

DENON

FULLY AUTOMATIC DIRECT DRIVE TURNTABLE

DP-47F

OPERATING INSTRUCTIONS

Read instructions before use and retain for future reference.



IMPORTANT TO SAFETY

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Model No. DP-47F

Serial No. _____

Please, record and retain the Model name and serial number of your set shown on the rating label.

IMPORTANT (BRITISH MODEL ONLY)

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

FOR YOUR SAFETY (AUSTRALIAN MODEL ONLY)

To ensure safe operation, the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, contact a qualified electrician.

Note: Whenever the power switch is in the OFF-state, the apparatus is still connected on AC line voltage.

Please be sure to unplug the cord when you leave home for, say, a vacation.

— TABLE OF CONTENTS —

FEATURES	3
PARTS NOMENCLATURE AND FUNCTIONS	4
HOW TO ASSEMBLE	5
HOW TO CONNECT	5
ADJUSTING THE TRACKING FORCE, ANTI-SKATING FORCE AND Q-DAMPING	6
HOW TO PLAY	6
REPLACEMENT OF PARTS AND READJUSTMENTS	8
SPECIFICATIONS	9
TROUBLESHOOTING GUIDE	10

FEATURES

1. Microprocessor controlled, contactless servo tonearm

A unique microprocessor controlled, contactless servo tonearm ensures safe, easy to use automatic operation with no deterioration in sound quality.

2. Q-damping method (Dynamic servo tracer)

Low frequency resonance caused by the cartridge compliance and the effective tonearm mass is electronically damped both horizontally and vertically to effectively suppress crosstalk and inter-modulation distortion. The dynamic servo tracer maximizes the performance of the low mass tonearm and results in a record reproduction of excellent sound image with minimum noise and distortion.

3. Low mass straight arm

Having an outstanding tracing ability, this arm maximizes the performance of the high compliance cartridge to the full extent. Even with the most up-to-date high grade records, its tracing ability is excellent.

4. Locate function

Just by pressing the locate button, the tone-arm is moved to any desired location where the record play is started.

5. Record size detector and automatic speed selector

The record size and the speed are automatically set, when playing 12 inch records (33 1/3 rpm) or 7 inch records (45 rpm) in the automatic play mode. The unit provides a safety measure

which causes the tonearm to stop and return to the arm rest to protect the stylus tip when there is no record on the turntable, even if the start button is pressed.

6. DENON quartz on bi-directional servo

Bi-directional servo and electronic braking system have been added to the combination of the magnetic recording detector and the quartz lock to ensure a stable performance of rotation and a sharp operation.

7. Finely-finished wood cabinet design

Mirror-like finish, large cabinet with 85 mm in height, and a new howling-proof insulator have been incorporated into the DP-47F.

8. Newly-developed high-output MC cartridge (for U.K. model only)

The DP-47F is equipped with a high-output MC cartridge DL-80MC which has a superb tracing capability and resolution and it allows a clear sound to be reproduced.

