLI number is programmed in the SPEED BIN No. Table with the "name" and the CLI name display ADMIN programmed, then the name will be displayed in the LCD. The CLI number and CLI user name is toggled by pressing **[CALLBK]** button.
11. When a user try to delete the all CLI message at his station and some VMIB voice message wait exist together with CLI message, the "all CLI delete" feature can not be activated. Because the priority of the message wait is as following:
VMIB message wait -> CLI message wait -> VM Group message wait
12. If the duplicated CLI messages are left at a station, LCD of the station will display the CLI message with the CLI duplicated counter (max 15) and the latest message left time.
13. If CLI print admin program set, CLI and Station Number are printed through RS-232C port.

2.14.4 CLIR/COLR

Description

CLIR(Calling Line Identification Restriction) & COLR(Connected Line Identification Restriction) are used, that calling party & called party inform to the public switching system, that they don't want to send their phone number to the other party.

If CLIR or COLR is requested, the PSTN restricts the transmission of CLI. If CLIR is set to ON, calling party number is not sent to the called party. If COLR is set to ON, the connected party number is not sent to the calling party.

Admin Programming

- n ISDN CLIR 4.1.5.13 (PGM 114 – FLEX 14)
- n ISDN COLR 4.1.5.14 (PGM 114 – FLEX 15)

2.14.5 COLP(Connected Line Identification Presentation)

Description

COLP is the same service as CLI, except that the transmitted information is the telephone number of the answered party.

Admin Programming

- n COLP LCD Display 4.1.5.2 (PGM 114 – FLEX 2)
- n ISDN COLR 4.1.5.14 (PGM 114 – FLEX 15)
- n COLP Table 4.7.2 (PGM 201)
- n COLP Table Index 4.2.4.1 (PGM 143 – FLEX 1)

2.14.6 Key Pad

Description

The IP LDK system supports the key pad dialing feature. The key pad facility dialing is the feature that the dialed digit information is sent through the key pad facility IE (Information Element) instead of the called party IE. The key pad facility dialing is executed when pressing the programmed flexible button as **{Keypad Facility}**

Operation

1. When pressing the programmed **{Keypad Facility}** flexible button after seizing a CO line (ISDN), the system will send the dialed digits as Keypad Facility IE instead of Called Party Number IE in INFORMATION message to the network.
2. When a ISDN terminal user sends "#" using Keypad Facility IE with subsequent digits after seizing a CO line (ISDN), the system will send all dialed digits as Keypad Facility IE to network even if the codes are matched with internal supplementary service code (Ex. "*"# to hold CO line).
3. Keypad Facility IE Sending will be stopped automatically, when user releases the CO line (ISDN), or pressing the programmed **{Keypad Facility}** flexible button during dialing digits.

Condition

1. To assign **{Keypad Facility}** flexible button,
[TRANS/PGM] + Flex. BTN + [TRANS/PGM] + 8 9 + [HOLD/SAVE]
2. The Keypad Facility Access Authority (ADMIN program 114 – FLEX 6) should be set to ON to use this feature.
3. This feature can be activated by pressing the **{Keypad Facility}** flexible button after seizing a ISDN CO line.
4. When this feature is activated, the system starts to send Keypad Facility IE instead of Called Party Number IE regardless of CONNECT message from the network unless pressing **{Keypad Facility}** button to deactivate it. So the system will continue to send Keypad Facility IE instead of DTMF tone even after CONNECT message is received from the network.
5. If the Speed Dial is stored with **[FLASH]** as the first digit for ISDN line and the station has the Keypad Facility Access authority, the digits after **[FLASH]** command will be sent as Keypad Facility and the feature will be deactivated after sending all digits.
6. When any of the following features are encountered after the Keypad Facility is activated, the feature will be deactivated automatically;
 - Pressing function keys as **[REDIAL]**, **[TRANS/PGM]**, **[FLASH]**, **[HOLD/SAVE]**, **[CONF]**
 - Pressing CO keys as CO, CO Group, Loop
 - Pressing Flex. Buttons assigned some features as **{SPEED}**, **{DSS}**, **{Call Park}**, **{Keypad Facility}**
 - Making On-hook
 - When DISCONNECT message is received from the network
7. This feature may not be operated depending on the services that require to handle two call references at the same time after B channel connection is made as Hold & Retrieving, Conference, etc.
8. The Speed Dial Numbers started with **[FLASH]** (display "D") send saved digits as Keypad Facility IE instead of Called Party Number IE. After sending all Speed Dial Numbers, this feature is deactivated automatically.
9. When the system receives a Called Party Number IE during sending Keypad Facility IE, the system will stop sending the Keypad Facility IE.
10. "#" is not printed or saved in SMDR information when sending Keypad Facility IE.

Admin Programming

n Keypad Facility Access **4.1.5.6 (PGM 114 – FLEX 6)**

2.14.7 Malicious Call ID

Description

IP LDK system is supporting ISDN-SS-MCID (ISDN Supplementary Service – Malicious Call ID). The protocol standard about MCID is referred the EN300-130.

Operation

MCID Request BTN at Station FLEX BTN:

1. **[Trans/PGM] + {Flex. Button} + '*0' + [Hold]**

MCID Request Operation Using MCID BTN:

1. A station is answered the incoming ISDN call.
2. While the station is talking or receiving the disconnected tone, press **[MCID]** button.
3. IP LDK system sends MCID request message to the central office.
4. According to MCID return message value, IP LDK system provides a confirmation tone in the case of success, or a congestion tone in the case of failure.

Save and Print Out the MCID Request Result:

1. The result of MCID request is printed at SMDR print data.
2. In the case of success, 'MT' is printed, and in case of fail, 'MF' is printed.
3. If SMDR save ADMIN program is enabled, MCID result is also saved.

Condition

1. It can be used within only ISDN network that supports ISDN-SS MCID service.

Admin Programming

n MCID Request Code **3.6.9.1 (PGM 109 – FLEX 1)**

2.14.8 MSN/Sub-Addressing

Description

When several ISDN devices are connected to a single ISDN port, the numbering method of each station is as follows;

MSN (Multiple Subscriber Number)

MSN provides the possibility for assigning multiple ISDN numbers to a single interface. It allows dialing from a line connected to a public network directly to terminals connected to a basic access which has subscribed to MSN number. The figure 2.14.7 describes the flow chart of MSN call process in IP LDK system.

Sub-Addressing

The sub-addressing allows the called user to expand his addressing capacity beyond the one given by the ISDN number.

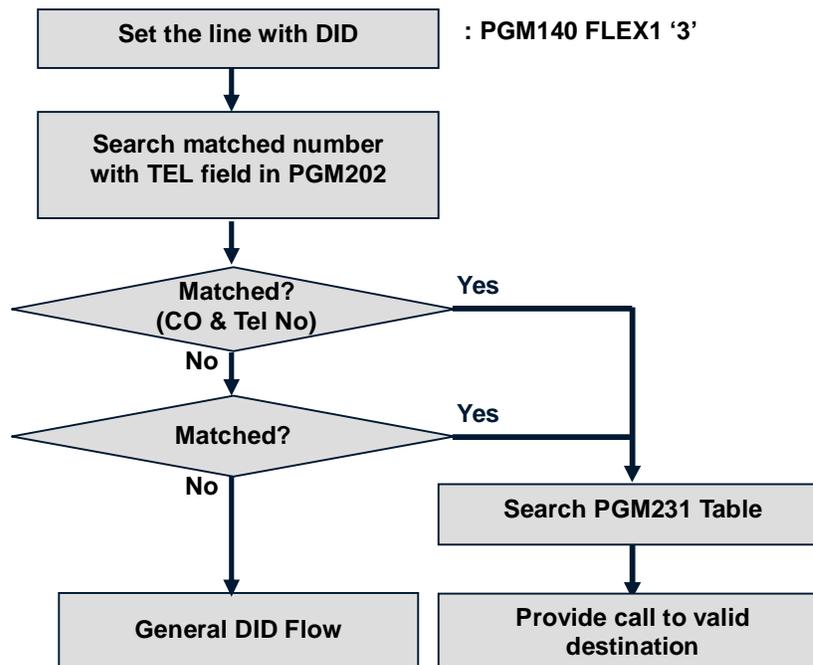


Figure 2.14.7 The flow chart of MSN call process in IP LDK system.

Condition

1. To use an ISDN line as MSN, the CO Service type should be set to DID/MSN.
2. The MSN can be assigned up to 250 ISDN numbers with MSN table.
3. MSN is carried from PX in CPN IE (Called Party Number Information Element)
4. If the received CPN is not matched with MSN table, the call will be operated as DID.
5. If a MSN call is received with an ISDN CO line and there are MSN table entries filled with the CO field value, then only the MSN table entries of MSN CO programmed will be searched. But, if there is no MSN table entry filled with the CO field value, then all MSN table entries will be searched.

6. Max. 8 devices can be connected to a S0 part. It is required to have individual ISDN terminal power feeding to use them.
7. The sub-address is carried from PX in CPSN (Called Party Sub-address Number) IE.
8. Only one digit (0~9) can be used for sub-addressing.

Admin Programming

- n CPN Type **4.1.5.8 (PGM 114 – FLEX 8)**
- n S0 Sub-address using Type **4.1.5.9 (PGM 114 – FLEX 9)**
- n ISDN Calling Sub-address **4.7.1.8 (PGM 200 – FLEX 8)**
- n MSN Table **4.7.3 (PGM 202)**
- n Flexible DID Table **4.10.4 (PGM 231)**

2.14.9 ISDN - CALL HOLD/RETRIEVE

Description

This feature allows the user to make another call without using other channel. When the HOLD supplementary service is invoked, communication on a B-channel is interrupted and the B-channel is released. The network reserves the B-channel used by the user for subsequent reuse. With this feature, ISDN-Broker Call and Call Waiting are available.

Operation

To hold the current call:

1. Press the **[FLASH]** key during conversation
2. Press the **[HOLD]** key. Or
Press programmed {SUPP HOLD} button.

To make a new call by using the same channel

1. Press the **[FLASH]** key.
2. Press the **{CO}** key. Or
Dial CO Access Code 9.

To retrieve the held call during conversation;

1. Press the **[HOLD]** key. Then current call goes on hold and the held call is retrieved.

To retrieve the held call after hanging up the current conversation;

1. Press the {CO} key that is flashing with 480 IPM.

Condition

1. Both keypad protocol and functional protocol are implemented.
2. [FLASH] and [HOLD] keys or pre-programmed {SUPP HOLD} are needed for this feature. {SUPP HOLD} key can be made by Code [TRANS/PGM] + * + 5 + [HOLD]
3. ISDN Call Hold feature is available during conversation.
4. The line, which is associated with this ISDN supplementary service, can not be transferred to other stations or can not be retrieved from other stations. And the held channel can be retrieved only by the station which held the channel before.
5. When a call is on hold, the associated LED for the line will flash at 480 IPM in the station that uses the line. And all the LED's will be ON (busy) in the other stations.
6. When a call is on hold and the user make a new call, the associated LED for the line at the station will be ON.

Admin Programming)

- ISDN Attributes II 4.7.4 (PGM 203)

2.14.10 ISDN – BROKER CALL

Description

This feature allows a station user engaged in one ISDN CO line to hold that call and can originate another call by using the same channel. Once the second call is established, the originating station may alternate between calls carrying on a private conversation with either party.

Operation

To hold the current call;

1. Press the **[FLASH]** key during conversation.
2. Press the **[HOLD]** key. Or
Press programmed **{SUPP HOLD}** button.

To make a new call by using the same channel

1. Press the **[FLASH]** key.
2. Press the **{CO}** key. Or
Dial CO Access Code 9.

To retrieve the held call during conversation;

1. Press the **[HOLD]** key. Then current call goes on hold and the held call is retrieved.

Condition

1. Both keypad protocol and functional protocol are implemented.
2. **[FLASH]** and **[HOLD]** keys or pre-programmed **{SUPP HOLD}** are needed for this feature. **{SUPP HOLD}** key can be made by Code **[TRANS/PGM] + * + 5 +[HOLD]**.
3. ISDN Call Hold feature is available during conversation.
4. ISDN-Broker Call is available during conversation.
5. The ISDN CO line, which is associated with this ISDN-Broker call, can not be transferred to the other station. And the held channel can be retrieved only by the station which held the channel.
6. SDN-Broker Call is associated with Call Waiting

Admin Programming

- ISDN Attribute II 4.7.4 (PGM203)

2.14.11 ETSI Conference

Description

ISDN Supplementary Service ETSI Conference (ISDN-SS-EC). The feature allows user to make a 3 party conference with one ISDN B channel.

Operation

To make a 3 party conversation

1. Press [FLASH] + [CONF] whilst ISDN broker call is in progress with one hold and another call on conversation.

To hold a call whilst in 3 party conversation

1. Press [FLASH] + [HOLD] whilst in 3 party conversation.

Condition

1. Only ETSI protocol is implemented.
2. [FLASH], [HOLD] and [CONF] or {SUPP HOLD}, {SUPP CONF} keys are needed for this feature. {SUPP CONF} key can be made by Code [TRANS/PGM] + * + 7 +[HOLD]

Related Features

1. ISDN-CALL\HOLD/RETRIVE
2. ISDN-BROKER CALL

Related Standards

1. EN 300-196-1 (Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services)
2. EN 300-188-1(3 PTY Supplementary service)

Admin Programming

- ISDN Attribute II HOLD/RETRIEVE TYPE **4.7.4.2 (PGM203)**

2.14.12 ISDN – Supplementary Service with Italy national protocol

There are 3 kinds of supplementary services with Italy national protocol, Call Barring, Call Forward Unconditional, and Memo Tel.

| ITEM | Feature Code | REMARK |
|--|--------------|----------------------|
| Call Barring Code | [FLASH] + 20 | National only B1) |
| CFU Activation Code | [FLASH] + 22 | |
| CFU Deactivation Code | [FLASH] + 23 | |
| Memo Tel Normal Deactivation Code | [FLASH] + 24 | |
| Memo Tel Normal Activation Code | [FLASH] + 25 | |
| Memo Tel Timer Code | [FLASH] + 26 | |
| Memo Tel Activation only LNR2) | [FLASH] + 27 | |
| Memo Tel Interrogation of service status | [FLASH] + 28 | |
| Memo Tel Interrogation of MSRS3) | [FLASH] + 29 | |

Note 1) Flexible button program available.

Note 2) LNR : Idle No Answer

Note 3) MSRS : Message Storage and Retrieve System.

2.14.12.1 ISDN – Call Barring (Italy national protocol) – ATD only

Description

This feature enables the adjustment of the COS(Class of Service) of ISDN CO lines in IP LDK-20. That is to change the current COS of the CO line from C5(all outgoing calls are possible) to C2(outgoing calls only for specific numbers) and vice versa.

Operation

To activate COS down at Attendant station

1. Press the {CO} key.
2. Press the programmed key for {Call barring}. Or Press [FLASH] key + 2 + 0.
3. Service accepted and/or rejected by PX and display during off- hook state.
4. Or service rejected and/or rejected by PX and display during off- hook state.
5. Call barring key and {CO} Key and LED is flashing at 50 IPM when this feature key is activated.

To activate COS up at Attendant station

1. Press the {CO} key.
2. Press the programmed key for {Call barring}. Or Press [FLASH] key + 2 + 0.
3. Dial the password code for class up.
4. Service accepted and/or rejected by PX and display during off- hook state.
5. When ATD station goes to on-hook state, if COS is restored to C5 then feature key LED goes off and normal LCD message will be displayed. But, if COS is not restored to C5 (Reject case), then LCD remains as before ({CO} Key and feature key flashing at 60 IPM).

Condition

1. This feature is only available in national keypad protocol.
2. Password code for call barring is not possible to program to flexible button. So, user always should dial this code.
3. This feature is supported only access basis. So, only ATD station can activate this feature. If normal station tries to use this feature, then error tone is heard.
4. {Call Barring} key is used as toggled key(class up/down).
5. If this feature is activated, ISDN Co line COS changes according to service type(class up/down). When the COS is changed to C2 state, the services available in all ISDN co lines depend on the PX.

ISDN – Call Forward Unconditional (CFU, Italy national protocol)
– ATD only

Description

This feature re-routes (forward) a specific CO Line call to outside specific another subscriber number. PX will transfer a predefined specific subscriber's CO line call to another subscriber number according to CO line/subscriber number.

Operation

To activate Call Forward Unconditional(Only available in preprogrammed flexible button)

1. Press {CO} key.
2. Press the programmed key for {CFU Activate with Destination} Or, Press [FLASH] key + 2 + 2.
3. Service accepted by PX and the LCD will display as during off-hook state. Or, when service is rejected by PX then the LCD will display as during off-hook state.
4. When the station goes to on-hook state, feature key LED and {CO} key LED Flash at 30 IPM. But in rejected case normal LCD will be displayed and feature key LED goes idle.

To deactivate Call Forward Unconditional

1. Press {CO} key.
2. Press the programmed key for {CFU Activate with Destination} Or, Press [FLASH] key + 2 + 3.
3. Service accepted by PX and the LCD will display as during off-hook state. ({CO} key and feature key LED goes idle). Or, when service is rejected by PX then the LCD will display as during off-hook state.
4. When the station goes to on-hook state, feature key LED and {CO} Key LED goes idle. But in rejected case normal LCD will be displayed and feature key LED doesn't change.

Condition

1. This feature is only available in national keypad protocol.
 2. This feature can only activated by using preprogrammed flexible button.
 3. If the CFU feature is activated {CFU Activate with Destination} key LED will flash at 30 IPM.
 4. This feature is supported only access basis. So, only ATD station can activate this feature. If normal station tries to use this feature, then error tone is heard.
 5. If this feature is activated incoming co calls are unconditionally transferred to the predefined destination.
-

2.14.12.3 ISDN – Memo Tel (Italy national protocol)

Description

Memo-Tel is a feature transferring the incoming co call to the MSG Storage system of the PX when co line is busy or when there is no answer. This feature can be activated selectively activated in normal case(busy or no answer) or only in no answer case. And also the user can check the messages left in the PX.

Operation

To activate Memo-Tel

1. Press the {CO} key.(Attendant only)
2. Press the programmed key for {MEMO-TEL Activation Normal}, or [FLASH] key + 2 + 5 for Normal activation.
3. Service accepted by PX and display during off-hook state. Or service rejected by PX and display during off-hook state.
4. When the station goes to on-hook state normal LCD will be displayed.

To change Memo-Tel TIMER

1. Press the {CO} key.(Attendant only)
2. Press the programmed key for {MEMO-TEL Timer Code},or [FLASH] key + 2 + 6 change timer.
3. Service accepted by PX and display during off-hook state. Or service rejected by PX and display during off-hook state.
4. When the station goes to on-hook state normal LCD will be displayed.

To deactivate Memo-Tel

1. Press the {CO} key.(Attendant only)
2. Press the programmed key for {MEMO-TEL Deactivation}, or [FLASH] key + 2 + 4 for Normal deactivation.
3. Service accepted by PX and display during off-hook state. Or service rejected by PX and display during off-hook state.

Enquiry of service status

1. Press the {CO} key.(Attendant only)
2. Press the programmed key for {MEMO-TEL Interrogation Code}, or [FLASH] key + 2 + 8
3. Service accepted by PX and you will hear announcement about the current memo-tel activation type and applied timer. Or service rejected by PX and you will hear the announcement about wrong access.
4. When the station goes to on-hook state, normal LCD will be displayed.

Retrieve of MSRS

1. Press the {CO} key.(Attendant only)
2. Press the programmed key for {MEMO-TEL Retrieve MSRS Code}, Or [FLASH] key + 2 + 9. Then you will hear announcement to enter password or if rejected announcement about wrong access.
3. Dial Password and # for identifying your password.(Password in 4 digits)
4. Dial desired code according to PX announcement.

Condition

1. Memo-Tel is only available in national keypad protocol.
2. If this feature is activated by attendant station (access basis), then the ISDN lines are in MEMO-TEL mode. To retrieve stored message or enquiry of service status at attendant station, attendant should to retrieve of MSRS or enquiry of status for all CO lines respectively.
3. If this feature is activated by normal station (number basis), then the first CO line for this station in MSN table is in MEMO-TEL mode. So, the user should be assigned with the specific subscriber number and co number to MSN table. If no co number is assigned to MSN table, system will choose the first co as default. To retrieve stored message or enquiry of service status at normal station, normal station need not to access CO line.
4. To know service status, user should be inquire of service status to PX using 'Enquiry of service status service'.
5. Station when having numbers for not only one co line the first one appearing in the MSN table will be chosen.

2.15 VoIP Service

2.15.1 Call by IP address

Description

This feature is established by receiving IP numbers or dialing IP numbers directly.

Operation

Press the desired {CO} line, {POOL}, or {LOOP} button or dial the CO line or group code
When hearing Dial Tone, dial the IP address of Called Party sequentially. In stead of ".", "*" must be dialed.(e.g. IP Address: 156.147.3.201, Dialed number:156*147*3*201)
Press "#" button to call.
If Called Party is IP LDK system, Ring will follow the Ring Assignment(ADMIN program 144)

Condition

1. When programming Speed Dial for Direct Call, "#" must not be inserted.
(e.g. To assign 156*147*3*139 to Speed Dial, Just enter "156*147*3*139" not "156*147*3*139#")
2. In DISA Incoming, Co Access is denied if the line seized by dialing Co Access Code is VOIB line

Admin Programming

- CO Line Service Type **4.2.1 (PGM 140)**
- VOIB IP Setting **4.12.1 (PGM 340)**

2.15.2 Call by routing table

Description

This feature is established by dialing Station number programmed in NETWORK ROUTING TABLE(PGM324)

Operation

Dial the station number included in the range from start range to end range in network routing table. System will select one VOIP Co line in the CO Group assigned in network routing table.

User will be heard Ring Back Tone if this call is possible.

In case of error or busy or no answer, Call will follow DID/DISA destination(ADMIN program 167)

Condition

1. For the call via Network Table, VOIB call follows the ISDN DID Call Procedure.(DID conversion Type, Digit conversion Table, Flexible DID Table etc)
2. VOIP CO call does not follow Ring Assignment even if DID/DISA destinations are set to attendant.
3. The call just will be transferred to Attendant directly.
4. If network routing table have more than one table entries that is the same routing number but the destination is different, the call is routed to the destination of the front entry of network routing table.
5. To transfer the incoming call to other system via VOIB, transferring user must not drop the call before hearing Ring Back Tone.
6. Just DSS, HUNT, VMIB, VMIB # and System Speed can be the destination for the Flexible DID Table(ADMIN program 231)
7. CLIP and COLP are not applied in VOIP CO Call.

Admin Programming

- CO Line Service Type **4.2.1 (PGM 140)** –ISDN DID/MSN
- VOIB IP Setting **4.12.1 (PGM 340)**
- DID Conversion Type **4.2.4.4 (PGM143 – FLEX 4)**
- Flexible DID Table **4.10.4 (PGM231)** – (used in case of DID Conversion Type 2)
- Networking CO Group **4.11.3.1 (PGM322 – FLEX 1)**
- Networking Routing Table **4.11.4 (PGM324)**

2.16 H.450 over IP

Description

The IP LDK system supports the networking feature. In the IP LDK system, the networking is defined the software feature that supports the service of H.450 over IP(Internet Protocol).

The networking system can link telephone systems together so that they behave like unified communication network, providing service transparency, cost-efficiency and adaptability to your organization's needs.

The system provides interconnection in a variety of corporate network configurations with H.450 over IP.

Network Configurations

The system can support various network configurations via Internet and up to 72 systems (including itself) can be combined on the network.

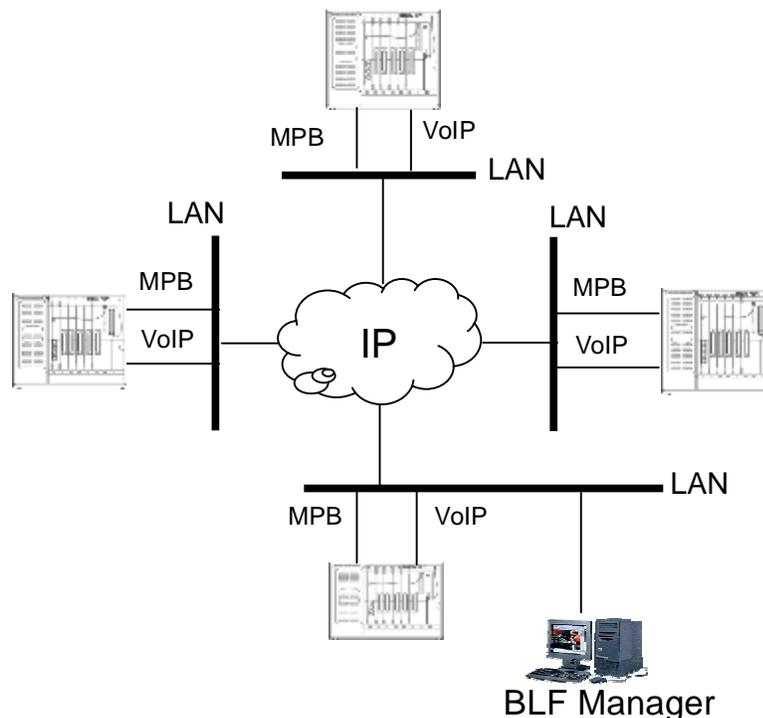


Figure 2.16 H.450 over IP networking configuration with BLF manager

Networking Protocols

The system can support H.450 over IP – for the basic networking functions and the proprietary protocol for the advanced networking functions.

IP standard protocol H.323 for Call Control, H.450.1 ~ H.450.12

LG Proprietary protocol for advanced Function

Requirement

To use the networking features, the software lock-key installation is required. Each IP LDK system has own unique software lock-key. To get the software lock-key, contact the distributor of IP LDK system.

Numbering Plan

Unified Dialing Plan (UDP) : In the IP LDK networking system, the UDP numbering plan is used. In the UDP networking, the stations of each system can have a unique station number from 2 digits up to 7 digits. The unique station number is assigned according to the numbering plan of each IP LDK system. The figure 2.16-1 describes the networking configuration that is configured by UDP numbering plan. In this figure, the symbol of 'x' represents the ranged digit as '0 ~ 9'.

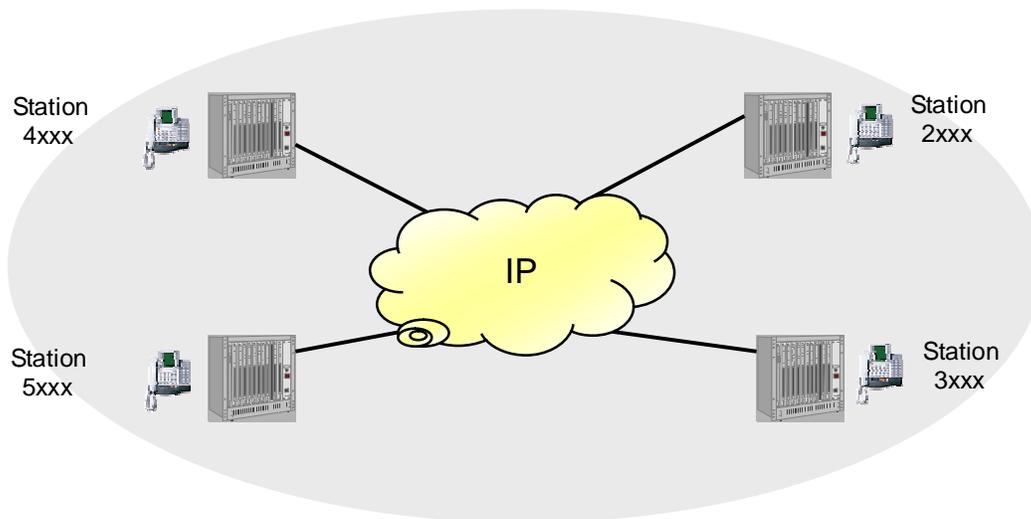


Figure 2.16-1 The networking configuration via UDP numbering plan.

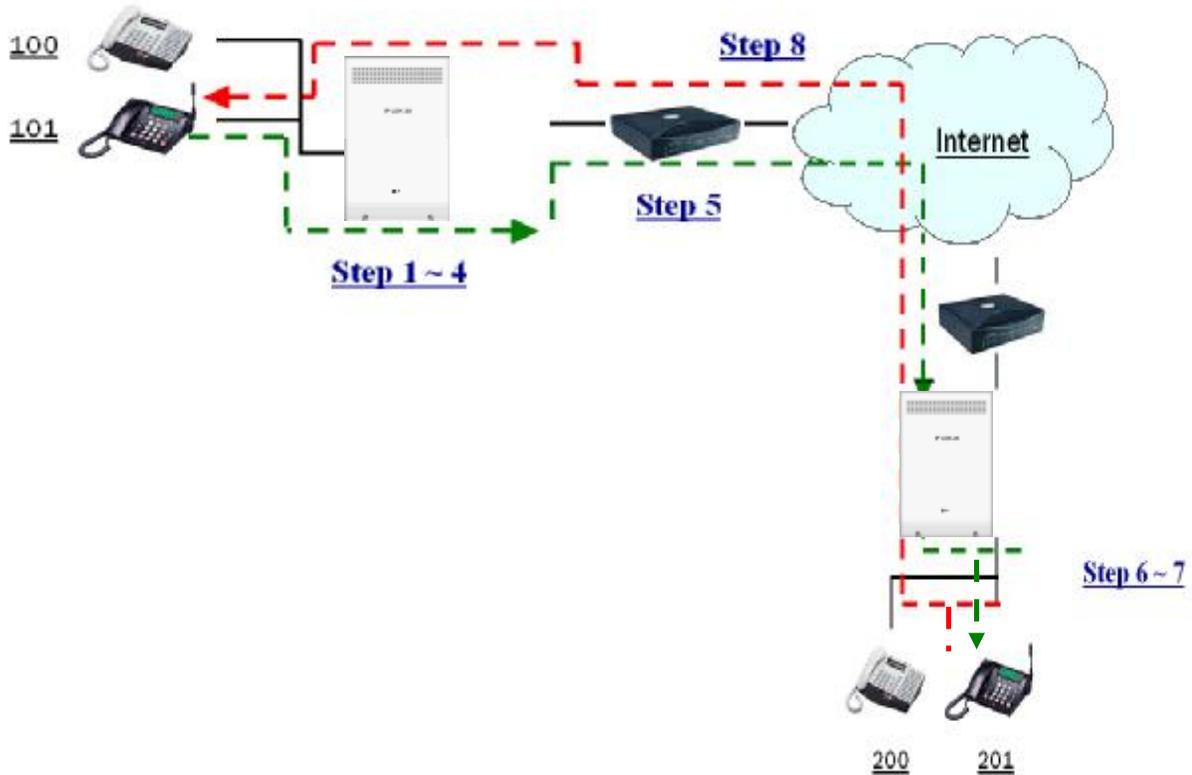
Automatic Routing Service

A dialed number is analyzed and routed to get the right destination according to the Net numbering table. Furthermore, the system supports an alternative route when the main path is failed. In order to maximize the use of networking and efficiency of the private network, net numbering table provides a simple accessibility to the end user.

2.16.1 Net Call

Description

In the networking configuration, a station user can make a call to a station in other networking systems by dialing only a station number just as an intercom call within the same system. This service is defined as 'NET CALL'. The figure 2.16.4 describes the net call operation in VOIP networking connection.



Call Flow

| Step | Flow |
|------|--|
| 1 | Station 101 dials 201 that is a station number of other system. |
| 2 | System searches Networking Numbering Table. |
| 3 | 2** matches 201, (2** means '200 ~ 299') |
| 4 | System gets the destination IP address that is assigned for station 201. (For example 10.152.32.67 or 192.168.1.1) |
| 5 | VoIP net call goes to destination IP |
| 6 | Ringing at the exact destination (201) |
| 7 | Destination (201) answers |
| 8 | Conversation |

Note : During conversation, all telephony features are available.
 For example, call transfer, hold, conference and etc

Figure 2.16.1 The net call operation in VOIP networking connection

Operation

To make a net call, lift handset or press the **[MON]** button. The system provides a user with a dial tone. Dial the station number of other networking systems, or if station has the **[NET DSS]** button that contains the net call station number, then the net call is made by pressing the **[NET DSS]** button.

The station seizes the network CO line according to the net routing table, and the system sends a digit stream that is modified by the net routing table.

The called system receives a digit stream that is sent by calling system, and analyzes it using the net routing table to determine the right destination station. The destination station receives a ringing signal.

The LED of **[COL]** flexible button, that is represent the CO line for net call, will be extinguished when the net call is cleared.

Condition

1. To make a net call, like to intercom call, station user must dial the destination station number without seizing a CO line.
2. After station user makes a net call, the IP LDK system seizes a idle CO line to send the net call request to the destination station. But if there is no selectable idle CO line, then user hears an error tone .
3. The received net call is always ringing as the terminal answer mode, regardless the intercom answer mode setting(Hands-free/Terminal/Privacy)
4. When system detects the fatal error from the network, system sends the digit stream to the network using the alternate speed dial bin. In this case, the call is not a networking call.
5. The Net Call is also applied CO Call Restriction Timer (ADMIN program 180 – FLEX 17)

ADMIN Programming

- Networking Basic Attribute 4.11.1 (PGM 320)
- Networking CO Line Attribute 4.11.3 (PGM 322)
- Network Routing Table(Numbering Plan) 4.11.4 (PGM 324)

[Networking ADMIN Example]

Situation : VOIP Networking between two IP LDK systems

Two IP LDK systems A and B are connected through VOIB. And the customer want to program the networking between two IP LDK systems as follows.

First, to enable the networking feature, the ADMIN program 320 – FLEX 1 must be set to ON. at each system. If the networking lock-key is not installed, this ADMIN program can not be enabled.

Second, to satisfy the UDP condition, the ADMIN program of 'FLEXIBLE STATION NUMBERING PLAN' (PGM 105) must be programmed at each system. At this ADMIN program, the station number range of system A can be changed from 100 to 199 (100 ~ 199), and system B's also can be changed from 200 to 299 (200 ~ 299). **The changed station number must not be conflicted with the flexible number plan code of each system.** (For example, if system A has a flexible numbering code '2' as PICK-UP code, then station number, that is started by digit '2', can not be used)

Third, the destination IP address is needed to route. So, in this case, the IP address of destination

system's VOIB must be set at ADMIN program 324 – FLEX button 4.

The ADMIN program to configure the VOIP networking between system A & B are summarized like below.

At system A : Enter ADMIN program 105 + [SPEED] + '100' + '199' + [HOLD]

At system B : Enter ADMIN program 105 + [SPEED] + '200' + '299' + [HOLD]

Fourth, to configure the networking CO line connection, the ADMIN program of 'CO SERVICE TYPE' (PGM 140), 'DID CONVERSION TYPE' (PGM 143 – FLEX 4), 'DID RECEIVE DIGIT' & 'DID DIGIT MASK' (PGM 146 – FLEX 5 & 6), 'FLEXIBLE DID TABLE' (PGM 231), 'NET CO GROUP' & 'NET CO TYPE' (PGM 322 – FLEX 1 & 4) must be programmed appropriately at each system. The networking CO line is defined that it connects the networking systems and it is used for the networking signaling message and voice path. To use the networking CO line, the service type must be set to DID/MSN at ADMIN program 140. And to receive the net call digit information correctly, the appropriate DID conversion type must be set at ADMIN program 143 – FLEX 4. In this example, DID TYPE 1 satisfies the situation. To configure the net CO line connection, the net CO group and type must be set to '01' and 'NET' at ADMIN program 322 – FLEX 1 & 4.

At system A & B

| PGM | RANGE | ITEM | VALUE |
|-----|---------------|-----------------|-------------|
| 140 | VOIB CO range | CO service type | DID/MSN (3) |

| PGM | RANGE | FLEX | ITEM | VALUE |
|-----|---------------|------|---------------------|-------|
| 143 | VOIB CO range | 4 | DID conversion type | 1 |

| PGM | RANGE | FLEX | ITEM | VALUE |
|-----|---------------|------|--------------|--------|
| 322 | VOIB CO range | 1 | Net CO group | 01 |
| | | 4 | Net CO type | NET(1) |

At system A

| PGM | BIN | FLEX | ITEM | VALUE |
|-----|-----|------|---------------------------------------|-----------------------------|
| 324 | 00 | 1 | System usage | NET(0) |
| | | 2 | Numbering plan code | 1#ÚÚ |
| | | 3 | Numbering plan CO group | 00 |
| | | 4 | VOIP Called Party Information 1/2/3/4 | 0.0.0.0 |
| | 01 | 1 | System usage | NET(0) |
| | | 2 | Numbering plan code | 2ÚÚ |
| | | 3 | Numbering plan CO group | 01 |
| | | 4 | VOIP CPN Information 1/2/3/4(note) | VOIB IP address of system B |

note) At the ADMIN program – FLEX 4, maximum 4 VOIP CPN information can be set. The reason of multiple VOIP CPN is to assign the different IP address per each VOIB, when the destination networking system has multiple VOIB.

At system B

| PGM | BIN | FLEX | ITEM | VALUE |
|-----|-----|------|---------------------------------------|-----------------------------|
| 324 | 00 | 1 | System usage | NET(0) |
| | | 2 | Numbering plan code | 2#ÚÚ |
| | | 3 | Numbering plan CO group | 00 |
| | | 4 | VOIP Called Party Information 1/2/3/4 | 0.0.0.0 |
| | 01 | 1 | System usage | NET(0) |
| | | 2 | Numbering plan code | 1ÚÚ |
| | | 3 | Numbering plan CO group | 01 |
| | | 4 | VOIP Called Party Information 1/2/3/4 | VOIB IP address of system A |

2.16.2 Identification Service**Description**

Between the networking systems, the name of station can be transmitted via the networking signaling messages. In the IP LDK system, the name of station can be programmed at the station program menu '74' ([Trans/PGM] + '74'). CNIP(Calling Name Identification Presentation) is defined that the name of station is transmitted when an outgoing call is made. And CONP(connected Name identification Presentation) is defined that the name of station is transmitted when an incoming call is answered. If the opposite side networking system is received the name of station, then it is displayed on LCD.

Operation

CNIP and CONP operation is executed whenever the station of networking system makes a call and it answers the incoming call.

Condition

To used CNIP and CONP service, the name of station and the related ADMIN program 320 – FLEX 3 & 4 must be set properly.

Admin Programming

- Networking CNIP Enable **4.11.1.3 (PGM 320 – FLEX 3)**
- Networking CONP Enable **4.11.1.4 (PGM 320 – FLEX 4)**

2.16.3 Net Transfer

Description

A station user of the networking system can use the net transfer service. The net transfer is the call transfer service that is using the net call. It can transfer any kind of call to a station in other systems by pressing **[TRANS/PGM]** button and dialing the station number. The executive operation of net transfer is the same as the call transfer service within the same system. And it also supports the two kinds of transfer modes; screened transfer mode and unscreened transfer mode (see Ref.1)

Engineering notice

There are defined two kinds of standard net transfer signaling method in QSIG and H.450 protocol specification; TRANSFER BY JOIN and TRANSFER BY REROUTING. The main difference is how the connecting path among the transferring, transferred, transferred-to stations controls.

The term of transferred station is the call originator. In the figure 2.16.5, the outside caller is the transferred station.

The term of transferred-to station is the new destination of the transferred call. In the figure 2.16.5, the station 202 is the transferred-to station.

And the term of transferring station is a station transferring a call with transferred station, to transferred-to station. In the figure 2.16.5, the station 100 is the transferring station.

In case of TRANSFER BY JOIN, additional connecting path will be needed to transfer the call to another station. In case of TRANSFER BY REROUTING, new connecting path is used to transfer the call and old connecting path of transferring station will be cleared.

IP LDK system supports both TRANSFER BY JOIN and TRANSFER BY REROUTING. The signaling method can be selected by ADMIN program 321 – FLEX 1.

The figure 2.16.5 describes the unscreened net transfer operation on the networking connection environment. At the first step, the outside caller dials the telephone number of station 100. And station 100 is receiving the incoming ring at the second step. At the third step, station 100 answers and it is requested the call transfer to the station 202 that is located the another networking system. To execute the net transfer, the station 100 presses **[TRANS/PGM]** button and dials '202'. After hearing ring back tone, station 100 goes idle. Station 202 receives the net transfer ring and answers at the fifth step.

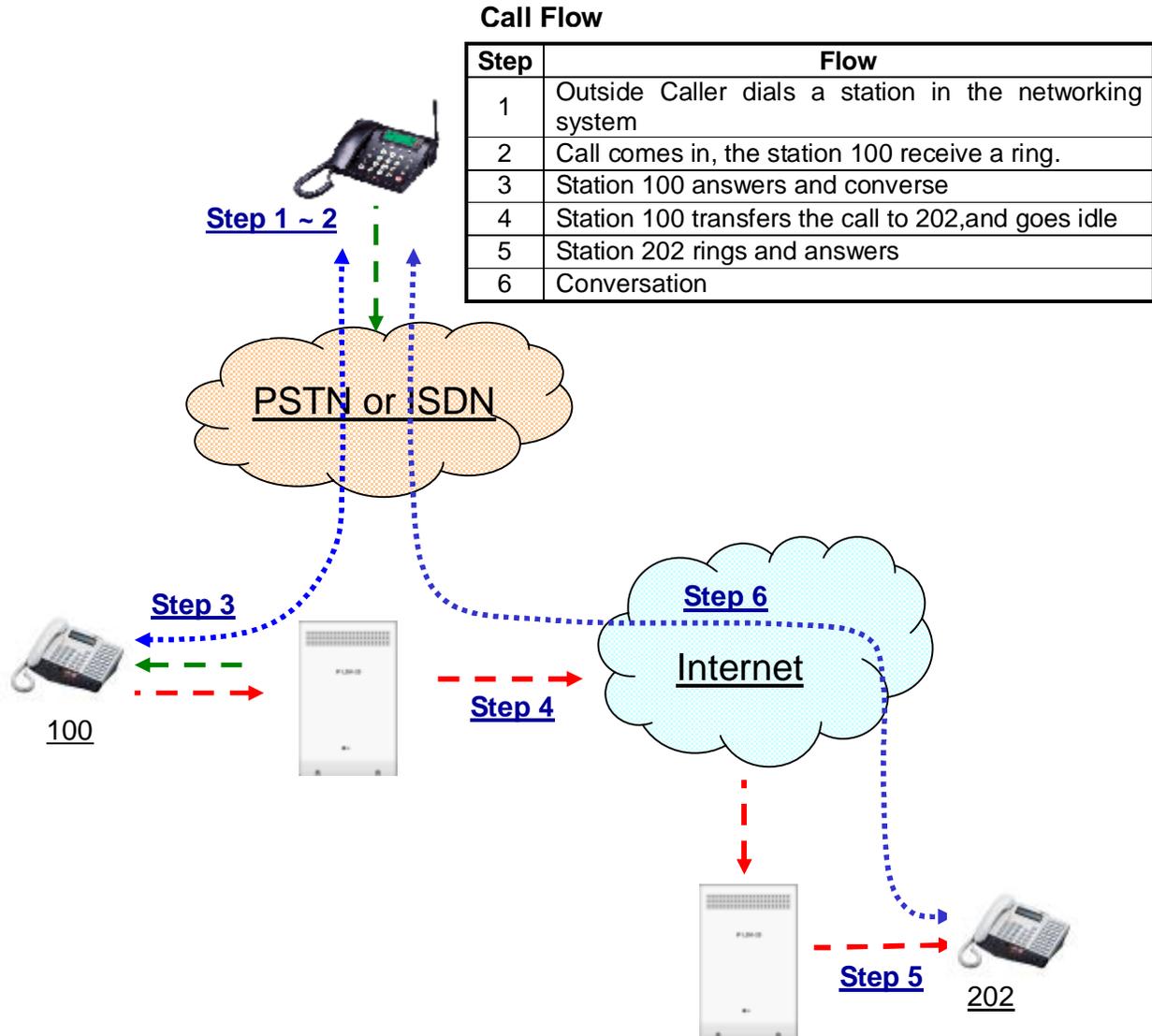


Figure 2.16.5 Unscreened net transfer operation on networking connection environment

Operation

Screened transfer

1. Press the **[TRANS/PGM]** button at a transferring station during conversation. The transferred call is placed on EXCLUSIVE HOLD(see Ref.2)
2. At the transferring station, dial the station number of another networking system to transfer the call. The transferred-to station of another system receives a ring signal.
3. When the transferred-to station answers, the voice path is connected between the transferring and the transferred-to stations.
Both stations can make a conversation each other, but the held transferred caller is still in waiting for an answer.
4. The transferred caller and the transferred-to station can make a conversation when the transferring station hangs up.

Unscreened transfer

1. Press the **[TRANS/PGM]** button at a station during conversation. The transferred call is placed on EXCLUSIVE HOLD(see Ref.2)
2. At the transferring station, dial the station number of another networking system to transfer the call, and go on-hook. The transferring station goes idle, and the transferred-to station of another system receives a ring signal.
3. The transferred caller and the transferred-to station can make a conversation when the transferred-to station answers the ringing.

Condition

1. If both transferred stations and transferred-to stations are located in the same system, the networking CO line that is used for transferring voice path is not needed. That is, the transfer call will be setup as intercom call.
2. The net transfer will be canceled when transferring station user presses the flashing **[TRANS/PGM]** button.
3. After the transferring station goes on-hook, the net transfer call doesn't recall to the transferring station though the transferred-to station doesn't answer for long time.
4. If there is no idle networking CO line path for net transfer, the error tone will be heard.
5. If the call is transferred to a busy station, the busy tone will be heard.

Reference

1. Screened and unscreened transfer mode : Section 2.3.2
2. Exclusive hold : Section 2.3.3

Admin Programming

- Networking Basic Attribute **4.11.1 (PGM 320)**
- Networking Transfer Mode **4.11.2.1 (PGM 321 – FLEX 1)**
- Networking CO Line Attribute **4.11.3 (PGM 322)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.4 Net Call Forward - Unconditional

Description

It is possible for a user to forward his station remotely and immediately over the network when it receives a ring signal.

Engineering notice)

There are two kinds of standard net call forward signaling method in H.450 protocol specification defined; JOIN and REROUTING. The main difference is how the connecting path among the forwarding, forwarded, forwarded-to stations controls.

The term of forwarded station is the call originator. The forwarded station is rerouted to the forwarded-to station by forwarding station. In the figure 2.16.4, the outside caller is the forwarded station.

The term of forwarded-to station is the new destination of the forwarded call. In the figure 2.16.4, the station 202 is the forwarded-to station.

And the term of forwarding station is a station forwarding a call, to forwarded-to station. In the figure 2.16.4, the station 100 is the forwarding station.

IP LDK system supports both JOIN and REROUTING. The signaling method can be selected by ADMIN program 321 – FLEX 1.

The figure 2.16.4 describes the unconditional net call forward operation on the networking connection environment. At the first step, the station 100 is set the unconditional net call forward to the forwarded-to destination 202. At the second step, the outside caller is dialed the telephone number of station 100. At the third step, the networking system of station 100 is forwarding the incoming call to station 202, that is located the another networking system. At the fourth step, station 202 is receiving a ring signal from the outside caller. After answering, station 202 can make a conversion with the call forwarded caller at the fifth step.

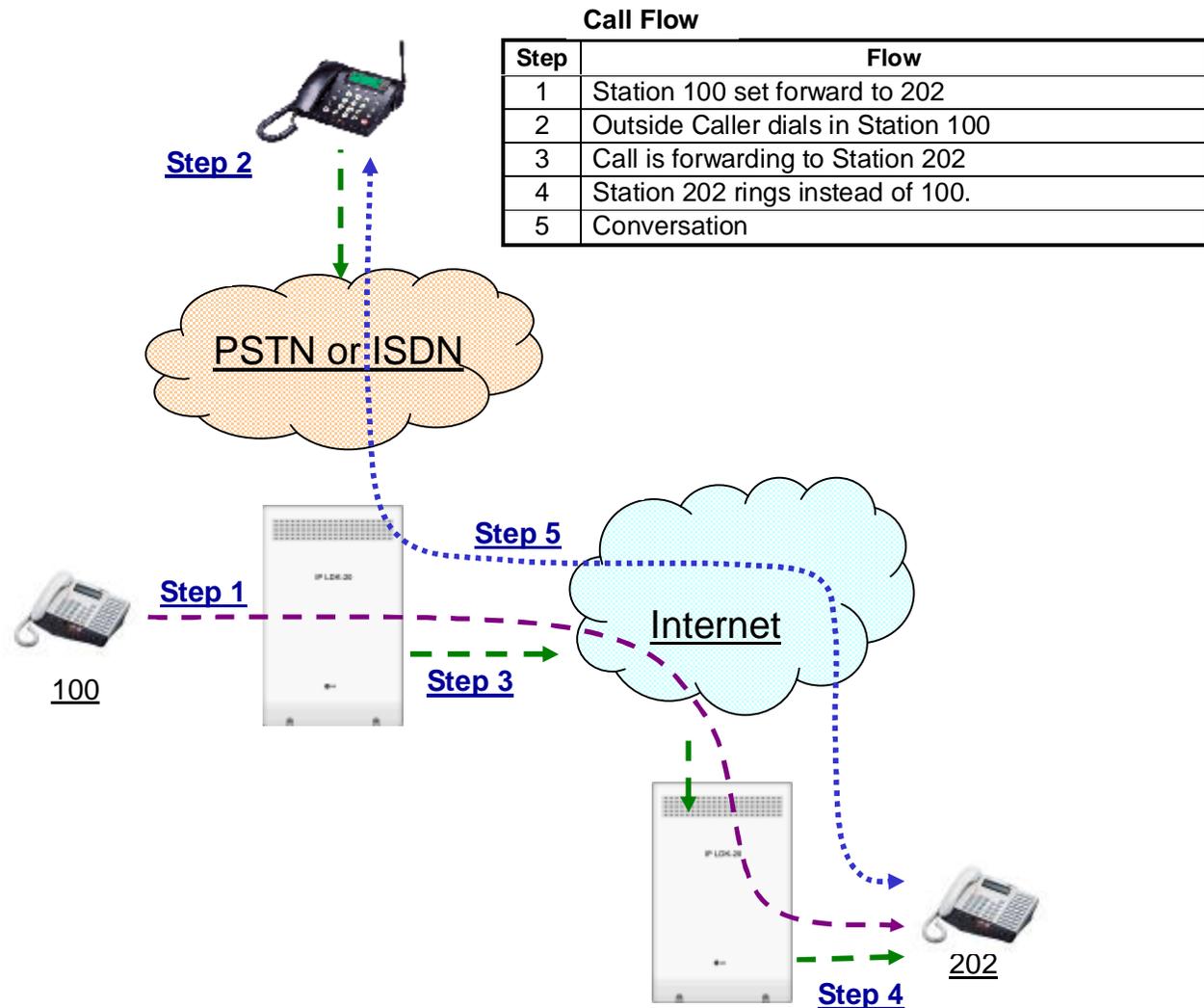


Figure 2.16.4 The unconditional net call forward operation on the networking connection environment

Operation

To activate Net Call Forward

1. Press the **[MON]** button and the **[DND/FOR]** button
2. Dial Net Call Forward code "1", and dial the station number of another networking system.
3. The **[DND/FOR]** button will be flashing and a confirmation tone will be provided.
4. If there is incoming call to the net call unconditional forwarding station, the call is routed to a
5. forwarded-to station immediately, and the forwarded-to station is ringing.
6. When the forwarded-to station is answered, the call forwarded and forwarded-to station can make a conversation.

To deactivate Net Call Forward

1. Press the **[DND/FOR]** button when it is flashing.
2. The **[DND/FOR]** button will be extinguished.

Condition

1. If both call forwarded stations and call forwarded-to stations are located in the same system, the networking path CO line that is used for forward voice path is not needed. That is, the forwarded call will be setup as intercom call.
2. At the forwarding system, it does not check the status of the forwarded-to station, that is in DND, CFW or Empty, when it set the net call forward.

Admin Programming

- Call Forward Attribute 4.1.2.2 (PGM 111 – FLEX 2)
- Networking Basic Attribute 4.11.1 (PGM 320)
- Networking Transfer Mode 4.11.2.1 (PGM 321 – FLEX 1)
- Networking CO Line Attribute 4.11.3 (PGM 322)
- Network Routing Table(Numbering Plan) 4.11.4 (PGM 324)

2.16.5 Net Call Forward - Busy

Description

It is possible for a user to forward his station remotely over the network when it is busy.

Engineering notice

There are two kinds of standard net call forward signaling method in H.450 protocol specification defined; JOIN and REROUTING. The main difference is how the connecting path among the forwarding, forwarded, forwarded-to stations controls.

The term of forwarded station is the call originator. The forwarded station is rerouted to the forwarded-to station by forwarding station.

The term of forwarded-to station is the new destination of the forwarded call.

And the term of forwarding station is a station forwarding a call, to forwarded-to station.

IP LDK system supports both JOIN and REROUTING. The signaling method can be selected by ADMIN program 321 – FLEX 1.

Operation

To activate Net Call Forward

1. Press the **[MON]** button and the **[DND/FOR]** button
2. Dial Net Call Forward code “2”, and dial the station number of another networking system.
3. The **[DND/FOR]** button will be flashing and a confirmation tone will be provided.
4. If there is incoming call to the net call busy forwarding station, the call is routed to a forwarded-to station when the called station is busy, and the forwarded-to station is ringing.
5. When the forwarded-to station is answered, the call forwarded and forwarded-to station can make a conversation.

To deactivate Net Call Forward

1. Press the **[DND/FOR]** button when it is flashing.
2. The **[DND/FOR]** button will be extinguished.

Condition

1. If both of call forwarded and forwarded-to stations are located in the same system, the networking path CO line is not needed that is used for forward voice path. That is, the forwarded call will be setup as intercom call.
2. At the forwarding system, it does not check the status of the forwarded-to station, that is in DND, CFW or Empty, when it set the net call forward.

Admin Programming

- Call Forward Attribute **4.1.2.2 (PGM 111 – FLEX 2)**
- Networking Basic Attribute **4.11.1 (PGM 320)**
- Networking Transfer Mode **4.11.2.1 (PGM 321 – FLEX 1)**
- Networking CO Line Attribute **4.11.3 (PGM 322)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.6 Net Call Forward – Busy / No Answer

Description

It is possible for a user to forward his station remotely over the network when it does not answer within the CFW NO ANS(Call Forward No Answer) Timer or busy.

Engineering notice

There are two kinds of standard net call forward signaling method in H.450 protocol specification defined; JOIN and REROUTING. The main difference is how the connecting path among the forwarding, forwarded, forwarded-to stations controls.

The term of forwarded station is the call originator. The forwarded station is rerouted to the forwarded-to station by forwarding station.

The term of forwarded-to station is the new destination of the forwarded call.

And the term of forwarding station is a station forwarding a call, to forwarded-to station.

IP LDK system supports both JOIN and REROUTING. The signaling method can be selected by ADMIN program 321 – FLEX 1.

Operation

To activate Net Call Forward

1. Press the **[MON]** button and the **[DND/FOR]** button
2. Dial Net Call Forward code “4”, and dial the station number of another networking system. The **[DND/FOR]** button will be flashing and a confirmation tone will be provided.
3. If there is an incoming call to the net call busy/no answer forwarding station, the call is routed to a forwarded-to station, when the called station is busy or does not answer within a CFW NO ANS timer, and the forwarded-to station is ringing.
4. When the forwarded-to station is answered, the call forwarded and forwarded-to station can make a conversation.

To deactivate Net Call Forward

1. Press the **[DND/FOR]** button when it is flashing.
2. The **[DND/FOR]** button will be extinguished.

Condition

1. If both of call forwarded and forwarded-to stations are located in the same system, the networking path CO line is not needed that is used for forward voice path. That is, the forwarded call will be setup as intercom call.
2. At the forwarding system, it does not check the status of the forwarded-to station, that is in DND, CFW or Empty, when it set the net call forward.

Admin Programming

- Call Forward Attribute **4.1.2.2 (PGM 111 – FLEX 2)**
- Networking Basic Attribute **4.11.1 (PGM 320)**
- Networking Transfer Mode **4.11.2.1 (PGM 321 – FLEX 1)**
- Networking CO Line Attribute **4.11.3 (PGM 322)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.7 Net Call Forward – No Answer

Description

It is possible for a user to forward his station remotely over the network when it does not answer within the CFW NO ANS(Call Forward No Answer) Timer.

Engineering notice

There are two kinds of standard net call forward signaling method in H.450 protocol specification defined; JOIN and REROUTING. The main difference is how the connecting path among the forwarding, forwarded, forwarded-to stations controls.

The term of forwarded station is the call originator. The forwarded station is rerouted to the forwarded-to station by forwarding station.

The term of forwarded-to station is the new destination of the forwarded call.

And the term of forwarding station is a station forwarding a call, to forwarded-to station.

IP LDK system supports both JOIN and REROUTING. The signaling method can be selected by ADMIN program 321 – FLEX 1.

Operation

To activate Net Call Forward

1. Press the **[MON]** button and the **[DND/FOR]** button
2. Dial Net Call Forward code “3”, and dial the station number of another networking system. The **[DND/FOR]** button will be flashing and a confirmation tone will be provided.
3. If there is an incoming call to the net call no answer forwarding station, the call is routed to a forwarded-to station, when the called station does not answer within a CFW NO ANS timer, and the forwarded-to station is ringing.
4. When the forwarded-to station is answered, the call forwarded and forwarded-to station can make a conversation.

To deactivate Net Call Forward

1. Press the **[DND/FOR]** button when it is flashing.
2. The **[DND/FOR]** button will be extinguished.

Condition

1. If both of call forwarded and forwarded-to stations are located in the same system, the networking path CO line is not needed that is used for forward voice path. That is, the forwarded call will be setup as intercom call.
2. At the forwarding system, it does not check the status of the forwarded-to station, that is in DND, CFW or Empty, when it set the net call forward.

Admin Programming

- Call Forward Attribute **4.1.2.2 (PGM 111 – FLEX 2)**
- Networking Basic Attribute **4.11.1 (PGM 320)**
- Networking Transfer Mode **4.11.2.1 (PGM 321 – FLEX 1)**
- Networking CO Line Attribute **4.11.3 (PGM 322)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.8 Net Conference

Description

The net conference is the same service as the conference that is described at Section 2.7(see Ref.1), except that the networking station can be assigned the conference member.

Operation

To make a Net Conference

1. At the conference master station, press the **[CONF]** button, during conversation through the network call. The connected call is on hold and an intercom dial tone is provided.
2. Make a Net Call to a station of other networking system.
3. At the conference master station, press the **[CONF]** button when second called station is answered.
4. The second call is on hold and an ICM dial tone is provided.
5. At the conference master station, press the **[CONF]** button again. Then the conference voice path to all members are connected, and all members can make a conversation.

To clear a Net Conference

1. Any station in the net conference hangs up during the conference.
2. The net conference will be ended and the network path will be cleared.

Condition

1. IP phone can not be a master station of the Net Conference.

Engineering notice

When IP phone sends Invite Setup to Non-IP phone, this message will be rejected.

When Non IP phone is going to invite IP phone, normal Setup message should send to the IP phone instead of Invite Setup message.

Reference

1. Conference : Section 2.7

Admin Programming

- Networking Basic Attribute **4.11.1 (PGM 320)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

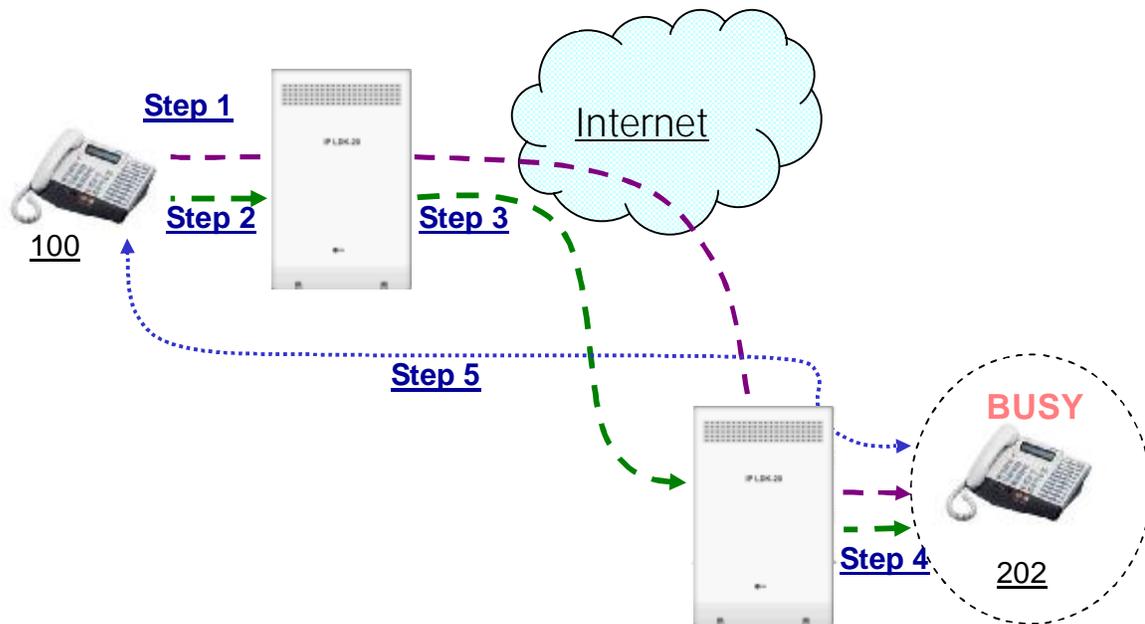
2.16.9 Call Offer

Description

The CALL OFFER is the same service as the CAMP-ON that is described at Section 2.4.5(see Ref.1), except that the camp on is executed on the networking connection environment. The term of CALL OFFER is used at H.450 protocol standard specification.

When a station user make a net call to a busy station that is located on other networking system, busy tone is heard. At that time, the caller can give a signal to the busy station by using of CALL OFFER service. The busy station (through the receiver or on speakerphone) is notified of the call waiting by a camp-on tone and flashing LED of the **[HOLD/SAVE]** button.

The figure 2.16.9 describes the call offer operation on the networking connection environment. At the first step, the station 100 makes a net call to the busy station 202, but it hears the busy tone. To execute the call offer service, the station 100 dials the camp-on code 'Ū', at the second step. The call offer request is sent to station 202, and it receives a camp-on signal tone, at the third and fourth steps. Two stations can make a conversation, when the station 202 is pressing the **[HOLD/SAVE]** button.



Call Flow

| Step | Flow |
|------|--|
| 1 | Station 100 dials 202, but hears BUSY tone |
| 2 | 100 dials camp-on code “*” |
| 3 | Call is routed to Station 202 |
| 4 | Station 202 gets camp-on signaling |
| 5 | Conversation by pressing Hold button |

Figure 2.16.9 The call offer operation on the networking connection environment

Operation

To activate Call Offer

1. Dial a busy station number of another networking system. The caller hears a busy tone.
2. Press the camp-on code 'Ú' during hearing a busy tone. The busy station receives an off-hook muted ring. The calling station hears a ring-back tone instead of a busy-tone.

To answer the Call Offer

1. Press the flashing CO line button while receiving a muted ring.
Or,
1. The muted ring is changed to normal CO ring when you go on-hook state. Then station user can answer the offered call.

Condition

1. Call Offer is only applied to a station that is in talk status.
2. During a conference or paging, call offer is not activated.
3. System does not support the path reservation mode of standard QSIG specification.

Reference

1. Camp On : Section 2.4.5

Admin Programming

- Networking Basic Attribute 4.11.1 (PGM 320)

2.16.10 Call Completion

Description

The call completion is the same service as the call back that is described at Section 2.4.16(see Ref.1), except that this service is executed on the networking connection environment. The term of call completion is used at H.450 protocol standard specification.

