

**FULLY AUTOMATIC  
DIRECT DRIVE TURNTABLE SYSTEM**

**DP-51F/DP-52F**

**OPERATING INSTRUCTIONS**

**U.S. & Canadian models do not include cartridge**



**NIPPON COLUMBIA CO., LTD.**

## IMPORTANT TO SAFETY

### WARNING:

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

### CAUTION:

- 1. Handle the power supply cord carefully**  
Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
- 2. Do not open bottom cover**  
In order to prevent electric shock, do not open the bottom cover. If problems occur, contact your **DENON** dealer.
- 3. Do not insert anything inside**  
Do not insert metal objects or spill liquid inside the record player. Electric shock or malfunction may result.

Model DP. \_\_\_\_\_ 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.

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Please check to make sure the following items, aside from the main unit, are packed into the carton. 1. Turntable platter 2. Turntable mat 3. 45rpm record adapter 4. Instruction manual. 5. Hinge for dust cover

### FEATURES

#### 1. The use of a microprocessor controlled, contactless servo tonearm

An innovative microprocessor controlled, contactless servo tonearm ensures safe, easy to use automatic operations with little loss in sound quality.

#### 2. Q-damping method (Dynamic servo tracer)

Low frequency resonance caused by cartridge compliance and the tonearm mass is electronically damped horizontally and vertically. Crosstalk and inter-modulation distortion are effectively suppressed. The dynamic servo tracer maximizes the performance of the low mass tonearm and realizes excellent stability of sound image with little noise or distortion.

#### 3. Low mass straight arm

This arm is fully capable of maximizing the

performance of high compliance cartridges with outstanding tracing ability. Even with the newest, high grade records, its tracing ability is outstanding.

#### 4. Record size detector and the automatic speed selector mechanism

The record size and the speed are automatically set when using LP records (33 1/3 rpm) or single records (45 rpm). When there are no records placed on the turntable, the tonearm does not move, even if the start button is pressed. This protects the stylus tip from unexpected damages.

#### 5. The use of DENON quartz on bi-directional servo

Speed accuracy is unequalled, with the combination of a magnetic pulse detector and a quartz lock, with the addition of a bi-directional servo.

### MAIN SPECIFICATIONS

|                             |   |
|-----------------------------|---|
| <b>Drive system</b>         | Servo controlled direct drive   |
| <b>Turntable speeds</b>     | 33-1/3 rpm, 45 rpm  |
| <b>Wow flutter</b>          | Below 0.01% wrms (servo system)<br>Below 0.02% wrms (JIS)             |
| <b>S/N ratio :</b>          | Over 78dB (DIN-B)   |
| <b>Rise time :</b>          | Normal speed within 1.8 seconds (at 33-1/3 rpm)                       |
| <b>Turntable :</b>          | Aluminum die-cast; 300 mm diameter                                    |
| <b>Motor :</b>              | AC servo motor  |
| <b>Speed control system</b> | Speed servo by frequency and phase servo control                      |
| <b>Load influence :</b>     | 0% (80 g stylus force, outer most groove)                             |
| <b>Brake system :</b>       | Electronic brake  |
| <b>Speed deviation :</b>    | Below 0.002%  |
| <b>Power supply :</b>       | 50/60Hz, Voltage is shown on the rating label at the back of cabinet. |
| <b>Power consumption :</b>  | 17W   |
| <b>Dimensions :</b>         | 130×455×424 (H×W×D)   |
| <b>Weight :</b>             | Approx. 9 kg  |
| <b>Arm type :</b>           | Dynamically balanced, straight tube tonearm                           |