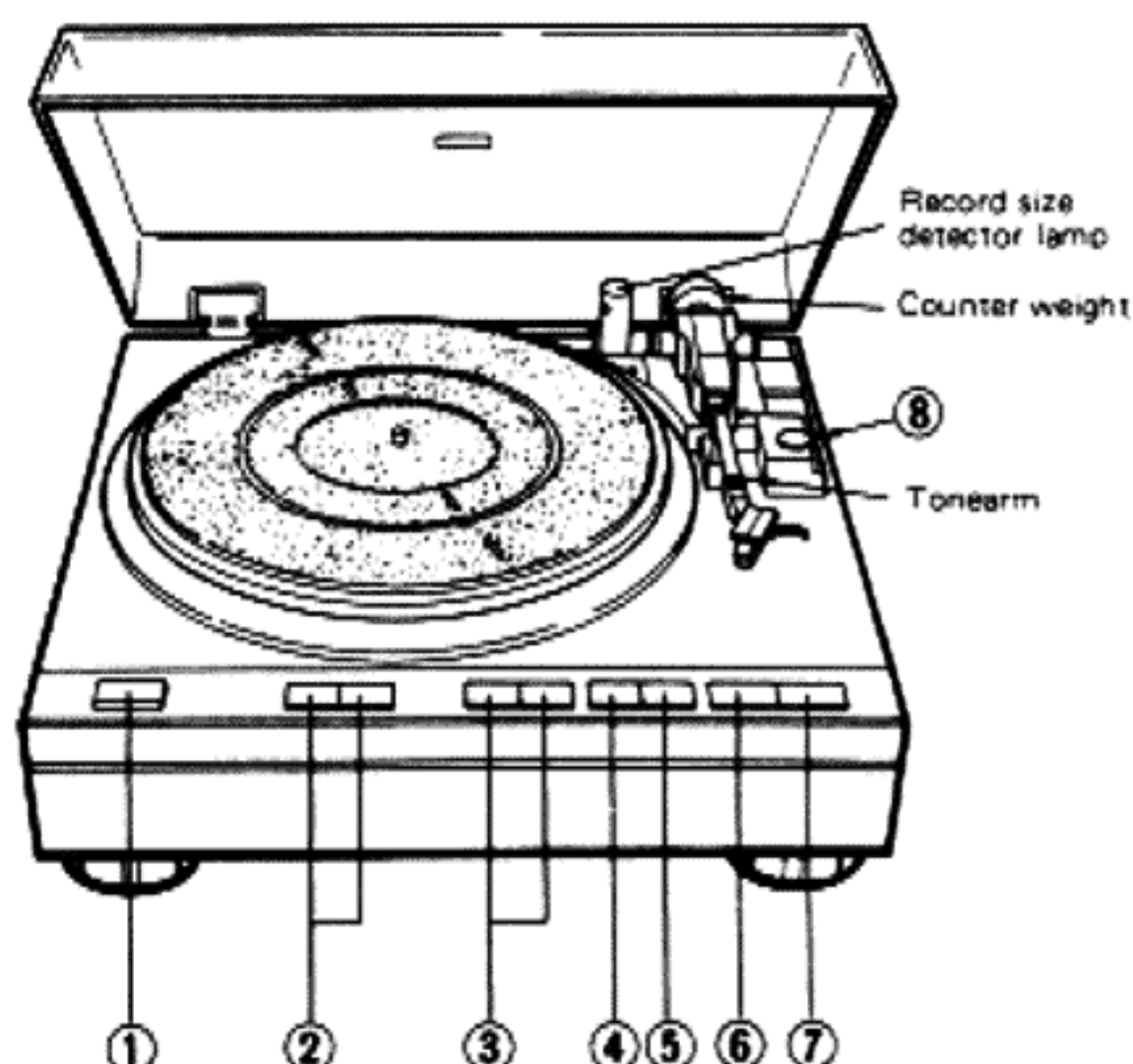
9. Newly-developed cartridge (for European model only)

A high-output MC cartridge comparable to MM cartridges.

The DL-160 MC cartridge can be connected directly to the MM position of the amplifier.

Note: • U.S., Canadian & Asian models do not include cartridge.

• U.K. model includes the DL-80 MC cartridge.



1 Power switch **POWER**

This switch is used to turn on or off power. Press this button to allow the record size detector lamp to light up. For turning off power, move the arm back to the arm rest, clamp it, then press this button again.

2 Speed button **33. START/LOCK. 45**

For playing records manually, press the button corresponding to the record speed.
 33 1/3 rpm records (33. Start)
 45 rpm records (45. Start)
 In the automatic play mode, the switch will automatically be set to "33" for 12 inch records and "45" for 7 inch records.
 The Speed Indication lamp also shows the "LOCK" indication and it keeps blinking until the turntable reaches a specified number of rotations, when it lights up again.

3 Locate button **◀ LOCATE ▶**

Use this for moving the tone arm horizontally to the position from which you wish to start playing.

4 Arm Lifter button **UP LIFTER**

Press this button to raise or lower the tonearm during play, or when playing records manually. The "UP" indicator will light up.

5 Repeat button **REPEAT**

Press this button for playing the same record repeatedly: the "ON" indicator will light up.

6 Start button **START**

Press this button to start records automatically.

7 Stop button **STOP**

Press this button to stop a record during play.

8 Tracking force adjustment knob **TRACKING FORCE/ANTI-SKATE**

Operate this knob for adjusting the tracking force. The anti-skate and Q damping are adjusted simultaneously.

