# **DENON®**

PMA-30 INTEGRATED AMPLIFIER

# **Owner's Manual**



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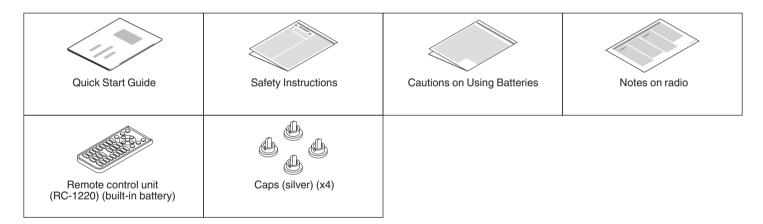
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Thank you for purchasing this Denon product. To ensure proper operation, please read this owner's manual carefully before using the product. After reading this manual, be sure to keep it for future reference.

#### **Accessories**

Check that the following parts are supplied with the product.





#### **Features**

# **High quality**

- The Denon unique digital integrated stereo amplifier
   With an output of 40 W+40 W (4 Ω/ohms) much higher than you would expect from an enclosure of this size, you can enjoy the balance between delicacy and power that Denon's sound is known for.
- Durable Aluminum Panels

The upper and lower panels of this device are made with 3mm-thick aluminum. The highly rigid aluminum panels allow the device to perform to its full capabilities by suppressing the negative effects external vibrations have on sound quality.

# **High performance**

- Compatible with a wide range of digital input equipment
   This device is installed with two optical digital input interfaces and one coaxial digital input interface to enable connection to a variety of TVs and other digital input devices.
- Wireless connection with Bluetooth enabled devices (ref. p. 31)

  You can connect Bluetooth enabled devices such as smartphones and tablets with this unit to listen to music while browsing email and Web sites in the Internet away from this unit. In addition, this unit supports high quality audio codecs, aptX Low Latency and AAC, to enjoy music and games with a powerful sound.
- Supports vertical installation

This unit can be installed vertically or horizontally. The display automatically rotates to match the installation orientation.

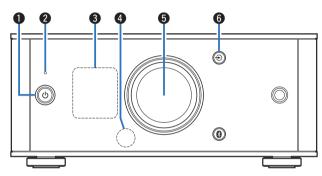
· System remote control

This unit comes with a system remote control that can also operate the Denon's CD Player DCD-50.



#### Part names and functions

# **Front panel**



**①** Power operation button (也)

This turns the power on/to standby. ( p. 25)

The power status is indicated as follows.

- · Power on: Display lit
- Standby: Display off
- Protection circuit indicator

This blinks when the protection circuit has operated.

- "Power does not turn on/Power is turned off" (Tp. 44)
- "Protection circuit" (@p. 51)

Oisplay

This displays various pieces of information. ( p. 8)

Remote control sensor

This receives signals from the remote control unit. (Pp. 18)

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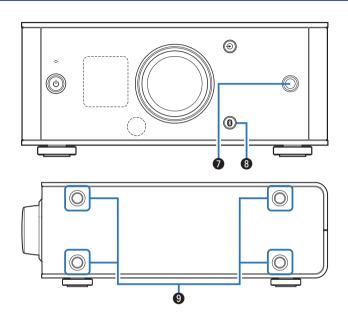
Volume control knob

This adjusts the volume level. (@p. 27)

**(** Input source switching button ( **(** €))

This switches input sources. (FP p. 26)





#### Headphones jack

Used to connect headphones.

When the headphones are plugged into this jack, audio will no longer be output from the speaker terminals.

