

# DENON<sup>®</sup>

## PMA-1600NE

INTEGRATED AMPLIFIER

# Owner's Manual

You can print more than one page of a PDF onto a single sheet of paper.

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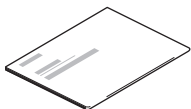
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Thank you for purchasing this Denon product. To ensure proper operation, please read this owner's manual carefully before using the product. After reading this manual, be sure to keep it for future reference.

## Accessories

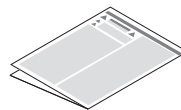
Check that the following parts are supplied with the product.



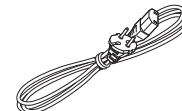
Quick Start Guide



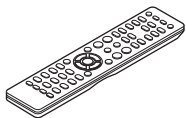
CD-ROM  
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Safety Instructions



Power cord



Remote control unit  
(RC-1213)



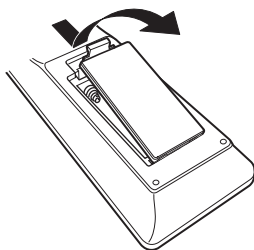
R03/AAA batteries



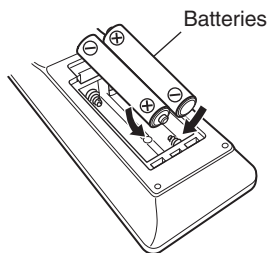


## Inserting the batteries

- 1 Remove the rear lid in the direction of the arrow and remove it.



- 2 Insert two batteries correctly into the battery compartment as indicated.



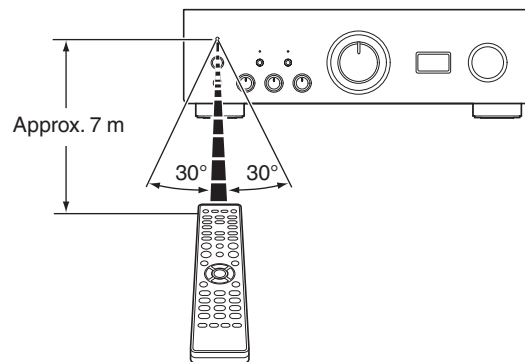
- 3 Put the rear cover back on.

### NOTE

- To prevent damage or leakage of battery fluid:
  - Do not use a new battery together with an old one.
  - Do not use two different types of batteries.
- Remove the batteries from the remote control unit if it will not be in use for long periods.
- If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.

## Operating range of the remote control unit

Point the remote control unit at the remote sensor when operating it.



# Features

## High quality sound

- **Advanced UHC-MOS Single Push-pull Circuit**

The UHC-MOS FET is employed for the power amplifier output stage. The steady current is 30 A and the instantaneous current is 120 A. The operation stability affected by the temperature fluctuation is improved by using the dual FET selected first stage for the voltage amplifier stage. Furthermore, the phase property is stabilized up to the high range by using the cascade bootstrap circuit.

- **Power Supply**

To make the most of the Advanced UHC-MOS Single Push-pull Circuit, this powerful power supply consists of a LC mount twin transformer, schottky barrier diodes that have high current capacity, and a custom block type capacitor that is tuned for high-quality sound.

- **Mechanical Ground**

A chassis that has 6 discrete blocks shielded for each signal level and a foot made of high density materials pursue the Mechanical Ground concept, eliminating the influences caused by external vibration and preventing vibration of the transformer, the internal vibration source, from being transmitted to the amplifier circuit.

## High performance

- **Equipped with a USB-DAC function to support playback of high-resolution sound sources**

This unit supports the playback of high resolution audio formats such as DSD (2.8/5.6/11.2 MHz) and PCM files up to 384 kHz/32 bits. It provides high quality playback of high resolution files into this unit from a computer via USB-B connection.

- **DIGITAL AUDIO IN connectors (COAXIAL/OPTICAL)**

You can play back PCM signals up to 192 kHz/24 bits by inputting digital audio signals from an external device into this unit.

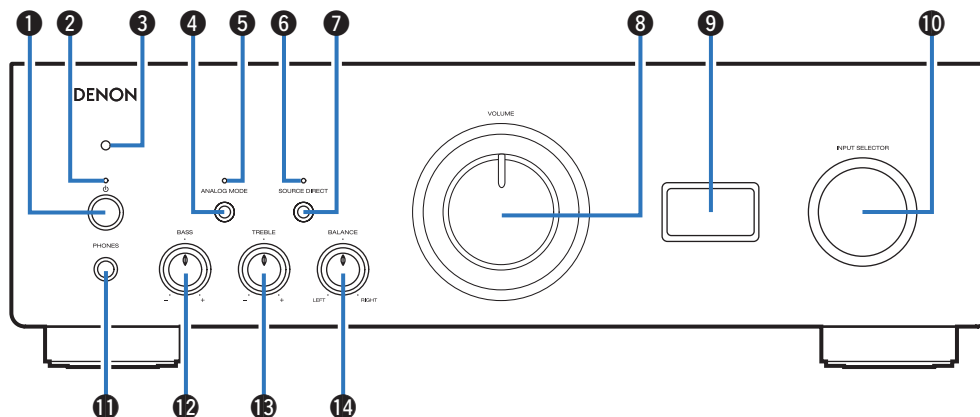
- **Phono Equalizer**

Even a user who is particular about analog records is satisfied because the Phono Equalizer circuit for the FET input supports MM/MC.



# Part names and functions

## Front panel



### 1 Power operation button (⏻)

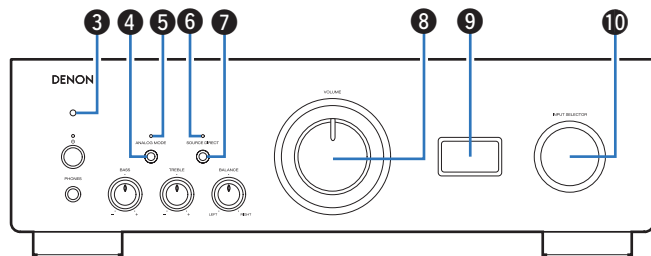
This turns the power on/off. (📖 p. 27)

### 2 Power indicator

This is lit as follows according to the power status:

- Power on : Green
- Standby : Off
- Power off : Off
- When the protection circuit is activated : Red (blinking)





### ③ Remote control sensor

This receives signals from the remote control unit. (👉 p. 5)

### ④ ANALOG MODE button

This switches the ANALOG MODE. (👉 p. 30)

### ⑤ ANALOG MODE indicator

This is lit as follows according to the ANALOG MODE status:

- ANALOG MODE 1/2: Green
- ANALOG MODE off: Off

### ⑥ SOURCE DIRECT indicator

This is lit as follows according to the SOURCE DIRECT status:

- SOURCE DIRECT mode on: Green
- SOURCE DIRECT mode off: Off

### ⑦ SOURCE DIRECT button

This turns SOURCE DIRECT mode on/off. (👉 p. 29)

### ⑧ VOLUME knob

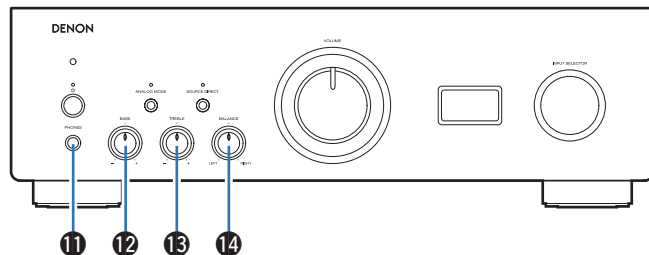
These adjust the volume level. (👉 p. 28)

### ⑨ Display

This displays information such as the input source name, type of digital audio signal and sampling frequency.

### ⑩ Input source select knob (INPUT SELECTOR)

This selects the input source. (👉 p. 28)



### 11 Headphones jack (PHONES)

Used to connect headphones.

Turn off speaker output when using headphones.

#### NOTE

- To prevent hearing loss, do not raise the volume level excessively when using headphones.

### 12 BASS control knob

This setting adjusts the volume level for the bass. (p. 28)

### 13 TREBLE control knob

This setting adjusts the volume level for the treble. (p. 28)

### 14 BALANCE control knob

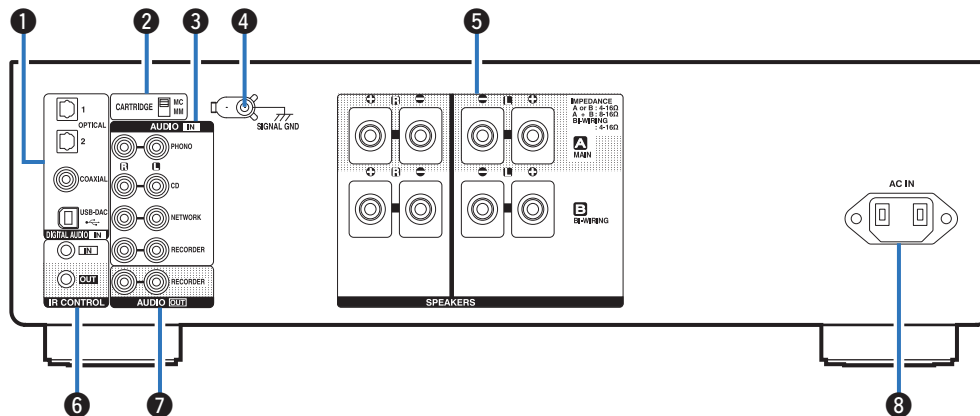
This adjusts the balance of the volume output from the left and right speakers. (p. 28)



- 12, 13 and 14 can be adjusted when 7 is off (SOURCE DIRECT mode is off).



## Rear panel



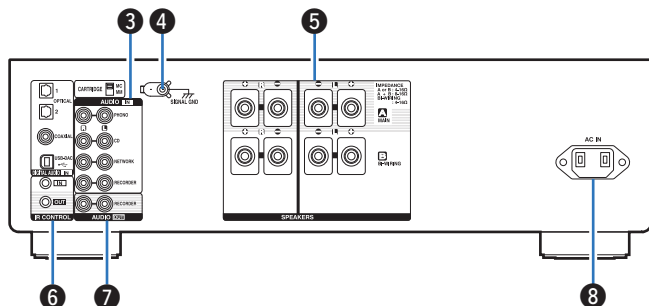
### 1 DIGITAL AUDIO IN connectors

Used to connect devices equipped with digital audio output connectors and PC.

- “Connecting to a device with digital audio output connectors” (🔗 p. 23)
- “Connecting a PC or Mac” (🔗 p. 24)

### 2 CARTRIDGE selection switch

Set this switch to MM or MC according to the type of cartridge used on your turntable.



### 3 Analog audio connectors (AUDIO IN)

Used to connect devices equipped with analog audio connectors.

- “Connecting a playback device” (📖 p. 21)
- “Connecting a recording device” (📖 p. 22)

### 4 SIGNAL GND terminal

Used to connect a turntable. (📖 p. 21)

### 5 Speaker terminals (SPEAKERS)

Used to connect speakers. (📖 p. 17)

### 6 IR control input/output connectors (IR CONTROL IN/OUT)

Used to connect Denon network audio players with an IR controller.

### 7 AUDIO OUT connectors (RECORDER)

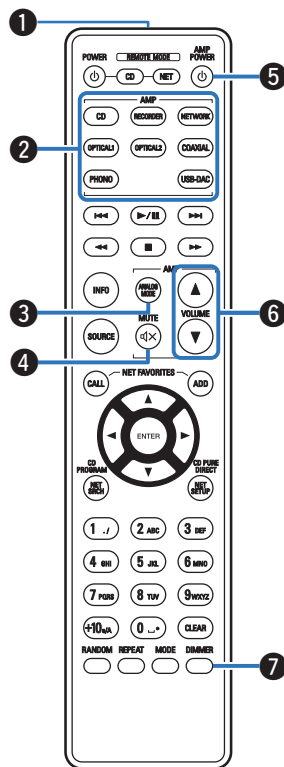
Used to connect the input connector of a recorder. (📖 p. 22)

### 8 AC inlet (AC IN)

Used to connect the power cord. (📖 p. 25)



## Remote control unit



### ■ Operating this unit

#### 1 Signal transmitter

This transmits signals from the remote control unit. (📖 p. 5)

#### 2 Input source select buttons

This selects the input source. (📖 p. 28)

#### 3 ANALOG MODE button

This switches the ANALOG MODE. (📖 p. 30)

#### 4 MUTE button (🔇)

This mutes the output audio. (📖 p. 28)

#### 5 Power operation button (AMP POWER ⏻)

This turns the power on/off (standby). (📖 p. 27)

#### 6 VOLUME buttons (▲▼)

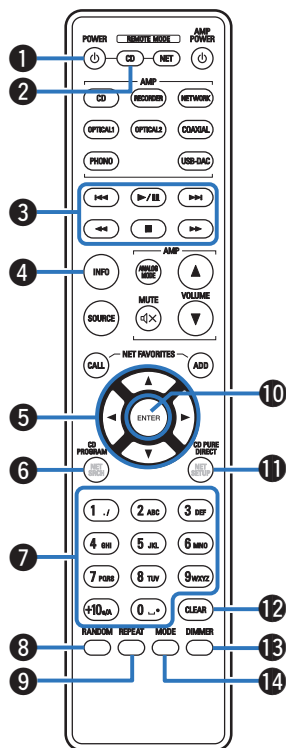
These adjust the volume level. (📖 p. 28)

#### 7 DIMMER button

This switches the brightness of the display. (📖 p. 29)







## CD player operations

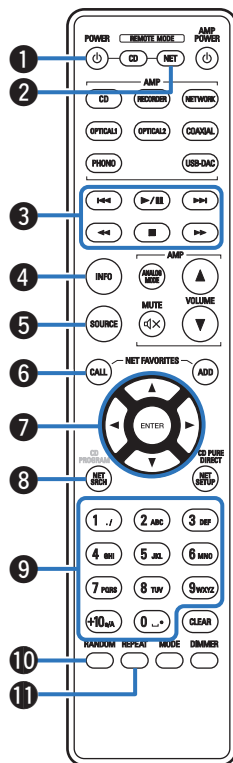
A Denon CD player can be operated.

- 1 **Power operation button (POWER ⏻)**
- 2 **Remote mode select button (REMOTE MODE CD)**
- 3 **System buttons**
  - Skip buttons (⏮ / ⏭)
  - Play/pause button (▶ / ⏸)
  - Fast-reverse/Fast-forward buttons (⏮ / ⏭)
  - Stop button (■)
- 4 **Information button (INFO)**
- 5 **Cursor buttons (Δ ▽ ◀ ▶)**
- 6 **CD PROGRAM button**
- 7 **Number buttons (0 – 9, +10)**
- 8 **RANDOM button**
- 9 **REPEAT button**
- 10 **ENTER button**
- 11 **CD PURE DIRECT button**
- 12 **CLEAR button**
- 13 **DIMMER button**
- 14 **MODE button**



- The remote control may not operate some products.





## Network audio player operations

To operate a Denon network audio player, press the REMOTE MODE NET button to switch the remote control to the network audio player operation mode.