HOW TO ASSEMBLE

1. Remove the packing material

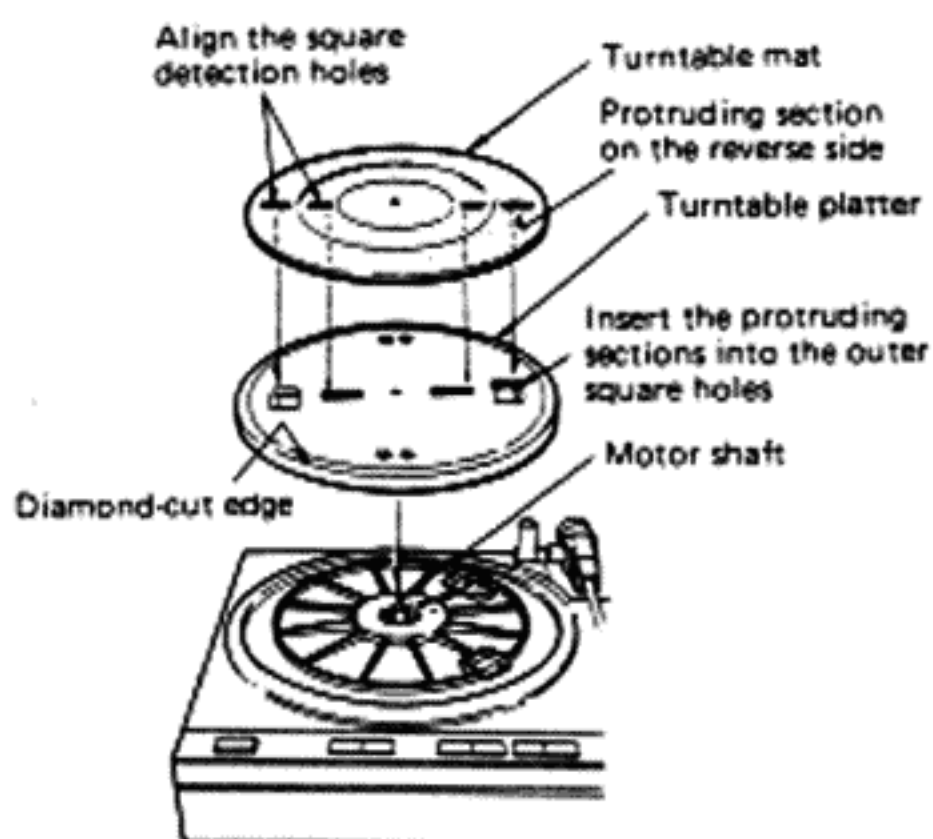
Remove the packing material (styrofoam) attached to both sides of the cabinet.

2. Install the turntable platter and the turntable mat

1) Insert the turntable platter onto the motor shaft.

2) Place the turntable mat on the platter, aligning the size detection holes. For the protruding sections of the turntable mat into the outer square of the turntable platter.

- Notes:**
- Be careful not to scratch the magnetic coating on the inner surface of the turntable. Further, avoid touching the diamond-cut (shiny) edge of the turntable platter with hands, as this may cause corrosion of the surface.
 - Automatic record size detection will not function, if the size detection holes on the platter and the mat are not properly aligned.



HOW TO CONNECT

1. Connect the left (L) and the right (R) output wires to the respective "PHONO" input terminals of the amplifier to be used.

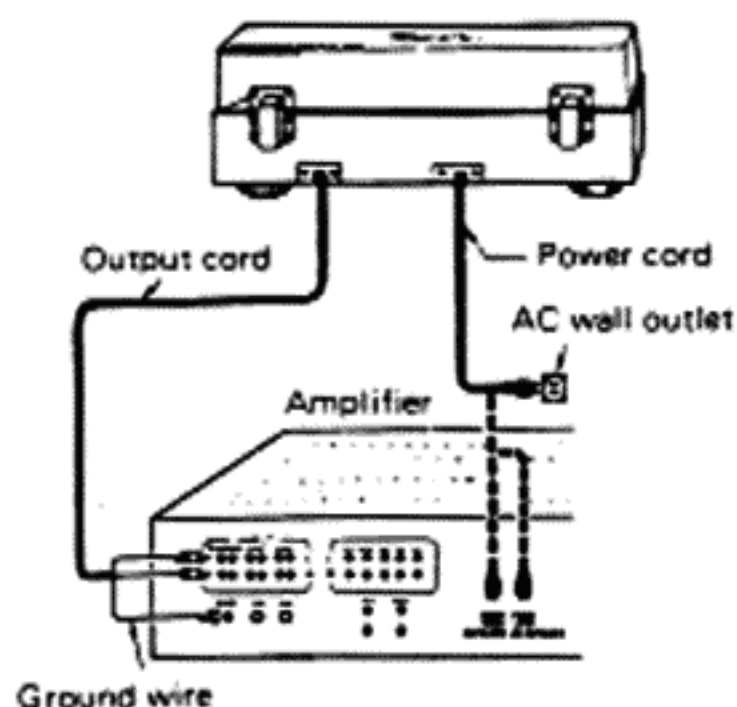
Further, connect the ground wire (which is together with the output wires) to the "GND" terminal of the amplifier.