#### NOTE

- To prevent hearing loss, do not raise the volume level excessively when using headphones.
- 8 Bluetooth button (8)
  This switches the input to Bluetooth. This

This switches the input to Bluetooth. This is also pressed during the pairing operation. (  $(\center{p}, 32)$ 

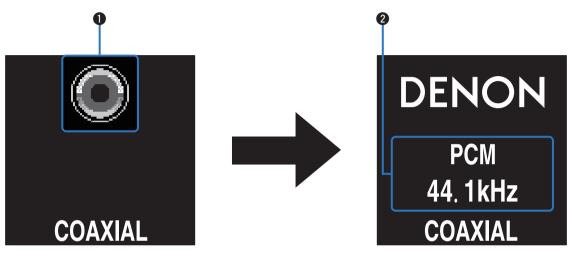
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Installation holes for vertical installation feet
These are used when the unit is installed vertically. (Page p. 15)





# **Display**



#### 1 Input source indicator

The following is displayed depending on the selected input source.

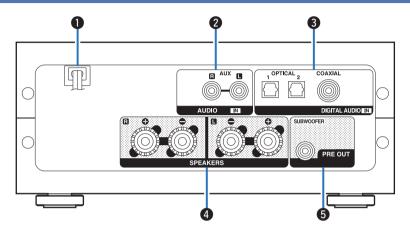
COAXIAL	OPTICAL-1	OPTICAL-2	AUX	Bluetooth
0	•}	(-) <sub>2</sub>	00	8

#### 2 Information display

Displays items such as information on the audio signal being input or the name of a Bluetooth device.



## Rear panel



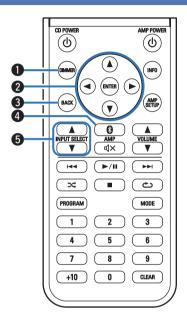
- Power cord (☑ p. 23)
- **2** AUX input connectors (AUDIO IN) Used to connect devices equipped with analog audio connectors such as CD players. (P p. 22)
- O DIGITAL AUDIO IN connectors

Used to connect devices equipped with digital audio output connectors. (Pp. 21)

- 4 Speaker terminals (SPEAKERS)
  Used to connect speakers. ( p. 20)
- (§ Subwoofer terminal (PRE OUT)
  Used to connect a subwoofer with a built-in amplifier. (反 p. 20)



#### Remote control unit

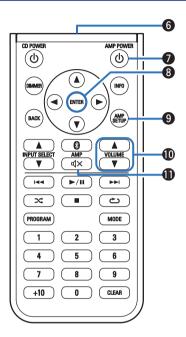


#### Operating this unit

- DIMMER button
   Adjust the display brightness of this unit. (☞ p. 27)
- ② Cursor buttons (△∇◁▷)
  These select menu items.
- **3 BACK button**Returns to the previous item.
- Bluetooth button (®)

  This switches the input to Bluetooth. This is also pressed during the pairing operation. (© p. 32)
- **§ INPUT SELECT buttons (▲▼)**This switches input sources. (☼ p. 26)





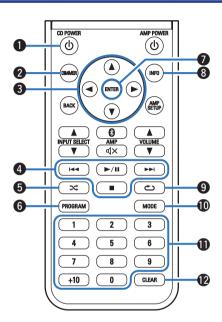
6 Signal transmitter

This transmits signals from the remote control unit. (Pp. 18)

- Power operation button (AMP POWER **b**)
  This turns the power on/to standby. (P p. 25)
- 8 ENTER button
  This determines the selection.
- ¶ AMP SETUP button
  The setting menu is displayed on the display. (№ p. 38)
- **(iii)** VOLUME buttons (▲▼)

  These adjust the volume level. (🍪 p. 27)
- **(i)** Mute button (**√**X)
  This mutes the output audio. (**√**E p. 27)





#### ■ CD player operations

A Denon CD player can be operated.

- 1 Power operation button (CD POWER (b))
- DIMMER button
- Cursor buttons (△∇
- System buttons
  - Skip buttons (I◄◄ / ▶►I)
  - Play/pause button (► / II)
  - Stop button (■)
- 6 Random button (ズ)
- **6** PROGRAM button
- ENTER button
- **(3)** INFO button
- ¶ Repeat button (△)
- **MODE** button
- **●** Number buttons (0 9, +10)
- CLEAR button



• The remote control may not operate some products.