### 1 Power operation button (POWER $\phi$ )

### 2 Remote mode select button (REMOTE MODE NET)

### 3 System buttons

- Skip buttons (◀◀ / ▶▶)
- Play/pause button (▶ / ||)
- Fast-reverse/Fast-forward buttons (◀◀ / ▶▶)
- Stop button (■)

### 4 Information button (INFO)

### 5 SOURCE button

### 6 NET FAVORITES CALL button

### 7 Cursor buttons (◀▶◂◃)

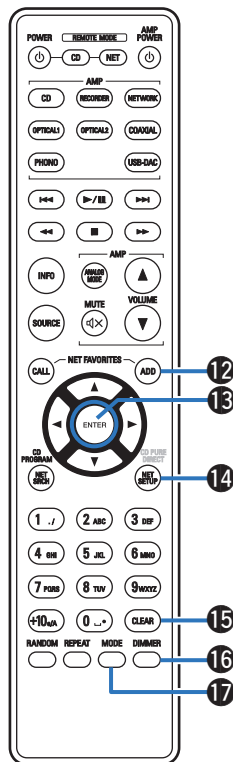
### 8 NET SRCH button

### 9 Number buttons (0 – 9, +10)

### 10 RANDOM button

### 11 REPEAT button





12 NET FAVORITES ADD button

13 ENTER button

14 NET SETUP button

15 CLEAR button

16 DIMMER button

17 MODE button



- The amp can be operated with the amp operation buttons even when the remote control mode is "NET".
- When using it, also refer to the operating instructions of the other devices.
- The remote control may not operate some products.



## ■ Contents

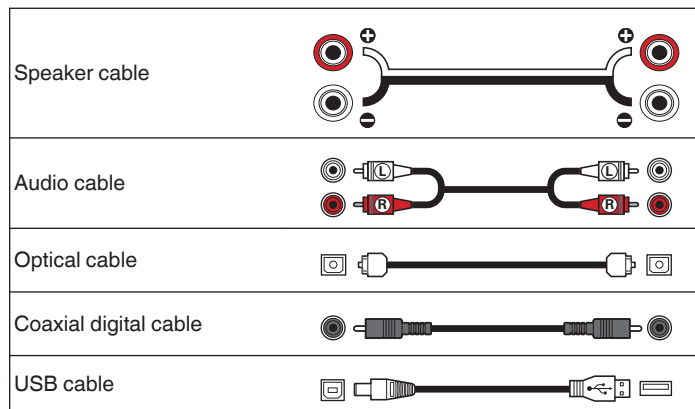
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### NOTE

- Do not plug in the power cord until all connections have been completed.
- Do not bundle power cords together with connection cables. Doing so can result in humming or noise.

## ■ Cables used for connections

Provide necessary cables according to the devices you want to connect.



# Connecting speakers

## NOTE

- Disconnect this unit's power plug from the power outlet before connecting the speakers.
- Connect so that the speaker cable core wires do not protrude from the speaker terminal. The protection circuit may be activated if the core wires touch the rear panel or if the + and - sides touch each other. ("Protection circuit" (p. 52))
- Never touch the speaker terminals while the power cord is connected. Doing so could result in electric shock.
- Use speakers with impedances within the ranges shown below to suit how they are used.

Speaker terminals used on this unit	No. of connected speakers	Speaker Impedance
<b>SPEAKERS A (Standard connection)</b>	2 (one set)	4 – 16 $\Omega$ /ohms
<b>SPEAKERS B</b>	2 (one set)	4 – 16 $\Omega$ /ohms
<b>SPEAKERS A and SPEAKERS B</b>	4 (two sets)	8 – 16 $\Omega$ /ohms
<b>SPEAKERS A and SPEAKERS B (Bi-wiring connection)</b>	2 (one set)	4 – 16 $\Omega$ /ohms

## ■ Connecting the speaker cables

Carefully check the left (L) and right (R) channels and + (red) and – (black) polarities on the speakers being connected to this unit, and be sure to connect the channels and polarities correctly.

- 1 Peel off about 10 mm of sheathing from the tip of the speaker cable, then either twist the core wire tightly or terminate it.



- 2 Turn the speaker terminal counterclockwise to loosen it.



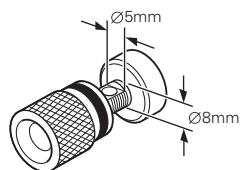
- 3 Insert the speaker cable's core wire to all the way into the speaker terminal.



## 4 Turn the speaker terminal clockwise to tighten it.



Speaker terminal dimensions

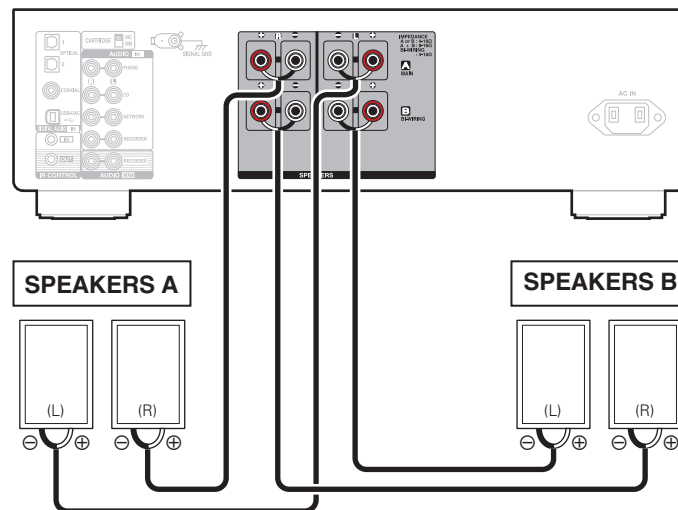


## Speaker connection

This unit is equipped with two sets of speaker terminals (SPEAKER A and SPEAKER B). One set of speakers can be connected to each set of terminals, and a total of two sets of speakers can be connected.

The same signal is output from the SPEAKERS A and SPEAKERS B terminals.

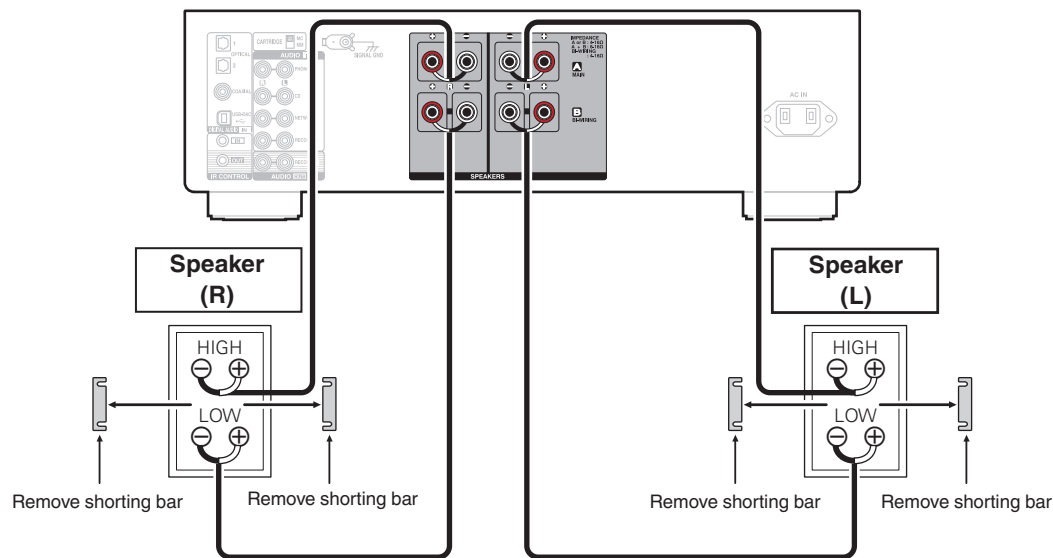
When only one set of speakers is to be connected, use either the SPEAKERS A or SPEAKERS B terminals.



## Bi-wiring connection

This connection limits the effects of signal interference between the high range speakers (tweeters) and low range speakers (woofers), allowing you to enjoy high quality playback.

When bi-wiring with bi-wireable speakers, connect the mid and high range terminals to SPEAKERS A (or SPEAKERS B), the low range terminals to SPEAKERS B (or SPEAKERS A).

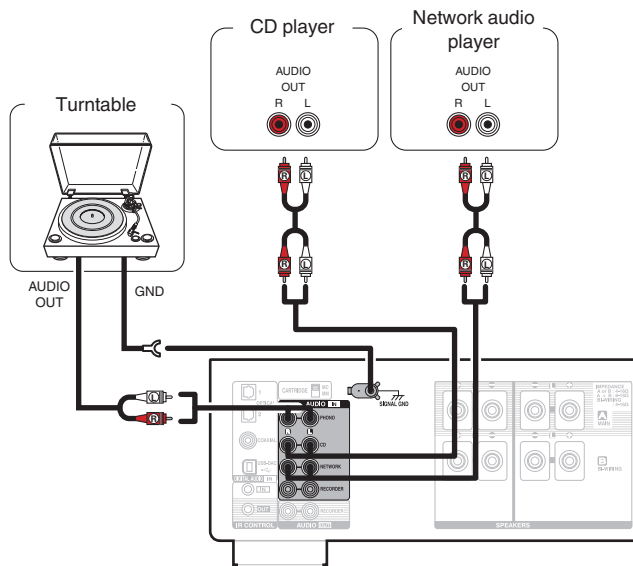




## Connecting a playback device

You can connect turntables, CD players and network audio players to this unit.

If you set this unit's input source to "PHONO" and you accidentally increase the volume without having a turntable connected, you may hear a hum noise from the speakers.



### NOTE

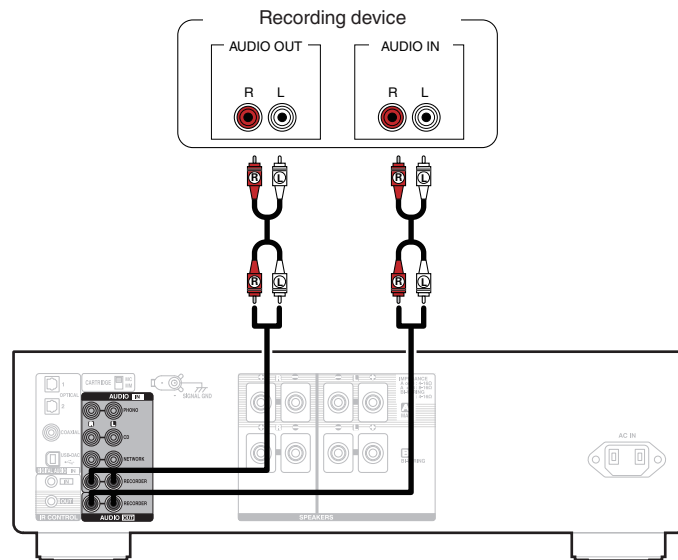
- The earth terminal (SIGNAL GND) of this unit is not for safety grounding purposes. If this terminal is connected when there is a lot of noise, the noise can be reduced. Note that depending on the turntable, connecting the ground line may have the reverse effect of increasing noise. In this case, it is not necessary to connect the ground line.



- The PHONO input terminals are equipped with a short pin-plug. Remove this plug to connect a record player. Store the removed short pin-plug in a safe place so as not to lose it.



## Connecting a recording device



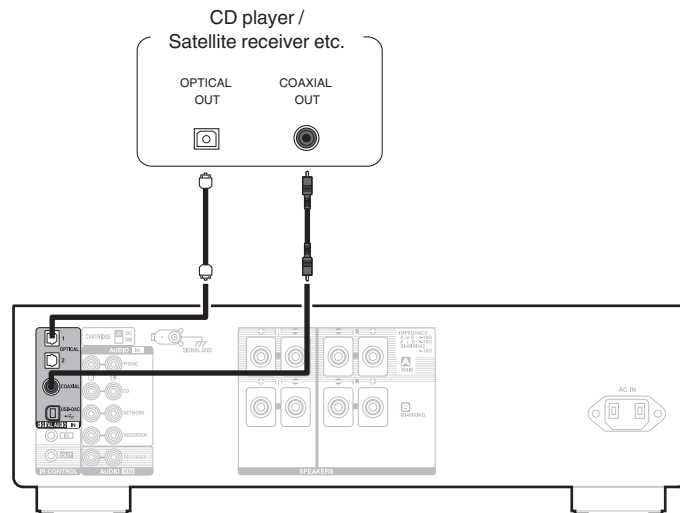
### NOTE

- Never insert the short-circuiting pin plug into the recording output connectors (AUDIO OUT RECORDER). Doing so could result in damage.



## Connecting to a device with digital audio output connectors

Use this connection to input digital audio signals to this unit, and convert the signals for playback using the D/A converter of this unit. (p. 31)



### NOTE

- Linear PCM signals with a sampling frequency of 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, or 192 kHz can be input into this device.
- Do not input non-PCM signals, such as Dolby Digital, DTS and AAC. This causes noise and could damage the speakers.

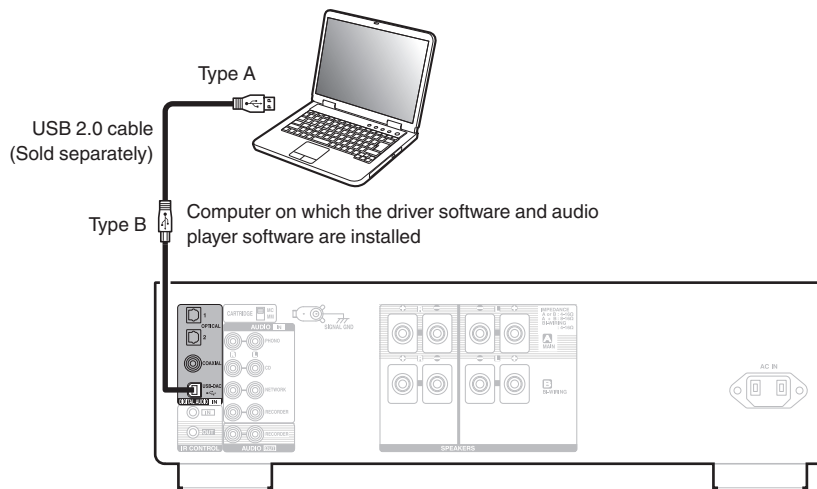


## Connecting a PC or Mac

By connecting a computer to the USB-DAC port on the rear panel of this unit using a commercially available USB connecting cable, this unit can be used as a D/A converter. (🔗 p. 31)

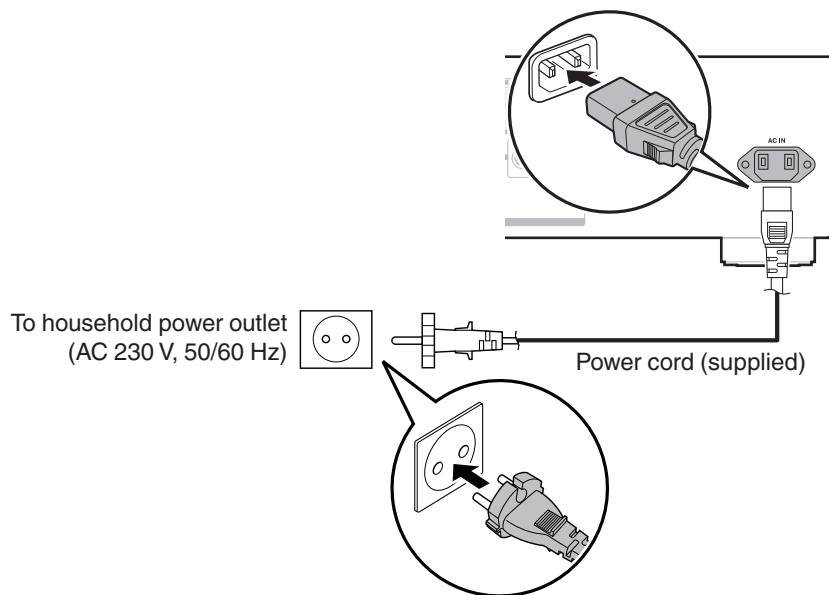
### NOTE

- Before USB connecting this unit to your computer, install the driver software in your computer. (🔗 p. 32)
- Download the driver software from the PMA-1600NE page of the Denon website.
- Use a cable that is 3 m or less to connect to the computer.