Notes:

Although the auxiliary cartridge DL-80MC is a moving coil (MC TYPE) cartridge, it can be connected directly to the MM position of the amplifier without step-up transformers or head amplifiers.

U.S., Canadian & Asian models do not include cartridge. See page 8 for mounting cartridge.

2. Connect the AC power plug to an AC wall outlet.



MAKE THE FOLLOWING ADJUSTMENT WITH THE POWER TURNED OFF.

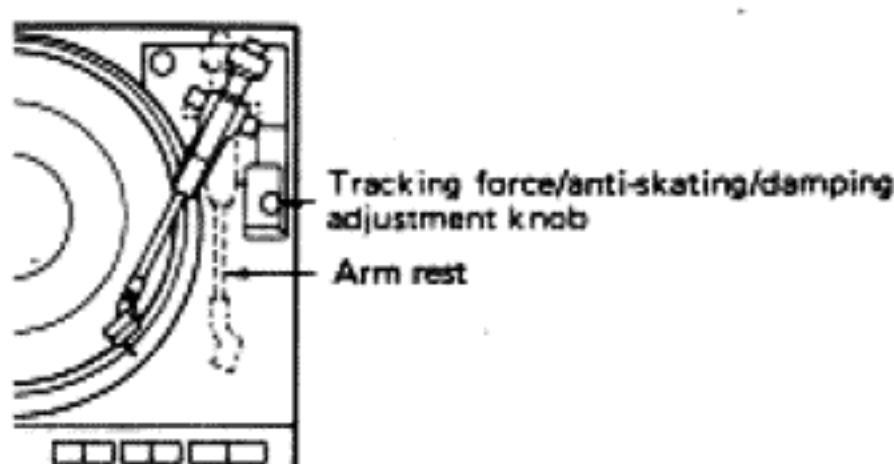
1. Release the arm clamp

Hold the tonearm and lower the arm clamp in the direction of the arrow.



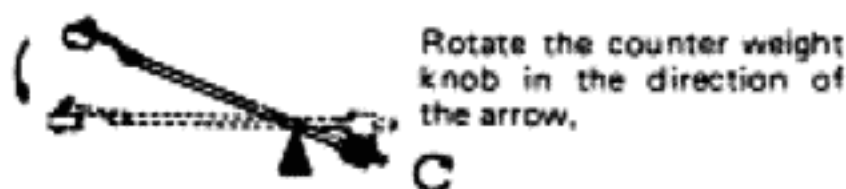
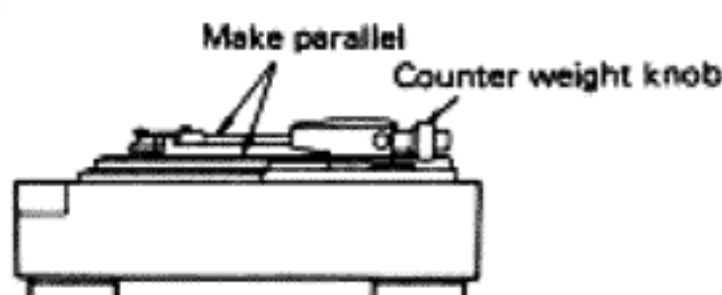
2. Move the tonearm

Take the tonearm off the arm rest and move it to a position between the arm rest and the turntable.



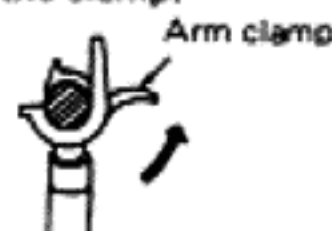
3. Balance the tonearm horizontally

Rotate the counter weight knob until the tonearm remains balanced parallel to the turntable surface.