**Effective length :** 244 mm

**Overhang :** 14 mm

**Tracking error :** Within 2.5°

**Automatic mechanism** Electronically controlled fully automatic

**Q-damping method :** Electronic; horizontal vertical directions

**Adjustable stylus force range :** 0~3 g (1 scale=0.1 g)

**Head shell :** Specially hardened resin head shell (Approx. 3.3 g)

**Suitable cartridge weight range :** Approx. 3~12 g (including nuts, screws)

**Anti-skating :** Electronically controlled

**Cartridge section (Only for those units with a set cartridge)**  
**DL-60**

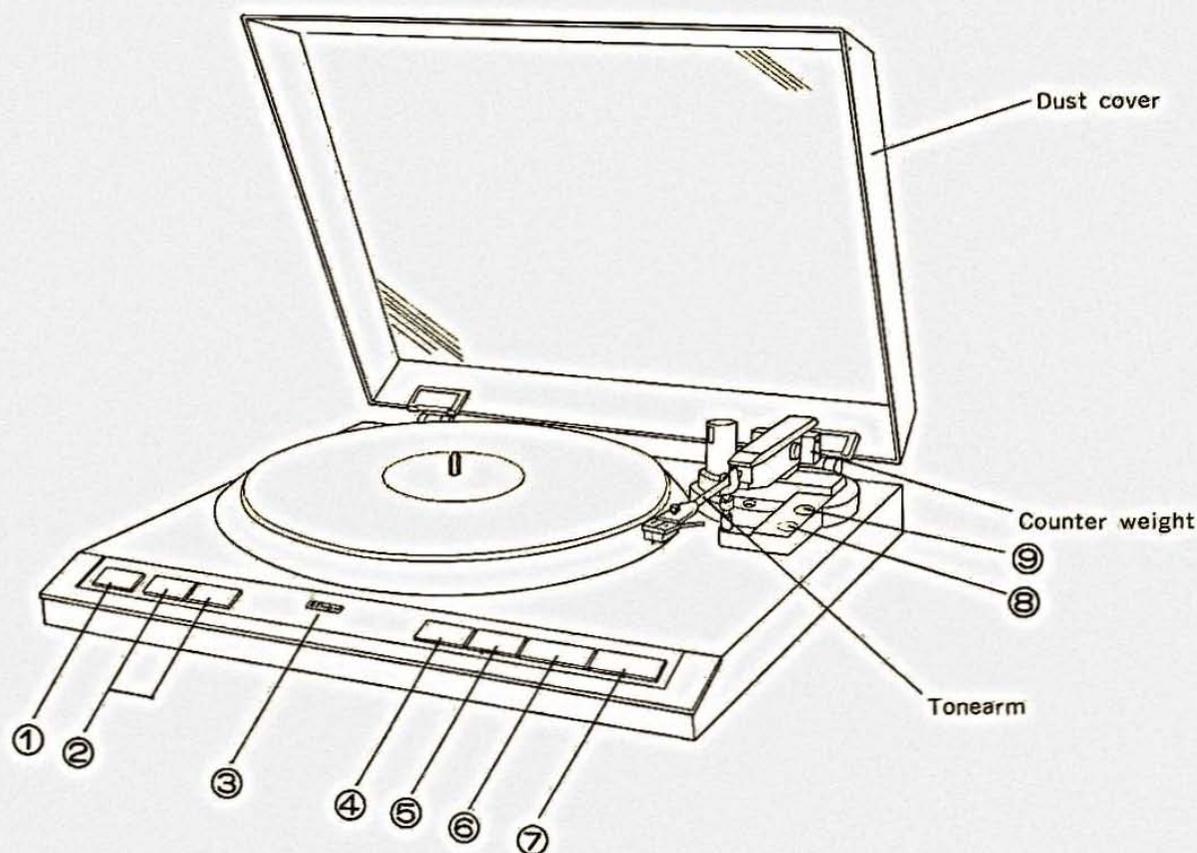
**Output voltage :** 2.5 mV

**Frequency response :** 20~30 kHz

**Stylus force :** 1.8 ± 0.3 g; MM type

\* The above specifications are subject to change without notice.

## NAMES OF PARTS AND FUNCTIONS



### 1 Power switch POWER

This turns the power supply on and off. Push the button down until it locks in position. The power will turn on and the lock indicator ('DENON') will light up. When turning the power off, press the button until the lock is disengaged. In addition, always return the tonearm to the arm rest and hold it in place with the clamp.