The call completion is separated into two types, CCBS(Completion of Calls to Busy Subscribers) and CCNR(Completion of Calls on No Reply)

Completion of Calls to Busy Subscribers (CCBS) :

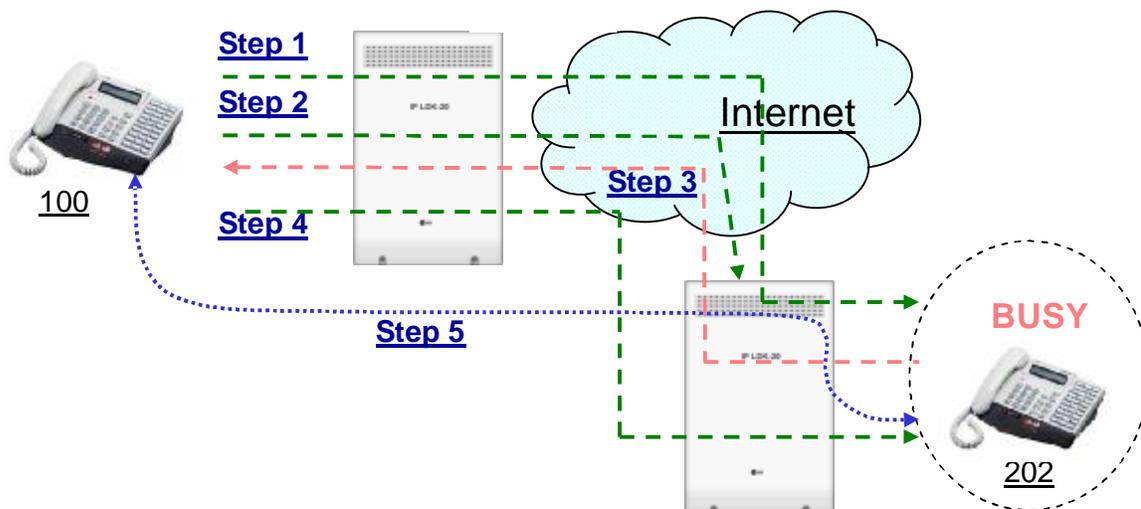
If a station makes a net call to a busy station of another networking system, it will hear a busy tone. A caller station can be notified when the busy station of another networking system becomes idle. If the station wants to make a call to the destination on that notification, the new net call is made by lifting receiver or pressing [MON] button.

Completion of Calls on No Reply (CCNR) :

If a station makes a net call to a absent user station of another networking system, it will be not answered. The caller can be notified when CCNR requested station is used.

Currently, IP LDK system only supports the CCBS service.

The figure 2.16.10 describes the CCBS operation on the networking connection environment. At the first step, the station 100 makes a net call to the busy station 202, but it hears the busy tone. To execute the CCBS service, the station 100 presses the [CALLBK] button, at the second step. After confirmation tone, the station 100 goes idle automatically. The station 100 is receiving the call back ring when the station 202 goes idle, at the third step. At the fourth step, the new net call request is send to the station 202, when station 100 lift a receiver. Two stations can make a conversation, when the station 202 is answered.



Call Flow

| Step | Flow |
|------|--|
| 1 | Station 100 dials 202, but hears BUSY tone |
| 2 | Station 100 press [CALL BK] button, and goes to IDLE |
| 3 | Call-back ring to station 100 when 202 is IDLE |
| 4 | Station 100 lifts handset, then station 202 is ringing |
| 5 | Conversation |

Figure 2.16.10 The CCBS operation on the networking connection environment.

Operation*To make CCBS (Call Back)*

1. Dial the station of another networking system that is busy.
2. Press the **[CALLBK]** button while a busy tone is provided. The call is cleared after a confirmation tone.
3. The busy station goes to Idle, the originator receives a call-back ring.
4. When the originator answers to the call-back ring, a new call will be activated to the calling station.

Condition

1. CCBS is not supported for ISDN terminal. But some ISDN terminal that is guaranteed by LG may activate CCBS.
2. Stand-alone IP Phone that supports H.450 can activate the Call Completion feature.
3. A station can leave or have only one callback message, and a new request will cancel the previous callback message.
4. A voice message cannot be left even though the VMIB is installed in a local system.
5. When the originator does not answer the call back ring within net timer, the call will be cleared.
6. There are two modes : One is connection mode and the other is disconnection mode. This can be selectable at ADMIN program 320 – FLEX button 8.

References

1. Call Back : Section 2.4.16

Admin Programming

- Networking Basic Attribute **4.11.1 (PGM 320 – FLEX 8)**

2.16.11 Do-Not-Disturb (DND)

Description

A call to a station in DND mode can be denied though it is arrived from a station of other systems. The calling party will hear a busy tone.

Operation

1. Go to DND mode at a station.
2. From a station of other system, dial the station number in DND mode. The caller hears a busy tone with LCD display through the network. The DND station does not receive any ring signal.

Condition

1. When a station is in DND mode, the [NET DSS] of DND station is flashing if BLF(Busy Lamp Field) manager(see Ref.1) is activated.

Reference

1. BLF Manager : Section 2.16.18

Admin Programming

- DND Attribute 4.1.2.3 (PGM 111 – FLEX 3)

2.16.12 CO Transit - In

Description

The CO TRANSIT-IN is the net call routing service about the incoming DID/MSN call. The incoming DID call can reroute to the net call destination in another networking system.

The figure 2.16.12 describes the CO TRANSIT-IN operation on the networking connection environment. At the first step, the outside caller makes a DID call to the station 202, so the DID call request is arrived at the master system. The networking system of station 202 is not connected to PSTN directly, but it can be connected to PSTN through the another networking system(master system) as illustrated figure 2.16.8. At the second step, the master system checks the received DID call destination. If the DID destination is matched with a station of system, the DID call is routed to the station. But, if the DID destination is not matched, the master system is search the network numbering plan table(see Ref.1), whether the destination is matched with a station of the registered another networking system. In this case, the master system transfers the received DID call request to the found networking system, like to the third step. At the fourth step, the CO transit-in DID call is ringing to the station 202. The caller can make a conversation when the station 202 is answered.

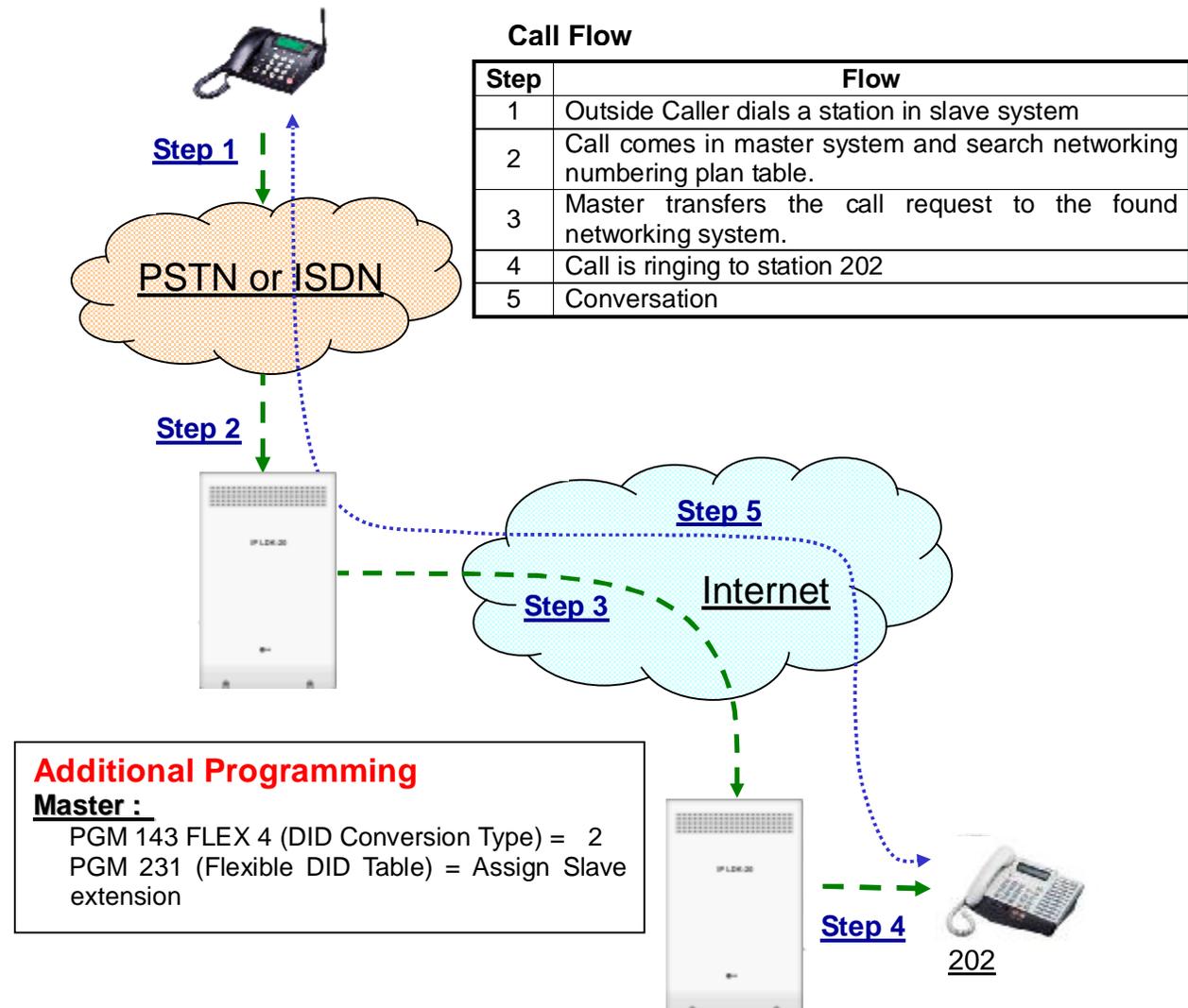


Figure 2.16.12 The CO transit-in operation on the networking connection environment

Operation

1. A DID call is arrived from PABX.
There is no limit for selecting DID conversion type. According to the result of DID conversion, the call will be routed.
2. Network CO line is seized automatically, and the call is transferred to the network destination.
The destination receives the ringing with CLI from PABX.
The outside user still hears a ring-back tone.
3. Both the outside user and the destination station can make a conversation when the destination station answers the ringing.

Condition

1. Any timer is not assigned to the transit CO line.
2. Outside caller hears busy tone when a networking path is not available during transit.

Reference

1. Network Numbering Plan Table : Section 4.11.4

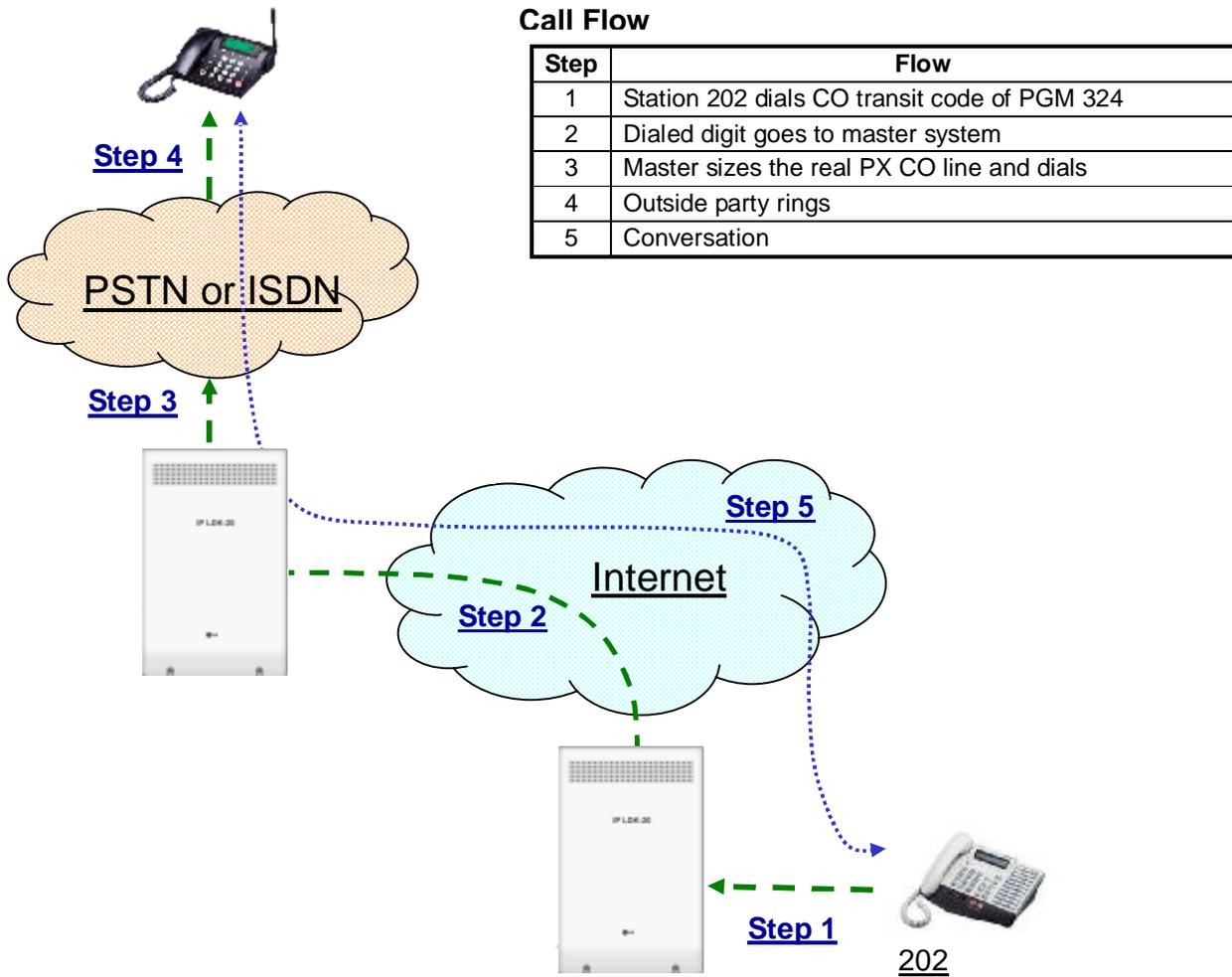
Admin Programming

- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.13 CO Transit - Out***Description***

The CO TRANSIT-OUT is the CO line lend service that is executed by the request of the slave networking system that want to connect PSTN. This service can increase the using efficiency of CO line and reduce call costs by routing outgoing CO calls to the nearest appropriate point on the network. The system should provide sufficient digit translation and string analysis options to enable the switch to route the call correctly.

The figure 2.16.13 describes the CO TRANSIT-OUT operation on the networking connection environment. At the first step, the station 202 of the slave system dials the CO TRANSIT-OUT code, that is registered the network numbering plan table(ADMIN program 324). The term of CO TARNISIT-OUT code is that a station of slave system can seize the PSTN CO line of the master system. At the second step, the slave system seizes a CO line that is preprogrammed for transmitting the CO TRANSIT-OUT code to the master system. And, the dialed code is transmitted to the master system. At the third step, the master system seizes a CO line that is preprogrammed to serve the lend request by the CO TRANSIT-OUT code. After seizing the PSTN CO line, the master system sends the digit information to PSTN that is dialed from the station of the slave system. At the fourth step, the called user of PSTN receives the ring. The caller and called users can make a conversation when the called user is answered.



Additional Programming

Master :

PGM 322 BTN 1 (Net Col Group) = 02 for PSTN Lines
 BTN 4 (Net CO Type) = PSTN

PGM 324 BIN 10

FLEX 1 (Usage) = PSTN
 FLEX 2 (Net Code) = 9 (transit code) . Delete 1st CO Group access code
 FLEX 3 (Net CO Group) = 02

Slave :

PGM 324 BIN 10

FLEX 1 (Usage) = PSTN
 FLEX 2 (Net Code) = 9 (transit code) . Delete 1st CO Group access code
 FLEX 3 (Net CO Group) = 01
 FLEX 4 (CPN) = 192.168.23.21
 FLEX 7 (DGT Repeat) = YES

Figure 2.16.13 The CO TRANSIT-OUT operation on the networking connection environment

Operation

1. A station of slave system dials the CO TRANSIT-OUT code.
2. The slave system seizes a CO line that is preprogrammed for transmitting the CO TRANSIT-OUT code to the master system
3. The master system seizes a CO line that is preprogrammed to serve the lend request by the CO TRANSIT-OUT code.
4. After seizing the PSTN CO line, the master system sends the digit information to PSTN that is dialed from the station of the slave system.
5. The called user of PSTN receives the ring. The caller and called users can make a conversation, when the called user is answered.

Condition

1. To use CO transit-out service, the slave system user must dial CO transit-out code. If it press CO line button, the CO transit-out service doesn't executed.
2. The station COS of slave system is applied for toll restriction. At the master system, the attendant must have the CO access authority about the public connection.
3. For CO transit out, any code will be available using NET routing table (PGM 324). But, if there is a conflict between NET routing table and system numbering plan, system numbering plan has high priority.
4. If the CO transit-out code is programmed at an entry of the network numbering plan table, then the type value of this entry must be set to PSTN (ADMIN program 324 – FLEX 1).
5. If the slave system isn't connected to the master system directly, the CO transit-out code can be transmitted through other networking systems transparently by setting the ADMIN program 324 – FLEX 7 at each networking systems.
6. At the master system, the PSTN CO lines are must be set the ADMIN program 322 – FLEX 4.

Admin Programming

- Networking CO Line Type **4.11.3.2 (PGM 322 – FLEX 2)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.14 Message Waiting Indication (MWI)

Description

The MWI(Message Waiting Indication) is the exactly same service as the CLI(Calling Line Identification) message wait that is described at Section 2.14.2(see Ref.1)

A station can leave the CLI message of itself, when the station of other networking system doesn't answer. In this case, at the system of unanswered station located, the ADMIN program of CLI message wait(PGM114 – FLEX 4) must be enabled. MWI is indicated by CLI message on station LCD.

Operation

To retrieve MWI message

1. Press the flashing **[CALLBK]** button.
2. MWI contents (CLI number, date and time, the calling count from the same CLI) will be shown on LCD.
3. Press the volume up/down **[5 6]** button. The previous MWI or the next MWI is displayed.

To delete the current CLI Message and see the next one

1. Press **[CONF]** button.
2. Current MWI message is cleared with a confirmation tone and the next MWI message is displayed.

To make a call back

1. Retrieve MWI with pressing the flashing **[CALLBK]** button and the volume up/down **[5 6]** button.
2. Press **[HOLD]** button.
3. Then system makes a net call according to MWI data.

Condition

1. MWI is applied to LCD panel installed station only.
2. When system makes a call back according to MWI data, the CO line is selected within the network CO group.

Reference

1. CLI Message Wait : Section 2.14.2

Admin Programming

- CLI Message Wait **4.1.5.4 (PGM114 – FLEX 4)**
- Networking Basic Attribute **4.11.1 (PGM 320)**
- Networking CO Line Attribute **4.11.3 (PGM 322)**
- Network Routing Table(Numbering Plan) **4.11.4 (PGM 324)**

2.16.15 Absent Text Message

Description

The absent text message is the same service, that is described at Section 2.4.1(see Ref.1), except that this service is executed on the networking connection environment.

If a station user absents his desk with the absent text message on his station LCD, if a station of another networking system make a net call to this station, then the absent text message of this station is transmitted to the caller station, and it is displayed on LCD.

Operation

Make a Net Call to a station which is selected the pre-selected message or custom message.

Condition

1. A text message is displayed on the LCD of calling station, but the called station over network still receives ring signal.
2. This feature does not be supported when calling party is WHTU and Large LCD DKTU.

Reference

1. Absent Text Message : Section 2.4.1

2.16.16 Attendant Call Service(CAS)

Description

The attendant call from a station of any networking system can be routed to the CA(Centralized Attendant) of CAS master system.

This call will be queued when all centralized attendants are busy, like to the normal attendant call and queuing operation(see Ref.1)

The figure 2.16.16 describes the CAS operation on the networking connection environment. In the figure, there are four IP LDK networking systems. Among them, the IP LDK-A system is set to the CAS master, so its' attendant station is set to the centralized attendant station. From the other networking systems, if a station dials the attendant call code, then the call request is routed to the centralized attendant station of IP LDK-A.

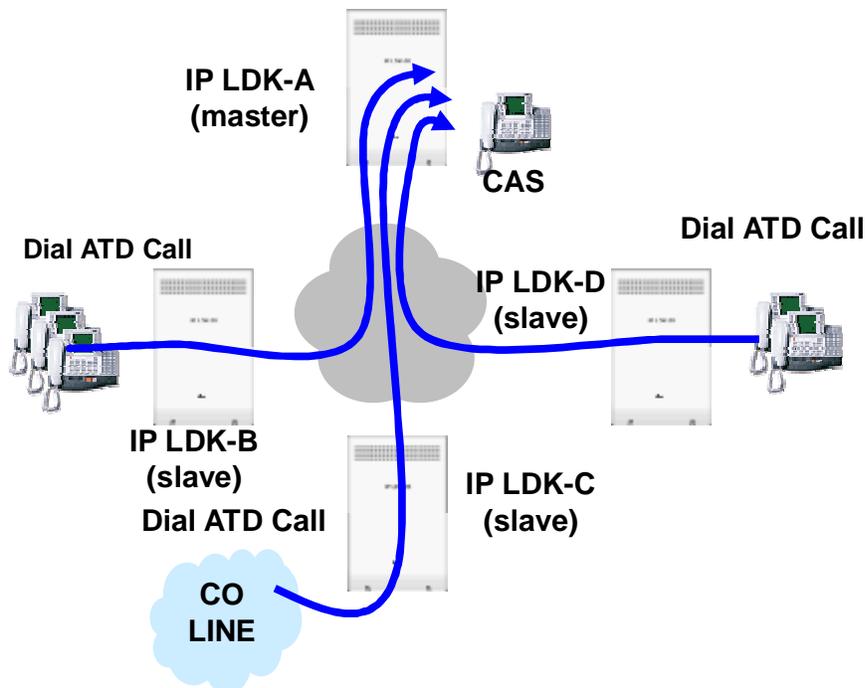


Figure 2.16.16 The CAS operation on the networking connection environment

Operation

1. Dial attendant code at any station in the system, then the call will be routed to the Net attendant.
The system provides ring-back tone to the calling station, and the [Net DSS] button lights.
2. A centralized attendant receives ringing signal with LCD display.
The [Network CO] button of calling station light in centralized attendant.
3. A caller hears a ring-back when all centralized attendants are busy.
4. Queued call will be routed to the attendant when she goes to idle.

Condition

1. ICM Call is routed to Net attendant if system attendant press ATD DND button and the next attendant is Net attendant.
2. CO Call can be routed to Net attendant only if DID/DISA destination is ATD and the ring is not assigned to any station.
3. The centralized attendant service should be enabled at satellite systems.
4. Local attendant of each system can activate other attendant features except the attendant call. In the Master system, CO ring assign for Net CO lines should be deleted to support CAS.

Reference

1. CLI Message Wait : Section 2.14.2.3

Admin Programming

- Networking CAS Enable 4.11.1.6 (PGM 320 - FLEX 6)
- Attendant DND Button 4.1.6 (PGM 115) - STA PGM Button (Type 6) : 55
- Net Attendant Assign 4.4.5 (PGM 164) - Net DSS cannot be assigned to the System Attendant.
- DID/DISA Destination 4.4.8 (PGM 167)
- CO Ring Assignment 4.2.5 (PGM 144)

2.16.17 Centralized VMS

Description

This function can support that all voice mail occurred in all systems can be recorded in an external VMS.

Condition

1. The centralize VMS should be assigned in slave system, and the number of the centralized VMS should use the representative number of mail access created in master system.
2. The numbering plan including the representative of mail access assigned in master system should be included in the numbering plan of QSIG group in slave system.

Admin Programming

- Network Destination MPB IP **4.11.4.6 (PGM 324 – FLEX 6)**
- Station Group Assign(Centralized VMS Assign) **4.6.1 (PGM 190)**

2.16.18 BLF(Busy Lamp Field) Presentation

Description

A station of networking system is able to program a busy lamp appearance of the station status of other networking system. The Busy Lamp Field (BLF) button can also be used to make a net call the networking station.

To use BLF service, the BLF manager software, PC application, must be installed at PC. The term of the GATE KEEPER is the PC server, that is installed the BLF manager software and executing it.

The figure 2.16.18 describes the BLF operation on the networking configuration with the gate keeper. In the figure, there are four IP LDK networking systems. Among them, the station 4100, 5111, 6210 have the BFL button of the station 1100. The networking system of station 1100 is transmit the status of the station 1100 to the gate keeper periodically. And the gate keeper is also multi-cast the status of station 1100 to other networking system periodically. Then the BLF button of station 4100, 5111, 6210 is updating the status of station 1100 to its BLF LED.

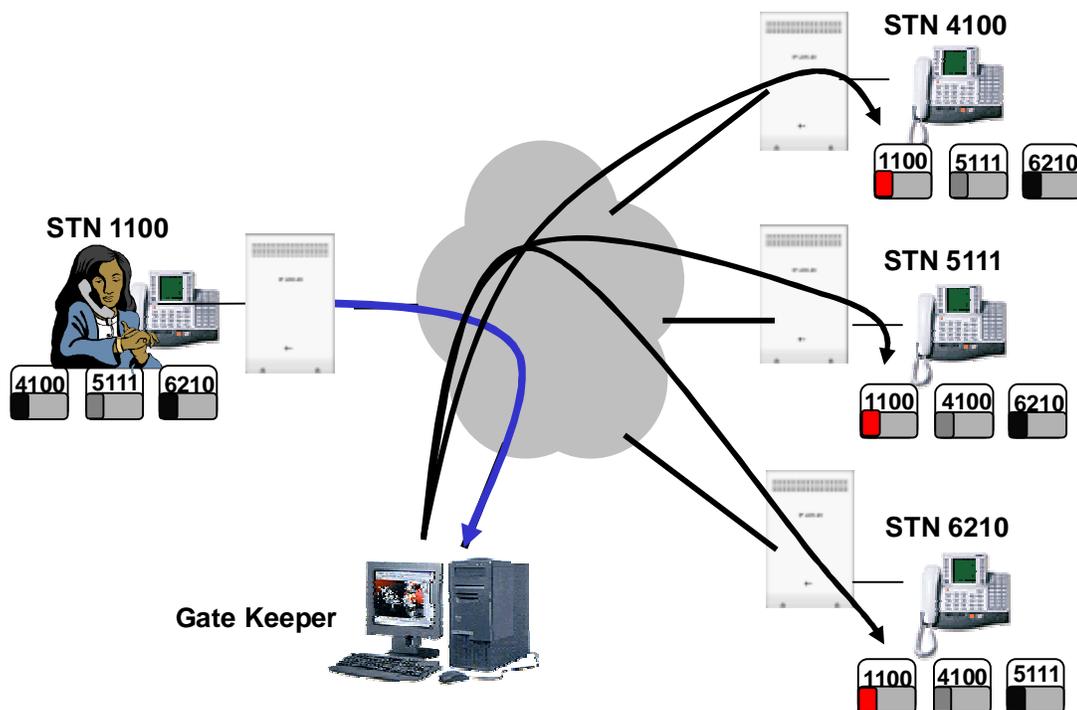


Figure 2.16.18 The BLF operation on the networking configuration with the gate keeper.

Operation

1. The BLF manager software periodically receives the status of station from whole system.
notice) UDP port will be used to send the status information, and TCP port will be used to send other information.
2. The BLF manager software sends the broadcast message to whole system when the status is changed.

Condition

1. The BLF manager should be installed at one system for whole networked systems.
2. The number of Net DSS can be restricted according to the capability of each system.
3. When a flexible button on a station is assigned as the **[NET DSS]** button of another system, the system serves as local BLF to indicate the status of the station.
4. CO BLF is not supported, and also ringing signal does not update a status of that station. – ICM / CO / Transfer / CO Recall ring.
5. When a station is in DND mode, the **[NET DSS]** of DND station is flashing.
6. If the BLF manager does not exist, BLF services can be activated between only two systems. The address of gatekeeper should be registered the address of each other system.

Admin Programming

- Networking Supplementary Attribute **4.11.2 (PGM 321)**
 - TCP Port Assign (FLEX 2) **4.11.2.2**
 - UDP Port Assign (FLEX 3) **4.11.2.3**
 - BLF manager IP Address Assign (FLEX 4) **4.11.2.4**
 - Duration of BLF Status (FLEX 5) **4.11.2.5**

Application

1. BLF Manager software **4.11.2.4 (PC Application)**

2.16.19 Net Follow-Me Forward

Description

A user from one system can activate a Follow-Me-Forward from a station on another system within the network.

Once activated, all calls to the forwarded station will be forwarded to the forwarding station over the network.

The forward can only be cancelled from the forwarded station.

Operation

To activate Net Call Forward- Follow-Me

1. From the station that the calls will be forwarded to:
2. Press the [SPEAKER] + [DND/FOR] button
3. Dial the Follow-Me-Forward code "0" + the station number that is to be call-forwarded from another system.
4. Dial the authorization code and '#' (end mark of authorization code. If 5 digits authorization code mode, '#' is no need.).
5. The [DND/FOR] button will be flashing on the forwarding station and a confirmation tone will be provided if allowed.
All call to the forwarding station will be routed to the forwarded station.

To deactivate Net Call Forward – Follow-Me

1. At the user's own station, Press the flashing [DND/FOR]
2. The [DND/FOR] button will be extinguished.

Condition

1. Authorization code should be registered to use follow-me call forward.
2. The remote Deactivation is not supported.
3. The confirmation tone will provide even though the follow-me forward does not allow by another system.
4. Net Follow-me forward feature is working only VoIP networking.

Admin Programming

- Authorization Code Table **4.10.1 (PGM 227)**

2.16.20 Centralized SMDR for Transit Call

Description

The SMDR call records from the Master system will include the station number from the slave system (NET-Number) on CO Transit-In and CO Transit-Out calls.

Operation

1. The NET-Number will be included in the Centralized SMDR output for CO Transit-In and CO Transit-Out calls

Condition

1. Up to 4 digits can be displayed in the station column.
2. Only applies to ISDN CO lines on the Master system.

Example SMDR Printout from the Master System

```

---- Site Name : MASTER
NO  STA  CO  TIME      START      DIALED      ACT  CNT  COST  ACCOUNT CODE
----  ---  --  -----  -
0027  200  001  00:00:05  02/02/01  05:46  O85620140  0  0
0026  200  011  00:00:10  02/02/01  05:46  I RING 00:00

0029 CO006  011  00:00:02  02/02/01  05:46  O200      0  0
0028 CO011  006  00:00:03  02/02/01  05:46  I RING 00:01

```

Lines 0026 & 0027 show the resultant printout for a CO Transit-Out call from station 200 on the Slave. The system used ISDN Line 001 and VOIP Line 011 between systems.

Lines 0028 & 0029 show the resultant printout for an incoming CO Transit-In call to station 200 on the Slave. ISDN Line 006 was used for the incoming call and VOIP Line 011 was used between systems. The NET-Number (200) is displayed as the "Outgoing Number" from the Master system to the Slave.

2.17 2B Function

Description

This feature allows to connect secondary devices to a primary station. To extend a primary, the additional device is connected directly to a primary station with a 2B module. There are 3 kinds of 2B module that can be used with some LKD model stations – DTIU, SLIU. One type(DTIU) allows of the addition of a second DKTU, the other(SLIU) allows of the addition of SLT devices (station, fax, answer microphone or modem).

Operation

Because the second device required the additional power, a small power supply is needed at the 2B module when the distance between primary station and second device is long.

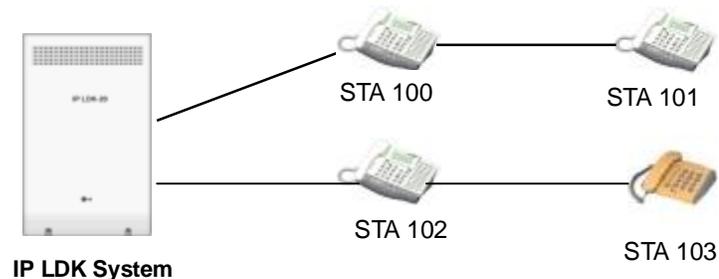


Figure 2.17.1 The connection of second devices to primary station

The figure 2.17.1 describes that the second devices connect to primary station with 2B module.

Condition

1. This feature is available at LKD model stations(with 8/30/44 button) and SLIU, DTIU 2B option modules are needed.
2. The maximum station capacity of the system is the same even if the 2B phone is used.
3. In IP LDK system, one station is designed as one voice channel. To use 2B feature, the primary station should be connected to an odd port. When DKTU with 2B option is installed, the next port should not be used.
4. The second station operates as the same with a normal station. But, the second SLT is not available for the message wait lamp.

2.18 Traffic Analysis

Description

The system can monitor and print various system activities based on the main attendant's request(see Ref.1). The information can be used to;

- Monitor and evaluate system performance
- Observe current usage and take corrective actions, if needed.
- Anticipate possible CO line problems
- Determine system updates and upgrades

The traffic data is output to the RS-232C or LAN. IP LDK system will support the following traffic reports.

- Attendant Traffic Report
- Call Summary Report
- Call Hourly Report
- H/W Unit Usage Summary Report
- CO line Traffic Summary Report
- CO line Traffic Hourly Report

Operation

The traffic analysis is only available at main attendant. Refer to the "Attendant Programming Menu Table". The measurement time type can be one of Today's peak time, Yesterday's peak time, Last hour, Yesterday's total and Today's total.

To print all summary traffic report.

1. Press the **[TRANS/PGM]** button.
2. Dial **0121**.
3. Select Measurement Time type.
4. Press the **[HOLD/SAVE]** button.

To print all summary traffic report periodically.

1. Press the **[TRANS/PGM]** button.
2. Dial **0122**.
3. Select measurement Time type.
4. Press the **[HOLD/SAVE]** button.

To cancel periodic printing of all summary traffic report.

1. Press the **[TRANS/PGM]** button.
2. Dial **0123**.
3. Press the **[HOLD/SAVE]** button.

To print the each traffic report.

1. Press the **[TRANS/PGM]** button.
2. Dial **0124~0129**.
3. Select measurement Time type or CO group number if required.
4. Press the **[HOLD/SAVE]** button.

Reference

1. Attendant : 2.13

Condition

1. This feature is available at main attendant.
2. The Printing of all summary service will generate attendant traffic report, call summary report, H/W unit usage summary report, and CO traffic summary report.

Admin Programming

- n Print Port Selection **4.4.16 (PGM 175)**

2.18.1 Traffic Analysis - Attendant

Description

IP LDK system supports the following report to analyze the attendant resource.

Attendant Traffic Report

You may understand attendant's service status with statistics of all attendants. You can choose one of the followings; time duration, today's peak time, yesterday's peak time, last hour, yesterday's total and today's total. It provides the following information field.

- **Analysis Start Hour** – Starting time of hour duration which the data is recorded
- **Attendant Number** – the station number of attendant
- **Total Calls** – The number of total incoming calls except CO ring group call, hold recall ring
- **Calls Answered** – The number of answered calls by all active attendants during the measuring hour.
- **Calls Abandoned** – The number of calls which ring at attendant and is dropped before answering at attendant.
- **Calls Held-Abandoned** – The number of calls which is dropped while the call is in hold mode. Held calls which is time out and recalled are included in this call count.
- **Calls Held** – The number of calls which answered by attendant and placed on hold state by attendant.
- **Time Available** – The time duration which the attendants don't answer the calls but, are available to handle new calls. Measured with minutes.
- **Time Talk** – The total time during measuring interval (the attendants are active or converse with a CO line). Talk time is not started until the call is answered by attendant. The duration of time between call termination and answering at attendant is not accumulated as Time Available or Time Talk.
- **Time Held** – The total amount of time which attendants have calls on hold.
- **Time No Answer** – The average amount of time that calls in queue and/or ringing at attendant before the caller hangs up.
- **Speed of Answer** – The average elapsed time from when a call is terminated by attendant to when the call is answered by an attendant.
- **Type** – Type of attendant (system or main or intercom tenancy group)

Operation

To print the Attendant Traffic Report at main attendant,

1. Press the **[TRANS/PGM]** button.
2. Dial **0124**.
3. Select Measurement Time type.
4. Press the **[HOLD/SAVE]** button.

Ex)

```

=====
Site Name      :
Report Type   : Attendant Traffic Report - Yesterday Total
Date          : 02/12/04 13:14
=====
Atd Meas      ----- Calls -----   ----- Time -----   Time Speed  Atd
No  Hour  Total  Ans Abnd H-Abd Held  Avail  Talk  Held  NoAns  Ans  Type
=====
2629  --:--   9   3   6   0   0  02:02  00:00  00:00  00:00  00:00  Sys
=====
    
```

| | | | | | | | | | | | | |
|------|-------|---|---|---|---|---|-------|-------|-------|-------|-------|------|
| 4807 | --:-- | 8 | 6 | 2 | 0 | 0 | 04:21 | 00:13 | 00:00 | 00:09 | 00:04 | Main |
| 3619 | --:-- | 4 | 4 | 0 | 0 | 0 | 01:04 | 00:21 | 00:00 | --:-- | 00:01 | Main |
| 2618 | --:-- | 0 | 0 | 0 | 0 | 0 | 00:05 | 00:00 | 00:00 | --:-- | --:-- | Main |
| 3629 | --:-- | 6 | 1 | 5 | 0 | 0 | 02:58 | 00:23 | 00:00 | 00:14 | 00:03 | Main |

2.18.2 Traffic Analysis - Calls

Description

IP LDK system supports the following report to analyze the call status of the system.

Call Summary Report

The system may monitor all day's call traffic and generate this report that shows call status of last hour, today's peak time, yesterday's peak time, yesterday's total and today's total.

Call Hourly Report

The system may analyze the call overload by showing the last 24hour's per hour call. This report provides the following information field.

- **Analysis Start Hour** – Starting time of hour duration which the data is recorded
- **Number of Calls Completed** – The total number of calls completed or answered during the listed hour.

Operation

To print the Call Summary Report at main Attendant.

1. Press the [TRANS/PGM] button.
2. Dial **0125**.

To print the Call Hourly Report at main Attendant.

1. Press the [TRANS/PGM] button.
2. Dial **0126**.

Ex)

```

=====
Site Name      :
Report Type   : Call Summary Report
Date          : 02/12/04 13:14
=====

```

| | Analysis Start Hour | Number of Calls Completed |
|-----------------|---------------------|---------------------------|
| Last Hour | 13:00 | 14 |
| Today Peak | 10:00 | 141 |
| Yesterday Peak | 10:00 | 119 |
| Today Total | --:-- | 413 |
| Yesterday Total | --:-- | 970 |

2.18.3 Traffic Analysis - CO

Description

IP LDK system supports the following report to analyze the traffics of CO line group.

CO Traffic Summary Report

This report helps user to understand the traffic status of CO group by showing their statistics. You can choose one of the followings; time duration, today's peak time, yesterday's peak time, last hour, yesterday's total and today's total. It provides the following information field.

- **Peak Hour for All CO Groups** – The time duration (hour) in a day that has the largest total usage when summed over all CO groups.
- **Group Number** – A number that identifies each CO group associated with the displayed data. Group numbers are displayed in numeric order, beginning with the lowest number and continuing to the highest one.
- **Number of CO** – The number of CO line in the group
- **Analysis Start Hour** – The time (24-hour mode) taking the measurement.
- **Total Usage** – Total usage for all CO lines in the CO group. It represents the total time that the CO lines are busy during the measurement period. Total usage measures each time when a CO line is seized for use by an incoming call or an outgoing call.
- **Total Attempt** – The number of incoming and outgoing call attempt in the CO group
- **Incoming Attempt** – The number of incoming call attempt in the CO group.
- **Outgoing Attempt** – The number of outgoing call attempt in the CO group.
- **Group Overflow** – The number of calls offered to a CO group that are not carried. Rejected calls for authorization will not be included.
- **Percentage All CO Busy** – The percentage of time that all CO lines in the CO group are simultaneously in use during the time interval.
- **Percentage Fail to Attempt Outgoing** – The percentage of offered calls that are not carried on the CO group. It will not be included unauthorized calls which are denied on the CO group or uncompleted calls carried on the CO group (unanswered calls).

Operation

CO Traffic Hourly Report

This report may analyze CO traffic patterns by showing the last 24 hour's per hour CO traffic.

To print the CO Traffic Summary Report at main Attendant.

1. Press the [TRANS/PGM] button.
2. Dial **0128**.
3. Select Measurement Time type.
4. Press the [HOLD/SAVE] button.

To print the CO Traffic Hourly Report at main Attendant.

1. Press the [TRANS/PGM] button.
2. Dial **0129**.
3. Enter the CO group number.
4. Press the [HOLD/SAVE] button.

Ex)

```

=====
Site Name   :
Report Type : CO Group Summary Report - Yesterday Total
Date       : 02/12/04 13:15
=====
Peak Hour For All CO: 10:00
Grp Num Anal Total Total Inc. Out. Grp % %
No COs Hour Usage Seize Seize Seize Ovfl ACB FAO
1 62 --:-- 1319 1050 269 781 0 0 ---
    
```

2.18.4 Traffic Analysis – H/W Unit

Description

IP LDK system supports the following report to analyze the usage of HW unit resources of the system such as Tone Receiver, VMIB.

H/W Usage Summary Report

This report helps user to understand whether the system has enough H/W unit resources such as DTMF Receiver, VMIB, CPTU by showing the statistics. You can choose one of the followings; time duration, today's peak time, yesterday's peak time, last hour, yesterday's total and today's total. It provides the following information field.

- **Type** – The type of H/W unit being measured.
- **Number of Unit** – The total number of installed H/W unit.
- **Analysis Start Hour** – The starting time of the last hour or the hour with the highest Peak Req. measurement.
- **Total Requests** – The system-wide total number of requests, by call processing for DTMF, CPTU, VMIB during the listed hour. It is calculated by incrementing a counter for each request.
- **Total Demand** – The system-wide total number of requests that are denied because there is no available H/W unit during the listed hour.

Operation

To print the H/W Unit Usage Summary Report at main Attendant.

1. Press the [TRANS/PGM] button.
2. Dial **0127**.
3. Select Measurement Time type.
4. Press the [HOLD/SAVE] button.

Ex)

```

=====
Site Name   :
Report Type : H/W Unit Usage Summary Report - Yesterday Total
Date       : 02/12/04 13:15
=====
Unit  NumAnal  Total  Total
Type Unit Hour  Req   Denied
VMIB  4  --:--  27    0
DTMF  13 --:--  27    0
CPTU  12 --:--  27    0
    
```

2.19 Software Upgrade

Description

The IP LDK MPB software can be upgraded by IP LDK upgrade program in PC. In order to upgrade by IP LDK upgrade program, PC and IP LDK system should be connected through SERIAL/ISDN/LAN/MODEM interface. Then the software file in the PC is sent to the system at first and the MPB software is upgraded.

[Example]

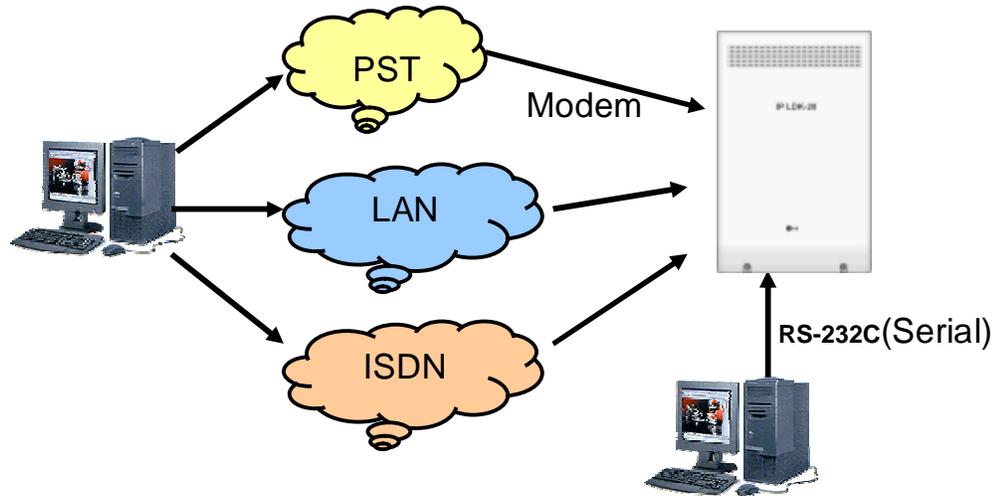


Figure 2.19.1 The connection of IP LDK system and PC for Software Upgrade

The figure 2.19.1 describes that there are 4 types of the connection of IP LDK system and PC for IP LDK MPB software - SERIAL/ISDN/LAN/MODEM.

2.19.1 ISDN

Description

The IP LDK MPB software can be upgraded through ISDN BRI line interface by IP LDK upgrade program in remote PC.

Operation

1. Connect the ISDN phone line to the PC ISDN card.
2. Connect the ISDN T-interface line to a BRI port of IP LDK system.
3. Run IP LDK PC Upgrade program.
4. Select the IP LDK system to be upgraded and press 'OK' button.



5. Set the port type to "ISDN Connection". And press the 'Select' button.



6. Enter the ISDN phone number, path of the binary file, and the password for upgrade. And press the 'Next' button.

User Information - Upgrade LDK Series System

Remote Site Info

System: LDK-20

ISDN Dial No.:

Admin Password:

Serial Port: COM1 Baud Rate: 19200

File Info

Binary File: .BIN Browse

Next Quit Settings Test Method

7. In the 'Next' window, press 'Start' button. You can see the IP LDK MPB software upgrade process.
8. When the ROM file sending is finished in the PC, IP LDK will erase the previous ROM data and start to fill IP LDK ROM area with the received ROM file.

Condition

1. The ISDN card in the PC should support CAPI (Common-ISDN Application Programming Interface) 2.0 which is a standard interface specification devised to use ISDN channels in the PC. Also, it should support HDLC as a B channel protocol. And "CAPI2032.DLL" should be found in the "System" directory of "Windows" which means that the CAPI driver for Windows is properly installed.
2. If the line is DID type, you should make a call to any station or station group except ISDN station (S port). Only the call in this case will be accepted by IP LDK system.
3. When the line is released while upgrading process, just dial the phone number again. If the line was properly disconnected, it will be connected immediately.
4. While upgrading process, other features do not work in the system.
5. When the IP LDK MPB software upgrade is finished without completing, you can retry to upgrade by doing the whole process again.
6. If the ROM files you want to send are invalid, IP LDK MPB software upgrade will not be started.
7. DRAM should be installed on the MPB to use this feature.

2.19.2 LAN

Description

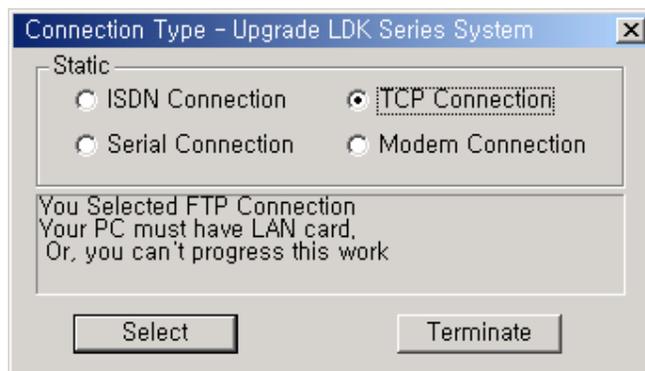
The IP LDK MPB software can be upgraded through LAN interface by IP LDK upgrade program in remote PC.

Operation

1. Connect the LAN cable to the PC LAN-card.
2. Run IP LDK PC Upgrade program.
3. Select the IP LDK system to be upgraded and press 'OK' button.



4. Set the port type to "TCP Connection". And press the 'Select' button.



5. Enter the IP LDK IP address, path of the binary file and the password for upgrade. And press the 'Next' button.

User Information - Upgrade LDK Series System

Remote Site Info

System: LDK-20

IP Address: []

Admin Password: []

Serial Port: [] COM1 Baud Rate: [] 19200

File Info

Binary File: [] .BIN [Browse]

[Next] [Quit] [Settings] [Test Method]

6. In the 'Next' window, press 'Start' button. You can see the IP LDK MPB software upgrade process.
7. When the ROM file sending is finished in the PC, IP LDK will erase the previous ROM data and start to fill IP LDK ROM area with the received ROM file.

Condition

1. When the line is released while upgrading process, just dial the phone number again. If the line was properly disconnected, it will be connected immediately.
2. While upgrading process, other features do not work in the system.
3. When the IP LDK MPB software upgrade is finished without completing, you can retry to upgrade by doing the whole process again.
4. If the ROM files you want to send are invalid, IP LDK MPB software upgrade will not be started.
5. DRAM should be installed on the MPB to use this feature.

Admin Programming

- n IP Setting for MPB 3.6.8 (PGM 108)

2.19.3 SERIAL(COM port)

Description

The IP LDK MPB software can be upgraded through RS-232C interface by IP LDK upgrade program in the PC.

Operation

1. Connect the RS-232C cable between IP LDK system and PC.
2. Run IP LDK PC Upgrade program.
3. Select the IP LDK system to be upgraded and press 'OK' button



4. Set the port type to "Serial Connection". And press the 'Select' button.



5. Enter the path of binary file, serial port number, serial port baud rate, and the password for upgrade. And press the 'Next' button.

User Information - Upgrade LDK Series System

Remote Site Info

System: LDK-20

Serial Port No.: [Dropdown]

Admin Password: [Text Field]

Serial Port: [Dropdown] COM1 Baud Rate: [Dropdown] 19200

File Info

Binary File: .BIN [Browse]

Next Quit Settings Test Method

6. In the 'Next' window, press 'Start' button. You can see the IP LDK MPB software upgrade process.
7. When the ROM file sending is finished in the PC, IP LDK will erase the previous ROM data and start to fill IP LDK ROM area with the received ROM file.

Condition

1. While upgrading process, other features do not work in the system.
2. When the IP LDK MPB software upgrade is finished without completing, you can retry to upgrade by doing the whole process again.
3. If the ROM files you want to send are invalid, IP LDK MPB software upgrade will not be started.
4. Serial port should be connected to COM port 2 in the MPB.
5. DRAM should be installed on the MPB to use this feature.

Admin Programming

- n RS-232C Port Setting **4.4.15 (PGM 174)**

2.19.4 MODEM

Description

The IP LDK MPB software can be upgraded through Modem interface by IP LDK upgrade program in remote PC.

Operation

1. Run IP LDK PC Upgrade program.
2. Select the IP LDK system to be upgraded and press 'OK' button.



3. Set the port type to "Modem Connection". And press the 'Select' button.



4. Enter the IP LDK dial number, the path of binary file and the password for upgrade. And press the 'Next' button.

User Information - Upgrade LDK Series System

Remote Site Info

System: LDK-20

Dial No. : [Dropdown]

Admin Password : [Text Field]

Serial Port: [Dropdown] COM1 Baud Rate: [Dropdown] 19200

File Info

Binary File : .BIN [Browse]

Next Quit Settings Test Method

5. Select your Modem type in the Modem Configuration dialog.
6. In the 'Next' window, press 'Start' button. You can see the IP LDK MPB software upgrade process.
7. When the ROM file sending is finished in the PC, IP LDK will erase the previous ROM data and start to fill IP LDK ROM area with the received ROM file.

Condition

1. When the line is released while upgrading process, retry the IP LDK PC Upgrade program again.
2. While upgrading process, other features do not work in the system.
3. When the IP LDK MPB software upgrade is finished without completing, you can retry to upgrade by doing the whole process again.
4. If the ROM files you want to send are invalid, IP LDK MPB software upgrade will not be started.
5. DRAM should be installed on the MPB to use this feature.

Admin Programming

- n Modem ASC Device 4.4.11 (PGM 170)

Section 3. System Basic ADMIN programming

The IP LDK System can be programmed to meet each customer's individual need.

This section contains the following topics :

- Ø Before ADMIN programming
- Ø Button explanation
- Ø How to enter the programming mode
- Ø Permanent update procedure
- Ø How to reset the system

3.1 Before ADMIN programming

The IP LDK System can be programmed to meet each customer's individual need.

There are two ways in ADMIN Programming.

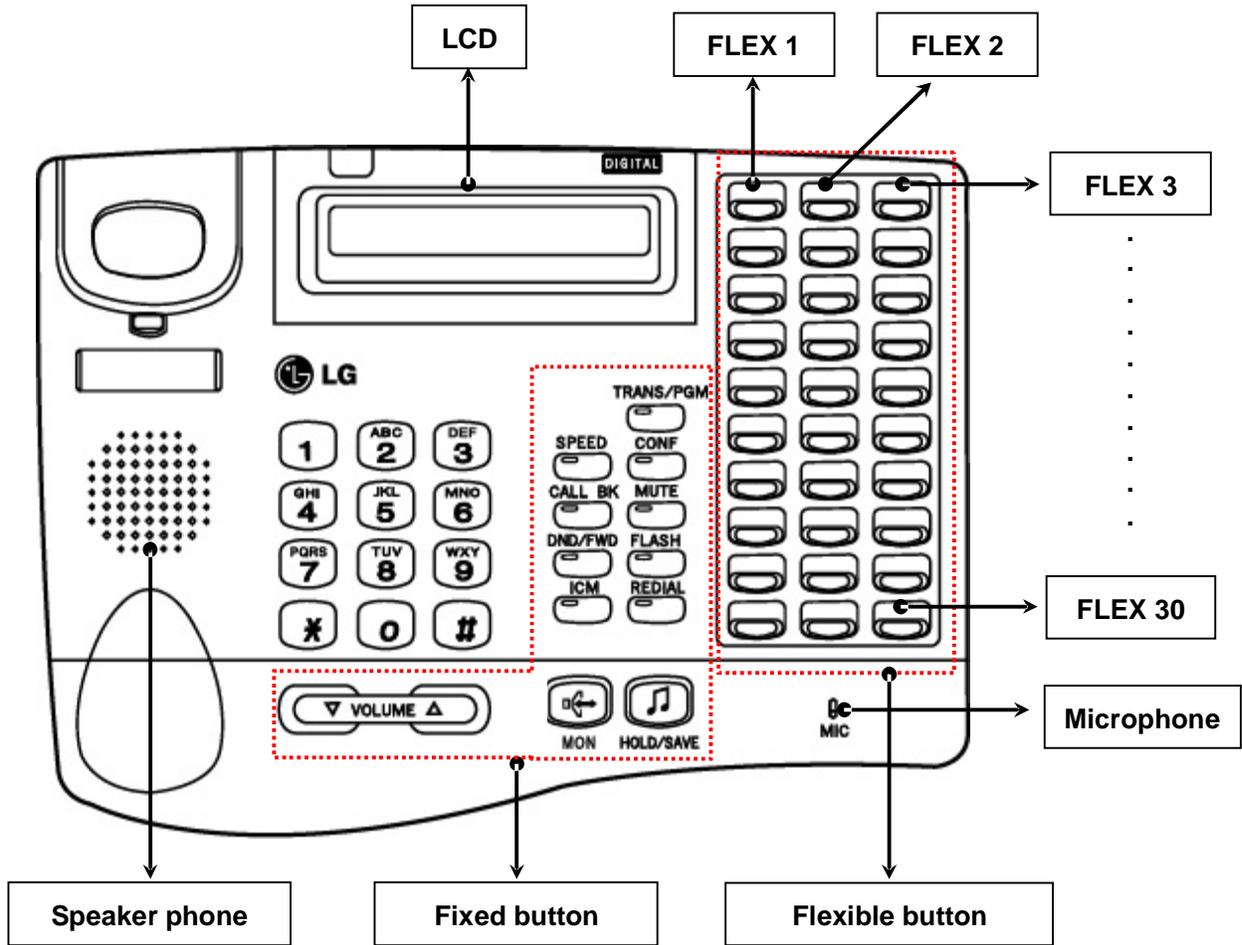
- ü PC ADMIN (Refer to the PC ADMIN programming manual)
- ü DKTU(In this manual we explain DKTU(station 100) in ADMIN Programming):

All programming is done at station 100 (station port # 00) using LDP-7016D/24D/24LD or KD-36D or LKD-30/44 digital key telephone. (You cannot program with Large LCD DKTU)

Additional programming stations may be assigned (PGM 113 – FLEX 1), but only 1 DKTU can be active in programming mode at any one time.

Upon entering the program mode, the station 100 cannot operate as a normal telephone but as a programming instrument with all of the buttons redefined. The keys of the dial pad are used to enter the various data fields and to enter numerical information. The 24 buttons located at the top of the phone (Flexible Buttons) are used to indicate the specific data field and to enter information. Sometimes the **[SPEED]** button and "*" of the dial pad is used to delete the data or to indicate end of data input and the **[REDIAL]** button is used to delete one digit or character from the end of entered digits or characters.

3.2 Button explanation



Description of LDP-7024D button

There are many kinds of DKTU connecting to the IP LDK system. This model of LDP-7024D is an sample that just shows each button. The detailed information about DKTU and other keyset is described in “DKTU USER GUIDE and INSTALLATION MANUAL”.

3.3 How to enter the programming mode

1. Lift handset or press the **[MON]** button on the ADMIN station, and hear ICM dial tone (optional)
2. Press the **[TRANS/PGM]** button and dial **•#** (Confirmation tone is heard)
 - Enter ADMIN password if the password has been set. This places the station into the ADMIN programming mode (Confirmation tone is heard)
3. Each program is accessed by pressing the **[TRANS/PGM]** button and dialing the three-digit program number. If an error is made while entering data, the **[TRANS/PGM]** button can go the previous status. When the **[TRANS/PGM]** button is pressed, the LCD will display;

ENTER PGM NUMBER

*** NOTE :**

1. The step 2, “[TRANS/PGM] è • è # ”, is omitted from the procedure in section 3 and section 4.
2. To return the parent state while ADMIN programming, press the **[CONF]** button. Pressing the **[CONF]** button, temporary data fields are cleared.

3.4 Permanent update procedure

When the data has been entered, the **[HOLD/SAVE]** button is used to store the data permanently.

If all data was entered correctly, confirmation tone is heard when pressing the **[HOLD/SAVE]** button.

If there were any errors in the entry, then an error tone is presented and data is not stored in the permanent memory.

3.5 How to reset the system

To reset the system, enter PGM 450 – FLEX 15 and press **[HOLD/SAVE]** button. Or, the system will be reset automatically after programming PGM100 – FLEX 1 (Nation Code Assign)

3.6 Pre-programming

This section describes the pre-programming of the data. When installed, user must program some database (Ex. Nationality, Numbering Plan Type, and Slot Assignment) first, otherwise system may not operate properly.

Nation code (PGM 100)

Default Nation code : 82(Korea)

If you want to change nationality of the system, then use **ADMIN 100**.

***Note:** When changing nation code, all data is initialized.

Numbering Plan (PGM 104/105/106/107)

Station number, a cipher of CO line, each feature codes at IP LDK System are assigned for default value. User can change Station number, a cipher of CO line(2~4 figures), feature codes to appropriate to user circumstance.

Feature codes of the system can be assigned flexibly via the system programming. Feature Code length should be in the range of 1(one) digit through 4 digits. Let's say that a feature code conflict has occurred in such case that a feature code string matches with other longer feature code string, checking from the first digit of the code. For example, features Code 53 and 536 have a feature code conflict. The system will not allow any feature code conflict

*** Note:** If you change the numbering plan type at ADMIN 104, you have to reload flexible number plan – Station number (PGM105) information. If you don't reload that information, you would find some mis-operation in checking the range.

IP setting for MPB (PGM 108)

IP address, Subnet mask, and Gateway address should be programmed for trace, remote upgrade, PC ADMIN, PC Attendant, etc via network.

PROCEDURE FOR PRE-PROGRAMMING

1. Set DIP switch 4 as 'ON'
2. Set Nationality (See Section 3.6), and reset the system (PGM 450–FLEX 15). Then slot assignment is configured.
3. Set DIP switch 4 as 'OFF' to retain current configuration.
4. Set Numbering Plan Type. (See Section 3.6.5)
5. Set Flexible Numbering Plan. (See Section 3.6.6)

3.6.1 Location PGM-Nation code & Site Name (PGM100)

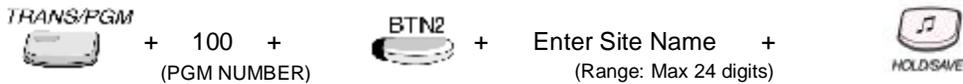
The Dip switch 4 of the SW3 on the MPB : On

PROCEDURE

3.6.1.1 Nation Code



3.6.1.2 Site Name



| | | |
|------------|--------|--------|
| Q - 11 | A - 21 | D - 31 |
| Z - 12 | B - 22 | E - 32 |
| . - 13 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 7* | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| *1 - Blank | 0-00 | # |
| *2 - : | | |
| *3 - , | | |

| NATION | CODE | NATION | CODE | NATION | CODE |
|----------------|------|------------|------|----------------|------|
| America | 1 | Argentina | 54 | Australia | 61 |
| Bahrain | 973 | Bangladesh | 880 | Belgium | 32 |
| Bolivia | 591 | Brazil | 55 | Brunei | 673 |
| Burma | 95 | Cameroon | 237 | Chile | 56 |
| China (Taiwan) | 886 | CIS | 7 | Colombia | 57 |
| Costa Rica | 506 | Cyprus | 357 | Czech | 42 |
| Denmark | 45 | Ecuador | 593 | Egypt | 20 |
| El Salvador | 503 | Ethiopia | 251 | Fiji | 679 |
| Finland | 358 | France | 33 | Gabon | 241 |
| Germany | 49 | Ghana | 233 | Greece | 30 |
| Guam | 671 | Guatemala | 502 | Guyana | 592 |
| Haiti | 509 | Honduras | 504 | Hong Kong | 852 |
| India | 91 | Indonesia | 62 | Iran | 98 |
| Iraq | 964 | Ireland | 353 | Israel | 972 |
| Italy | 39 | Japan | 81 | Jordan | 962 |
| Kenya | 254 | Korea | 82 | Kuwait | 965 |
| Liberia | 231 | Libya | 218 | Luxembourg | 352 |
| Malaysia | 60 | Malta | 356 | Mexico | 52 |
| Monaco | 377 | Morocco | 212 | Netherlands | 31 |
| New Zealand | 64 | Nigeria | 234 | Norway | 47 |
| Oman | 968 | Pakistan | 92 | Panama | 507 |
| P.N.G | 675 | Paraguay | 595 | Peru | 51 |
| Philippines | 63 | Portugal | 351 | Qatar | 974 |
| Saudi Arabia | 966 | Senegal | 221 | Singapore | 65 |
| South Africa | 27 | Spain | 34 | Sri Lanka | 94 |
| Swaziland | 268 | Sweden | 46 | Switzerland | 41 |
| TELKOM | *27 | Thailand | 66 | Tunisia | 216 |
| Turkey | 90 | U.A.E. | 971 | United Kingdom | 44 |
| Uruguay | 598 | Venezuela | 58 | Y.A.R. | 967 |

3.6.2 RACK SLOT ASSIGNMENT (PGM 101)

PROCEDURE

 + 101 + Enter Slot Number +  + Enter Board Type Code(2 digits)
 (PGM NUMBER)
 +  + Enter logical port number(2 digits) + 
 In case of PRIB,
 logical port assignment is possible.

| STA | CODE | COL | CODE | STA & COL | CODE | Etc | CODE |
|-------|------|-------|------|-----------|------|-------|------|
| DTIB4 | 11 | LCOB2 | 33 | STIB2 | 52 | VMIB | 61 |
| DTIB8 | 12 | LCOB4 | 34 | STIB1 | 53 | AAFB | 62 |
| SLIB4 | 13 | CBIB | 54 | | | VMIBE | 64 |
| SLIB8 | 14 | | | | | AAFBE | 65 |

Board type of basic MBU(Slot 1- Slot3, Slot5) and VMIB slot (slot 7) can not be changed.

- Slot 1: Hybrid on MBU.
- Slot 2: not used
- Slot 3: not used in ISDN type MBU(SLIB4 in Analog type MBU).
- Slot 4: optional STA board.
- Slot 5: CO board on MBU.
- Slot 6: optional CO slot.
- Slot 7: VMIB slot.
- Slot 8: SLIM/DTIM slot.
- Slot 9: VOIM slot.

3.6.3 WTIB PORT NUMBER ASSIGNMENT (PGM 102)

This program is not available in IP LDK-20.

3.6.4 LOGICAL SLOT ASSIGNMENT (PGM 103)

PROCEDURE

3.6.4.1 COL Board

 + 103 +  + Enter Logical slot Number(CO Board) + 
 (PGM NUMBER)

Range
 IP LDK-20 : 05-06,09
 05(Basic CO slot on MBU)
 06(Optional CO slot)
 09(VOIM slot)

3.6.4.2 STA Board

 + 103 +  + Enter Logical slot Number(STA Board) + 
 (PGM NUMBER)

Range
 IP LDK-20 : 01-04,08
 01(Hybrid Slot)
 02(Not available)
 03(basic SLIB slot in Analog type MBU)
 04(optional extension slot)
 08(extension module slot)
 99 (RSG/IP Phone slot)

3.6.4.3 VMIB Board

 + 103 +  + Enter Logical slot Number(VMIB Board) + 
 (PGM NUMBER)

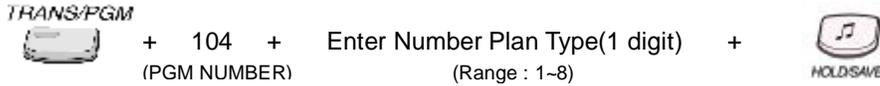
Range
 IP LDK-20 : 07

3.6.5 NUMBERING PLAN TYPE (PGM 104)

Description

There're 8 Numbering Plan Type. Each type has different default value at each Numbering Plan Code. Intercom Range of ADMIN105 is described below. For Flexible Numbering Plan of ADMIN 106 and ADMIN 107, Refer to 5.3.6.