4. Return the tonearm to the arm rest

Return the tonearm to the arm rest and hold it in place with the clamp.



5. Adjust the tracking force and the anti-skating

Since the cartridge supplied with this turntable requires a tracking force of 1.8 g, rotate the tracking force knob and align the number 1.8 with the reference line. The anti-skating and Q-damping are automatically adjusted at the same time.



WHEN ADJUSTING THE TRACKING FORCE AND THE ANTI-SKATING

When using a cartridge other than the one supplied with this turntable, apply the suitable tracking force for it after consulting the cartridge instruction manual. The anti-skating is automatically adjusted at the same time.

BEFORE PLAYING

1. Turn the power supply of the amplifier on, and set the selector switch/knob to "PHONO".
2. Place a record on the turntable and raise the stylus cover.
3. Turn the turntable power supply on.
4. Release the arm clamp.



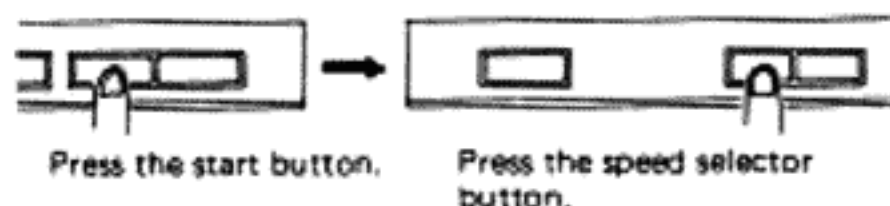
FOR AUTOMATIC PLAY

1. Press the start button.

The tonearm will move over to the record and play will begin.

- For 30 cm (12 inch), 33 1/3 rpm records and 17 cm (7 inch), 45 rpm records, the speed and size are automatically selected. To play records of other than the above mentioned size, proceed as follows:

- (1) Press the start button.
- (2) Press the speed selector button corresponding to the record speed.



2. When play finishes, the tonearm will return to the arm rest and the turntable will stop (when the repeat switch is off).

When the repeat switch is on ("REPEAT" is lit), the record will be played again.

FOR MANUAL PLAY

- When playing records from the middle
- When playing non-standard size records

It is possible to play the records by the following 3 methods:

1st method

1. Manually move the tonearm to the desired position above the record and lower the stylus. At this time, the turntable will not rotate yet.
2. Press the speed selector button corresponding to the record speed. The turntable will start to rotate and play will begin.
3. When play finishes, the tonearm will return to the arm rest and the turntable will stop.

2nd method

1. Press the speed selector button corresponding to the record speed.
2. Manually move the tonearm towards the record and the turntable will start to rotate.
3. Lower the stylus at the desired position on the record, and play will begin.
4. When play finishes, the tonearm will return to the arm rest and the turntable will stop.

3rd method:

1. Set the arm lifter button to "UP" ("UP" will light).
2. Manually move the tonearm to the desired position above the record.

3. Press the speed selector button corresponding to the record speed. The turntable will start to rotate.
4. The tonearm will be lowered and play will begin.
5. When play finishes, the tonearm will return automatically, as in the automatic play mode.

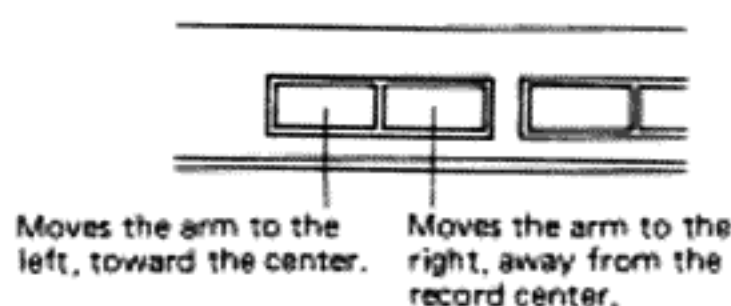
RECORD PLAY BY THE "LOCATE" METHOD

Besides the above procedures the tonearm can be moved by pressing the locate button.

1. Press the locate button corresponding to the desired tonearm movement.
2. Move the stylus to the desired position.
3. Release the locate button. The tonearm will be lowered and play will begin.