## Connecting the power cord

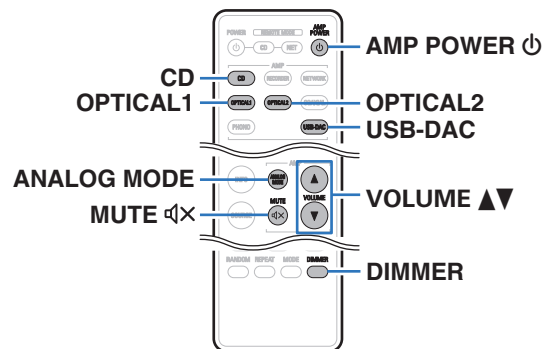
Wait until all connections have been completed before connecting the power cord.



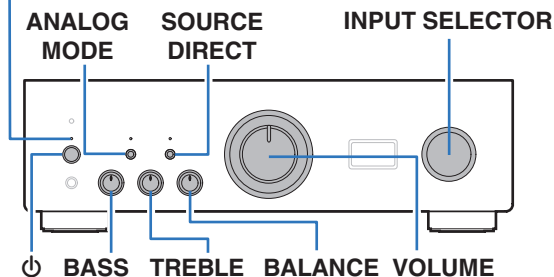
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Power indicator



## Turning the power on

- 1 Press  $\odot$  on this unit to turn the power on.  
The power indicator lights green.



- Press AMP POWER  $\odot$  on the remote control unit to turn on power from standby mode.

## Switching the power to standby

- 1 Press AMP POWER  $\odot$ .  
The unit switches to standby mode.

### NOTE

- Power continues to be supplied to some of the circuitry even when the power is in the standby mode. When leaving home for long periods of time or when going on vacation, either press  $\odot$  on the main unit to turn off the power, or unplug the power cord from the power outlet.



## Selecting the input source

### 1 Press the input source select button to be played back.

The selected input source is displayed on the display of this unit.



- You can also select the input source by turning INPUT SELECTOR on the main unit.

## Adjusting the volume

### 1 Use VOLUME ▲▼ to adjust the volume.



- You can also adjust the volume by turning VOLUME on the main unit.

## Turning off the sound temporarily (Muting)

### 1 Press MUTE .

"MUTING" is displayed on the display of this unit.



- To cancel mute, press MUTE  again.

## Adjusting the tone

### 1 Press SOURCE DIRECT on the main unit to turn off source direct mode.

The SOURCE DIRECT indicator turns off.

### 2 Turn the BASS, TREBLE and BALANCE to adjust the tone.





## Switching the display's brightness

The brightness of the display can be adjusted to one of four levels.

### 1 Press DIMMER.



- The DIMMER button also controls the Denon's Super Audio CD Player DCD-1600NE, so the DCD-1600NE can be operated simultaneously with this unit. When the two units have different settings, press and hold in the button for lease 2 seconds to reset them both to the default setting, then make the desired setting.
- The display brightness is set to most brightly by default.

## Playing CDs

This section uses playback from a CD as an example.

### 1 Press the input source select button (CD) to switch the input source to "CD".

"CD" is displayed on the display of this unit.

### 2 Playback the CD.

### 3 Use VOLUME ▲▼ to adjust the volume.

## ■ Playback in source direct mode

The signal does not pass through the tone adjustment circuitry (BASS, TREBLE and BALANCE), resulting in playback of a higher sound quality.

### 1 Press SOURCE DIRECT on the main unit to turn on source direct mode.

The SOURCE DIRECT indicator lights.



## ■ Playback in ANALOG MODE

When the ANALOG MODE is turned on to playback an analog source (PHONO, CD, NETWORK, RECORDER), power to the digital input circuit and the display turn off. This enables you to enjoy high sound quality audio playback without sound quality being affected by noise that occurs from the digital control circuit.

### 1 Press ANALOG MODE to turn analog mode on.

- The ANALOG MODE indicator lights.

Press ANALOG MODE to toggle between “ANALOG MODE Off”, “ANALOG MODE 1” and “ANALOG MODE 2”.

<b>ANALOG MODE Off:</b>	ANALOG MODE is not used.
<b>ANALOG MODE 1:</b>	Turns the digital input circuit power off.
<b>ANALOG MODE 2:</b>	Turns the digital input circuit power and display off.



- A digital input source (COAXIAL, OPTICAL 1/2, USB-DAC) cannot be selected when ANALOG MODE is on.
- The input source automatically switches to CD if ANALOG MODE is turned on during playback of a digital input source (COAXIAL, OPTICAL 1/2, USB-DAC).
- Communication between this unit and the computer is disconnected if ANALOG MODE is turned on when a computer is connected to the USB-DAC input connector of this unit. If the unit cannot communicate with the computer after turning ANALOG MODE off again, disconnect and reconnect the USB cable or restart the audio player on the computer.
- When the analog mode is switched, the mute circuit is activated for about 5 seconds.



## Connecting and playing back from a computer (USB-DAC)

You can enjoy high-quality audio playback from the D/A converter built in to this unit by inputting music files into this unit from a computer via USB connection.

- Before USB connecting this unit to your computer, install the driver software in your computer.
- Drivers do not need to be installed for Mac OS.
- Also, you can use whichever commercially available or downloadable player software you like to playback files on your computer.

### ■ Computer (System Requirements)

#### OS

- Windows 7, Windows 8, Windows 8.1 or Windows 10
- Mac OS X 10.9, 10.10 or 10.11

#### USB

- USB 2.0: USB High speed/USB Audio Class Ver.2.0

#### NOTE

- This unit was checked the operation using the system requirements by us, but it does not guarantee the operation of all systems.

- DSD is a registered trademark.
- Microsoft, Windows 7, Windows 8, Windows 8.1 and Windows 10 are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- ASIO is a trademark of Steinberg Media Technologies GmbH.
- Apple, Macintosh and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries.

Windows OS

Installing the dedicated driver (🔗 p. 32)

Mac OS

Audio Device Settings (🔗 p. 38)



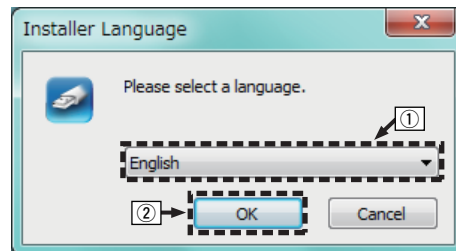
## ■ Installing the dedicated driver (Windows OS only)

### □ Installing the driver software

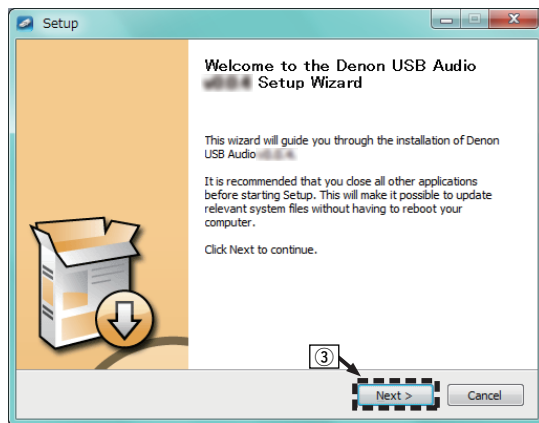
- 1 Disconnect the USB cable between your PC and the unit.**
  - The driver software cannot be installed correctly if your PC is connected to the unit by a USB cable.
  - If the unit and your computer are connected by a USB cable and the computer is switched on before installation, disconnect the USB and restart the computer.
- 2 Download the dedicated driver from the “Download” section of the PMA-1600NE page of the Denon website onto your PC.**
- 3 Unzip the downloaded file, and double-click the exe file.**

## 4 Install the driver.

- ① Select the language to use for the installation.
- ② Click “OK”.

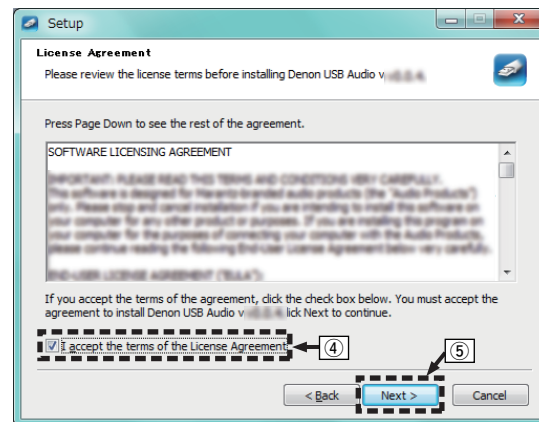


- ③ The wizard menu is displayed. Click “Next”.

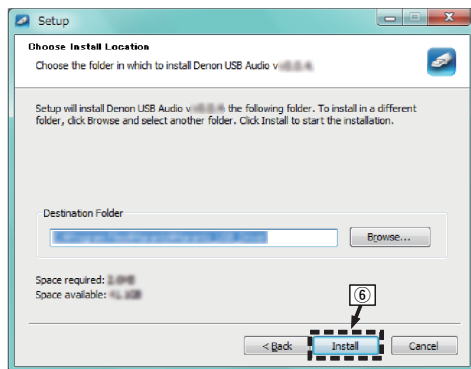


- ④ Read the Software Licensing Agreement, and click “I accept the terms of the License Agreement”.

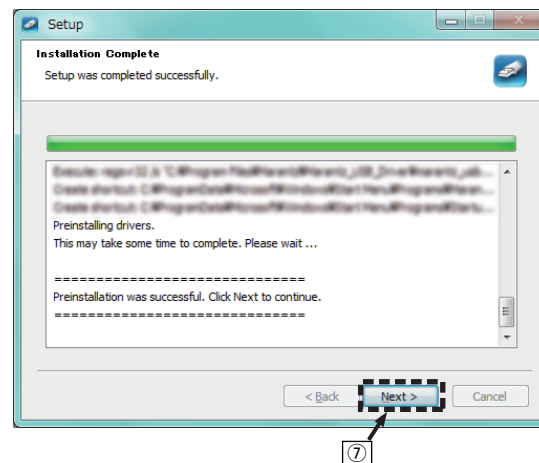
- ⑤ Click “Next”.



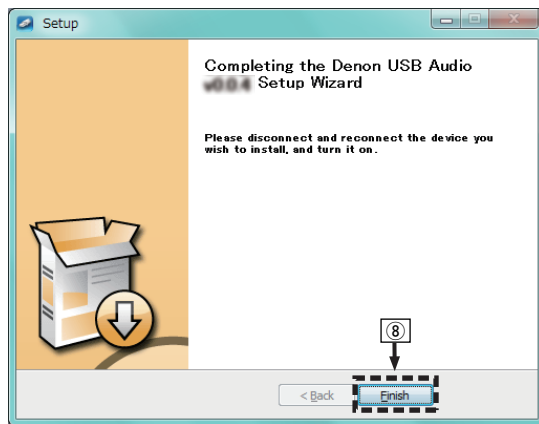
- ⑥ Click “Install” on the installation start dialog.
- The installation starts. Do not perform any operation on the PC until the installation is completed.



- ⑦ Click “Next”.



- ⑧ When the installation is completed, click “Finish”.



- ⑨ Click “Yes”.



## 5 With the unit power off, connect the unit and PC using a USB cable (sold separately).

- For details on connections, see “Connecting a PC or Mac” (🔗 p. 24).

## 6 Press on this unit.

- When the unit power is turned on, the PC automatically finds and connects to the unit.

## 7 Press the input source select button (USB-DAC) to switch the input source to “USB-DAC”.

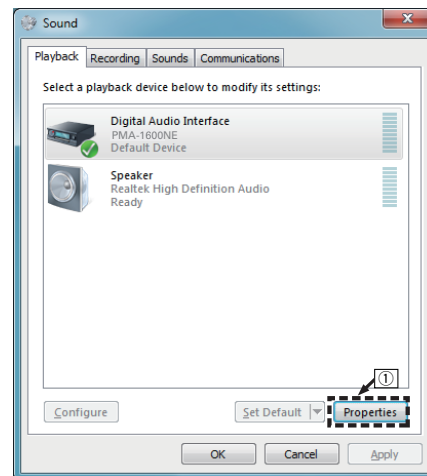
## 8 Checking the installed driver.

- ① Click the “Start” button and click “Control Panel” on the PC.
  - The control panel setting list is displayed.
- ② Click the “Sound” icon.
  - The sound menu window is displayed.
- ③ Check that there is a checkmark next to “Default Device” under in “PMA-1600NE” of the “Playback” tab.
  - When there is a checkmark for a different device, click “PMA-1600NE” and “Set Default”.

## 9 Checking audio output.

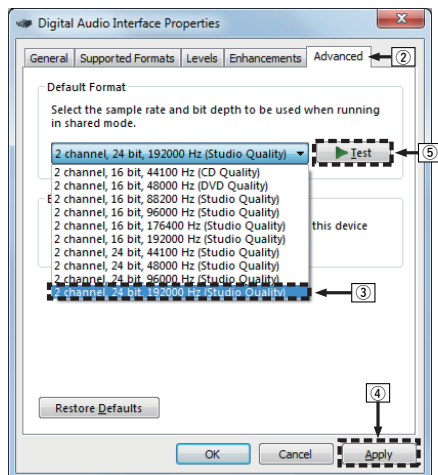
Outputs a TEST signal from the PC and checks the audio output from the USB-DAC function.

- ① Select “PMA-1600NE” and click “Properties”.
  - The PMA-1600NE Properties window is displayed.





- ② Click the “Advanced” tab.
- ③ Select the sampling rate and bit rate to be applied to the D/A converter.
  - It is recommended that “2 channel, 24 bit, 192000 Hz (Studio Quality)” is selected (Windows 7).
  - It is recommended that “2 channel, 32 bit, 192000 Hz (Studio Quality)” is selected (Windows 8/Windows 8.1/Windows 10).
- ④ Click “Apply”.
- ⑤ Click “Test”.
- Check that audio from this unit is output from the PC.