#### ■ Contents

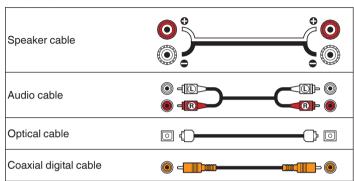
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#### NOTE

- 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.



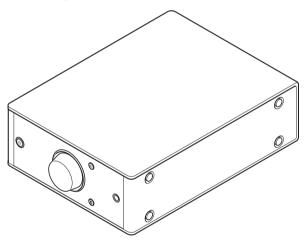


# **Installing this unit**

This unit can be installed in two ways - horizontally or vertically. You can select how to install this unit according to the installation place and your preference.

# **Installing horizontally**

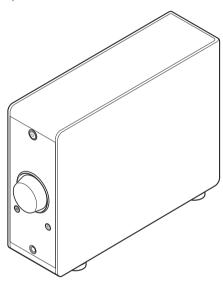
The feet are initially attached to the unit for horizontal installation.





# **Installing vertically**

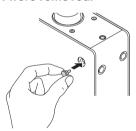
This orientation is suitable for placing a narrow place such as a place next to a laptop computer.



Remove the feet.

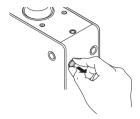


- Rotate each of the 4 feet counter-clockwise to remove.
- 2 Insert the supplied caps (silver) into the holes from which the feet were removed.





## 3 Remove the cap (black).



#### NOTE

Be careful not to damage your nails when removing the caps.
 If necessary, use a thin-tipped tool to remove the caps. However, be careful not to damage the unit when using tools.

#### 4 Rotate the removed feet clockwise to attach them.



#### NOTE

 After attaching the feet, adjust the height of the feet as necessary so that the set is stable when installed.



# Before using the remote control unit

The remote control unit has a built-in lithium battery. Pull out the insulation sheet before use.



## ■ Replacing the battery

- Loosen the screws of the back cover with a fine crosshead screwdriver (purchased separately) and remove the back cover.
- Remove the old battery, then insert a new coin-shaped lithium battery (CR2025) so that the + symbol engraved on the battery faces upwards.
- 3. Put the back cover back on and tighten the screws.



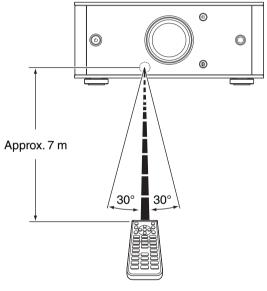
#### NOTE

- If the battery should have a leakage, immediately replace and dispose of the battery. In this case, there is a risk of burn when the liquid comes in contact with skins or clothes, so a great care should be taken. If the liquid accidentally comes in contact, wash with tap water and consult a doctor.
- Remove the battery from the remote control unit if it will not be in use for long periods.

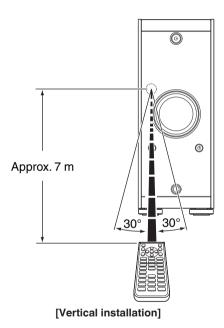


# Operating range of the remote control unit

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



[Horizontal installation]





# **Connecting speakers**

#### NOTE

- Disconnect this unit's power plug from the power outlet before connecting the speakers. Also, turn off the subwoofer.
- 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" (12) p. 51))
- Never touch the speaker terminals while the power cord is connected. Doing so could result in electric shock.
- Use speakers with impedance of 4 16 Ω/ohms.

## ■ Connecting the speaker cables

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

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.



Insert the speaker cable's core wire to the hilt into the speaker terminal.