### 2 Speed selector switch SPEED

Set to the desired record speed.

33-1/3rpm records ..... "33"

45rpm records ..... "45"

In automatic play, the switch is set to "33" for 30cm records and "45" for 17cm records.

### 3 Lock indicator DENON

The "DENON" will light up when the power is on. During play, the lamp will flicker until the proper turntable speed is reached. Once the proper speed is obtained, the lamp will, again, stay lit.

### 4 Arm lifter button LIFTER

This button is used to raise and lower the arm during play, or when playing the records manually

### 5 Repeat button REPEAT

Press this button when playing records repeatedly: the "REPEAT" lamp will be lit.

### 6 Start button START

Press this button when starting the records automatically.

### 7 Stop button STOP

Press this button when stopping the record during play.

### 8 Stylus force adjustment knob

#### STYLUS FORCE

This is used to adjust the stylus force.

### 9 Q-damping adjustment knob

#### Q-DAMPING

※With the DP-52, locate play is possible by using the start and stop buttons. Please refer to page 6 concerning the method of locate operations.

## HOW TO ASSEMBLE

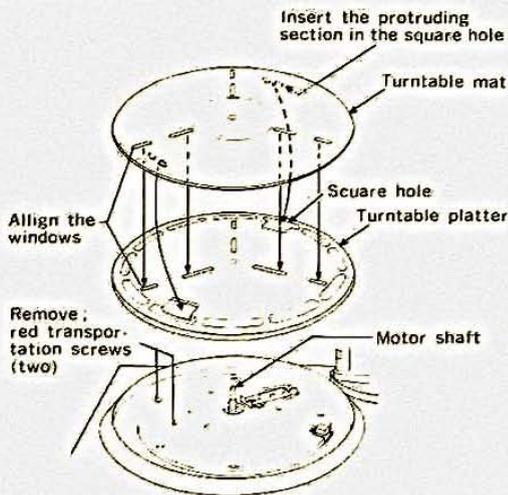
### 1. Remove the packing material

Remove the packing material from the arm counter weight section, dust cover and the cabinet.

### 2. Take the transportation screw off

**Note:** The screws must be taken off to ensure normal operations. Keep these screws for future use, when transferring residence, etc.

### 3. Install the turntable platter and the turntable mat



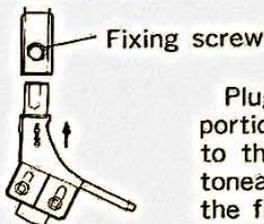
- 1) Insert the turntable platter onto the motor shaft.
- 2) To place the turntable mat, align the slot windows and fit the protruding sections of the turntable mat into the bigger square holes on the platter.

**Note:** Take caution as not to scratch the magnetic coating on the inner surfaces of the turntable.

### 4. Mounting of the cartridge

For models without attached cartridge, mount your cartridge by following the procedures on the cartridge replacement installation on page 8.

### 5. Mount head shell

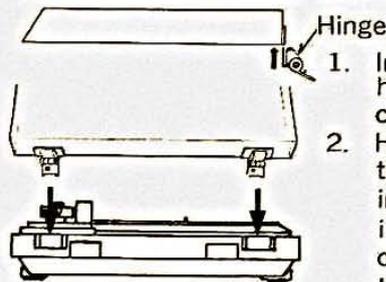


Plug in the connector portion of the head shell to the front end of the tonearm. Then fasten the fixing screw.

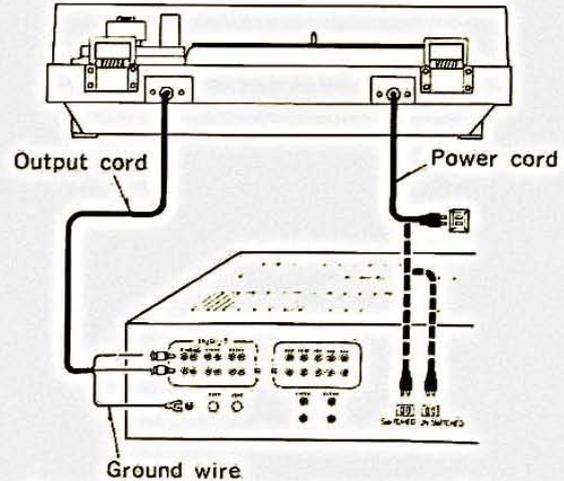
### 6. Adjust the insulator height

The height of the insulators (rubber feet) of this turntable can be adjusted by rotating them. Adjust the insulator heights so that the turntable is horizontally placed on the surface where it is to be placed.