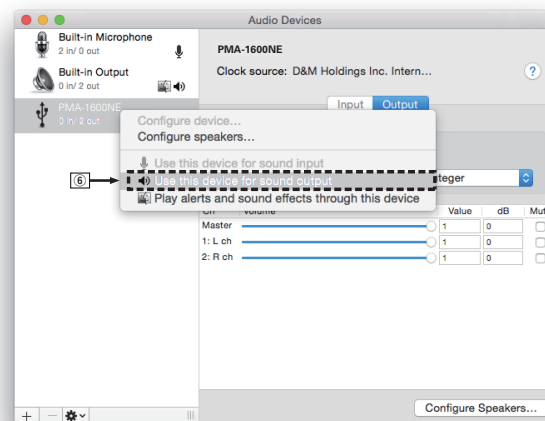
## NOTE

- The dedicated driver must be installed in the PC before this unit is connected to a PC. Operation will not occur correctly if connected to the PC before the dedicated driver has been installed.
- Operation may fail in some PC hardware and software configurations.
- Player software supporting the Audio Stream Input Output (ASIO) driver is required to play files with a sampling frequency of 352.8 kHz/384 kHz without downsampling. Check your player software before playing files with the ASIO driver.
- Please see the FAQ at [www.denon.com](http://www.denon.com) if you experience any issues getting audio to play from your computer through the this unit. You may also want to check the support pages for your audio player application.



## ■ Audio Device Settings (Mac OS X only)

- ① With the unit power off, connect the unit and Mac using a USB cable (sold separately).
  - For the connection procedure, refer to the “Connecting a PC or Mac” section. (🔗 p. 24)
- ② Press  $\phi$ .
- ③ Press the input source select button (USB-DAC) to switch the input source to “USB-DAC”.
- ④ Move the cursor to “Go” on the computer screen, and then click “Utilities”.
  - The utility list is displayed.
- ⑤ Double-click “Audio MIDI Setup”.
  - The “Audio Devices” window is displayed.
- ⑥ Check that “Use this device for sound output” is checked in “PMA-1600NE”.
  - If a different device is checked, select and “Secondary click” on “PMA-1600NE”, and then select “Use this device for sound output”.





## ■ Audio signals that can be played back

See “D/A converter” (🔍 p. 51).

### NOTE

- Perform operations such as playback and pause on the computer. At this time, you cannot perform operations with buttons on this unit or the remote control.
- When this unit is functioning as a D/A converter, sound is not output from the computer's speakers.
- If the computer is disconnected from this unit while the computer music playback software is running, the playback software may freeze. Always exit the playback software before disconnecting the computer.
- When an error occurs on the computer, disconnect the USB cable and restart the computer.
- The sampling frequency of the music playback software and sampling frequency displayed on this unit may differ.
- Use a cable that is 3 m or less to connect to the computer.

## Connecting and playing back from a digital device (Coaxial/Optical)

### 1 Connect digital device to this unit. (🔍 p. 23)

### 2 Press the input source select button (COAXIAL or OPTICAL 1/2) to switch the input source to “COAXIAL” or “OPTICAL 1/2”.

The digital audio signal that is being input is shown as follows in the display.

“COAX:PCM	or	“OPT1:PCM	or	“OPT2:PCM
xxxxkHz”		xxxxkHz”		xxxxkHz”

(xxxx is the sampling frequency.)

- If the sampling frequency cannot be detected, “Unlocked” will be displayed.
- “Unsupported” is displayed when audio signals that are not supported by this unit are input.



## ■ Audio signals that can be played back


See “D/A converter” (🔍 p. 51).

### NOTE

- Do not input non-PCM signals, such as Dolby Digital, DTS and AAC. This causes noise and could damage the speakers.
- If the sampling frequency switches, muting may operate for 1 – 2 seconds, cutting the sound.

## Recording

Audio signals input into this unit can be output to an external recording device. When recording audio from a playback device connected to this unit, audio can be recorded with the playback device still connected to this unit.

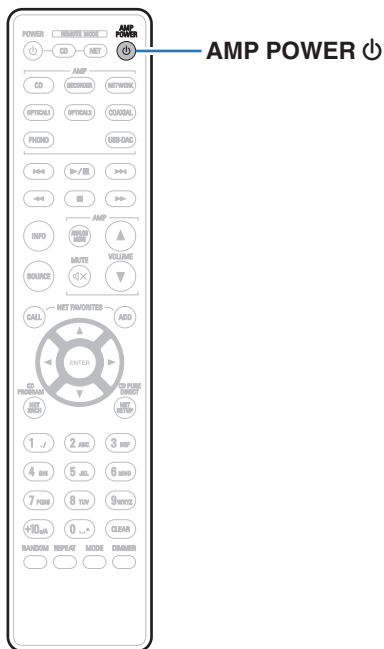
- 1 Press  on this unit to turn the power on.**
- 2 Press the input source select button to switch to the input source from which you want to record.**  
The selected input source is displayed on the display of this unit.
- 3 Recording starts.**
  - For information on operations, see the owner's manual of the recording device.



## Setting the Auto Standby mode

You can set the unit to automatically switch to standby mode if the unit is not operated for 30 minutes when there is no audio input (Auto Standby mode).

Auto Standby mode is set to on by default.



### Turning Auto Standby mode off

- 1 Press and hold **AMP POWER**  on the remote control unit for more than 5 seconds to turn the Auto Standby mode off.

"AutoStby Off" is displayed on the display of this unit.

### Turning Auto Standby mode on

- 1 Press and hold **AMP POWER**  on the remote control unit for more than 5 seconds to turn the Auto Standby mode on.

"AutoStby On" is displayed on the display of this unit.



## ■ Contents

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## Tips

### I want to adjust the tone myself

- Use the BASS, TREBLE and BALANCE knobs to adjust the sound as desired. (👉 p. 28)

### I want sound playback that is faithful to the original sound

- Set the Source Direct mode on. (👉 p. 29)

### I want to enjoy higher sound quality from the analog input source

- Set the Analog mode on. (👉 p. 30)

### I want to use bi-wiring compatible speakers

- This unit is compatible with bi-wiring connections. Enjoy high quality playback by using bi-wiring connections. (👉 p. 20)





## Troubleshooting

If a problem should arise, first check the following:


1. **Are the connections correct?**
2. **Is the set being operated as described in the owner's manual?**
3. **Are the other devices operating properly?**

If this unit does not operate properly, check the corresponding symptoms in this section.

If the symptoms do not match any of those described here, consult your dealer as it could be due to a fault in this unit. In this case, disconnect the power immediately and contact the store where you purchased this unit.



## ■ Power does not turn on / Power is turned off

Symptom	Cause / Solution	Page
Power is not turned on.	<ul style="list-style-type: none"> <li>Check whether the power plug is correctly inserted into the power outlet.</li> </ul>	<a href="#">25</a>
Power automatically turns off.	<ul style="list-style-type: none"> <li>The Auto Standby mode is set. The Auto Standby mode switches the unit to standby mode when the unit is not operated for approximately 30 minutes. To disable the Auto Standby mode, press and hold the AMP POWER  button for more than 5 seconds when the Auto Standby mode is enabled.</li> </ul>	<a href="#">42</a>
Power turns off and the power indicator flashes in red approx. every 0.5 seconds.	<ul style="list-style-type: none"> <li>The protection circuit has been activated due to a rise in temperature within this unit. Turn the power off, wait about an hour until this unit cools down sufficiently, and then turn the power on again.</li> </ul>	<a href="#">52</a>
	<ul style="list-style-type: none"> <li>Please re-install this unit in a place having good ventilation.</li> </ul>	—
Power turns off and the power indicator flashes in red approx. every 0.25 seconds.	<ul style="list-style-type: none"> <li>Check the speaker connections. The protection circuit may have been activated because speaker cable core wires came in contact with each other or a core wire was disconnected from the connector and came in contact with the rear panel of this unit. After unplugging the power cord, take corrective action such as firmly re-twisting the core wire or taking care of the connector, and then reconnect the wire.</li> </ul>	<a href="#">17</a>
	<ul style="list-style-type: none"> <li>Turn down the volume and turn on the power again.</li> </ul>	<a href="#">27</a>
When the power is turned on, the power indicator flashes red approx. every 0.25 seconds.	<ul style="list-style-type: none"> <li>This unit's amplifier circuit has failed. Turn off the power and please contact the Denon service adviser.</li> </ul>	—



## ■ Operations cannot be performed through the remote control unit

Symptom	Cause / Solution	Page
Operations cannot be performed through the remote control unit.	• Batteries are worn out. Replace with new batteries.	<u>5</u>
	• Operate the remote control unit within a distance of about 7 m from this unit and at an angle of within 30°.	<u>5</u>
	• Remove any obstacle between this unit and the remote control unit.	—
	• Insert the batteries in the proper direction, checking the ⊕ and ⊖ marks.	<u>5</u>
	• The set's remote control sensor is exposed to strong light (direct sunlight, inverter type fluorescent bulb light, etc.). Move the set to a place in which the remote control sensor will not be exposed to strong light.	—
	• When using a 3D video device, the remote control unit of this unit may not function due to effects of infrared communications between units (such as TV and glasses for 3D viewing). In this case, adjust the direction of units with the 3D communications function and their distance to ensure they do not affect operations from the remote control unit of this unit.	—



## ■ No sound comes out

Symptom	Cause / Solution	Page
No sound comes out of speakers.	• Check the connections for all devices.	<u>16</u>
	• Insert connection cables all the way in.	—
	• Check that input connectors and output connectors are not reversely connected.	—
	• Check cables for damage.	—
	• Check that speaker cables are properly connected. Check that cable core wires come in contact with the metal part on speaker terminals.	<u>17</u>
	• Securely tighten the speaker terminals. Check speaker terminals for looseness.	<u>17</u>
	• Check that the proper input source is selected.	<u>28</u>
	• The volume is set to the minimum level. Adjust the volume to a suitable level.	<u>28</u>
	• Cancel the muting mode.	<u>28</u>
	• No sound is output from the speakers when headphones are connected.	<u>9</u>

## ■ Desired sound does not come out

Symptom	Cause / Solution	Page
No sound comes out of a specific speaker.	• Check that speaker cables are properly connected.	<u>17</u>
	• Adjust the BALANCE control knob.	<u>28</u>
The left and right of stereo sound is reversed.	• Check whether the left and right speakers are connected to the correct speaker terminals.	<u>17</u>



## ■ Sound is interrupted or noise occurs

Symptom	Cause / Solution	Page
When playing a record, the sound is distorted.	• Adjust to a proper needle pressure.	—
	• Check the tip of the needle.	—
	• Replace the cartridge.	—
When playing a record, a humming noise comes out of the speakers.	• Check that the turntable is connected correctly.	<u>21</u>
	• If there is a TV or AV device near the turntable, such devices may affect the playback sound. Install the turntable in a location as far away as possible from the TV or other AV devices.	—
When playing a record, a humming noise comes out of the speakers when the volume is high. (Howling phenomenon)	• Install the turntable and speakers as far from each other as possible.	<u>21</u>
	• The vibrations from the speakers are being transmitted to the player through the floor. Use cushions, etc., to absorb the speakers' vibrations.	—
Sound is interrupted during playback of tracks saved on a computer.	• Do not start applications other than the player software while playing music on your computer.	—



## ■ PC or Mac files cannot be played back

Symptom	Cause / Solution	Page
This unit is not recognized on the computer.	• Reconnect the USB cable to the USB port on your computer. When this unit is still not recognized after reconnection, connect to a different USB port.	<a href="#">24</a>
	• Restart your computer.	—
	• Check the OS of your computer.	<a href="#">31</a>
	• When your computer is running on Windows, a dedicated driver software should be installed.	<a href="#">32</a>
This unit is not selected as the playback device.	• Select this unit as the playback device in the sound settings on the computer.	<a href="#">31</a>
"Unlocked" is displayed.	• When digital audio signals cannot be detected properly, "Unlocked" is displayed.	<a href="#">39</a>
"Unsupported" is displayed.	• "Unsupported" is displayed when audio signals that are not supported by this unit are input. Check the settings on your computer or player software.	<a href="#">39</a>
	• If the computer you use is "Mac OS", please check if the "PMA-1600NE" format is set below "384000.0 Hz" using the "Audio MIDI Setup".	<a href="#">38</a>

## ■ Audio from digital devices cannot be played back (Coaxial/Optical)

Symptom	Cause / Solution	Page
"Unlocked" is displayed.	• When digital audio signals cannot be detected properly, "Unlocked" is displayed.	<a href="#">40</a>
"Unsupported" is displayed.	• "Unsupported" is displayed when audio signals that are not supported by this unit are input. Check the audio output signal format from your digital device.	<a href="#">40</a>



## D/A converter

### ■ Specifications of supported audio signals

#### □ USB-DAC

	Sampling frequency	Bit length
DSD (2-channel)	2.8/5.6/11.2 MHz	1 bit
Linear PCM (2-channel)	44.1/48/88.2/96/176.4/ 192/352.8/384 kHz	16/24/32 bits

#### □ Coaxial/Optical

	Sampling frequency	Bit length
Linear PCM (2-channel)	32/44.1/48/88.2/96/ 176.4/192 kHz	16/24 bits

## Explanation of terms

### DSD (Direct-Stream Digital)

One of the audio data recording methods, it is the signal aspect used to store audio signals on a super audio CD, and is  $\Delta$ - $\Sigma$  modulated digital audio.

### Sampling frequency

Sampling involves taking a reading of a sound wave (analog signal) at regular intervals and expressing the height of the wave at each reading in digitized format (producing a digital signal).

The number of readings taken in one second is called the “sampling frequency”. The larger the value, the closer the reproduced sound is to the original.

### Linear PCM

This is an uncompressed PCM (Pulse Code Modulation) signal. This is the same system used for CD audio but uses 192 kHz, 96 kHz, and 48 kHz sampling frequencies on Blu-ray Disc or DVD and provides higher resolution than CD.



**Speaker impedance**

This is an AC resistance value, indicated in  $\Omega$  (ohms).  
Greater power can be obtained when this value is smaller.

**Source direct**

Playback with higher fidelity to the source becomes possible, as input audio signals are output by bypassing the audio quality-control circuits (BASS/TREBLE/BALANCE).

**Protection circuit**

This is a function to prevent damage to devices within the power supply when an abnormality such as an overload, excess voltage occurs or over temperature for any reason.

If a malfunction occurs in this unit, the power indicator blinks red and the unit switches to standby mode.

## Trademark information



Adobe, the Adobe logo and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.