PROCEDURE

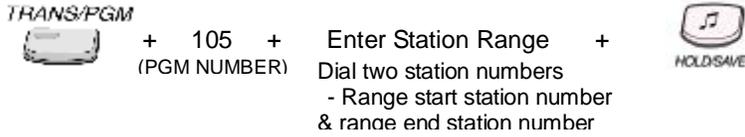


| FLEX | ITEM | INTERCOM RANGE | DEFAULT | REMARK |
|------|-------------------|----------------|---------|---|
| 1 | Number Set Type 1 | 10 – 37 | Yes | As the basic type, the 1st digit of station number should be 1 – 4. |
| 2 | Number Set Type 2 | 10 – 37 | No | The station number can be changed within 79. |
| 3 | Number Set Type 3 | 10 – 37 | No | |
| 4 | Number Set Type 4 | 700 – 727 | No | |
| 5 | Number Set Type 5 | 200 – 227 | No | |
| 6 | Number Set Type 6 | 21 – 48 | No | Max Station Ports: 70 |
| 7 | Number Set Type 7 | 100 – 137 | No | |
| 8 | Number Set Type 8 | 10 – 37 | No | The station number can be changed within 99. |

TABLE 3.6.5 ICM Ranges of each Numbering Type

3.6.6 FLEXIBLE NUMBERING PLAN – Station Number (PGM 105)

PROCEDURE



| | |
|------------------------------------|--|
| LCD | |
| 000 001 002 003 100 101 102 103 | (1) [TRANS/PGM] + 105. |
| 000 001 002 003 100 101 102 103 | <p>I Station Number Assign. You will see the 4 station numbers corresponding to the 4 port numbers. Station number length is in the range of 2 digits through 4 digits. There are two methods for changing station number.</p> <p>Dial two station numbers - Range start station number & range end station number, then LCD shows dialed range value. Press the [HOLD/SAVE] button, then station numbers changed from the first station number on current LCD to range end (All LEDs of FELX buttons are off)</p> <p>Press one of FLEX 1-4 (Each FLEX 1-4 is assigned to station number 1- 4 on the current LCD), then LED of pressed Flex button is steady on. Dial new station number and press the [HOLD/SAVE] button, or press other Flex button to assign station number to other station without saving (The LED of pressed Flex. button is on)</p> <p>If you want to delete all station numbers, press the [SPEED] button and press [HOLD/SAVE] button, then all station numbers are cleared.</p> <p>If you want to change next 4 station numbers then press [▼] button. If you want to change previous 4 station numbers, then press [▲] button.</p> |
| 000 001 002 003 100 400 102 103 | (2) Press the [HOLD/SAVE] button for saving database permanently. (Ex: Press FLEX 2, dial 400 and press [HOLD/SAVE] button) |

3.6.7 FLEXIBLE NUMBERING PLAN A (PGM 106-107)

Description

By dialing Feature Code, the proper feature is activated.

PROCEDURE


 + 106 + Enter FLEXIBLE BUTTON (Range : FLEX1-FLEX21) + Enter Code (TABLE 2.2.7.1) + 


 + 107 + Enter FLEXIBLE BUTTON (Range : FLEX1-FLEX17) + Enter Code (TABLE 2.2.7.2) + 

| FLEX | ITEM | DEFAULT VALUE (at Numbering Plan Type 1) |
|------|--|---|
| 1 | Station Group Pilot Number Range | 620 – 629 |
| 2 | Internal Page Zone Number Range | 501 – 510 |
| 3 | Internal All Call Page | 543 |
| 4 | Meet Me Page | 544 |
| 5 | External Page Zone - 1 | 545 |
| 6 | All Call Page (Internal/External) | 549 |
| 7 | SMDR Account Code | 550 |
| 8 | Flash Command to CO Line | 551 |
| 9 | Last Number Redial (LNR) | 552 |
| 10 | Do-Not-Disturb | 553 |
| 11 | Call Forward | 554 |
| 12 | Speed Dial Program | 555 |
| 13 | MSG Wait/Call-Back Enable | 556 |
| 14 | MSG Wait/Call-Back Answer | 557 |
| 15 | Speed Dial Access | 558 |
| 16 | Cancel DND/CFW/Pre-selected MSG Features | 559 |
| 17 | System Hold | 560 |
| 18 | Reserved | |
| 19 | Reserved | |
| 20 | SLT Program Mode Select | 563 |
| 21 | ACD Reroute | 564 |

TABLE 3.6.7 Flex Numbering Plan A (PGM 106)

| FLEX | ITEM | DEFAULT VALUE (at Numbering Plan Type 1) |
|------|---|---|
| 1 | Alarm Reset | 565 |
| 2 | Group Call Pick-Up | 566 |
| 3 | UCD Group DND | 568 |
| 4 | Night Answer | 569 |
| 5 | Call Park Location Range | 601 – 608 |
| 6 | Direct Call Pick-Up | 7 |
| 7 | Access CO Line Group | 801 – 808 (8 + CO Group Number) |
| 8 | Access Individual CO Line | 8801 – 8816(88 + CO Line Number) |
| 9 | Tie Routing Access | 8901 |
| 10 | Access Held CO Line Group | 8* |
| 11 | Access Held Individual CO Line | 8#01 – 8#16 (8# + CO Line Number) |
| 12 | Access to CO line in the 1st available CO Line Group | 9(or 0, depend on a nation) |
| 13 | Attendant Call | 0(or 9, depend on a nation) |
| 14 | Door Open – 1 | #*1 |
| 15 | Door Open – 2 | #*2 |
| 16 | VM MSG Wait Enable | *8 |
| 17 | VM MSG Wait Cancel | *9 |

TABLE 3.6.7 Flex Numbering Plan B (PGM 107)

3.6.8 IP setting for MBU (PGM 108)

3.6.8.1 IP Name

 + 108 +
 (PGM NUMBER)
  + Enter Code +
 (Range : 15 Character)
 

| | | |
|----------|--------|--------|
| . - 13 | A - 21 | D - 31 |
| Q - 11 | B - 22 | E - 32 |
| Z - 12 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 70 | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| 01-Blank | 0 - 00 | # |
| 02 - : | | |
| 03 - , | | |

3.6.8.2 Server IP Address

 + 108 +
 (PGM NUMBER)
  + Enter Server IP Address +
 (Range : 12 digits)
 

3.6.8.3 CLI IP Address

 + 108 +
 (PGM NUMBER)
  + Enter CLI IP Address +
 (Range : 12 digits)
 

3.6.8.4 Gateway Address

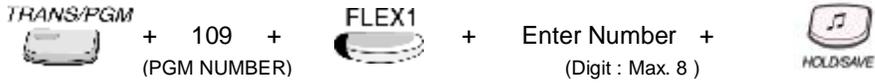
 + 108 +
 (PGM NUMBER)
  + Enter Gateway Address +
 (Range : 12 digits)
 

3.6.8.5 Subnet Mask Address

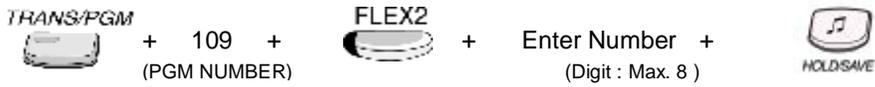
 + 108 +
 (PGM NUMBER)
  + Enter Subnet Mask +
 (Range : 12 digits)
 

3.6.9 EXPANDED FLEXIBLE NUMBERING PLAN (PGM 109)

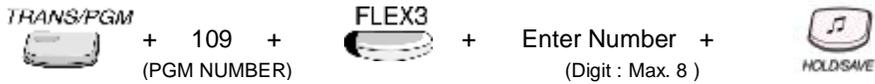
3.6.9.1 MCID Request



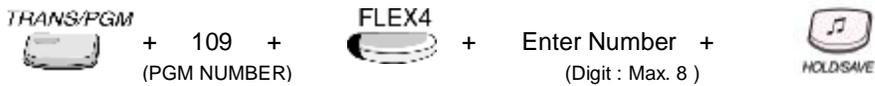
3.6.9.2 RSG DOOR Open 1



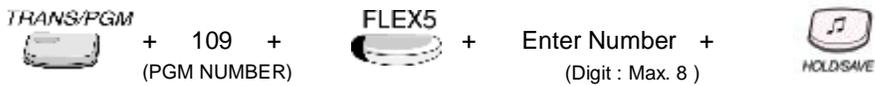
3.6.9.3 RSG DOOR Open 2



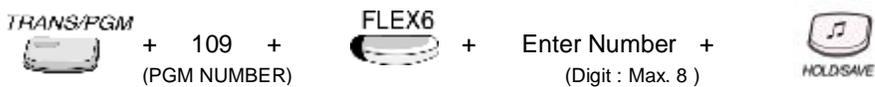
3.6.9.4 CONFERENCE ROOM



3.6.9.5 SLT Conference Page Join

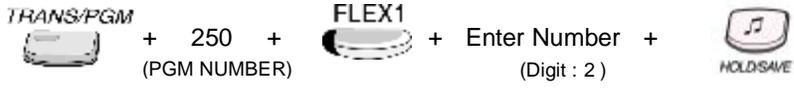


3.6.9.6 Un-supervisor Timer extension



3.6.10 HOT DESK AGENT ATTRIBUTE (PGM 250)

3.6.10.1 Number of Agent



3.6.10.2 View Assigned Station Number for Agents



3.6.10.3 Automatic Logout Timer



Section 4. ADMIN programming

Ø How to enter programming mode

1. Lift handset or press the **[MON]** button on the ADMIN station, and hear ICM dial tone (optional)
2. Press the **[TRANS/PGM]** button and dial **• #** (Confirmation tone is heard)
 - Enter ADMIN password if the password has been set. This places the station into the ADMIN programming mode (Confirmation tone is heard)
3. Each program is accessed by pressing the **[TRANS/PGM]** button and dialing the three-digit program number. If an error is made while entering data, the **[TRANS/PGM]** button can go the previous status. When the **[TRANS/PGM]** button is pressed, the LCD will display;

ENTER PGM NUMBER

*** NOTE :**

1. The step 2, “[TRANS/PGM] è • è #”, is omitted from the procedure in ADMIN Programming.
2. To return the parent state while ADMIN programming, press the **[CONF]** button. Pressing the **[CONF]** button, temporary data fields are cleared.

Ø System Range(refer to this table in ADMIN Programming)

| Station Range | CO Range | CO Line Group Range | Remark |
|---------------|----------|---------------------|--------|
| 10 ~ 35 | 01-12 | 01-08 | |

This table is frequently used in ADMIN Programming procedure. As you can see from the table, there are 3 items “ Station range, CO range, CO Line group Range”.

When entering each range, refer to the table because the range is not mentioned.

4.1 STATION PROGRAMMING

In this part, every station can be customized by ADMIN program. Station Program is a tool can adjust values of station. To change, enter the program number want to change and then put the station range. In the sphere of range, every station has same values.

4.1.1 STATION & DSS/DLS MAP ID (PGM 110)

4.1.1.1 Station ID Assignment

Description

At ADMIN program 110 – FLEX 1, Station ID can be set. Then Station ID is changed to the desired value which is different from default value(i.e : normal DKTU /normal SLT)

PROCEDURE(Station ID)

DKTU ID

TRANS/PGM



110 + STATION RANGE +

FLEX1



01(Station ID) +



Station ID

- 01 : DKTU
- 02 : DSS MAP 1
- 03 : DSS MAP 2
- 04 : DSS MAP 3
- 05 : ICM BOX
- 06 : RESERVED
- 07 : SLT(DTMF)
- 08 : SLT(PULSE)
- 09 : RESERVED
- 10 : RESERVED
- 11 : ISDN Phone

4.1.1.2 DSS/DLS ID Assignment

Description

To use DSS/DLS, assign its ID after pressing FLEX 1. Then set associated station number after pressing FLEX 2. One station can have multiple DSS/DLS maps up to 3. These DSS/DLS should have their ID sequentially (i.e. DSS MAP1, DSS MAP2, ...)

PROCEDURE(DSS/DLS MAP ID)

DSS MAP1



DSS/DLS MAP ID(IP LDK-20)

- 02 : DSS MAP 1
- 03 : DSS MAP 2
- 04 : DSS MAP 3

| ITEM | DEFAULT | REMARK |
|---------------|--|--------|
| DSS/DLS MAP 1 | First 12 Buttons Button 1 : Intrusion Button 2 : All Call Page Button 3 : Call Park 01 Button 4 : Station Group 1 Button 5 : Camp-On Button 6 : Internal All Call Page Button 7 : Call Park 02 Button 8 : Station Group 2 Button 9 : Group Call Pickup Button 10 : External All Call Page Button 11 : Call Park 03 Button 12 : Station Group 3 The rest 36 Buttons Station Ports 10 – 35 | |
| DSS/DLS MAP 2 | Blank | |
| DSS/DLS MAP 3 | Blank | |

TABLE Initial Button Configurations for DSS/DLS Map (PGM 110)

4.1.2 STATION ATTRIBUTE – I (PGM 111)

4.1.2.1 Auto Speaker Selection

Description

If this value is set to ON, Station user can access a CO line or make a DSS call by pressing appropriate {CO} or {DSS} button without lifting handset or pressing the [MON] button.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  0(OFF) +
 

4.1.2.2 Call Forward

Description

If this value is set to ON, an incoming call can be forwarded to the other destination.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  0(OFF) +
 

Reference

1. Call Forward : 2.3.1

4.1.2.3 DND

Description

If this value is set to ON, an incoming call can be denied.

Value : ON= 1 / OFF= 0

PROCEDURE

 - 111 + STATION RANGE +
  0(OFF) +
 

4.1.2.4 Data Line Security

Description

If this value is set to ON, override and camp-on from other stations are prohibited when this station is busy.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  1(ON) +
 

Reference

1. Attendant override : 2.13.5
2. Camp-on : 2.4.5

4.1.2.5 Howling Tone to SLT

Description

If this value is set to ON, System gives howling tone to SLT.

In SLT, user keep off-hook state continually, system gives error tone first, then off-hook state still continue, system gives very noisy error tone. This noisy error tone is howling tone.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  0(OFF) +
 

4.1.2.6 Intercom Box Signaling

Description

If this value is set to ON, This station can receive intercom box signal.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  1(ON) +
 

4.1.2.7 No Touch Answer

Description

If this value is set to ON, the station can be responded to the transferred CO call automatically when station mode is H/P.

Value : ON= 1 / OFF= 0

PROCEDURE



Reference

1. Headset : 2.4.13

4.1.2.8 Page Access

Description

If this value is set to ON, This station can page to other station.

Value : ON= 1 / OFF= 0

PROCEDURE



Reference

1. Paging feature : 2.8

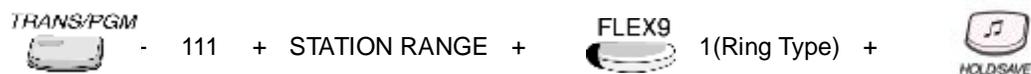
4.1.2.9 Ring Type

Description

If this value is not 0, this ring type is heard to called party station of intercom call.

Value : 0 ~ 4

PROCEDURE



4.1.2.10 Speaker Ring

Description

This feature determines the ringing path whether Speaker or Headset and even both.

Value : S=1 / H=2 / Both=3

S : Speaker

H : Headset

B : Both

PROCEDURE

 + 111 + STATION RANGE +
  1(Speaker) +
 

4.1.2.11 Speakerphone

Description

If this value is set to ON, Speakerphone can be used.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  0(OFF) +
 

4.1.2.12 ICM Group (Intercom Tenancy Group)

Description

This feature selects intercom Tenancy Group, which this station belongs to.

Value : 01~05

PROCEDURE

ICM Group 02

 + 111 + STATION RANGE +
  02(Group Number) +
 

Reference

1. Intercom Tenancy Group : 2.4.15

4.1.2.13 Error Tone for TAD (Telephone Answering Device)

Description

If this value is set to ON, and TAD is used in SLT port, when the caller hangs up, busy tone will be provided to TAD instead of error tone.

Value : ON= 1 / OFF= 0

PROCEDURE

 111 + STATION RANGE +
  1(ON) +
 

4.1.2.14 SLT Flash Drop

Description

If this value is set to ON, CO Call is dropped by pressing **[FLASH]** button or Hook Flashing

Value : ON= 1 / OFF= 0

PROCEDURE

 + 111 + STATION RANGE +
  1(ON) +
 

4.1.2.15 Loop LCR Account Code

Description

If this value is set to ON, station user must enter Account Code to use Loop LCR.

Value : ON=1 / OFF=0

PROCEDURE

 + 111 + STATION RANGE +
  1(ON)) +
 

Reference

1. LCR(Least Call Routing) : 2.2.7
2. Account Code : 2.5.1

4.1.2.16 VMIB Message Type

Description

In FIFO state, the first recorded VMIB message can play. Oppositely in LIFO state, the latest message plays.

Value : FIFO=1 / LIFO=0

PROCEDURE

 + 111 + STATION RANGE +
  1(FIFO) +
 

4.1.2.17 Off-net Call Forward

Description

If this value is set to ON, Off-net call forward can be used.

Value : DIS=1 / EN=0

- EN : Enable / DIS : Disable

PROCEDURE

 + 111 + STATION RANGE +
  1(Enable) +
 

Reference

1. SLT Call Forward : 2.3.1.8

4.1.2.18 Forced Hands Free

Description

If this value is set to ON, the caller can make **the called party in ring mode to hands free mode**

forcedly

Value : DIS=1 / EN=0

- EN : Enable / DIS : Disable

PROCEDURE

 + 111 + STATION RANGE +
  1(Enable) +
 

4.1.2.19 CID SLT CAS GAIN

This is not available in IP LDK-20.

Description

This feature selects CID SLT CAS GAIN value.

Value : (00 ~ 20)

PROCEDURE

 + 111 + STATION RANGE +
  05 +
 

4.1.2.20 CID SLT FSK GAIN

This is not available in IP LDK-20.

Description

This feature selects CID SLT FSK GAIN value.

Value : (00 ~ 20)

PROCEDURE

 + 111 + STATION RANGE +
  05 +
 

4.1.2.21 CALLER VOICE OVER**Description**

If this value is set to ON, the station can make Voice-Over to busy station.

Value : ON=1/OFF=0

PROCEDURE

 + 111 + STATION RANGE +
  1(ON) +
 

4.1.3 STATION ATTRIBUTE → (PGM 112)

4.1.3.1 CO Warning Tone

Description

In case of restricting outgoing CO call time, if this value is set to ON, the station user receives warning tone during CO call after the timer expires(ADMIN 180-FLEX 22)

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +
  1(ON) +
 

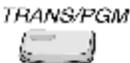
4.1.3.2 Automatic Hold

Description

While seizing a CO line, the station user seizes another CO line by pressing the {CO} button. If this value is set to ON, the previous seized CO line goes on hold automatically. In case of Attendant , default value is ON.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +
  1(ON) +
 

4.1.3.3 CO Call Time Restriction

Description

If this flag is set to ON, station's outgoing CO call may be disconnected when CO call restriction timer (PGM 180-FLEX 17) expires.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +
  1(ON) +
 

4.1.3.4 Individual CO Line Access

Description

If this value is set to ENABLE, the station user can access individual CO line by dialing Individual CO access code(ADMIN 107-FLEX 8)

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 112 + STATION RANGE +
  0(Disable) +
 

4.1.3.5 CO Line Queuing

Description

When a user of station receives a busy signal during an attempt to access a CO line, the user may request a call back (queue) when the CO Line is available. If this value is set to ENABLE, the user gets the recalling from the CO Line when it's available.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 112 + STATION RANGE +
  0 +
 

4.1.3.6 CO PGM

Description

If this value is set to ENABLE, the station user can program CO button at its Flexible button.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 112 + STATION RANGE +
  1(Enable) +
 

Reference

1. Flexible Button : 2.4.12

4.1.3.7 PLA***Description***

If this value is set to ENABLE, the station user can answer calls according to the priority (ADMIN 173).

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 112 + STATION RANGE +
  0(Disable) +
 

4.1.3.8 Prepaid Call***Description***

If this value is set to ON, the station user can use Prepaid Call feature.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +
  1(ON) +
 

4.1.3.9 Speed Dial Access***Description***

If this value is set to ENABLE, the station user can use system speed dial call.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 112 + STATION RANGE +
  0(Disable) +
 

Reference

1. System Speed Dialing : 2.2.8.5

4.1.3.10 Two-way Record

Description

If this value is set to ON, the station user can record the incoming and outgoing voice during conversation.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +  1(ON) + 

Reference

1. Two-way Recording: 2.11.3

4.1.3.11 Fax Mode

Description

If this value is set to ON, single ring is provided and Attendant recall is not operated.

Value : ON= 1 / OFF= 0

PROCEDURE

 + 112 + STATION RANGE +  1(ON) + 

4.1.3.12 Off-net Call Mode

Description

If this value is set to EXT, the station user can only forward CO call to Off-net(ex mobile phone) Otherwise both CO call and ICM call can be forwarded to Off-net.

Value : EXT=1 / ALL=0

- EXT: (External Off-net Call Fwd is only allowed)
- ALL: (Internal Off-net Call Fwd and External Off-net Call Fwd are allowed)

PROCEDURE

 + 112 + STATION RANGE +
  1(EXT) +
 

Reference

1. Call Forward, Station Off-net : 2.3.1.5

4.1.3.13 UCD Group Service

Description

This feature is used when a station gets DID/DISA call.

If this value is set to ON, the UCD Group, which the station belongs to, gets the incoming call and if this value is set to OFF, the station gets the incoming call directly whether the station is busy or not.

Value : ON=1 / OFF=0

- ON: (Ring to UCD group, which the station belongs to)
- OFF: (Ring to the station)

PROCEDURE

 + 112 + STATION RANGE +
  1(ON) +
 

4.1.3.14 Ring Group Service

Description

This feature is used when a station in Ring Group gets a DID/DISA call.

If this value is set to ON, the Ring Group, which the station belongs to, gets the incoming call and if this value is set to OFF, the station gets the incoming call directly.

Value : ON=1 / OFF=0

PROCEDURE

 + 112 + STATION RANGE +
  + 1(ON) +
 

4.1.3.15 Stop Camp-on Tone

Description

If this value is set to ENABLE, Camp on Tone is not heard.

Value : ENABLE=1 / DISABEL=0

PROCEDURE

 + 112 + STATION RANGE +
  + 1(Enable) +
 

4.1.3.16 Line Length

Description

This feature is used to distinguish the line length when the distance between the stations and the station boards is too variable. (SAF only)

Value : Short=0 / Long=1 / Far=2

PROCEDURE

Line Length =Long

 + 112 + STATION RANGE +
  + 1(LONG) +
 

4.1.3.17 MSG SCRL SPD

Description

This value means the scroll speed of SMS or broadcasting notice message. (Only for LKD-30DH)

Value : 0~7

PROCEDURE

Scroll Speed :0(Fast) ~ 7(Slow)



4.1.3.18 Block Back Call

Description

If this value is set to ON, SLT recalling is blocked after pressing [FLASH] button.

Value : ON= 1 / OFF= 0

PROCEDURE



4.1.3.19 I-TIME RST(Incoming CO call time Restriction)

Description

If this value is set to ON, the conversation time of incoming CO call is limited. After CO Call Restriction Timer is expired, the call is forced to disconnected.

Value : ON= 1 / OFF= 0

PROCEDURE



Reference

1. CO Call Restriction Timer : 4.5.1.17

4.1.3.20 Forced Station Account Code

Description

If this value is set to ON, the password is needed to access outgoing CO access.

Value : ON= 1 / OFF= 0

PROCEDURE

 112 + STATION RANGE +
  1(ON) +
 

4.1.3.21 CID Type 2 Service

Type II is not serviced in IP LDK-20.

Description

If this value is set to ON,. busy station can receive call indication if another new call is entered through analog PSTN line.

Value : ON= 1 / OFF= 0

PROCEDURE

 112 + STATION RANGE +
  1(ON) +
 

4.1.3.22 Door Open

Description

If this value is set to ENABLE,. Station can open the door with dialing Door Open Code.

Value : ENABLE= 1 / DISABLE= 0

 112 + STATION RANGE +
  1(ENABLE) +
 

4.1.3.23 Dummy Station

Description

If this value is set to ON, this station goes to a dummy station, so a hot-desk agent can login at the dummy station.

Value : ON= 1 / OFF= 0

PROCEDURE

 112 + STATION RANGE +  1(ON) + 

Reference

1. Hot Desk

4.1.4 STATION ATTRIBUTE – • (PGM 113)

4.1.4.1 ADMIN

Description

If this value is set to ENABLE, the assigned station users can program ADMIN Database. This feature is only available at DKTU.
(STA 100 : Enabled as default)

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

4.1.4.2 VMIB Access

Description

If this value is set to ENABLE, the station user can use VMIB.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

4.1.4.3 Group Listening

Description

If this value is set to ENABLE, the station user can use group listening. While you are talking on handset, by pressing the [MON] button, other people around you may hear the conversation through the speaker. Although the voice of other people is not sent by Mic.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

4.1.4.4 Override Privilege

Description

If this value is set to ENABLE, the station user can override CO Call.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

Reference

1. Attendant Override : 2.13.5

4.1.4.5 SMDR Hidden Dialed Digits

Description

If this value is set to ENABLE, Dialed number of CO Call is not showed on SMDR record

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

Reference

1. SMDR : 2.12

4.1.4.6 Voice Over

Description

If this value is set to ENABLE, the station user can talk alternately a call to the other call.

Value : ENABLE=1 / DISABLE=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Enable) +
 

Reference

1. Voice Over : 2.4.26

4.1.4.7 Warm Line

Description

If this value is set to HOT, the station user can use Hot Line. (Ref ADMIN 122)

Otherwise in Warm Line state, Warm Line Timer starts when the user lifts handset or presses the [MON] button.

Value : HOT=1 / WARM=0

PROCEDURE

 + 113 + STATION RANGE +
  1(Hot) +
 

4.1.4.8 VMIB MSG Retrieve Password

Description

If this value is set to ON, the station user must enter password to retrieve VMIB Message.

Value : ON=1 / OFF=0

PROCEDURE

 + 113 + STATION RANGE +
  1(On) +
 

Reference

1. Recording System VMIB Announcement : 2.11.1

4.1.4.9 VMIB MSG Retrieve Date/Time

Description

If this value is set to ON, Date and time will be heard when VMIB Message is retrieved.

Value : ON=1 / OFF=0

PROCEDURE

 + 113 + STATION RANGE +
  0(Off) +
 

Reference

1. Recording System VMIB Announcement : 2.11.1

4.1.4.10 Alarm Attribute

Description

If this value is set to ON, the station gets the alarm signal.

Value : ON=1 / OFF=0

PROCEDURE

 113 + STATION RANGE +
  1(On) +
 

Reference

1. Alarm : 2.4.1

4.1.5 ISDN STATION ATTRIBUTE (PGM 114)

4.1.5.1 CLIP LCD Display(Calling Line Identification Presentation)

Description

If this value is set to ON, the CLI is displayed on the station's LCD.
(CO Line Name is not displayed when CLIP is set to ON.)

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  + 0(Off) +
 

Reference

1. CLI(Calling Line Identification Presentation) : 2.14.2

4.1.5.2 COLP LCD Display (Connected Line identification Presentation)

Description

If this value is set to ON, the connected party's CLI is displayed on station's LCD.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  + 1(On) +
 

Reference

1. CLI(Calling Line Identification Presentation) : 2.14.2

4.1.5.3 CLI / Redirect Display

Description

When using networking, If this value is set to RED, the redirected CLI is displayed. Otherwise, the original CLI is displayed

Value : RED=1 / CLI=0

PROCEDURE

 + 114 + STATION RANGE +
  1(RED) +
 

Reference

1. CLI(Calling Line Identification Presentation) : 2.14.2

4.1.5.4 CLI MSG Wait

Description

If this value is set to ON, the station can receive CLI message from CO Incoming call,when the station doesn't answer.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

Reference

1. CLI(Calling Line Identification Presentation) : 2.14.2

4.1.5.5 EXT or CO ATD

Description

If this value is set to ATD, CO ATD code(ADMIN 200) is used to outgoing CLI information. Otherwise, station number is used as CLI information

Value : ATD=1 / EXT=0

PROCEDURE

 + 114 + STATION RANGE +
  1(ATD) +
 

Reference

1. CLI(Calling Line Identification Presentation) : 2.14.2

4.1.5.6 Keypad Facility

Description

If this value is set to KEYPAD, ISDN station sends digit in keypad facility after connected. Otherwise DTMF is used.

Value : KEYPAD=1 / DTMF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(Keypad) +
 

4.1.5.7 Long/Short

Description

If this value is set to LONG, ISDN station acts in LONG passive mode.

Value : LONG=1 / SHORT=0

PROCEDURE

 + 114 + STATION RANGE +
  1(Long) +
 

4.1.5.8 CPN Type

Description

This value set CPN IE type of SETUP message.

(If this value is set to 0, all S0 stations of the S port get the incoming call. in case of 1 & 2, only one specific station gets the call.)

Value : 0~2

- **0**: Do not send CPN (Called Party Number) to S0. In this case, all S0 stations of the S port will be ringing.
- **1**: Send station number as CPN
- **2**: Bypass CPN from the network.

PROCEDURE

Send station number as CPN

 - 114 + STATION RANGE +
  1 +
 

4.1.5.9 S0 Sub Address

Description

This value indicates how the sub-address is used in SETUP message.

If this value is set to 0, station sub-address not used. Else if set to 1, sub-address is filled in the CPN field of SETUP message. Otherwise, sub-address is filled in the CPSN (Called Party Sub-address Number) field of SETUP message.

Value : 0~2

- **0**: Station sub-address not used.
- **1**: Sub-address is filled in the CPN field of SETUP message.(IN CPN)
- **2**: Sub-address is filled in the CPSN (Called Party Sub-address Number) field of SETUP(IN CPSN)

PROCEDURE

Sub-address is filled in the CPN field

 + 114 + STATION RANGE +
  + 1 +
 

4.1.5.10 CLI Name Display

Description

If this field is ON, the system checks whether the received CLI is matched with the speed dial data or not. If it is matched, the speed dial name is displayed.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.11 ISDN CLI STA

Description

This value is used as outgoing CLI When outgoing CLI is active and CLI type is EXT(Station)

Value : 0~9 (Max 4 digits)

Default value : Logical Station Number.

PROCEDURE

 + 114 + STATION RANGE +
  MAX 4 digits +
 

4.1.5.12 Progress Indication

Description

If this value is set to ON, the Progress Indicator can notice non-ISDN device.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.13 ISDN CLIR(CLI Restriction)

Description

If this value is set to ON, the CLI information is restricted by PX .

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.14 ISDN COLR

Description

If this value is set to ON, the connect party's CLI information is restricted by PX.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.15 DID Restriction

Description

If this value is set to ON, the station is restricted to receive the DID incoming call.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.16 DID Call Wait

Description

If this value is set to ON, when the station is busy, another DID call could be waiting.

Value : ON=1 / OFF=0

PROCEDURE

 + 114 + STATION RANGE +
  1(On) +
 

4.1.5.17 CLI Type

Description

This value selects CLI type.

Value : LONG=1 / SHORT=0

- LONG : Use station Long CLI (Max. 12)
- SHORT : Use station Normal CLI (Max. 4)

PROCEDURE

 + 114 + STATION RANGE +
  1(Long) +
 

Reference

1. Long Station CLI : 4.1.5.18
2. ISDN CLI STA : 4.1.5.11

4.1.5.18 Long Station CLI

Description

If outgoing CLI is activated and CLI type is EXT(Station), this value is used as outgoing CLI.

Value : 0~9 (Max 12 digits)

PROCEDURE

 + 114 + STATION RANGE +
  MAX 12 digits +
 

4.1.5.19 MSN Wait**Description**

If this value is set to ON, A busy station can receive a call waiting signal when another MSN call is entered.

Value : ON= 1 / OFF= 0

PROCEDURE

 114 + STATION RANGE +
  1(ON) +
 

4.1.5.20 LONG CLI 1**Description**

If CLI type of outgoing CO line is set to 1, Long CLI 1 is sent.

Value : 0~9 (Max 16 digits)

PROCEDURE

 114 + STATION RANGE +
  MAX 16 digits +
 

Reference

1. CLI type (4.2.4.11)

4.1.5.21 LONG CLI 2**Description**

If CLI type of outgoing CO line is set to 2, Long CLI 2 is sent.

Value : 0~9 (Max 16 digits)

PROCEDURE

 114 + STATION RANGE +
  MAX 16 digits +
 

Reference

1. CLI type (4.2.4.11)

4.1.6 FLEX BUTTON ASSIGNMENT (PGM 115)

Description

Each Flexible Button in a station can be assigned as desired.

Value : 1 = F01 ~ F24 / 2 = F25~F48 , Button Type = 01~11

PROCEDURE

In case of the assignment of CO Line Group Button



115 + STATION RANGE + 1 +



03(TYPE No.) + 02(Group Number)+



| No. | Type | RANGE | REMARK |
|-----|-------------------|----------------|---|
| 1 | User Key | | User can program by button programming procedure. (empty) |
| 2 | {CO xx} Button | 01 – 16 | CO Line |
| 3 | {CO Grp xx} | 01 – 08 | CO Line Group |
| 4 | {LOOP} | | |
| 5 | {STAxxxx} | 10 – 37 | Station No. |
| 6 | STA PGM Button | 11 – 36 | |
| 7 | {STA SPDxx} | 00 – 99 | Station Speed Bin |
| 8 | {SYS SPDxxx} | 2000 – 2499 | System Speed Bin |
| 9 | FLEX NUM | Num Plan Code | Numbering Plan Code of ADMIN 106 & 107 |
| 10 | Net DSS Button | | When using Networking feature |
| 11 | Hunt Group Button | Hunt Group No. | Hunt Group Number |
| 12 | MSN Button | MSN No. | MSN Number |

Table Button Type for Flexible Button Assignment (PGM 115)

| FLEX | 12-Button (Digital) | 24-Button (Digital) |
|---------|---------------------|---------------------|
| 1 | {CO 1} | {CO 1} |
| 2 | {CO 2} | {CO 2} |
| 3 | {CO 3} | {CO 3} |
| 4 | {CO 4} | {CO 4} |
| 5 | {CO 5} | {CO 5} |
| 6 | {CO 6} | {CO 6} |
| 7 | {CO 7} | {CO 7} |
| 8 | {CO 8} | {CO 8} |
| 9 | {LOOP} | {LOOP} |
| 10 | Not assigned | Not assigned |
| 11 | Not assigned | Not assigned |
| 12 | Not assigned | Not assigned |
| 13 - 24 | | Not assigned |

Table Initial Button Configuration (PGM 115)

4.1.7 STATION COS (PGM 116)

Description

Each station is assigned to COS(Class Of Service) which determine station's toll restriction for the day and night operation. For a particular call, the CO COS is combined with station COS to determine restriction. All stations' COS for day and night operation are 1 as default. The weekend COS is the same as night COS.

Range / Default Value

| FLEX | DEFAULT | VALUE | REMARK |
|------|---------|-------|----------------------------------|
| 1 | 1 | 1 – 9 | Day Class-Of-Service |
| 2 | 1 | 1 – 9 | Night / Weekend Class-Of-Service |

- FLEX 1 : Day
- FLEX 2 : Night

PROCEDURE

The assignment of Station COS 2



| | |
|-----------|---|
| STA COS 1 | No restrictions are placed at the station for dialing. |
| STA COS 2 | The assignments in the Exception Table A are monitored for allow and deny numbers. |
| STA COS 3 | The assignments in the Exception Table B are monitored for allow and deny numbers. |
| STA COS 4 | The assignments in both Exception Tables A & B are monitored for allow and deny numbers. |
| STA COS 5 | The leading digit dialed can not be a long distance code. The dialed digits can be longer than 7 digits. There is no restriction for the number in Canned Toll Table. |
| STA COS 6 | The leading digits can not be a Long Distance code. Only eight digits maximum can be dialed. There is no restriction for the number in Canned Toll Table. |
| STA COS 7 | Intercom and paging calls are allowed. No dialing allowed on CO lines. ICM boxes are assigned with this COS. |
| STA COS 8 | The assignments in the Exception Table C are monitored for allow and deny numbers |
| STA COS 9 | The assignments in the Exception Table D are monitored for allow and deny numbers |

4.1.8 CO LINE GROUP ACCESS (PGM 117)

Description

Each stations has a right of accessibility to CO Line group. The right could be changed by ADMIN programming.

The access ability to CO Line Group1 is offered as default for all stations. Accessibility to multiple CO Line Group is possible.

Range / Default Value

Eight CO line groups are available in IP LDK-20.

PROCEDURE



Reference

1. CO line Group 4.2.2.1

4.1.9 INTERNAL PAGE ZONE (PGM 118)

Description

Each station can be assigned to internal page zone.

IP LDK-20 supports 10 internal paging zones.

Range / Default Value

All station is assigned to Internal Page Zone1 as default.

PROCEDURE



4.1.10 CONFERENCE PAGE ZONE (PGM 119)

Description

Each station can be assigned to conference page zone.
 IP LDK-20 support 5 conference page zones.

Range : FLEX1 ~ FLEX5

- FLEX1 : CONFERENCE PAGE ZONE 06
- FLEX2 : CONFERENCE PAGE ZONE 07
- FLEX3 : CONFERENCE PAGE ZONE 08
- FLEX4 : CONFERENCE PAGE ZONE 09
- FLEX5 : CONFERENCE PAGE ZONE 10

Default value

Default assigns all stations to None.

| FLEX | DEFAULT | VALUE | REMARK |
|------|---------|-------|-------------------------------|
| | - | 1-5 | Conference Page Zone (Toggle) |

PROCEDURE



4.1.11 ICM TENANCY GROUP (PGM 120)

Description

Each Intercom Tenancy Group can be operated independently and the stations in the group can be assigned an individual CO Line Group to use. Each group can be assigned with attendant and can be programmed to allow or deny calls to other groups.

IP LDK-20 supports 5 ICM Tenancy Groups and Tenancy ATDs.

| FLEX | ITEM | RANGE | REMARK |
|------|--------------|----------|---|
| 1 | Attendant | STA No. | Attendant station of assigned ICM tenancy group |
| 2 | Access Group | FLEX 1-5 | ICM tenancy groups allow to access for assigned group |

4.1.11.1 ICM Tenancy Group Attendant assign.

Description

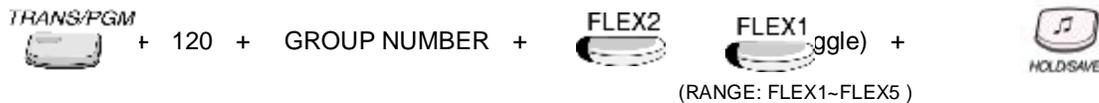
Each ICM group may have one attendant.
Day / Night Mode of ICM Group is set by ICM Group attendant.



4.1.11.2 ICM Tenancy Group Access

Description

Each group can be programmed to allow or deny calls to other groups.



4.1.12 ICM PRESET CALL FORWARD (PGM 121)

Description

When this feature is programmed, If the station does not answer the incoming CO call within Preset Call Forward timer, then this call is forwarded to preset destination.
 No station is assigned as default.

Value : 1=Station / 2=Hunt Group

PROCEDURE

Forward to Station.

TRANS/PGM  121 + STATION NUMBER + 1(Station) + STATION NUMBER + 

Forward to Hunt Group.

TRANS/PGM  121 + STATION NUMBER + 2(Hunt Group) + Hunt Group Number + 

4.1.13 IDLE LINE SELECTION(PGM 122)

Description

This feature assigns the destination of Hot Line and Warm Line.(Ref 2.2.6 Hot Line & Warm Line)

Range : digit 1 ~ digit 4

| DGT | ITEM | RANGE | REMARK |
|-----|---------------|---------|---|
| 1 | FLEX | 01 - 44 | To activate a feature on a flexible button as if pressed. |
| 2 | CO Line | 01 - 12 | To seize a CO Line |
| 3 | CO Line Group | 01 - 08 | To seize a CO Line Group |
| 4 | Station | 10 - 37 | To call an another station |

PROCEDURE

TRANS/PGM  + 122 + STATION RANGE + 1(ITEM) + FLEX No. + 

4.1.14 SMDR ACCOUNT GROUP (PGM 124)

Description

Stations can be assigned as a member of call account group on SMDR. A station belongs to only one group.

Value : 00~99

- Account Group : 00~23 (IP LDK- 20)

PROCEDURE

 + 124 + STATION RANGE + 01(Account Group) + 

4.1.15 COPY DSS BUTTON (PGM 125)

Description

The assigned DSS button can be copied to another station or ICM group.

Value : FLEX1=Station / FLEX2=ICM Group

- ICM Group : 1~5 (IP LDK-20)

PROCEDURE

Copy DSS from Station.

 125 + STATION NUMBER +  STATION NUMBER + 

* DELETE : [CONF] Button

Copy DSS from ICM Group

 125 + STATION NUMBER +  ICM GROUP + 
 (PGM NUMBER)

* DELETE : [CONF] Button

4.1.16 DISPLAY STATION NUMBER BY COS (PGM 130)

Description

COS stands for Class of Service. It means, depends on the grade of COS, the service could be limited. The certain COS of station could be checked.

Range : FLEX1=Day / FLEX2=Night

- Station COS : 1~7

PROCEDURE

Show Station by assigned Day COS

TRANS/PGM + 130 + FLEX1 + 1(COS)
 (DAY COS)

(LCD shows stations that are assigned COS 1)
 Next page : Volume Down
 Previous step : [CONF]

Show Station by assigned Night COS

TRANS/PGM + 130 + FLEX2 + 1(COS)
 (NIGHT COS)

(LCD shows stations that are assigned COS 1)
 Next page : Volume Down
 Previous step : [CONF]

4.1.17 DISPLAY STATION NUMBER BY CO ACCESS GROUP (PGM 131)

Description

Station Numbers which can access in certain CO Line Group could be checked.

Range : 01~08 (CO Line Group)

- CO Line Group : 01-08

PROCEDURE

To change the value, user can do as follows.

TRANS/PGM + 131 + 01(CO LINE GROUP)

(LCD shows stations that are assigned to access CO Line Group 1)
 Next page : Volume Down
 Previous step: [CONF]

4.2 CO LINE PROGRAMMING

If user would like to change CO line features, press the **[TRANS/PGM]** button and dial 140-144 in ADMIN Programming Mode. When programming, LCD and LEDs indicate current programmed data and programming status. If the programmer enters correct data, then LCD and LEDs show the entered data and the data is stored in the temporary buffer area. To save the data permanently, press the **[HOLD/SAVE]** button, then all data in the temporary buffer is stored into system memory.

4.2.1 CO SERVICE TYPE (PGM 140)

Description

In this program mode, you can program the following items.

| FLEX | TYPE | FLEX 2 | DEFAULT | SUB ATTR | REMARK |
|------|----------------|---|---------|--|--------|
| 1 | Normal CO | <i>DISA Attributes</i> -Flex 1 (Day) -Flex 2 (Night) -Flex 3 (Weekend) | | <i>For each Item;</i> Flex 1 - DISA Service: ON/OFF Flex 2 – VMIB MSG (00- 70) (00: not assigned) | |
| 2 | RESERVED | | | | |
| 3 | ISDN DID / MSN | | | | |

4.2.1.1 Normal CO

PROCEDURE

 + 140 + CO LINE RANGE +  1 + 

4.2.1.2 ISDN DID/MSN

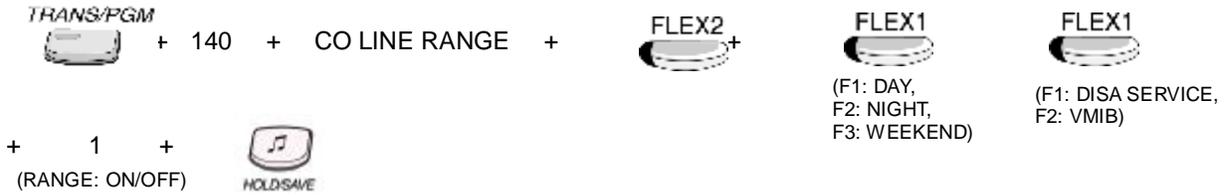
PROCEDURE

 . 140 + CO LINE RANGE +  3 + 

4.2.1.3 DISA (SUB ATT)

To use DISA Service, previously, CO type is set to only Normal CO. Then, execute below procedure continually.

PROCEDURE 1. DISA Service On



PROCEDURE 2. use DISA VMIB Announcement



Reference

1. Normal CO : 4.2.1.1
2. VMIB announcement : 2.11

4.2.2 CO LINE ATTRIBUTE -- (PGM 141)

4.2.2.1 CO line Group

Description

Each CO Line must be a member of CO Line Group.
 Groups may be assigned according to CO type and Class-Of-Service.
 Group 00 means private group, and group 09 means not used group.

PROCEDURE



4.2.2.2 CO COS

Description

COS is assigned to each CO lines.

Value : 1~5(CO COS)

- CO COS 1: no restriction
- CO COS 2: Exception Table A governs
- CO COS 3: Exception Table B governs
- CO COS 4: restricts Long Distance Code
- CO COS 5: overrides STA. COS 2,3,4 and 5, 6.

PROCEDURE



Reference

1. COS(Class Of Service) : 2.5.4

4.2.2.3 DISA Account Code

Description

If this value is set to ON, when the incoming CO caller tries to access another CO Line by dialing CO Line access code, the caller should enter authorization code.
This is applied only when this CO Service type is DISA.

Value : ON=1 / OFF=0

PROCEDURE

 + 141 + CO LINE RANGE +
  + 1(On) +
 

Reference

1. CO SERVICE TYPE : 4.2.1
2. DISA(Direct Inward System Access) : 2.1.4
3. Authorization Code : 2.5.2

4.2.2.4 CO Line Assign

Description

If this value is set to ON, Polarity Reverse is applied to the CO Line, otherwise, Loop Start is applied to.

Value : Pol=1 / Loop=0

- **Pol**: Polarity Reverse
- **Loop**: Loop Start

PROCEDURE

 + 141 + CO LINE RANGE +
  1(Pol) +
 

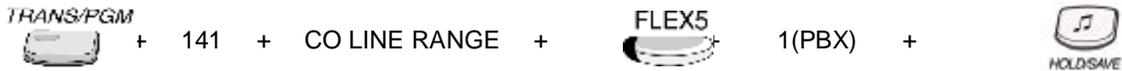
4.2.2.5 CO Line Type

Description

If this value is set to PBX, the opposite system is PBX. Oppositely if it is set to CO, the system is Central Office.

Value : PBX=1 / CO=0

PROCEDURE



4.2.2.6 CO Line Signal Type

Description

If this value is set to DTMF, the CO Line signaling type is set to DTMF. Otherwise, signaling type is set to Pulse.

Value : DTMF=1 / PULSE=0

PROCEDURE



4.2.2.7 Flash Type

Description

This value is applied to analogue CO Line only.

Value : GROUND=1 / LOOP=0

PROCEDURE



4.2.2.8 UNA(Universal Night Answer)

Description

If this feature is set to ON, Universal Night Answer service is applied to this CO Line.

Value : ON=1 / OFF=0

PROCEDURE

 + 141 + CO LINE RANGE +
  + 1(On) +
 

Reference

1. UNA (UNIVERSAL NIGHT ANSWER) : 2.1.7

4.2.2.9 CO Line Group Account

Description

If this value is set to ON, the CO Line user should enter authorization code to access this CO Line.

Value : ON=1 / OFF=0

PROCEDURE

 + 141 + CO LINE RANGE +
  + 1(On) +
 

Reference

1. Authorization Code : 2.5.2

4.2.2.10 Tenancy Group

Description

This value means ICM Tenancy group number the station belongs to. This station receives the CO Call.

If this value is set, separated Day/Night ring mode is applied to the incoming CO Call according to each ICM tenancy group attendant's Day/Night ring mode.

Value : 0~5(IP LDK- 20)

PROCEDURE

 + 141 + CO LINE RANGE +  + 01(Tenancy Group) + 

Reference

1. Day/Night service : 2.13.8

4.2.3 CO LINE ATTRIBUTE -- (PGM 142)

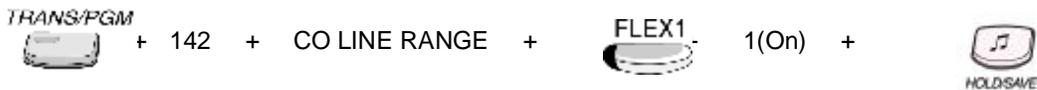
4.2.3.1 CO Line Name Display

Description

If this value is set to ON and the CO Line Name is assigned, the Name is displayed on the station LCD when the station gets the CO incoming call through this CO Line.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. CO Line Name Assign : 4.2.3.2

4.2.3.2 CO Line Name Assign

Description

This value means the name of the CO Line.

Value : MAX 12 Characters

| | | |
|----------|--------|--------|
| . - 13 | A - 21 | D - 31 |
| Q - 11 | B - 22 | E - 32 |
| Z - 12 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 70 | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| 01-Blank | | |
| 02 - : | 0 - 00 | # |
| 03 - , | | |

PROCEDURE



Reference

1. CO Line Name Display : 4.2.3.1

4.2.3.3 Metering Unit

Description

This value determines the Unit used to perceive a pulse from CO Line.

Value : 00 ~ 06 (Metering signal type)

There are 7 metering signal types:

- 00: None
- 01: 50 Hz (Not available in IP LDK-20)
- 02: 12 KHz (Not available in IP LDK-20)
- 03: 16 KHz (Not available in IP LDK-20)
- 04: Singular Polarity Reverse (SPR)
- 05: Plural Polarity Reverse (PPR)
- 06: No Polarity Reverse (NPR)

PROCEDURE



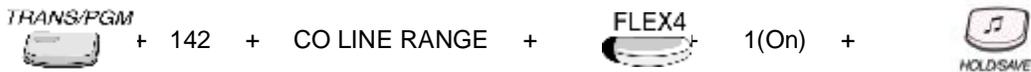
4.2.3.4 Line Drop using CPT(Call Progress Tone)

Description

If this value is set to ON, CPT checks the incoming CO Line when answered and if CPT detects dial tone, then system drops the line for toll restriction.

Value : ON=1 / OFF=0

PROCEDURE



4.2.3.5 CO Distinct Ring

Description

If this value is not set to 0, the designated ring tone is heard to the station when the station gets the incoming CO Call so that the user can distinguish incoming CO Call and ICM Call with its different ring tone. Each ring tone can be adjusted at ADMIN 422.

Value : 0 ~ 4

PROCEDURE



4.2.3.6 CO Line MOH

Description

This value is used at MOH of the CO Line.

Value : 0~9(IP LDK-20)

| | |
|-------------------------------|-------------------|
| 0: Not assigned by this field | 1: Internal Music |
| 2: External Music | 3: VMIB |
| MOH | |
| 4 - 8: SLT MOH | 9: Hold |

PROCEDURE



Reference

1. MOH (Music On Hold) : 2.4.17

4.2.3.7 PABX CO Dial Tone

Description

If this value is set to YES, PX or PABX provides CO Dial Tone. Otherwise PX or PABX does not provide CO Dial Tone. Instead, IP LDK system provides it.

Value : YES=1 / NO=0

PROCEDURE



4.2.3.8 PABX CO Ring Back Tone

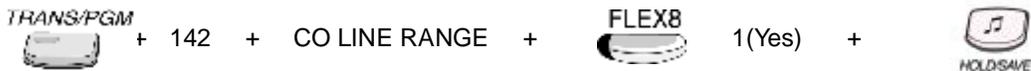
Description

If this value is set to YES, PX or PABX provides CO Ring Back Tone. Otherwise PX or PABX does not provide CO Ring Back Tone. Instead, IP LDK system provides it.

Value : YES=1 / NO=0

- YES: PBX
- NO: System

PROCEDURE



4.2.3.9 PABX CO Error Tone

Description

If this value is set to YES, PX or PABX provides CO Error Tone. Otherwise PX or PABX does not provide CO Error Tone. Instead, IP LDK system provides it.

Value : YES=1 / NO=0

- YES: PBX
- NO: System

PROCEDURE



4.2.3.10 PABX CO Busy Tone

Description

If this value is set to YES, PX or PABX provides CO Busy Tone. Otherwise PX or PABX does not provide CO Busy Tone. Instead, IP LDK system provides it.

Value : YES=1 / NO=0

- YES: PBX
- NO: System

PROCEDURE



4.2.3.11 PABX CO Announce Tone

Description

If this value is set to YES, PX or PABX provides CO Announce Tone.
Otherwise PX or PABX does not provide CO Announce Tone. Instead, IP LDK system provides it.

Value : YES=1 / NO=0

- YES: PBX
- NO: System

Default value : No

PROCEDURE

 + 142 + CO LINE RANGE +
  1(Yes) +
 

4.2.3.12 CO Flash Timer

Description

This value provides the length of time limit of CO Flash.
CO Flashing is available within this timer. Otherwise, the CO Line is released.
10msec base

Value : 000~300

PROCEDURE

 + 142 + CO LINE RANGE +
  010(100msec) +
 

4.2.3.13 Open Loop Detect Timer

Description

This value provides the time limit of CO Open Loop.
100msec base

Value : 00~20

PROCEDURE



4.2.3.14 Line Length

Description

This feature is used to distinguish the line length when the CO Line length is too variable. (SAF only)

Value : LONG=1 / SHORT=0

PROCEDURE



4.2.3.15 DISA ANSWER TIMER

Description

Value : 1 ~ 9(1 digit)

PROCEDURE



4.2.4 ISDN CO LINE ATTRIBUTE (PGM 143)

4.2.4.1 COLP Table Index

Description

To know connected party number information, CLI refer this value.

If this value is set to 50, the CLI of this CO Line refers to ADMIN114-FLEX5.

Else if this value is set to 00 ~ 49, the CLI of this CO Line refers COLP Table(ADMIN201)

Value : 00~50

- 00 ~49: PGM 201 Bin No

- 50: PGM 114-FLEX 5

PROCEDURE

 + 143 + CO LINE RANGE +
  00 +
 

4.2.4.2 CLIP Table Index

Description

To know calling party number information, CLI refer this value.

If this value is set to 50, the CLI of this CO Line refers to ADMIN114-FLEX5.

Else if this value is set to 00 ~ 49, the CLI of this CO Line refers COLP Table(ADMIN201)

Value : 00~50

- 00 ~49: PGM 201 Bin No

- 50: PGM 114-FLEX 5

PROCEDURE

 + 143 + CO LINE RANGE +
  00 +
 

4.2.4.3 Call Type

Description

This value is used to set the call type of ISDN CO line CLI.

Value : 0~4

- 0: Unknown
- 1: International
- 2: National
- 3: Not used
- 4: Subscriber

PROCEDURE

 + 143 + CO LINE RANGE +  1(International) + 

4.2.4.4 DID CONV Type

Description

When CO Service Type is set to ISDN DID/MSN(ADMIN 140), this value is used to decide DID digit conversion type.

If this value is set to 0, incoming digits are converted as ADMINN 146.

If set to 1, there's no digit conversion. If the caller dials valid station number, the station gets the call.

If set to 2, it refers Flexible DID Table(ADMIN 231).

Value : 0~2

- 0: convert digits by DID Digit Conversion (PGM146)
- 1: call to the valid extension.
- 2: convert digits by Flex DID Table (PGM231)

PROCEDURE

 + 143 + CO LINE RANGE +  1(Conversion Type) + 

4.2.4.5 DID Remove Number

Description

If this value is not 0, and the CO Line is DID Line, the system discard the incoming DID digits up to amount of this value .
 e.g. If this value is set to 02 and the outside caller dialed '01245', then the first '01' is removed.

Value : 00~99

PROCEDURE



4.2.4.6 ISDN Enblock Send

Description

If this value is set to ON, Enblock Sending Mode is applied at outgoing CO call.

Value : ON=1 / OFF=0

- ON: Enblock Sending Mode
- OFF: Overlap Sending Mode

PROCEDURE



4.2.4.7 CLI Transit

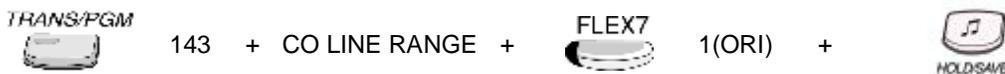
Description

When using networking, If this value is set to ORI, the originate caller's CLI is sent for CLI. Otherwise, the call forwarded station's CLI is sent.

Value : ORI=1 / CFW=0

- ORI: Send CLI as the originate caller's CLI
- CFW: Send CLI as the call forwarded station's CLI

PROCEDURE



Reference

1. Transit – In : 2.16.12
2. CO Transit – Out : 2.16.13

4.2.4.8 Numbering Plan Id

Description

This value is used for Numbering Plan Id of ISDN called and calling party number.

Value : 0~7

- 0: unknown
- 1: ISDN / TELEPHONY
- 2: NOT USED
- 3: DATA
- 4: TELEX
- 5: NOT USED
- 6: NATIONAL STANDARD
- 7: PRIVATE

PROCEDURE



4.2.4.9 ISDN Call Deflection/Rerouting

Description

If this value is set to ON, ISDN call deflection service is available.

Value : 0: No Service, 1: Call Deflection, 2: Call Rerouting

PROCEDURE



4.2.4.10 ISDN 1Digit Remove

Description

If this value is set to ON, the first digit is removed. Italy only.

Value : ON=1 / OFF=0

PROCEDURE

 + 143 + CO LINE RANGE +
  1(On) +
 

4.2.4.11 ISDN Call Proc. Inband Message

Description

If this value is set to ON, Inband info. in call proceeding is available. Italy only

Value : ON=1 / OFF=0

PROCEDURE

 + 143 + CO LINE RANGE +
  1(On) +
 

4.2.4.12 CLI TYPE

Description

If this value is set to 0, the CLI is made as before (refer PGM200/PGM114)

If this value is set to 1 or 2, the CLI is just as same as Long CLI (Station Long CLI 1 or 2)

Value : 0(Normal), 1(Long CLI 1), 2(Long CLI 2)

PROCEDURE

 + 143 + CO LINE RANGE +
  0 +
 

Reference

1. Station Long CLI 1 : 4.1.5.20
2. Station Long CLI 2 : 4.1.5.21

4.2.5 CO RING ASSIGNMENT (PGM 144)

Description

When CO Service Type(ADMIN 140) is set to Normal, CO incoming call goes to proper destination according to this assignment.

Destination can be station or hunt group or VMIB announcement.

Ring assignment is applied separately by Day/Night Ring Mode by pressing FLEX 1~4.

| FLEX | ITEM | DEST TYPE | DEFAULT |
|------|-----------|--|--|
| 1 | Day | TYPE 1: Station Range + Delay TYPE 2: Hunt Group TYPE 3: Voice Message | Station 11 (Attendant Station) is assigned with delay 0. |
| 2 | Night | | |
| 3 | Weekend | | |
| 4 | ON-Demand | | |

Reference

- Hunt Group : 2.6
- Voice Service 2.11
- Day/Night Ring Mode : 2.13.8

4.2.5.1 Ring Assignment to Station

Description

To assign a call to the station, delay value must be entered.

If delay value is set, the call starts to ring after the delay time. To receive incoming call instantly, delay value should be 0.

To delete CO ring assignment, press **[SPEED]** button instead of entering delay value.

PROCEDURE

To Assign Ring to Station at Day Mode,



4.2.5.2 Ring Assignment to Hunt Group

PROCEDURE

To Assign Ring to Station at Night Mode,



4.2.5.3 Ring Assignment to VMIB Announcement

PROCEDURE

To Assign Ring to Station at Weekend Mode,



4.2.6 CO LINE ASSIGNMENT DISPLAY (PGM 145)

Description

You can check the ring assignment destination of the CO line for each Day/Night Ring Mode. If CO Call is assigned to the station at Day or Night Mode, you can see the delay value also. e.g.) 100(1) means station 100 gets the ring with delay 1. When there are too many stations, you can scroll data using volume up/down key.

Value : FLEX1 ~ FLEX4

- FLEX1: Day
- FLEX2: Night
- FLEX3: Weekend
- FLEX4: On-demand

PROCEDURE



(When there are too many stations to see, you can scroll data using volume up/down key.)

4.2.7 CO LINE ATTRIBUTE • (PGM 146)

4.2.7.1 Incoming prefix code Insertion

Description

If this value is set to ON, prefix code will be attached in front of incoming CLI.

Value : ON=1 / OFF=0

PROCEDURE

 + 146 + CO LINE RANGE +
  + 1(On) +
 

Reference

1. My Area Prefix Code : 4.7.1.6

4.2.7.2 Outgoing prefix code Insertion

Description

If this value is set to ON, prefix code will be attached in front of outgoing CLI.

Value : ON=1 / OFF=0

PROCEDURE

 + 146 + CO LINE RANGE +
  0(Off) +
 

Reference

1. My Area Prefix Code : 4.7.1.6

4.2.7.3 ISDN Line Type

Description

This value is used to set ISDN CODEC Type.

Value : *m-Law=1 / A-Law=0*

PROCEDURE

 + 146 + CO LINE RANGE +
  + 1(μ-Law) +
 

4.2.7.4 Calling Sub-address

Description

If this value is set to ON, calling party sub-address of the ISDN station is attached when an ISDN station makes an outgoing CO Call through this CO Line.

Value : *ON=1 / OFF=0*

PROCEDURE

 + 146 + CO LINE RANGE +
  + 1(On) +
 

4.2.7.5 DID Digit Receive No

Description

This value is used as count of the received DID Digit number to route DID incoming Call.

Value : *2~4(Digits)*

PROCEDURE

 + 146 + CO LINE RANGE +
  + 2 +
 

4.2.7.6 DID Digit Mask

Description

When DID Conversion Type(ADMIN 143 – FLEX4) is set to 0, The received DID digits are converted by this value.

The number 0 ~ 9, #, * can be entered.

means to ignore received digit, and * means to bypass the digit.

The length of DID Digit Mask is 4.

e.g.) '1234' is received when DID Digit Mask is set as '#8**', the digit is converted as '834'.

Value : 0~9 , # , * (4 digits)

Default value : #1**

PROCEDURE



4.4 SYSTEM DATA PROGRAMMOMG

User can adjust the whole system configuration.

4.4.1 SYSTEM ATTRIBUTE - • (PGM 160)

4.4.1.1 Attendant Call Queuing Ring Back Tone

Description

If this value is set to RBT, ring back tone is provided to the station when the station calls busy attendant. Otherwise hold tone or VMIB-MOH(ADMIN 171 - FLEX2) is provided.

Value : RBT=1 / MOH=0

- RBT: The station user will hear ring back tone when calling busy attendant station.
- MOH: The station user will hear MOH, hold tone or VMIB-MOH by system database (PGM 171-FLEX2)

PROCEDURE

 + 160 +
  + 1(RBT) +
 

Reference

1. MOH (Music On Hold) : 2.4.17

4.4.1.2 CAMP RBT/MOH

Description

MOH or Ring Back tone is heard on camp-on.

Value : RBT=1 / MOH=0

PROCEDURE

 + 160 +
  + 1(RBT) +
 

Reference

1. MOH (Music On Hold) : 2.4.17

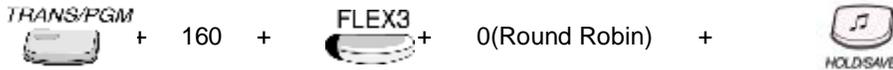
4.4.1.3 CO Line Choice

Description

In seizing a CO Line among CO line group, if this value is set to LAST CHOICE, Last available CO Line is seized. Otherwise, CO line is seized round robin choice.

Value : LAST CHOICE=1 / ROUND ROBIN=0

PROCEDURE



4.4.1.4 DISA Retry Counter

Description

When the DISA user fails to call a station or access a feature, then DISA user can retry other calls or features within this retry counter. If DISA user cannot access appropriately within this counter, this call is routed according to DID/DISA destination (ADMIN 167)

Value : 0~9

PROCEDURE



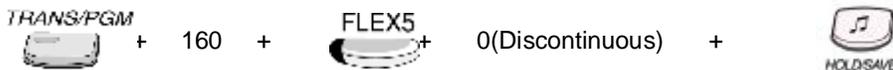
4.4.1.5 ICM Continuous Dial-Tone

Description

This value sets whether ICM dial tone is continuous or not.

Value : CONTINUOUS=1 / DISCONTINUOUS=0

PROCEDURE



4.4.1.6 CO Dial-Tone Detect

Description

When the speed dial is activated, if this value is set to ON, system detects dial tone using CPT instead of pause timer.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  1(On) +
 

4.4.1.7 External Night Ring

Description

If this value is set to ON, when CO incoming call is received and UNA service is activated, the call is sent to LBC1.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  0(On) +
 

Reference

1. UNA (UNIVERSAL NIGHT ANSWER) : 2.1.7

4.4.1.8 Hold Preference

Description

There are two types of Hold; System Hold and Exclusive Hold. If a call is held as System Hold, any station can retrieve that call, Otherwise only holding station can retrieve that call.