### 7. Attach dust cover and hinges



1. Insert the dust cover hinges into the dust cover.
2. Hold both sides of the dust cover and insert the hinges into the hinge catchers of the base until it stops.



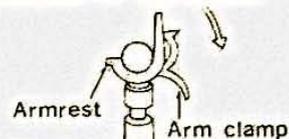
1. Connect the left (L) and the right (R) output wires to the respective "PHONO" input terminals of the amplifier to be used. Secondly, connect the ground wire (this wire is together with the output wires) to the "GROUND" terminal of the amplifier.
2. Connect the AC power plug to the AC wall outlet.

## ADJUSTING THE STYLUS FORCE AND THE ANTI-SKATING

Make adjustments with the power supply turned off.

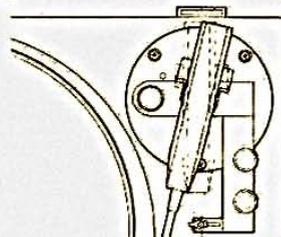
### 1. Release the arm clamp

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



### 2. Move the tonearm

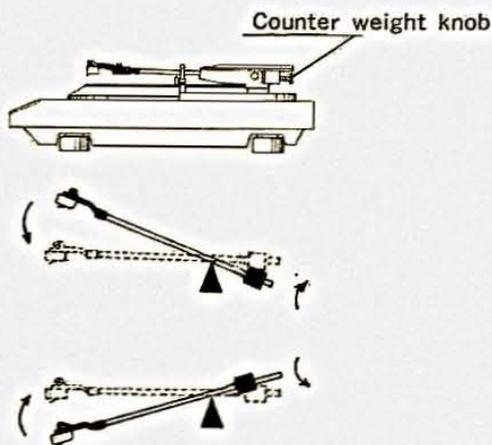
Take the tonearm off the arm rest and move it to a position between the arm rest and the turntable.



### 3. Balance the arm horizontally

Rotate the counter weight knob until the stylus tip remains at the same height as the record surface, when your hand is off.

Rotate the counter weight knob in the direction of the arrow.



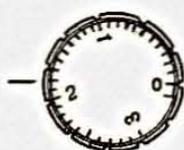
### 4. Return the tonearm to the arm rest

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



### 5. Adjust the stylus force and the anti-skating

Rotate the stylus force knob and set the stylus force of the cartridge to be used by aligning the number to the line. (The illustration shows the stylus force set at 1.8g) The anti-skating is automatically adjusted at the same time.



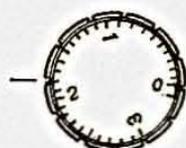
STYLUS FORCE  
ANTI SKATING

#### When adjusting the stylus force and the anti-skating

Apply the suitable stylus force for the cartridge by consulting the cartridge instruction manual.

### ADJUSTING THE Q-DAMPING

Rotate the Q-damping knob and set it to the same number as the cartridge stylus force. (The illustration shows a 1.8 g stylus force cartridge being used.)



Q-DAMPING

Although the Q-damping varies with the compliance of the cartridge, this turntable is designed so that a suitable amount of damping can be obtained by simply adjusting the number to the same position as the stylus force.

### HOW TO PLAY

#### Before playing

- ① Turn the power supply of the amplifier on and set the selector switch/knob to "PHONO".
- ② Set the record and remove the stylus cover.
- ③ Turn the power supply on.
- ④ Release the arm clamp.

#### • For automatic play

- ① Press the start switch. ("START" lights)  
The tonearm will move over to the record and play will start.
- ② When the 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" lights) the record will be played again.