# Specifications

## ■ Power amplifier section

Rated Output Power:	2-channel driving (CD → SP OUT) 70 W + 70 W (8 Ω/ohms, 20 Hz - 20 kHz, T.H.D. 0.07 %) 140 W + 140 W (4 Ω/ohms, 1 kHz, T.H.D. 0.7 %)
Total harmonic distortion:	0.01 % (Rated output: -3 dB), 8 Ω/ohms, 1 kHz
Output terminals:	Speaker A or B: 4 – 16 Ω/ohms Speaker A + B: 8 – 16 Ω/ohms Suited for headphones/stereo headphones

## ■ Pre amplifier section

Input Sensitivity/Input Impedance:	PHONO (MM): 2.5 mV / 47 kΩ/kohms PHONO (MC): 200 μV / 100 Ω/ohms CD, NETWORK, RECORDER: 125 mV / 47 kΩ/kohms (SOURCE DIRECT: Off) 125 mV / 23 kΩ/kohms (SOURCE DIRECT: On)
RIAA Deviation:	PHONO: 20 Hz – 20 kHz ±0.5 dB
Maximum Input:	PHONO (MM): 130 mV / 1 kHz PHONO (MC): 10 mV / 1 kHz



## ■ Overall performance

**SN Ratio (A network):**

PHONO (MM): 89 dB

(With input terminals short-circuited, 5 mV input signal)

PHONO (MC): 74 dB

(With input terminals short-circuited, 0.5 mV input signal)

CD, NETWORK, RECORDER: 108 dB (input terminals short-circuited)

**Frequency response:**

5 Hz – 100 kHz (0 – -3 dB)

**Tone control:**BASS: 100 Hz  $\pm 8$  dBTREBLE: 10 kHz  $\pm 8$  dB

- Digital input signal format

**Format:**

Digital audio interface (Linear PCM)

**Coaxial input:**0.5 V<sub>p-p</sub> / 75  $\Omega$ /ohms**Optical input:**

More than – 27 dBm

**Optical wavelength:**

660 nm

## ■ General

**Power supply:**

AC230 V, 50/60 Hz

**Power consumption:**

295 W

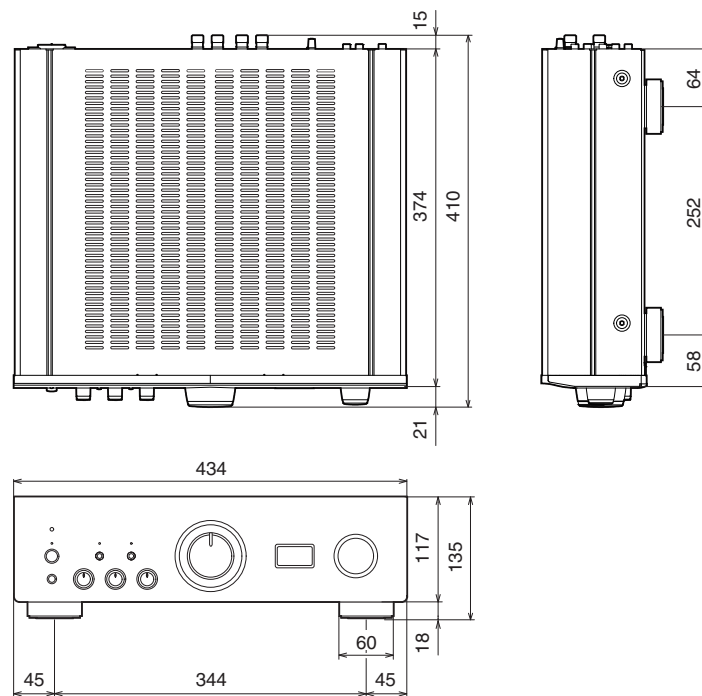
**Power consumption in standby mode:**

0.2 W

For the purpose of improvement, the specifications and design are subject to change without notice.



## ■ Dimensions (Unit : mm)



## ■ Weight: 17.6 kg

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**DENON®**

[www.denon.com](http://www.denon.com)

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# DENON<sup>®</sup>

## PMA-1600NE

INTEGRATED AMPLIFIER

# Quick Start Guide

Guide de démarrage rapide / Guía de inicio rápido

# Read Me First....

Lisez-moi en premier.... / Lea esto primero....

ENGLISH

FRANÇAIS

ESPAÑOL

# Welcome

Thank you for choosing a Denon amplifier. This guide provides step-by-step instructions for setting up your amplifier.

**Please do not return this unit to the store – call for assistance.**









**If you need help... :**

If you need additional help in solving problems, contact Denon customer service in your area.

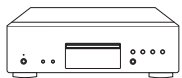
For details, see the Denon homepage. [www.denon.com](http://www.denon.com)

# Before You Begin

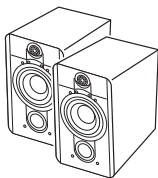
## What's In the Box

Quick Start Guide		Integrated Amplifier	
CD-ROM (Owner's Manual)		Power cord	
Safety Instructions		Remote control unit (RC-1213)	
Warranty (for North America model only)		R03/AAA batteries	

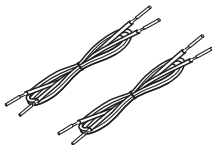
## Required for Basic connections



CD player



Speaker systems



Speaker cables

## Optional



Computer



USB cable



These drawings are for illustrative purposes only and may not represent the actual product(s).

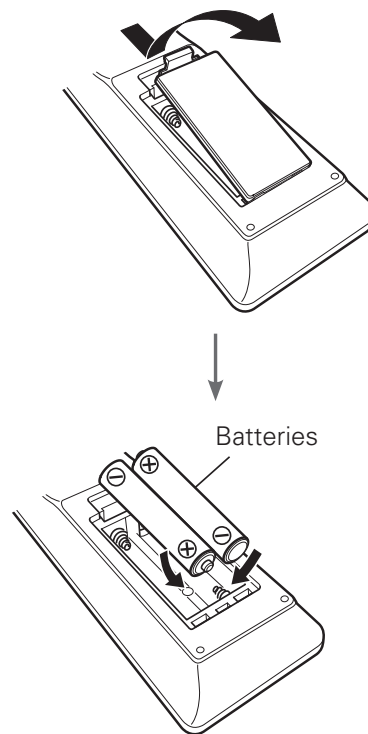


# Setup

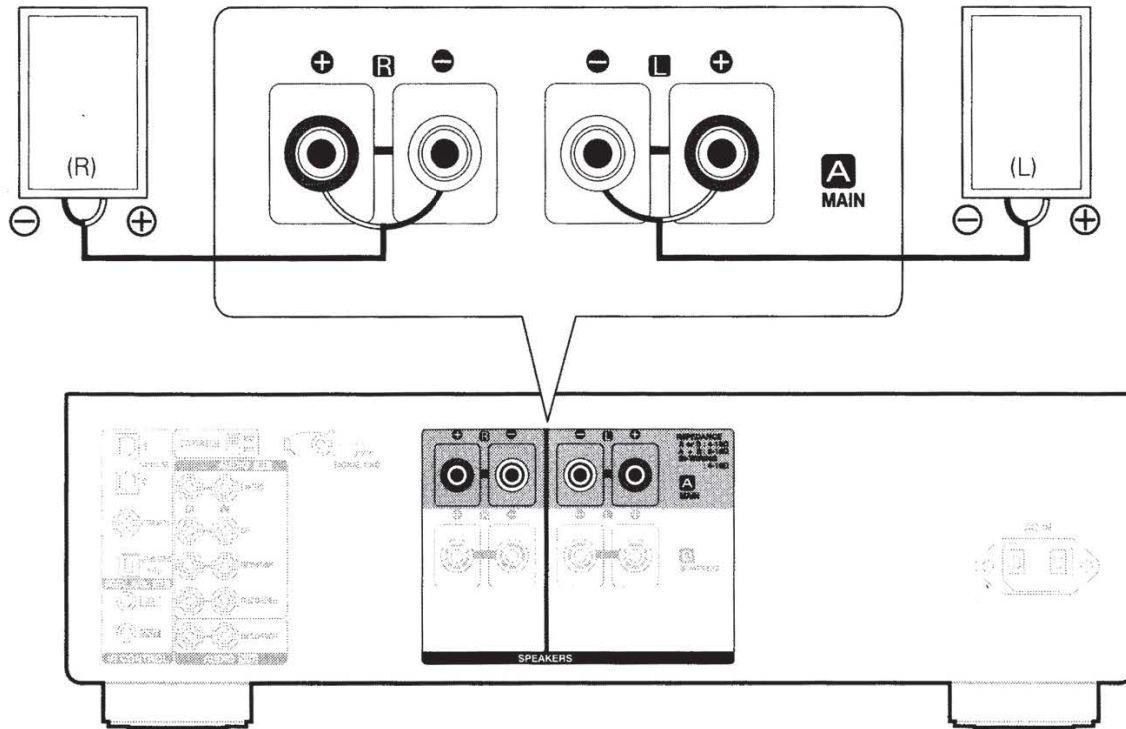
There are seven steps to the setup process.

- 1** Install batteries in the remote control unit
- 2** Connect the speakers to the amplifier
- 3** Connect the CD player to the amplifier
- 4** Plug the power cord into a power outlet
- 5** Begin CD playback
- 6** Installing the Windows driver software
- 7** Enjoying music using PC or Mac

## **1** Install batteries in the remote control unit

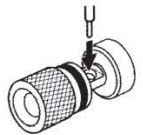


## 2 Connect the speakers to the amplifier

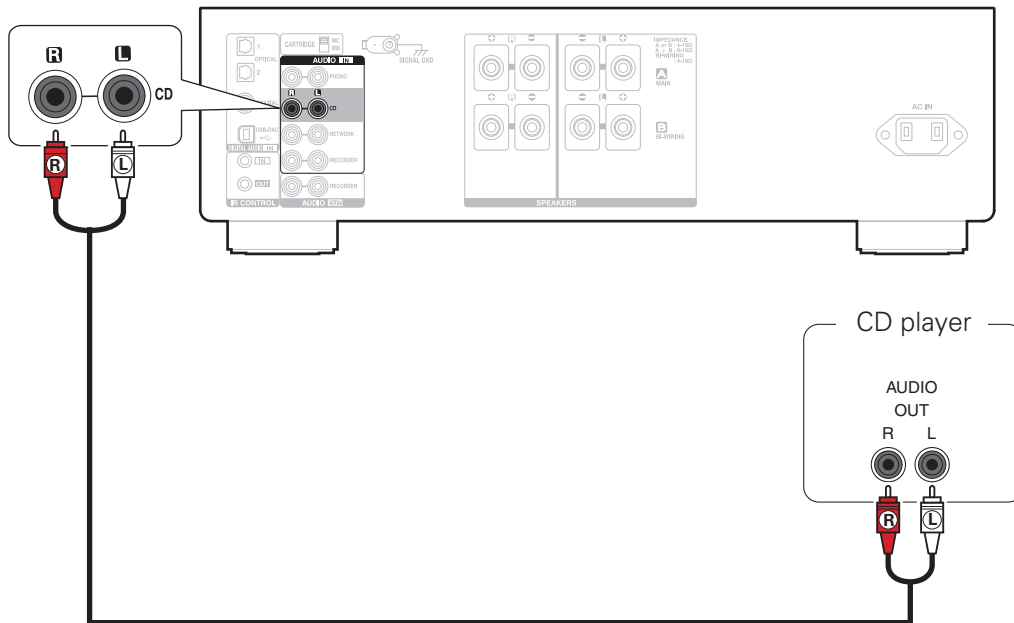


### Connecting the speaker cables

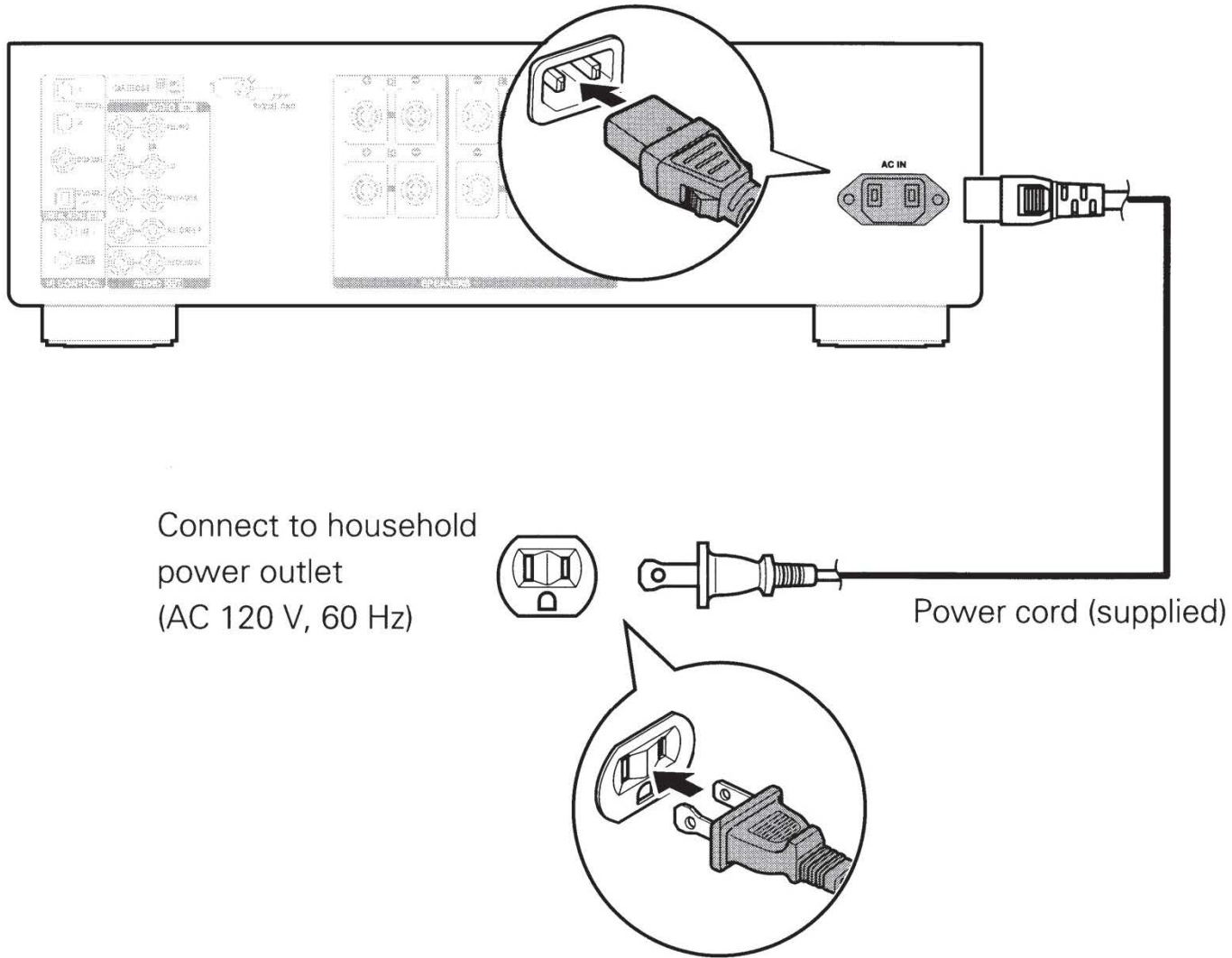
- ① Peel off about 3/8 inch (10 mm) of sheathing from the tip of the speaker cable, then either twist the core wire tightly or apply solder to it.
- ② Turn the speaker terminal counterclockwise to loosen it.
- ③ Insert the speaker cable's core wire to all the way into the speaker terminal.
- ④ Turn the speaker terminal clockwise to tighten it.