Value : SYSTEM=1 / EXCLUSIVE=0

PROCEDURE

 + 160 +
  0(Exclusive) +
 

4.4.1.9 Multi-line Conference

Description

If this value is set to ON, a conference with multi-CO lines is available.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  + 0(Off) +
 

Reference

1. Conference – SLT (BROKERS Call) : 2.7.1

4.4.1.10 Print LCR Converted Digit

Description

If this value is set to On, LCR converted digits are showed on LCD and SMDR data. Otherwise original dialed digits are showed.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  + 1(On) +
 

Reference

1. LCR(Least Call Routing) : 2.2.7
2. SMDR : 2.12

4.4.1.11 Conference Warning Tone

Description

If this value is set to ON, other members will hear warning tone when a new member enters the conference,

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  + 0(Off) +
 

4.4.1.12 Off-net Prompt Usage

Description

If this value is set to On, off-net VMIB announcement(prompt) will be heard when the call is Off-net call forwarded,. It is only applied to CO-to-CO Transfer.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  0(Off) +
 

Reference

1. Call Forward, Incoming CO Off-net (ATD only) : 2.3.1.6

4.4.1.13 Off-net DTMF Tone

Description

If this value is set to ON, dialing DTMF tone will be heard to the outside caller when the call is Off-net call forwarded. It is only applied to CO-to-CO Transfer.

Value : ON=1 / OFF=0

PROCEDURE

 + 160 +
  0(Off) +
 

Reference

1. Call Forward, Incoming CO Off-net (ATD only) : 2.3.1.6

4.4.1.14 Voice Path Connect

Description

If this value is set to IMM(immediate), voice path is connected immediately at the CO outgoing call, Otherwise It is connected after dialing any digits.

Value : IMM=1 / DGT=0

PROCEDURE

 + 160 +
  + 1(IMM) +
 

4.4.1.15 Transfer Tone

Description

While a call is transferred to destination station, if this value is set to RBT, transferred station will be heard ring back tone. Otherwise MOH will be heard.

Value : RBT=0 / MOH=1

PROCEDURE

 + 160 +
  + 0(RBT) +
 

Reference

1. MOH (Music On Hold) : 2.4.17

4.4.1.16 CO to CO transfer CPT detection

Description

If this value is set to CPT detection, CO-CO transfer connection will be dropped when tone is detected from CO-CO transfer connection. To detect tone from CO line, CPT detection board is required.

Value : OFF =0 / ON=1

PROCEDURE

 + 160 +
  + 1(CPT detection) +
 

4.4.1.17 ACD PACKAGE USAGE

This is not available in IP LDK-20.

Description

If this value is set to ON, ACD Information is printable.

Value : ON=1 / OFF=0

PROCEDURE

 TRANS/PGM + 160 +  FLEX17 + ON +  HOLDSAVE

4.4.1.18 CO – CO UC TIMER EXTEND***Description***

If this value is set to on, the conference call user can extend Unsupervised Conference Timer by dialing UC TIMER EXTEND Code.

Value : ON=1 / OFF=0

PROCEDURE

 TRANS/PGM + 160 +  FLEX18 + ON +  HOLDSAVE

Reference

1. Conference
2. UC Conference timer Extend Code

4.4.1.19 CALL LOG LIST NUMBER***Description***

Set the number of Call Log List per stations.

Value : 15 ~ 50 (2 digits)

PROCEDURE

 TRANS/PGM + 160 +  FLEX19 + 15 +  HOLDSAVE

4.4.2 SYSTEM ATTRIBUTE - • (PGM 161)

4.4.2.1 Network Time/Date Setting

Description

If this value is set to ON, the system time/date are set by the network time/date.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  + 1(On) +
 

4.4.2.2 Off-Hook Ring Type

Description

The off-hook ring type in the system can be set to mute or one burst ring.

Value : MUTE=1 / BURST=0

PROCEDURE

 + 161 +
  + 0(Burst) +
 

4.4.2.3 Override 1st CO Line Group

Description

If this value is set to ON, if there is no available CO Line in the first CO Line Group, system can access the next accessible CO Line Group.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  + 0(Off) +
 

4.4.2.4 Page Warning Tone

Description

If this value is set to ON, page warning tone will be heard when paging starts.

Value : ON=1 / OFF=0

PROCEDURE



4.4.2.5 Auto Privacy

Description

If this value is set to ON, the call is protected from override regardless of Station Override Privilege (ADMIN 113-FLEX 4)

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. Attendant Override : 2.13.5

4.4.2.6 Privacy Warning Tone

Description

If this value is set to ON, privacy warning tone will be heard when the call is overridden.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. Attendant Override : 2.13.5

4.4.2.7 Single Ring for CO Call

Description

The cadence of ICM ring is set to 1sec on/ 4sec off.
 The cadence of CO ring is set to 0.4s on/ 0.2s off/ 0.4s on/ 4sec off.
 If this value is set to YES, the ICM ring cadence and the CO ring cadence is reversed each other.

Value : YES=1 / NO=0

PROCEDURE



4.4.2.8 WTU Auto Release

Description

If this value is set to ON, WTU is released automatically.

Value : ON=1 / OFF=0

PROCEDURE



4.4.2.9 ACD (Automatic Call Distribution) Print Enable

Description

If this value is set to ON, ACD Print is available.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. ACD (Automatic Call Distribution) : 2.6.7

4.4.2.10 ACD Print Timer

Description

ACD database is printed per desired time interval.
(10 sec or 1 hour based : ADMIN 161-FLEX 14)

Value : 001 ~ 225(3 digits)

PROCEDURE

 + 161 +
  002 +
 
 (RANGE: 001~225)

Reference

1. ACD (Automatic Call Distribution) : 2.6.7

4.4.2.11 ACD Clear Database after Print

Description

If this value is set to ON, ACD database is initialized after printed out.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  1(On) +
 

Reference

1. ACD (Automatic Call Distribution) : 2.6.7

4.4.2.12 VIMB Prompt Gain

Description

This value is gain of VMIB Announcement(Prompt). Whenever VMIB Announcement is played, this value is applied.

Value : 00 ~ 31

PROCEDURE

 + 161 +
  + 00 +
 
 (Range:00 - 31)

4.4.2.13 CLI Information at VM SMDI(Simplified Message Desk Interface)

Description

If this value is set to ON, CLI is added when Voice Mail information is printed through RS232 port by SMDI.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  + 1(On) +
 

4.4.2.14 ACD Print Timer Unit

Description

This value determines the unit of ACD Print timer(ADMIN 161 - FLEX 10)
(1 hour or 10 seconds)

Value : HOUR=1 / SEC=0

PROCEDURE

 + 161 +
  + 1(Hour) +
 

Reference

1. ACD (Automatic Call Distribution) : 2.6.7

4.4.2.15 Set VM SMDI Type

Description

This value sets VM SMDI type (Refer RS232 Spec)

Value : TYPE II=1 / TYPE I=0

PROCEDURE

To change the value, user can do as follows.

 + 161 +
  + 1(Type•) +
 

4.4.2.16 Incoming Toll Check

Description

If this value is set to ON, the system checks toll of incoming CO call.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  + 1(On) +
 

4.4.2.17 Auto FAX transfer CO

Description

If Auto FAX CO line is programmed, the system answers and detects FAX calling tone(1100Hz, 0.5sec ON/3sec OFF repeat tone) from incoming analog CO line. The system route this call to last SLT port on basic MBU(extension 17, extension 15 in compact type KSU) when tone is detected within programmed time.

Value : CO line number(01~08)

PROCEDURE

 + 161 +
  + CO line number(2digits) +
 

4.4.2.18 NO DSS Indication

Description

If this value is set to ENABLE, LED indication of {CO} button or {DSS} button is blocked.
(i.e. LED does not flash even if there is incoming call to the assigned CO Line or Station)
This feature is not applied for direct call such as DID/DISA.

Value : Enable=1 / Disable=0

PROCEDURE

 + 161 +
  0(Disable) +
 

4.4.2.19 UK Billing Mode

Description

If this value is set to ON, UK Billing Mode is applied. (UK only)

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  1(On) +
 

4.4.2.20 COS 7 When Authorization Fail

Description

If this value is set to ON, the station' COS is changed to 7 when station enters invalid authorization code.

(If authorization code is assigned, station' COS is down to 7 temporarily when station enters invalid authorization code. Then station can recover his COS by COS RESTORE.

If not assigned, day & night COS in PGM 116 are changed to 7 when station enters invalid authorization code. To recover COS, day & night COS should be reassigned)

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  0(OFF) +
 

Reference

1. Station COS : 4. 1.7
2. Station COS : 4.10.1

4.4.2.21 5 Digits Authorization Code Usage**Description**

If this value is set to ON, Authorization code is programmed as 5 digits fixed length. Under this mode, 5 digits of authorization code should be entered when related features are activated.

Value : ON=1 / OFF=0

PROCEDURE

 + 161 +
  + 0(OFF) +
 

Reference

Authorization Code Table : 4.10.1

4.4.3 ADMIN PASSWORD (PGM 162)

ADMIN password can be assigned to enter ADMIN Programming mode for only Administrator who knows the ADMIN password. It is not assigned by default.

Value : *, #, 0~9 (4 digits)

PROCEDURE

To change the value, user can do as follows.

 + 162 +
  +
 

If you want to delete the ADMIN password, press the **[speed]** button.

4.4.4 ALARM ATTRIBUTES (PGM 163)

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|--------------------|--------------|---------|------------------|
| 1 | Alarm Enable | ON/OFF | OFF | |
| 2 | Alarm Contact Type | CLOSE/OPEN | CLOSE | Close, Open |
| 3 | Alarm Mode | ALARM / BELL | ALARM | Alarm, Door Bell |
| 4 | Alarm Signal Mode | RPT/ONCE | RPT | Repeat , Once |

4.4.4.1 Alarm Enable

Description

If this value is set to ON, Alarm is available.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. Alarm : 2.4.2

4.4.4.2 Alarm Contact Type

Description

Value : CLOSE=1 / OPEN=0

PROCEDURE



Reference

1. Alarm : 2.4.2

4.4.4.3 Alarm Mode

Description

Value : ALARM=1 / DOOR BELL=0

PROCEDURE

To change the value, user can do as follows.

 + 163 +
  + 0(Door Bell) +
 

Reference

1. Alarm : 2.4.2

4.4.4.4 Alarm Signal Mode

Description

If this value is set to REPEAT, the Alarm Signal is repeated until Alarm Reset.

Value : REPEAT=1 / ONCE=0

PROCEDURE

 + 163 +
  + 0(Once) +
 

Reference

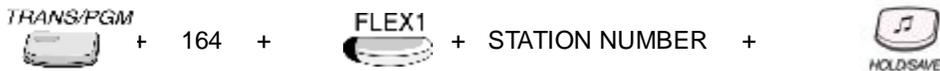
1. Alarm : 2.4.2

4.4.5 ATTENDANT ASSIGNMENT (PGM 164)

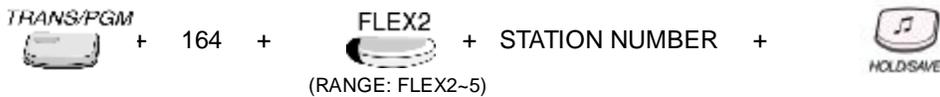
Maximum 5 Attendants can be assigned including the Main Attendants and System Attendant. The system attendant is different from main attendant in aspect of the call handling and system management priority. The system attendant has more powerful priority than main attendant. The system and main attendants can be assigned to each 1 and maximum 4. So the sum of system and main attendants should be less than 5. As default, the System Attendant is assigned to Station 101, and others are not assigned.

Value : 1~5

4.4.5.1 SYSTEM ATTENDANT ASSIGNMENT



4.4.5.2 MAIN ATTENDANTS ASSIGNMENT



If you want to delete any system attendant, press the Flex. BTN, which want to delete and press the [SPEED] button.

***Note:** It is impossible to delete the first System Attendant.

4.4.6 AUTO ATTENDANT VMIB ANNC ASSIGNMENT (PGM 165)

User may set the number of the VMIB announcement for auto attendant.

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|----------------|---------|---------|--------|
| 1 | AUTO ATD USAGE | ON/OFF | OFF | |
| 2 | VMIB ANNC | 00 - 70 | 00 | |

4.4.6.1 AUTO ATD USAGE

Description

If this value is set to ON, Auto Attendant is activated.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. VMIB Announcement for Auto Attendant : 2.11.5

4.4.6.2 VMIB ANNC

Description

This value is the number of VMIB announcement played when Auto Attendant is activated.

Value : 00~70

PROCEDURE



Reference

1. VMIB Announcement for Auto Attendant : 2.11.5

4.4.7 CO-TO-CO COS (PGM 166)

When an external user of DID/DISA/TIE line tries to access another CO Line in the system, CO-to-CO COS is applied. The attributes of CO-to-CO COS are the same as the station COS.

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|-------------------|-------|---------|--------------------------------|
| 1 | Day COS | 1-7 | 1 | Day Class-of-Service |
| 2 | Night/Weekend COS | 1-7 | 1 | Night/Weekend Class-of-Service |

Reference

1. COS (Class Of Service) : 2.5.4

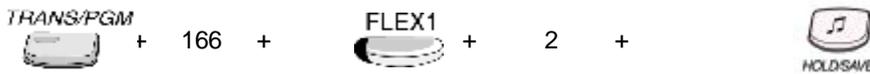
4.4.7.1 Day COS

Description

Class-of-Service of Day Mode

Value : 1~7

PROCEDURE



Reference

1. Day/Night service : 2.13.8

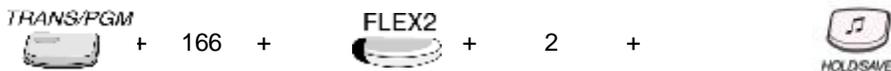
4.4.7.2 Night / Weekend COS

Description

Class-of-Service of Night / Weekend Mode

Value : 1~7

PROCEDURE



Reference

1. Day/Night service : 2.13.8

4.4.8 DID/DISA DESTINATION (PGM 167)

When there is a DID/DISA incoming call, if the destination is not answer / invalid / busy, the call is routed to Attendant / Hunt group / or the caller gets the proper tone.

If Attendant is assigned for DID/DISA destination, first, the call will check ring assignment (ADMIN 144), if there exists ring assigned station the call is routed to that station. If there is not ring assigned station, then the call is routed to Attendant.

If VMIB announcement usage is enabled, The proper announcement is presented to the caller before the call is routed.

This destination is applied when DISA Retry Counter expired.

If the destination is set to attendant, system checks if there's any ring assigned station and gives the ring to assigned station first. If the ring assigned station does not answer also, then the attendant receives the call.

Reference

1. DISA Retry Counter 4.4.1.4
2. Ring Assignment to Station 4.2.5.1

4.4.8.1 Busy Destination

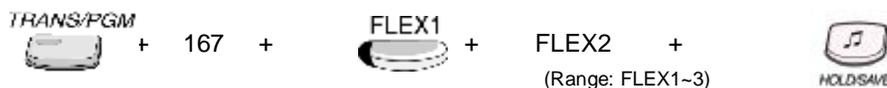
Description

When there is a DID/DISA incoming call, and if the caller dialed busy destination, the call is routed to Busy Destination (Tone / Attendant / Hunt).

Value : FLEX1~FLEX3

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE



4.4.8.2 Error Destination

Description

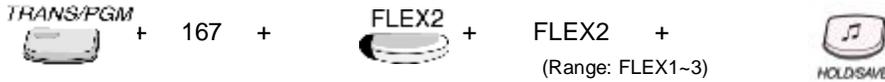
When there is a DID/DISA incoming call, and if the caller dialed invalid number, the call is routed to Error Destination (Tone / Attendant / Hunt)

Value : FLEX1~FLEX3

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE

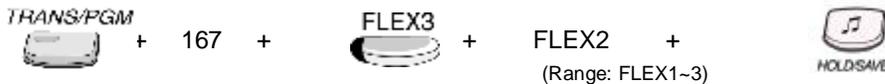
To change the value, user can do as follows.

**4.4.8.3 No Answer Destination****Description**

When there is a DID/DISA incoming call, and the destination is not answer, the call is routed to No Answer Destination (Tone / Attendant / Hunt)

Value : F1~F3 (FLEX1~FLEX3)

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE**4.4.8.4 VMIB PROMPT USAGE****Description**

If the value is set to ON and VMIB is available, The proper VMIB announcement is presented to the caller before the call is routed to each Destination.

Value : F1~F5 (FLEX1~FLEX5)

- FLEX1: Busy Prompt Usage
- FLEX2: Error Prompt Usage
- FLEX3: DND Prompt Usage
- FLEX4: No Answer Prompt Usage
- FLEX5: Attendant Transfer Prompt Usage

Reference

1. Voice Service : 2.11

4.4.8.4.1 Busy Prompt Usage

Description

If the value is set to ON, Busy announcement is presented to the caller before the call is routed to Busy Destination.

Value : ON=1 / OFF=0

PROCEDURE



4.4.8.4.2 Error Prompt Usage

Description

If the value is set to ON, Error announcement is presented to the caller before the call is routed to Error Destination.

Value : ON=1 / OFF=0

PROCEDURE



4.4.8.4.3 DND Prompt Usage

Description

If the value is set to ON, Busy announcement is presented to the caller before the call is routed to Busy Destination when the original destination is in DND.

Value : ON=1 / OFF=0



Reference

1. DND(Do Not Disturb) : 2.4.9

4.4.8.4.4 No Answer Prompt Usage

Description

If the value is set to ON, No Answer announcement is presented to the caller before the call is routed to No Answer Destination.

Value : ON=1 / OFF=0

PROCEDURE



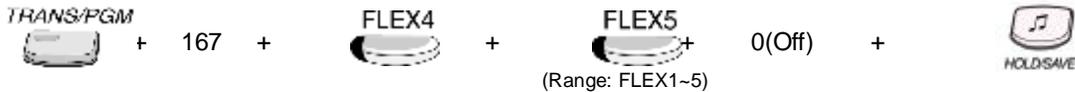
4.4.8.4.5 Attendant Transfer Prompt Usage

Description

If the value is set to ON, Attendant Transfer announcement is presented to the caller before the call is routed to Attendant.

Value : ON=1 / OFF=0

PROCEDURE



4.4.8.6 Reroute Busy Destination

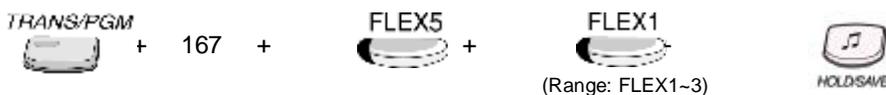
Description

When DID/DISA call is rerouted by no answer forward/CCR and if rereouted destination is busy case, calls follows by reroute busy destation(PGM 167-Flexible button 5)

Value : FLEX1~FLEX3

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE



4.4.8.7 Reroute Error Destination

Description

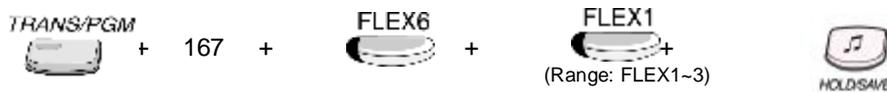
When DID/DISA call is rerouted by no answer forward/CCR and if rerouted destination is error case, calls follows by reroute error destination(PGM 167-Flexible button 6)

Value : FLEX1~FLEX3

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE

To change the value, user can do as follows.



4.4.8.8 Reroute No Answer Destination

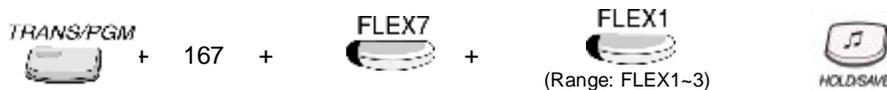
Description

If No Answer Destination is too busy, the call is rerouted to Reroute No ANS Destination (Tone / Attendant / Hunt).

Value : F1~F3 (FLEX1~FLEX3)

- FLEX1: Tone
- FLEX2: Attendant (Ring Assign)
- FLEX3: Forward to Hunt Group

PROCEDURE



4.4.9 EXTERNAL CONTROL CONTACT (PGM 168)

The usage of External Relay is defined.
 By default, External control contacts are not assigned at all.

| FLEX | ITEM | VALUE | DEFAULT | REMARK |
|------|----------------|-------|---------|---------------------------------------|
| 1 | First Contact | 1 – 3 | - | 1: LBC(STA #) 2: Door 3: Ext. 1 |
| 2 | Second Contact | 1 – 3 | - | |

4.4.9.1 LBC(Loud Bell Control)

Description

If an External Control Contact is assigned to LBC, then it is activated when the station is ringing. Then the ringing call of the station is notified loudly. In the night mode, LBC1 may be programmed to provide external night ringing. In this case LBC1 does not follow its associated station’s ring.

Value : 1~3

- 1: LBC (STA #)
- 2: Door
- 3: Ext. 1

PROCEDURE



Reference

1. UNA (UNIVERSAL NIGHT ANSWER) : 2.1.7

4.4.9.2 Door Open

Description

External Control Contact can be used at Door Opening.

Value : 1~3

- 1: LBC (STA #)
- 2: Door
- 3: Ext. 1

PROCEDURE



4.4.9.3 External Relay (1~2)

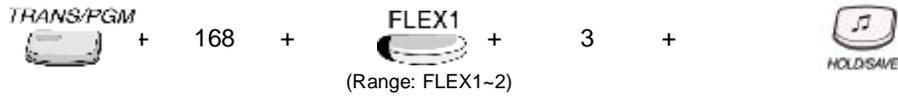
Description

External Control Contact can be used at any External Relay.

Value: 1~3

- 1: LBC (STA #)
- 2: Door
- 3: Ext. 1

PROCEDURE



4.4.10 LCD TIME/DATE/LANGUAGE DISPLAY MODE (PGM 169)

The LCD Time/Date/Language display formats can be set.

4.4.10.1 LCD Time Display Mode**Description**

Two LCD Time formats are Ordinary (12-hour)/Military (24-hour) mode

Value : 12H=1 / 24H=0

- 12H : 12-Hour Mode

- 24H : 24-Hour Mode

PROCEDURE

 + 169 +
  + 0(24H) +
 

4.4.10.2 LCD Date Display Mode**Description**

Two LCD date formats are Day/Month/Year (DDMMYY) or Month/Day/Year (MMDDYY) mode.

Value : MMDDYY=1 / DDMMYY=0**PROCEDURE**

 + 169 +
  + 1(MMDDYY) +
 

4.4.10.3 LCD Language Display Mode

Description

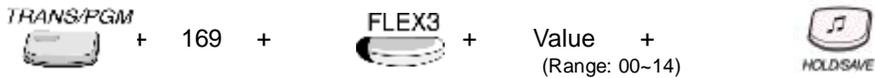
The LCD language format can be selected.

Value : 00~14

- 00: English
- 01: Italian
- 02: Finnish
- 03: Dutch
- 04: Swedish
- 05: Danish
- 06: Norwegian
- 07: Hebrew
- 08: Germany
- 09: French
- 10: Portuguese
- 11: Spanish
- 12: Korean
- 13: Estonia
- 14: Russian

PROCEDURE

To change the value, user can do as follows.



4.4.11 MODEM (PGM 170)

Modem service is available only when there's MODU on MPB.

4.4.11.1 STA No.

Description

This value means the Modem-associated station. To use Modem line flexibly, associate one station with Modem. Then incoming CO Call is connected to Modem device if the station gets the call. The last station is assigned as Modem associated station.

Value :- 10~37

Default value :-37

PROCEDURE

 + 170 +
  + Station Number +
 

4.4.11.2 CO No.

Description

If CO Line is associated with Modem, All of the incoming CO Call through this Line is connected to Modem. The Modem-associated CO Line cannot be used to outgoing CO Call.

Value : 01~08

PROCEDURE

 + 170 +
  + CO Number +
 

4.4.12 MUSIC Assignment (PGM 171)

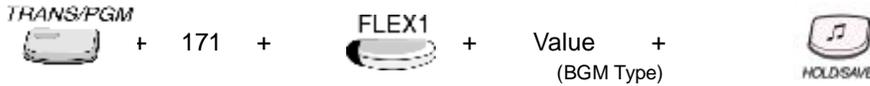
4.4.12.1 BGM Type

Description

Value : 0~8

- 0: Not Assignment
- 1: Int. Music
- 2: External Music
- 3: VMIB BGM
- 4 -8: SLT MOH

PROCEDURE



4.4.12.2 MOH Type

Description

When a CO line call is placed in the hold state (system, exclusive, transfer, conference, etc) the external party will hear music. In this way, the CO line party can be notified that the connection is still established.

Value : 0~9

- 0: Not Assignment
- 1: Int. Music
- 2: External Music
- 3: VMIB BGM
- 4 – 8: SLT MOH
- 9: Hold Tone

PROCEDURE



Reference

1. MOH (Music On Hold) : 2.4.17

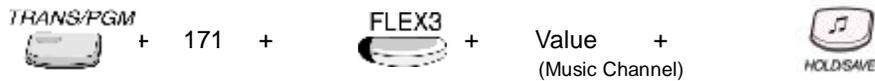
4.4.12.3 ICM Box Music Channel

Description

Value : 0~9

- 0: No BGM
- 1: Int. Music
- 2: External Music
- 3: VMIB BGM
- 4 – 8: SLT MOH

PROCEDURE



Reference

1. ICM Box Music Selection 2.13.10

4.4.12.4 Assign SLT MOH

Description

To assign SLT MOH, set this value and match the SLT station number of the SLT port.

Value : F1 ~ F5 (SLT MOH)

- FLEX1 : SLT MOH 1
- FLEX2 : SLT MOH 2
- FLEX3 : SLT MOH 3
- FLEX4 : SLT MOH 4
- FLEX5 : SLT MOH 5

PROCEDURE



Reference

1. SLT MOH : 2.4.17.1

4.4.12.5 DIAL TONE SOURCE

Description

To assign external dial tone, set the SLT station number of the SLT port.

Value : 1 ~ 5 (SLT MOH)

- 1 : SLT MOH 1
- 2 : SLT MOH 2
- 3 : SLT MOH 3
- 4 : SLT MOH 4
- 5 : SLT MOH 5

PROCEDURE

 + 171 +  + 0 (Not Assigned) + 

4.4.12.6 ICM RING BACK TONE

Description

To assign external ICM ring back tone, set the SLT station number of the SLT port.

Value : 1 ~ 5 (SLT MOH)

- 1 : SLT MOH 1
- 2 : SLT MOH 2
- 3 : SLT MOH 3
- 4 : SLT MOH 4
- 5 : SLT MOH 5

PROCEDURE

 + 171 +  + 0 (Not Assigned) + 

4.4.13 PBX ACCESS CODE (PGM 172)

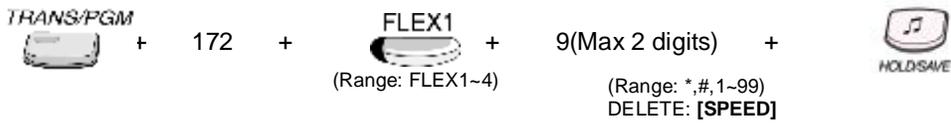
Maximum 4 PABX Access Codes can be assigned. Each PABX Access Code is 1 or 2-digit number.

By default, PABX Access Codes are not assigned at all.

Description

Value : 1 or 2 digits

PROCEDURE



4.4.14 PLA PRIORITY SETTING (PGM 173)

The PLA Priority among Transferred Call, Recalled Call, Incoming Call, Queued Call can be set.

| FLEX | ITEM | VALUE | DEFAULT | REMARK |
|------|----------------------|-------|---------|--|
| 1 | XFER (Transfer Call) | 1 – 4 | 1 | PLA priority is set <i>exclusively</i> |
| 2 | REC (Recall) | 1 – 4 | 2 | |
| 3 | INC (Incoming Call) | 1 – 4 | 3 | |
| 4 | QUE (Queued Call) | 1 – 4 | 4 | |

Description

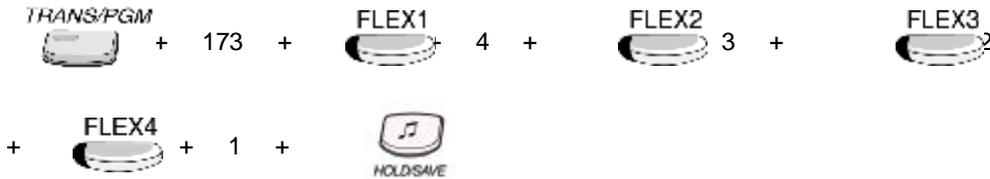
PLA priority is set exclusively

VALUE : 1~4

Default value : XFER=1, REC=2, INC=3, QUE=4

PROCEDURE

ex) Answer Priority : QUE → INC → REC → XFER



Reference

1. PLA (Preferred Line Answer) : 2.1.2

4.4.15 RS-232C PORT SETTING (PGM 174)

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|--------------------------|----------|---------|--------|
| 1 | COM1 Port Setting | FLEX 1-2 | | |
| 2 | COM2 - MODU Port Setting | FLEX 1-2 | | |

Description

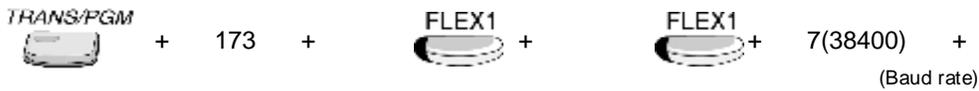
Baud Rate, CTS/RTS, P-Break, LPP can be assigned at this feature to COM1 port, COM2 – MODU port.

Value : FLEX1~FLEX4

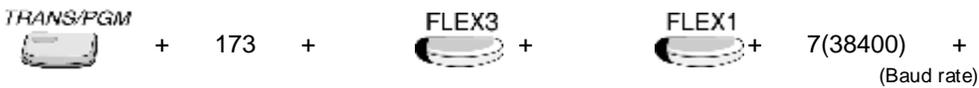
| FLEX | ITEM | VALUE | DEFAULT | REMARK |
|------|----------|------------|---------|--|
| 1 | BAUDRATE | 0-7(Note1) | 19200 | 0: N/A 1: N/A 2: 1200 Baud 3: 2400 Baud 4: 4800 Baud 5: 9600 Baud 6: 19200 Baud 7: 38400 Baud |
| 2 | CTS/RTS | ON/OFF | OFF | |
| 3 | P-BREAK | ON/OFF | OFF | |
| 4 | LPP | 001-199 | 060 | |

PROCEDURE

COM 1



COM 3 (MODU Port)



4.4.16 PRINT PORT SELECTION (PGM 175)

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|---------------------------------|-------|------------|--|
| 1 | Off-line SMDR/ Statistics Print | 01-10 | COM1 | 01: COM1 02: COM2-MODU 03: TELNET 1 04: TELNET 2 05: TELNET 3 06: ISDN 07: NET_PCADM 08: NET_PCATD 09: NET_CTI 10: NET_REMOTE |
| 2 | ADMIN Print | 01-10 | COM1 | |
| 3 | Traffic | 01-10 | COM1 | |
| 4 | SMDI Print | 01-10 | COM1 | |
| 5 | Call Information | 01-10 | COM1 | |
| 6 | Info/On-line SMDR | 01-10 | COM1 | |
| 7 | Trace | 01-10 | COM1 | |
| 8 | Debug | 01-10 | COM1 | |
| 9 | PC ADMIN | 01-10 | NET_PCADM | |
| 10 | PC Attendant | 01-10 | NET_PCATD | |
| 11 | CTI | 01-10 | NET_CTI | |
| 12 | Remote Diagnostic | 01-10 | NET_REMOTE | |

4.4.16.1 Off-line SMDR/Statistics Print

Description

Off-line SMDR data is printed through this port.

Value : 01~11

PROCEDURE



Reference

1. SMDR : 2.12

4.4.16.2 ADMIN Data

Description

When ADMIN 451 is used, the ADMIN data is printed through this port.

Value :- 01~11

PROCEDURE



4.4.16.3 Traffic

Description

Traffic analysis data is printed through this port.

Value : 01~11

PROCEDURE



Reference

- 1. Traffic Analysis : 2.18

4.4.16.4 SMDI Print

Description

SMDI data is printed through this port.

Value : 01~11

PROCEDURE

 + 175 +
  + Value +
 

4.4.16.5 Call Information

Description

Call information data is printed through this port.

Value : 01~11

PROCEDURE

 + 175 +
  + Value +
 

4.4.16.6 Info/On-line SMDR

Description

On-line SMDR data is printed through this port.

Value : 01~11

PROCEDURE

 + 175 +
  + Value +
 

Reference

1. SMDR : 2.12

4.4.16.7 Trace**Description**

Trace data is printed through this port.

Value : 01~11

PROCEDURE**Reference**

1. SMDR : 2.12

4.4.16.8 Debug**Description**

Debug data is printed through this port.

Value : 01~11

PROCEDURE**Reference**

1. SMDR : 2.12

4.4.16.9 PC ADMIN**Description**

PC Admin is connected through this port.

Value : 01~11

PROCEDURE**Reference**

PC ADMIN programming manual

4.4.16.10 PC Attendant**Description**

PC Admin is connected through this port.

Value : 01~11

PROCEDURE**Reference**

PC ADMIN programming manual

4.4.16.11 CTI**Description**

CTI is connected through this port.

Value : 01~11

PROCEDURE**4.4.16.12 Remote Diagnostic****Description**

Remote Diagnostic data is printed through this port.

Value : 01~11

PROCEDURE

4.4.17 PULSE DIAL RATIO (PGM 176)

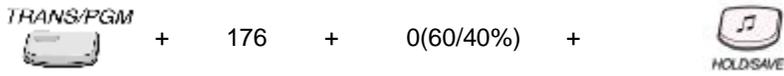
Description

In LDK-300/300E/100, pulse dial speed ratio is set only for 10 PPS.

Value : 1 / 0

- 2 : 10 PPS 50/50% (Not available in IP LDK-20)
- 1 : 10 PPS 66/33%
- 0 : 10 PPS 60/40%

PROCEDURE



4.4.18 SMDR ATTRIBUTES (PGM 177)

Station Message Detail Recording (SMDR) will provide details on both incoming and outgoing calls. As an assignable database option, If All Call record type is selected, incoming and outgoing local and long distance calls are all provided. If only Long Distance is selected, then only outgoing calls that meet the toll check status requirements listed below are provided.

4.4.18.1 SMDR Save Enable

Description

If this value is set to ON, maximum 1000 of SMDR data can be recorded at system memory.

Value : ON=1 / OFF=0

PROCEDURE

 + 177 +
  + 1(On) +
 

4.4.18.2 SMDR Print Enable

Description

If this value is set to ON, SMDR data can be printed real time through the serial/MODEM/LAN port.

Value : ON=1 / OFF=0

PROCEDURE

 + 177 +
  + 1(On) +
 

4.4.18.3 Long Distance / All Call Recorded (SMDR Recording Call Type)

Description

If this value is set to LD, only long distance outgoing CO call is served SMDR.

If this value is set to ALL, all outgoing CO call is served SMDR.

The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14.

Value : LD=1 / ALL CALL=0

PROCEDURE



4.4.18.4 SMDR Long Distance Call Digit Counter

Description

The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14.

If digit counters of the outgoing CO call are more than this value, it is considered as long distance call.

Value : 07~15

PROCEDURE



4.4.18.5 Print Incoming Call

Description

If value is set to ON, all incoming calls are printed.

Value : ON=1 / OFF=0

PROCEDURE



4.4.18.6 Print Lost Call

Description

If value is set to ON, lost calls are printed
The lost call is defined that the call is unanswered.

Value : ON=1 / OFF=0

PROCEDURE

 + 177 +
  + 1(On) +
 

4.4.18.7 Records in Detail

Description

Due to limited system memory size, in places where many calls take place, the SMDR record buffer can easily saturated. So, if the customer doesn't need the detailed call information but total call, total metering count and total cost for individual station, then it is possible to save only the total accumulation, rather than the whole detailed records.

If this value is set to ON, not only total call, total metering count and total cost for individual station, but also the detail call records are saved maximum 1000.

If this value is set to OFF, only total call, total metering count and total cost for individual station information are served.

Value : ON=1 / OFF=0

PROCEDURE

 + 177 +
  + 0(Off) +
 

4.4.18.8 SMDR Dial Digit Hidden

Description

If this value is set non-zero value, the printed digits from right or left will be replace to ‘*’ symbol up to this value.

The direction of right or left can be set at ADMIN program 177 – FLEX 13.

Value : 0~9

PROCEDURE



4.4.18.9 SMDR Currency Unit

Description

For easy identification of call cost, the currency unit can be entered with 3 alphabet characters to be printed in front of call charge amount.

Value : 3 CHARACTERS

| | | |
|-----------|--------|--------|
| . – 13 | A – 21 | D – 31 |
| Q – 11 | B – 22 | E – 32 |
| Z – 12 | C – 23 | F – 33 |
| 1 – 10 | 2 – 20 | 3 – 30 |
| G – 41 | J – 51 | M – 61 |
| H – 42 | K – 52 | N – 62 |
| I – 43 | L – 53 | O – 63 |
| 4 – 40 | 5 – 50 | 6 – 60 |
| P – 71 | T – 81 | W – 91 |
| R – 72 | U – 82 | X – 92 |
| S – 73 | V – 83 | Y – 93 |
| Q – 70 | 8 – 80 | Z – 9# |
| 7 – 70 | 9 – 90 | |
| 0 – 00 | # | |
| 1 – Blank | | |
| 2 – : | | |
| 3 – , | | |

PROCEDURE



4.4.18.10 SMDR Cost Per Unit Pulse

Description

This is the call cost unit per cost metering pulse, which is sent from the Central Office.

Value : 6 digits(0~9)

PROCEDURE



4.4.18.11 SMDR Fraction

Description

This value means the decimal position point of the cost per unit pulse

Value : 0~5

PROCEDURE



4.4.18.12 SMDR Start Timer

Description

If this value is set non-zero value, only the outgoing CO call more than this value time is served SMDR.

Value : 000~250

PROCEDURE



4.4.18.13 SMDR Hidden Digit

Description

If this value is set to RIGHT, SMDR digit hiding is executed the right-to-left direction.
 At this case, if dialed '1234567890', SMDR printed hidden digits are formatted '12345*****'.
 If this value is set to LEFT, SMDR digit hiding is executed to left-to-right direction.
 At this case, if dialed '1234567890', SMDR printed hidden digits are formatted '*****67890'.

Value : RIGHT=1 / LEFT=0

PROCEDURE



4.4.18.14 SMDR Long Distance Codes

Description

The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14.
 Max. 5 SMDR long distance codes are available. SMDR long distance code is 1 or 2 digit number. By default, SMDR long distance code is 0.

Value : 1 or 2 Digits

Max. 5 SMDR long distance codes : FLEX1 ~ FLEX5

PROCEDURE



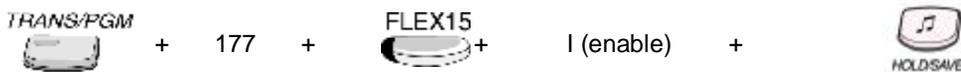
4.4.18.15 MSN PRINT ON SMDR

Description

If this value is set to ON, the MSN number is printed instead of the station number when the station made MSN outgoing call.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. MSN : 2.14.7

4.4.18.16 PRINT CALLER NUMBER**Description**

If this value is set to ON, the caller number is printed at incoming call SMDR.

Value : ON=1 / OFF=0

PROCEDURE

TRANS/PGM


+

177

+

FLEX16


I (enable)

+


HOLD/SAVE

4.4.19 SYSTEM TIME/DATE SETTING (PGM 178)

In this ADMIN program, date and time can be set.

4.4.19.1 System Time

Description

Hour/Min in sequence(ex. In case 11:30, enter 1130)

Value : 4 digits

PROCEDURE

 + 178 +
  + Value(4 Digits) +
 
 (HHMM)

4.4.19.2 System Date

Description

Month/Day/Year in sequence(ex. In case 27/January/2004, enter 270104)

Value : 6 digits

PROCEDURE

 + 178 +
  + Value +
 
 (MMDDYY)

4.4.20 LINKED STATION PAIRS TABLE (PGM 179)

Description

The linked station pair is defined section 2.9.2.
Review of the programmed linked station pairs can be accessed at flexible button 1 sub-menu.
Registration and delete of the linked station pairs can be set at flexible button 2 sub-menu.

Value : 100~399

- FLEX 1: VIEW
- FLEX 2: INPUT

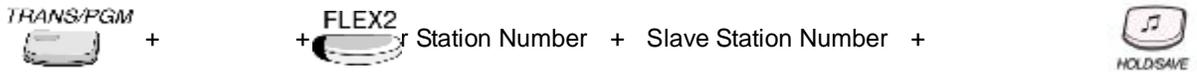
PROCEDURE

Review Linked Station Pairs

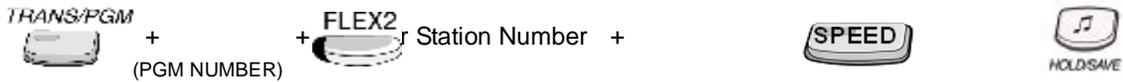


When there are too many stations to see, you can scroll data using volume up/down key.

Linked Station Pair(Registration)



Linked Station Pair(Delete)



4.4.21 CIDU SETTING (PGM 185)

This program define analog CO line CLI information.

By using this hardware device unit, IP LDK system can detect CLI that is carried through analog CO line, and serve the software feature that related caller ID service.

(CO Line Name is not displayed when CLIP is set to ON.)

4.4.21.1 CID Usage

Description

If this value is set to ON, CID can be served.

(For UK, System Reset is required after setting CID Usage to ON)

Value : ON=1 / OFF=0

PROCEDURE

 + 185 +
  + 1(On) +
 

4.4.21.2 CID Name Display

Description

Analog CO line CLI carries the caller's telephone number and name.

According to this ADMIN program value, LCD displayed data can be selected.

If this value is set to NAME, the caller's name will be displayed on LCD.

If this value is set to TELEPHONE NUMBER, the caller's telephone number will be displayed on LCD.

Value : NAME=1 / TELEPHONE NO.=0

PROCEDURE

 + 185 +
  + 1(Name) +
 

4.4.21.3 Serial Port Select

This is no need to service CID on analog CO line in IP LDK-20.

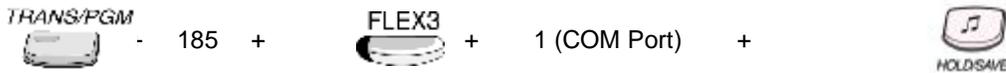
Description

This ADMIN program set the port connected to CIDU hardware device.

* **Note:** This ADMIN program is only needed, when the external CIDU hardware device is installed.

Value : 1

PROCEDURE



4.4.21.4 CID/CO Line Port Mapping

Description

When external CID equipment is used, this program set CID port and the analog CO line port mapping. This is no need when LCOB with optional CID detection board is used.

Value : 00~11

PROCEDURE



When there are too many COs to see, you can scroll data using volume up/down key.

4.4.21.5 Initialize CID Data

Description

Initialize ADMIN program 185, and recover the default value.

Value : None

PROCEDURE



4.4.21.6 CID type • Usage

This is not available in IP LDK-20, only CID type 1 is serviced.

Description

If this value is set to ON, CID type 2 service can be usage.

Value : ON=1 / OFF=0

PROCEDURE



4.4.21.7 FAST CID MODE

Description

If this value is set to ON, system provides a ring signal to SLT and CID will be displayed after 1st ringing.

(Caution ; if the CID SLT does not support non-standard CID, there can be a problem displaying correct CID)

Value : ON=1 / OFF=0

PROCEDURE



4.5 SYSTEM TIMERS

4.5.1 SYSTEM TIMERS → (PGM 180)

4.5.1.1 Attendant Recall Timer

Description

If a recalled call arrives to a attendant, the attendant may not answer the call. Then the system disconnect the call if the attendant don't answer the call for some time. This ADMIN program set the amount of time before system disconnects the call

Value : 00~60(2 digits)

PROCEDURE

 + 180 +
  + Value(min) +
 

4.5.1.2 Call Park Recall Timer

Description

Setting the amount of time before a call placed in a call park location will recall the station placing the park

Value : 000~600(3 digits)

PROCEDURE

 + 180 +
  + Value(sec) +
 

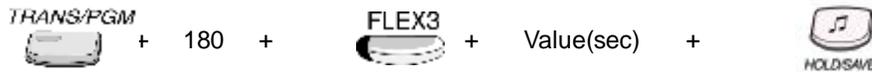
4.5.1.3 Camp On Recall Timer

Description

When a station transfers to busy station by Camp-On, if the transferred-to station don't answer the call, the call will recall to transferring station after setting time passes. Therefore This ADMIN program set the appropriate time.

Value : 000~200(3 digits)

PROCEDURE



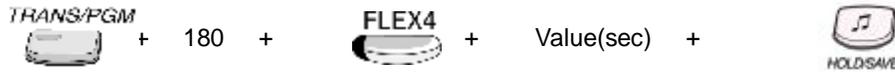
4.5.1.4 Exclusive Hold Recall Timer

Description

Select the amount of time before a call placed on system hold will recall the station placing the hold.

Value : 000~300(3 digits)

PROCEDURE



4.5.1.5 I-Hold Recall Timer

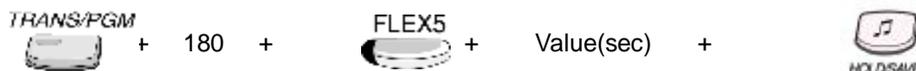
Description

When recalled call don't answer, the call will recall to attendant after setting time passes. Therefore This ADMIN program set the appropriate time.

Select the amount of time before a call recalls the attendant

Value : 000~300(3 digits)

PROCEDURE



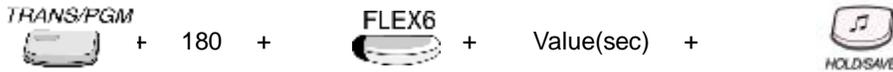
4.5.1.6 Sys Hold Recall Timer

Description

Determines the amount of time before a call placed on system hold will recall the station placing the hold.

Value : 000~300(3 digits)

PROCEDURE



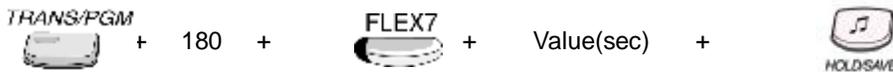
4.5.1.7 Transfer Recall Timer

Description

Select the amount of time a transferred call will ring at the station receiving the transfer and how long it will recall the station transferring the call.

Value : 000~300(3 digits)

PROCEDURE



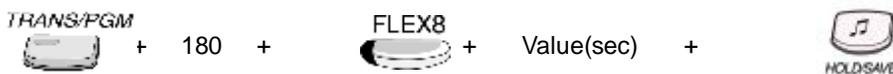
4.5.1.8 ACNR Delay Timer

Description

When ACNR Pause Timer expires and there is no available CO Line in the group, ACNR trial is delayed for this timer .

Value : 000~300(3 digits)

PROCEDURE



4.5.1.9 ACNR No Answer Timer

Description

This timer is invoked after system detects CO ring back tone from CO party. If the call isn't answered, system disconnect the call. And wait next ACNR trial.

Value : 10~50(2 digits)

PROCEDURE

 + 180 +
  + Value(sec) +
 

4.5.1.10 ACNR Pause Timer

Description

When this timer is expired, ACNR is activated.

Value : 005~300(3 digits)

PROCEDURE

 + 180 +
  + Value(sec) +
 

4.5.1.11 ACNR Retry Counter

Description

ACNR is executed up to this value. After trial of this retry counter, ACNR is canceled.

Value : 01~30(2 digits)

PROCEDURE

 + 180 +
  + Value(2 Digits) +
 

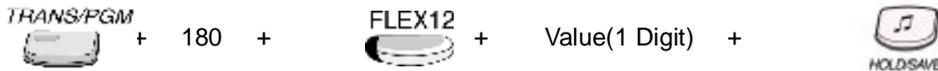
4.5.1.12 ACNR No Tone Retry Counter

Description

This ADMIN program can set the trial number of seizing the CO line for ACNR. If the CO line isn't seized, ACNR will be canceled.

Value : 1~9(1 digit)

PROCEDURE



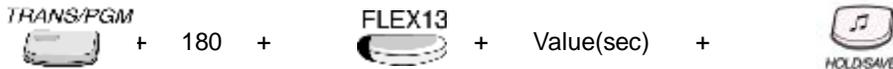
4.5.1.13 ACNR Tone Detect Timer

Description

This timer is invoked upon completion of dialing and system considers the CO party is busy when the CPTU cannot detect the valid tone type until this timer expires.

Value : 001~300(3 digits)

PROCEDURE



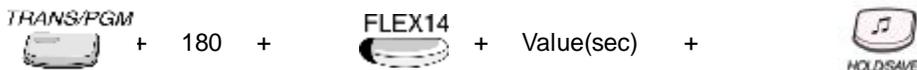
4.5.1.14 Automatic CO Release Timer

Description

Uncompleted CO line call will be automatically released after this timer.

Value : 020~300(3 digits)

PROCEDURE



4.5.1.15 CCR Inter-digit Timer

Description

This timer is used for the CCR inter-digit timer in the DISA/DID CO line. In DID type 2, it is used for DID inter-digit timer.

Value : 000~255(3 digits)

PROCEDURE

 + 180 +
  + Value(sec) +
 

4.5.1.16 CO Call Drop Warning Timer

Description

If prepaid money is going to expire during a CO call, system will give warning tone, and after this time, the call will be disconnected. This timer is also used for call drop warning in Unsupervised Conference.

Value : 00~99(2 digits)

PROCEDURE

 + 180 +
  + Value(sec) +
 

4.5.1.17 CO Call Restriction Timer

Description

If this value is set to 0, time of outgoing CO call is not restricted.
 If this value is set to non-zero, outgoing CO call is disconnected after this time.

Value : 00~99(2 digits)

PROCEDURE

 + 180 +
  + Value(min) +
 

4.5.1.18 CO Dial Delay Timer

Description

Voice connection to the outside party will be made after this timer. This can be used to prevent illegal dialing in case of slow response from the Central Office Line or PBX.

Value : 00~99(2 digits)

PROCEDURE

 + 180 +
  + Value(100msec) +
 

4.5.1.19 CO Release Guard Timer

Description

This ADMIN program sets the amount of time before a CO line can be re-seized, after the CO call disconnects.

This timer controls the time necessary to guarantee idle loop state when the analog CO line is released.

Value : 001~150(3 digits)

PROCEDURE

 + 180 +
  + Value(100msec) +
 

4.5.1.20 CO Ring Off Timer

Description

This timer is to secure time interval between incoming ringing signals so that the active ringing can be lasted in the system until this timer is expired.

Value : 010~150(3 digits)

PROCEDURE

 + 180 +
  + Value(100msec) +
 

4.5.1.21 CO Ring On Timer

Description

This timer controls the time necessary to detect an incoming CO call as ringing into the system.

Value : 1~9(1 digit)

PROCEDURE

 TRANS/PGM + 180 +  FLEX21 + Value(100msec) +  HOLD/SAVE

4.5.1.22 CO Warning Tone Timer

Description

Determines the amount of time before receiving warning tone in order to remind the call elapsed time in case of outgoing CO line conversation (Only for Korea).

Value : 060~900(3 digits)

PROCEDURE

 TRANS/PGM + 180 +  FLEX22 + Value(sec) +  HOLD/SAVE

4.5.2 SYSTEM TIMERS –• (PGM 181)

4.5.2.1 Call Forward No Answer Timer

Description

This timer is used at the no answer call forward feature(Section 2.3.1.2, and 2.3.1.3). If station is set the no answer call forward type, and if station don't answer during this timer, then the call will be routed to the forward destination.

Value : 000~255(3 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.2 DID/DISA No Answer Timer

Description

This timer is used at DID or DISA call routing. If station doesn't answer about DID/DISA call during this timer, the call will be routed to ADMIN program 167 – FLEX 3 value.

Value : 00~99(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.3 VMIB User Record Timer

Description

This is the maximum time that station user can record his VMIB announcement.

Value : 010~255(3 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.4 VMIB Valid User Message Timer

Description

This is the minimum time that station user must record his VMIB announcement.
If this value is set to 0, VMIB announcement can not be recorded.

Value : 0~9(1 digit)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.5 Door Open Time

Description

Select the length of time that is needed to execute the door open relay for the setting time.

Value : 05~99(2 digits)

PROCEDURE

 + 181 +
  + Value(100msec) +
 

4.5.2.6 ICM Box Timer

Description

Select the ringing time of the ICM box associated stations, when ICM box user press **[CALL]** button.

Value : 00~60(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

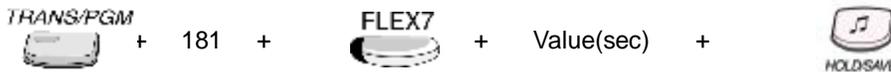
4.5.2.7 ICM Dial Tone Timer

Description

This timer is used when the off-hooked station is heard the intercom dial tone. If station doesn't dial a digit within this timer, error tone is provided.

Value : 01~20(2 digits)

PROCEDURE



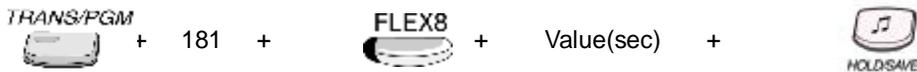
4.5.2.8 Inter-digit Timer

Description

This timer is used when station is dialing some digits. The time between digits cannot exceed Inter-digit timer, or error tone is provided.

Ran Value : 01~20(2 digits)

PROCEDURE



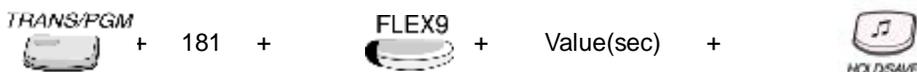
4.5.2.9 MSG Wait Reminder Tone Timer

Description

Select the amount of time between repeated reminder tones to station that it has a message waiting.

Value : 00~60(2 digits)

PROCEDURE



4.5.2.10 Paging Timeout Timer

Description

Select the maximum time of a page. The system will automatically disconnect the page at the end of this time unless the caller has hung up earlier.

Value : 000~255(3 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.11 Pause Timer

Description

This timer is used at the speed dialing feature, LNR, and etc. In case of the speed dial or LNR, IP LDK system sends the dial digits to the outgoing analog CO line, after this time.

Value : 1~9(1 digit)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.12 Preset Call Forward Timer

Description

This timer is used at the preset call forward feature(Section 2.3.1.9). After this timer expires, incoming call will be forwarded to a predetermined station.

Value : 00~99(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.13 SLT DTMF Release Timer

Description

Value : 00~20(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.14 3SOFT Auto Release Timer

Description

This timer is used only in 3soft BTN DKTU. In 3soft menu, if there is no any digit within time, the DKTU turn to Idle state.

Value : 01~30(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.15 VM Pause Timer

Description

Value : 01~09(2 digits)

PROCEDURE

 + 181 +
  + Value(100msec) +
 

4.5.2.16 Transit Connect Timer

Description

Master sends the connect message to slave system after this timer when the transit out CO type is a pulse analog trunk.

Value : 01~30(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.2.17 VMIB Message Rewind Timer

Description

If the user press [REWIND] button while listening left VMIB message, the message is rewound as this timer.

Value : 01~99(2 digits)

PROCEDURE

 + 181 +
  + Value(sec) +
 

4.5.3 SYSTEM TIMERS –• (PGM 182)

4.5.3.1 SLT Hook Switch Bounce Timer

Description

This timer is used at SLT only. Select the length of time that is needed to regard as a valid on-hook or off-hook (for SLT).

Value : 01~25(2 digits)

PROCEDURE



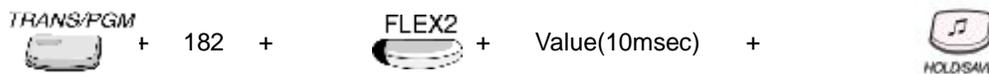
4.5.3.2 SLT Maximum Hook Flash Timer

Description

This timer is used at SLT only. Select how long the user could press the hook switch in order for it to be considered a FLASH (Timed-Break Recall) (for SLT)

Value : 001~250(3 digits)

PROCEDURE



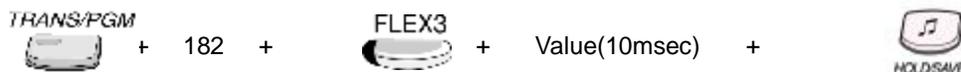
4.5.3.3 SLT Minimum Hook Flash Timer

Description

This timer is used at SLT only. The minimum bound time that system considers as hook flash for SLT.

Value : 000~250(3 digits)

PROCEDURE



4.5.3.4 SLT Ring Phase Timer

Description

Select the ring phase(cadency) of SLT.
(5 SEC: 1SEC ON / 4SEC OFF)

Value : 2~5(1 digit)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.5 Station Auto Release Timer

Description

If a station hears ring back tone and no action is taken, this timer is assigned. When this timer is expired, the station is released.

Value : 020~300(3 digits)

PROCEDURE

 + 182 +
  + Value(10msec) +
 

4.5.3.6 Unsupervised Conference Timer

Description

Select the amount of the time that an unsupervised conference can continue after the initiator of the conference has exited the conference.

Value : 00~99(2 digits)

PROCEDURE

 + 182 +
  + Value(min) +
 

4.5.3.7 Wake-Up Fail Ring Timer

Description

After a Wake-up fail ring invokes on system attendant, the alarm ring exists during this timer. If this timer expires, the alarm ring will be disappeared.

Value : 00~99(2 digits)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.8 Warm Line Timer

Description

User takes no action after lifting handset or pressing the [MON] button and this timer is expired, then idle line selection for warm line is executed.

Value : 01~20(2 digits)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.9 Wink Timer

Description

The time duration of seize acknowledge signal to DID line.

Value : 010~200(3 digits)

PROCEDURE

 + 182 +
  + Value(10msec) +
 

4.5.3.10 Enblock Digit Timer

Description

This timer is used at the enblock dialing sending feature. If station user make a call at the enblock dialing mode, and if station user doesn't dial within this time, then the enblock dialing is executed.

Value : 01~20(2 digits)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.11 CCR Time Out Timer

Description

When this timer is expired, CCR is activated.

Value : 000~300(3 digits)

PROCEDURE

 182 +
  + Value(sec) +
 

4.5.3.12 DID Inter Digit Timer

Description

This timer is used at DID type 2 feature. In DID type2, IP LDK system will be wait the new DID digit receiving until this timer is expired. If this timer is expired, the call routing of DID type 2 is executed.

Value : 01~20(2 digits)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.13 FAX Tone Detect Timer

Description

This timer is used to detect FAX tone from FAX CO line. During this timer, IP LDK system will be wait to detect FAX tone. If this timer is expired, the call is routed to the ring assigned stations for FAX CO line. Considering FAX calling tone cadence(0.5sec ON/3sec OFF repeated), 5 sec is proper for FAX tone detect timer.

Value : 01~10(2 digits)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.5.3.14 FAX CO Call Timer

Description

When FAX tone is detected from FAX CO line, this call is routed to the FAX station. And if this call is not answered during this timer, this call will be dropped.

Value : 1~5(1 digit)

PROCEDURE

 + 182 +
  + Value(sec) +
 

4.6 STATION GROUP PROGRAMMING (PGM 190 – PGM 191)

The station group is defined the hunt group(Section 2.6) in IP LDK system. At ADMIN program 190 and 191, the hunt group programming can be set.

In IP LDK system, circular/terminal/UCD/ring/VM/pick-up/networking VM hunt group types are served.

At ADMIN program 190, the hunt group type, pick-up attribute, and member assignment can be set.

At ADMIN program 191, the selected hunt group attributes, that is programmed at ADMIN program 190 can be set.

4.6.1 STATION GROUP ASSIGN (PGM 190)

4.6.1.1 Group Type

Description

Hunt group type can be selected among circular/terminal/UCD/ring/VM/pick-up/networking VM.

Value : 0~7

- 0: Not Assigned
- 1: Circular
- 2: Terminal
- 3: UCD
- 4: Ring
- 5: VM
- 6: Pick up
- 7: Net VM

PROCEDURE



+

190

+

Hunt Group NUMBER

+



Value(Group Type)

+



HOLD/SAVE

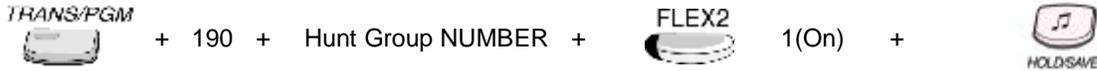
4.6.1.2 Pick up Attribute

Description

This value is used to assign the pick-up attribute at hunt group.
Except pick-up hunt group, all type of hunt group can be assigned the pick-up attribute optionally.

Value : ON=1 / OFF=0

PROCEDURE



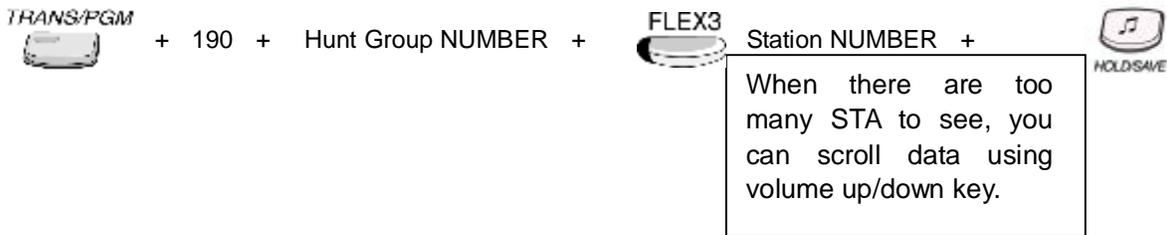
4.6.1.3 Member Assignment

Description

This member assignment process can be executed in two ways.
The first way is assigning individually by pressing the Flexible Button which user want to assign and then entering the station number. The other way is assigning successively by entering first station number and last station number.

Value : 100~125

PROCEDURE



4.6.2 STATION GROUP ATTRIBUTE (PGM 191)

If the hunt group type is selected at ADMIN program 190, then the attributes of each hunt group can be programmed at ADMIN program 191.

4.6.2.1 CIRCULAR/TERMINAL GROUP ATTRIBUTE

Description

If the hunt group type is selected to CIRCULAR or TERMINAL(Section 2.6.2, 2.6.3), then the following attributes for CIRCULAR or TERMINAL hunt group can be programmed at ADMIN program 191.

4.6.2.1.1 VMIB Announce 1 Timer

Description

If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.1.2 VMIB Announce 2 Timer

Description

The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.1.3 VMIB Announce 1 Location

Description

This is used to play VMIB announcement, when the VMIB announce 1 timer is expired.

Value : 00~70(VMIB Announcement Number)

PROCEDURE



4.6.2.1.4 VMIB Announce 2 Location

Description

This is used to play VMIB announcement, when the VMIB announce 2 timers is expired. This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value.

Value : 00~70(VMIB Announcement Number)

PROCEDURE



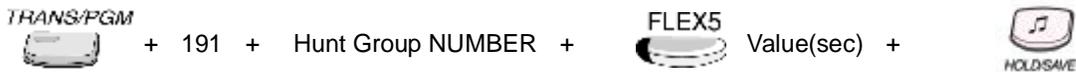
4.6.2.1.5 VMIB Announce 2 Repeat Timer

Description

This is used to repeat VMIB announce 2 when the timer is expired. (000: Not assigned)

Value : 000~999

PROCEDURE



4.6.2.1.6 VMIB Announce 2 Repeat Enable/Disable

Description

This value is used to enable or disable VMIB Announce 2 Repeat.

Value : ON=1 / OFF=0

PROCEDURE



4.6.2.1.7 Overflow Destination

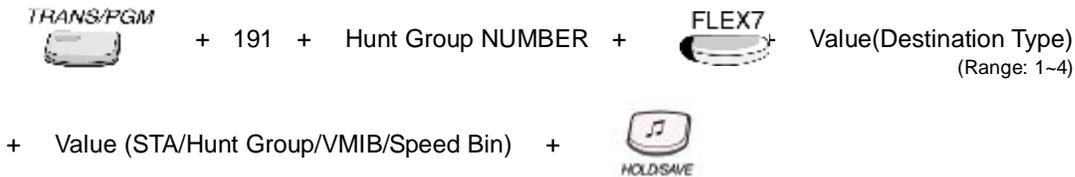
Description

The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8.

Value : 1~4(Destination Type)

- 1: STA #
- 2: Hunt #
- 3: VMIB 00~70(00: Note Assigned)
- 4: System Speed # (2000~2499)

PROCEDURE



4.6.2.1.8 Overflow Timer

Description

If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7.

Value : 000~600

PROCEDURE



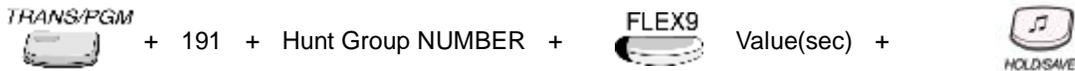
4.6.2.1.9 Wrap-up Timer

Description

A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time.

