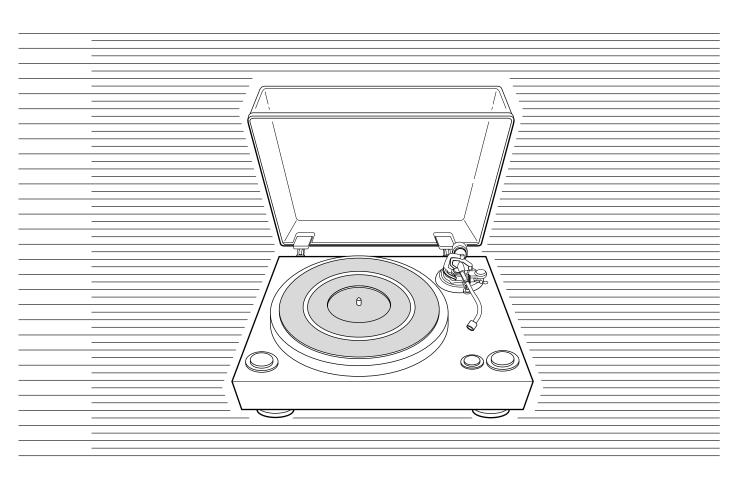
# DENON

# **DIRECT DRIVE MANUAL TURNTABLE SYSTEM**

# **DP-500M**

# **OPERATING INSTRUCTIONS**



SERIAL NO.

PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE CABINET FOR FUTURE REFERENCE

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#### **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 the bottom cover

In order to prevent electric shock, do not open the bottom cover.

If problems occur, contact your DENON dealer.

#### 3. Do not place anything inside

Don not place metal objects or spill liquid inside the turntable system.

Electric shock or malfunction may result.

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

Model No. DP-500M Serial No.



#### CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Whenever the turntable is in the "STOP" position, the unit is still connected on AC line voltage.

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

#### **NOTE ON USE**



- · Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack.
- Eviter des températures élevées Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.



- Handle the power cord carefully. Hold the plug when unplugging the cord.
- Manipuler le cordon d'alimentation avec précaution.

Tenir la prise lors du débranchement du cordon.



- Keep the set free from moisture, water, and
- Protéger l'appareil contre l'humidité, l'eau et lapoussière.



- Unplug the power cord when not using the set for long periods of time.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues



- \* (For sets with ventilation holes)
- · Do not obstruct the ventilation holes. Ne pas obstruer les trous d'aération.



- Do not let foreign objects in the set.
- Ne pas laisser des objets étrangers dans l'appareil.



- Do not let insecticides, benzene, and thinner come in contact with the set.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.



- Never disassemble or modify the set in any
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.

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Thank you very much for purchasing the DENON direct drive manual turntable system.

Please read the operating instructions thoroughly in order to acquaint yourself with the turntable system and achieve maximum satisfaction from it.

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Pleas	CONNECTIONS 6 OPERATION 6 TROUBLESHOOTING 7 MAIN SPECIFICATIONS 7 se check to make sure the following items are included with the main unit in the carton:			
	included with the main unit in the carton:			
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(2)	Turntable	1		

Turntable sheet......1

Counterweight .....1

Connecting cord ......1

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#### **FEATURES**

#### 1. High Rotational Performance

A high degree of rotational performance has been achieved through the use of a high-performance, high-torque direct drive motor, speed detection using a high-density optical pulse encoder, and a PLL quartz control system, etc.

2. Hybrid (2-Layer) Platter Offers Excellent Vibration Resistance

The bottom surface of the large-sized, thick aluminum die cast platter is entirely covered with a silicon rubber sheet which increases the internal vibrational losses and prevents platter ringing.

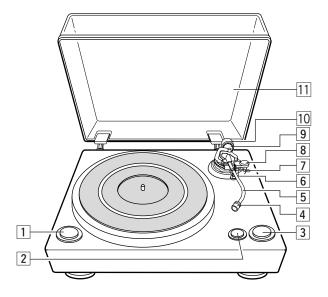
Rubber Mat Developed with Holographic Analysis Technology

Close adhesion of the record with the surface of the turntable mat is necessary in attaining a stable sound. The surface of the turntable mat has a minute taper from the outside portion to the inside portion which increases the adhesive qualities of the record.

4. Finely Finished Wooden Cabinet

The large-sized wooden cabinet incorporates the latest technology in both the materials and the finish. A large-sized insulator is used that comprises a combination of damping rubber and conical springs to strike a balance between howling characteristics and elegance.

#### 1. PART NAMES AND FUNCTIONS



#### 1 Power button

(**\_OFF**, **\_ON**)

 When the power is switched ON, the orange LED of the speed selector button is illuminated. The orange LED is illuminated at 33-1/3 rpm and the green LED at 45 rpm.

#### 2 Speed selector button

(33-1/3: Orange LED lights up. 45: Green LED lights up.)

Set this button according to the record's playing speed.
 For 33-1/3 rpm records .......33
 For 45 rpm records ......45

#### 3 START/STOP button

Press this button to start and stop the turntable.