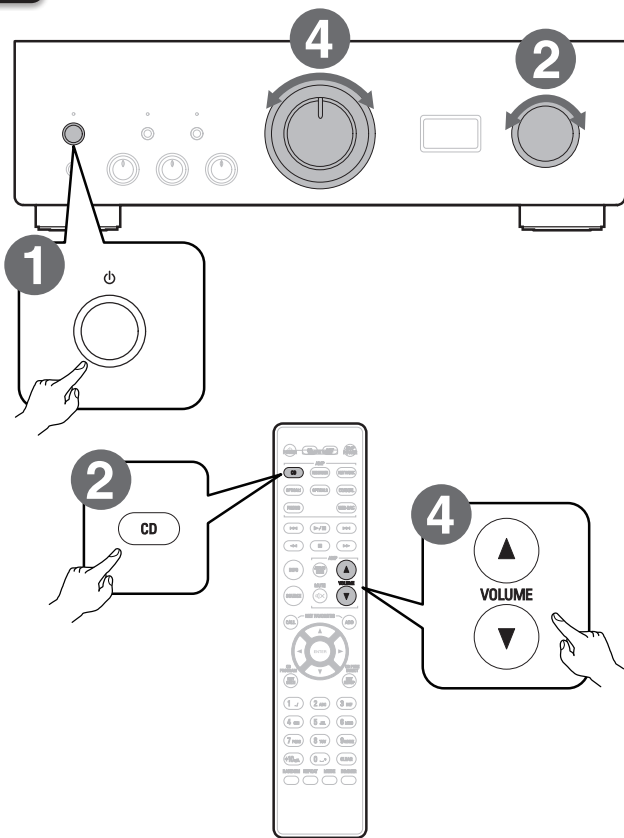
### 3 Connect the CD player to the amplifier



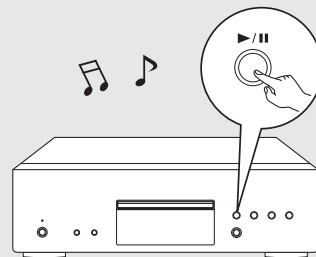
## 4 Plug the power cord into a power outlet



## 5 Begin CD playback



- 1 Press the power operation button.**  
Turn VOLUME on the main unit to adjust the volume to the lowest level before turning on the power.
- 2 Set the input source to “CD”.**  
“CD” is displayed on the display of this unit.
- 3 Play the CD player.**



- 4 Adjust the volume.**

## 6 Installing the Windows driver software

### NOTE

The installation of the driver software is not necessary in the following cases.

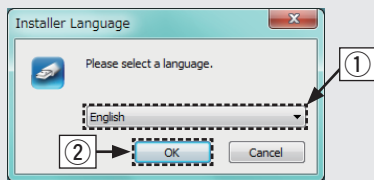
- When you do not play back the music from a PC using USB-DAC of this unit.
- When using a Mac OS.

**1** Download the dedicated driver from the “Download” section of the PMA-1600NE page of the Denon website (<http://www.denon.com/pages/home.aspx>) onto your PC.

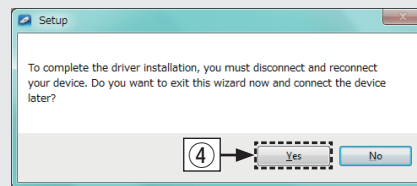
**2** Unzip the downloaded file, and double-click the exe file.

**3** Install the driver.

- ① Select the language to use for the installation.
- ② Click “OK”.



- ③ The wizard menu is displayed. Follow the instructions on the screen.
- ④ When the wizard is completed, click “Yes”.



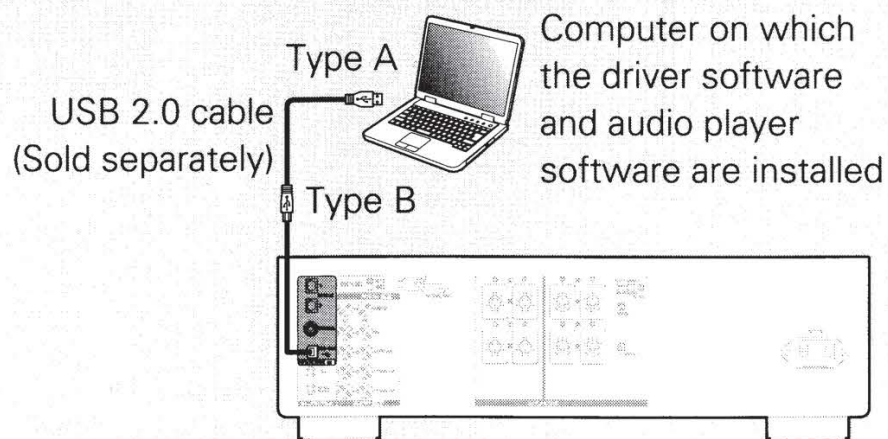
### NOTE

- The driver software cannot be installed correctly if your PC is connected to the unit by a USB cable.
- If the unit and your computer are connected by a USB cable and the computer is switched on before installation, disconnect the USB and restart the computer.
- Please see the FAQ at [www.denon.com](http://www.denon.com) if you experience any issues getting audio to play from your computer through the PMA-1600NE. You may also want to check the support pages for your audio player application.

# 7 Enjoying music using PC or Mac

## ❑ Connect to PC or Mac

### 1 Connect to PC or Mac.

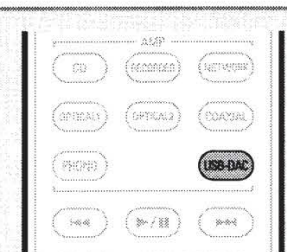


### 2 Press on this unit.

- When the unit power is turned on, the computer automatically finds and connects to the unit.

## ❑ Listen to PC or Mac Audio

### 1 Press USB-DAC to change the input source to “USB-DAC”.



### 2 Set the audio signal destination to this unit on the computer.

#### System Requirements

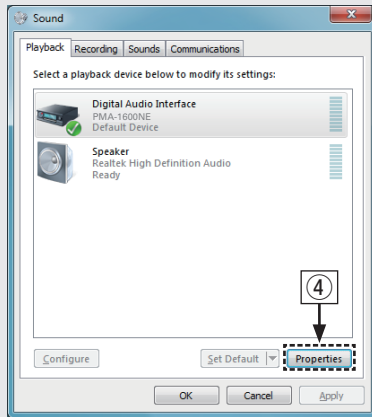
- Windows 7, Windows 8, Windows 8.1 or Windows 10
- Mac OS X 10.10, 10.11 or macOS 10.12

#### [Windows OS]

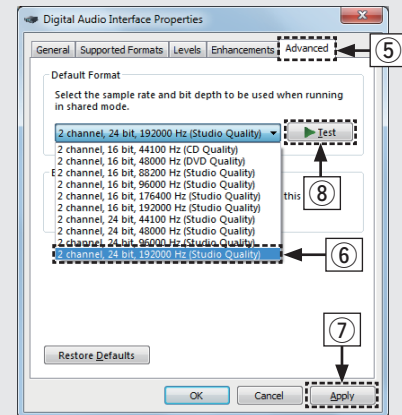
- ① Click the “Start” button and click “Control Panel” on the PC.
  - The control panel setting list is displayed.
- ② Click the “Sound” icon.
  - The sound menu window is displayed.



- ③ Check that there is a checkmark next to “Default Device” under in “PMA-1600NE” of the “Playback” tab.
- When there is a checkmark for a different device, click “PMA-1600NE” and “Set Default”.
- ④ Select “PMA-1600NE” and click “Properties”.
- The PMA-1600NE Properties window is displayed.



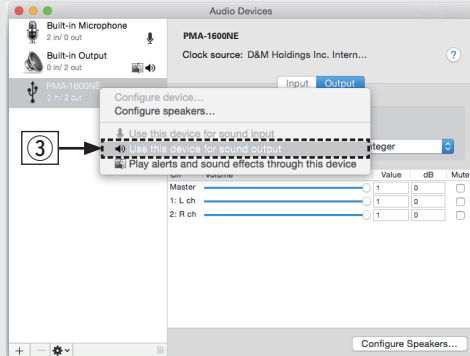
- ⑤ Click the “Advanced” tab.
- ⑥ Select the sampling rate and bit rate to be applied to the D/A converter.
- It is recommended that “2 channel, 24 bit, 192000 Hz (Studio Quality)” is selected (Windows 7).
- It is recommended that “2 channel, 32 bit, 192000 Hz (Studio Quality)” is selected (Windows 8/Windows 8.1/Windows 10).
- ⑦ Click “Apply”.
- ⑧ Click “Test”.
- Check that audio from this unit is output from the PC.



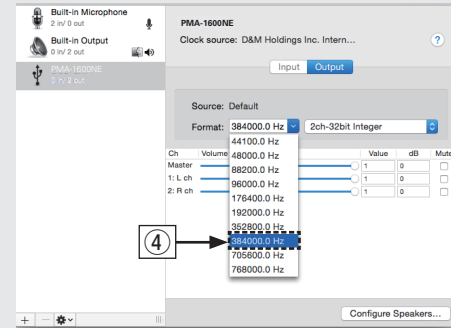


## [Mac OS X]

- ① Move the cursor to “Go” on the computer screen, and then click “Utilities”.
  - The utility list is displayed.
- ② Double-click “Audio MIDI Setup”.
- ③ Check that “Use this device for sound output” is checked in “PMA-1600NE”.
  - If a different device is checked, select and “Secondary click” on “PMA-1600NE”, and then select “Use this device for sound output”.



- ④ Select the “PMA-1600NE” format.
  - It is normally recommended to set the format to “384000.0 Hz” and “2ch-32 bit Integer”.



- ⑤ Click “Quit Audio MIDI Setup”.

3

### Use your favorite music applications on your PC/Mac to play audio through the PMA-1600NE.

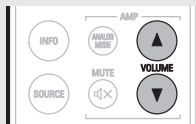
- For high resolution audio playback you will need to obtain an advanced audio player software such as JRiver Media Center or Audirvana.

USB: DSD  
11.2MHz

The type of music file and sampling frequency are displayed.

4

### Adjust the volume.



### NOTE

Additional settings to output audio to the PMA-1600NE may have to be selected in your advanced audio player application. Please refer to the user's manual for your application.

# Owner's Manual

Please reference to the Owner's Manual for more details about the setup and operation of the amplifier and its features.

## ❑ Online Version

Enter the following URL into your web browser:  
[manuals.denon.com/PMA1600NE/NA/EN/](http://manuals.denon.com/PMA1600NE/NA/EN/)



Online Manual

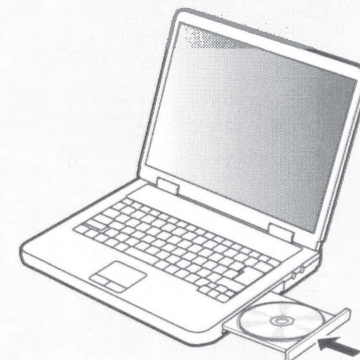


## ❑ Printable Version

Access the print version of the owner's manual from the included CD-ROM or select the "PDF Download" link from the Online Version.

1

**Insert the disc into your computer.**



2

**Follow the screen or double click on the PDF file.**



Product Name : Integrated Amplifier  
Model Number : PMA-1600NE



## PMA-1600NE

INTEGRATED AMPLIFIER WITH DAC-MODE

# HIGH QUALITY INTEGRATED AMP REPRESENTING A NEW ERA OF AUDIO ENJOYMENT

### HIGHLIGHTS

- 2 x 140 W (4 ohm) output
- Advanced Ultra High Current (UHC)-MOS Single Push-Pull Circuit Power
- DAC Master Clock Design
- Rear USB-B input
- Digital isolator to eliminate high-frequency noise on the USB-B or digital inputs
- FL display for source and sample rate indication
- Analog AMP Mode switching off digital audio circuitry and display
- Advanced AL32 Processing Plus
- Direct Mechanical Ground Construction
- Chassis construction with 6 independent blocks
- Main transformer with separate power supplies for analogue and digital circuits
- 2 Digital Optical and 1 Digital Coaxial inputs; MM & MC Phono Equalizer Amp
- Available in Premium Silver and Black

### YOUR BENEFITS

- Enough power even for big rooms
- Wide bandwidth sound from deep bass to detailed highs
- Jitter-free audio reproduction
- High Resolution Audio playback up to 384 kHz / 32 bit and 11.2 MHz DSD
- Enjoy all sources without any unwanted electric noise
- Easily capture most important information
- Pure analogue audio reproduction
- Digital recordings beautifully faithful to the original sound
- Minimizes unwanted vibration
- Eliminates noises between the circuits
- Preserves audio signal purity
- Ready for music from all sources
- Perfectly matching the DCD-1600NE Super Audio CD Player

Advanced Ultra High Current MOS Single Push-Pull Circuit

The amplifier features Advanced UHC (Ultra High Current)-MOS technology that utilizes a minimum number of high-current amplifier elements to balance advanced speaker drive capabilities and improved sound quality. Advanced UHC-MOS is an ideal amplifier whose power supply performance is superior to that of bipolar transistors and incorporates the sound quality advantages of MOS-FETs. The Advanced UHC-MOS is provided in a single push-pull configuration that eliminates deviations in the amplification stage and balances high power with delicate musical details. This circuit masterfully reproduces the full sonic range, from the delicate musical nuances to the powerful climaxes of rich musical expression.

Advanced AL32 Processing Plus supporting 384-kHz/32-bit PCM input

For digital input, the PMA-1600NE employs Advanced AL32 Processing Plus, the latest version of Denon's analogue waveform reproduction technology which utilizes unique data interpolation algorithms and also supports high-resolution 384-kHz/32-bit PCM signal input. These algorithms interpolate points that should exist before and after the points in large quantities of data to achieve a smooth waveform that is close to that of the original signal. By carefully restoring data that was lost during digital recording, the resulting playback sound is highly detailed, free of interference, accurately localized, richly expressive in the lower range, and beautifully faithful to the original sound.

USB-DAC supporting 11.2-MHz DSD and 384-kHz/32-bit PCM

The PMA-1600NE provides USB-DAC functions that support high-resolution up to 11.2-MHz DSD and 384-kHz/32-bit PCM input signals. DSD transmission methods support ASIO native playback and DSD Audio over PCM Frames (DoP). Since asynchronous transfer is controlled by the PMA-1600NE's master clock rather than the clock of a computer the transfer is free of jitter. The D/A converter used in the PMA-1600NE is the same 384-kHz/32-bit and DSD capable top class DAC used in the DCD-1600NE to deliver a clean, high-grade sound.

6-block chassis configuration & Direct Mechanical Ground Construction

The PMA-1600NE's chassis is configured of six independent blocks that house the phono equalizer and input circuitry, volume control circuitry, USB-DAC circuitry, amplification circuitry, power section, and the control section. The chassis constructed with 1.0mm thick steel plates protects the signal circuits from external vibration and eliminates the adverse effects of mutual interference among the circuits. The power section has been positioned in the center of the PMA-1600NE. With heat sinks on both sides, this construction of well-balanced mass is in an ideal location to prevent unwanted vibration from affecting sound quality. In addition, the feet supporting the heavy weight of the power transformer, heat sinks, and chassis are made of ABS resin with rigid rib construction.

System remote controller and clear view front display

The PMA-1600NE comes with a system remote control unit that can also operate the DCD-1600NE and other Denon CD players and network audio players. The low noise FL display on the product front panel gives source and sample rate indication.

Digital isolator and Analog Mode

The PMA-1600NE is equipped with a high-speed digital isolator to eliminate adverse influences on sound quality caused by high-frequency noise from a USB-connected computer or from the PMA-1600NE's digital inputs. Since data is transferred magnetically via coils embedded in an IC chip, the input and output sides are electrically isolated. By isolating the signal line between digital audio circuitry and the D/A converter, adverse influences of high-frequency noise on analogue audio circuitry after the D/A converter are eliminated. The PMA-1600NE also adopted a dedicated secondary winding in power transformer for the digital circuitry to shut out noise from the power source. During analogue audio playback, the Analog Mode can be used to turn off power to the dedicated digital power source and completely stop operation of the digital input circuitry to avoid any high frequency influence to the analogue section. Analog Mode also turns off the fluorescent display, allowing the PMA-1600NE to operate as a purely analogue amp (during Analog Mode, USB-B, coaxial digital, and optical digital inputs are disabled).