Value : 002~999

PROCEDURE



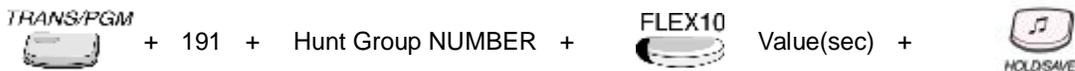
4.6.2.1.10 No Answer Timer

Description

In circular/terminal hunt, if the incoming call is not answered during this time, the call is routed to the next idle station in the group.

Value : 00~99

PROCEDURE



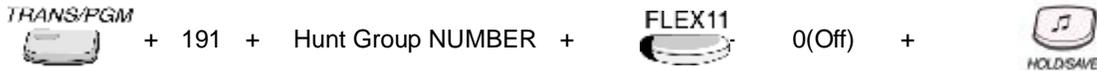
4.6.2.1.11 Pilot Hunt

Description

If this value is set ON, the call to the each hunt group member is processed as the call to hunt group. A circular/terminal hunt group can be assigned with a pilot number (the station group) so that only calls to the pilot number will hunt.

Value : ON=1 / OFF=0

PROCEDURE



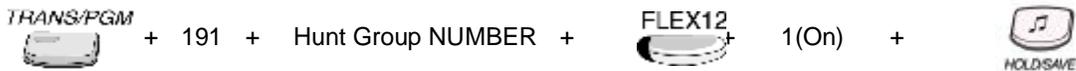
4.6.2.1.12 Alt If No Member

Description

If there is no member on duty, intercom call will be dropped and CO incoming call will be routed to overflow destination, or to ring assigned station if overflow destination is not assigned.

Value : ON=1 / OFF=0

PROCEDURE



4.6.2.1.13 Music Source

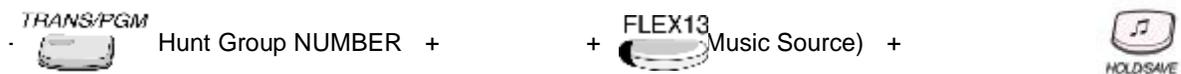
Description

If music source is assigned, calling user will be heard music instead of ring back tone.

Value : 0~8

- 0: Not assigned by this field.
- 1: Internal Music
- 2: External Music
- 3: VMIB MOH
- 4 – 8: SLT MOH

PROCEDURE



4.6.2.1.14 Alt DESTINATION

Description

If there is no member on duty or all member is busy, CO incoming call will be routed to alternative destination.

Value : : 1~2(Destination Type)

- 1: STA #
- 2: Hunt #

PROCEDURE

 + 191 + Hunt Group NUMBER +  1(type) + station number + + 

4.6.2.1.15 MAX QUEUE COUNT

Description

If there is no member on duty or all member is busy, CO incoming call will be queuing. Than Hunt Group Supervisor can see the queued incoming call count until max queue count.

Value : : 00~99(2 digit)

PROCEDURE

 + 191 + Hunt Group NUMBER +  99 + 

4.6.2.2 UCD GROUP ATTRIBUTE

4.6.2.2.1 VMIB Announce 1 Timer

Description

If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3.

Value : : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value(sec) + 

4.6.2.2.2 VMIB Announce 2 Timer

Description

The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.2.3 VMIB Announce 1 Location

Description

This is used to play VMIB announcement, when the VMIB announce 1 timer is expired.

Value : 00~70(VMIB Announcement Number)

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.2.4 VMIB Announce 2 Location

Description

This is used to play VMIB announcement, when the VMIB announce 2 timers is expired. This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value.

Value : 00~70(VMIB Announcement Number)

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.2.5 VMIB Announce 2 Repeat Timer

Description

This is used to repeat VMIB announce 2 when the timer is expired. (000: Not repeat).

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.2.6 VMIB Announce 2 Repeat Enable/Disable

Description

This value is used to enable or disable VMIB Announce 2 Repeat.

Value : ON=1 / OFF=0

PROCEDURE

 + 191 + Hunt Group NUMBER +
  1(On) +
 

4.6.2.2.7 Overflow Destination

Description

The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8.

Value : 1~4(Destination Type)

- 1: STA #
- 2: Hunt #
- 3: VMIB 00~70(00: Note Assigned)
- 4: System Speed # (2000~2499)

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(Destination Type) +
 

4.6.2.2.8 Overflow Timer

Description

If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7.

Value : 000~600

PROCEDURE

 + 191 + Hunt Group NUMBER +
  + Value(sec) +
 

4.6.2.2.9 Wrap-up Timer

Description

A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time.

Value : 002~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.2.10 Alt If No Member

Description

If there is no member on duty, intercom call will be dropped and CO incoming call will be routed to overflow destination, or to ring assigned station if overflow destination is not assigned.

Value : ON=1 / OFF=0

PROCEDURE

 + 191 + Hunt Group NUMBER +
  1(On) +
 

4.6.2.2.11 Music Source

Description

If music source is assigned, calling user will be heard music instead of ring back tone.

Value : 0~8

- 0: Not assigned by this field.
- 1: Internal Music
- 2: External Music
- 3: VMIB MOH
- 4 - 8: SLT MOH

PROCEDURE



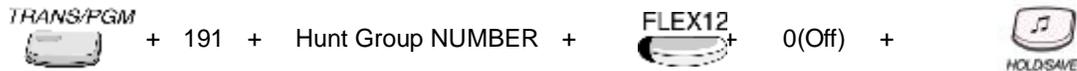
4.6.2.2.12 ACD Warning Tone

Description

When a call is received in the group and there is no available station in the group, then the call will be routed to this destination if assigned.

Value : ON=1 / OFF=0

PROCEDURE



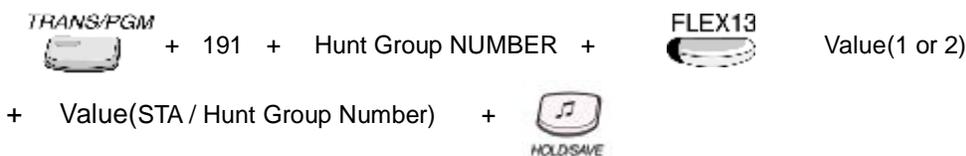
4.6.2.2.13 Alternate destination

Description

When a call is received in the group and there is no available station in the group, then the call will be routed to this destination if assigned. But it must be avoided to program the alternate destination as the hunt group itself. For example, the alternate destination of group 620 should not be group 620.

Value : STA=1 / HUNT=2

PROCEDURE



4.6.2.2.14 Supervisor Timer

Description

If there is no idle member at hunt group, the incoming call will be queued.
 If the total queued call count is more than the supervisor call count value, and ACD queued call ADMIN program value is set to ON, and the queued time is longer than this timer, then the counts of queued calls will be displayed onto supervisor's LCD.
 The supervisor call count can be programmed at ADMIN program 191 – FLEX 15.
 The ACD queued call can be programmed at ADMIN program 191 – FLEX 16.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.2.15 Supervisor Call Count

Description

If the number of queued calls is more than this call count, the supervisor timer will be started.
 The supervisor timer can be programmed at ADMIN program 191 – FLEX 14.

Value : 00~99

PROCEDURE

 + 191 + Hunt Group NUMBER +
  + Value +
 

4.6.2.2.16 ACD Queued Call

Description

If this value is set to ON, the count of queued call can be displayed on supervisor station LCD.

Value : ON=1 / OFF=0

PROCEDURE

 + 191 + Hunt Group NUMBER +
  1(On) +
 

4.6.2.2.17 Max Queued Call Count***Description***

This value is the maximum call count that can be queued.
If the total queued call count is this value, the next queuing tried call will be disconnected.

Value : 00~99

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value + 

4.6.2.2.18 Supervisor***Description***

This value is used to set the supervisor station.

Value : STA Number

- 100~125

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value(STA Number) + 

4.6.2.2.19 UCD hunt Stations' Priority***Description***

This value is used to set UCD group member's priority.
The value of 0 is the highest priority, and the value of 9 is the lowest priority.
If the station has high priority, it takes more priority to receive the incoming call.

Value : 0~9(1 digit)

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value(1 Digit) + 

4.6.2.3 RING GROUP ATTRIBUTE

If the hunt group type is selected to RING(Section 2.6.4), then the following attributes for RING hunt group can be programmed at ADMIN program 191.

4.6.2.3.1 VMIB Announce 1 Timer

Description

If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

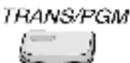
4.6.2.3.2 VMIB Announce 2 Timer

Description

The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4.

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.3.3 VMIB Announce 1 Location

Description

This is used to play VMIB announcement, when the VMIB announce 1 timer is expired.

Value : 00~70(VMIB Announcement Number)

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.3.4 VMIB Announce 2 Location

Description

This is used to play VMIB announcement, when the VMIB announce 2 timers is expired. This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value.

Value : 00~70(VMIB Announcement Number)

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.3.5 VMIB Announce 2 Repeat Timer

Description

This is used to repeat VMIB announce 2 when the timer is expired. (000: Not repeat)

Value : 000~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

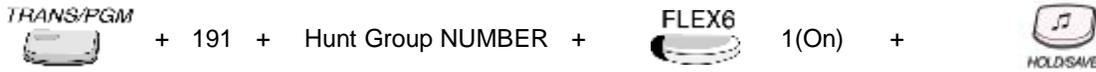
4.6.2.3.6 VMIB Announce 2 Repeat Enable/Disable

Description

This value is used to enable or disable VMIB Announce 2 Repeat.

Value : ON=1 / OFF=0

PROCEDURE



4.6.2.3.7 Overflow Destination

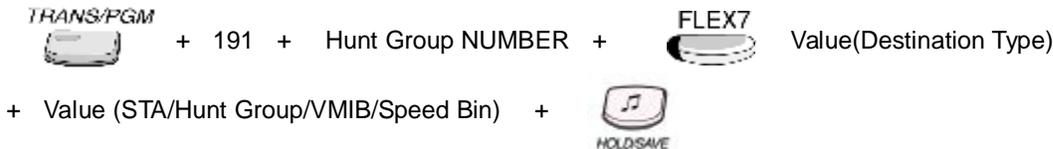
Description

The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8.

Value : 1~4(Destination Type)

- 1: STA #
- 2: Hunt #
- 3: VMIB 00~70(00: Note Assigned)
- 4: System Speed # (2000~2499)

PROCEDURE



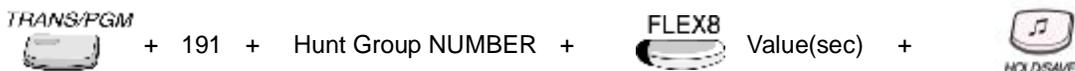
4.6.2.3.8 Overflow Timer

Description

If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7.

Value : 000~600

PROCEDURE



4.6.2.3.9 Wrap Up Timer

Description

A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time.

Value : 002~999

PROCEDURE



4.6.2.3.10 Music Source

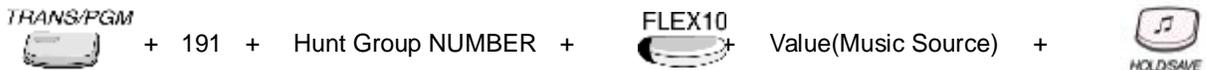
Description

If music source is assigned, calling user will be heard music instead of ring back tone.

Value : 0~8

- 0: Not assigned by this field.
- 1: Internal Music
- 2: External Music
- 3: VMIB MOH
- 4 - 8: SLT MOH

PROCEDURE



4.6.2.3.11 Max. Queued Call Count

Description

This value is the maximum call count that can be queued.
If the total queued call count is this value, the next queuing tried call will be disconnected.

Value : 00~99

PROCEDURE



4.6.2.3.12 VMIB Supervisor

Description

Value : STA 100~125

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(STA Number) +
 

4.6.2.4 VM GROUP ATTRIBUTE

If the hunt group type is selected to VM(Ref Section 2.6.5), then the following attributes for VM hunt group can be programmed at ADMIN program 191.

4.6.2.4.1 Wrap-up Timer

Description

A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time.

Value : 002~999

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value(sec) +
 

4.6.2.4.2 Put Mail Index

Description

This index is one of the voice mail dialing tables

Value : 1~4

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.4.3 Get Mail Index

Description

This index is one of the voice mail dialing tables

Value : 1~4

PROCEDURE

 + 191 + Hunt Group NUMBER +
  Value +
 

4.6.2.4.4 Hunt Type

Description

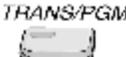
This value is used to set the hunt type of the VM member.

Value : CIRC=1 / TERM=0

- 1 : Circular Hunt Group

- 2: Terminal Hunt Group

PROCEDURE

 + 191 + Hunt Group NUMBER +
  1(Circular) +
 

4.6.2.4.5 SMDI Port

Description

This value is used to set SMDI print port.
 SMDI is defined 'Simplified Message Desk Interface' that indicates the distribute information of VM.

Value : 01~11

| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|---------------------------------|-------|------------|--|
| 1 | Off-line SMDR/ Statistics Print | 01-12 | COM1 | 01: COM1 02: Not Supported 03: COM2-MODU 04: TELNET 1 05: TELNET 2 06: TELNET 3 07: Not Supported 08: NET_PCADM 09: NET_PCATD 10: NET_CTI 11: NET_REMOTE |
| 2 | ADMIN Print | 01-12 | COM1 | |
| 3 | Traffic | 01-12 | COM1 | |
| 4 | SMDI Print | 01-12 | COM1 | |
| 5 | Call Information | 01-12 | COM1 | |
| 6 | Info/On-line SMDR | 01-12 | COM1 | |
| 7 | Trace | 01-12 | COM1 | |
| 8 | Debug | 01-12 | COM1 | |
| 9 | PC ADMIN | 01-12 | NET_PCADM | |
| 10 | PC Attendant | 01-12 | NET_PCATD | |
| 11 | CTI | 01-12 | NET_CTI | |
| 12 | Remote Diagnostic | 01-12 | NET_REMOTE | |

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value(SMDI Port) + 

4.6.2.4.6 Overflow Timer

Description

If this timer expires after a call is received in the group, the call is routed to the overflow destination.
 The overflow destination can be set at ADMIN program 191 – FLEX 7.

Value : 000~600

PROCEDURE

 + 191 + Hunt Group NUMBER +  Value(sec) + 

4.6.2.4.7 Overflow Destination

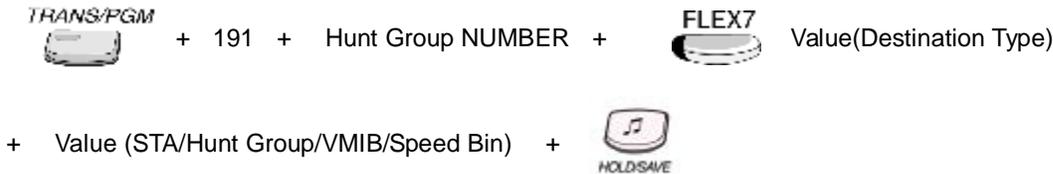
Description

The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 6.

Value : 1~4(Destination Type)

- 1: STA #
- 2: Hunt #
- 3: VMIB 00~70(00: Note Assigned)
- 4: System Speed # (2000~2499)

PROCEDURE



4.6.2.5 PICK-UP GROUP ATTRIBUTE

If the hunt group type is selected to PICK-UP, then the following attributes for PICK-UP hunt group can be programmed at ADMIN program 191.

Reference

1. Group Call Pick Up : 2.3.4.2

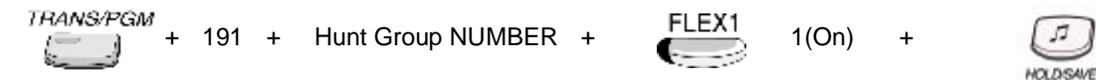
4.6.2.5.1 Auto Pickup

Description

If this value is set to ON, and if there is ringing hunt member, other hunt member can pickup the call automatically only by pressing **[MON]** button or off-hook.

Value : ON=1 / OFF=0

PROCEDURE



4.6.2.5.2 All Ring

Description

If this value is set to ON, and if a hunt group member receives an intercom call, then all hunt group member is ringing. To set this value, 'Auto Pickup' ADMIN program value must be set to ON.

Value : ON=1 / OFF=0

PROCEDURE

 + 191 + Hunt Group NUMBER +  1(On) + 

4.7 ISDN PROGRAM

To change ISDN system values, press the **[TRANS/PGM]** button and dial ADMIN program number. The ISDN system ADMIN program number range is 200-202. When programming, LCD and LEDs indicate current programmed data and programming status. The programmer enters correct data, then LCD and LEDs show the entered data and the data is stored in the temporary buffer area. Pressing the **[HOLD/SAVE]** button, all data in the temporary buffer (same as LCD/LEDs show their status) are stored into permanent ISDN memory.

4.7.1 ISDN ATTRIBUTE (PGM 200)

At this ADMIN program, ISDN system attributes can be set.

4.7.1.1 Advice of Charge

Description

The AOC is the call cost information service that is provided by public ISDN. According to the country, the standard of AOC type is different. This value is used to set AOC type.

* **Note:** PGM 200 – FLEX 3 ~FLEX5, FLEX8: Reserved (Move to PGM 146)

Value : 0~6

- 0: Do not service AOC
- 1: Italy and Spain
- 2: Finland
- 3: Australia
- 4: Belgium
- 5: Standard
- 6: Netherlands

PROCEDURE

 + 200 +
  + Value +
 

Reference

1. AOC (Advice Of Charge) : 2.12.1

4.7.1.2 CO ATD Code

Description

This value is used when ISDN DID call incoming and outgoing case.

If the received DID digit is matched this value, then the call is routed to attendant station.

If ADMIN program 114 – FLEX 5 is set to CO ATD, and the station is make an outgoing CO call, then this value is used as the outgoing station's CLI data.

Value : * , # , 0~9(Max 2 digits)

PROCEDURE

 + 200 +
  Value(Max 2 digits) +
 

4.7.1.3 CLI print

Description

This value is used to execute the CLI print about the incoming CO call.

If this value is set to ON, the CLI of the incoming CO call will be sent to serial/MODEM/LAN port.

Value : ON=1 / OFF=0

PROCEDURE

 + 200 +
  1(On) +
 

4.7.1.4 International Access Code

Description

This value is used to modify the received CLI of the international incoming CO call.

If this value is set, and if station receives the international incoming CO call, then this value is inserted in front of the CLI.

Value : 0~9(Max 4 digits)

PROCEDURE

 + 200 +
  Value(Max 4 digits) +
 

4.7.1.5 My Area Code

Description

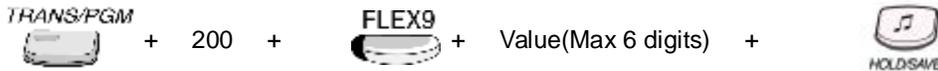
This value is used to set the my area code.

The combination of this value and ADMIN program 200 – FLEX 10 is compared with the received CLI, and the received CO call can be judged the local call or the long distance call.

This value is also used the outgoing CLI data, when station makes an outgoing CO call.

Value : 0~9(Max 6 digits)

PROCEDURE



4.7.1.6 My Area Prefix Code

Description

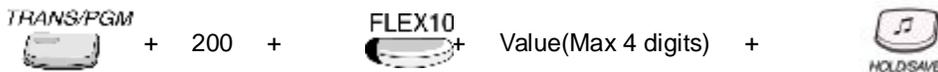
This value is used to set the my area prefix code. (Normally zero value)

The combination of this value and ADMIN program 200 – FLEX 9 is compared with the received CLI, and the received CO call can be judged the local call or the long distance call.

This value is also used the outgoing CLI data, when station makes an outgoing CO call.

Value : 0~9(Max 4 digits)

PROCEDURE



4.7.1.7 Maintain DID Name

Description

This value is used at the CLI display of incoming DID CO call.
 If the incoming DID call has CLI, it is displayed on station LCD only ringing time.
 If this value is set to ON, CLI display is maintained when the call is answered.

Value : ON=1 / OFF=0

PROCEDURE

 + 200 +
  + 1(On) +
 

4.7.1.8 PC Application DEST STN

Description

This value is used the valid destination station about PC application connection request.

Value : STA #

- 10~35

PROCEDURE

 + 200 +
  + Value(Station Number) +
 

4.7.2 COLP TABLE (PGM 201)***Description***

COLP table is used when makes the outgoing CLI
The method of making CLI is explained at 'Section 2.14.2'.
At this ADMIN program, the maximum 50 CLI data can be programmed.
And this value is used at ADMIN program 143 – FLEX 1 and 2.

Value1 : 00~49(COLP Table Bin Number)

Value2 : COLP TABLE: Max 10 digits

- COLP TABLE: Max 10 digits

PROCEDURE

TRANS/PGM



+

201

+

Value1(Bin Number)

+

Value2(Max 10 digits)

+



HOLD/SAVE

Reference

1. CLI(Calling Line Identification Presentation) 2.14.2

4.7.3 MSN TABLE (PGM 202)

MSN is defined one of ISDN CO line service.

In IP LDK system, maximum 250 MSN table entry can be programmed.

Each MSN table entry has MSN 'CO line number', 'Index of flexible DID table', 'Subaddress number', and 'Telephone number'.

Reference

1. MSN/Sub-Addressing : 2.14.7

4.7.3.1 CO Line Number

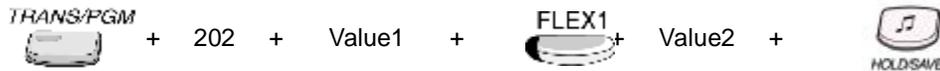
Description

This value is used to set CO line that is assigned MSN service.

Value 1 : 000~249(MSN Table)

Value 2 : CO Line Number

PROCEDURE



4.7.3.2 Index of Flexible DID Table

Description

If the received digit of Incoming CO call is matched MSN telephone number(ADMIN PGM 202 – FLEX 4), it is MSN call.

This value is used to search the destination of MSN call routing.

This value indicates the entry index of flexible DID table(ADMIN program 231)

Value 1 : 000~249(MSN Table)

Value2 : 000~999(DID Table)

PROCEDURE



4.7.3.3 Sub Number

Description

This value is only used when the destination station type is ISDN telephone.
If the destination is ISDN telephone, this value is sent as the ISDN sub-address number of it.

Value1 : 000~249(MSN Table)

Value2 : 0~9

PROCEDURE

 + 202 + Value1 +  + Value2 + 

4.7.3.4 TEL Number

Description

This value is ISDN MSN number.
If the received digit of Incoming CO call is matched with this value, it is MSN call.

Value1 : 000~249(MSN Table)

Value2 : 0~9(Max 20 digits)

PROCEDURE

 + 202 + Value1 +  + Value2 + 

4.7.4 ISDN Attribute II (PGM 203)

4.7.4.1 CO Line Number

Description

This value controls the type of ISDN Terminal Equipment Identification of each BRI port.

Value : FIXED=1 / AUTO=0

PROCEDURE



4.7.4.2 Hold/Retrieve Service Type

Description

This sets the service type for ISDN Hold/Retrieve Supplementary services.

Value : KEY=1 / FUNC=0

PROCEDURE



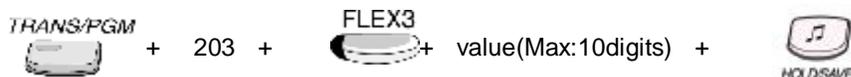
4.7.4.3 Hold Code

Description

This determines the code for ISDN Supplementary Hold.

Value : Max 10 Digits

PROCEDURE



4.7.4.4 Retrieve Code

Description

This determines the code for ISDN Supplementary Retrieve.

Value : Max 10 Digits

PROCEDURE

 + 203 +
  + value(Max:10digits) +
 

4.7.4.5 B channel selection type (Italy only)

Description

This sets B channel selection Type.

Value : PREFER=1 / EXTEND=0

PROCEDURE

 + 203 +
  + value +
 

4.7.4.6 Barring Up Code (Italy national protocol)

Description

This determines the code for Barring up code .

Value : Max 10 Digits

PROCEDURE

 + 203 +
  + value(Max:10digits) +
 

4.7.4.7 Barring Down Code (Italy national protocol)

Description

This determines the code for Barring down code .

Value : Max 10 Digits

PROCEDURE

 + 203 +
  + value(Max:10digits) +
 

4.7.4.8 CFU Activation Code (Italy national protocol)

Description

This determines the code for CFU Activation Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +
  + value(Max:10digits) +
 

4.7.4.9 CFU Deactivation Code (Italy national protocol)

Description

This determines the code for CFU Deactivation Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +
  + value(Max:10digits) +
 

4.7.4.10 Memo-Tel Activation normal Code (Italy national protocol)

Description

This determines the code for Memo-Tel Activation Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.7.4.11 Memo-Tel Timer Code (Italy national protocol)

Description

This determines the code for Memo-Tel Timer Code.

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.7.4.12 Memo-Tel Activation LNR Code (Italy national protocol)

Description

This determines the code for Memo-Tel Activation LNR Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.7.4.13 Memo-Tel Interrogation Code (Italy national protocol)

Description

This determines the code for Memo-Tel Interrogation Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.7.4.14 Memo-Tel Retrieve MSRS Code (Italy national protocol)

Description

This determines the code for Memo-Tel Retrieve MSRS(Message Retrieve System) Code .

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.7.4.15 Memo-Tel Deactivation Code (Italy national protocol)

Description

This determines the code for Memo-Tel Deactivation Code.

Value : Max 10 Digits

PROCEDURE

 + 203 +  + value(Max:10digits) + 

4.8 LCR

To enter LCR ADMIN program, press the **[TRANS/PGM]** button and dial LCR ADMIN program number. The LCR ADMIN program number range is 220-223. There are 4 parts in the LCR table. User can program general database, LCR access mode, day zone and time zone by PGM 220. PGM 221 is for Leading Digit Table and PGM 222 is for Digit Modification Table. PGM 223 may initialize the stored database for LCR.

The example of LCR is illustrated at 'Section 2.7'.

4.8.1 LCR ATTRIBUTES (PGM 220)

| FLEX | Item | | Default | Remark(Value) |
|-------|-------------|--------------|----------------|--|
| FLEX1 | LCR Access | | M00 | M00: Disable LCR M01: LCR shoes attribute is 'COL' can be accessed only through common CO access code("9"/"0") M02: Internal LCR and Loop LCR are activated. M11: Loop LCR and Direct CO LCR are activated. M12: All LCR type are activated. When the user dial ("9"/"0") or press loop button, IP LDK does not seize a CO Line until LCR is finished. M13: All LCR type are activated. When the user dial ("9"/"0") or press loop button, IP LDK first seize a CO Line and wait dial to perform LCR. |
| FLEX2 | Day of Week | | | Zone : 1~3, Day : 1~7 |
| | FLEX1 | Monday | 1 | - Monday(1) |
| | FLEX2 | Tuesday | 1 | - Tuesday(2) |
| | FLEX3 | Wednesday | 1 | - Wednesday(3) |
| | FLEX4 | Thursday | 1 | - Thursday(4) |
| | FLEX5 | Friday | 1 | - Friday(5) |
| | FLEX6 | Saturday | 1 | - Saturday(6) |
| | FLEX7 | Sunday | 1 | - Sunday(7) |
| FLEX3 | Time of DAY | FLEX1 Zone 1 | Zone 1 (00-24) | Zone: 3, Time: 00~24 I IP LDK accepts it as same value for 00 and 24 changes to '00' if input is 24 as starting value and vice versa I Note: The time not belonging to any zone will be considered as zone 1 I Note: 10~13 means 10:00:00~12:59:59 |
| | | FLEX2 Zone 2 | | |
| | Zone 1 | FLEX3 Zone 3 | | |
| FLEX4 | Time of DAY | FLEX1 Zone 1 | | |
| | | FLEX2 Zone 2 | | |
| | Zone 2 | FLEX3 Zone 3 | | |
| FLEX5 | Time of DAY | FLEX1 Zone 1 | | |
| | | FLEX2 Zone 2 | | |
| | Zone 3 | FLEX3 Zone 3 | | |

4.8.1.1 LCR Access

Description

This value is used to select LCR access mode.
Each access mode is explained at section 2.2.7.

Value : M00=1 / M01=2 / M02=3 / M11=4 / M12=5 / M13=6

- LCR Access Mode
- **M00**: Disable LCR
- **M01**: only Loop LCR.
- **M02**: Internal and Loop LCR.
- **M11**: Loop and Direct CO LCR
- **M12**: Internal, Loop and Direct CO LCR
- **M13**: Internal, Loop, Direct CO and Direct Loop LCR

PROCEDURE

 + 220 +  Value + 

4.8.1.2 Day Zone

Description

Each day can use different LCR setting.
At this ADMIN program, each day can be grouped up to 3 zone.

Value1 : FLEX1~FLEX7(MON ~ SUN)

- FLEX 1: Monday
- FLEX 2: Tuesday
- FLEX 3: Wednesday
- FLEX 4: Thursday
- FLEX 5: Friday
- FLEX 6: Saturday
- FLEX 7: Sunday

Value2 : Zone 1~3 (1 Digit)

PROCEDURE

 + 220 +  Value1 + Value2 + 

4.8.1.3 Time Zone of Day Zone1

Description

Each time of day zone1 can use different LCR setting.
 At this ADMIN program, each time of day zone1 can be grouped up to 3 zone.

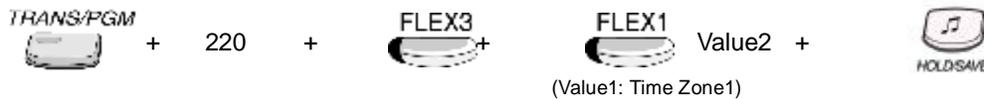
- ***Note:** IP LDK accepts it as the same value for 00 and 24 and changes to “00”, if input is 24 as starting value and vice versa.
- ***Note:** The time not belonging to any zone will be considered as zone 1
- ***Note:** 10 - 13 means 10:00:00(AM) - 01:00:00(PM)

Value 1: Time Zone 1 ~ 3

- FLEX 1: Time Zone1
- FLEX 2: Time Zone2
- FLEX 3: Time Zone3

Value2 : Time : HH~HH(4 Digits)

PROCEDURE



4.8.1.4 Time Zone of Day Zone2

Description

Each time of day zone2 can use different LCR setting.
 At this ADMIN program, each time of day zone2 can be grouped up to 3 zone.

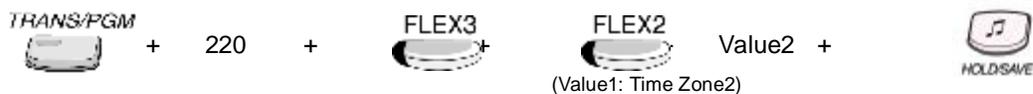
- ***Note:** IP LDK accepts it as the same value for 00 and 24 and changes to “00”, if input is 24 as starting value and vice versa.
- ***Note:** The time not belonging to any zone will be considered as zone 1
- ***Note:** 10 - 13 means 10:00:00(AM) - 01:00:00(PM)

Value1 : Time Zone 1 ~ 3

- FLEX 1: Time Zone1
- FLEX 2: Time Zone2
- FLEX 3: Time Zone3

Value2 : Time : HH~HH(4 Digits)

PROCEDURE



4.8.1.5 Time Zone of Day Zone3

Description

Each time of day zone3 can use different LCR setting.

At this ADMIN program, each time of day zone3 can be grouped up to 3 zone.

***Note:** IP LDK accepts it as the same value for 00 and 24 and changes to “00”, if input is 24 as starting value and vice versa.

***Note:** The time not belonging to any zone will be considered as zone 1

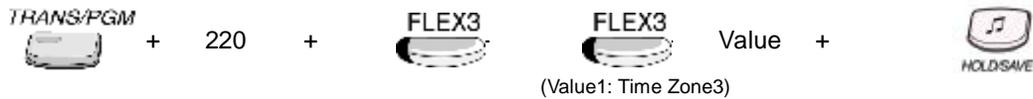
***Note:** 10 - 13 means 10:00:00(AM) - 01:00:00(PM)

Value1 : Time Zone 1 ~ 3

- FLEX 1: Time Zone1
- FLEX 2: Time Zone2
- FLEX 3: Time Zone3

Value2 : Time : HH~HH(4 Digits)

PROCEDURE



4.8.2 LEADING DIGIT TABLE (PGM 221)

LDT(Leading Digit Table) is used to check whether digits that is dialed by user is LCR Code or not. If digits that is dialed by user are equal to LCR Code(ADMIN program 221 – FLEX 2), the digits is converted and CO line is seized according to DMT(ADMIN program 222). In IP LDK system, maximum 250 LDT entry can be programmed. Each LDT entry has six sub-attributes, 'LCR type', 'LCR code', 'DMT index for day zone 1/2/3', and 'Check password'.

| FLEX | Item | Default | Remark(Value) |
|--------|----------------------------------|--------------------|---|
| FLEX 1 | FLEX 2 LCR Type | BOTH | BOTH : Look up this entry for both 'INT' and 'COL' INT : Look up this entry for internal dialing. COL : Look up this entry after dialing 3-way toggle. |
| FLEX 2 | FLEX 3 LCR Code(Up to 12 digits) | None | To be compared with the dialed digits by a user. |
| FLEX 3 | FLEX 4 DMT index for Day Zone 1 | None (6 digits) | Meaning of 6 digits : each pair(2 digits) is the index to the DMT for the each time Zone 1/2/3.(The [SPEED] button is used to validate the remaining index) |
| FLEX 4 | FLEX 5 DMT index for DAY Zone 2 | | |
| FLEX 5 | FLEX 6 DMT index for Day Zone 3 | | |

4.8.2.1 LCR Type

Description

This value is used to select the LCR type.

Value1 : 000~249(LDT Table)

Value2 : INT=1 / COL=2 / BOTH=3

- 1: INT (look up this entry only for internal dialing)
- 2: COL (look up this entry only after dialing CO Access Code)
- 3: BOTH (look up this entry for both INT and COL)

PROCEDURE



4.8.2.2 LCR Code

Description

If digits that is dialed by user are equal to this value, the digits is converted and CO line is seized according to DMT(ADMIN program 222)

Value1: 000~249(LDT Table)

Value2 : *,#,0~9(Max 12 digits)

PROCEDURE

 + 221 + Value1 +
  + Value2 +
 

4.8.2.3 DMT index(Day Zone 1)

Description

This value is used to set the table index DMT(ADMIN program 222) of the day zone 1. Because day zone 1 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 000~249(LDT Table)

Value2 : 00~99 / DMT Index : 00~99(6 digits)

- FLEX 3: Day zone 1(DMT Index: 00~99(6 digits)
- FLEX 4: Day zone 2(DMT Index: 00~99(6 digits)
- FLEX 5: Day zone 3(DMT Index: 00~99(6 digits)

PROCEDURE

 + 221 + Value1 +
  + Value2 +
 
 (Day zone1)

4.8.2.4 DMT index(Day Zone 2)

Description

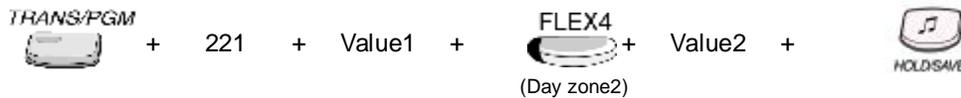
This value is used to set the table index DMT(ADMIN program 222) of the day zone 2. Because day zone 2 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 000~249(LDT Table)

Value2 : 00~99 / DMT Index : 00~99(6 digits)

- FLEX 3: Day zone 1(DMT Index: 00~99(6 digits)
- FLEX 4: Day zone 2(DMT Index: 00~99(6 digits)
- FLEX 5: Day zone 3(DMT Index: 00~99(6 digits)

PROCEDURE



4.8.2.5 DMT index(Day Zone 3)

Description

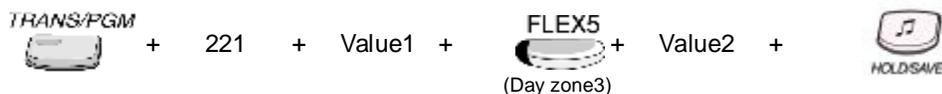
This value is used to set the table index DMT(ADMIN program 222) of the day zone 2. Because day zone 2 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 000~249(LDT Table)

Value2 : 00~99 / DMT Index : 00~99(6 digits)

- FLEX 3: Day zone 1(DMT Index: 00~99(6 digits)
- FLEX 4: Day zone 2(DMT Index: 00~99(6 digits)
- FLEX 5: Day zone 3(DMT Index: 00~99(6 digits)

PROCEDURE



4.8.2.6 FLEX Check Password

Description

If this value is set to ON, IP LDK system request the account code of user, when dialed digit is matched LCR code.

Value1 : 000~249(LDT Table)

Value2 : ON=1 / OFF=0

PROCEDURE

 + 221 + Value1 +  + Value2 + 

4.8.3 DIGIT MODIFCATION TABLE (PGM 222)

DMT(Digit Modification Table) is used to convert the dialed digit and seize the outgoing CO line. In IP LDK system, maximum 100 DMT entry can be programmed. Each DMT entry has six sub-attributes, 'Added digit stream', 'Removal position', 'Remove Number', 'Add position', 'CO Line Group', and 'Alternative DMT index'.

| FLEX | Item | Default | Remark(Value) |
|--------------------------------------|------------------------------------|---------|------------------------------|
| DMT(Digit Modification Table) | | | DMT index : 00~24(99) |
| FLEX 1 | Added Digit Stream(A) | None | Up to 20 digits |
| FLEX 2 | Removal Position(RP) | 01 | 01~12 |
| FLEX 3 | Number of digits to be removed(RN) | None | 01~12 |
| FLEX 4 | Add Position(AP) | 01 | 01~13 |
| FLEX 5 | CO Line Group© | 01 | 1~8 |
| FLEX 6 | Alternative DMT index(ALT) | None | 00~24(99) |

4.8.3.1 Added Digit Stream

Description

This value is used to add some digit stream at user dialed digits.
 This value is added at the position of 'Add Position'(ADMIN program 222 – FLEX 4)
 The example of this ADMIN programming is illustrated at 'Section 2.7'.

***Note:** The programmable normal digits and special characters are below:

- I Normal digits (0 .. 9, * , #)
- I Special characters
 - [CALLBK]: Pause
 - [DND/FOR]: Dial-tone-detection instead of pause Enter
 - [FLASH]: Billing code (Station Number)

Value1 : 00~99(DMT Table)
Value2 : 0~9,*,# (Max 20 digits)

PROCEDURE



4.8.3.2 Removal Position

Description

This value is used to set the removal position at user dialed digits.
 Some digits are removed from the this position up to 'Remove Number' (ADMIN program 222 – FLEX 3)
 The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 00~99(DMT Table)

Value2 : 01~12(2 digits)

PROCEDURE



4.8.3.3 Remove Number

Description

This value is used to set the remove digit count at user dialed digits.
 Some digits are removed as much as this value from the position of 'Removal Position' (ADMIN program 222 – FLEX 2)
 The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 00~99(DMT Table)

Value2 : 01~12(2 digits)

PROCEDURE



4.8.3.4 Add Position

Description

This value is used to set the add position at user dialed digits.
Some digits are added from the this position with 'Add Digit Stream' (ADMIN program 222 – FLEX 1)
The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 00~99(DMT Table)

Value2 : 00~13

PROCEDURE

 + 222 + Value1 +
  + Value2(2 digits) +
 

4.8.3.5 CO Line Group

Description

This value is used when LCR call seize the outgoing CO line.
The idle CO line within CO Line Group of this value is seized for LCR call.
The example of this ADMIN programming is illustrated at 'Section 2.7'.

Value1 : 00~99(DMT Table)

Value2 : 1~8

PROCEDURE

 + 222 + Value1 +
  + Value2 +
 

4.8.3.6 Alternative DMT Index

Description

This value is used when LCR call can't seize the idle CO line within ADMIN program 222 – FLEX 5. If LCR call can't seize the idle CO line within LCR CO Line Group, LCR call seize the idle CO within CO Line Group of this value DMT index.

Value1 : 00~99(DMT Table)

Value2 : 00~99

PROCEDURE

 + 222 + Value1 +  + Value2(2 digits) + 

4.8.4 LCR TABLE INITIALIZATION (PGM 223)

This ADMIN program changes all LCR ADMIN table entry value to new value.

| FLEX | Item | Default | Remark(Value) |
|---|-----------------------------|--------------------|--|
| LCR Database change / Initialize | | None (6 digits) | Each pair (2 digits) is the index to the DMT for the each time Zone 1/2/3. |
| FLEX 1 | Day Zone 1 | | |
| FLEX 2 | Day Zone 2 | | |
| FLEX 3 | Day Zone 3 | | |
| FLEX 4 | CO Line Group Change | | Change all CO Line Groups in DMT table with a new one |
| FLEX 5 | ALT Change | | Change all ALT in DMT table with a new one. |
| FLEX 6 | All LCR Database Initialize | | |

4.8.4.1 Day zone 1

Description

This ADMIN program change the index of DMT value of day zone 1 to new value.

Value : 00~99(6 digits)

PROCEDURE



4.8.4.2 Day zone 2

Description

This ADMIN program change the index of DMT value of day zone 2 to new value.

Value : 00~99(6 digits)

PROCEDURE



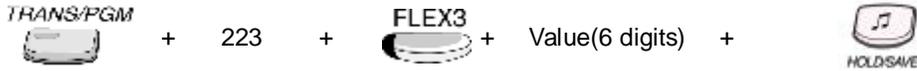
4.8.4.3 Day zone 3

Description

This ADMIN program change the index of DMT value of day zone 3 to new value.

Value : 00~99(6 digits)

PROCEDURE



4.8.4.4 CO Line Group

Description

This ADMIN program change the all CO Line Group values of DMT entry to new value.

Value : CO Line Group

- 01~08

PROCEDURE



4.8.4.5 Alternative DMT Index

Description

This ADMIN program change the all 'Alternative DMT Index' values of DMT entry to new value.

Value: 00~99

PROCEDURE



4.8.4.6 Initialize All LCR

Description

This ADMIN program initialize the all LCR ADMIN data to default value.

Value: None

PROCEDURE

TRANS/PGM  + 223 +  

4.9 TOLL TABLE

To enter TOLL TABLE ADMIN program, press the **[TRANS/PGM]** button and dial TOLL TABLE ADMIN program number. The LCR ADMIN program number range is 224 - 226. Toll tables are used to have access to certain toll free calls as well as being denied certain calls for the stations assigned Station COS. Exception table A & B allow the station that is programmed in station COS 2, 3 & 4 to have access to certain toll free calls as well as being denied certain calls. This TOLL TABLE is used at COS feature.

Reference

1. COS (Class Of Service) : 2.5.4

4.9.1 TOLL EXCEPTION TABLE (PGM 224)

The Allow/Deny Tables are organized into 4 sets of tables to support 4 different toll plans at one installed site. Each allow/deny table may contain up to 30 number strings. All bins of allow and deny tables have no entries by default. Each number string can contain up to 14 entries including any number 0-9, *, #, "Don't care".

The following rules should be remembered when setting up the Allow/Deny Tables:

- (1) If the tables have no entries, no restriction is applied.
- (2) If entries are made in the allow table and only there, then only those numbers are allowed.
- (3) If entries are made in the deny table and only there, then only those numbers are denied.
- (4) If there are entries in both tables, the allow table is searched at first and if number is found, it is allowed. If not found, the deny table is searched and if number is found, it is denied. If it is not found in either table, it is allowed.

| RULE | ENTRY | | CONDITIONS & RESULT | |
|------|-----------|-----------|---|---------------------------------------|
| | ALLOW | DENY | ALLOW TABLE | DENY TABLE |
| 1 | Not Exist | Not Exist | No Restriction | No Restriction |
| 2 | Exist | Not Exist | Found - allowed Not found - denied | - |
| 3 | Not Exist | Exist | - | Found - denied Not found - allowed |
| 4 | Exist | Exist | Found - allowed Not found – check deny table | Found - denied Not Found - allowed |

4.9.1.1 Allow Table A

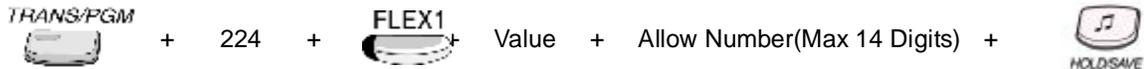
Description

This ADMIN value is used to check, whether the dialed digit by COS 2 and COS 4 station is matched with the allowed toll pass digits or not.
 Allow table A is only used when the COS of dialed station is COS 2 or 4.

Value : 01~30(Allow Table)

- Allow number: 0~9, *, #, "Don't care"

PROCEDURE



4.9.1.2 Deny Table A

Description

This ADMIN value is used to check, whether the dialed digit by COS 2 and COS 4 station is matched with the denied toll pass digits or not.
 Deny table A is only used when the COS of dialed station is COS 2 or 4.

Value : 01~30(Deny Table)

- Deny number: 0~9, *, #

PROCEDURE



4.9.1.3 Allow Table B

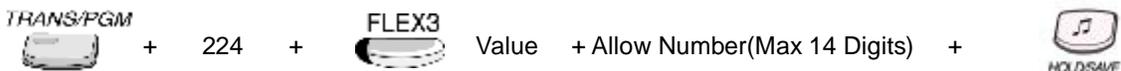
Description

This ADMIN value is used to check, whether the dialed digit by COS 3 and COS 4 station is matched with the allowed toll pass digits or not.
 Allow table B is only used when the COS of dialed station is COS 3 or 4.

Value : 01~30(Allow Table)

- Allow number: 0~9, *, #

PROCEDURE



4.9.1.4 Deny Table B

Description

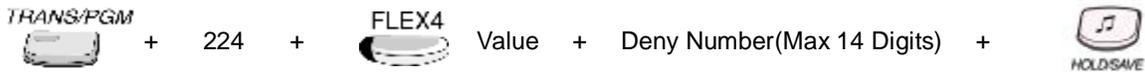
This ADMIN value is used to check, whether the dialed digit by COS 3 and COS 4 station is matched with the denied toll pass digits or not.

Deny table B is only used when the COS of dialed station is COS 3 or 4.

Value : 01~30(Deny Table)

- Deny number: 0~9,*, #

PROCEDURE



4.9.1.5 Allow Table C

Description

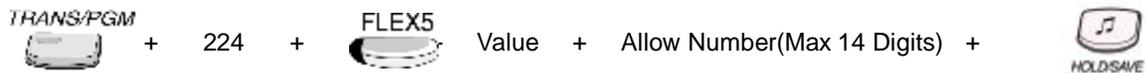
This ADMIN value is used to check, whether the dialed digit by COS 8 station is matched with the allowed toll pass digits or not.

Allow table A is only used when the COS of dialed station is COS 8.

Value : 01~50(Allow Table)

- Allow number: 0~9,*, #,"Don't care"

PROCEDURE



4.9.1.6 Deny Table C

Description

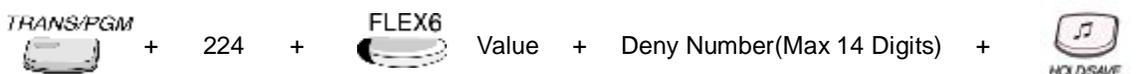
This ADMIN value is used to check, whether the dialed digit by COS 8 station is matched with the denied toll pass digits or not.

Deny table A is only used when the COS of dialed station is COS 8.

Value : 01~50(Deny Table)

- Deny number: 0~9,*, #

PROCEDURE



4.9.1.7 Allow Table D

Description

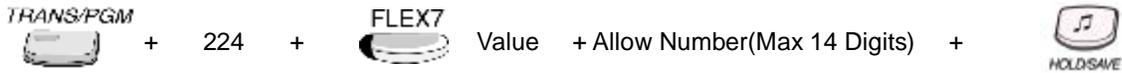
This ADMIN value is used to check, whether the dialed digit by COS 9 station is matched with the allowed toll pass digits or not.

Allow table B is only used when the COS of dialed station is COS 9.

Value : 01~50(Allow Table)

- Allow number: 0~9, *, #

PROCEDURE



4.9.1.8 Deny Table D

Description

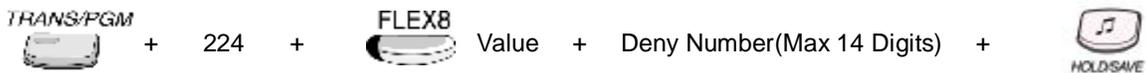
This ADMIN value is used to check, whether the dialed digit by COS 9 station is matched with the denied toll pass digits or not.

Deny table B is only used when the COS of dialed station is COS 9.

Value : 01~50(Deny Table)

- Deny number: 0~9, *, #

PROCEDURE



4.9.2 CANNED TOLL TABLES (PGM 225)

In addition to the basic toll restrictions, stations with a COS 5 or 6 are subject to dial restrictions based on the “Canned” Allow and Deny Tables. This program permits entries in the Canned Toll Tables. Both the Allow and Deny table have 20 bins up to 14 digits.

| VALID DATA | FUNCTION | LCD DISPLAY |
|-------------|------------|-------------|
| 0 - 9, *, # | Number | as dialed |
| [DND/FWD] | Don't Care | 'D' |

4.9.2.1 Allow Table

Description

This ADMIN value is used to check, whether the dialed digit by COS 5 and COS 6 station is matched with the allowed toll pass digits or not.
 Allow table of canned toll is only used when the COS of dialed station is COS 5 or 6.

Value : 01~20(Allow Table)

- Allow number: 0~9,*, #

PROCEDURE



4.9.2.2 Deny Table

Description

This ADMIN value is used to check, whether the dialed digit by COS 5 and COS 6 station is matched with the denied toll pass digits or not.
 Deny table of canned toll is only used when the COS of dialed station is COS 5 or 6.

Value : 01~20(Deny Table)

- Deny number: 0~9,*, #

PROCEDURE



4.9.3 EMERGENCY SERVICE CALL (PGM 226)

The emergency code table is used for emergency call service. All stations, regardless of COS, can dial the emergency codes in this table.

4.9.3.1 Emergency Service Call***Description***

Maximum 10 emergency codes can be programmable.

Value1 : 01~10(Bin Number)

Value2 : *,#,0~9(Max 14 digits)

PROCEDURE

+

226

+

Value1

+

Value2

+



4.10 TABLES

To program TABLES, press the [TRANS/PGM] button and dial 227 - 235.

4.10.1 AUTHORIZATION CODE TABLE (PGM 227)

Description

Authorization code table entries consist of each station password and extra account codes. The table entry from 001 to the maximum capacity of station numbers are saved the password of each station. And the remains are the extra entries.

CO Line Groups can be marked to deny access until a matched Authorization code is entered. In this case, DND warning tone is provided when the CO Line Group access code is dialed. If the dialed Authorization code is verified, you will hear CO dial tone. Otherwise, you will hear error tone and can not access the group. Stations or ADMIN programming can enter the authorization codes. Administrator can see and change station's password. There can be no duplicate entries. By default, Authorization Codes are not assigned at all. In IP LDK-20 system, the total number of Authorization Codes is 200 entries.

Authorization code length can be programmed as 5 digits or variable length(3~11digits). If 5 digits authorization code usage is programmed, authorization code works as 5 digits length in admin program or features.

Under variable length mode, authorization code is flexible from 3 digits to 11 digits(In MPB version 2.0 or below, authorization code is fixed as 5 digits)

Value : 001~200(Bin Number)

Value1 : 0~9(3 ~ 11 digits) (When 5 digits authorization code usage is disabled)

Value2 : 0~9,*,# (5 digits) (When 5 digits authorization code usage is enabled)

Value3 : 1~9(Class of Service)

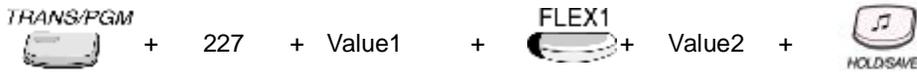
Related Admin programming

5 Digits Authorization Code Usage (PGM 161, FLEX21)

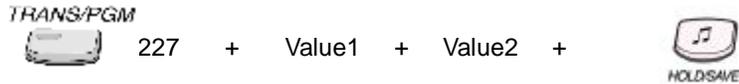
4.10.1.1 Authorization Code

PROCEDURE

Variable Authorization Code Mode



5 Digits Authorization Code Mode



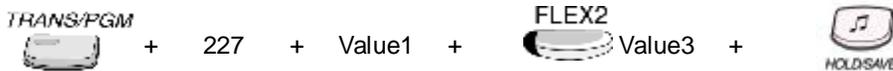
Reference

1. 5 Digits authorization code usage(PGM 161, FLEX21)

4.10.1.2 Day COS of Authorization Code

Day COS of stations are viewed only. But Day COS of extra entries can also be assigned. This Program is not available under 5 digits authorization mode.

PROCEDURE



Reference

1. Station COS : 4. 1. 7

4.10.1.3 Night COS of Authorization Code

Night COS of stations are viewed only. But Night COS of extra entries can also be assigned. This Program is not available under 5 digits authorization mode.

PROCEDURE



Reference

1. Station COS : 4. 1. 7

4.10.2 CUSTOM CALL ROUTING (PGM 228)

This ADMIN program is used at CCR feature, that the caller can select the destination according to the guiding VMIB announcement.

In IP LDK system, maximum 70 VMIB announcement can be used, and 10 different destination type can be selected.

| TYPE (DIGIT) | TYPE | VALUE | DEFAULT | REMARK |
|--------------|-----------------|------------|---------|---|
| 01 | Station | STA # | - | |
| 02 | Hunt Group | HUNT # | - | |
| 03 | VMIB Announce | Announce | - | |
| 04 | VMIB Announce | Announce # | | |
| 05 | System Speed | 2000-2499 | - | |
| 06 | Internal Page | 01 - 10 | - | |
| 07 | External Page | 1 | - | |
| 08 | All Call Page | 1 – 3 | - | 1: INT All Page 2: EXT All Page 3: All Page |
| 09 | Net Number | Net Number | - | |
| 10 | Conference Room | 1 – 9 | - | |

Reference

1. CCR(Customer Call Routing) with VMIB : 2.1.5

4.10.2.1 Station

Description

If CCR destination type is the STATION, the call is ringing at station of this value.

Value 1: 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

PROCEDURE

 + 228 + Value1 +
  (Value2) + 01(Value3) + Station Number +
 

4.10.2.2 Hunt Group

Description

If CCR destination type is the HUNT GROUP, the call is ringing at member station of this value hunt group.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 02(Value3) + Hunt Group Number + 

4.10.2.3 VMIB

Description

If CCR destination type is the VMIB, VMIB announcement of this value is played to the caller.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 03(Value3) + VMIB Anno. Number + 

4.10.2.4 VMIB Drop

Description

If CCR destination type is the VMIB DROP, VMIB announcement of this value is played to the caller and the call is disconnected when VMIB announcement ended.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 04(Value3) + VMIB Anno. Number + 

4.10.2.5 System Speed

Description

If CCR destination type is the SYSTEM SPEED, the call is routed to the system speed telephone number.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 1~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 05(Value3) + System Speed Number + 

4.10.2.6 Internal Page

Description

If CCR destination type is the INTERNAL PAGE, the call can page to the internal page zone of this value.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 1~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 06(Value3) + Internal Page Number + 
 (Range: 01~10)

4.10.2.7 External Page

Description

If CCR destination type is the EXTERNAL PAGE, the call can page to the external page zone of this value.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 1~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 07(Value3) + External Page Number + 
 (Range: 1~1)

4.10.2.8 All Call Page

Description

If CCR destination type is the ALL CALL PAGE, the call can page to the all page zone.

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

Value4 : INT ALL PAGE=1 / EXT ALL PAGE=2 / ALL PAGE=3

PROCEDURE

 + 228 + Value1 +  Value2) + 08(Value3) + Value4 + 

4.10.2.9 NET NUMBER

Description

Value1 : 01~70(CCR Table Number)

Value2 : FLEX01~FLEX10(Bin Number)

Value3 : 01~10(Destination Type)

PROCEDURE

 + 228 + Value1 +  (Value2) + 09(Value3) + NET Number + 

4.10.2.10 CONFERENCE ROOM***Description*****Value1 : 01~70(CCR Table Number)****Value2 : FLEX01~FLEX10(Bin Number)****Value3 : 01~10(Destination Type)*****PROCEDURE***

 + 228 + Value1 +  Value2) + 10(Value3) + Conf Room Number + 

4.10.3 EXECUTIVE / SECRETARY TABLE (PGM 229)***Description***

This ADMIN program is used at EXECUTIVE/SECRETARY feature.

When the executive designated station is in DND state, intercom and transfer calls will be automatically routed to the designated secretary station. By default, EXECUTIVE/SECRETARY pairs are not assigned at all. In IP LDK-20, system supports 6 EXECUTIVE/SECRETARY pairs.

Value : 01~06***PROCEDURE***

 + 229 + Value + Executive STA + Secretary STA + 

Reference

1. Executive/Secretary : 2.9.1

4.10.4 FLEXIBLE DID TABLE (PGM 231)

This ADMIN program is used at DID feature – DID type2. The example of ADMIN programming is illustrated at Section 2.1.3, too.

In IP LDK system, maximum 1000 Flexible DID Table entry can be programmed. Each Flexible DID Table entry has five attributes 'DID Name', 'Day Destination', 'Night Destination', 'Weekend Destination' and 'Reroute Destination'.

Reference

1. DID(Direct Inward Dialing) : 2.1.3

4.10.4.1 DID Name

Description

This value is used to save the name of incoming DID call.
 This value is displayed on station LCD, when station receive the DID call.

Max. 11 characters

| | | |
|----------|--------|--------|
| . - 13 | A - 21 | D - 31 |
| Q - 11 | B - 22 | E - 32 |
| Z - 12 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 70 | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| 01-Blank | | |
| 02 - : | 0 - 00 | # |
| 03 - , | | |

- Value1 : F1=Input / F2=Initial / F3=Delete**
- Value2 : 000~999(DID Conversion table)**
- Value3 : 1~11 Characters(Name)**

PROCEDURE



4.10.4.2 Day Destination

Description

This value is used to set the destination, when route DID call during day ring mode. The nine different destination type can be selected.

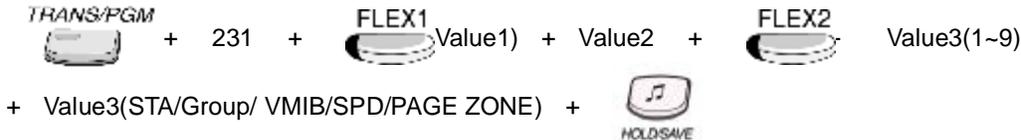
Value1 : F1=Input / F2=Initial / F3=Delete

Value2 : 000~999(DID Conversion table)

Value3 : 01~10(Destination Type)

- 01: STA #
- 02: Hunt #
- 03: VMIB 00~70(00: Note Assigned)
- 04: VMIB 00~70 Drop (00: Note Assigned)
- 05: SPD (2000~2499)
- 06: Internal Page (01~10)
- 07: External Page (1~1)
- 08: All Page (1~2) (INT / ALL)
- 09: Net Number (Network station number)
- 10: Conference Room (1~9)

PROCEDURE



4.10.4.3 Night Destination

Description

This value is used to set the destination, when route DID call during night ring mode. The nine different destination type can be selected.

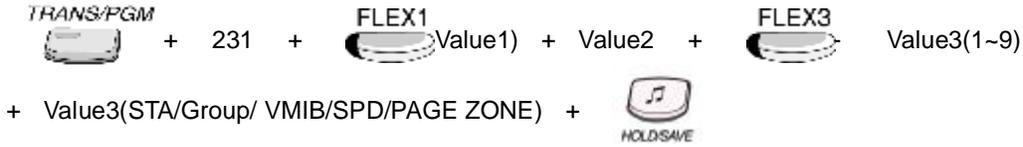
Value1 : F1=Input / F2=Initial / F3=Delete

Value2 : 000~999(DID Conversion table)

Value3 : 01~10(Destination Type)

- | | |
|---|---|
| - 01: STA # | - 02: Hunt # |
| - 03: VMIB 00~70(00: Note Assigned) | - 04: VMIB 00~70 Drop (00: Note Assigned) |
| - 05: SPD (2000~2499) | - 06: Internal Page (01~10) |
| - 07: External Page (1~1) | - 08: All Page (1~2) (INT / ALL) |
| - 09: Net Number (Network station number) | - 10: Conference Room (1~9) |

PROCEDURE



4.10.4.4 Weekend Destination

Description

This value is used to set the destination, when route DID call during weekend ring mode. The nine different destination type can be selected.

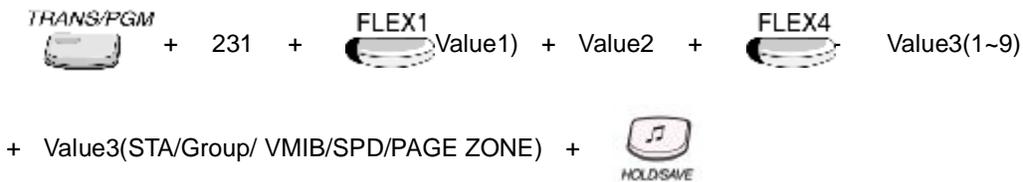
Value1 : F1=Input / F2=Initial / F3=Delete

Value2 : 000~999(DID Conversion table)

Value3 : 01~10(Destination Type)

- 01: STA #
- 02: Hunt #
- 03: VMIB 00~70(00: Note Assigned)
- 04: VMIB 00~70 Drop (00: Note Assigned)
- 05: SPD (2000~2499)
- 06: Internal Page (01~10)
- 07: External Page (1~1)
- 08: All Page (1~2) (INT / ALL)
- 09: Net Number (Network station number)
- 10: Conference Room (1~9)

PROCEDURE



4.10.4.5 Reroute Destination

Description

This value is used to set the second destination, when routed DID call destination is busy.

Value1 : F1=Input / F2=Initial / F3=Delete

Value2 : 000~999(DID Conversion table)

Value3 : 1~6(Destination Type)

- 1: STA #
- 2: Hunt #
- 3: VMIB 00~70(00: Note Assigned)
- 4: VMIB 00~70 Drop (00: Note Assigned)
- 5: SPD (2000~2499)
- 6: Net Number (Network station number)

PROCEDURE

 + 231 +
  Value1) + Value2 +
  Value3(1~6)

+ Value3(STA/Group/ VMIB/SPD/PAGE ZONE) +

4.10.5 SYSTEM SPEED ZONE (PGM 232)

This ADMIN program is used at SYSTEM SPEED ZONE feature (Ref Section 2.5.5)

4.10.5.1 Speed Bin Range in Zone

Description

The system speed zone can be grouped the maximum 10 system speed zone.
 About each system speed zone, the accessibility can be set at ADMIN program 232 – FLEX 2.
 The toll check of each system speed zone can be set at ADMIN program 232 – FLEX 4.
 And the account code to access each system speed zone can be set at ADMIN program 232 – FLEX 5.
 But, the system speed bin section between 2000 and 2199 is defined the toll free zone.
 The system speed dial within this zone isn't checked by the toll table.

Value 1 : 01~10 (Speed Zone Number)

Value 2 : F1=Zone / F2=Station / F3=Toll Check/F4=AUTH Check

Value 3 : Zone Range

-2200~2499

PROCEDURE



4.10.5.2 Station Range to Access Zone

Description

The accessibility of the system speed zones can be assigned to each station.

Value 1 : 01~10 (Speed Zone Number)

Value 2 : F1=Zone / F2=Station / F3=Toll Check/F4=AUTH Check

Value 3 : Station Number Range

- 100~125

PROCEDURE



When there are too many Stations to see, you can scroll data using volume up/down key.

4.10.5.3 Toll Checking

Description

If this value is set to ON, the speed dial of this zone is checked by the toll table.

Value 1 : 01~10 (Speed Zone Number)

Value 2 : F1=Zone / F2=Station / F3=Toll Check/F4=AUTH Check

Value3 : ON=1 / OFF=0

PROCEDURE



4.10.5.4 Authorization Check

Description

If this value is set, the station user must enter this value to use the speed dial of each system speed zone.