- The "locate" procedure can be utilized also for the following:
 - During play
 - While the tonearm is moving

Caution: When playing records by the locate method, be careful not to lower the stylus on the turntable mat.



WHEN PLAYING TRANSPARENT RECORDS

Rotate the turntable mat 90°, and play the record with the square windows of the turntable covered. (Follow the same procedure when playing warped records.)

Note: When the start button is pressed, the stylus tip will always lower at the 30 cm (12 inch) position. When playing other size records, be sure to play them manually to avoid stylus tip damage.

REPEATED PLAY

Press the repeat button "on" ("REPEAT" will light). The same record will be played repeatedly until the repeat is cancelled. To cancel the repeat, press the repeat button once more.

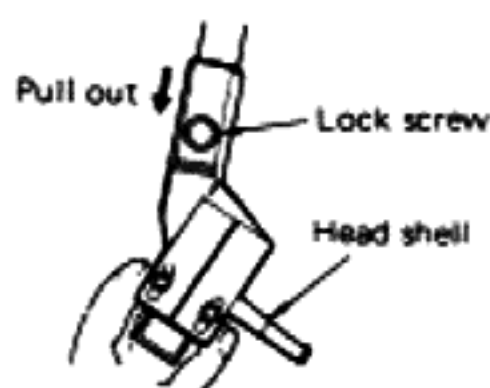
- When stopping during play

1. Press the stop button
The tonearm will return to the arm rest and the turntable will stop.
2. Or, press the arm lifter button to the "UP" position. The tonearm will rise at the position, while the turntable will keep rotating.

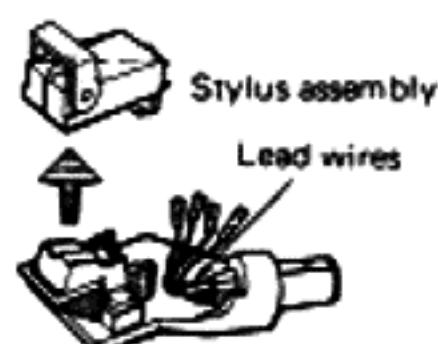
Stylus replacement (U.K. model only)

The stylus tip life of the attached cartridge is approximately 500 hours. Earlier replacement of the stylus is recommended, as a worn stylus tip may cause distorted sounds and damage to the records.

- Be sure to ask for "DENON DSN-80" when purchasing a replacement stylus. There will be no guarantee on the performance and against malfunctions if a different stylus is used.
- How to replace
 1. Loosen the lock screw on the foremost end of the tonearm, and pull the head shell out in the direction of the arrow.
 2. Remove four lead wires located at the back edge of the cartridge.
 3. Holding the both sides of the stylus cover with your fingers, pull it out in the direction of the arrow in the figure. At this time, the terminals are also removed.
 4. Attach a new replacement stylus to the cartridge until it is locked.
 5. Connect the lead wires to the terminal. See the "Cartridge Replacement" for the connection.



Replacement stylus DSN-80



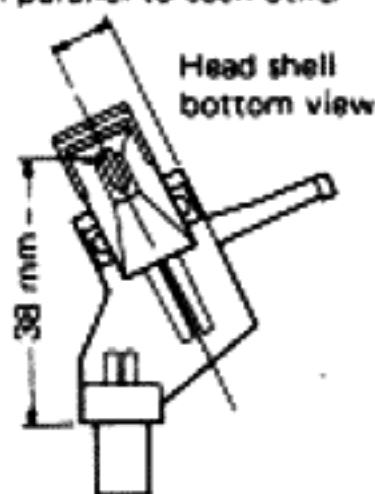
Cartridge replacement

A different cartridge with a weight between 3 and 12 g (including screws and nuts) can be attached to the head shell of this turntable unit. (When purchasing only the head shell, ask for the "DENON PCL-40".)