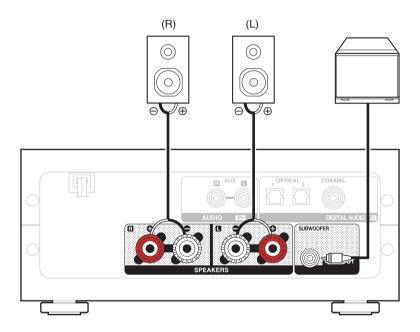


1 Turn the speaker terminal clockwise to tighten it.





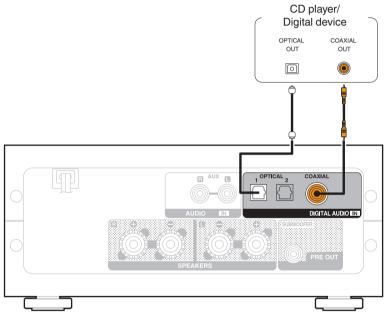
# **Speaker connection**





# 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. (127 p. 29)



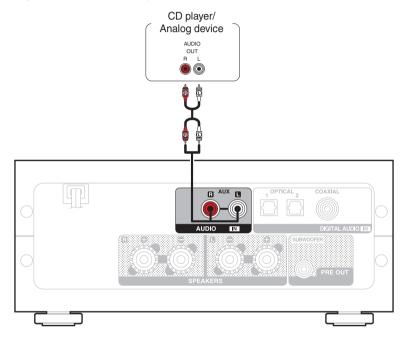
■ Audio signals that can be played back

See "D/A Converter" (@p. 50).



# Connecting to a device with analog audio output connectors

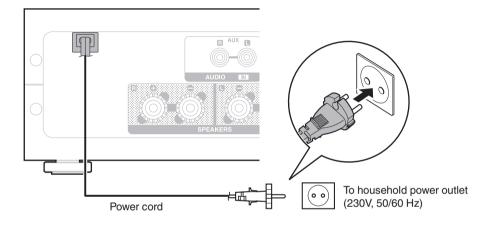
This unit can be connected to an analog device such as a CD player.





# Connecting the power cord

After completing all the connections, insert the power plug into the power outlet.





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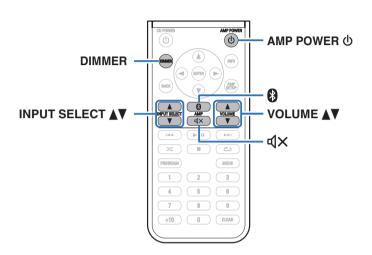
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# **Basic operation**



# Turning the power on

1 Press AMP POWER to turn on power to this unit.

Turns the display on.



• You can also press 0 on the main unit to turn on power from standby mode.

# Switching the power to standby

1 Press AMP POWER **(b)**.
Turns the display off.



• You can also switch the power to standby by pressing 0 on the main unit.

#### NOTE

When the power is in the standby mode, some circuits are electrified. Before you
go out or travel for a long period of time, disconnect the power cord from the power
outlet.



# Selecting the input source

#### Selecting DIGITAL IN or ANALOG IN

1 Use INPUT SELECT ▲▼ to select the input source to be played.

The following icon appears on the display.



COAXIAL:

Plays back the device connected to the COAXIAL connector.



OPTICAL-1:

Plays back the device connected to the OPTICAL 1 connector.



OPTICAL-2:

Plays back the device connected to the OPTICAL 2 connector.



AUX:

Plays back the device connected to the AUX connector.



• You can also press  $\odot$  on the main unit for this operation.

## ■ Selecting Bluetooth

1 Press 8.

The following icon appears on the display.



Bluetooth:

Connects and plays back a Bluetooth device.



You can also press 
 on the main unit for this operation.



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# Adjusting the volume

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

The volume level appears on the display.



- You can also adjust the volume by turning the volume control knob on the main unit.
- $\bullet\,$  You can adjust the volume level to --- dB (mute) and between -90 dB and 0 dB.

# Turning off the sound temporarily (Muting)

1 Press √X.

"MUTING" appears on the display.



Press ◀x again to cancel the muting.

# Switching the display's brightness

The display brightness can be adjusted between three levels.