Value 1 : 01~10 (Speed Zone Number)

Value 2 : F1=Zone / F2=Station / F3=Toll Check/F4=AUTH Check

Value3 : ON=1 / OFF=0

Default value : Not Assigned

PROCEDURE



4.10.6 WEEKLY TIME TABLE (PGM 233)

Description

This ADMIN program is used at the ring assignment feature.
 The WEEKLY TIME TABLE can manage the ring mode changes automatically.
 The use of WEEKLY TIME TABLE is executed by the system attendant and each intercom tenancy group attendant.
 Maximum 16 WEEKLY TIME TABLE is exist. The first table is for the system attendant, and the others are for the intercom tenancy group attendant.
 The table is consist of 7 days, Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday.
 On each day, the time zone of DAY/NIGHT/WEEKEND mode can be programmed.
 For example, the office work starts at 9:00(AM) and finishes at 5:00(PM) during week day. And the weekend starts at 5:00(PM) from Friday to Sunday. In this case, the WEEKLY TIME TABLE can be set as the following ADMIN program value.

| | | | |
|--|--|--|--|
| WEEKLY TBL : MON D:09:00 N:17:00 W: | WEEKLY TBL : TUE D:09:00 N:17:00 W: | WEEKLY TBL : WED D:09:00 N:17:00 W: | WEEKLY TBL : THU D:09:00 N:17:00 W: |
| WEEKLY TBL : FRI D:09:00 N: W:17:00 | WEEKLY TBL : SAT D: N: W:00:00 | WEEKLY TBL : SUN D: N: W:00:00 | |

Value : 0~5(Weekly Time Table)

Value2 : FLEX1~FLEX7 (Day mode) / FLEX1~FLEX3 (Day, Night, Weekend)

| FLEX | ITEM | REMARK |
|------|-----------|--------------------|
| 1 | Monday | Refer Table 12.7.2 |
| 2 | Tuesday | |
| 3 | Wednesday | |
| 4 | Thursday | |
| 5 | Friday | |
| 6 | Saturday | |
| 7 | Sunday | |

Value3 : FLEX1~FLEX3 (Day, Night, Weekend)

| FLEX | ITEM | DEFAULT | REMARK |
|------|---------|---------|--------------------------------------|
| 1 | Day | | Day ring mode start time (HH:MM) |
| 2 | Night | | Night ring mode start time (HH:MM) |
| 3 | Weekend | | Weekend ring mode start time (HH:MM) |

Default value : None

PROCEDURE

 + 233 + Value1 + /value2) + value3) + Enter Time + 
 (Range: HH/MM)

Reference

1. Ring Assignment : 2.1.1

4.10.7 VOICE MAIL DIALING TABLE (PGM 234)

Description

This ADMIN program is used at the VM hunt group feature. This VOICE MAIL DIALING TABLE value defines the interface of dialing command between IP LDK and the external VM device.

Value1 : 1~9(Voice Mail Table).

Value2 : PREFIX=1 / SUFFIX=2

Default value :

| DIGIT | ITEM | VALUE | DEFAULT | REMARK |
|-------|------------|-------|-----------------------------|------------------|
| 1 | VM Table 1 | | Prefix: P# Suffix: - | Put Mail |
| 2 | VM Table 2 | | Prefix: P## Suffix: - | Get Mail |
| 3 | VM Table 3 | | Prefix: P##*3P Suffix: - | Busy Table |
| 4 | VM Table 4 | | Prefix: P##*4P Suffix: - | No Answer Table |
| 5 | VM Table 5 | | Prefix: P##*5P Suffix: - | Error Table |
| 6 | VM Table 6 | | Prefix: P##*6P Suffix: - | DND Table |
| 7 | VM Table 7 | | Prefix: Suffix: - | |
| 8 | VM Table 8 | | Prefix: Suffix: - | |
| 9 | VM Table 9 | | ***** | Disconnect Table |

PROCEDURE

TRANS/PGM



+ Value1 + Value2 + Prefix code/Suffix code) +
(MAX 12 digits)



HOLD/SAVE

Reference

1. Voice Mail Group : 2.6.5

4.10.8 MOBILE EXTENSION (PGM 236)

A mobile user is able to use the phone as extension of system. So he can receive the incoming call and make the outgoing call when a user registers the mobile phone number.

4.10.8.1 Activate Mobile Extension

Description

If this value is set to ON, the mobile extension feature is available.

Value : ON=1 / OFF=0

PROCEDURE



4.10.8.2 Mobile Extension CO Group

Description

This value is used to assign the CO group to route the call to the mobile extension.

Value : CO Group

PROCEDURE



4.10.8.3 Mobile Extension Telephone Number

Description

Used to enter the telephone number of a mobile extension when this feature is activated.

Value : Telephone Number of Mobile

PROCEDURE

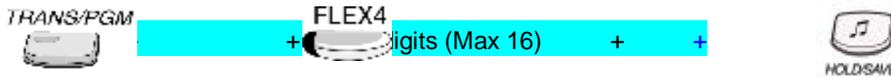


4.10.8.4 CLI of Mobile Extension

Description

This value is used as the CLI of Mobile Extension.

Value : Telephone Number of Mobile

PROCEDURE**4.11 NETWORKING ATTRIBUTE**

To program NETWORKING ATTRIBUTE, press the **[TRANS/PGM]** button and dial 320 - 324. At the section 2.16, the networking features that is supported by IP LDK system is explained.

4.11.1 Networking Basic Attribute (PGM 320)**4.11.1.1 Networking Enable****Description**

This ADMIN program value is used to enable the networking feature.

To set this ADMIN value to ON, the networking software lock-key must be installed at IP LDK system.

If station user enter the software lock-key check dialing command '**[TRANS/PGM] + 78**', then the installed software lock-key is displayed on station LCD.

Value : ON=1 / OFF=0

PROCEDURE**4.11.1.2 Networking Retry Count****Description**

This ADMIN value is used to retry the connection when IP LDK system detect the error during networking connection signaling. This value is only used when the networking feature is executed through the public switching network. This value is not used at the networking feature between direct connected IP LDK systems.

Value : 00~99(Net Retry count)

PROCEDURE

TRANS/PGM



+

FLEX2



Value(2 Digit)

+



HOLD/SAVE

4.11.1.3 Networking CNIP Enable

Description

The name of calling station is sent to the called system between IP LDK systems. CNIP is displayed on called party station LCD according to ADMIN programming. If the CNIP and CLI are received together, CNIP is prior to CLI.

Value : ON=1 / OFF=0

PROCEDURE



4.11.1.4 Networking CONP Enable

Description

The name of answered station is sent to the calling system between IP LDK systems. CONP is displayed on calling party station LCD according to ADMIN programming.

Value : ON=1 / OFF=0

PROCEDURE



4.11.1.5 Networking Signal Method

Description

Select the information element type for networking supplementary service message. FACILITY/USER-TO-USER information element can be used for networking supplementary service message.

Value : FAC=1 / UUS=0

PROCEDURE



4.11.1.6 Networking CAS Enable

Description

The networking CAS is explained at Section 2.16.16.
Enable Centralized attendant in master system, CAS should be disabled.

Value : ON=1 / OFF=0

PROCEDURE



Reference

1. Attendant Call Service(CAS) : 2.16.16

4.11.1.7 Networking VPN Enable

Description

Reserved

Value : ON=1 / OFF=0

PROCEDURE



4.11.1.8 Networking CC Retain Mode

Description

Value : ON=1 / OFF=0

This value is used to set the networking supplementary signaling type of the call completion.
If this value is set to ON, the signaling of call completion retain mode is executed.

PROCEDURE



Reference

1. Call Completion : 2.16.10

4.11.2 Networking Supplementary Attribute (PGM 321)

4.11.2.1 Networking Transfer Mode

Description

At international standard of the networking transfer signaling, two kinds of signaling type are exist. The name of each signaling type is REROUTE and JOIN. This value is used to select the signaling type of networking transfer.

Value : RERT=1 / JOIN=0

PROCEDURE



4.11.2.2 TCP Port

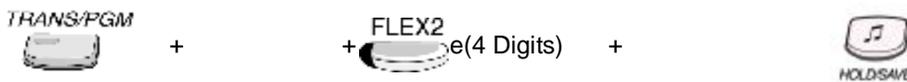
Description

The BLF is explained at Section 2.16.19. This ADMIN program is used to set the TCP port for BLF message.

Value : 0000~9999(4 digits)

Default value: 9000

PROCEDURE



Reference

1. BLF(Busy Lamp Field) Presentation : 2.16.19

4.11.2.3 UDP Port

Description

The BLF is explained at Section 2.16.19.

This ADMIN program is used to set the UDP port for BLF message.

Value : 0000~9999(4 digits)

Default value : 9001

PROCEDURE

TRANS/PGM


+

FLEX3
 (4 Digits)

+


HOLD/SAVE

Reference

1. BLF(Busy Lamp Field) Presentation : 2.16.19

4.11.2.4 BLF Manager IP Address

Description

The BLF is explained at Section 2.16.19.

This ADMIN program is used to set the IP Address of BLF manager for BLF service.

Value : 12 digits(Enter BLF Manager IP Address)

PROCEDURE

TRANS/PGM


+

FLEX4
 (12 Digits)

+


HOLD/SAVE

Reference

1. BLF(Busy Lamp Field) Presentation : 2.16.19

4.11.2.5 Duration of BLF status

Description

The BLF is explained at Section 2.16.19.
This ADMIN program is used to set the duration of BLF status message.

Value : 01~20(sec)

PROCEDURE



Reference

1. BLF(Busy Lamp Field) Presentation : 2.16.19

4.11.2.6 Multicast IP Address

Description

The BLF is explained at Section 2.16.19.
This ADMIN program is used to set the IP address of multicast for BLF service.

Value : 12 digits(Enter Multicast IP Address)

PROCEDURE



Reference

1. BLF(Busy Lamp Field) Presentation : 2.16.19

4.11.2.7 Net Trans Fault Recall Timer

Description

Network transfer fault recall timer.

Value : 001~300(sec)

PROCEDURE



4.11.3 Networking CO Line Attribute (PGM 322)

4.11.3.1 Networking CO Line Group

Description

This ADMIN program is used to select CO Line Group for networking call.

Value : 00~24(Net CO Line Group)

PROCEDURE

 + CO LINE RANGE +
  +
 

4.11.3.2 Networking CO Line Type

Description

This ADMIN program is used to select the type of system that is connected through the networking CO line.

The system type can be separated two type. The first one is NET type, that is the networking software installed private system. The second one is PSTN type, that is the public switching network system.

Value : NET=1 / PSTN=0

PROCEDURE

 + CO LINE RANGE +
  +
 

4.11.4 Networking Routing Table (PGM 324)

At this ADMIN program, the numbering routing table for the networking connection can be set. NETWORKING ROUTING TABLE has 72 entries, and each entry is consisted of 7 attributes, 'SYSTEM USAGE', 'NETWORKING NUMBERING CODE', 'NETWORKING NUMBER CO LINE GROUP', CPN or IP INFORMATION', 'ALTERNATE SPEED DIAL BIN', 'DESTINATION MPB IP', and 'DIGIT REPEAT'.

4.11.4.1 System Usage

Description

This ADMIN program is used to set the networking connection type of the selected table entries. If PSTN is directly connected, this value must be set to PSTN. If the networking software installed system is directly connected, this value must be set to NET. The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : NET=0 / PSTN=1

PROCEDURE

 + Value1 +
  (value2) +
 

4.11.4.2 Net Numbering Code

Description

This ADMIN program is used to set the networking number code of the selected table entries.

'*' means any digits can be inserted between 0 ~ 9.

The digits followed by '#' is a internal station number.

The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : Max 16 digits(Numbering Plan Code)

PROCEDURE

 + Value1 +
  +
 

4.11.4.3 Net Number CO Line Group

Description

This ADMIN program is used to select CO line group for networking call.
 If networking call number corresponding NET NUMBERING CODE is entered, the networking call route to the destination through this CO Line Group.
 The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : 0~8(Net CO Line Group)

PROCEDURE



4.11.4.4 CPN or IP Information

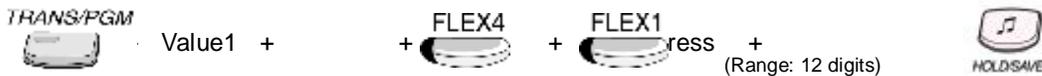
Description

CPN information for ISDN, IP address for VoIP (CPN info 1 ~ CPN info 4)
 The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : FLEX1~FLEX4 (4 IP address)

PROCEDURE



4.11.4.5 Alternate Dial Bin

Description

Alternative Dial Number (System SPD Bin) when the networking path has a fatal problem.
 The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : SPEED BIN #

- 2000~2499(IP LDK-20)

PROCEDURE



4.11.4.6 Destination MPB IP

Description

IP Address of destination system to support DECT mobility service.
DECT mobility service is explained at section 2.16.17.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : IP address

PROCEDURE

 + Value1 +
  2 +
 

4.11.4.7 Digit Repeat

Description

If this PSTN number is not connected with PSTN line directly but connected by another networking system, make 'Digit Repeat' to YES.

The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.

Value1 : 00~71(Net Numbering Plan Table)

Value2 : YES=1 / NO=0

Default value : No

PROCEDURE

 324 + Value1 +
  1(Value2) +
 

4.11.4.8 CO ATD CODE CLI

Description

During transit-out, this admin value determines the CLI number which is sent to PX.

Value : ON=1 / OFF=0

PROCEDURE

 +
  (CO ATD CLI) + +
 

4.12 VOIB Attribute

4.12.1 VOIP IP Setting (PGM 340)

At this ADMIN program, the VOIP board can be installed. Maximum 3 VOIP boards can be installed. The VOIP board ADMIN program is consisted of 10 attributes, 'IP ADDRESS', 'GATEWAY ADDRESS', 'SUBNET MASK', 'DNS ADDRESS', 'TRACE PASSWORD', 'DEFAULTE CODEC', 'DEFAULTE GAIN', 'NO DELAY', 'THROUGHPUT', and 'RELIABILITY'.

4.12.1.1 IP Address (Skip:#)

Description

This ADMIN program is used at setting the IP address of VOIP board.

Value : 12 digits(IP Address)

PROCEDURE



4.12.1.2 Gateway Address (Skip:#)

Description

This ADMIN program is used at setting the gateway address of VOIP board.

Value : 12 digits(IP Address)

PROCEDURE



4.12.1.3 SUBNET Mask (Skip:#)

Description

This ADMIN program is used at setting the subnet mask of VOIP board.

Value : 12 digits(Subnet Mask)

Default value : 255.255.255.0

PROCEDURE



4.12.1.4 DNS Address (Skip:#)

Description

This ADMIN program is used at setting the DNS address of VOIP board.

Value : 12 digits(DNS Address)

PROCEDURE



4.12.1.5 Trace Password

Description

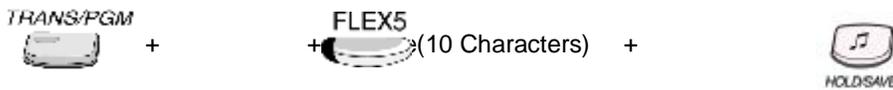
This ADMIN program is used at setting the password which need to contact to VOIP board for trace.

Value : 10 Characters(Password)

| | | |
|----------|--------|--------|
| . - 13 | A - 21 | D - 31 |
| Q - 11 | B - 22 | E - 32 |
| Z - 12 | C - 23 | F - 33 |
| 1 - 10 | 2 - 20 | 3 - 30 |
| G - 41 | J - 51 | M - 61 |
| H - 42 | K - 52 | N - 62 |
| I - 43 | L - 53 | O - 63 |
| 4 - 40 | 5 - 50 | 6 - 60 |
| P - 71 | T - 81 | W - 91 |
| R - 72 | U - 82 | X - 92 |
| S - 73 | V - 83 | Y - 93 |
| Q - 70 | 8 - 80 | Z - 9# |
| 7 - 70 | | 9 - 90 |
| 01-Blank | | |
| 02 - : | 0 - 00 | # |
| 03 - , | | |

Default value : None

PROCEDURE



4.12.1.6 Default Codec

Description

This ADMIN program is used at setting the default codec of VOIP board.

Value : G.723.1=0 / G.729=1 / G.711 ALAW=2 / G.711 ULAW=3

Default value : 0(G.723.1)

PROCEDURE



4.12.1.7 Default Gain

Description

This ADMIN program is used at setting the default codec of VOIP board.

Value : 1~62

PROCEDURE



4.12.1.8 No Delay(TOS)

Description

This ADMIN program is used at selecting whether the response of VOIP board will be delayed or not.

Value : ON=1 / OFF=0

PROCEDURE



4.12.1.9 Throughput(TOS)

Description

This ADMIN program is used at selecting whether the throughput of VOIP board is high or normal.

Value : HIGH=1 / NORMAL=0

PROCEDURE



4.12.1.10 Reliability(TOS)

Description

This ADMIN program is used at selecting whether the reliability of VOIP board is high or normal.

Value : HIGH=1 / NORMAL=0

PROCEDURE



+ VOIB SLOT Number +



4.13 RSG/IP Phone Programming

4.13.1 VOIB SLOT ASSIGNMENT for RSG/IP Phone (PGM 380)

The VOIB slot and VOIB channel for RSG/IP Phone can be assigned. The RSG is serviced through VOIB. So, the VOIB for RSG should be assigned.

4.13.1.1 VOIB Slot For RSP/IP Phone

Description

VOIB slot assignment for RSG/IP Phone (Slot number must be 09)

PROCEDURE

 + 380 +
  + VOIB SLOT Number +
 

4.13.1.2 VOIB Slot For RSP/IP Phone

Description

VOIB Channel number used for RSG/IP Phone (Slot number must be 09)

Channel Range : 0 ~ 8

PROCEDURE

 + 380 +
  + VOIB Slot Number + Channel Number +
 

4.13.2 RSG/IP Phone Port Number ASSIGNMENT (PGM 381)

The port number for RSG /IP Phone can be assigned.

4.13.2.1 RSG Number

Description

The RSG number to be serviced from system

Value : RSG No.

- 0 ~ 8

Default Value : 0

PROCEDURE



4.13.2.2 IP Phone No

Description

The IP Phone number to be serviced from system

Value : IP Phone No.

- 00~16

Maximum number of IP Phones can be determined by system station capacity.

Registerable IP Phones are,

Total number of stations(28) – the total installed station number(DKTU,SLT,ISDN Phone Modem associated station)

Default Value : 00(00)

PROCEDURE



4.13.3 RSG / IP Phone ATTRIBUTE (PGM 382)

4.13.3.1 Transfer Mode

Value : MAC=1 / IP=0

Default Value : IP

PROCEDURE

 + 382 +
  + 0(IP) +
 

4.13.3.2 Casting Mode

Value : MULTI=1 / UNI=0

Default Value : UNI

PROCEDURE

 + 382 +
  + 0(UNI) +
 

4.13.3.3 Tone Source

Value : IP LDK=1 / REMOTE(RSGM/IP Phone)=0

Default Value : REMOTE

PROCEDURE

 + 382 +
  + 0(REMOTE) +
 

4.13.3.4 Peer to Peer

Value : ON=1 / OFF=0

Default Value : ON

PROCEDURE

 + 382 +
  + 1(ON) +
 

4.13.3.5 Codec Type

Value : 0~2

- 0 : G.711_ALAW

- 1 : G.711_ULAW

- 2 : G.723.1

Default Value : 0

PROCEDURE



4.13.3.6 First Access RSG CO

Description

If the field is set, the station on RSG can access a CO line on his RSG by dialing CO Line access code in the 1st available CO group (ex) 9).

Value : ON=1 / OFF=0

Default Value : ON

PROCEDURE



4.13.3.7 RING without CO Ring Assign

Description

If the field is set, stations on RSG will receive the incoming CO ring even though the CO ring is not assigned.

Value : ON=1 / OFF=0

Default Value : ON

PROCEDURE



4.13.4 RSGM ATTRIBUTE 1 (PGM 383)

4.13.4.1 Set MAC Address

Description

For registration of RSG to the IP LDK system, enter the MAC of RSG after VOIB Configuration. You can input the hex digits (A ~ F) by pressing following buttons.

| BTN | DIGIT | BTN | DIGIT |
|------|-------|---------|-------|
| * | A | [MUTE] | D |
| # | B | [DND] | E |
| [CB] | C | [FLASH] | F |

At LDP-7000 series Navi Key

| BTN | DIGIT | BTN | DIGIT |
|--------|-------|---------|-------|
| * | A | [Right] | D |
| # | B | [Up] | E |
| [Left] | C | [Down] | F |

Value1 : BIN No.(1~8)

Value2 : MAC address

Default Value2 : 00-00-00-00-00-00

PROCEDURE

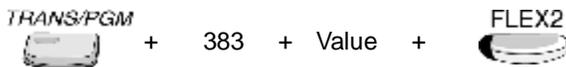


4.13.4.2 IP Address Display

Value : BIN No.(1~8)

Default Value : 0.0.0.0

PROCEDURE



4.13.4.3 RSG Port View

Description

D : DKT S : SLT C : CO line

Value : BIN no.(1~8)

Default Value : D(...) S(...) C(...)

PROCEDURE



4.13.4.4 Port Number View

Value : BIN no.(1~8)

PROCEDURE



4.13.4.5 NAT IP Address Display

Value : BIN no.(1~8)

Default Value : 0.0.0.0

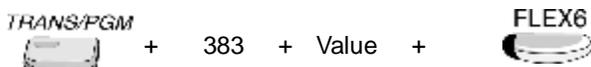
PROCEDURE



4.13.4.6 NAT Port Number View

Value : BIN no.(1~8)

PROCEDURE



4.13.4.7 STUN Enabled

Value : BIN no.(1~8)

Default Value : NONE

PROCEDURE

TRANS/PGM



+

383

+

Value

+

FLEX7



4.13.5 RSGM ATTRIBUTE 2 (PGM 384)

4.13.5.1 RTP Port number of Internal MOH

Value1 : Range of BIN (1~8)

Value2 : Port No.

Default Value2 : 8186

PROCEDURE

 + 384 + Value1 +
  Value2 +
 

4.13.5.2 RTP Port number of External MOH

Value1 : Range of BIN (1~8)

Value2 : Port No.

Default value2 : 8188

PROCEDURE

 + 384 + Value1 +
  Value2 +
 

4.13.5.3 MOH Type

Value1 : Range of BIN (1~8)

Value2 : MUSIC=1/Hold Tone=0

Default Value2 : Hold Tone

PROCEDURE

 + 384 + Value1 +
  Value2 +
 

4.13.5.4 Music Source

Description

The RSG has one internal and one external MOH source. RSG associated devices use their local MOH source in the RSG. The music will be heard when RSG devices on RSG are held or digital keyset on RSG activates the BGM.

Value1 : Range of BIN (1~8)

Value2 : EXT1=1/INT=0

Default Value2 : INT

PROCEDURE

 + 384 + Value1 +
  + Value2 +
 

4.13.5.5 External Contact 1

Description

By default, External Contacts are not assigned at all.

Value1 : Range of BIN (1~8)

Value2 : LBC=1/Door Open=2

Value3 : Station number when 1(LBC) is pressed

PROCEDURE

 + 384 + Value1 +
  + Value2 + (Value3) +
 

Reference

EXPANDED FLEXIBLE NUMBERING PLAN : 3.6.9

4.13.5.6 External Contact 2

Description

By default, External Contacts are not assigned at all.

Value1 : Range of BIN (1~8)

Value2 : LBC=1/Door Open=2

Value3 : Station number when 1(LBC) is pressed

PROCEDURE



Reference

1. EXPANDED FLEXIBLE NUMBERING PLAN : 3.6.9

4.13.5.7 Alarm Enable

Description

When Alarm Signal is detected from RSG, the IP LDK system gives the Alarm Ring to the Alarm assign station. And the alarm will be stop by Alarm Reset code.

Value1 : Range of BIN (1~8)

Value2 : ON=1/OFF=0

Default Value2 : OFF

PROCEDURE



4.13.5.8 Alarm Contact Type

Value1 : Range of BIN (1~8)

Value2 : CLOSE=1/OPEN=0

Default Value2 : CLOSE

PROCEDURE



4.13.5.9 Alarm / Door Bell Mode

Value1 : Range of BIN (1~8)

Value2 : ALARM=1/BELL=0

Default Value2 : ALARM

PROCEDURE

 + 384 + Value1 +
  + 1(ALARM) +
 

4.13.5.10 Alarm Signal

Description

RPT means the repetition.

Value1 : Range of BIN (1~8)

Value2 : RPT=1/ONCE=0

Default Value2 : RPT

PROCEDURE

 + 384 + Value1 +
  1(RPT) +
 

4.13.5.11 CTI Port

Description

CTI port to be assigned in RSG

Value1 : Range of BIN (1~8)

Value2 : 0~2

- 0 : NOT USED
- 1 : DKTU in RSG
- 2 : SLT in RSG

Default Value2 : NOT USED

PROCEDURE

 + 384 + Value1 +
  1(DKT) +
 

4.13.5.12 RSG Nation Code

Value1 : Range of BIN (1~8)

Value2 : Nation Code

Default Value2 : NOT USED

PROCEDURE



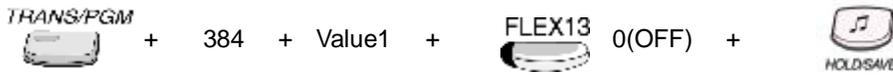
4.13.5.13 IPSEC

Value1 : Range of BIN (1~8)

Value2 : ON=1/OFF=0

Default Value2 : OFF

PROCEDURE



4.13.6 RSG Alarm Assignment (PGM 385)

Description

The station can receive the alarm ring when the alarm on RSG is detected.

Range / Default Value

| FLEX | DEFAULT | RANGE | REMARK |
|------|---------|-------|----------------------|
| | - | 1-8 | RSG BIN 1-8 (Toggle) |

PROCEDURE



4.13.7 IP Phone ATTRIBUTE (PGM 386)

4.13.7.1 Set MAC Address

Description

For registration of IP Phone to the IP LDK system, enter the MAC of IP Phone. You can input the hex digits (A ~ F) by pressing following buttons.

| BTN | DIGIT | BTN | DIGIT |
|------|-------|---------|-------|
| * | A | [MUTE] | D |
| # | B | [DND] | E |
| [CB] | C | [FLASH] | F |

At LDP-7000 series Navi Key

| BTN | DIGIT | BTN | DIGIT |
|--------|-------|---------|-------|
| * | A | [Right] | D |
| # | B | [Up] | E |
| [Left] | C | [Down] | F |

Value1 : BIN No.(01~16)

Value2 : MAC address

Default Value2 : 00-00-00-00-00-00

PROCEDURE

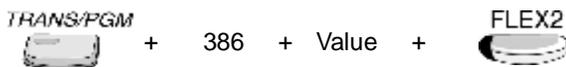


4.13.7.2 IP Address Display

Value : BIN No.(01~16)

Default Value : 0.0.0.0

PROCEDURE



4.13.7.3 Port View

Value : BIN no.(01~16)

PROCEDURE

 + 386 + Value + 

4.13.7.4 Port Number View

Value : BIN no.(01~16)

PROCEDURE

 + 386 + Value + 

4.13.7.5 NAT IP Address Display

Value : BIN no.(01~16)

Default Value : 0.0.0.0

PROCEDURE

 + 386 + Value + 

4.13.7.6 NAT Port Number

Value : BIN no.(01~16)

PROCEDURE

 + 386 + Value + 

4.13.7.7 STUN Enabled

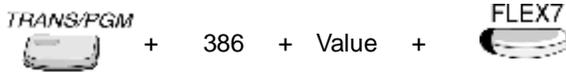
Description

None, PAT, NAT or NAT/PAT is displayed.

Value : BIN no.(01~16)

Default Value : NONE

PROCEDURE



4.13.7.8 CTI Port

Description

Set CTI IP Address to support the first party CTI

Value1 : Range of BIN (01~16)

Value2 : IP Address (12 digits)

Default Value2 : NOT USED

PROCEDURE



4.13.7.9 IPSEC

Description

If this feature is set to ON, VOIB serves IPSEC.

Value1 : Range of BIN (01~16)

Value2 : ON=1/OFF=0

Default Value2 : OFF

PROCEDURE



+

386

+

Value1

+



0(OFF)

+



4.13.8 RSG DKT RX GAIN CONTROL (PGM 390)

Description

The RX gain of DKT on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|--------------------------|---------|---------|--------|
| 1 | RSG_DKT RX from DKTU | 00 – 63 | | |
| 2 | RSG_DKT RX from SLT | 00 – 63 | | |
| 3 | RSG_DKT RX from CTR_SLT | 00 – 63 | | |
| 4 | RSG_DKT RX from WKT | 00 – 63 | | |
| 5 | RSG_DKT RX from ACO | 00 – 63 | | |
| 6 | RSG_DKT RX from CTR_ACO | 00 – 63 | | |
| 7 | RSG_DKT RX from DCO | 00 – 63 | | |
| 8 | RSG_DKT RX from VMIB | 00 – 63 | | |
| 9 | RSG_DKT RX from DTMF | 00 – 63 | | |
| 10 | RSG_DKT RX from TONE | 00 – 63 | | |
| 11 | RSG_DKT RX from MUSIC 1 | 00 – 63 | | |
| 12 | RSG_DKT RX from MUSIC 2 | 00 – 63 | | |
| 13 | RSG_DKT RX from RSG_DKT | 00 – 63 | | |
| 14 | RSG_DKT RX from RSG_SLT | 00 – 63 | | |
| 15 | RSG_DKT RX from RSG_LCO | 00 – 63 | | |
| 16 | RSG_DKT RX from IP Phone | 00 – 63 | | |

4.13.9 RSG DKT TX GAIN CONTROL (PGM 391)

Description

The TX gain of DKT on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|-----------------------|---------|---------|--------|
| 1 | RSG_DKT RX to DKTU | 00 – 63 | | |
| 2 | RSG_DKT RX to SLT | 00 – 63 | | |
| 3 | RSG_DKT RX to CTR_SLT | 00 – 63 | | |
| 4 | RSG_DKT RX to WKT | 00 – 63 | | |
| 5 | RSG_DKT RX to ACO | 00 – 63 | | |
| 6 | RSG_DKT RX to CTR_ACO | 00 – 63 | | |
| 7 | RSG_DKT RX to DCO | 00 – 63 | | |
| 8 | RSG_DKT RX to DVU | 00 – 63 | | |

4.13.10 RSG SLT RX GAIN CONTROL (PGM 392)

Description

The RX gain of SLT on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|--------------------------|---------|---------|--------|
| 1 | RSG_SLT RX from DKTU | 00 – 63 | | |
| 2 | RSG_SLT RX from SLT | 00 – 63 | | |
| 3 | RSG_SLT RX from CTR_SLT | 00 – 63 | | |
| 4 | RSG_SLT RX from WKT | 00 – 63 | | |
| 5 | RSG_SLT RX from ACO | 00 – 63 | | |
| 6 | RSG_SLT RX from CTR_ACO | 00 – 63 | | |
| 7 | RSG_SLT RX from DCO | 00 – 63 | | |
| 8 | RSG_SLT RX from VMIB | 00 – 63 | | |
| 9 | RSG_SLT RX from DTMF | 00 – 63 | | |
| 10 | RSG_SLT RX from TONE | 00 – 63 | | |
| 11 | RSG_SLT RX from MUSIC 1 | 00 – 63 | | |
| 12 | RSG_SLT RX from MUSIC 2 | 00 – 63 | | |
| 13 | RSG_SLT RX from RSG_DKT | 00 – 63 | | |
| 14 | RSG_SLT RX from RSG_SLT | 00 – 63 | | |
| 15 | RSG_SLT RX from RSG_LCO | 00 – 63 | | |
| 16 | RSG_SLT RX from IP Phone | 00 – 63 | | |

4.13.11 RSG SLT TX GAIN CONTROL (PGM 393)

Description

The TX gain of SLT on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|-----------------------|---------|---------|--------|
| 1 | RSG_SLT RX to DKTU | 00 – 63 | | |
| 2 | RSG_SLT RX to SLT | 00 – 63 | | |
| 3 | RSG_SLT RX to CTR_SLT | 00 – 63 | | |
| 4 | RSG_SLT RX to WKT | 00 – 63 | | |
| 5 | RSG_SLT RX to ACO | 00 – 63 | | |
| 6 | RSG_SLT RX to CTR_ACO | 00 – 63 | | |
| 7 | RSG_SLT RX to DCO | 00 – 63 | | |
| 8 | RSG_SLT RX to DVU | 00 – 63 | | |

4.13.12 RSG LCO RX GAIN CONTROL (PGM 394)

Description

The RX gain of LCO on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|--------------------------|---------|---------|--------|
| 1 | RSG_LCO RX from DKTU | 00 – 63 | | |
| 2 | RSG_LCO RX from SLT | 00 – 63 | | |
| 3 | RSG_LCO RX from CTR_SLT | 00 – 63 | | |
| 4 | RSG_LCO RX from WKT | 00 – 63 | | |
| 5 | RSG_LCO RX from ACO | 00 – 63 | | |
| 6 | RSG_LCO RX from CTR_ACO | 00 – 63 | | |
| 7 | RSG_LCO RX from DCO | 00 – 63 | | |
| 8 | RSG_LCO RX from VMIB | 00 – 63 | | |
| 9 | RSG_LCO RX from DTMF | 00 – 63 | | |
| 10 | RSG_LCO RX from TONE | 00 – 63 | | |
| 11 | RSG_LCO RX from MUSIC 1 | 00 – 63 | | |
| 12 | RSG_LCO RX from MUSIC 2 | 00 – 63 | | |
| 13 | RSG_LCO RX from RSG_DKT | 00 – 63 | | |
| 14 | RSG_LCO RX from RSG_SLT | 00 – 63 | | |
| 15 | RSG_LCO RX from RSG_LCO | 00 – 63 | | |
| 16 | RSG_LCO RX from IP Phone | 00 – 63 | | |

4.13.13 RSG LCO TX GAIN CONTROL (PGM 395)

Description

The TX gain of LCO on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|-----------------------|---------|---------|--------|
| 1 | RSG_LCO RX to DKTU | 00 – 63 | | |
| 2 | RSG_LCO RX to SLT | 00 – 63 | | |
| 3 | RSG_LCO RX to CTR_SLT | 00 – 63 | | |
| 4 | RSG_LCO RX to WKT | 00 – 63 | | |
| 5 | RSG_LCO RX to ACO | 00 – 63 | | |
| 6 | RSG_LCO RX to CTR_ACO | 00 – 63 | | |
| 7 | RSG_LCO RX to DCO | 00 – 63 | | |
| 8 | RSG_LCO RX to DVU | 00 – 63 | | |

4.13.14 RSG IP Phone RX GAIN CONTROL (PGM 396)

Description

The RX gain of IP Phone on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|-----------------------------------|---------|---------|--------|
| 1 | RSG_IP PHONE RX from DKTU | 00 – 63 | | |
| 2 | RSG_IP PHONE RX from SLT | 00 – 63 | | |
| 3 | RSG_IP PHONE RX from CTR_SLT | 00 – 63 | | |
| 4 | RSG_IP PHONE RX from WKT | 00 – 63 | | |
| 5 | RSG_IP PHONE RX from ACO | 00 – 63 | | |
| 6 | RSG_IP PHONE RX from CTR_ACO | 00 – 63 | | |
| 7 | RSG_IP PHONE RX from DCO | 00 – 63 | | |
| 8 | RSG_IP PHONE RX from VMIB | 00 – 63 | | |
| 9 | RSG_IP PHONE RX from DTMF | 00 – 63 | | |
| 10 | RSG_IP PHONE RX from TONE | 00 – 63 | | |
| 11 | RSG_IP PHONE RX from MUSIC 1 | 00 – 63 | | |
| 12 | RSG_IP PHONE RX from MUSIC 2 | 00 – 63 | | |
| 13 | RSG_IP PHONE RX from RSG_DKT | 00 – 63 | | |
| 14 | RSG_IP PHONE RX from RSG_SLT | 00 – 63 | | |
| 15 | RSG_IP PHONE RX from RSG_IP PHONE | 00 – 63 | | |
| 16 | RSG_IP PHONE RX from IP Phone | 00 – 63 | | |

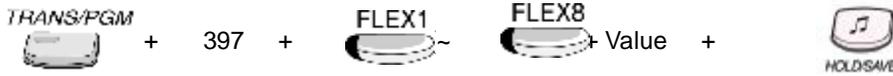
4.13.15 RSG IP Phone TX GAIN CONTROL (PGM 397)

Description

The TX gain of IP Phone on RSG can be adjusted.

Value : Gain range

PROCEDURE



| FLEX | ITEM | RANGE | DEFAULT | REMARK |
|------|----------------------------|---------|---------|--------|
| 1 | RSG_IP PHONE RX to DKTU | 00 – 63 | | |
| 2 | RSG_IP PHONE RX to SLT | 00 – 63 | | |
| 3 | RSG_IP PHONE RX to CTR_SLT | 00 – 63 | | |
| 4 | RSG_IP PHONE RX to WKT | 00 – 63 | | |
| 5 | RSG_IP PHONE RX to ACO | 00 – 63 | | |
| 6 | RSG_IP PHONE RX to CTR_ACO | 00 – 63 | | |
| 7 | RSG_IP PHONE RX to DCO | 00 – 63 | | |
| 8 | RSG_IP PHONE RX to DVU | 00 – 63 | | |

4.14 The others

4.14.1 Nation Specific (PGM 400 ~ 423)

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------------|--------------|---------|---------|----------------|
| 400 | | DTIB RX Gain | | | Korean version |
| | 1 | DTIB/DKT | 00 – 63 | 30 | |
| | 2 | DTIB/SLT | 00 – 63 | 30 | |
| | 3 | DTIB/RESERV | 00 – 63 | 30 | |
| | 4 | DTIB/RESERV | 00 – 63 | 26 | |
| | 5 | DTIB/ACO | 00 – 63 | 26 | |
| | 6 | DTIB/ RESERV | 00 – 63 | 26 | |
| | 7 | DTIB/DCO | 00 – 63 | 33 | |
| | 8 | DTIB/VMIB | 00 – 63 | 29 | |
| | 9 | DTIB/DTMF | 00 – 63 | 08 | |
| | 10 | DTIB/TONE | 00 – 63 | 32 | |
| | 11 | DTIB/MUSIC1 | 00 – 63 | 29 | |
| | 12 | DTIB/MUSIC2 | 00 – 63 | 29 | |
| | 13 | DTIB/MUSIC3 | 00 – 63 | 29 | |
| 401 | | SLIB RX Gain | | | |
| | 1 | SLIB/DKT | 00 – 63 | 42 | |
| | 2 | SLIB/SLT | 00 – 63 | 48 | |
| | 3 | SLIB/RESERV | 00 – 63 | 32 | |
| | 4 | SLIB/RESERV | 00 – 63 | 35 | |
| | 5 | SLIB/ACO | 00 – 63 | 40 | |
| | 6 | SLIB/RESERV | 00 – 63 | 31 | |
| | 7 | SLIB/DCO | 00 – 63 | 36 | |
| | 8 | SLIB/VMIB | 00 – 63 | 42 | |
| | 9 | SLIB/DTMF | 00 – 63 | 38 | |
| | 10 | SLIB/TONE | 00 – 63 | 30 | |
| | 11 | SLIB/MUSIC1 | 00 – 63 | 42 | |
| | 12 | SLIB/MUSIC2 | 00 – 63 | 42 | |
| | 13 | SLIB/MUSIC3 | 00 – 63 | 42 | |
| 404 | | ACOB RX Gain | | | |
| | 1 | ACOB/DKT | 00 – 63 | 43 | |
| | 2 | ACOB/SLT | 00 – 63 | 40 | |
| | 3 | ACOB/RESERV | 00 – 63 | 35 | |
| | 4 | ACOB/RESERV | 00 – 63 | 42 | |
| | 5 | ACOB/ACO | 00 – 63 | 40 | |
| | 6 | ACOB/RESERV | 00 – 63 | 32 | |
| | 7 | ACOB/DCO | 00 – 63 | 42 | |
| | 8 | ACOB/VMIB | 00 – 63 | 41 | |
| | 9 | ACOB/DTMF | 00 – 63 | 35 | |
| | 10 | ACOB/TONE | 00 – 63 | 47 | |
| | 11 | ACOB/MUSIC1 | 00 – 63 | 41 | |
| | 12 | ACOB/MUSIC2 | 00 – 63 | 41 | |
| | 13 | ACOB/MUSIC3 | 00 – 63 | 41 | |
| 14 | ACOB/MODEM | 00 – 63 | 40 | | |

| 406 | | DCOB RX Gain | | | |
|-----|-----------------|-----------------|---------|---------|--------|
| | 1 | DCOB/DKT | 00 – 63 | 26 | |
| | 2 | DCOB/SLT | 00 – 63 | 37 | |
| | 3 | DCOB/RESERV | 00 – 63 | 26 | |
| | 4 | DCOB/RESERV | 00 – 63 | 26 | |
| | 5 | DCOB/ACO | 00 – 63 | 24 | |
| | 6 | DCOB/RESERV | 00 – 63 | 15 | |
| | 7 | DCOB/DCO | 00 – 63 | 32 | |
| | 8 | DCOB/VMIB | 00 – 63 | 32 | |
| | 9 | DCOB/DTMF | 00 – 63 | 32 | |
| | 10 | DCOB/TONE | 00 – 63 | 32 | |
| | 11 | DCOB/MUSIC1 | 00 – 63 | 32 | |
| | 12 | DCOB/MUSIC2 | 00 – 63 | 32 | |
| | 13 | DCOB/MUSIC3 | 00 – 63 | 32 | |
| | 14 | DCOB/MODEM | 00 – 63 | 37 | |
| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
| 407 | | VMIB RX Gain | | | |
| | 1 | VMIB/DKT | 00 – 63 | 36 | |
| | 2 | VMIB/SLT | 00 – 63 | 36 | |
| | 3 | VMIB/RESERV | 00 – 63 | 27 | |
| | 4 | VMIB/RESERV | 00 – 63 | 36 | |
| | 5 | VMIB/ACO | 00 – 63 | 36 | |
| | 6 | VMIB/RESERV | 00 – 63 | 23 | |
| | 7 | VMIB/DCO | 00 – 63 | 36 | |
| | 8 | VMIB/MUSIC1 | 00 – 63 | 32 | |
| 9 | VMIB/MUSIC2 | 00 – 63 | 32 | | |
| 408 | | DTMF RC Gain | | | |
| | 1 | DTMF/SLT | 00 – 63 | 23 | |
| | 2 | DTMF/RESERV | 00 – 63 | 23 | |
| | 3 | DTMF/ACO | 00 – 63 | 15 | |
| | 4 | DTMF/RESERV | 00 – 63 | 15 | |
| 5 | DTMF/DCO | 00 – 63 | 24 | | |
| 409 | | EXT PAGE Gain | | | |
| | 1 | EXT PAGE/DKT | 00 – 63 | 26 | |
| | 2 | EXT PAGE/SLT | 00 – 63 | 32 | |
| | 3 | EXT PAGE/RESERV | 00 – 63 | 32 | |
| | 4 | EXT PAGE/RESERV | 00 – 63 | 26 | |
| | 5 | EXT PAGE/ACO | 00 – 63 | 28 | |
| | 6 | EXT PAGE/RESERV | 00 – 63 | 28 | |
| | 7 | EXT PAGE/DCO | 00 – 63 | 37 | |
| | 8 | EXT PAGE/VMIB | 00 – 63 | 37 | |
| | 9 | EXT PAGE/MUSIC1 | 00 – 63 | 37 | |
| | 10 | EXT PAGE/MUSIC2 | 00 – 63 | 37 | |
| 11 | EXT PAGE/MUSIC3 | 00 – 63 | 37 | | |
| 410 | | CPT Gain | | | |
| | 1 | CPT/ACO | 00 – 63 | 15 | |
| | 2 | CPT/RESERV | 00 – 63 | 15 | |
| 3 | CPT/DCO | 00 – 63 | 24 | | |
| 411 | | MODEM Gain | | | |
| | 1 | MODEM/ACO | 00 – 63 | 20 | |
| 2 | MODEM/RESERV | 00 – 63 | 20 | | |

| | 3 | MODEM/DCO | 00 – 63 | 24 | |
|-----|------|-----------------------------|---------|------------|-------------|
| 412 | | Short SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 28 | |
| | 2 | Long ACO | 00 – 63 | 32 | |
| 413 | | Long SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 37 | |
| | 2 | Long ACO | 00 – 63 | 37 | |
| 414 | | Far SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 45 | |
| | 2 | Long ACO | 00 – 63 | 45 | |
| 415 | | Short ACO Gain | | | SAF only |
| | 1 | Short SLIB | 00 – 63 | 34 | |
| | 2 | Long SLIB | 00 – 63 | 46 | |
| | 3 | Far SLIB | 00 – 63 | 52 | |
| | 4 | DTIB | 00 – 63 | 26 | |
| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
| 416 | | Long ACO Gain | | | SAF only |
| | 1 | Short SLIB | 00 – 63 | 34 | |
| | 2 | Long SLIB | 00 – 63 | 42 | |
| | 3 | Far SLIB | 00 – 63 | 48 | |
| | 4 | DTIB | 00 – 63 | 32 | |
| 420 | | System Tone Frequency | | | |
| | 1 | Dial Tone | 4digits | 0400, 0425 | |
| | 2 | Ring Back Tone | 4digits | 0400, 0425 | |
| | 3 | Busy Tone | 4digits | 0400, 0000 | |
| | 4 | Error Tone | 4digits | 0400, 0000 | |
| | 5 | Dummy Dial Tone | 4digits | 0350, 0440 | |
| 421 | | Differential Ring Frequency | | | |
| | 1 | Ring 1 | 4digits | 1000, 1020 | |
| | 2 | Ring 2 | 4digits | 0890, 0910 | |
| | 3 | Ring 3 | 4digits | 1260, 1280 | |
| | 4 | Ring 4 | 4digits | 0800, 0820 | |
| 422 | | Distinct Ring Frequency | | | |
| | 1 | Ring 1 | 4digits | 0480, 0000 | |
| | 2 | Ring 2 | 4digits | 0400, 0000 | |
| | 3 | Ring 3 | 4digits | 0620, 0000 | |
| | 4 | Ring 4 | 4digits | 0770, 0000 | |
| 423 | | ACNR Tone Cadence | | | |
| | 1 | Ring-Back Tone | 0-255 | 050, 100 | 20msec base |
| | 2 | Busy Tone | 0-255 | 025, 025 | 20msec base |
| | 3 | Error Tone | 0-255 | 012, 012 | 20msec base |
| | 4 | S –Dial Tone | 0-255 | 070, 000 | 20msec base |
| 424 | | DTIB ACO Rx Gain | | | SAF only |
| | 1 | Short ACO | 00 – 63 | 37 | |
| | 2 | Long ACO | 00 – 63 | 42 | |

4.14.2 Initialization (PGM 450)

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------------|--|-------|---------|--|
| 450 | | Initialization | | | |
| | 1 | Flexible Numbering Plan Initialization | | | PGM105, PGM106, PGM107 |
| | 2 | Station Database Initialization | | | PGM110, PGM111, PGM112, PGM113, PGM114, PGM 116, PGM117, PGM118, PGM119, PGM121,PGM122, PGM123, PGM124, PGM179 |
| | 3 | CO Line Database Initialization | | | PGM140, PGM141, PGM142, PGM143, PGM144 |
| | 4 | System Feature Database Initialization | | | PGM160 – PGM 177, PGM108 |
| | 5 | Station Group Database Initialization | | | PGM190, PGM191 |
| | 6 | ISDN Tables Database Initialization | | | PGM201, PGM202, PGM230, PGM231 |
| | 7 | Reserved | | | None(Reserved) |
| | 8 | System Timer Database Initialization | | | PGM180 – PGM182 |
| | 9 | Toll Table Database Initialization | | | PGM224, PGM225 |
| | 10 | LCR Database Initialization | | | PGM220 – PGM222 |
| | 11 | Tables Initialization | | | PGM227 – PGM229, PGM232 – PGM235 |
| | 12 | Flexible Button Program Initialization | | | PGM115 |
| | 13 | Networking Database Initialization | | | PGM 320, PGM321,PGM322,PGM323, PGM 324 |
| | 14 | All Database Initialization | | | Above All |
| | 15 | System Reset By Software | | | |
| | 16 | DID RERT Table | | | Reroute DEST of PGM 231 |
| 17 | Board Data | | | PGM 340 | |

4.14.3 Print Prot Database (PGM 451)

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------|---------|-----------------|---|
| 451 | | Print Prot Data | | | |
| | 1 | Flexible Numbering Plan Print | | | |
| | 2 | Station Database Print | STN_R | | |
| | 3 | CO Line Database Print | CO_R | | |
| | 4 | System Feature Database Print | | | |
| | 5 | Station Group Database Print | | | |
| | 6 | ISDN Tables Database Print | | | |
| | 7 | System Timer Database Print | | | |
| | 8 | Toll Table Database Print | | | |
| | 9 | LCR Database Print | | | |
| | 10 | Other Tables Print | | | |
| | 11 | Nation Specific Database Print | | | |
| | 12 | Flexible Button Program Print | STN_R | | |
| | 13 | Networking Data Print | | | |
| | 14 | All Database Print | | | |
| | 15 | LCD Message Print | | | |
| | 1 | Language | 00 – 12 | Nation specific | 00:ENG 01:ITA 02:FIN 03:DUT 04:SWE 05:DAN 06:NOR 07:HUN 08:GER 09:FRE 10:POR 11:SPA 12:KOR |
| | 2 | Station Type | 0 – 2 | 0 | 0: NORMAL 1: LG-GAP 2: LARGE |
| 16 | | Quit Print | | | |

Section 5. Quick Reference ADMIN. Programming Table

5.1 NUMBERING PLAN

5.1.1 Flexible Numbering Plan

The following numbering plan can be changed by ADMIN Programming 104-107 depending on the user's needs.

| NUMBER | ITEM | REMARK |
|------------------------------|---|--------|
| 10-35 | Intercom Call | |
| 620-629 | Group Pilot Number | |
| 501-510 | Internal Page Zone | |
| 543 | Internal All Call Page | |
| 544 | Meet Me Page | |
| 545 | External Page Zone | |
| 548 | External All Call Page | |
| 549 | All Call Page (Int & Ext) | |
| 550 | SMDR Account Code Enter | SLT |
| 551 | Flash Command to CO Line | SLT |
| 552 | Last Number Redial | SLT |
| 553 | DND (Toggle On/Off) | SLT |
| 554 | Call Forward | SLT |
| 555 | Speed Dial Programming | SLT |
| 556 | Message Wait/Callback Enable | SLT |
| 557 | Message Wait/Callback Return | SLT |
| 558 | Speed Dial Access | SLT |
| 559 | Cancel DND/FWD/Pre-MSG | SLT |
| 560 | SLT Hold | SLT |
| 563 | Programming Mode Enter Code | SLT |
| 564 | ACD Reroute | |
| 565 | Alarm Reset | |
| 566 | Group Call Pickup | |
| 568 | UCD DND | |
| 569 | Night Answer | |
| 601-608 | Call Parking Locations | |
| 7 | Direct Call Pickup | |
| 801-808 | CO Line Group Access | |
| 8801-8816 | Individual CO Access | |
| 8901 | Tie Routing Access | |
| 8* | Retrieve Held CO Line | |
| 8#xx | Retrieve Held Individual CO Line | |
| 9 (or 0, depend on a nation) | Access CO Line In the 1st available CO Line Group | |
| 0 (or 9, depend on a nation) | Attendant Call | |
| #*1 | 1st Door Open | |
| #*2 | 2nd Door Open | |
| *8 | VM Message Waiting Enable | |
| *9 | VM Message Waiting Disable | |

- n To enter user programming mode, press the **[TRANS/PGM]** button in a keyset or dial 5 6 3 (Programming enter code) in a SLT.
- n The following numbering plan is fixed, so it cannot be changed by ADMIN Programming.

5.1.2 Station Programming

| NUMBER | ITEM | REMARK |
|--------|--|-----------------|
| 11 | Differential Ring | Keypad |
| 12 | Intercom Answer Mode (1 HF / 2 TONE / 3 PV) | Keypad |
| 13 | SMS Message Display | LDP Keypad |
| 14 | Enblock Mode | LDP Keypad |
| 15 | SMS/ Notice Display | LDP Keypad |
| 16 | Scroll Speed | LDP Keypad |
| 17 | Ear-Mic Headset | LDP Keypad |
| 18 | ICM Ring | LDP Keypad |
| 19 | CO Ring | LDP Keypad |
| 21 | Station COS Down | |
| 22 | Station COS Restore | |
| 23 | Walking COS | Keypad |
| 31 | Authorization Code Registration | |
| 32 | Authorization Code Change | |
| 33 | Registration Mobile - Extension | |
| 34 | Active Mobile - Extension | |
| 41 | Wake-up Time Registration (One-time/ Continuous) | |
| 42 | Wake-up Time Cancel | |
| 43 | Active Conference Room | |
| 44 | Deactive Conference Room | |
| 51 | Pre-selected MSG Activation | |
| 52 | Set Custom Message | |
| 61 | Record VMIB User Greeting | |
| 62 | Listen VMIB Time & Date | |
| 63 | Listen VMIB Station Number | |
| 64 | Listen VMIB Station Status | |
| 65 | Record VMIB Page Message | |
| 66 | Erase VMIB User Greeting | |
| 67 | Erase VMIB Page Message | |
| 71 | LCD Display Mode (English/Domestic Language) | Keypad |
| 72 | MPB Version Display | Keypad |
| 73 | Background Music | Keypad |
| 74 | Station User Name Registration | |
| 75 | Headset/Speakerphone Mode | Keypad |
| 76 | Headset Ring Mode | Keypad |
| 77 | WTU Station Number Receive | Keypad |
| 78 | Serial No/SW Packages | Keypad with LCD |
| 79 | PC – Phone Lock Key | |
| ** | HOTDESK Logout | |
| *0 | HOTDESK Login | |
| *1 | Relocation Out | |
| *2 | Relocation IN | |
| *3 | Register Bluetooth | |
| *4 | Bluetooth Usage | |

5.1.3 Attendant Programming

| NUMBER | ITEM | REMARK |
|--------|--|------------------|
| 0111 | Print SMDR (Station Base) | System Attendant |
| 0112 | Delete SMDR (Station Base) | System Attendant |
| 0113 | Print SMDR (Group Base) | System Attendant |
| 0114 | Delete SMDR (Group Base) | System Attendant |
| 0115 | Display Call Charge | System Attendant |
| 0116 | Abort Printing | System Attendant |
| 0117 | Print Lost Call | System Attendant |
| 0118 | Delete Lost Call | System Attendant |
| 0121 | Print All Summary | System Attendant |
| 0122 | Print All Periodically | System Attendant |
| 0123 | Abort Periodic Printing | System Attendant |
| 0124 | Print ATD Traffic | System Attendant |
| 0125 | Print Call Summary | System Attendant |
| 0126 | Print All Hourly | System Attendant |
| 0127 | Print H/W Usage | System Attendant |
| 0128 | Print CO Summary | System Attendant |
| 0129 | Print CO Hourly | System Attendant |
| 021 | Station COS Down (COS 7) | Attendant |
| 022 | Station COS Restore | Attendant |
| 031 | Authorization Code Cancel | System Attendant |
| 041 | System Date/Time Setting | Attendant |
| 042 | Wake-up Time Registration (One-time /Continuous) | Attendant |
| 043 | Wake-up Time Cancel | System Attendant |
| 044 | LCD Date Mode Change | System Attendant |
| 045 | LCD Time Mode Change | System Attendant |
| 046 | Use Network Time & Date | System Attendant |
| 047 | Monitor Conference Room | Attendant |
| 051 | Pre-select MSG Activation | Attendant |
| 052 | Pre-select MSG Deactivation | Attendant |
| 053 | Custom Display Message Program (11-20) | System Attendant |
| 054 | Erase VM MSG | Attendant |
| 06 | Record VMIB System Greeting | System Attendant |
| 071 | DND/Call Forward/Pre-selected MSG Cancel | Attendant |
| 072 | Register Station Name | Attendant |
| 073 | Disable CO Outgoing | System Attendant |
| 074 | Automatic Day/Night/Weekend Mode Program | Attendant |
| 075 | ICM BOX BGM Channel select | Attendant |
| 076 | External Page Music -1 Assignment/Cancel | Attendant |
| 079 | Prepaid Call | |
| 07* | LCD Display Language | |
| 0# | WHTU Subscription | |

5.1.4 Flexible Button Programming Code

| NUMBER | ITEM | REMARK |
|--------|--|------------------|
| 11 | Differential Ring | |
| 21 | Station COS Down | |
| 22 | Station COS Restore | |
| 23 | Walking COS | |
| 31 | Authorization Code Registration | |
| 32 | Authorization Code Change | |
| 41 | Wake-up Time Registration (One-time /Continuous) | |
| 42 | Wake-up Time Cancel | |
| 51 | Pre-selected MSG Activation | |
| 52 | Set Custom Message | |
| 53 | CLIR Key | |
| 54 | Two Way Recording | |
| 55 | Attendant DND | Networking Only |
| 56 | Attendant Camp On(Queue) BTN Assignment | Attendant |
| 57 | Call Log Display | |
| 61 | Record VMIB User Greeting | |
| 64 | Listen VMIB Station Status | |
| 66 | Erase VMIB User Greeting | |
| 71 | LCD Display Mode (English/Domestic Language) | |
| 73 | Background Music | |
| 74 | Station User Name Registration | |
| 75 | Headset/Speakerphone Mode | |
| 76 | Headset Ring Mode | |
| 80 | Account Code Activation | |
| 81 | DID Call Wait | |
| 83 | [ICM Hold] BTN Assignment | |
| 84 | [LOOP] BTN Assignment | |
| 85 | [Camp-on] BTN Assignment | |
| 86 | [INTRUSION] BTN Assignment | System Attendant |
| 87 | [UCD DND] BTN Assignment | + Hunt Grp No. |
| 89 | Keypad Facility Key | |
| 8* | {ACD STATUS} BTN Assignment | |
| 91 | [CONF] BTN Assignment | 2/8 BTN Keypad |
| 92 | [CALLBK] BTN Assignment | 2/8 BTN Keypad |
| 93 | [DND/FWD] BTN Assignment | 2/8 BTN Keypad |
| 94 | [FLASH] BTN Assignment | 2/8 BTN Keypad |
| 95 | [MUTE] BTN Assignment | 2/8 BTN Keypad |
| 96 | [MON] BTN Assignment | 2/8 BTN Keypad |
| 97 | [REDIAL] BTN Assignment | 2/8 BTN Keypad |
| 98 | DID Restriction | |
| 99 | DISA Restriction | |
| 9* | Call Recording via USB | |

5.2 ADMIN PROGRAMMING INDEX

| MAIN MENU | PGM | ITEM |
|-------------------------|--|---------------------------------------|
| PRE-PROGRAMMED DATABASE | 100 | Location Program |
| | 104 | Numbering Plan Type |
| | 105 | Flexible Number Plan – Station Number |
| | 106 | Flexible Number Plan A |
| | 107 | Flexible Number Plan B |
| | 108 | IP Setting |
| | 109 | Flexible Number Plan C |
| | 250 | Hot Desk Attribute |
| STATION BASE PROGRAM | 110 | Station ID |
| | 111 | Station Attribute I |
| | 112 | Station Attribute II |
| | 113 | Station Attribute III |
| | 114 | ISDN Station Attribute |
| | 115 | Flex Button Assignment |
| | 116 | Station COS |
| | 117 | CO Line Group Access |
| | 118 | Internal Page Zone |
| | 119 | Conference Page Zone |
| | 120 | ICM Tenancy Group |
| | 121 | Preset Call Forward |
| | 122 | Hot/Warm Line Selection |
| | 123 | CTI Station Attribute |
| | 124 | SMDR Account Group |
| | 125 | Copy DSS Button |
| 130 | Display Stations by COS | |
| 131 | Display Stations by CO Line Group Access | |
| CO LINE BASE PROGRAM | 140 | CO Service Type |
| | 141 | CO Line Attribute I |
| | 142 | CO Line Attribute II |
| | 143 | ISDN CO Line Attribute I |
| | 144 | CO Ring Assignment |
| | 145 | CO Ring Assignment Display |
| | 146 | CO Line Attribute III |
| SLOT BASE PROGRAM | 155 | Slot Attribute |
| SYSTEM BASE PROGRAM | 160 | System Attribute – I |
| | 161 | System Attribute – II |
| | 162 | ADMIN Password |
| | 163 | Alarm Attributes |
| | 164 | Attendant Assignment |
| | 165 | Auto Attendant VMIB Annc. Assignment |
| | 166 | CO-to-CO COS |
| | 167 | DID/DISA Destination |
| | 168 | External Control Contact |
| 169 | LCD Date/Time/Language Display Mode | |
| SYSTEM BASE PROGRAM | 170 | Modem |
| | 171 | Music |
| | 172 | PBX Access Code |
| | 173 | PLA Priority Setting |
| | 174 | RS-232C Port Setting |
| | 175 | Print Port Selection |
| | 176 | Pulse Dial Ratio |
| | 177 | SMDR Attributes |
| | 178 | System Date/Time Setting |

| MAIN MENU | PGM | ITEM |
|--------------------------|--------------------------|---|
| SYSTEM BASE PROGRAM | 179 | Linked Station Pairs Table |
| | 180 | System Timers – I |
| | 181 | System Timers – II |
| | 182 | System Timers – III |
| | 185 | CIDU Setting |
| DCOB | 186 | DCOB System attribute |
| | 187 | DCOB CO Line Attribute |
| STATION GROUP | 190 | Station Group Assign |
| | 191 | Station Group Attribute |
| ISDN SYSTEM BASE PROGRAM | 200 | ISDN Attributes |
| | 201 | COLP Table |
| | 202 | MSN Table |
| | 203 | ISDN System Attributes |
| TABLES | 220 | LCR Attributes |
| | 221 | LCR – Leading Digit Table |
| | 222 | LCR – Digit Modification Table |
| | 223 | LCR Table Initialization |
| | 224 | Toll Exception Table – Allow A (Entry no:01-30) |
| | | Toll Exception Table – Deny A (Entry no:01-30) |
| | | Toll Exception Table – Allow B (Entry no:01-30) |
| | | Toll Exception Table – Deny B (Entry no:01-30) |
| | 225 | Canned Toll Table –Allow (Entry no:01-10) |
| | | Canned Toll Table –Deny (Entry no:01-10) |
| | 226 | Emergency Code Table |
| | 227 | Authorization Code Table |
| | 228 | Customer Call Routing |
| | 229 | Executive/Secretary Table |
| | 231 | Flexible DID Table |
| | 232 | System Speed Zone |
| | 233 | Weekly Time Table |
| 234 | Voice Mail Dialing Table | |
| 235 | Tie Routing Table | |
| 236 | Mobile Extension | |
| NETWORKING | 320 | Networking Basic Attribute |
| | 321 | Networking Supplementary Attribute |
| | 322 | Networking CO Line Attribute |
| | 324 | Networking Routing Table |
| VOIB | 340 | VOIB IP Setting |
| RSG | 380 | VOIB Slot For RSG/IP |
| | 381 | RSG/IP No Assign |
| | 382 | RSG/IP Attribute |
| | 383 | RSG Attribute 1 |
| | 384 | RSG Attribute 2 |
| | 385 | RSG Alarm Attribute |
| | 386 | IP Phone Attribute |
| | 390 | RSG DKT RX GAIN |
| | 391 | RSG DKT TX GAIN |
| | 392 | RSG SLT RX GAIN |
| | 393 | RSG SLT TX GAIN |
| | 394 | RSG LCO RX GAIN |
| | 395 | RSG LCO TX GAIN |
| | 396 | IP Phone RX GAIN |
| 397 | IP Phone TX GAIN | |

| MAIN MENU | PGM | ITEM |
|--------------------------|-----------------------------|-------------------------------|
| NATION SPECIFIC | 400 | DTIB Rx Gain Control |
| | 401 | SLIB Rx Gain Control |
| | 404 | ACOB Rx Gain Control |
| | 406 | DCOB Rx Gain Control |
| | 407 | VMIB Rx Gain Control |
| | 408 | DTMF Receiver Rx Gain Control |
| | 409 | EXT Page Rx Gain Control |
| | 410 | CPTU Rx Gain Control |
| | 411 | Modem Rx Gain Control |
| | 412 | Short SLIB Gain Control |
| | 413 | Long SLIB Gain Control |
| | 414 | Far SLIB Gain Control |
| | 415 | Short ACO Gain Control |
| | 416 | Long ACO Gain Control |
| | 420 | System Tone Frequency |
| | 421 | Differential Ring Frequency |
| 422 | Distinct CO Ring Frequency | |
| 423 | ACNR Tone Cadence | |
| 425 | Singular Table (Korea Only) | |
| INITIALIZATION (DB INIT) | 450 | Initialization |
| | 452 | Init By MPB Version |
| PRINT DATABASE | 451 | Print Prot Database |

5.3 DEFAULT VALUES

5.3.1 LOCATION PROGRAM

| PGM | FLEX | ITEM | DEFAULT | REMARK |
|-----|------|--------------------|---------|---------------|
| 100 | 1 | Nation Code | 82 | Max 4 digits |
| | 2 | Customer Site Name | - | Max 24 digits |

5.3.2 RACK SLOT ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------|-----------------|-----------------|--------|
| 101 | - | Slot Assignment | Refer to Note 2 | Refer to Note 1 | |

* *Note 1)* If the DIP switch of the manual board detection (DIP Switch 4) is ON, system will detect the installed board type automatically. If the DIP switch 4 is OFF, the board type code must be entered at each slot. After manual Rack Slot assignment, user should reset the system manually.