MM/MC phono equalizer

The PMA-1600NE includes a phono equalizer that supports input from both MM and MC cartridges. This phono equalizer has high gain, and as loops in the circuit board pattern can cause adverse effects on sound quality, the "simple & straight" design represents a significant improvement. On the PMA-1600NE, the MM/MC toggle switch was changed from a push type to a relay type, which shortens the pattern on the circuit board and makes signal loops smaller, allowing delicate analogue signals to be amplified with greater purity.



Technical information			
Power amplifier section		Tone control	
Rated output	70 W + 70 W	Treble	± 8 dB at 10 kHz
	(20 Hz - 20 kHz, 8 ohms, T.H.D. 0.07%)	Bass	± 8 dB at 100 Hz
	140 W + 140 W	General	
	(1 kHz, 4 ohms, T.H.D. 0.7%)	Power supply	AC 230 V, 50/60 Hz
Total harmonic distortion	0.01% (rated output -3 dB, 8 ohms, 1 kHz)	Power consumption	295 W (Standby 0.2 W)
Input sensitivity / Impedance		Dimensions (W x H x D)	434 x 135 x 410 mm
Phono MC	0.2 mV/100 ohms)	Weight	17.6 kg
Phono MM	2.5 mV/47 kohms		
Line	125 mV / 47 kohms (Source Direct: OFF)		
Signal-to-noise ratio			
Phono MC	74 dB (0.5 mV input)		
Phono MM	89 dB (5 mV input)		
Line	108 dB		

EAN	PMA1600NEBKE2	4951035058657	Black
	PMA1600NESPE2	4951035058640	Premium Silver
UK	PMA1600NEBKE2GB	4951035060087	Black
	PMA1600NESPE2GB	4951035060094	Premium Silver



Ports		
IN	Phono (MM/MC)	x 1
	Audio input (incl. Phono)	x 4
	Digital Optical	x 2
	Digital Coaxial	x 1
	USB-B	x 1
OUT	Rec output	x 1
	Speaker out (Bi-wiring)	A / B



# Safety Instructions (Read these safety instructions before operating the unit.)

DENON

## SAFETY PRECAUTIONS



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

**CAUTION:**  
**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.

**WARNING:**  
**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.



## FCC INFORMATION (For US customers)

### 1. COMPLIANCE INFORMATION

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

Denon Electronics (USA), LLC (a D&M Holdings Company)  
100 Corporate Drive, Mahwah, NJ 07430-2041  
Tel. (201) 762-6665

### 2. IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by Denon may void your authority, granted by the FCC, to use the product.

### 3. NOTE

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the local retailer authorized to distribute this type of product or an experienced radio / TV technician for help.

### 4. IMPORTANT (For Network model)

When connecting this product to network hub or router, use only a shielded STP or ScTP LAN cable which is available at retailer.

Follow all installation instructions. Failure to follow instructions could void your authority, granted by the FCC, to use the product.

### 5. CAUTION (For Bluetooth/Wi-Fi model)

- To comply with FCC RF exposure compliance requirement, separation distance of at least 20 cm must be maintained between this product and all persons.
- This product and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

## IC INFORMATION (For Canadian customers)

CAN ICES-3 (B) / NMB-3 (B)

## CAUTION:

To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet. The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

## PRECAUTION:

Pour déconnecter complètement ce produit du courant secteur, débranchez la prise de la prise murale. La prise secteur est utilisée pour couper complètement l'alimentation de l'appareil et l'utilisateur doit pouvoir y accéder facilement.

## PRECAUCIÓN:

Para desconectar completamente este producto de la alimentación eléctrica, desconecte el enchufe del enchufe de la pared.

El enchufe de la alimentación eléctrica se utiliza para interrumpir por completo el suministro de alimentación eléctrica a la unidad y debe de encontrarse en un lugar al que el usuario tenga fácil acceso.

## ATENÇÃO:

Para desligar este produto completamente da tomada de alimentação, retire a ficha da tomada de alimentação.

A ficha da tomada de alimentação é utilizada para cortar completamente a alimentação de corrente à unidade e tem de estar facilmente acessível ao utilizador.

## NOTES ON USE

WARNINGS	AVERTISSEMENTS
<ul style="list-style-type: none"><li>• Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.</li><li>• Handle the power cord carefully. Hold the plug when unplugging the cord.</li><li>• Keep the unit free from moisture, water, and dust.</li><li>• Unplug the power cord when not using the unit for long periods of time.</li><li>• Do not obstruct the ventilation holes.</li><li>• Do not let foreign objects into the unit.</li><li>• Do not let insecticides, benzene, and thinner come in contact with the unit.</li><li>• Never disassemble or modify the unit in any way.</li><li>• Ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths or curtains.</li><li>• Naked flame sources such as lighted candles should not be placed on the unit.</li><li>• Observe and follow local regulations regarding battery disposal.</li><li>• Do not expose the unit to dripping or splashing fluids.</li><li>• Do not place objects filled with liquids, such as vases, on the unit.</li><li>• Do not handle the mains cord with wet hands.</li><li>• When the switch is in the OFF (STANDBY) position, the equipment is not completely switched off from MAINS.</li><li>• The equipment shall be installed near the power supply so that the power supply is easily accessible.</li><li>• Do not keep the battery in a place exposed to direct sunlight or in places with extremely high temperatures, such as near a heater.</li><li>• Do not bend forcibly the plug on the equipment for the connection between the connector and micro USB/USB cable.</li></ul>	<ul style="list-style-type: none"><li>• Éviter des températures élevées. Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.</li><li>• Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon.</li><li>• Protéger l'appareil contre l'humidité, l'eau et la poussière.</li><li>• Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.</li><li>• Ne pas obstruer les trous d'aération.</li><li>• Ne pas laisser des objets étrangers dans l'appareil.</li><li>• Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.</li><li>• Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.</li><li>• Ne pas recouvrir les orifices de ventilation avec des objets tels que des journaux, nappes ou rideaux. Cela entraverait la ventilation.</li><li>• Ne jamais placer de flamme nue sur l'appareil, notamment des bougies allumées.</li><li>• Veillez à respecter les lois en vigueur lorsque vous jetez les piles usagées.</li><li>• L'appareil ne doit pas être exposé à l'eau ou à l'humidité.</li><li>• Ne pas poser d'objet contenant du liquide, par exemple un vase, sur l'appareil.</li><li>• Ne pas manipuler le cordon d'alimentation avec les mains mouillées.</li><li>• Lorsque l'interrupteur est sur la position OFF (STANDBY), l'appareil n'est pas complètement déconnecté du SECTEUR (MAINS).</li><li>• L'appareil sera installé près de la source d'alimentation, de sorte que cette dernière soit facilement accessible.</li><li>• Ne placez pas la pile dans un endroit exposé à la lumière directe du soleil ou dans des endroits présentant des températures extrêmement élevées, par exemple près d'un radiateur.</li><li>• Ne pliez pas la fiche sur l'appareil en forçant pour connecter la borne au câble micro USB/USB.</li></ul>

## CAUTIONS ON INSTALLATION

For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

- Amplifier: 0.3 m or more
- Other units: 0.1 m or more

## PRÉCAUTIONS D'INSTALLATION

Pour permettre la dissipation de chaleur requise, n'installez pas cette unité dans un espace confiné tel qu'une bibliothèque ou un endroit similaire.

- Amplificateur: 0,3 m ou plus
- Autres appareils: 0,1 m ou plus

## EMPLAZAMIENTO DE LA INSTALACIÓN

Para la dispersión del calor adecuadamente, no instale este equipo en un lugar confinado tal como una librería o unidad similar.

- Amplificador: 0,3 m o más
- Otras unidades: 0,1 m o más

## PRECAUÇÕES DE INSTALAÇÃO

Para uma correcta dispersão do calor, não instale esta unidade num espaço confinado, como uma estante de livros ou uma estrutura semelhante.

- Amplificador: 0,3 m ou mais
- Outras unidades: 0,1 m ou mais

**CAUTION (FOR AMPLIFIER):****HOT SURFACE. DO NOT TOUCH.**

The top surface over the internal heat sink may become hot when operating this product continuously.  
Do not touch hot areas, especially around the "Hot surface mark" and the top panel.



Hot  
surface  
mark

**PRECAUTION (POUR AMPLIFICATEUR):****SURFACE CHAUDE. NE PAS TOUCHER.**

La surface supérieure du dissipateur de chaleur peut devenir chaude si vous utilisez ce produit en continu.  
Ne touchez pas les zones chaudes, tout particulièrement vers l'inscription "Hot surface mark" et le panneau supérieur.

**PRECAUCIÓN (PARA EL AMPLIFICADOR):****SUPERFICIE CALIENTE. NO TOCAR.**

La superficie superior sobre el disipador de calor interno podría llegar a calentarse al operar este producto de forma continua.  
No toque las áreas calientes, especialmente las situadas alrededor de la "Hot surface mark" y del panel superior.

**CUIDADO (PARA O AMPLIFICADOR):****SUPERFÍCIE QUENTE. NÃO TOCAR.**

A face superior localizada por cima do dissipador interno de calor pode ficar quente ao funcionar com este produto em modo contínuo.  
Não tocar nas zonas quentes, especialmente à volta do "Hot surface mark" e no painel superior.

**CLASS 1 LASER PRODUCT (FOR DISC PLAYER)****CAUTION:**

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.  
THIS PRODUCT SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

"CLASS 1  
LASER PRODUCT"

**PRODUIT LASER CLASSE 1 (POUR LECTEUR DE DISQUE)****ATTENTION:**

L'UTILISATION DE COMMANDES, DE RÉGLAGES OU DE PERFORMANCE DE PROCÉDURES AUTRES QUE CELLES SPÉCIFIÉES ICI PEUT ENTRAÎNER UNE EXPOSITION DANGEREUSE À DES RADIATIONS.  
CE PRODUIT DOIT UNIQUEMENT ÊTRE RÉGLÉ OU RÉPARÉ PAR UN PERSONNEL DE SERVICE SUFFISAMMENT QUALIFIÉ.

**PRODUCTO LÁSER DE CLASE 1 (PARA EL REPRODUCTOR DE DISCOS)****PRECAUCIÓN:**

EL USO DE CONTROLES, AJUSTES, O LA REALIZACIÓN DE PROCEDIMIENTOS DISTINTOS A LOS AQUÍ ESPECIFICADOS, PUEDE PROVOCAR UNA EXPOSICIÓN PELIGROSA A LA RADIACIÓN.  
ESTE PRODUCTO NO DEBE SER AJUSTADO O REPARADO POR NINGUNA PERSONA EXCEPTO POR PERSONAL DE SERVICIO DEBIDAMENTE CUALIFICADO.

**PRODUTO LASER DE CLASSE 1 (PARA LEITOR DE DISCOS)****CUIDADO:**

O USO DE CONTROLOS, AJUSTES OU DESEMPENHO DE PROCEDIMENTOS QUE NÃO OS AQUI ESPECIFICADOS PODE RESULTAR EM EXPOSIÇÃO A RADIAÇÃO PERIGOSA.  
ESTE PRODUTO NÃO DEVE SER AJUSTADO OU REPARADO POR NINGUÉM EXCEPTO POR PESSOAL TÉCNICO DEBIDAMENTE QUALIFICADO.

**WARNING:**

DO NOT INGEST BATTERY, CHEMICAL BURN HAZARD

- The remote control supplied with this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have swallowed or placed inside any part of the body, seek immediate Medical attention.

**AVERTISSEMENT:**

N'INGÉREZ PAS LA PILE, RISQUE DE BRÛLURE CHIMIQUE

- La télécommande fournie avec ce produit contient une pile bouton. Une ingestion de la pile bouton risque de causer de sévères brûlures internes en à peine 2 heures et peut entraîner la mort.
- Conservez les piles neuves et usagées hors de portée des enfants. Si le compartiment à piles ne se ferme pas de manière sécurisée, arrêtez d'utiliser le produit et conservez-le hors de portée des enfants. Si vous pensez que des piles ont été ingérées ou placées dans n'importe quel orifice corporel, contactez immédiatement une assistance médicale.

**ADVERTENCIA:**

NO INGERIR LA BATERÍA, RIESGO DE QUEMADURAS POR PRODUCTOS QUÍMICOS

- El control remoto suministrado con este producto contiene una pila de botón. En caso de ingestión, la pila de botón puede causar quemaduras internas graves en solo 2 horas y puede ocasionar la muerte.
- Mantenga las pilas nuevas y usadas fuera del alcance de los niños. Si el compartimento de la pila no se cierra firmemente, deje de utilizar el producto y manténgalo fuera del alcance de los niños. Si cree que se han podido ingerir pilas, o las mismas se encuentran en alguna parte en el interior del cuerpo, solicite atención médica de inmediato.

**AVISO:**

NÃO INGIRA A PILHA, PERIGO DE QUEIMADURA QUÍMICA

- O controlo remoto fornecido com este produto contém uma pilha de célula moeda/botão. Se a pilha de célula moeda/botão for engolida, pode causar queimaduras internas graves em apenas 2 horas e pode levar à morte.
- Mantenha as pilhas novas e usadas longe das crianças. Se o compartimento da pilha não fechar com firmeza, pare de utilizar o produto e mantenha-o afastado das crianças. Se pensa que as pilhas possam ter sido engolidas ou colocadas dentro de qualquer parte do corpo, procure ajuda médica imediata.



## CAUTIONS ON USING BATTERIES

- Insert the specified batteries in the remote control unit.
- Replace the batteries with new ones if the set does not operate even when the remote control unit is operated close to the unit. (The supplied batteries are only for verifying operation. Replace them with new batteries at an early date.)
- When inserting the batteries, be sure to do so in the proper direction, following the ⊕ and ⊖ marks in the battery compartment.
- To prevent damage or leakage of battery fluid:
  - Do not use a new battery together with an old one.
  - Do not use two different types of batteries.
  - Do not attempt to charge dry batteries.
  - Do not short-circuit, disassemble, heat or dispose of batteries in flames.
  - Do not keep the battery in a place exposed to direct sunlight or in places with extremely high temperatures, such as near a heater.
- If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.
- Remove the batteries from the remote control unit if it will not be in use for long periods.
- Used batteries should be disposed of in accordance with the local regulations regarding battery disposal.
- The remote control unit may function improperly if rechargeable batteries are used.

## PRÉCAUTIONS RELATIVES À L'UTILISATION DES PILES

- Insérez les piles spécifiées dans la télécommande.
- Remplacez les piles si l'appareil ne fonctionne pas même lorsque la télécommande est actionnée à proximité. (Les piles fournies ne servent qu'aux opérations de vérification. Remplacez-les par des piles neuves sans attendre.)
- Lorsque vous insérez les piles, assurez-vous de les placer dans le bon sens, en respectant les marques ⊕ et ⊖ qui figurent dans le compartiment à piles.
- Pour éviter un endommagement de la télécommande ou une fuite du liquide des piles:
  - Ne pas mélanger piles neuves et anciennes.
  - Ne pas utiliser deux types de piles différents.
  - Ne pas essayer de charger de piles sèches.
  - Ne pas court-circuiter, démonter, chauffer ou brûler les piles.
  - Ne placez pas la pile dans un endroit exposé à la lumière directe du soleil ou dans des endroits présentant des températures extrêmement élevées, par exemple près d'un radiateur.
- En cas de fuite du liquide de pile, essuyez soigneusement l'intérieur du compartiment avant d'insérer de nouvelles piles.
- Ôtez les piles de la télécommande si vous ne l'utilisez pas pendant longtemps.
- Veuillez vous débarrasser des piles usagées conformément aux lois locales relatives à la mise au rebut des piles.
- La télécommande risque de ne pas fonctionner correctement en cas d'utilisation de piles rechargeables.