#### Note :

- The speed selector automatically sets the record speeds for 33-1/3 LPs (30 cm) and 45 singles (17cm). When playing records other than the above mentioned sizes, set the speed by pressing the speed selector button after pressing the start button.

The arm may move up and down when the power supply is turned on, but this is not a malfunction.

- If strong light (direct sunlight, light from lamps) hits the turntable mat, the turntable may not operate properly. Please take care not to use the turntable under strong lighting conditions.

#### For manual play

- When playing records from the middle
  - When the record size is not standard
- ① Set the arm lifter button to "up" (▼).
  - ② By hand, place the tonearm over the desired position on the record.
  - ③ The turntable will start to rotate when the desired speed button is pressed.
  - ④ When play finishes, the tonearm will return automatically as in the automatic play mode.

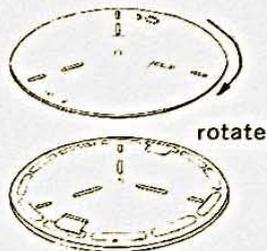
#### Note :

The arm lifter mechanism operates magnetically. Thus, it will lower even in the up (▼) position if force is applied. Gently push the tonearm in the horizontal direction when

moving it, taking care not to damage the record and the stylus.

**• When playing transparent records**

Rotate the turntable mat 180°, and play the record with the square windows of the turntable covered. (Follow the same procedures when playing warped records.)



Caution: (when the slot windows are blinded)

When the start button is pressed, the stylus tip will always lower at the 30 cm position. When playing records with a diameter other than 30cm, always play the records manually with repeat off to avoid stylus tip damage.

**• For repeated play**

Set the repeat button on ("REPEAT" lights). The record will be played repeatedly, until the repeat is disengaged. To disengage the repeat, press the repeat button again.

**• When stopping during play**

- ① Press the stop button (with the DP-52F, press firmly). The stop lamp will light up. The tonearm will return to the arm rest and the turntable will stop.
- ② Or else, push the arm lifter button to the up (▼) position.

The tonearm will rise above that position. The turntable will continue to rotate.

**• Locate play for the DP-52F**

With the DP-52F, in addition to the above mentioned operations, the start and stop button can be used to move the tonearm to the desired position above the record.

Follow the chart below to operate.

**Note:** The DP-52F uses a double action stop switch. Two different functions are facilitated; when pressed firmly. (STOP lights up) and when pressed lightly.

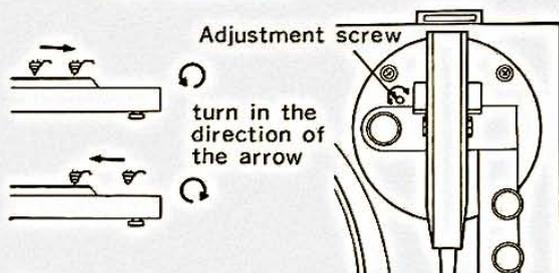
|                  |              | Tonearm operation               |   |             |   |
|------------------|--------------|---------------------------------|---|-------------|---|
| Button operation |              | Start button                    |   | Stop button |   |
| Tonearm position |              | Arm rest                        | Over record   | Arm rest    | Over record   |
| Operation        | Push         | To the record starting position | To the record starting position   |             | Push lightly To the record starting position<br>Push firmly Return to the arm rest              |
|                  | Keep pushing |                                 | FORWARD<br>(Tonearm stops at the position where the button is released) |             | (Keep pushing lightly) BACKWARD<br>(Tonearm stops at the position where the button is released) |

**REPLACEMENT OF PARTS AND RE-ADJUSTMENT**

**Adjusting the lowering position of the stylus tip**

When the lowering position of the stylus tip is not correct, adjust it by using the flat head screwdriver to turn the adjustment screw.

- When the stylus tip lowers to the inside: turn counterclockwise.
- When the stylus tip lowers to the outside: turn clockwise.