#### 4 Lock nut

· Use this to install the head shell.

#### 5 Tone arm

#### 6 Arm rest

· This is the tone arm support.

#### 7 Lifter lever

· Use this to lift and lower the tone arm.

#### **8** ANTI-SKATING knob

 When the record is playing, a force is generated drawing the stylus towards the center of the record. Set this knob to the same value as the stylus pressure to offset this force.

#### 9 Stylus pressure adjustment ring

· Use this to adjust the stylus pressure.

#### 10 Counterweight

 Use this to balance the tone arm and to adjust the stylus pressure.

#### 11 Dust cover

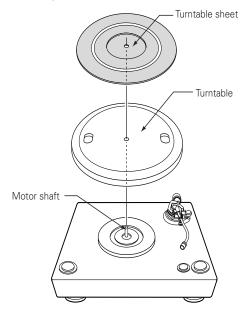
• Use this to protect important records from dust and dirt. Keep the dust cover closed when not using the player.

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#### 2. ASSEMBLY

Do not plug in the power cord until assembly is completed.

#### (1) Mounting the turntable



- 1 Remove all the parts in the box.
- 2 Remove the packaging materials from the main unit and all the parts.
  - Set the parts on the floor, a table or another stable surface when removing the packaging materials.
     Handling the parts roughly could result in scratches or deformation.
- 3 Insert the turntable onto the motor shaft.
  - Be careful not to scratch the magnet ring on the bottom side of the turntable.
- 4 Set the turntable sheet on the turntable, lining it up with the motor shaft.
- (2) Mounting the counterweight.
- 1 Mount the counterweight on the shaft at the back of the tone arm.

#### (3) Mounting the cartridge

· The cartridge is not included.

#### 1 Mount your cartridge on the head shell.

 The head shell's lead wires are color-coded. Use tweezers or the like to securely connect the lead wires to the corresponding terminals on the cartridge, referring to the indications on the cartridge or the cartridge's instructions.

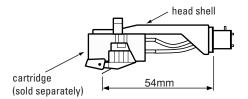
Red .....right channel (R)

White .....left channel (L)

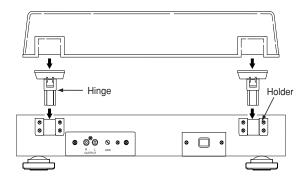
Green ....right channel ground (RG)

Blue ....left channel ground (LG)

 A predetermind overhang will be obtained, if it attaches so that the needle point may come to the position of 54mm from head shell attachement edge(rubber washer part) as shown in the following figure.



- 2 Insert the head shell on which the cartridge has been mounted into the tone arm and fasten it in place using the lock nut.
- (4) Mounting the dust cover

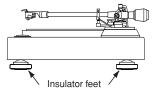


- Securely insert the two included hinges into the holder in the rear of the cabinet.
- 2 Line up with the hole of dust cover with the hinges and insert it securely in the direction of the arrows.
  - To remove the dust cover, open it fully and pull it out of the hinges in the opposite direction of the arrows.
  - Hold the dust cover near the hinges when mounting and removing it

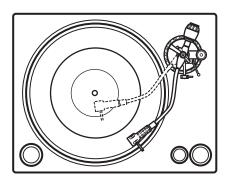
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#### 3. ADJUSTMENTS

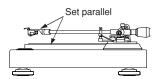
- · Turn the power off when performing adjustments.
- (1) Insulator feet height adjustment
- The height of each foot can be adjusted by rotating in by hand.
  - Place the turntable where you intend to use it and adjust the height of each insulator foot so that the turntable mat surface becomes level.



- (2) Stylus pressure and anti-skating adjustment
- 1 Set the anti-skating knob to "0".
- 2 Lower the lifter lever, and move the tone arm.
  - Lift the tone arm from the armrest and move it over the turntable.



- When moving the tone arm, lower the cartridge's stylus cover and be careful that the stylus does not directly touch the turntable or other parts.
- For cartridges with detachable stylus covers, adjust with the stylus cover removed.
- 3 Adjust the horizontal balance.
  - Move the counterweight forward or backward so that the tone arm is parallel to the turntable's surface when the tone arm is released.



- When adjusting the horizontal balance, be careful that the stylus does not touch the turntable sheet or the main unit.
- 4 Set the tone arm back on the armrest.

Set the tone arm back on the armrest.

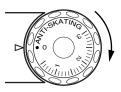
Hold the counterweight with a finger so that it does not move, then turn the stylus pressure adjustment ring so that the back center line on the back of the tone arm is at "0".



- Turn the counterweight in the direction of the arrow A and set it for the proper stylus pressure for the cartridge you are using.
  - When the counterweight is turned, the stylus pressure adjustment ring also turns. Read the value on the adjustment ring to set the proper stylus pressure.
  - Please refer to the instruction manual of the cartridge for set stylus pressure.
- Turn the anti-skating knob and set it so that the value of the cartridge's stylus pressure is lined up with the reference line.