#### 1 Press DIMMER.

 The brightness of the display switches each time the button is pressed.



The DIMMER button also controls the Denon's CD Player DCD-50, so the DCD-50
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.

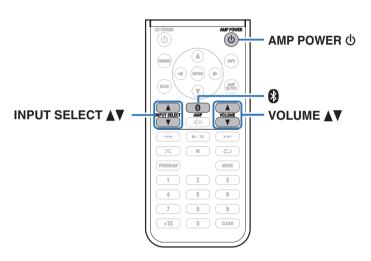
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• The display brightness is set to most brightly by default.



# Playing a device

Connect the device you want to play back beforehand. ("Connections" (Pp. 13))



# **Playing CDs**

This section explains how to make a digital (COAXIAL) connection between this unit and a CD player and play audio using this unit's D/A converter.

1 Use INPUT SELECT ▲▼ to switch the input source to "COAXIAL".

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



- If connecting a CD player to this unit by analog, switch the input source to "AUX".
- 2 Playback the CD.
- 3 Use VOLUME ▲▼ to adjust the volume.



# Listening to music via a digital connection (COAXIAL/OPTICAL-1/OPTICAL-2)

1 Use INPUT SELECT ▲▼ to switch the input source to "COAXIAL", "OPTICAL-1" or "OPTICAL-2".

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



or



or

PCM xxxkHz OPTICAL-2

(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.
- Play back music on the connected device.

The speakers output music from the connected device.

#### ■ Audio signals that can be played back

See "D/A Converter" (Pp. 50).

#### NOTE

 Do not input non-PCM signals, such as Dolby Digital and DTS. This causes noise and could damage the speakers.



# Listening to music via a analog connection (AUX)

- 1 Use INPUT SELECT ▲▼ to switch the input source to "AUX".
- Play back music on the connected device.

The speakers output music from the connected device.



# Listening to music on a Bluetooth device

You can listen to music wirelessly by connecting this unit to a Bluetooth device via Bluetooth.

## Pairing

Pairing (registration) is an operation that is required in order to connect a Bluetooth device to this unit using Bluetooth. When paired, the devices authenticate each other and can connect without mistaken connections occurring.

When using Bluetooth connection for the first time, you need to pair this unit and the Bluetooth device to be connected. This unit can store pairing information for a maximum of 8 devices.

#### NOTE

• You cannot simultaneously output music from multiple Bluetooth devices.

#### ■ How to establish a Bluetooth connection

There are three types of Bluetooth connection methods. Use an appropriate type depending on your environment.

Case 1 Pairing with this unit for the first time ( p. 32)

Case 2 Connecting a Bluetooth device that this unit performed pairing for before
(P p. 34)



#### ■ Case 1: Pairing with this unit for the first time

- 1 Press AMP POWER to turn on power to this unit.

  Turns the display on.
- **7** Turn on the Bluetooth function on the Bluetooth device.
  - For details, see the owner's manual for your Bluetooth device.

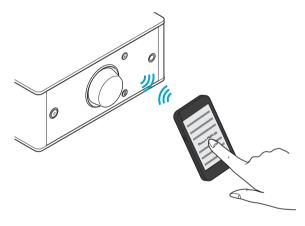


**3** Press **8** for 3 seconds or longer.

"Pairing" appears on the display, and the unit enters the pairing mode.

 When you press of for the first time after purchase, this unit automatically enters the pairing mode. 4 Select "Denon PMA-30" from the list of devices displayed in the screen on the Bluetooth device.

When pairing is complete and the device is connected via Bluetooth, the device name appears on the display of this unit.







- When "Denon PMA-30" is not displayed in the screen on the Bluetooth device, search for devices on the Bluetooth device.
- When you are prompted for a pass key in the screen on the Bluetooth device, enter "0000".
- English letters, numbers and certain symbols are displayed. Incompatible characters are displayed as "." (period).