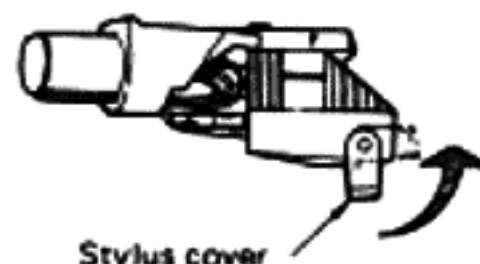
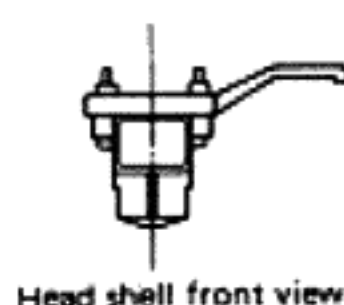
- The overhang of this turntable unit is 16 mm. When the installation is performed as shown in the diagram, the proper overhang is obtained.
Note: When the cartridge has been replaced, be sure to readjust the horizontal balance, tracking force and Q-damping.
- The color designation of the lead wires is as follows. Be careful not to make any errors.

Red	right channel (R)
White	left channel (L)
Green	right channel ground (RG)
Blue	left channel ground (LG)
- How to raise the stylus cover
 (For attached cartridge DL-80 or DL-160)
- To protect the stylus tip, lower the stylus cover after use.

Attach parallel to each other



Attach vertically



Before playing, raise the stylus cover in the direction of the arrow.

SPECIFICATIONS

MOTOR

Drive System:	Servo controlled direct drive
Turntable Speeds:	33-1/3, 45 rpm
Wow & Flutter:	Below 0.010% wrms (servo system) Below 0.020% (JIS)
S/N Ratio:	Over 78 dB (DIN-B)
Rise Time:	Nominal speed within 2 seconds (at 33-1/3 rpm)
Turntable Platter:	Aluminum die-cast; 310 mm diameter
Motor:	Linear drive motor
Speed Control System:	Speed servo by frequency detection, phase servo control
Speed deviation:	Below 0.01%
Load characteristics:	0% (80 g tracking force; outermost groove)

GENERAL

Power Supply:	50/60 Hz, Voltage is shown on rating label
Power Consumption:	Approx. 8 W
Dimensions:	434 x 179 x 410 mm (W x H x D) 17 x 7.3 x 16.1 in
Weight:	Approximately 8.5 kg (19 lb)

TONEARM SECTION

Arm Type:	Dynamically balanced, straight tube tonearm
Effective Length:	220 mm
Overhang:	16 mm
Tracking Error:	Within 3°
Automatic Mechanism:	Electronically controlled, fully automatic
Adjustable Tracking Force Range:	0 ~ 3.0 g (1 scale = 0.1 g)
Suitable Cartridge Weight Range:	Approximately 3.0 ~ 12.0 g (including screws, nuts)

CARTRIDGE

	DL-80MC	DL-160 (European model only)
Output Voltage	1.6 mV	1.6 mV
Frequency Response:	20 Hz ~ 45 kHz	20 Hz ~ 45 kHz
Tracking Force:	1.8 ± 0.3 g. High-output MC type	1.8 ± 0.3 g. High-output MC type
U.S., Canadian and Asian models do not include cartridge.		

* For product improvement purposes, the specifications are subject to change without notice.

TROUBLESHOOTING GUIDE

When trouble arises, check the following items before you consider any problem as a malfunction.

Turntable does not operate when start button is pressed.

The tonearm does not move:

- Is the power switched on?
- Is the arm clamp released? Refer to page 6

The stylus does not lower onto the record:

- Is a tracking force being applied? Refer to page 6

The stylus does not lower on the desired position:

- Is the cartridge properly installed on the head shell? Refer to page 8
- Is the turntable unit placed horizontally?

No sound

- Are the cartridge and the tonearm connected properly? Refer to page 8
- Are the output wires properly connected to the amplifier? Refer to page 5
- Are the amplifier knobs/switches properly set for record reproduction?

Hum noise is audible:

- Is the ground wire of the output wires connected to the amplifier? Refer to page 5
- Are the output wires properly connected?
- Is the head shell secured properly with the lock screw? Refer to page 8

The stylus skips/Jumps

- Is the tracking force applied properly? Refer to page 6
- Is the record warped or scratched?
- Is there any large amount of dust on the stylus?

The arm stops moving forward during play:

- Is the record scratched?
- Is something touching the arm?

Sound is too weak/strong:

- Is the amplifier switched and connected properly for the type of cartridge (output) being used?

Noise is picked up by the tuner:

- Should the tuner pick up noise while the turntable unit is in operation, move the tuner away from the turntable, or relocate the tuner antenna.

The tonearm moves up and down when power is switched on:

- The up and down movement of the tonearm when the power is switched on/off is not a defect.