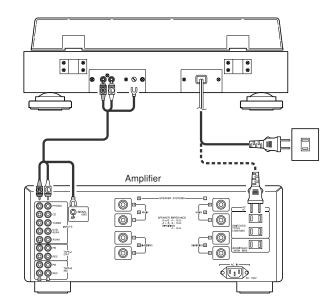
When using cartridges weighing 3.0 grams or more, set to "3".

 This provides the proper anti-skating force.



#### 4. CONNECTIONS

- Be sure to turn off the amplifier's power when making connections.
- Use the included connecting cords to connect the left(L) and right(R) output terminal (PHONO OUT) to the amplifier's PHONO L and R input terminals.
- 2 Connect the ground wire (with the output cords) to the amplifier's GND (ground) terminal.
- 3 Plug the power cord into an AC120V power outlet.
  - If the amplifier or another component includes a power outlet, it can be used, but first check in the amplifier's manual that there is sufficient power capacity.



#### 5. OPERATION

- (1) Turning on the power
- 1 Press the POWER button.
  - · 33 LED of the speed selector button lights.

Note

- Always unplug the power cord when not using the turntable for an extended period of time.
- (2) Playing records
- (a) Starting playback
- 1 Press the POWER button.
- Turn on the amplifier's power and set the input to "PHONO".
- 3 Set a record on the turntable.

  To play 45 rpm records, use the included adapter.
- 4 Set the speed selector button according to the record's playing speed.
- 5 Press the START/STOP button.
  - The turntable starts turning at the speed set in step 4.

- 6 Lift the lifter lever, hold the head shell's finger support, and move the tone arm to the desired position over the record.
- 7 Lower the lifter lever.
  - The tone arm lowers gently until the stylus is on the record and playback begins.
- (b) Stopping or interrupting playback
- 1 Gently lift the lifter lever.
  - · The tone arm rises and the stylus lifts off the record.
- 2 Hold the head shell's finger support and move the tone arm back onto the arm rest.
- 3 Secure the tone arm on the arm rest.
- 4 Press the START/STOP button.
  - The turntable stops turning.

Note

- Do not subject the turntable to vibrations or shocks while a record is playing.
- Wait until the turntable stops turning before replacing records.
- Please turn down the volume of the amplifier when lowering the stylus onto the record and when lifting it off the record.

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#### 6. TROUBLESHOOTING

#### Make sure of the followings before you consider as any malfunctions :

- 1. Are all the connections correct?
- 2. Is the set being operated correctly in accordance with the operating instructions.
- 3. Are the speakers and amplifiers functioning correctly?

If the turntable system still does not function properly, check it again, using the check list below. If the symptom does not correspond to the check list, please contact your DENON dealer.

Symptons	Check	See page
Stylus does not lower onto record.	<ul><li>Is the stylus pressure properly adjusted?</li><li>Is the arm's horizontal balance properly adjusted?</li></ul>	5 5
No sound is produced.	<ul> <li>Are the cartridge and head shell properly connected?</li> <li>Are the output cords properly connected to the amplifier?</li> <li>Are the amplifier's adjustments and settings correct?</li> </ul>	4 6 -
Booming sound is heard.	<ul> <li>Is the ground wire on the output cord connected to the amplifier?</li> <li>Are the output cord's plugs securely connected?</li> <li>Is the head shell's lock nut securely tightened?</li> </ul>	6 4 4
Stylus skips.	<ul><li>Is the stylus pressure properly adjusted?</li><li>Is the record warped or scratched?</li><li>Is there dust on the stylus?</li></ul>	5 - -
Arm stops halfway across the record.	<ul> <li>Is the record scratched?</li> <li>Is the arm hitting some object?</li> <li>There might be the case that the counterweight touches to the inside of the dust cover depending on the type of the head shell and the cartridge being used when it plays at the inside area of the record. In this case, please play without the dust cover.</li> </ul>	- - -
Sound is too weak or too strong.	Is the amplifier's connection selector set to the proper setting for the type (output) of the cartridge being used?	-

General

Weight:

Power supply:

**Dimensions:** 

Power consumption:

AC 120 V, 60 Hz

10.1 kg

450 (width) x 170 (height) x 370

(depth) mm (including feet)

#### 7. MAIN SPECIFICATIONS

■ Turntable

Drive method:Servo type direct driveTurning speed:33-1/3 and 45 rpmWow/flutter:0.1% wrms or less

S/N ratio: 70 dB or above Rotation stability: 70 dB or less (33-1/3rpm)

**Turntable**: Aluminum die-cast, 331 mm diameter

Motor:Direct Drive motorSpeed control:Quarts lock servo controlLoad characteristics:0 % at stylus pressure of 80 g

Speed deviation: Within  $\pm$  0.003%

Tone arm

Arm type: Static balance, S-shaped arm pipe

Effective length: 246 mm
Overhang: 15 mm
Tracking error: Within 3°

Stylus pressure

adjustment range: 0 g to 4.0 g (1 scale = 0.25 g)

Applicable cartridge

weight: 5.0 g to 11.0 g (including screws, nuts)

(Total applicable weight of attached head shell (9 g) and cartridge: 14.0 g to 20.0 g)

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