* *Note 2)* Board Type Code Table:

| STA | CODE | COL | CODE | STA & COL | CODE | Etc | CODE |
|-------|------|-------|------|-----------|------|-------|------|
| DTIB4 | 11 | LCOB2 | 33 | STIB2 | 52 | VMIB | 61 |
| DTIB8 | 12 | LCOB4 | 34 | STIB1 | 53 | AAFB | 62 |
| SLIB4 | 13 | CBIB | 54 | | | VMIBE | 64 |
| SLIB8 | 14 | | | | | AAFB | 65 |

Board type on basic MBU(Slot 1- Slot3, Slot5) and VMIB slot (slot 7) can not be changed.

5.3.3 WTIB PORT NUMBER ASSIGNMENT

This program is not available in IP LDK-20.

5.3.4 LOGICAL SLOT ASSIGNMENT

| PGM | FLEX | ITEM | DEFAULT | REMARK |
|-----|------|-----------|---------------|--|
| 103 | 1 | COL Board | Refer to Note | |
| | 2 | STA Board | Refer to Note | For RSGM, IP phone virtual slot '99' should be programmed. |
| | 3 | VMIB | Not Assigned | |

* Note) If the DIP switch of the manual board detection DIP Switch 4) is ON, system will detect the logical slot assign in sequence as increase order automatically. If the DIP switch 4 is OFF, the logical slot assignment must be entered at each board type. After manual logical slot assignment, user should reset the system manually.

5.3.5 NUMBERING PLAN TYPE

| PGM | ITEM | STA RANGE | DEFAULT | REMARK |
|-----|-------------------|-----------|---------|---|
| 104 | Number Set Type 1 | 10 – 37 | Type 1 | As the basic type, the 1 st digit of station number should be 1 – 4. |
| | Number Set Type 2 | 10 – 37 | | The station number can be changed within 79. |
| | Number Set Type 3 | 10 – 37 | | |
| | Number Set Type 4 | 700 – 727 | | |
| | Number Set Type 5 | 200 – 227 | | |
| | Number Set Type 6 | 10 – 37 | | |
| | Number Set Type 7 | 100 – 127 | | |
| | Number Set Type 8 | 10 – 37 | | The station number can be changed within 99. |

5.3.6 FLEXIBLE NUMBERING PLAN

| PGM | FLEX | FIELD | NUMBER SET1 | NUMBER SET2 | NUMBER SET3 | NUMBER SET4 | NUMBER SET5 | NUMBER SET6 | NUMBER SET7 | NUMBER SET8 | REMARK |
|-----|------|------------------------------|-------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------------|--------|
| 105 | | Intercom call | 10 - 35 | 10 - 35 (10 ~ 79) | 10 - 35 | 700-725 | 200 - 225 | 21-45 | 100 - 125 | 10 - 35 (10 ~ 99) | |
| 106 | 1 | Group Pilot Number | 620 - 629 | *620 - *629 | 620 - 629 | 620-629 | 620 - 629 | *620 - *629 | 620 - 629 | *620 - *629 | |
| | 2 | Internal Page Zone | 501 - 510 | *501 - *510 | #01-#10 | #01-#10 | #01-#10 | *501 - *510 | 401 - 410 | *501 - *510 | |
| | 3 | Internal All Call Page | 543 | *543 | #5 | #7 | #5 | *543 | 43 | *543 | |
| | 4 | Meet Me Page | 544 | *544 | ## | ## | ## | *544 | 44 | *544 | |
| | 5 | External Page Zone 1 | 545 | *545 | #6 | #41 | #6 | *545 | 45 | *545 | |
| | 6 | All Call Page (Int & Ext) | 549 | *549 | #00 | #6 | #00 | *549 | 49 | *549 | |
| | 7 | SMDR Account Code Enter | 550 | *550 | 550 | 91 | 50 | *550 | 50 | *550 | SLT |
| | 8 | Flash Command to CO Line | 551 | *551 | 551 | 551 | 51 | *551 | 51 | *551 | SLT |
| | 9 | Last Number Redial | 552 | *552 | 552 | 552 | 52 | *552 | 52 | *552 | SLT |
| | 10 | DND (Toggle On/Off) | 553 | *553 | 553 | 553 | 53 | *553 | 53 | *553 | SLT |
| | 11 | Call Forward | 554 | *554 | 554 | 554 | 54 | *554 | 54 | *554 | SLT |
| | 12 | Speed Dial Programming | 555 | *555 | 555 | *40 | 55 | *555 | 55 | *555 | SLT |
| | 13 | Message Wait/Callback Enable | 556 | *556 | 556 | #66 | 56 | *556 | 56 | *556 | |
| | 14 | Message Wait/Callback Return | 557 | *557 | 557 | *67 | 57 | *557 | 57 | *557 | SLT |
| | 15 | Speed Dial Access | 558 | *558 | 558 | *9 | 58 | *558 | 58 | *558 | SLT |
| | 16 | Cancel DND/FWD/Pre-MSG | 559 | *559 | 559 | 559 | 59 | *559 | 59 | *559 | SLT |
| | 17 | SLT Hold | 560 | *560 | 560 | 560 | 690 | *560 | 30 | *560 | SLT |
| | 18 | Reserved | | | | | | | | | |
| | 19 | Reserved | | | | | | | | | |
| | 20 | Programming Mode Enter Code | 563 | *563 | 563 | 563 | 693 | *3 | 33 | *3 | SLT |
| | 21 | ACD Reroute | 564 | *564 | 564 | 564 | 694 | *4 | 34 | *4 | |

| PGM | FLEX | FIELD | NUMBER SET1 | NUMBER SET2 | NUMBER SET3 | NUMBER SET4 | NUMBER SET5 | NUMBER SET6 | NUMBER SET7 | NUMBER SET8 | REMARK |
|-----|------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|
| 107 | 1 | Alarm Reset | 565 | *565 | 565 | *565 | 695 | *565 | 35 | *565 | |
| | 2 | Group Call Pickup | 566 | *566 | ** | *1 | ** | *566 | 36 | *566 | |
| | 3 | UCD DND | 568 | *568 | 568 | 568 | 698 | *568 | 68 | *568 | |
| | 4 | Night Answer | 569 | *569 | 577 | 2 | 699 | *569 | 69 | *569 | |
| | 5 | Call Parking Locations | 601 – 608 | *601 -* 608 | 601 – 608 | 601 – 608 | 601 – 608 | *601 -* 608 | 601 – 608 | *601 -* 608 | |
| | 6 | Direct Call Pickup | 7 | *7 | *7 | *42 | 7 | *7 | 7 | *7 | |
| | 7 | CO Line Group Access | 8xx | 8xx | 8xx | 4xx | 8xx | 8xx | 8xx | #8xx | |
| | 8 | Individual CO Access | 88xx | 88xx | 88xx | 48xx | 88xx | 88xx | 88xx | #88xx | |
| | 9 | Tie Routing Access | 8901 | 8901 | 8901 | 4901 | 89 | 8901 | 8901 | #401 | |
| | 10 | Retrieve Held CO Line | 8* | 8* | 8* | 4* | 8* | 8* | 8* | #8* | |
| | 11 | Retrieve Held Individual CO Line | 8#xx | 8#xx | 8#xx | 4#xx | 8#xx | 8#xx | 8#xx | #8#xx | |
| | 12 | Access CO Line In the 1st available CO Line Group | 9 | 9 | 9 | 1 | 0 | 9 | 9 | 0 | |
| | 13 | Attendant Call | 0 | 0 | 0 | 0 | 9 | 0 | 0 | #9 | |
| | 14 | 1st Door Open | #*1 | #*1 | #*1 | #*1 | #*1 | #*1 | *1 | #*1 | |
| | 15 | 2nd Door Open | #*2 | #*2 | #*2 | #*2 | #*2 | #*2 | *2 | #*2 | |
| | 16 | VM Message Waiting Enable | *8 | *8 | *8 | *8 | *8 | *8 | *8 | *8 | |
| | 17 | VM Message Waiting Disable | *9 | *9 | *9 | *9 | *9 | *9 | *9 | *9 | |
| 109 | 1 | MCID Request | *0 | *0 | *0 | *0 | *0 | *0 | *0 | *0 | |
| | 2 | RSG Door Open 1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | |
| | 3 | RSG Door Open 2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | |
| | 4 | Conference Room | 57 | *57 | *57 | 57 | *57 | *57 | *57 | *57 | |
| | 5 | SLT Conference Page Join | 58 | *58 | *58 | 58 | *58 | *58 | *58 | *58 | |
| | 6 | Unsupervised Conf Timer Extend | ## | ## | *## | *## | *## | ## | ## | ## | |

5.3.7 IP SETTING

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------|-----------|---------------|----------|
| 108 | 1 | IP Name | Max 15 | | |
| | 2 | Server IP Address | 12 Digits | 192.168.1.1 | Skip : # |
| | 3 | CLI IP Address | 12 Digits | | |
| | 4 | Gateway Address | 12 Digits | | |
| | 5 | Subnet Mask | 12 Digits | 255.255.255.0 | |
| | 6 | PPP Usage | ON/OFF | OFF | |

5.3.8 EXPANDED FLEXIBLE NUMBERING PLAN

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------|-------|---------|--------|
| 109 | 1 | MCID REQUEST | Max 8 | *0 | |
| | 2 | RSG DOOR OPEN 1 | Max 8 | *1 | |
| | 3 | RSG DOOR OPEN 2 | Max 8 | *2 | |
| | 4 | CONFERENCE ROOM | Max 8 | 57 | |
| | 5 | SLT CONFERENCE PAGE JOIN | Max 8 | 58 | |
| | 6 | US CONF TMR EXTENSION | Max8 | ## | |

5.3.9 STATION ID ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|-------|---------|--------|
| 110 | 1 | ID | 01-11 | | |
| | 2 | DSS/DLS MAP – Associate STA | STA # | | |

5.3.10 STATION ATTRIBUTE I/II/III

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------------------------|----------------------------------|-------------------|--|
| 111 | 1 | Auto Speaker Selection | ON / OFF | ON | If this value is set to ON, Station user can access a CO line or make a DSS call by pressing appropriate {CO} or {DSS} button without lifting handset or pressing the [MON] button. |
| | 2 | Call Forward | ON / OFF | ON | If this value is set to ON, an incoming call can be forwarded to the other destination. |
| | 3 | DND | ON / OFF | ON | If this value is set to ON, an incoming call can be denied. |
| | 4 | Data Line Security | ON / OFF | OFF | If this value is set to ON, override and camp-on from other stations are prohibited when this station is busy. |
| | 5 | Howling Tone to SLT | ON / OFF | ON | If this value is set to ON, System gives howling tone to SLT. In SLT, user keep off-hook state continually, system gives error tone first, then off-hook state still continue, system gives very noisy error tone. This noisy error tone is howling tone. |
| | 6 | ICM Box Signaling | ON / OFF | OFF | If this value is set to ON, This station can receive intercom box signal. |
| | 7 | No Touch Answer | ON / OFF | ON | If this value is set to ON, the station can be responded to the transferred CO call automatically when station mode is H/P. |
| | 8 | Page Access | ON / OFF | ON | If this value is set to ON, This station can page to other station. |
| | 9 | Ring Type | 0 - 4 | 0 | If this value is not 0, this ring type is heard to called party station of intercom call. |
| | 10 | Speaker Ring | 1:Speaker, 2: Headset. 3:BOTH | Speaker- Phone | This feature determines the ringing path whether Speaker or Headset and even both. |
| | 11 | Speakerphone | ON/OFF | ON | If this value is set to ON, Speakerphone can be used. |
| | 12 | VMIB Slot | | 0 | Not available in IP LDK-20 |
| | 13 | ICM Group | 1 - 5 | 1 | This feature selects intercom Tenancy Group, which this station belongs to. |
| | 14 | Error Tone for TAD | ON / OFF | OFF | If this value is set to ON, and TAD is used in SLT port, when the caller hangs up, busy tone will be provided to TAD instead of error tone. |
| | 15 | SLT Flash Drop | ON / OFF | OFF | If this value is set to ON, CO Call is dropped by pressing [FLASH] button or Hook Flashing |
| | 16 | Loop LCR Account Code | ON / OFF | OFF | If this value is set to ON, station user must enter Account Code to use Loop LCR. |
| | 17 | VMIB Message Type | FIFO/LIFO | LIFO | In FIFO state, the first recorded VMIB message can play. Oppositely in LIFO state, the latest message plays. |
| | 18 | Off-net Call Forward | EN/DIS | ENABLE | If this value is set to ON, Off-net call forward can be used. |
| | 19 | Forced Hands-free | ON / OFF | OFF | The privilege to make the called party to handsfree mode forcedly |
| | 20 | CIDSLT CAS GAIN | 00-20 | 5 | CAS gain for CID SLT, Not available in LDK-20 |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------|----------|---------|--|
| 111 | 21 | CIDSLT FSK GAIN | 00-20 | 5 | FSK gain for CID SLT, Not available in LDK-20 |
| | 22 | CALLER Voice Over | ON/OFF | OFF | Facility to make Voice-Over to busy station. |
| 112 | 1 | CO Warning Tone | ON / OFF | OFF | In case of restricting outgoing CO call time, if this value is set to ON, the station user receives warning tone during CO call after the timer expires(ADMIN 180-FLEX 22). |
| | 2 | Automatic Hold | ON / OFF | OFF | While seizing a CO line, the station user seizes another CO line by pressing the {CO} button. If this value is set to ON, the previous seized CO line goes on hold automatically. In case of Attendant , default value is ON. |
| | 3 | CO Call Time Restriction | ON / OFF | OFF | If this flag is set to ON, station's outgoing CO call may be disconnected when CO call restriction timer (PGM 180-FLEX 17) expires. |
| | 4 | Ind CO Line Access | EN/DIS | ENABLE | If this value is set to ENABLE, the station user can access individual CO line by dialing Individual CO access code(ADMIN 107-FLEX 8) |
| | 5 | CO Line Queuing | EN/DIS | ENABLE | When a user of station receives a busy signal during an attempt to access a CO line, the user may request a call back (queue) when the CO Line is available. If this value is set to ENABLE, the user gets the recalling from the CO Line when it's available. When a user of station receives a busy signal during an attempt to access a CO line, the user may request a call back (queue) when the CO Line is available. If this value is set to ENABLE, the user gets the recalling from the CO Line when it's available. |
| | 6 | CO PGM | EN/DIS | DISABLE | If this value is set to ENABLE, the station user can program CO button at its Flexible button. |
| | 7 | PLA | EN/DIS | ENABLE | If this value is set to ENABLE, the station user can answer calls according to the priority (ADMIN 173). |
| | 8 | Prepaid Call | ON / OFF | OFF | If this value is set to ON, the station user can use Prepaid Call feature (ADMIN 180-FLEX 16). |
| | 9 | Speed Dial Access | EN/DIS | ENABLE | If this value is set to ENABLE, the station user can use system speed dial call. |
| | 10 | Two Way Record | ON / OFF | OFF | If this value is set to ON, the station user can record the incoming and outgoing voice during conversation. |
| | 11 | Fax Mode | ON / OFF | OFF | If this value is set to ON, single ring is provided and Attendant recall is not operated. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|----------------------------|-----------------------|---|---|
| 112 | 12 | OFFNET Call Mode | EXT/ALL | ALL | If this value is set to EXT, the station user can only forward CO call to Off-net(ex mobile phone). Otherwise both CO call and ICM call can be forwarded to Off-net. |
| | 13 | UCD Group Service | ON / OFF | OFF | This feature is used when a station gets DID/DISA call. If this value is set to ON, the UCD Group, which the station belongs to, gets the incoming call and if this value is set to OFF, the station gets the incoming call directly whether the station is busy or not. |
| | 14 | Ring Group Service | ON / OFF | OFF | This feature is used when a station in Ring Group gets a DID/DISA call. If this value is set to ON, the Ring Group, which the station belongs to, gets the incoming call and if this value is set to OFF, the station gets the incoming call directly |
| | 15 | Stop Camp On Tone | EN/DIS | DISABLE | If this value is set to ENABLE, Camp on Tone is not heard. |
| | 16 | Line Length | SHORT / LONG / FAR | SHORT (Short:0km, Long:0~3km, Far:3~7.5km) | This feature is used to distinguish the line length when the distance between the stations and the station boards is too variable. (SAF only) |
| | 17 | MSG SCROLL SPEED | 0 - 7 | 3 | This value means the scroll speed of SMS or broadcasting notice message. (Only for LKD-30DH) |
| | 18 | BLOCK BACK CALL for SLT | ON/OFF | OFF | If this value is set to ON, SLT recalling is blocked after pressing [FLASH] button. |
| | 19 | I-TIME RST | ON/OFF | OFF | If this value is set to ON, the conversation time of incoming CO call is limited. After CO Call Restriction Timer is expired, the call is forced to disconnected. |
| | 20 | STA Account | ON/OFF | OFF | If this value is set to ON, an authorization code is required when she accesses CO line. |
| | 21 | CID Type 2 Service | ON/OFF | OFF | If this value is set to ON, CLI type 2 is serviced for CID SLT. CLI type 2 is not serviced in IP LDK-20. |
| | 22 | Door Open | ENABLE /DISABLE | DISABLE | If this value is set to ON, the station can open the door using the door open code. |
| | 23 | Dummy Station | ON/OFF | OFF | If this value is set to ON, an hot-desk agent can login at the dummy station. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|----------|---------|--|
| 113 | 1 | ADMIN | EN/DIS | DISABLE | If this value is set to ENABLE, the assigned station users can program ADMIN Database. This feature is only available at DKTU. |
| | 2 | VMIB Access | EN/DIS | DISABLE | If this value is set to ENABLE, the station user can use VMIB. |
| | 3 | Group Listening | EN/DIS | DISABLE | If this value is set to ENABLE, the station user can use group listening. While you are talking on handset, by pressing the [MON] button, other people around you may hear the conversation through the speaker. Although the voice of other people is not sent by mic. |
| | 4 | Override Privilege | EN/DIS | DISABLE | If this value is set to ENABLE, the station user can override CO Call. |
| | 5 | SMDR Hidden Dialed Digits | EN/DIS | DISABLE | If this value is set to ENABLE, Dialed number of CO Call is not showed on SMDR record. |
| | 6 | Voice Over | EN/DIS | DISABLE | If this value is set to ENABLE, the station user can talk alternately a call to the other call. |
| | 7 | Warm Line | HOT/WARM | WARM | If this value is set to HOT, the station user can use Hot Line. (Ref ADMIN 122). Otherwise in Warm Line state, Warm Line Timer starts when the user lifts handset or presses the [MON] button. |
| | 8 | VMIB MSG Retrieve Password | ON/OFF | OFF | If this value is set to ON, the station user must enter password to retrieve VMIB Message. |
| | 9 | VMIB MSG Retrieve Date/Time | ON/OFF | ON | If this value is set to ON, Date and time will be heard when VMIB Message is retrieved. |
| | 10 | Alarm Attribute | ON/OFF | OFF | If this value is set to ON, the station gets the alarm signal. |

5.3.11 ISDN STATION ATTRIBUTE

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------|----------------|--------------------|---|
| 114 | 1 | CLIP LCD Display | ON / OFF | ON | If this value is set to ON, the CLI is displayed on the station's LCD. |
| | 2 | COLP LCD Display | ON / OFF | OFF | If this value is set to ON, the connected party's CLI is displayed on station's LCD. |
| | 3 | CLI / REDIRECT Display | CLI / REDIRECT | CLI | When using networking, If this value is set to RED, the redirected CLI is displayed. Otherwise, the original CLI is displayed |
| | 4 | CLI MSG Wait | ON / OFF | OFF | If this value is set to ON, the station can receive CLI message from CO Incoming call, when the station doesn't answer. |
| | 5 | EXT or CO ATD | ATD/EXT | EXT | If this value is set to ATD, CO ATD code(ADMIN 200) is used to outgoing CLI information. Otherwise, station number is used as CLI information |
| | 6 | Keypad Facility | KEYPAG / DTMF | DTMF | If this value is set to KEYPAD, ISDN station sends digit in keypad facility after connected. Otherwise DTMF is used. |
| | 7 | Long / Short | LONG / SHORT | SHORT | If this value is set to LONG, ISDN station acts in LONG passive mode. |
| | 8 | CPN Type | 0-2 | 0(Not used) | This value set CPN IE type of SETUP message. (If this value is set to 0, all S0 stations of the S port get the incoming call. in case of 1 & 2, only one specific station gets the call.) |
| | 9 | S0 Sub-address | 0-2 | 0(Not used) | This value indicates how the sub-address is used in SETUP message. If this value is set to 0, station sub-address not used. Else if set to 1, sub-address is filled in the CPN field of SETUP message. Otherwise, sub-address is filled in the CPSN (Called Party Sub-address Number) field of SETUP message. |
| | 10 | Reserved | - | - | - |
| | 11 | CLI Name Display | ON / OFF | OFF | If this field is ON, the system checks whether the received CLI is matched with the speed dial data or not. If it is matched, the speed dial name is displayed. |
| | 12 | ISDN CLI Station Number | Max 4 digits | | This value is used as outgoing CLI When outgoing CLI is active and CLI type is EXT(Station) |
| | 13 | Progress Indication | ON / OFF | OFF | If this value is set to ON, the Progress Indicator can notice non-ISDN device. |
| | 14 | ISDN CLIR | ON / OFF | OFF | If this value is set to ON, the CLI information is restricted by PX . |
| | 15 | ISDN COLR | ON / OFF | OFF | If this value is set to ON, the connect party's CLI information |
| | 16 | DID Restriction | ON / OFF | OFF | If this value is set to ON, the station is restricted to receive the DID incoming call. |
| | 17 | DID Call Wait | ON/OFF | OFF | If this value is set to ON, when the station is busy, another DID call could be waiting. |
| | 18 | CLI Type | LONG/SRT | SHORT | This value selects CLI type. |
| | 19 | Long Station CLI | Max 12 digits | Logical STA Number | If outgoing CLI is activated and CLI type is EXT(Station), this value is used as outgoing CLI. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|---------------|---------------|---------|---|
| 114 | 20 | MSN Call Wait | ON / OFF | OFF | If this value is set to ON, she receives a call waiting via MSN.. |
| | 21 | LONG CLI 1 | Max 16 digits | | If CLI type of outgoing CO line is set to 1, Long CLI 1 is sent. |
| | 22 | LONG CLI 2 | Max 16 digits | | If CLI type of outgoing CO line is set to 2, Long CLI 2 is sent. |

5.3.12 FLEXIBLE BUTTON ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|----------------|---------|----------------------------|-----------------|---------|---|
| 115 | 01-24 | Flex. Buttons Assignment | FLEX 01-44 | | Each Flexible Button in a station can be assigned as desired. |
| | | 01: User Key | - | | User can program by button programming procedure. (empty) |
| | | 02: {CO} Button | 01-12 | | CO Line |
| | | 03: {CO Line Group} Button | 1-8 | | CO Line Group |
| | | 04: {LOOP} Button | - | | |
| | | 05: {STA xxx} Button | STA No. | | Station No. |
| | | 06: STA PGM Button | 11 – 99 | | Station Programming Code |
| | | 07: {STA SPD xxx} Button | STA SPD Bin No. | | Speed Bin |
| | | 08: {SYS SPD xxxx} Button | SYS SPD Bin No. | | System Speed Bin |
| | | 09: FLEX NUM | Num Plan Code | | Num Plan Code |
| | | 10: Networking DSS Button | Networking No. | | Networking DSS Number |
| | | 11: Hunt Group Button | 620-629 | | Hunt Group No. |
| 12: MSN Button | MSN No. | | MSN No. | | |

5.3.13 STATION BASE PROGRAM

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|---------|---------|--|
| 116 | 1 | Station COS : Day | 1 - 9 | 1 | Day Class-Of-Service |
| | 2 | Station COS : Night | 1 - 9 | 1 | Night / Weekend Class-Of-Service |
| 117 | | CO Line Group 1~8 | | 1-8 | CO line Group 1-8(Toggle) |
| 118 | | Internal Page Zone Access | 01-05 | 1 | Each station can be assigned to internal page zone. (Toggle) |
| 119 | 1-5 | Conference Page Zone Access | 06 - 10 | | Each station can be assigned to conference page zone. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|---|---------|------------------|---|
| 120 | | ICM Tenancy Group number | | | Each Intercom Tenancy Group can be operated independently and the stations in the group can be assigned an individual CO Line Group to use. Each group can be assigned with attendant and can be programmed to allow or deny calls to other groups. IP LDK-300/300E system supports 15(LDK-100 5) ICM Tenancy Groups and Tenancy ATDs. |
| | 1 | ICM Tenancy Group Attendant | STA No. | - | Each ICM group may have one attendant. Day / Night Mode of ICM Group is set by ICM Group attendant. |
| | 2 | ICM Tenancy Access Group | 01 - 05 | GROUP 01 | Each group can be programmed to allow or deny calls to other groups. |
| 121 | | ICM Preset Call Forward | | - | When this feature is programmed, If the station does not answer the incoming CO call within Preset Call Forward timer, then this call is forwarded to preset destination. No station is assigned as default. |
| 122 | | IDLE LINE SELECTION | | - | This feature assigns the destination of Hot Line and Warm Line. |
| | | 1: Flex Button | 01 – 44 | - | To activate a feature on a flex button as if pressed. |
| | | 2: CO Line | 01-12 | - | To seize a CO Line |
| | | 3: CO Line Group | 01-08 | - | To seize a CO Line Group |
| | | 4: Station | 10-37 | - | To call an another station |
| 124 | | SMDR Account Group Assign | 00 – 23 | 00(Not Assigned) | Stations can be assigned as a member of call account group on SMDR. A station belongs to only one group. |
| 125 | | Copy DSS Button | 01 – 05 | | The assigned DSS button can be copied to another station or ICM group. |
| | 1 | Copy DSS from station | | | |
| | 2 | Copy DSS from ICM Group | | | |
| 130 | | Display Station Number by COS | | | COS stands for Class of Service. It means, depends on the grade of COS, the service could be limited. The certain COS of station could be checked. |
| 131 | 1 | Show station by assigned day COS | | | System can display station by CO access group. |
| | 2 | Show station by assigned night COS | | | |
| | | Display station number by CO access Gr. | 1 – 8 | | |

5.3.14 CO LINE BASE PROGRAM

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK | |
|----------|------------------|--------------------------------|-----------------|---|--|-----------------------|
| 140 | | CO Service Type | | | In this program mode, you can program the following items. | |
| | 1 | CO Type | 1-3 | 1(Normal) | 1:Normal, 2:RESERVED, 3:ISDN DID/MSN | |
| | 2 | Detailed Attribute of the type | | | | |
| | | DISA(D/NW) | | | | Day / Night / Weekend |
| DISA SVC | | | ON / OFF | OFF | | |
| | VMIB ANNC | 00-70 | 00 (NOT_ASG) | | | |
| 141 | | CO Line Attributes –I | 1-9 | | | |
| | 1 | CO Line Group Assignment | 0-9 | 1 | Each CO Line must be a member of CO Line Group. Groups may be assigned according to CO type and Class-Of-Service. Group 00 means private group, and group 9. | |
| | 2 | CO Line COS | 1-5 | 1 | COS is assigned to each CO lines. | |
| | 3 | DISA Account Code | ON / OFF | OFF | If this value is set to ON, when the incoming CO caller tries to access another CO Line by dialing CO Line access code, the caller should enter authorization code. This is applied only when this CO Service type is DISA. | |
| | 4 | CO Line Assign | POL/LOOP | LOOP | If this value is set to ON, Polarity Reverse is applied to the CO Line, otherwise, Loop Start is applied to. | |
| | 5 | CO Line Type | PBX/CO | CO | If this value is set to PBX, the opposite system is PBX. Oppositely if it is set to CO, the system is Central Office. | |
| | 6 | CO Line Signal Type | DTMF/PULSE | DTMF | If this value is set to DTMF, the CO Line signaling type is set to DTMF. Otherwise, signaling type is set to Pulse. | |
| | 7 | Flash Type | GROUND/LOOP | LOOP | This value is applied to analogue CO Line only. | |
| | 8 | UNA | ON / OFF | OFF | If this feature is set to ON, Universal Night Answer service is applied to this CO Line. | |
| | 9 | CO Line Group Account | ON / OFF | OFF | If this value is set to ON, the CO Line user should enter authorization code to access this CO Line. | |
| 10 | CO Tenancy Group | 0-5 | 0 | This value means ICM Tenancy group number the station belongs to. This station receives the CO Call. If this value is set, separated Day/Night ring mode is applied to the incoming CO Call according to each ICM tenancy group attendant's Day/Night ring mode. | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------|-------------|---------|---|
| 142 | | CO Line Attributes – II | 1-13 | | |
| | 1 | CO Line Name Display | ON / OFF | OFF | If this value is set to ON and the CO Line Name is assigned, the Name is displayed on the station LCD when the station gets the CO incoming call through this CO Line. |
| | 2 | CO Line Name Assign | Max 12 char | - | This value means the name of the CO Line. |
| | 3 | Metering Unit | 00-06 | 0 | This value determines the Unit used to perceive a pulse from CO Line. |
| | 4 | Line Drop using CPT | ON / OFF | OFF | If this value is set to ON, CPT checks the incoming CO Line when answered and if CPT detects dial tone, then system drops the line for toll restriction. |
| | 5 | CO Distinct Ring | 0-4 | 0 | If this value is not set to 0, the designated ring tone is heard to the station when the station gets the incoming CO Call so that the user can distinguish incoming CO Call and ICM Call with its different ring tone. Each ring tone can be adjusted at ADMIN 422 |
| | 6 | CO Line MOH | 0-9 | 1 | This value is used at MOH of the CO Line. |
| | 7 | PABX CO Dial Tone | YES / NO | YES | If this value is set to YES, PX or PABX provides CO Dial Tone. Otherwise PX or PABX does not provide CO Dial Tone. Instead, IP LDK system provides it. |
| | 8 | PABX CO Ring Back Tone | YES / NO | NO | If this value is set to YES, PX or PABX provides CO Ring Back Tone. Otherwise PX or PABX does not provide CO Ring Back Tone. Instead, IP LDK system provides it. |
| | 9 | PABX CO Error Tone | YES / NO | NO | If this value is set to YES, PX or PABX provides CO Error Tone. Otherwise PX or PABX does not provide CO Error Tone. Instead, IP LDK system provides it. |
| | 10 | PABX CO Busy Tone | YES / NO | NO | If this value is set to YES, PX or PABX provides CO Busy Tone. Otherwise PX or PABX does not provide CO Busy Tone. Instead, IP LDK system provides it. |
| | 11 | PABX CO Announce Tone | YES / NO | NO | If this value is set to YES, PX or PABX provides CO Announce Tone. Otherwise PX or PABX does not provide CO Announce Tone. Instead, IP LDK system provides it. |
| | 12 | CO Flash Timer | 000 – 300 | 050 | This value provides the length of time limit of CO Flash. CO Flashing is available within this timer. Otherwise, the CO Line is released. 10msec base |
| | 13 | Open Loop Detect Timer | 0 – 20 | 0 | This value provides the time limit of CO Open Loop. 100msec base |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------------------------|--------------------|--------------|--|
| | 14 | Line Length | LONG / SHORT | SHORT | This feature is used to distinguish the line length when the CO Line length is too variable. (SAF only) |
| | 15 | DISA Answer Timer | 1-9 | 5 | The incoming DISA call is answered after this timer expires. |
| 143 | | ISDN CO Line Attribute | 1-6 | | |
| | 1 | COLP Table Index | 00 ~ 50 | Not Assigned | To know connected party number information, CLI refer this value. If this value is set to 50, the CLI of this CO Line refers to ADMIN114-FLEX5. Else if this value is set to 00 ~ 49, the CLI of this CO Line refers COLP Table(ADMIN201). |
| | 2 | CLIP Table Index | 00 ~ 50 | Not Assigned | To know calling party number information, CLI refer this value. If this value is set to 50, the CLI of this CO Line refers to ADMIN114-FLEX5. Else if this value is set to 00 ~ 49, the CLI of this CO Line refers COLP Table(ADMIN201). |
| | 3 | Type of Calling Number | 0-4 | 2 | This value is used to set the call type of ISDN CO line CLI. |
| | 4 | DID Conversion Type | 0 ~ 2 | 0 | When CO Service Type is set to ISDN DID/MSN(ADMIN 140), this value is used to decide DID digit conversion type. If this value is set to 0, incoming digits are converted as ADMINN 146. If set to 1, there's no digit conversion. If the caller dials valid station number, the station gets the call. If set to 2, it refers Flexible DID Table(ADMIN 231). |
| | 5 | DID Remove No. | 00-99 | Not Assigned | If this value is not 0, and the CO Line is DID Line, the system discard the incoming DID digits up to amount of this value . e.g. If this value is set to 02 and the outside caller dialed '01245', then the first '01' is removed. |
| | 6 | ISDN enblock send | ON / OFF | OFF | If this value is set to ON, Enblock Sending Mode is applied at outgoing CO call. |
| | 7 | CLI Transit | ORI(1)/CFW(0) | CFW(0) | When using networking, If this value is set to ORI, the originate caller's CLI is sent for CLI. Otherwise, the call forwarded station's CLI is sent. |
| | 8 | Numbering Plan ID | F1: 0-7 F2: 0-7 | 0 | Calling Party/Called Party Numbering Plan ID setting. F1 : Calling NPI / F2 : Called NPI |
| | 9 | ISDN SS CD/CR | 0-2 | 0 | ISDN call deflection or rerouting service is available. |
| | 10 | Reserved | | | |
| | 11 | ISDN CP INBAND | ON/OFF | OFF | If this value is set to ON, Inband info. In call proceeding is available. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------|---------------------|----------------|--|
| 143 | 12 | LONG CLI TYPE | 0-2 | | If this value is set to 0, the CLI is made as before (refer PGM200 /PGM114) If this value is set to 1 or 2, the CLI is just as same as Long CLI (Station Long CLI 1 or 2). |
| 144 | | CO Ring Assignment | | | STA Range (Delay : 0 – 9), Hunt Group, VMIB Message |
| | 1 | Day | STA_R / HUNT / VMIB | | |
| | 2 | Night | STA_R / HUNT / VMIB | | |
| | 3 | Weekend | STA_R / HUNT / VMIB | | |
| 145 | | CO Ring Assignment Display | | | You can check the ring assignment destination of the CO line for each Day/Night Ring Mode. If CO Call is assigned to the station at Day or Night Mode, you can see the delay value also. e.g.) 100(1) means station 100 gets the ring with delay 1. When there are too many stations, you can scroll data using volume up/down key. |
| | 1 | Day | | | |
| | 2 | Night | | | |
| | 3 | Weekend | | | |
| 146 | 1 | Incoming Prefix Code Insertion | ON / OFF | OFF | If this value is set to ON, prefix code will be attached in front of incoming CLI. |
| | 2 | Outgoing Prefix Code Insertion | ON / OFF | ON | If this value is set to ON, prefix code will be attached in front of outgoing CLI. |
| | 3 | ISDN Line Type | μ-Law/ A-Law | A-Law (OFF) | This value is used to set ISDN CODEC Type. |
| | 4 | Calling Sub-address | ON/OFF | OFF (NO) | If this value is set to ON, calling party sub-address of the ISDN station is attached when an ISDN station makes an outgoing CO Call through this CO Line. |
| | 5 | DID DGT Receive Number | 2 – 4 | 3 | This value is used as count of the received DID Digit number to route DID incoming Call. |
| 146 | 6 | DID Digit Mask | 4 digits (d,*,#) | #*** | When DID Conversion Type(ADMIN 143 – FLEX4) is set to 0, The received DID digits are converted by this value. The number 0 ~ 9, #, * can be entered. # means to ignore received digit, and * means to bypass the digit. The length of DID Digit Mask is 4. e.g.) '1234' is received when DID Digit Mask is set as '#8**', the digit is converted as '834'. |

5.3.15 SYSTEM BASE PROGRAM

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------------|----------------|---------|--|
| 160 | | System Attributes-I | 1-15 | | |
| | 1 | Attendant Call Queuing Ringback Tone | RBT / MOH | MOH | If this value is set to RBT, ring back tone is provided to the station when the station calls busy attendant. Otherwise hold tone or VMIB-MOH(ADMIN 171 - FLEX2) is provided. |
| | 2 | CAMP RBT/MOH | RBT / MOH | MOH | MOH or Ring Back tone is heard on camp-on. |
| | 3 | CO Line Choice | LAST / ROUND | Round | In seizing a CO Line among CO line group, if this value is set to LAST CHOICE, Last available CO Line is seized. Otherwise, CO line is seized round robin choice. |
| | 4 | DISA Retry Counter | 0-9 | 3 | When the DISA user fails to call a station or access a feature, then DISA user can retry other calls or features within this retry counter. If DISA user cannot access appropriately within this counter, this call is routed according to DID/DISA destination (ADMIN 167). |
| | 5 | ICM Continuous Dial-Tone | CONT / DISCONT | CONT | This value sets whether ICM dial tone is continuous or not. |
| | 6 | CO Dial-Tone Detect | ON / OFF | OFF | When the speed dial is activated, if this value is set to ON, system detects dial tone using CPT instead of pause timer. |
| | 7 | External Night Ring | ON / OFF | OFF | If this value is set to ON, when CO incoming call is received and UNA service is activated, the call is sent to LBC1. |
| | 8 | Hold Preference | SYS/EXEC | SYS | There are two types of Hold; System Hold and Exclusive Hold. If a call is held as System Hold, any station can retrieve that call, Otherwise only holding station can retrieve that call. |
| | 9 | Multi-line Conference | ON / OFF | ON | If this value is set to ON, a conference with multi-CO lines is available. |
| | 10 | Print LCR Conversion Digit | ON / OFF | OFF | If this value is set to On, LCR converted digits are showed on LCD and SMDR data. Otherwise original dialed digits are showed. |
| | 11 | Conference Warning Tone | ON / OFF | ON | If this value is set to ON, other members will hear warning tone when a new member enters the conference, |
| | 12 | Off-net Prompt Usage | ON / OFF | ON | If this value is set to On, off-net VMIB announcement(prompt) will be heard when the call is Off-net call forwarded,. It is only applied to CO-to-CO Transfer. |
| | 13 | Off-net DTMF Tone | ON / OFF | ON | If this value is set to ON, dialing DTMF tone will be heard to the outside caller when the call is Off-net call forwarded. It is only applied to CO-to-CO Transfer. |
| | 14 | CO Voice Path Connect | IMM/DGT | DGT | If this value is set to IMM(immediate), voice path is connected immediately at the CO outgoing call, Otherwise It is connected after dialing any digits. |
| | 15 | Transfer Tone | RBT/MOH | MOH | While a call is transferred to destination station, if this value is set to RBT, transferred station will be heard ring back tone. Otherwise MOH will be heard. |
| | 16 | CO-CO Xfer CPT | ON/OFF | OFF | CPT tone detect at CO to CO transfer |
| | 17 | ACD Info Print | ON/OFF | OFF | |
| | 18 | CO-CO UC Tmr Ext | ON/OFF | OFF | Extend CO to CO Unsupervised Conference Timer |
| | 19 | CALL LOG LIST NUMBER | 15-50 | 15 | Set the number of Call Log List per stations. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------|-------------------------|---------|---|
| 161 | | System Attributes-II | 1-18 | | |
| | 1 | Network Time/Date Setting | ON / OFF | OFF | If this value is set to ON, the system time/date are set by the network time/date. |
| | 2 | Off-Hook Ring Signal Type | MUTE / BURST | MUTE | The off-hook ring type in the system can be set to mute or one burst ring. |
| | 3 | Override 1st CO Line Group | ON / OFF | ON | If this value is set to ON, if there is no available CO Line in the first CO Line Group, system can access the next accessible CO Line Group. |
| | 4 | Page Warning Tone | ON / OFF | ON | If this value is set to ON, page warning tone will be heard when paging starts. |
| | 5 | Auto Privacy | ON / OFF | ON | If this value is set to ON, the call is protected from override regardless of Station Override Privilege (ADMIN 113-FLEX 4). |
| | 6 | Privacy Warning Tone | ON / OFF | ON | If this value is set to ON, privacy warning tone will be heard when the call is overridden. |
| | 7 | Single Ring for CO Call | YES / NO | NO | The cadence of ICM ring is set to 1sec on/ 4sec off. The cadence of CO ring is set to 0.4s on/ 0.2s off/ 0.4s on/ 4sec off. If this value is set to YES, the ICM ring cadence and the CO ring cadence is reversed each other. |
| | 8 | WTU Auto Release | ON / OFF | OFF | If this value is set to ON, WTU is released automatically. |
| | 9 | ACD Print Enable | ON / OFF | OFF | If this value is set to ON, ACD Print is available. |
| | 10 | ACD Print Timer | 001 – 255 (3 digits) | 001 | ACD database is printed per desired time interval.(10 sec or 1 hour based : ADMIN 161-FLEX 14) |
| | 11 | ACD clear Database after Print | ON / OFF | OFF | If this value is set to ON, ACD database is initialized after printed out. |
| | 12 | VMIB PROMPT GAIN | 00 - 31 | 08 | This value is gain of VMIB Announcement(Prompt). Whenever VMIB Announcement is played, this value is applied. |
| | 13 | CLI Information of VM SMDI | ON / OFF | OFF | If this value is set to ON, CLI is added when Voice Mail information is printed through RS232 port by SMDI. |
| | 14 | ACD Print Timer Unit | HOUR / SEC | SEC | This value determines the unit of ACD Print timer(ADMIN 161 - FLEX 10). (1 hour or 10 seconds) |
| | 15 | Set VM SMDI Type | TYPE II / TYPE I | TYPE I | This value sets VM SMDI type. |
| | 16 | Incoming Toll Check | ON / OFF | OFF | If this value is set to ON, the system checks toll of incoming CO call. |
| | 17 | Auto FAX Transfer CO | 1 - 8 | - | The programmed CO line will be used for automatic FAX transfer. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|----------------------------|------------------|------------------|--|
| 161 | 18 | DSS Indication | Enable / Disable | Disable | If this value is set to ENABLE, LED indication of {CO} button or {DSS} button is blocked. (i.e. LED does not flash even if there is incoming call to the assigned CO Line or Station.) This feature is not applied for direct call such as DID/DISA. |
| | 19 | UK billing mode | ON/OFF | OFF | If this value is set to ON, UK Billing Mode is applied. (UK only) |
| | 20 | COS 7 when auth fail | ON/OFF | OFF | If this value is set to ON, station' COS will be changed to 7 when invalid authorization code is entered. |
| | 21 | 5 Digits Auth Code usage | ON/OFF | OFF | Authorization code length code can be chosen. |
| 162 | - | ADMIN Password | 4 Digits | - | ADMIN password can be assigned to enter ADMIN Programming mode for only Administrator who knows the ADMIN password. It is not assigned by default. |
| 163 | 1 | Alarm Enable | ON / OFF | OFF | If this value is set to ON, Alarm is available. |
| | 2 | Alarm Contact Type | CLOSE / OPEN | CLOSE | |
| | 3 | Alarm Mode | ALARM / BELL | ALARM | |
| | 4 | Alarm Signal Mode | RPT / ONCE | RPT | If this value is set to REPEAT, the Alarm Signal is repeated until Alarm Reset. |
| 164 | 1-5 | Attendant Assignment | STA No. | 1 : 10 | Maximum 5 Attendants can be assigned including the Main Attendants and System Attendant. The system attendant is different from main attendant in aspect of the call handling and system management priority. The system attendant has more powerful priority than main attendant. The system and main attendants can be assigned to each 1 and maximum 4. So the sum of system and main attendants should be less than 5. As default, the System Attendant is assigned to Station 101, and others are not assigned. |
| 165 | - | Auto Attendant | | | User may set the number of the VMIB announcement for auto attendant. |
| | 1 | Auto Attendant Usage | ON / OFF | OFF | If this value is set to ON, Auto Attendant is activated. |
| | 2 | Auto Attendant VMIB Annc.# | 00-70 | 00 (not_asgn) | This value is the number of VMIB announcement played when Auto Attendant is activated. |
| 166 | | CO-to-CO COS | 1-9 | 1 | When an external user of DID/DISA/TIE line tries to access another CO Line in the system, CO-to-CO COS is applied. The attributes of CO-to-CO COS are the same as the station COS. |
| | 1 | Day COS | 1-9 | 1 | Class-of-Service of Day Mode |
| | 2 | Night/Weekend COS | 1-9 | 1 | Class-of-Service of Night / Weekend Mode |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------------|----------|---------|--|
| 167 | | DID/DISA Destination | F1-F4 | | When there is a DID/DISA incoming call, if the destination is not answer / invalid / busy, the call is routed to Attendant / Hunt group / or the caller gets the proper tone. If Attendant is assigned for DID/DISA destination, first, the call will check ring assignment(ADMIN 144), if there exists ring assigned station the call is routed to that station. If there is not ring assigned station, then the call is routed to Attendant. If VMIB announcement usage is enabled, The proper announcement is presented to the caller before the call is routed. This destination is applied when DISA Retry Counter expired. If the destination is set to attendant, system checks if there's any ring assigned station and gives the ring to assigned station first. If the ring assigned station does not answer also, then the attendant receives the call. |
| | 1 | Busy Destination | F1-F3 | F1 | When there is a DID/DISA incoming call, and if the caller dialed busy destination, the call is routed to Busy Destination (Tone / Attendant / Hunt). |
| | 2 | Error Destination | F1-F3 | F1 | When there is a DID/DISA incoming call, and if the caller dialed invalid number, the call is routed to Error Destination (Tone / Attendant / Hunt).. |
| | 3 | No Answer Destination | F1-F3 | F1 | When there is a DID/DISA incoming call, and the destination is not answer, the call is routed to No Answer Destination (Tone / Attendant / Hunt). |
| | 4 | VMIB PROMPT USAGE | F1-F5 | F1 | If the value is set to ON and VMIB is available, The proper VMIB announcement is presented to the caller before the call is routed to each Destination. |
| | 1 | Busy Prompt Usage | ON / OFF | ON | If the value is set to ON, Busy announcement is presented to the caller before the call is routed to Busy Destination. |
| | 2 | Error Prompt Usage | ON / OFF | ON | If the value is set to ON, Error announcement is presented to the caller before the call is routed to Error Destination. |
| | 3 | DND Prompt Usage | ON / OFF | ON | If the value is set to ON, Busy announcement is presented to the caller before the call is routed to Busy Destination when the original destination is in DND. |
| | 4 | No Ans Prompt Usage | ON / OFF | ON | If the value is set to ON, No Answer announcement is presented to the caller before the call is routed to No Answer Destination. |
| | 5 | Atd transfer Prompt Usage | ON / OFF | ON | If the value is set to ON, Attendant Transfer announcement is presented to the caller before the call is routed to Attendant. |
| | 5 | Reroute Busy Destination | F1-F3 | F1 | When DID/DISA call is rerouted by no answer and routed destination is busy, this call is rerouted to destination by reroute busy destination (Tone/Attendant / Hunt). |
| | 6 | Reroute Error Destination | F1-F3 | F1 | When DID/DISA call is rerouted by no answer and routed destination is error, this call is rerouted to destination by reroute busy destination (Tone/Attendant / Hunt). |
| | 7 | Reroute No Answer Destination | F1-F3 | F1 | When DID/DISA call is rerouted by no answer and routed destination does not answer, this call is rerouted to destination by reroute no answer destination (Tone/Attendant / Hunt). |
| 168 | 8 | 1 First Contact | 1-3 | - | 1: LBC(STA #) |
| | | 2 Second Contact | 1-3 | - | 2: Door |
| | | | | | 3: Ext. 1 |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|-------|---------------------------|---------------|----------------|--|
| 169 | 1 | LCD Time Display Mode | 12H / 24H | 12H | Two LCD Time formats are Ordinary (12-hour)/Military (24-hour) mode |
| | 2 | LCD Date Display Mode | MMDD / DDMM | DDMMYY | Two LCD date formats are Day/Month/Year (DDMMYY) or Month/Day/Year (MMDDYY) mode. |
| | 3 | LCD Language Display Mode | 00-14 | 12(Korean) | The LCD language format can be selected. |
| 170 | | Modem Associated Device | | | Modem service is available only when there's MODU on MPB. |
| | 1 | Station Number | 10-37 | STA 37 | This value means the Modem-associated station. To use Modem line flexibly, associate one station with Modem. Then incoming CO Call is connected to Modem device if the station gets the call. The last station is assigned as Modem associated station. |
| | 2 | CO Number | 01-12 | - | If CO Line is associated with Modem, All of the incoming CO Call through this Line is connected to Modem. The Modem-associated CO Line cannot be used to outgoing CO Call. |
| 171 | 1 | BGM Type | 0-8 | 01 | |
| | 2 | MOH Type | 0-9 | 01 | When a CO line call is placed in the hold state (system, exclusive, transfer, conference, etc) the external party will hear music. In this way, the CO line party can be notified that the connection is still established. |
| | 3 | ICM Box Music Channel | 0-8 | 01 | |
| | 4 | Assign MOH via SLT | F1 – F5 | | To assign SLT MOH, set this value and match the SLT station number of the SLT port. |
| | 5 | DIAL TONE SOURCE | 0-5 | 0 (Not Assign) | To assign external dial tone, set the SLT station number of the SLT port. |
| | 6 | ICM RING BACK TONE | 0-5 | 0(Not Assign) | To assign external ICM ring back tone, set the SLT station number of the SLT port. |
| | 7 | Reserved | | | |
| 172 | 1 - 4 | PBX Access Code | Max. 2 digits | - | Maximum 4 PABX Access Codes can be assigned. Each PABX Access Code is 1 or 2-digit number. By default, PABX Access Codes are not assigned at all. |
| 173 | | PLA Priority Setting | | | PLA priority is set exclusively |
| | 1 | Transfer CO | 1 – 4 | 1 | |
| | 2 | Recalling CO | 1 – 4 | 2 | |
| | 3 | Incoming CO | 1 – 4 | 3 | |
| | 4 | Queued CO | 1 – 4 | 4 | |
| 174 | | RS-232 PORT Setting | | | Baud Rate, CTS/RTS, P-Break, LPP can be assigned at this feature to COM1 port, COM2 – MODU port. |
| | 1 | BAUDRATE | 0-7(Note1) | 19200 | 0: UNKNOWN 1: UNKNOWN 2: 1200 BAUD 3: 2400 BAUD 4: 4800 BAUD 5: 9600 BAUD 6: 19200 BAUD 7: 38400 BAUD |
| | 2 | CTS/RTS | ON / OFF | OFF | |
| | 3 | P-BREAK | ON / OFF | OFF | |
| | 4 | LPP | 001-199 | 060 | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|---------------------------------------|-------------------------|------------|--|
| 175 | 1 | Off-line SMDR/Statistics Print | 01-10 | COM1(01) : | Off-line SMDR data is printed through this port. |
| | 2 | ADMIN Data | | | When ADMIN 451 is used, the ADMIN data is printed through this port. |
| | 3 | Traffic Print | | | Traffic analysis data is printed through this port. |
| | 4 | SMDI Print | | | SMDI data is printed through this port. |
| | 5 | CALL Info Print | | | Call information data(??) is printed through this port. |
| | 6 | On-line SMDR Print | | | On-line SMDR data is printed through this port. |
| | 7 | Trace Print | | | Trace data is printed through this port. |
| | 8 | Debug Print | | | Debug data is printed through this port. |
| | 9 | PC_ADM | | NET_PCADM | PC Admin is connected through this port. |
| | 10 | PC_ATD | | NET_PCATD | PC Admin is connected through this port. |
| | 11 | CTI | | NET_CTI | CTI is connected through this port. |
| | 12 | REMOTE_DIAG | | NET_REMOTE | Remote Diagnostic data is printed through this port. |
| 176 | - | Pulse Dial/Speed Ratio | 66/33 60/40 50/50 | 66/33 | pulse dial speed ratio is set only for 10 PPS. |
| 177 | | SMDR Attributes | 1-14 | ALL | Station Message Detail Recording (SMDR) will provide details on both incoming and outgoing calls. As an assignable database option, If All Call record type is selected, incoming and outgoing local and long distance calls are all provided. If only Long Distance is selected, then only outgoing calls that meet the toll check status requirements listed below are provided. |
| | 1 | SMDR Save Enable | ON / OFF | OFF | If this value is set to ON, maximum 1000 of SMDR data can be recorded at system memory. |
| | 2 | SMDR Print Enable | ON / OFF | OFF | If this value is set to ON, SMDR data can be printed real time through the serial/MODEM/LAN port. |
| | 3 | SMDR Recording Call Type | LD / ALL Call | LD | If this value is set to LD, only long distance outgoing CO call is served SMDR. If this value is set to ALL, all outgoing CO call is served SMDR. The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14. |
| | 4 | SMDR Long Distance Call Digit Counter | 07-15 | 07 | The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14. If digit counters of the outgoing CO call are more than this value, it is considered as long distance call. |
| | 5 | Print Incoming Call | ON / OFF | OFF | If value is set to ON, all incoming calls are printed. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK | |
|-----|------|--------------------------|-----------------------------|----------|---|---|
| 177 | 6 | Print Lost Call | ON / OFF | OFF | If value is set to ON, lost calls are printed The lost call is defined that the call is unanswered. | |
| | 7 | Records in Detail | ON / OFF | ON | Due to limited system memory size, in places where many calls take place, the SMDR record buffer can easily saturated. So, if the customer doesn't need the detailed call information but total call, total metering count and total cost for individual station, then it is possible to save only the total accumulation, rather than the whole detailed records. If this value is set to ON, not only total call, total metering count and total cost for individual station, but also the detail call records are saved maximum 1000. If this value is set to OFF, only total call, total metering count and total cost for individual station information are served. | |
| | 8 | SMDR Dial Digit Hidden | 0-9 | 0 | If this value is set non-zero value, the printed digits from right or left will be replace to '*' symbol up to this value. The direction of right or left can be set at ADMIN program 177 – FLEX button 13. | |
| | 9 | SMDR Currency Unit | 3 English Chars | - | For easy identification of call cost, the currency unit can be entered with 3 alphabet characters to be printed in front of call charge amount. | |
| | 10 | SMDR Cost Per Unit Pulse | 6 digits | - | This is the call cost unit per cost metering pulse, which is sent from the Central Office. | |
| | 11 | SMDR Fraction | 0-5 | 0 | This value means the decimal position point of the cost per unit pulse | |
| | 12 | SMDR Start Timer | 0 – 250 | 0 | If this value is set non-zero value, only the outgoing CO call more than this value time is served SMDR. | |
| | 13 | SMDR Hidden Digit | Right/Left | Right | If this value is set to RIGHT, SMDR digit hiding is executed the right-to-left direction. At this case, if dialed '1234567890', SMDR printed hidden digits are formatted '12345*****'. If this value is set to LEFT, SMDR digit hiding is executed to left-to-right direction. At this case, if dialed '1234567890', SMDR printed hidden digits are formatted '*****67890'. | |
| | 14 | SMDR Long Distance Codes | Flex. FLEX 1-5 | 0 | The long distance call is defined that the call satisfy the condition of ADMIN program 177 – FLEX 4, or ADMIN program 177 – FLEX 14. Max. 5 SMDR long distance codes are available. SMDR long distance code is 1 or 2 digit number. By default, SMDR long distance code is 0. | |
| | 15 | MSN Print On SMDR | ON/OFF | OFF | If this value is set to ON, the MSN number is printed on SMDR output. | |
| | 16 | PRINT CALLER NUMBER | ON/OFF | ON | If this value is set to ON, the caller number is printed at incoming call SMDR. | |
| | 178 | 1 | System Time Setting | 4 digits | - | Hour/Min in sequence(ex. In case 11:30, enter 1130) |
| | | 2 | System Date Setting | 6 digits | - | Month/Day/Year in sequence(ex. In case 27/January/2004, enter 270104) |
| | 179 | 1 | Review Linked Station Pairs | 10-35 | None | The linked station pair is defined section 2.9.2. Review of the programmed linked station pairs can be accessed at flexible button 1 sub-menu. |
| | | 2 | Linked station pair delete | 2 STA # | - | Registration and delete of the linked station pairs can be set at flexible button 2 sub-menu. |

5.3.16 SYSTEM TIMER PROGRAM

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|-------------------------|--------------|--|
| 180 | 1 | Attendant Recall Timer | 00 – 60 (2 digits) | 01 (min) | If a recalled call arrives to a attendant, the attendant may not answer the call. Then the system disconnect the call if the attendant don't answer the call for some time. This ADMIN program set the amount of time before system disconnects the call |
| | 2 | Call Park Recall Timer | 000 – 600 (3digits) | 120 (sec) | Setting the amount of time before a call placed in a call park location will recall the station placing the park |
| | 3 | Camp-on Recall Timer | 000 – 200 (3 digits) | 030 (sec) | When a station transfers to busy station by Camp-On, if the transferred-to station don't answer the call, the call will recall to transferring station after setting time passes. Therefore This ADMIN program set the appropriate time. |
| | 4 | Exclusive Hold Recall Timer | 000 – 300 (3 digits) | 060 (sec) | Select the amount of time before a call placed on system hold will recall the station placing the hold. |
| | 5 | I-Hold Recall Timer | 000 – 300 (3 digits) | 030 (sec) | When recalled call don't answer, the call will recall to attendant after setting time passes. Therefore This ADMIN program set the appropriate time. Select the amount of time before a call recalls the attendant |
| | 6 | Sys Hold Recall Timer | 000 – 300 (3 digits) | 030 (sec) | Determines the amount of time before a call placed on system hold will recall the station placing the hold. |
| | 7 | Transfer Recall Timer | 000 – 300 (3 digits) | 030 (sec) | Select the amount of time a transferred call will ring at the station receiving the transfer and how long it will recall the station transferring the call. |
| | 8 | ACNR Delay Timer | 000 – 300 (3 digits) | 030 (sec) | When ACNR Pause Timer expires and there is no available CO Line in the group, ACNR trial is delayed for this timer . |
| | 9 | ACNR No Answer Timer | 10 – 50 (2 digits) | 30 (sec) | This timer is invoked after system detects CO ring back tone from CO party. If the call isn't answered, system disconnect the call. And wait next ACNR trial. |
| | 10 | ACNR Pause Timer | 005 – 300 (3 digits) | 005 (sec) | When this timer is expired, ACNR is activated. |
| | 11 | ACNR Retry Counter | 01 – 30 (2 digits) | 10 | ACNR is executed up to this value. After trial of this retry counter, ACNR is canceled. |
| | 12 | ACNR No Tone Retry Counter | 1 – 9 (1 digit) | 3 | This ADMIN program can set the trial number of seizing the CO line for ACNR. If the CO line isn't seized, ACNR will be canceled. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|-------------------------|----------------|--|
| 180 | 13 | ACNR Tone Detect Timer | 001-300 (3 digits) | 030 (sec) | This timer is invoked upon completion of dialing and system considers the CO party is busy when the CPTU cannot detect the valid tone type until this timer expires. |
| | 14 | Automatic CO Release Timer. | 020 – 300 (3 digits) | 030 (sec) | Uncompleted CO line call will be automatically released after this timer. |
| | 15 | CCR Inter-Digit Timer | 000 – 255 (3 digits) | 030 (100ms) | This timer is used for the CCR inter-digit timer in the DISA/DID CO line. In DID type 2, it is used for DID inter-digit timer. |
| | 16 | CO Call Drop Warning Timer | 00 – 99 (2 digits) | 10 (sec) | If prepaid money is going to expire during a CO call, system will give warning tone, and after this time, the call will be disconnected. This timer is also used for call drop warning in Unsupervised Conference. |
| | 17 | CO Call Restriction Timer | 00 – 99 (2 digits) | 0 (min) | If this value is set to 0, time of outgoing CO call is not restricted. If this value is set to non-zero, outgoing CO call is disconnected after this time. |
| | 18 | CO Dial Delay Timer | 00 – 99 (2 digits) | 01 (100ms) | Voice connection to the outside party will be made after this timer. This can be used to prevent illegal dialing in case of slow response from the Central Office Line or PBX. |
| | 19 | CO Release Guard Timer | 001 – 150 (3 digits) | 020 (100ms) | This ADMIN program sets the amount of time before a CO line can be re-seized, after the CO call disconnects, This timer controls the time necessary to guarantee idle loop state when the line is released. |
| | 20 | CO Ring Off Timer | 010 – 150 (3 digits) | 060 (100ms) | This timer is to secure time interval between incoming ringing signals so that the active ringing can be lasted in the system until this timer is expired. |
| | 21 | CO Ring On Timer | 1 – 9 (1 digit) | 2 (100ms) | This timer controls the time necessary to detect an incoming CO call as ringing into the system. |
| | 22 | CO Warning Tone Timer | 060 – 900 (3 digits) | 180 (sec) | Determines the amount of time before receiving warning tone in order to remind the call elapsed time in case of outgoing CO line conversation (Only for Korea). |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------------|-------------------------|---------------|--|
| 181 | 1 | Call FWD No Answer Timer | 000 – 255 (3 digits) | 015 (sec) | This timer is used at the no answer call forward feature(Section 2.3.1.2, and 2.3.1.3). If station is set the no answer call forward type, and if station don't answer during this timer, then the call will be routed to the forward destination. |
| | 2 | DID/DISA No Answer Timer | 00 – 99 (2 digits) | 00 (sec) | This timer is used at DID or DISA call routing. If station doesn't answer about DID/DISA call during this timer, the call will be routed to ADMIN program 167 – FLEX 3 value. |
| | 3 | VMIB User Record Timer | 010 – 255 (3 digits) | 020 (sec) | This is the maximum time that station user can record his VMIB announcement. |
| | 4 | VMIB Valid User Message Timer | 0-9 (1 digit) | 4 (sec) | This is the minimum time that station user must record his VMIB announcement. If this value is set to 0, VMIB announcement can not be recorded. |
| | 5 | Door Open Timer | 05 – 99 (2 digits) | 20 (100ms) | Select the length of time that is needed to execute the door open relay for the setting time. |
| | 6 | ICM Box Timer | 00 – 60 (2 digits) | 30 (sec) | Select the ringing time of the ICM box associated stations, when ICM box user press [CALL] button. |
| | 7 | ICM Dial Tone Timer | 01 – 20 (2 digits) | 10 (sec) | This timer is used when the off-hooked station is heard the intercom dial tone. If station doesn't dial a digit within this timer, error tone is provided. |
| | 8 | Inter Digit Timer | 01 – 20 (2 digits) | 05 (sec) | This timer is used when station is dialing some digits. The time between digits cannot exceed Inter-digit timer, or error tone is provided. |
| | 9 | MSG Wait Reminder Tone Timer | 00 – 60 (2 digits) | 00 (min) | Select the amount of time between repeated reminder tones to station that it has a message waiting. |
| | 10 | Paging Timeout Timer | 000 – 255 (3 digits) | 000 (sec) | Select the maximum time of a page. The system will automatically disconnect the page at the end of this time unless the caller has hung up earlier. |
| | 11 | Pause Timer | 1 – 9 (1 digit) | 3 (sec) | This timer is used at the speed dialing feature, LNR, and etc. In case of the speed dial or LNR, IP LDK system sends the dial digits to the outgoing CO line, after this time. |
| | 12 | Preset Call Forward Timer | 00 – 99 (2 digits) | 10 (sec) | This timer is used at the preset call forward feature(Section 2.3.1.9). After this timer expires, incoming call will be forwarded to a predetermined station. |
| | 13 | SLT DTMF Release Timer | 00 – 20 (2 digits) | 00 (sec) | DTMF RCVR will be released after this timer when SLT makes a outgoing CO call. |
| | 14 | 3 soft auto release timer | 01 – 30 (2 digits) | 05 (sec) | This timer is used only in 3soft BTN DKTU(LDH-30DH). In 3soft menu, if there is no any digit within time, the DKTU turn to Idle state. |
| | 15 | VM pause timer | 01 – 90 (2 digits) | 30 (100ms) | In-band digit stream is sent to external VM after this timer. |
| | 16 | Transit Connect Tmr | 1 – 30 | 04 | Master sends the connect message to slave system after this timer when the transit out CO type is a pulse analog trunk. |
| | 17 | VMIB msg Fwd/Rew(sec) | 1 – 99 | 05 | VMIB message is rewound as this timer. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|---------------|-------------------------------|-------------------------|---|---|
| 182 | 1 | SLT Hook Switch Bounce Timer | 01 – 25 (2 digits) | 01 (100ms) | This timer is used at SLT only. Select the length of time that is needed to regard as a valid on-hook or off-hook (for SLT). |
| | 2 | SLT Maximum Hook Flash Timer | 001-250 (3 digits) | 06 (10ms) | This timer is used at SLT only. Select how long the user could press the hook switch in order for it to be considered a FLASH (Timed-Break Recall) (for SLT). |
| | 3 | SLT Minimum Hook Flash Timer | 000 – 250 (3 digits) | 020 (100ms) | This timer is used at SLT only. The minimum bound time that system considers as hook flash for SLT. |
| | 4 | SLT Ring Phase Timer | 2 – 5 (1 digit) | 4 (sec) | Select the ring phase(cadency) of SLT. (5 SEC: 1SEC ON / 4SEC OFF) |
| | 5 | Station Auto Release Timer | 020 – 300 (3 digits) | 060 (sec) | If a station hears ring back tone and no action is taken, this timer is assigned. When this timer is expired, the station is released. |
| | 6 | Unsupervised Conference Timer | 00 – 99 (2 digits) | 10 (min) | Select the amount of the time that an unsupervised conference can continue after the initiator of the conference has exited the conference. |
| | 7 | Wake-Up Fail Ring Timer | 00 – 99 (2 digits) | 20 (sec) | After a Wake-up fail ring invokes on system attendant, the alarm ring exists during this timer. If this timer expires, the alarm ring will be disappeared. |
| | 8 | Warm Line Timer | 01 – 20 (2 digits) | 05 (sec) | User takes no action after lifting handset or pressing the [MON] button and this timer is expired, then idle line selection for warm line is executed. |
| | 9 | Wink Timer | 010 – 200 (3 digits) | 010 (10ms) | The time duration of seize acknowledge signal to DID line. |
| | 10 | Enblock Digit timer | 01-20 (2 digits) | 15 (sec) | This timer is used at the enblock dialing sending feature. If station user make a call at the enblock dialing mode, and if station user doesn't dial within this time, then the enblock dialing is executed. |
| | 11 | CCR Time Out Timer | 000-300 (3 digits) | 015 (sec) | When this timer is expired, CCR is activated. |
| | 12 | DID Inter Digit Timer | 01-20 (2 digits) | 03 (sec) | This timer is used at DID type 2 feature. In DID type2, IP LDK system will be wait the new DID digit receiving until this timer is expired. If this timer is expired, the call routing of DID type 2 is executed. |
| | 13 | FAX Tone Detect Timer | 01 – 10 (2 digits) | 05 (sec) | FAX tone detection is tried until this timer expires. |
| | 14 | FAX CO Call Timer | 1 – 5 | 1 (min) | This timer sets the maximum call duration of a FAX call. |
| 185 | | CIDU Setting | | | |
| | 1 | CIDU USAGE | ON / OFF | ON | If this value is set to ON, CIDU can be served |
| | 2 | CID Name Display | NAME(1)/ TEL NO(0) | TEL NO(0) | According to this ADMIN program value, LCD displayed data can be selected. |
| | 3 | Serial Port Select | 1-4 | - | Not available in IP LDK-20 |
| | 4 | CID/ Co Port Mapping | 000-063 | - | Not available in IP LDK-20 |
| | 5 | Initialize CID Data | | | |
| | 6 | CID Type2 Usage | ON/OFF | OFF | |
| 7 | Fast CID Mode | ON/OFF | OFF | If this value is set to ON, system provides a ring signal to SLT and CID will be displayed after 1 st ringing. | |