#### 5 Play back music on the Bluetooth device.

The speakers output music that the Bluetooth device is playing back.



- Adjust to the appropriate volume level.
- When the pairing fails, retry from step 3.
- To perform pairing for another Bluetooth device, repeat steps 2 to 5 for each device you want to perform pairing for.
- When no Bluetooth device is connected, "No Connection" appears on the display.

#### NOTE

- The pairing mode on this unit lasts for approx. 5 minutes. When the pairing mode on this unit is canceled before the pairing is completed, retry from step 3.
- This unit cannot perform pairing against a Bluetooth device with a pass key other than "0000".



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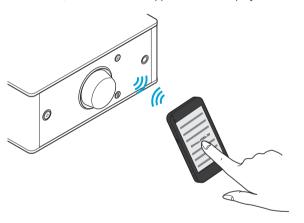
#### ■ Case 2: Connecting a Bluetooth device that this unit performed pairing for before

- 1 Turn on the Bluetooth function on the Bluetooth device.
  - For details, see the owner's manual for your Bluetooth device.



2 Select "Denon PMA-30" from the list of devices displayed in the screen on the Bluetooth device.

Power to this unit is automatically turned on and this unit attempts to establish the Bluetooth connection. When the device is connected via Bluetooth, the device name appears on the display of this unit.



Play back music on the Bluetooth device.
The speakers output music from the Bluetooth device.



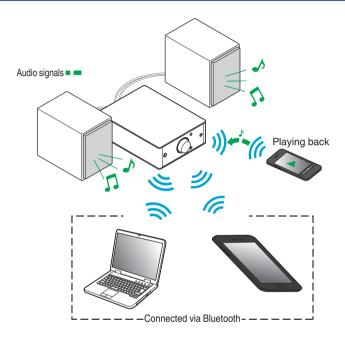
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## Simultaneously connecting multiple Bluetooth devices (multi point function)

This unit can only output music from one connected Bluetooth device, but up to 3 Bluetooth devices can simultaneously be connected. ("Listening to music on a Bluetooth device" ( $(E_p^* p. 31)$ )

If frequently used devices are connected, it is useful for switching the playback device because you do not have to reconnect them.

Perform pairing for devices you want to connect to beforehand.





Front panel Display Rear panel 35 Remote Index

# ■ Switching the playback device

- 1 Stop or pause the device that is currently played back.
- Play back the device that you want to output music from.



• Turn the power of this unit to standby before turning the Bluetooth function of the Bluetooth device off.



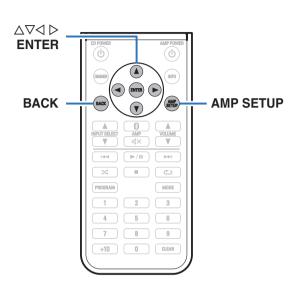
# Menu map

For menu operations, see the following page.

By default, this unit has recommended settings defined. You can customize this unit based on your existing system and your preferences.

Setting items	Description	Page
Source Direct	Sets Source Direct Mode. The audio signal is not passed through the sound quality adjustment circuits (Bass, Treble, Balance). This provides playback that is more faithful to the original sound, but disables sound quality adjustment.	
Bass	Adjusts the bass sound.	<u>39</u>
Treble	Adjusts the treble sound.	<u>39</u>
Balance	Adjust the left/right volume balance.	
H/P AMP Gain	Set the gain of the headphone amplifier. Set this according to the impedance of the connected headphones.	<u>39</u>
	Switches the Bluetooth function on/off. Stopping Bluetooth function reduces a source of noise that affects sound quality, enabling higher sound quality playback.	<u>40</u>
Auto Standby	Sets whether to automatically switch the unit to the standby mode when there is no input signal and operation for 30 minutes.	<u>40</u>





# ■ Menu operation

1 Press AMP SETUP.

The menu is displayed on the display.