## AVISOS SOBRE DE LAS PILAS

- Introduzca las pilas especificadas en el mando a distancia.
- Ponga pilas nuevas si el equipo no funciona ni siquiera si el mando a distancia se pone muy cerca. (Las pilas que se entregan con la unidad solo sirven para verificar que funciona. Cámbielas por pilas nuevas lo antes posible.)
- Cuando inserte las baterías, asegúrese de hacerlo en la dirección correcta, según las marcas ⊕ y ⊖ en el compartimiento de baterías.
- Para evitar daños o derrames del fluido de la batería:
  - No utilice una nueva batería junto con una ya utilizada.
  - No utilice dos tipos diferentes de baterías.
  - No intente cargar baterías secas.
  - No corte circuito, desensamble, caliente o queme las baterías.
  - No coloque las pilas en un lugar expuesto a la luz directa del sol o donde la temperatura sea extremadamente alta, como cerca de una calefacción.
- Si hay fluido de batería, limpie cuidadosamente el fluido en el compartimiento de las baterías e inserte unas nuevas.
- Retire las baterías del mando a distancia si no lo va a utilizar por una largo periodo de tiempo.
- Las pilas usadas deben desecharse de acuerdo a las regulaciones locales concernientes al desecho de pilas.
- Puede que el mando a distancia no funcione correctamente si se utilizan pilas recargables.

## CUIDADOS NA UTILIZAÇÃO PILHAS

- Coloque as pilhas indicadas na unidade de controlo remoto.
- Substitua as pilhas por novas se o conjunto não funcionar mesmo accionando a unidade de controlo remoto próximo da unidade. (As pilhas fornecidas destinam-se apenas à verificação do correcto funcionamento da unidade.)
- Ao colocar as pilhas, certifique-se de que as coloca na direcção correcta, seguindo as indicações ⊕ e ⊖ existentes no compartimento das pilhas.
- Para evitar danos ou derrame de líquido das pilhas:
  - Não utilize uma pilha nova em conjunto com uma usada.
  - Não utilize dois tipos diferentes de pilhas.
  - Não tente carregar pilhas secas.
  - Não faça a ligação em curto-circuito, não desmonte, não aqueça nem queime as pilhas numa fogueira.
  - Não coloque as pilhas num local exposto à luz directa do sol nem em locais com temperaturas extremamente elevadas como, por exemplo, próximo de um aquecedor.
- Em caso de derrame de líquido das pilhas, limpe cuidadosamente o líquido do interior do compartimento das pilhas e coloque pilhas novas.
- Retire as pilhas da unidade de controlo remoto caso não a vá utilizar durante longos períodos de tempo.
- As pilhas usadas devem ser descartadas em conformidade com os regulamentos locais relativos à eliminação de pilhas/baterias.
- A unidade de controlo remoto poderá não funcionar correctamente se forem utilizadas pilhas recarregáveis.





**Congratulations on purchasing this Denon product!**  
**We invite you to join the Denon Owner's Club.**

Thank you for choosing Denon.

Be the first to know about upcoming Denon products and get exclusive previews of new technologies. You will also receive members only offers from our online store and be the first in line for all promotions and contests.

<http://usa.denon.com/us/MyAccount/Pages/Login.aspx>

Join today!

Please register your product at,

**USA Customers :** <http://usa.denon.com/us/Support/Pages/ProductRegistration.aspx>

**Canada Customers :** <http://ca.denon.com/CA/Support/Pages/ProductRegistration.aspx>

**Denon Factory Service Information**

**USA**

**DENON FACTORY SERVICE by PANURGY OEM**

701 Ford Road (South Dock)

Rockaway, NJ 07866-2053

(973) 625-4056

(973) 625-9489 Fax

<http://www.panurgoem.com/Denon/Denonrepair.html>

To locate an authorized warranty service center within your area please visit our web site at  
<http://usa.denon.com/us/Support/Pages/ServiceCenterSearch.aspx>

**CANADA**

**DENON FACTORY SERVICE by MICROLAND TECHNICAL SERVICES**

170 Alden Road, Unit 2

Markham, ON L3R4C1

(905) 940-1982

<http://clientportal.microland.ca/rmastart.aspx>

To locate an authorized warranty service center within your area please visit our web site at  
<http://ca.denon.com/CA/Support/Pages/ServiceCenterSearch.aspx>

This warranty will be honored only in the U.S.A.

# DENON®

## LIMITED WARRANTY

### Length of Non-Transferable Warranty

This warranty on your DENON product which is distributed and warranted by DENON ELECTRONICS (USA), LLC remains in effect for the following periods from the date of the original consumer purchase from an AUTHORIZED DENON ELECTRONICS (USA), LLC DEALER.

Product Category				
A/V Controller, A/V Receiver, AM/FM Receiver			AVC, AVR, DRA	2
IN-Command series™ AV Receivers, Sound bar			AVR-****CI, AVR-X****, DHTS****	3
DVD Receiver, DVD Home Theater System			ADV, S	1
D/A Converter, Portable USB-DAC / Headphone Amplifier			DA	2
Pre-Amplifier, Digital Pre-Amplifier, Power-Amplifier, Head Amplifier			PRA, AVP, DAP, POA, HA	3
Tuner, Integrated Amplifier			TU, PMA	3
Option Board			ACD	3
Super Audio CD / CD Player, DVD Player, Blu-ray Disc Player			DCD, DCM, DVD, DVM, DBP, DBT	1
CD Recorder			CDRW	1
CD Receiver, Network CD Receiver, Network Receiver			RCD, DRA-N	1
Network Audio Player			DNP	2
System Audio			D-F, D-M, S	1
Turntable	1	Autolift / Manual	DP-L, DP-M	4
	2	Full Automatic	DP-F, DP-USB	2
Speaker			SC	5
Sub-woofer			DSW	1
Microphone			DM-S, DM-A	2
Bluetooth Speaker			DSB	1
iPhone® / iPod® Docks			ASD, DSD	1
Headphone			AH	1
Front Surround Home Theater System			DHT-FS	1
TV Speaker Base			DHT-T****	1
Video Processor			DVP	3
Cartridge			DL	90
Remote Controller			RC	90
Cables			AK	90
Speaker stands			ASF	90

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

### What is Covered

Except as specified below, this Warranty covers all defects in material and workmanship in this product occurring during the above warranty periods. The following are not covered by the Warranty: (1) Any product which is not distributed in the U.S.A. by DENON ELECTRONICS (USA), LLC. (2) Any product which is not purchased in the U.S.A. from an authorized DENON dealer. (Note: AUTHORIZED DENON DEALERS can be identified by DENON AUTHORIZED DEALER sticker displayed in the stores. If you are uncertain as to whether a dealer is a DENON AUTHORIZED DEALER, please contact DENON as listed below). (3) Any product on which the serial number has been defaced, modified or removed. (4) Damaged deterioration or malfunction resulting from: a) Accident, act of nature, abuse, misuse, neglect, unauthorized product repair, opening of or modification or failure to follow instructions supplied with the product. b) Repair or attempted repair by anyone not authorized by DENON. c) Any shipment of the product (claim must be presented to carrier). (5) Items subject to wear from normal usage (tape heads, cartridges, stylus, battery, etc.). (6) Periodic check-ups which do not disclose any defect. (7) Use of the product outside the U.S.A. (8) Damaged magnetic tape or CD/DVD/BD discs. (9) Use in industrial, commercial, and/or professional applications. (10) Any installation or removal charges resulting from product failure.

### What We Will Pay For

If during the applicable warranty period from the date of original consumer purchase your DENON product is found to be defective by DENON, DENON will repair, or at its option, replace with new, reconditioned or equivalent model, such defective product without charge for parts or labor.

### How to Obtain Warranty Performance

If your unit ever needs service, it may be taken or shipped to any authorized DENON service station or DENON ELECTRONICS (if you are uncertain as to whether a service station is DENON authorized, please visit our website at <http://usa.denon.com/us/Support/Pages/ServiceCenterSearch.aspx> or contact DENON as listed below.) In all other cases, the following procedures apply whenever your unit must be transported for warranty service;

- You are responsible for transporting your unit or arranging for its transportation.
- If shipment of your unit is required;  
You must pay the initial shipping charges, but we will pay the return shipping charges if the repairs are covered by the Warranty.
- WHEN RETURNING YOUR UNIT FOR WARRANTY SERVICE, A COPY OF THE ORIGINAL SALES SLIP MUST BE ATTACHED.**
- You should include the following: your name, address, daytime telephone number, model and serial number of the product and a description of the problem.  
In the case of a CD/DVD/BD Player, please enclose ONE (1) disc that the unit has failed with for test reasons. It will be returned with the unit.

THIS WARRANTY IS VALID IN THE U.S.A. ONLY.

If your product does not require service, but you have questions regarding its operation, please contact our Customer Support Department as listed below.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

OUR LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL IN NO EVENT INCLUDE INCIDENTAL OR CONSEQUENTIAL COMMERCIAL OR PROPERTY DAMAGES OF ANY KIND. WE ARE NOT RESPONSIBLE FOR PRODUCTS LOST, STOLEN AND/OR DAMAGED DURING SHIPPING.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, but you may also have other rights which vary from state to state. This Warranty may not be altered other than in a writing signed by an officer of Denon Electronics USA, LLC.

**DENON ELECTRONICS (USA), LLC**  
(a D&M Holdings Company)  
100 Corporate Drive  
Mahwah, NJ 07430-2041  
(201) 762-6665  
[www.usa.denon.com](http://www.usa.denon.com)

**DENON FACTORY SERVICE by PANURGY OEM**  
701 Ford Road (South Dock)  
Rockaway, NJ 07866-2053  
(973) 625-4056  
(973) 625-9489 Fax  
<http://www.panurgoem.com/Denon/Denonrepair.html>



This warranty will be honored only in **Canada**.

# DENON®

## LIMITED WARRANTY

### Length of Non-Transferable Warranty

This warranty on your DENON product which is distributed and warranted by D&M CANADA INC. remains in effect for the following periods from the date of the original consumer purchase from an AUTHORIZED D&M CANADA INC. DEALER.

#### Product Category

A/V Controller, A/V Receiver, AM/FM Receiver	AVC, AVR, DRA	2	YEAR(S)
IN-Command series™ AV Receivers, Sound bar	AVR-****CI, AVR-X****, DHT-S****	3	
DVD Receiver, DVD Home Theater System	ADV, S	1	
D/A Converter, Portable USB-DAC / Headphone Amplifier	DA	2	
Pre-Amplifier, Digital Pre-Amplifier, Power-Amplifier, Head Amplifier	PRA, AVP, DAP, POA, HA	3	
Tuner, Integrated Amplifier	TU, PMA	3	
Option Board	ACD	3	
Super Audio CD / CD Player, DVD Player, Blu-ray Disc Player	DCD, DCM, DVD, DVM, DBP, DBT	1	
CD Recorder	CDRW	1	
CD Receiver, Network CD Receiver, Network Receiver	RCD, DRA-N	1	
Network Audio Player	DNP	2	
System Audio	D-F, D-M, S	1	
Turntable	1 Autolift / Manual	4	
	2 Full Automatic	2	
Speaker	SC	5	
Sub-woofer	DSW	1	
Microphone	DM-S, DM-A	2	
Bluetooth Speaker	DSB	1	
iPhone® / iPod® Docks	ASD, DSD	1	
Headphone	AH	1	
Front Surround Home Theater System	DHT-FS	1	
TV Speaker Base	DHT-T****	1	
Video Processor	DVP	3	DAYS
Cartridge	DL	90	
Remote Controller	RC	90	
Cables	AK	90	
Speaker stands	ASF	90	

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### What is Covered

Except as specified below, this Warranty covers all defects in material and workmanship in this product occurring during the above warranty periods. The following are not covered by the Warranty: (1) Any product which is not distributed in Canada by D&M CANADA INC. (2) Any product which is not purchased in Canada from an authorized DENON dealer. (Note: AUTHORIZED DENON DEALERS can be identified by DENON AUTHORIZED DEALER sticker displayed in the stores. If you are uncertain as to whether a dealer is a DENON AUTHORIZED DEALER, please contact D&M CANADA INC. as listed below). (3) Any product on which the serial number has been defaced, modified or removed. (4) Damaged deterioration or malfunction resulting from: a) Accident, act of nature, abuse, misuse, neglect, unauthorized product repair, opening of or modification or failure to follow instructions supplied with the product. b) Repair or attempted repair by anyone not authorized by DENON. c) Any shipment of the product (claim must be presented to carrier). (5) Items subject to wear from normal usage (tape heads, cartridges, stylus, battery, etc.). (6) Periodic check-ups which do not disclose any defect. (7) Use of the product outside Canada. (8) Damaged magnetic tape or CD/DVD/BD discs. (9) Use in industrial, commercial, and/or professional applications. (10) Any installation or removal charges resulting from product failure.

### What We Will Pay For

If during the applicable warranty period from the date of original consumer purchase your DENON product is found to be defective by DENON, DENON will repair, or at its option, replace with new, reconditioned or equivalent model, such defective product without charge for parts or labor.

### How to Obtain Warranty Performance

If your unit ever needs service, it may be taken or shipped to any authorized DENON service station or D&M CANADA INC. (For an authorized DENON service station near you, please check our website <http://ca.denon.com/CA/Support/Pages/ServiceCenterSearch.aspx> or contact D&M CANADA INC. as listed below.) In all other cases, the following procedures apply whenever your unit must be transported for warranty service;

- You are responsible for transporting your unit or arranging for its transportation.
- If shipment of your unit is required;

You must pay the initial shipping charges, but we will pay the return shipping charges if the repairs are covered by the Warranty.

- WHEN RETURNING YOUR UNIT FOR WARRANTY SERVICE, A COPY OF THE ORIGINAL SALES SLIP MUST BE ATTACHED.**

- You should include the following: your name, address, daytime telephone number, model and serial number of the product and a description of the problem.

In the case of a CD/DVD/BD Player, please enclose ONE (1) disc that the unit has failed with for test reasons. It will be returned with the unit.

### THIS WARRANTY IS VALID IN CANADA ONLY.

If your product does not require service, but you have questions regarding its operation, please contact our Customer Support Department as listed below.

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This warranty gives you specific legal rights, but you may also have other rights which vary from province to province. This Warranty may not be altered other than in a writing signed by an officer of D&M Canada Inc.

### D&M CANADA INC.

10462 Islington Avenue, Unit 8B  
Kleinburg, Ontario L0J 1C0  
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### DENON FACTORY SERVICE by MICROLAND TECHNICAL SERVICES

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<http://clientportal.microland.ca/rmastart.aspx>