5.3.17 STATION GROUP ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|----------------------|--------------|---------|---|
| 190 | | Station Group Number | STA Grp # | - | |
| | 1 | Group Type | 0-6 | 0 | Hunt group type can be selected among circular/terminal/UCD/ring/VM/pick-up/networking VM. |
| | 2 | Pick-up Attribute | ON/OFF | OFF | This value is used to assign the pick-up attribute at hunt group. Except pick-up hunt group, all type of hunt group can be assigned the pick-up attribute optionally. |
| | 3 | Member Assignment | Not Assigned | - | This member assignment process can be executed in two ways. The first way is assigning individually by pressing the Flexible Button which user want to assign and then entering the station number. The other way is assigning successively by entering first station number and last station number. |

5.3.18 STATION GROUP PROGRAM

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|---------------------------------|------|------------------------------|---------------------------------|-------------------|--|
| 191 | Circular Group / Terminal Group | 1 | VMIB Announce 1 Timer | 000-999 | 015 (sec) | If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3. |
| | | 2 | VMIB Announce 2 Timer | 000-999 | 000 (sec) | The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4. |
| | | 3 | VMIB Announce 1 Location | 00-70 | 00 (Not Assigned) | This is used to play VMIB announcement, when the VMIB announce 1 timer is expired. |
| | | 4 | VMIB Announce 2 Location | 00-70 | 00 (Not Assigned) | This is used to play VMIB announcement, when the VMIB announce 2 timers is expired. This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value. |
| | | 5 | VMIB Announce 2 Repeat timer | 000-999 | 000 (sec) | This is used to repeat VMIB announce 2 when the timer is expired. (000: Not assigned). |
| | | 6 | VMIB Announce 2 Repeat E/D | ON / OFF | OFF | This value is used to enable or disable VMIB Announce 2 Repeat. |
| | | 7 | Overflow Destination | STA #/HUNT#/ VMIB #/SYS SPD# | - | The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8. |
| | | 8 | Overflow Timer | 000-600 | 180 (sec) | If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7. |
| | | 9 | Wrap-up Timer | 002-999 | 002 (sec) | A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time. |

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------|----------|-------|---------|--------|
|-----|------|------|----------|-------|---------|--------|

| | | | | | | |
|-----|---------------------------------|----|----------------------------|--------------------|-------------------|--|
| 191 | Circular Group / Terminal Group | 10 | No Answer Timer | 00-99 | 15 (sec) | In circular/terminal hunt, if the incoming call is not answered during this time, the call is routed to the next idle station in the group. |
| | | 11 | Pilot Hunt | ON / OFF | ON | If this value is set ON, the call to the each hunt group member is processed as the call to hunt group. A circular/terminal hunt group can be assigned with a pilot number (the station group) so that only calls to the pilot number will hunt. |
| | | 12 | Alt If No Member | ON / OFF | OFF | If there is no member on duty, intercom call will be dropped and CO incoming call will be routed to overflow destination, or to ring assigned station if overflow destination is not assigned. |
| | | 13 | Music Source | 0 - 8 | 00 (Not Assigned) | If music source is assigned, calling user will be heard music instead of ring back tone. |
| | | 14 | Alternate Destination | Station/Hunt Grp | - | When a call is received in the group and there is no available station in the group, then the call will be routed to this destination if assigned |
| | | 15 | Max Queue Call Count | 00-99 | 99 | This value is the maximum call count that can be queued. If the total queued call count is this value, the next queuing tried call will be disconnected. |
| | UCD Group | 1 | VMIB Announce 1 Timer | 000-999 (3 digits) | 015 (sec) | If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3. |
| | | 2 | VMIB Announce 2 Timer | 000-999 (3 digits) | 000 (sec) | The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4. |
| | | 3 | VMIB Announce Location 1 | 00-70 | 00 (Not Assigned) | This is used to play VMIB announcement, when the VMIB announce 1 timer is expired. |
| | | 4 | VMIB Announce Location 2 | 00-70 | 00 (Not Assigned) | This is used to play VMIB announcement, when the VMIB announce 2 timers is expired. This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value. |
| | | 5 | VMIB Announce 2 Repeat | 000-999 | 000 (sec) | This is used to repeat VMIB announce 2 when the timer is expired. (000: Not repeat). |
| | | 6 | VMIB Announce 2 Repeat E/D | ON / OFF | OFF | This value is used to enable or disable VMIB Announce 2 Repeat. |

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------|----------|-------|---------|--------|
|-----|------|------|----------|-------|---------|--------|

| | | | | | | |
|-----|-----------|----|-----------------------|--|--------------|--|
| 191 | UCD Group | 7 | Overflow Destination | STA #/ HUNT#/ VMIB#/ SYS SPD# | - | The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8. |
| | | 8 | Overflow Timer | 000-600 (3 digits) | 180 (sec) | If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7. |
| | | 9 | Wrap Up Timer | 002-999 (3 digits) | 002 (sec) | A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time. |
| | | 10 | Alt If No Member | ON / OFF | OFF | If there is no member on duty, intercom call will be dropped and CO incoming call will be routed to overflow destination, or to ring assigned station if overflow destination is not assigned. |
| | | 11 | Music Source | 0 - 8 | 00 | If music source is assigned, calling user will be heard music instead of ring back tone. |
| | | 12 | ACD Warning Tone | ON / OFF | ON | When a call is received in the group and there is no available station in the group, then the call will be routed to this destination if assigned. |
| | | 13 | Alternate Destination | STA No / HUNT # | - | When a call is received in the group and there is no available station in the group, then the call will be routed to this destination if assigned. But it must be avoided to program the alternate destination as the hunt group itself. For example, the alternate destination of group 620 should not be group 620. |

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------|----------|-------|---------|--------|
|-----|------|------|----------|-------|---------|--------|

| | | | | | | |
|-----|------------|----|-----------------------------|-----------------------|----------------------|--|
| 191 | UCD Group | 14 | Supervisor Timer | 000-999 (3 digits) | 030 (sec) | <p>If there is no idle member at hunt group, the incoming call will be queued.</p> <p>If the total queued call count is more than the supervisor call count value, and ACD queued call ADMIN program value is set to ON, and the queued time is longer than this timer, then the counts of queued calls will be displayed onto supervisor's LCD.</p> <p>The supervisor call count can be programmed at ADMIN program 191 – FLEX 15.</p> <p>The ACD queued call can be programmed at ADMIN program 191 – FLEX 16.</p> |
| | | 15 | Supervisor Call Count | 00-99 (2 digits) | 00 | <p>If the number of queued calls is more than this call count, the supervisor timer will be started.</p> <p>The supervisor timer can be programmed at ADMIN program 191 – FLEX 14.</p> |
| | | 16 | ACD Queued Call | ON / OFF | OFF | <p>If this value is set to ON, the count of queued call can be displayed on supervisor station LCD.</p> |
| | | 17 | MAX Queue Call Count | 00-99 | 99 | <p>This value is the maximum call count that can be queued.</p> <p>If the total queued call count is this value, the next queuing tried call will be disconnected.</p> |
| | | 18 | Supervisor | STA # | - | <p>This value is used to set the supervisor station.</p> |
| | | 19 | UCD hunt Stations' Priority | 0-9 (1 digit) | 0 | <p>This value is used to set UCD group member's priority.</p> <p>The value of 0 is the highest priority, and the value of 9 is the lowest priority.</p> <p>If the station has high priority, it takes more priority to receive the incoming call.</p> |
| | Ring Group | 1 | VMIB Announce 1 Timer | 000-999 | 015 (sec) | <p>If the call doesn't answered during this timer, the system plays VMIB announcement that is programmed at ADMIN program 191 – FLEX 3.</p> |
| | | 2 | VMIB Announce 2 Timer | 000-999 | 000 (sec) | <p>The second VMIB announcement can be played if the call continues to wait beyond the 2nd announcement timer. The played VMIB announcement can be programmed at ADMIN program 191 – FLEX 4.</p> |
| | | 3 | VMIB Announce 1 Location | 00-07 | 00 (Not Assigned) | <p>This is used to play VMIB announcement, when the VMIB announce 1 timer is expired.</p> |
| | | 4 | VMIB Announce 2 Location | 00-07 | 00 (Not Assigned) | <p>This is used to play VMIB announcement, when the VMIB announce 2 timers is expired.</p> <p>This second VMIB announcement can be played repeat, according to ADMIN program 191 – FLEX 5 and 6 value.</p> |

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|------------|-----------|------------------------------|---------------------------------|---|--|
| 191 | Ring Group | 5 | VMIB Announce 2 Repeat timer | 000-999 | 000 (sec) | This is used to repeat VMIB announce 2 when the timer is expired. (000: Not repeat). |
| | | 6 | VMIB Announce 2 Repeat E/D | ON / OFF | OFF | This value is used to enable or disable VMIB Announce 2 Repeat. |
| | | 7 | Overflow Destination | STA #/HUNT#/ VMIB #/SYS SPD# | - | The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 8. |
| | | 8 | Overflow Timer | 000-600 | 180 (sec) | If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7. |
| | | 9 | Wrap Up Timer | 002-999 | 002 (sec) | A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time. |
| | | 10 | Music Source | 0 - 8 | 00 | If music source is assigned, calling user will be heard music instead of ring back tone. |
| | | 11 | Max. Queued Call Count | 00-99 | 99 | This value is the maximum call count that can be queued. If the total queued call count is this value, the next queuing tried call will be disconnected. |
| | | 12 | Supervisor | STA # | - | This value is used to set the supervisor station. |
| | VM Group | 1 | Wrap-up Timer | 002-999 (3 digits) | 002 (sec) | A station in a hunt group is maintained in a busy state during this timer value, after the end of received call and outgoing call for the assigned wrap-up time. |
| | | 2 | Put Mail Index | 1-4 | 1 | This index is one of the voice mail dialing tables |
| | | 3 | Get Mail Index | 1-4 | 2 | This index is one of the voice mail dialing tables |
| | | 4 | Hunt Type | Cir/Term | Term | This value is used to set the hunt type of the VM member. |
| 5 | | SMDI Port | 01-10 | 01(COM1) | This value is used to set SMDI print port. SMDI is defined 'Simplified Message Desk Interface' that indicates the distribute information of VM. | |

| PGM | ITEM | FLEX | SUB ITEM | RANGE | DEFAULT | REMARK |
|-----|---------------|------|--------------------------|---------------------------------|--------------|--|
| 191 | | 6 | Overflow Timer | 000-600 (3 digits) | 180 (sec) | If this timer expires after a call is received in the group, the call is routed to the overflow destination. The overflow destination can be set at ADMIN program 191 – FLEX 7. |
| | | 7 | Overflow Destination | STA #/HUNT#/ VMIB #/SYS SPD# | - | The call to a station in the group will continue to route until answered or each station in the group has been tried. The call will remain at the last station in the group or will be passed to this overflow station/group/ VMIB/System Speed bin, after overflow timer expiring. The overflow timer can be set at ADMIN program 191 – FLEX 6. |
| | Pick-up Group | 1 | Auto Pick-up | ON / OFF | OFF | If this value is set to ON, and if there is ringing hunt member, other hunt member can pickup the call automatically only by pressing [MON] button or off-hook. |
| | | 2 | All Group Member Ringing | ON / OFF | OFF | If this value is set to ON, and if a hunt group member receives an intercom call, then all hunt group member is ringing. To set this value, 'Auto Pickup' ADMIN program value must be set to ON.. |

5.3.19 ISDN ATTRIBUTES

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------------------------------------|---------------|---------|---|
| 200 | 1 | Advice of Charge | 0-6 | 0 | The AOC is the call cost information service that is provided by public ISDN. According to the country, the standard of AOC type is different. This value is used to set AOC type |
| | 2 | CO ATD Code | Max. 2 Digits | - | This value is used when ISDN DID call incoming and outgoing case. If the received DID digit is matched this value, then the call is routed to attendant station. If ADMIN program 114 – FLEX 5 is set to CO ATD, and the station is make an outgoing CO call, then this value is used as the outgoing station's CLI data. |
| | 3 | Reserved | - | - | Moved to PGM 146 |
| | 4 | Reserved | - | - | Moved to PGM 146 |
| | 5 | Reserved | - | - | Moved to PGM 146 |
| | 6 | CLI Print | ON/OFF | OFF | This value is used to execute the CLI print about the incoming CO call. If this value is set to ON, the CLI of the incoming CO call will be sent to serial/MODEM/LAN port. |
| | 7 | International Access Code | Max 4 digits | - | This value is used to modify the received CLI of the international incoming CO call. If this value is set, and if station receives the international incoming CO call, then this value is inserted in front of the CLI. |
| | 8 | Reserved | - | - | Moved to PGM 146 |
| | 9 | My Area Code | Max 6 digits | - | This value is used to set the my area code. The combination of this value and ADMIN program 200 – FLEX 10 is compared with the received CLI, and the received CO call can be judged the local call or the long distance call. This value is also used the outgoing CLI data, when station makes an outgoing CO call. |
| | 10 | My Area Prefix Code | Max 4 digits | - | This value is used to set the my area prefix code. (Normally zero value) The combination of this value and ADMIN program 200 – FLEX 9 is compared with the received CLI, and the received CO call can be judged the local call or the long distance call. This value is also used the outgoing CLI data, when station makes an outgoing CO call. |
| | 11 | Maintain DID Name | ON/OFF | OFF | This value is used at the CLI display of incoming DID CO call. If the incoming DID call has CLI, it is displayed on station LCD only ringing time. If this value is set to ON, CLI display is maintained when the call is answered. |
| | 12 | PC APPLICATION DESTINATION STATION | | STN 100 | This value is used the valid destination station about PC application connection request. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------------|--------------------|----------|--|
| 201 | - | COLP Table | Max. 10 digits | - | COLP table is used when makes the outgoing CLI The method of making CLI is explained at 'Section 2.14.2'. At this ADMIN program, the maximum 50 CLI data can be programmed. And this value is used at ADMIN program 143 – FLEX 1 and 2. |
| 202 | - | MSN Table | Entry No.(000-249) | - | MSN(Ref Section 2.14.7 and 2.14.8) is defined one of ISDN CO line service. In IP LDK system, maximum 250 MSN table entry can be programmed. Each MSN table entry has MSN 'CO line number', 'Index of flexible DID table', 'Subaddress number', and 'Telephone number'. |
| | 1 | CO Line number | 01-08 | - | This value is used to set CO line that is assigned MSN service. |
| | 2 | Index of Flexible DID Table | 000-999 | - | If the received digit of Incoming CO call is matched MSN telephone number(ADMIN PGM 202 – FLEX 4), it is MSN call. This value is used to search the destination of MSN call routing. This value indicates the entry index of flexible DID table(ADMIN program 231). |
| | 3 | SUB Number | 0-9 | - | This value is only used when the destination station type is ISDN telephone. If the destination is ISDN telephone, this value is sent as the ISDN sub-address number of it. |
| | 4 | TEL number | 20 digits | - | This value is ISDN MSN number. If the received digit of Incoming CO call is matched with this value, it is MSN call. |
| 203 | 1 | TEI type | Fixed/Auto | Auto | This value controls the type of Terminal Equipment Identification. |
| | 2 | Hold/Retrieve Service Type | Keypad/Functional | Keypad | This sets the service type for ISDN Hold/Retrieve supplementary services. |
| | 3 | Hold Code | Max. 10 digits | *75# | This stores the code for ISDN supplementary HOLD. |
| | 4 | Retrieve Code | Max. 10 digits | *76# | This stores the code for ISDN supplementary RETRIEVE. |
| | 5 | B Channel Selection Type | Prefer/Extend | Extend | (Italy Only) |
| | 6 | ISDN Call Barring Up | Max. 10 digits | #33* | (Italy Only) |
| | 7 | ISDN Call Barring Down | Max. 10 digits | *33# | (Italy Only) |
| | 8 | ISDN CFU Activation Code | Max. 10 digits | *21* | (Italy Only) |
| | 9 | ISDN CFU Deactivation Code | Max. 10 digits | #21# | (Italy Only) |
| | 10 | ISDN Memo-Tel Activation Normal Code | Max. 10 digits | *63# | (Italy Only) |
| | 11 | ISDN Memo-Timer Code | Max. 10 digits | *63*0*1# | (Italy Only) |
| | 12 | ISDN Memo-Tel Activation LNR Code | Max. 10 digits | *63*1# | (Italy Only) |
| | 13 | ISDN Memo-Tel Interrogation Code | Max. 10 digits | *# 63# | (Italy Only) |
| | 14 | ISDN Memo-Tel Retrieve MSRG Code | Max. 10 digits | *# 64# | (Italy Only) |
| | 15 | ISDN Memo-Tel Deactivation Code | Max. 10 digits | # 63# | (Italy Only) |

5.3.20 LCR TABLE ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK | |
|-----|------|--------------------------|---------------------------------|---------------|--|--|
| 220 | 1 | LCR Access Mode | M00/M01/M02/M11/M12/M13 | Disable (M00) | This value is used to select LCR access mode. Each access mode is explained at section 2.2.7. | |
| | 2 | Set the Day of week zone | | 1234567 | Each day can use different LCR setting. At this ADMIN program, each day can be grouped up to 3 zone. | |
| | | 1 | MON | 1 – 3 | 1 | |
| | | 2 | TUE | 1 – 3 | 1 | |
| | | 3 | WED | 1 – 3 | 1 | |
| | | 4 | THUR | 1 – 3 | 1 | |
| | | 5 | FRI | 1 – 3 | 1 | |
| | | 6 | SAT | 1 – 3 | 1 | |
| | | 7 | SUN | 1 – 3 | 1 | |
| | | 3 | Set the Time Zone of Day zone 1 | | | |
| | | 1 | Time Zone1 | 00 – 24 | 0024 | Each time of day zone1 can use different LCR setting. At this ADMIN program, each time of day zone1 can be grouped up to 3 zone. |
| | | 2 | Time Zone2 | 00 – 24 | - | Each time of day zone2 can use different LCR setting. At this ADMIN program, each time of day zone2 can be grouped up to 3 zone. |
| | | 3 | Time Zone3 | 00 – 24 | - | Each time of day zone3 can use different LCR setting. At this ADMIN program, each time of day zone3 can be grouped up to 3 zone. |
| | | 4 | Set the Time Zone of Day zone 2 | | | |
| | | 1 | Time Zone1 | 00 – 24 | 0024 | Each time of day zone1 can use different LCR setting. At this ADMIN program, each time of day zone1 can be grouped up to 3 zone. |
| | | 2 | Time Zone2 | 00 – 24 | | Each time of day zone2 can use different LCR setting. At this ADMIN program, each time of day zone2 can be grouped up to 3 zone. |
| | | 3 | Time Zone3 | 00 – 24 | | Each time of day zone3 can use different LCR setting. At this ADMIN program, each time of day zone3 can be grouped up to 3 zone. |
| | | 5 | Set the Time Zone of Day zone 3 | | | |
| | | 1 | Time Zone1 | 00 – 24 | 0024 | Each time of day zone1 can use different LCR setting. At this ADMIN program, each time of day zone1 can be grouped up to 3 zone. |
| | | 2 | Time Zone2 | 00 – 24 | | Each time of day zone2 can use different LCR setting. At this ADMIN program, each time of day zone2 can be grouped up to 3 zone. |
| | | 3 | Time Zone3 | 00 – 24 | | Each time of day zone3 can use different LCR setting. At this ADMIN program, each time of day zone3 can be grouped up to 3 zone. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|---------------|---------|--|
| 221 | | Leading Digit Table | 000-249 | | |
| | 1 | LCR Type | 1 – 3 | 3 | This value is used to select the LCR type. |
| | 2 | LCR Code (leading digit) | Max 12 digits | - | If digits that is dialed by user are equal to this value, the digits is converted and CO line is seized according to DMT(ADMIN program 222). |
| | 3 | Day Zone 1 DMT | 6digits | - | This value is used to set the table index DMT(ADMIN program 222) of the day zone 1. Because day zone 1 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 4 | Day Zone 2 DMT | 6digits | - | This value is used to set the table index DMT(ADMIN program 222) of the day zone 2. Because day zone 2 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 5 | Day Zone 3 DMT | 6digits | - | This value is used to set the table index DMT(ADMIN program 222) of the day zone 2. Because day zone 2 has 3 different time zone, three table index of each time must be selected. The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 6 | Check password | ON/OFF | OFF | If this value is set to ON, IP LDK system request the account code of user, when dialed digit is matched LCR code. |
| 222 | | Digit Modification Table | 00-99 | | |
| | 1 | Added Digit | Max 25 digits | | This value is used to add some digit stream at user dialed digits. This value is added at the position of 'Add Position'(ADMIN program 222 – FLEX 4). The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 2 | Removal Position | 1 – 12 | 1 | This value is used to set the removal position at user dialed digits. Some digits are removed from the this position up to 'Remove Number' (ADMIN program 222 – FLEX 3). The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 3 | Number Of Remove | 01 – 12 | 00 | This value is used to set the remove digit count at user dialed digits. Some digits are removed as much as this value from the position of 'Removal Position' (ADMIN program 222 – FLEX 2). The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 4 | Add Position | 1 – 13 | 1 | This value is used to set the add position at user dialed digits. Some digits are added from the this position with 'Add Digit Stream' (ADMIN program 222 – FLEX 1). The example of this ADMIN programming is illustrated at 'Section 2.7'. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------|----------|---------|---|
| 222 | 5 | CO Line Group | 1 – 8 | 1 | This value is used when LCR call seize the outgoing CO line. The idle CO line within CO Line Group of this value is seized for LCR call. The example of this ADMIN programming is illustrated at 'Section 2.7'. |
| | 6 | Alternative DMT Index | 00 – 99 | - | This value is used when LCR call can't seize the idle CO line within ADMIN program 222 – FLEX 5. If LCR call can't seize the idle CO line within LCR CO Line Group, LCR call seize the idle CO within CO Line Group of this value DMT index. |
| 223 | | LCR Table Initialization | | | This ADMIN program changes all LCR ADMIN table entry value to new value. |
| | 1 | DMT Of Day_zone_1 | 6 digits | | This ADMIN program change the index of DMT value of day zone 1 to new value. |
| | 2 | DMT Of Day_zone_2 | 6 digits | | This ADMIN program change the index of DMT value of day zone 2 to new value. |
| | 3 | DMT Of Day_zone_3 | 6 digits | | This ADMIN program change the index of DMT value of day zone 3 to new value. |
| | 4 | CO Grp Init | 1 – 8 | | This ADMIN program change the all CO Line Group values of DMT entry to new value. |
| | 5 | Alt Index Init | 0 - 99 | | This ADMIN program change the all 'Alternative DMT Index' values of DMT entry to new value. |
| | 6 | Init All LCR | | | This ADMIN program initialize the all LCR ADMIN data to default value. |

5.3.21 TOLL TABLE ASSIGNMENT

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------|---------------|---------|---|
| 224 | | Toll Table | | | |
| | 1 | Allow Table A (01-30) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 2 and COS 4 station is matched with the allowed toll pass digits or not. Allow table A is only used when the COS of dialed station is COS 2 or 4. |
| | 2 | Deny Table A (01-30) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 2 and COS 4 station is matched with the denied toll pass digits or not. Deny table A is only used when the COS of dialed station is COS 2 or 4. |
| | 3 | Allow Table B (01-30) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 3 and COS 4 station is matched with the allowed toll pass digits or not. Allow table B is only used when the COS of dialed station is COS 3 or 4. |
| | 4 | Deny Table B (01-30) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 3 and COS 4 station is matched with the denied toll pass digits or not. Deny table B is only used when the COS of dialed station is COS 3 or 4. |
| | 5 | Allow Table C (01-50) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 8 station is matched with the allowed toll pass digits or not. |
| | 6 | Deny Table C (01-50) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 8 station is matched with the allowed toll pass digits or not. |
| | 7 | Allow Table D (01-50) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 9 station is matched with the allowed toll pass digits or not. |
| | 8 | Deny Table D (01-50) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 9 station is matched with the allowed toll pass digits or not. |
| 225 | | Canned Toll Table | | | |
| | 1 | Allow Table (01-20) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 5 and COS 6 station is matched with the allowed toll pass digits or not. Allow table of canned toll is only used when the COS of dialed station is COS 5 or 6. |
| | 2 | Deny Table (01-20) | Max 14 digits | - | This ADMIN value is used to check, whether the dialed digit by COS 5 and COS 6 station is matched with the denied toll pass digits or not. Deny table of canned toll is only used when the COS of dialed station is COS 5 or 6. |
| 226 | | Emergency service call (01-10) | Max 14 digits | | Maximum 10 emergency codes can be programmable. |

5.3.22 OTHER TABLES

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|-----------------|-----------------------|---------------------------|---|---|
| 227 | | Author Code Table | 001 - 200 | | Authorization code table entries is consist of each station password and extra account codes. The table entry from 001 to the maximum capacity of station numbers are saved the password of each station. And the remains are the extra entries. CO Line Groups can be marked to deny access until a matched Authorization code is entered. In this case, DND warning tone is provided when the CO Line Group access code is dialed. If the dialed Authorization code is verified, you will hear CO dial tone. Otherwise, you will hear error tone and cannot access the group. Stations or ADMIN programming can enter the authorization codes. Administrator can see and change station's password. There can be no duplicate entries. By default, Authorization Codes are not assigned at all. |
| | | Table entry (001-200) | 3 ~ 11 digits or 5 digits | | 5 digits or variable length can be chosen by program |
| 228 | | CCR Table | 1-70 | | |
| | 1 | Station | STA # | - | If CCR destination type is the STATION, the call is ringing at station of this value. |
| | 2 | Hunt Group | HUNT # | - | If CCR destination type is the HUNT GROUP, the call is ringing at member station of this value hunt group. |
| | 3 | VMIB | Announce # | - | If CCR destination type is the VMIB, VMIB announcement of this value is played to the caller. |
| | 4 | VMIB Drop | Announce # | - | If CCR destination type is the VMIB DROP, VMIB announcement of this value is played to the caller and the call is disconnected when VMIB announcement ended. |
| | 5 | System Speed | 2000-2499 | - | If CCR destination type is the SYSTEM SPEED, the call is routed to the system speed telephone number. |
| | 6 | Internal Page | 1 - 10 | - | If CCR destination type is the INTERNAL PAGE, the call can page to the internal page zone of this value. |
| | 7 | External Page | 1 | - | If CCR destination type is the EXTERNAL PAGE, the call can page to the external page zone of this value. |
| | 8 | All Call Page | 1 - 3 | - | If CCR destination type is the ALL CALL PAGE, the call can page to the all page zone. |
| | 9 | Net Number | Net Number | - | If CCR destination type is NET NUMBER, the call can be routed to another net station. |
| 10 | Conference Room | 1 - 9 | - | If CCR destination type is the CONFERENCE ROOM, the call can join the conference room.. | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|---------------------|--|---------------------|--|
| 229 | | Exec/Sec Table | 1-6 | | This ADMIN program is used at EXECUTIVE/SECRETARY feature(When the executive designated station is in DND state, intercom and transfer calls will be automatically routed to the designated secretary station. By default, EXECUTIVE/SECRETARY pairs are not assigned at all. |
| | | Table entry(1-6) | STA #/STA # | | |
| 231 | - | Flexible DID Table | Entry No.(000-999) | - | |
| | 1 | DID Name | Max 11 chars. | - | This value is used to save the name of incoming DID call. This value is displayed on station LCD, when station receive the DID call. |
| | 2 | Day Destination | STA # / Hunt # / VMIB # / VMIB # drop SPD Int Page Ext Page All Page Net Num Conf Room | STA # Or Null | This value is used to set the destination, when route DID call during day ring mode. The nine different destination type can be selected. |
| | 3 | Night Destination | STA # / Hunt # / VMIB # / VMIB # drop SPD Int Page Ext Page All Page Net Num Conf Room | ATD STA # | This value is used to set the destination, when route DID call during night ring mode. The nine different destination type can be selected. |
| | 4 | Weekend Destination | STA # / Hunt # / VMIB # / VMIB # drop SPD Int Page Ext Page All Page Net Num Conf Room | ATD STA # | This value is used to set the destination, when route DID call during weekend ring mode. The nine different destination type can be selected. |
| | 5 | Reroute Destination | STA # / Hunt # / VMIB # / VMIB # drop SPD | ATD STA # | This value is used to set the second destination, when routed DID call destination is busy. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------|-------------|-------------|--|
| 232 | | System Speed Zone | 01-10 | | |
| | 1 | Speed Bin Range in Zone | | 2200 – 2499 | <p>The system speed zone can be grouped the maximum 10 system speed zone.</p> <p>About each system speed zone, the accessibility can be set at ADMIN program 232 – FLEX 2.</p> <p>The toll check of each system speed zone can be set at ADMIN program 232 – FLEX 4.</p> <p>And the account code to access each system speed zone can be set at ADMIN program 232 – FLEX 5.</p> <p>But, the system speed bin section between 2000 and 2199 is defined the toll free zone. The system speed dial within this zone isn't checked by the toll table.</p> |
| | 2 | Station Range | STA No. | 10-35 | The accessibility of the system speed zones can be assigned to each station. |
| | 3 | Toll Checking | ON/OFF | ON | If this value is set to ON, the speed dial of this zone is checked by the toll table. |
| | 4 | Authorization check | | | If this value is set, the station user must enter this value to use the speed dial of each system speed zone. |
| 233 | | Weekly Time Table | 1 – 7 | - | This ADMIN program is used at the ring assignment feature(Ref Section 2.1.1). |
| | 1 | Day Start Time | 0000 – 2359 | 0900 | <p>The WEEKLY TIME TABLE can manage the ring mode changes automatically.</p> <p>The use of WEEKLY TIME TABLE is executed by the system attendant and each intercom tenancy group attendant.</p> <p>Maximum 16 WEEKLY TIME TABLE is exist.</p> <p>The first table is for the system attendant, and the others are for the intercom tenancy group attendant.</p> <p>The table is consist of 7 days, Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday.</p> <p>On each day, the time zone of DAY/NIGHT/WEEKEND mode can be programmed.</p> <p>For example, the office work starts at 9:00(AM) and finishes at 5:00(PM) during week day. And the weekend starts at 5:00(PM) from Friday to Sunday. In this case, the WEEKLY TIME TABLE can be set as the following ADMIN program value.</p> |
| | 2 | Night Start Time | 0000 – 2359 | 1800 | |
| | 3 | Weekend Start Time | 0000 – 2359 | | |
| | | | | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|----------------------------|-----------|---------|--|
| 234 | | Voice Mail Dial-Table | 1 - 9 | | This ADMIN program is used at the VM hunt group feature. This VOICE MAIL DIALING TABLE value defines the interface of dialing command between IP LDK and the external VM device. |
| | 1 | Prefix Index | 12 Digits | - | |
| | 2 | Suffix Index | 12 Digits | - | |
| 236 | | Mobile Extension Table | | | |
| | 1 | Mobile Extension Enable | ON/OFF | OFF | If this value is set to ON, the station can use the mobile extension feature. |
| | 2 | Mobile Extension CO Group. | 1 – 8 | | Assign CO group when a call routes to a mobile extension. |
| | 3 | Mobile Extension Tel No | Max 24 | | Assign the telephone number of mobile extension. |
| | 4 | Mobile EXT CLI No | - | - | This value is used as the CLI of Mobile Extension |

5.3.23 NETWORKING ATTRIBUTE

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|-----------|---------|--|
| 320 | | Networking Basic Attributes | F1-F7 | | |
| | 1 | Networking Enable | ON / OFF | OFF | This ADMIN program value is used to enable the networking feature. To set this ADMIN value to ON, the networking software lock-key must be installed at IP LDK system. If station user enter the software lock-key check dialing command '[TRANS/PGM] + 78', then the installed software lock-key is displayed on station LCD. |
| | 2 | Networking Retry Count | 00 – 99 | 00 | This ADMIN value is used to retry the connection when IP LDK system detect the error during networking connection signaling. This value is only used when the networking feature is executed through the public switching network. This value is not used at the networking feature between direct connected IP LDK systems. |
| | 3 | Networking CNIP Enable | ON / OFF | ON | The name of calling station is sent to the called system between IP LDK systems. CNIP is displayed on called party station LCD according to ADMIN programming. If the CNIP and CLI are received together, CNIP is prior to CLI. |
| | 4 | Networking CONP Enable | ON / OFF | OFF | The name of answered station is sent to the calling system between IP LDK systems. CONP is displayed on calling party station LCD according to ADMIN programming. |
| | 5 | Networking Signal Method | FAC / UUS | FAC | Select the information element type for networking supplementary service message. FACILITY/USER-TO-USER information element can be used for networking supplementary service message. |
| | 6 | Networking CAS Enable | ON / OFF | OFF | The networking CAS is explained at Section 2.16.16. Enable Centralized attendant in master system, CAS should be disabled. |
| | 7 | Networking VPN Enable | ON / OFF | OFF | Reserved |
| | 8 | NET CC Retain Mode | ON / OFF | OFF | This value is used to set the networking supplementary signaling type of the call completion. If this value is set to ON, the signaling of call completion retain mode is executed. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-------------------------------|---------------|---------|--|
| 321 | | Supplementary Attributes | F1-F7 | | |
| | 1 | Networking Transfer Mode | REROUT / JOIN | REROUT | At international standard of the networking transfer signaling, two kinds of signaling type are exist. The name of each signaling type is REROUTE and REJOIN. This value is used to select the signaling type of networking transfer. |
| | 2 | TCP port | 4 digits | 9000 | The BLF is explained at Section 2.16.19. This ADMIN program is used to set the TCP port for BLF message. |
| | 3 | UDP port | 4 digits | 9001 | The BLF is explained at Section 2.16.19. This ADMIN program is used to set the UDP port for BLF message |
| | 4 | BLF Manager IP Address | 12 digits | 0.0.0.0 | The BLF is explained at Section 2.16.19. This ADMIN program is used to set the IP Address of BLF manager for BLF service. |
| | 5 | Duration of BLF status | 01 ~ 20 sec | 02 | The BLF is explained at Section 2.16.19. This ADMIN program is used to set the duration of BLF status message |
| | 6 | Multicast IP Address | 12 digits | 0.0.0.0 | The BLF is explained at Section 2.16.19. This ADMIN program is used to set the IP address of multicast for BLF service |
| | 7 | Net Trans Fault Recall Timer | 1 ~ 300 | 10 | Network transfer fault recall timer. |
| 322 | | Networking CO Line Attributes | CO Line range | | |
| | 1 | Networking CO Line Group | 00 – 24 | 00 | This ADMIN program is used to select CO Line Group for networking call. |
| | 2 | Reserved | | | |
| | 3 | Reserved | | | |
| | 4 | Net Co Line Type | QSIG / PSTN | PSTN | This ADMIN program is used to select the type of system that is connected through the networking CO line. The system type can be separated two type. The first one is NET type, that is the networking software installed private system. The second one is PSTN type, that is the public switching network system. |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|------|-------|---------|--------|
|-----|------|------|-------|---------|--------|

| | | | | | |
|-----|-----------------|--------------------------|--|---|--|
| 324 | | Networking Routing Table | 00-71 | | |
| | 1 | System Usage | NET / PSTN | NET | <p>This ADMIN program is used to set the networking connection type of the selected table entries.</p> <p>If PSTN is directly connected, this value must be set to PSTN.</p> <p>If the networking software installed system is directly connected, this value must be set to NET.</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| | 2 | Net Numbering Code | 16 digits | - | <p>This ADMIN program is used to set the networking number code of the selected table entries.</p> <p>'*' means any digits can be inserted between 0 ~ 9.</p> <p>The digits followed by '#' is a internal station number.</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| | 3 | Net Number CO Line Group | 00-24 | - | <p>This ADMIN program is used to select CO line group for networking call.</p> <p>If networking call number corresponding NET NUMBERING CODE is entered, the networking call route to the destination through this CO Line Group.</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| | 4 | CPN or IP Information | 16 digits at QSIG, 4 IP Address at VoIP | / 0.0.0.0 | <p>CPN information for ISDN, IP address for VoIP (CPN info 1 ~ CPN info 4)</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| | 5 | Alternate Dial Bin | 2000-6999(IP LDK-300E) 2000-4999(IP LDK-300) 2000-3499(IP LDK-100) | - | <p>Alternative Dial Number (System SPD Bin) when the networking path has a fatal problem.</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| | 6 | Destination MPB IP | IP address | - | <p>IP Address of destination system to support DECT mobility service.</p> <p>DECT mobility service is explained at section 2.16.17.</p> |
| | 7 | Digit Repeat | YES / NO | NO | <p>If this PSTN number is not connected with PSTN line directly but connected by another networking system, make 'Digit Repeat' to YES.</p> <p>The example of NETWORKING ADMIN program is illustrated at 'Section 2.16.1'.</p> |
| 8 | CO ATD Code CLI | YES / NO | NO | <p>During transit-out, this admin value determines which CLI should send to PX.</p> | |

5.3.24 VOIB NET ATTRUBUTE

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|---------------|---------------|--|
| 340 | | VOIB IP SETTING | | | |
| | 1 | IP Addressing(SKIP:#) | 12 digits | 0.0.0.0 | This ADMIN program is used at setting the IP address of VOIP board. |
| | 2 | GATEWAY Addressing (SKIP:#) | 12digits | 0.0.0.0 | This ADMIN program is used at setting the gateway address of VOIP board. |
| | 3 | SUBNET Mask(SKIP:#) | 12digits | 250.250.255.0 | This ADMIN program is used at setting the subnet mask of VOIP board. |
| | 4 | DNS Addressing (SKIP:#) | 12digits | 0.0.0.0 | This ADMIN program is used at setting the DNS address of VOIP board. |
| | 5 | TRACE Password | 10digits | | This ADMIN program is used at setting the password which need to contact to VOIP board for trace. |
| | 6 | Default CODEC | 0 – 3 | 0 | This ADMIN program is used at setting the default codec of VOIP board. |
| | 7 | Default GAIN | 1 - 62 | 31 | This ADMIN program is used at setting the default codec of VOIP board. |
| | 8 | NO Delay (TOS) | ON / OFF | OFF | This ADMIN program is used at selecting whether the response of VOIP board will be delayed or not. |
| | 9 | Throughput (TOS) | HIGH / NORMAL | NORMAL | This ADMIN program is used at selecting whether the throughput of VOIP board is high or normal. |
| | 10 | Reliability (TOS) | HIGH / NORMAL | NORMAL | This ADMIN program is used at selecting whether the reliability of VOIP board is high or normal. |

5.3.25 RSG/IP Phone Setting

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|-------|-----------------------------|--|-------------------|--------|
| 380 | | VOIB SLOT FOR RSG/IP | | | |
| | 1 | SLOT assign | - | - | |
| | 2 | CHANEL assign | 0 – 8 | 0 | |
| 381 | | RSG/IP No Assign | | | |
| | 1 | RSG NUMBER | 0~8 | 0 | |
| | 2 | IP PHONE NUMBER | 00~16 | 00 | |
| 382 | | RSG/IP Attribute | | | |
| | 1 | Transfer Mode | IP / MAC | IP | |
| | 2 | Casting Mode | Unicast / Multicast | Unicast | |
| | 3 | Tone Source | IP LDK / Remote (RSG/IP Phone) | Remote | |
| | 4 | Peer to Peer | ON/OFF | ON | |
| | 5 | Codec Type | G.711_ALAW(0)/ G.711_ULAW(1)/ G.723.1(2) | G.711_ALAW(0) | |
| | 6 | First Access RSG CO | ON/OFF | ON | |
| | 7 | Ring without CO Ring Assign | ON/OFF | ON | |
| 383 | | RSG Attribute 1 | | | |
| | 1 | SET MAC ADDRESS | | 00-00-00-00-00-00 | |
| | 2 | IP Address DISPLAY | | 0.0.0.0 | |
| | 3 | PORT VIEW | | | |
| | 4 | PORT NUM | | | |
| | 5 | NAT IP ADDR DISPLAY | | 0.0.0.0 | |
| | 6 | NAT PORT NUM | | 0 | |
| | 7 | STUN ENABLED | | NONE | |
| 384 | | RSG Attribute 2 | | | |
| | 1 | Internal MOH RTP Port | | 8186 | |
| | 2 | External MOH RTP Port | | 8188 | |
| | 3 | MOH Type | MUSIC/Hold Tone | Hole Tone | |
| | 4 | Music Source | EXT1/INT | INT | |
| | 5 | External Contact 1 | LBC/Door Open | N/A | |
| | 6 | External Contact 2 | LBC/Door Open | N/A | |
| | 7 | Alarm Enable | ON/OFF | OFF | |
| | 8 | Alarm Contact | Close/Open | Close | |
| | 9 | Alarm Mode | Alarm/Door Bell | Alarm | |
| | 10 | Alarm Signal | RPT/ONCE | RPT | |
| | 11 | CTI Port | 0-2 | NOT_USED | |
| | 12 | RSG NATION CODE | | System Nation | |
| 13 | IPSEC | ON/OFF | OFF | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|--------------------------|----------------------------|---------|-------------------|--------|
| 385 | | RSG Alarm Attribute | | | |
| | 1 | RSG 01~24 | None | | |
| | 2 | RSG 25~48 | None | | |
| | 3 | RSG 49~72 | None | | |
| | 4 | RSG 73~96 | None | | |
| 386 | | IP Phone Attribute | | | |
| | 1 | SET MAC ADDR | | 00-00-00-00-00-00 | |
| | 2 | IP Address DISPALY | | 0.0.0.0 | |
| | 3 | PORT VIEW | | N/A | |
| | 4 | PORT NUM | | N/A | |
| | 5 | NAT IP ADDR DISPLAY | | 0.0.0.0 | |
| | 6 | NAT PORT NUM | | 0 | |
| | 7 | STUN ENABLED | | NONE | |
| | 8 | CTI IP ADDR(SKIP : #) | | 0.0.0.0 | |
| 9 | IPSEC | ON/OFF | OFF | | |
| 390 | | RSG_DKT RX Gain | | | |
| | 1 | RSG_DKT RX from DKTU | 00 – 63 | | |
| | 2 | RSG_DKT RX from SLT | 00 – 63 | | |
| | 3 | RSG_DKT RX from CTR_SLT | 00 – 63 | | |
| | 4 | RSG_DKT RX from WKT | 00 – 63 | | |
| | 5 | RSG_DKT RX from ACO | 00 – 63 | | |
| | 6 | RSG_DKT RX from CTR_ACO | 00 – 63 | | |
| | 7 | RSG_DKT RX from DCO | 00 – 63 | | |
| | 8 | RSG_DKT RX from VMIB | 00 – 63 | | |
| | 9 | RSG_DKT RX from DTMF | 00 – 63 | | |
| | 10 | RSG_DKT RX from TONE | 00 – 63 | | |
| | 11 | RSG_DKT RX from MUSIC 1 | 00 – 63 | | |
| | 12 | RSG_DKT RX from MUSIC 2 | 00 – 63 | | |
| | 13 | RSG_DKT RX from RSG_DKT | 00 – 63 | | |
| | 14 | RSG_DKT RX from RSG_SLT | 00 – 63 | | |
| | 15 | RSG_DKT RX from RSG_LCO | 00 – 63 | | |
| 16 | RSG_DKT RX from IP Phone | 00 – 63 | | | |
| 391 | | RSG_DKT TX Gain | | | |
| | 1 | RSG_DKT RX to DKTU | 00 – 63 | | |
| | 2 | RSG_DKT RX to SLT | 00 – 63 | | |
| | 3 | RSG_DKT RX to CTR_SLT | 00 – 63 | | |
| | 4 | RSG_DKT RX to WKT | 00 – 63 | | |
| | 5 | RSG_DKT RX to ACO | 00 – 63 | | |
| | 6 | RSG_DKT RX to CTR_ACO | 00 – 63 | | |
| | 7 | RSG_DKT RX to DCO | 00 – 63 | | |
| 8 | RSG_DKT RX to DVU | 00 – 63 | | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|--------------------------|----------------------------|---------|---------|--------|
| 392 | | RSG_SLT RX Gain | | | |
| | 1 | RSG_SLT RX from DKTU | 00 – 63 | | |
| | 2 | RSG_SLT RX from SLT | 00 – 63 | | |
| | 3 | RSG_SLT RX from CTR_SLT | 00 – 63 | | |
| | 4 | RSG_SLT RX from WKT | 00 – 63 | | |
| | 5 | RSG_SLT RX from ACO | 00 – 63 | | |
| | 6 | RSG_SLT RX from CTR_ACO | 00 – 63 | | |
| | 7 | RSG_SLT RX from DCO | 00 – 63 | | |
| | 8 | RSG_SLT RX from VMIB | 00 – 63 | | |
| | 9 | RSG_SLT RX from DTMF | 00 – 63 | | |
| | 10 | RSG_SLT RX from TONE | 00 – 63 | | |
| | 11 | RSG_SLT RX from MUSIC 1 | 00 – 63 | | |
| | 12 | RSG_SLT RX from MUSIC 2 | 00 – 63 | | |
| | 13 | RSG_SLT RX from RSG_DKT | 00 – 63 | | |
| | 14 | RSG_SLT RX from RSG_SLT | 00 – 63 | | |
| | 15 | RSG_SLT RX from RSG_LCO | 00 – 63 | | |
| 16 | RSG_SLT RX from IP Phone | 00 – 63 | | | |
| 393 | | RSG_SLT TX Gain | | | |
| | 1 | RSG_SLT TX to DKTU | 00 – 63 | | |
| | 2 | RSG_SLT TX to SLT | 00 – 63 | | |
| | 3 | RSG_SLT TX to CTR_SLT | 00 – 63 | | |
| | 4 | RSG_SLT TX to WKT | 00 – 63 | | |
| | 5 | RSG_SLT TX to ACO | 00 – 63 | | |
| | 6 | RSG_SLT TX to CTR_ACO | 00 – 63 | | |
| | 7 | RSG_SLT TX to DCO | 00 – 63 | | |
| 8 | RSG_SLT TX to VMIB | 00 – 63 | | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|----------------------------|---------|---------|--------|
| 394 | | RSG_LCO RX Gain | | | |
| | 1 | RSG_LCO RX from DKTU | 00 – 63 | | |
| | 2 | RSG_LCO RX from SLT | 00 – 63 | | |
| | 3 | RSG_LCO RX from CTR_SLT | 00 – 63 | | |
| | 4 | RSG_LCO RX from WKT | 00 – 63 | | |
| | 5 | RSG_LCO RX from ACO | 00 – 63 | | |
| | 6 | RSG_LCO RX from CTR_ACO | 00 – 63 | | |
| | 7 | RSG_LCO RX from DCO | 00 – 63 | | |
| | 8 | RSG_LCO RX from VMIB | 00 – 63 | | |
| | 9 | RSG_LCO RX from DTMF | 00 – 63 | | |
| | 10 | RSG_LCO RX from TONE | 00 – 63 | | |
| | 11 | RSG_LCO RX from MUSIC 1 | 00 – 63 | | |
| | 12 | RSG_LCO RX from MUSIC 2 | 00 – 63 | | |
| | 13 | RSG_LCO RX from RSG_DKT | 00 – 63 | | |
| | 14 | RSG_LCO RX from RSG_SLT | 00 – 63 | | |
| | 15 | RSG_LCO RX from RSG_LCO | 00 – 63 | | |
| | 16 | RSG_LCO RX from IP Phone | 00 – 63 | | |
| 395 | | RSG_LCO TX Gain | | | |
| | 1 | RSG_LCO TX to DKTU | 00 – 63 | | |
| | 2 | RSG_LCO TX to SLT | 00 – 63 | | |
| | 3 | RSG_LCO TX to CTR_SLT | 00 – 63 | | |
| | 4 | RSG_LCO TX to WKT | 00 – 63 | | |
| | 5 | RSG_LCO TX to ACO | 00 – 63 | | |
| | 6 | RSG_LCO TX to CTR_ACO | 00 – 63 | | |
| | 7 | RSG_LCO TX to DCO | 00 – 63 | | |
| | 8 | RSG_LCO TX to VMIB | 00 – 63 | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|---------|---------|--------|
| 396 | | IP PHONE RX Gain | | | |
| | 1 | IP PHONE RX from DKTU | 00 – 63 | | |
| | 2 | IP PHONE RX from SLT | 00 – 63 | | |
| | 3 | IP PHONE RX from CTR_SLT | 00 – 63 | | |
| | 4 | IP PHONE RX from WKT | 00 – 63 | | |
| | 5 | IP PHONE RX from ACO | 00 – 63 | | |
| | 6 | IP PHONE RX from CTR_ACO | 00 – 63 | | |
| | 7 | IP PHONE RX from DCO | 00 – 63 | | |
| | 8 | IP PHONE RX from VMIB | 00 – 63 | | |
| | 9 | IP PHONE RX from DTMF | 00 – 63 | | |
| | 10 | IP PHONE RX from TONE | 00 – 63 | | |
| | 11 | IP PHONE RX from MUSIC 1 | 00 – 63 | | |
| | 12 | IP PHONE RX from MUSIC 2 | 00 – 63 | | |
| | 13 | IP PHONE RX from RSG_DKT | 00 – 63 | | |
| | 14 | IP PHONE RX from RSG_SLT | 00 – 63 | | |
| | 15 | IP PHONE RX from RSG_LCO | 00 – 63 | | |
| | 16 | IP PHONE RX from IP Phone | 00 – 63 | | |
| 397 | | IP PHONE TX Gain | | | |
| | 1 | IP PHONE TX to DKTU | 00 – 63 | | |
| | 2 | IP PHONE TX to SLT | 00 – 63 | | |
| | 3 | IP PHONE TX to CTR_SLT | 00 – 63 | | |
| | 4 | IP PHONE TX to WKT | 00 – 63 | | |
| | 5 | IP PHONE TX to ACO | 00 – 63 | | |
| | 6 | IP PHONE TX to CTR_ACO | 00 – 63 | | |
| | 7 | IP PHONE TX to DCO | 00 – 63 | | |
| | 8 | IP PHONE TX to VMIB | 00 – 63 | | |

5.3.26 NATION SPECIFIC

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------------|--------------|---------|---------|----------------|
| 400 | | DTIB RX Gain | | | Korean version |
| | 1 | DTIB/DKT | 00 – 63 | 26 | |
| | 2 | DTIB/SLT | 00 – 63 | 33 | |
| | 3 | DTIB/RESERV | 00 – 63 | 22 | |
| | 4 | DTIB/RESERV | 00 – 63 | 26 | |
| | 5 | DTIB/ACO | 00 – 63 | 33 | |
| | 6 | DTIB/RESERV | 00 – 63 | 22 | |
| | 7 | DTIB/DCO | 00 – 63 | 33 | |
| | 8 | DTIB/VMIB | 00 – 63 | 29 | |
| | 9 | DTIB/DTMF | 00 – 63 | 8 | |
| | 10 | DTIB/TONE | 00 – 63 | 32 | |
| | 11 | DTIB/MUSIC1 | 00 – 63 | 29 | |
| | 12 | DTIB/MUSIC2 | 00 – 63 | 29 | |
| | 13 | DTIB/MUSIC3 | 00 – 63 | 29 | |
| 401 | | SLIB RX Gain | | | |
| | 1 | SLIB/DKT | 00 – 63 | 12 | |
| | 2 | SLIB/SLT | 00 – 63 | 23 | |
| | 3 | SLIB/RESERV | 00 – 63 | 12 | |
| | 4 | SLIB/RESERV | 00 – 63 | 12 | |
| | 5 | SLIB/ACO | 00 – 63 | 21 | |
| | 6 | SLIB/RESERV | 00 – 63 | 12 | |
| | 7 | SLIB/DCO | 00 – 63 | 24 | |
| | 8 | SLIB/VMIB | 00 – 63 | 20 | |
| | 9 | SLIB/DTMF | 00 – 63 | 8 | |
| | 10 | SLIB/TONE | 00 – 63 | 18 | |
| | 11 | SLIB/MUSIC1 | 00 – 63 | 20 | |
| | 12 | SLIB/MUSIC2 | 00 – 63 | 20 | |
| | 13 | SLIB/MUSIC3 | 00 – 63 | 20 | |
| 404 | | ACOB RX Gain | | | |
| | 1 | ACOB/DKT | 00 – 63 | 26 | |
| | 2 | ACOB/SLT | 00 – 63 | 37 | |
| | 3 | ACOB/RESERV | 00 – 63 | 27 | |
| | 4 | ACOB/RESERV | 00 – 63 | 26 | |
| | 5 | ACOB/ACO | 00 – 63 | 36 | |
| | 6 | ACOB/RESERV | 00 – 63 | 27 | |
| | 7 | ACOB/DCO | 00 – 63 | 33 | |
| | 8 | ACOB/VMIB | 00 – 63 | 32 | |
| | 9 | ACOB/DTMF | 00 – 63 | 32 | |
| | 10 | ACOB/TONE | 00 – 63 | 32 | |
| | 11 | ACOB/MUSIC1 | 00 – 63 | 32 | |
| | 12 | ACOB/MUSIC2 | 00 – 63 | 32 | |
| | 13 | ACOB/MUSIC3 | 00 – 63 | 32 | |
| 14 | ACOB/MODEM | 00 – 63 | 37 | | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|-----------------|-----------------|---------|---------|----------|
| 406 | | DCOB RX Gain | | | |
| | 1 | DCOB/DKT | 00 – 63 | 26 | |
| | 2 | DCOB/SLT | 00 – 63 | 37 | |
| | 3 | DCOB/RESERV | 00 – 63 | 26 | |
| | 4 | DCOB/RESERV | 00 – 63 | 26 | |
| | 5 | DCOB/ACO | 00 – 63 | 24 | |
| | 6 | DCOB/RESERV | 00 – 63 | 15 | |
| | 7 | DCOB/DCO | 00 – 63 | 32 | |
| | 8 | DCOB/VMIB | 00 – 63 | 32 | |
| | 9 | DCOB/DTMF | 00 – 63 | 32 | |
| | 10 | DCOB/TONE | 00 – 63 | 32 | |
| | 11 | DCOB/MUSIC1 | 00 – 63 | 32 | |
| | 12 | DCOB/MUSIC2 | 00 – 63 | 32 | |
| | 13 | DCOB/MUSIC3 | 00 – 63 | 32 | |
| 14 | DCOB/MODEM | 00 – 63 | 37 | | |
| 407 | | VMIB RX Gain | | | |
| | 1 | VMIB/DKT | 00 – 63 | 21 | |
| | 2 | VMIB/SLT | 00 – 63 | 32 | |
| | 3 | VMIB/RESERV | 00 – 63 | 21 | |
| | 4 | VMIB/RESERV | 00 – 63 | 26 | |
| | 5 | VMIB/ACO | 00 – 63 | 32 | |
| | 6 | VMIB/RESERV | 00 – 63 | 23 | |
| | 7 | VMIB/DCO | 00 – 63 | 32 | |
| | 8 | VMIB/MUSIC1 | 00 – 63 | 32 | |
| 9 | VMIB/MUSIC2 | 00 – 63 | 32 | | |
| 408 | | DTMF RC Gain | | | |
| | 1 | DTMF/SLT | 00 – 63 | 28 | |
| | 2 | DTMF/RESERV | 00 – 63 | 17 | |
| | 3 | DTMF/ACO | 00 – 63 | 24 | |
| | 4 | DTMF/RESERV | 00 – 63 | 15 | |
| 5 | DTMF/DCO | 00 – 63 | 24 | | |
| 409 | | EXT PAGE Gain | | | |
| | 1 | EXT PAGE/DKT | 00 – 63 | 26 | |
| | 2 | EXT PAGE/SLT | 00 – 63 | 37 | |
| | 3 | EXT PAGE/RESERV | 00 – 63 | 26 | |
| | 4 | EXT PAGE/RESERV | 00 – 63 | 26 | |
| | 5 | EXT PAGE/ACO | 00 – 63 | 37 | |
| | 6 | EXT PAGE/RESERV | 00 – 63 | 28 | |
| | 7 | EXT PAGE/DCO | 00 – 63 | 37 | |
| | 8 | EXT PAGE/VMIB | 00 – 63 | 37 | |
| | 9 | EXT PAGE/MUSIC1 | 00 – 63 | 37 | |
| | 10 | EXT PAGE/MUSIC2 | 00 – 63 | 37 | |
| 11 | EXT PAGE/MUSIC3 | 00 – 63 | 37 | | |
| 410 | | CPT Gain | | | |
| | 1 | CPT/ACO | 00 – 63 | 24 | |
| | 2 | CPT/RESERV | 00 – 63 | 15 | |
| 3 | CPT/DCO | 00 – 63 | 24 | | |
| 411 | | MODEM Gain | | | |
| | 1 | MODEM/ACO | 00 – 63 | 24 | |
| | 2 | MODEM/RESERV | 00 – 63 | 20 | |
| 3 | MODEM/DCO | 00 – 63 | 24 | | |
| 412 | | Short SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 31 | |
| | 2 | Long ACO | 00 – 63 | 31 | |

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|-----------------------------|---------|--------------------|-----------------|
| 413 | | Long SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 37 | |
| | 2 | Long ACO | 00 – 63 | 37 | |
| 414 | | Far SLIB Gain | | | SAF only |
| | 1 | Shot ACO | 00 – 63 | 45 | |
| | 2 | Long ACO | 00 – 63 | 45 | |
| 415 | | Short ACO Gain | | | SAF only |
| | 1 | Short SLIB | 00 – 63 | 35 | |
| | 2 | Long SLIB | 00 – 63 | 41 | |
| | 3 | Far SLIB | 00 – 63 | 47 | |
| 416 | | Long ACO Gain | | | SAF only |
| | 1 | Short SLIB | 00 – 63 | 39 | |
| | 2 | Long SLIB | 00 – 63 | 45 | |
| | 3 | Far SLIB | 00 – 63 | 51 | |
| 420 | | System Tone Frequency | | | |
| | 1 | Dial Tone | 4digits | 0425, 0000 | Nation specific |
| | 2 | Ring Back Tone | 4digits | 0425, 0000 | Nation specific |
| | 3 | Busy Tone | 4digits | 0425, 0000 | Nation specific |
| | 4 | Error Tone | 4digits | 0620, 000 | Nation specific |
| | 5 | Dummy Dial Tone | 4digits | 0350, 440 | Nation specific |
| 421 | | Differential Ring Frequency | | | |
| | 1 | Ring 1 | 4digits | 1000, 1020 | Nation specific |
| | 2 | Ring 2 | 4digits | 0890, 0910 | Nation specific |
| | 3 | Ring 3 | 4digits | 1260, 1280 | Nation specific |
| | 4 | Ring 4 | 4digits | 0800, 0820 | Nation specific |
| 422 | | Distinct Ring Frequency | | | |
| | 1 | Ring 1 | 4digits | 0480, 0000 | Nation specific |
| | 2 | Ring 2 | 4digits | 0400, 0000 | Nation specific |
| | 3 | Ring 3 | 4digits | 0620, 0000 | Nation specific |
| | 4 | Ring 4 | 4digits | 0770, 0000 | Nation specific |
| 423 | | ACNR Tone Cadence | | | |
| | 1 | Ring-Back Tone | 000-255 | ON: 050 / OFF: 100 | 20msec base |
| | 2 | Busy Tone | 000-255 | ON: 025 / OFF: 025 | 20msec base |
| | 3 | Error Tone | 000-255 | ON: 012 / OFF: 012 | 20msec base |
| | 4 | S –Dial Tone | 000-255 | ON: 070 / OFF: 000 | 20msec base |

5.3.27 INITIALIZATION

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--|-------|---------|---|
| 450 | | Initialization | | | |
| | 1 | Flexible Numbering Plan Initialization | | | PGM105, PGM106, PGM107 |
| | 2 | Station Database Initialization | | | PGM110, PGM111, PGM112, PGM113, PGM114, PGM 116, PGM117, PGM118, PGM119, PGM121,PGM122, PGM123, PGM124, PGM179 |
| | 3 | CO Line Database Initialization | | | PGM140, PGM141, PGM142, PGM143, PGM144 |
| | 4 | System Feature Database Initialization | | | PGM160 – PGM 177, PGM108 |
| | 5 | Station Group Database Initialization | | | PGM190, PGM191 |
| | 6 | ISDN Tables Database Initialization | | | PGM201, PGM202, PGM230, PGM231 |
| | 7 | Reserved | | | None(Reserved) |
| | 8 | System Timer Database Initialization | | | PGM180 – PGM182 |
| | 9 | Toll Table Database Initialization | | | PGM224, PGM225 |
| | 10 | LCR Database Initialization | | | PGM220 – PGM222 |
| | 11 | Tables Initialization | | | PGM227 – PGM229, PGM232 – PGM235 |
| | 12 | Flexible Button Program Initialization | | | PGM115 |
| | 13 | Networking Database Initialization | | | PGM 320, PGM321,PGM322,PGM323, PGM 324 |
| | 14 | All Database Initialization | | | Above All |
| | 15 | System Reset By Software | | | |
| | 16 | DID Reroute Table | | | |
| | 17 | Board DATA | | | |

5.3.28 PRINT PROT DATABASE

| PGM | FLEX | ITEM | RANGE | DEFAULT | REMARK |
|-----|------|--------------------------------|---------|-----------------|---|
| 451 | | Print Prot Data | | | |
| | 1 | Flexible Numbering Plan Print | | | |
| | 2 | Station Database Print | STN_R | | |
| | 3 | CO Line Database Print | CO_R | | |
| | 4 | System Feature Database Print | | | |
| | 5 | Station Group Database Print | | | |
| | 6 | ISDN Tables Database Print | | | |
| | 7 | System Timer Database Print | | | |
| | 8 | Toll Table Database Print | | | |
| | 9 | LCR Database Print | | | |
| | 10 | Other Tables Print | | | |
| | 11 | Nation Specific Database Print | | | |
| | 12 | Flexible Button Program Print | STN_R | | |
| | 13 | Networking Data Print | | | |
| | 14 | All Database Print | | | |
| | 15 | LCD Message Print | | | |
| | 1 | Language | 00 – 12 | Nation specific | 00:ENG 01:ITA 02:FIN 03:DUT 04:SWE 05:DAN 06:NOR 07:HUN 08:GER 09:FRE 10:POR 11:SPA 12:KOR |
| | 2 | Station Type | 0 – 2 | 0 | 0: NORMAL 1: LG-GAP 2: LARGE |
| 16 | | Quit Print | | | |