**Stylus replacement**

(For models with the attached cartridge)

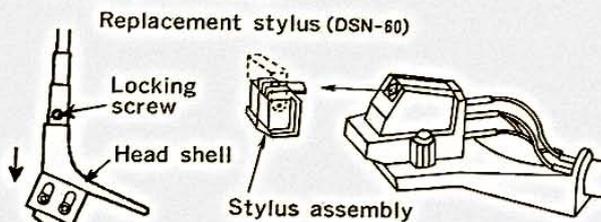
The stylus tip life of the attached cartridge is approximately 500 hours. Earlier replacement

of the stylus is recommended, as a worn stylus tip may cause noise and damage to the records.

• Be sure to specify "DENON DSN-60" when purchasing a replacement stylus. DENON does not assume responsibility for performance losses or malfunctions caused by the use of other styli.

**• How to replace**

- ① Loosen the locking screw at the cartridge end of the tonearm, and take out by pulling the head shell in the direction of the arrow.
- ② Hold the stylus assembly and gently take it out by pulling it up diagonally.
- ③ Set the new stylus assembly by inserting it as far as it will go.



### Cartridge replacement

It is possible to use a cartridge weighing 3~12 g (including nuts, screws) when attaching it to the headshell of this turntable. (When purchasing only the headshell, specify the "DENON" PCL-50".)

The color designation of the lead wires are as follows. Please be cautious as not to make any misconnections.

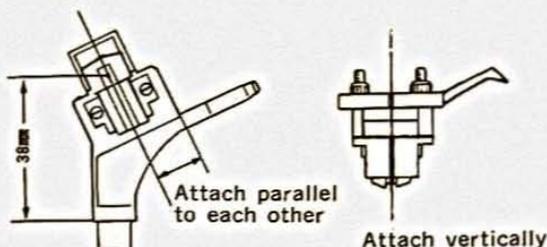
- red .....right channel (R)
- white .....left channel (L)
- green .....right channel ground (RG)
- blue.....left channel ground (LG)

- ① Loosen the locking thumb screw at the cartridge end of the tonearm, and pull off the head shell forward.
- ② The overhang for this turntable is 14 mm. When installed according to the diagram, the appropriate overhang will be obtained.

- ③ After the cartridge is mounted properly, plug in the head shell to the tonearm and secure it by the thumb screw.

#### Note :

When the cartridge is replaced, always make sure to readjust the horizontal balance, stylus force and the Q-damping.



### WHEN TROUBLES ARISE

When troubles arise, check the following items before considering them as malfunctions.

**Turntable does not start when start button is pressed.**

**The tonearm does not move**

- Is the power switched on?
- Is the arm clamp released? .....Refer to page 4

**The tonearm returns to the arm rest**

- Is a transparent record being played?
- Is the record warped?

**The tonearm moves to the 30cm position, when playing a 17cm record.**

- Is the turntable mat properly set? .....Refer to page 4

**The stylus tip does not lower onto the record.**

- Is the proper stylus force being applied? .....Refer to page 5

**The stylus tip does not lower on the desired position.**

- Is the cartridge properly installed on the head shell? ....Refer to page 6
  - Is the turntable placed horizontally? .....Refer to page 4
- When no irregularities are found for the above items, adjust the lowering position of the stylus tip. ....Refer to page 6

**No sound**

- Is the tonearm and the cartridge connected properly? ...Refer to page 6
- Are the output wires properly connected to the amplifier?...Refer to page 4
- Are the amplifier knobs/switches properly selected, adjusted?

**Hum noises**

- Is the ground wire of the output wire properly connected to the amplifier? .....Refer to page 4
- Are the output wires properly connected? .....
- Is the head shell firmly held with the locking screw? .....Refer to page 6

**The stylus jumps**

- Is the stylus force set properly? .....Refer to page 5
- Is the record warped, scratched?
- Are there any considerable amount of dust on the stylus tip?

**The arm does not move during play**

- Is the record scratched?
- Is something hitting the tonearm ?

**Little sound**

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

**The record size is not detected**

- Are any strong rays of light hitting the turntable sheet? (Direct sunlight, light from lamps, etc.) .....Refer to page 5

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