- **2** Use  $\Delta \nabla$  to select the menu to be set or operated, then press ENTER.
- **3** Use  $\triangle \nabla \triangleleft \triangleright$  to change to desired setting.
- 4 Press ENTER to enter the setting.
  - To return to the previous item, press BACK or  $\triangleleft$ .
  - Exiting the Menu, press AMP SETUP while the menu is displayed.

The menu display disappears.



## **Source Direct**

Sets Source Direct Mode. The audio signal is not passed through the sound quality adjustment circuits (Bass, Treble, Balance). This provides playback that is more faithful to the original sound, but disables sound quality adjustment.

Off (Default):	Disable source direct function.
On:	Playback sound is closer to the source sound. Tone adjustments (Bass, Treble, Balance) are disabled.

## **Bass**

Adjusts the bass sound.

-8dB - +8dB (Default : 0dB)

# **Treble**

Adjusts the treble sound.

-8dB - +8dB (Default : 0dB)

## **Balance**

Use  $\triangleleft \triangleright$  to adjust the left/right volume balance.

# **H/P AMP Gain**

Set the gain of the headphone amplifier. Set this according to the impedance of the connected headphones. It is recommended that this is set on the "Low" side if the headphones have low impedance and on the "High" side if they have high impedance.

Low:	Set the gain of the headphone amplifier to "Low". Set if the volume is too high when the gain setting is "Mid".
Mid (Default):	Set the gain of the headphone amplifier to "Mid".
High:	Set the gain of the headphone amplifier to "High". Set when there is insufficient volume, even when the gain setting is "Mid".

#### NOTE

The headphone volume varies depending on the "H/P AMP Gain" setting.
 Decrease the volume or mute the audio first if changing this setting while listening to audio.



# **Bluetooth**

Stopping Bluetooth function reduces a source of noise that affects sound quality, enabling higher sound quality playback.

On (Default):	Enables the Bluetooth function.	
Off:	Disables the Bluetooth function.	



• When Bluetooth is "Off", the input source cannot be switched to Bluetooth.

# **Auto Standby**

When there is no input signal and operation for 30 minutes, this unit automatically enters the standby mode.

On (Default):	The unit goes into standby after 30 minur	
Off:	The unit does not go into standby automatically.	



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# **Tips**

#### I want to turn on power to this unit from a Bluetooth device

• Once you perform pairing between this unit and a Bluetooth device, you can turn on power to this unit by operating the Bluetooth device. Select "PMA-30" from the list of Bluetooth devices to turn on power to this unit.

#### I want to switch the connection to a different Bluetooth device

• This unit can only output music from one connected Bluetooth device, but up to 3 Bluetooth devices can simultaneously be connected. To switch the connection easily, always have the frequently used Bluetooth devices connected. When multiple Bluetooth devices are connected and you want to switch to a different Bluetooth device, stop playback on the device that is currently played back and play back the Bluetooth device that you want to output music from. ((F) p. 36)

#### I want to adjust the tone myself

• Adjust the "Bass", "Treble" and "Balance" in the setup menu to the desired levels. (3 p. 39)

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

• Set "Source Direct" in the setup menu to "On". (@p. 39)



# **Troubleshooting**

- 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 does not turn on.	Check whether the power cord is correctly inserted into the power outlet.	<u>23</u>
	• This unit is in the standby mode. Press the power button (AMP POWER 也).	<u>25</u>
Power automatically turns off.	• The auto standby mode is on. When approx. 30 minutes pass with no audio input, this unit automatically enters the standby mode. To turn Auto Standby mode off, set "Auto Standby" on the setup menu to "Off".	<u>40</u>
Power turns off and the protection circuit indicator	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.	<u>25</u>
flashes in red approx. every 2 seconds.	Please re-install this unit in a place having good ventilation.	_
Power turns off and the protection circuit indicator flashes in red approx. every 0.5 seconds.	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, firmly re-twist the core wire, and then reconnect the wire.	<u>19</u>
	Turn down the volume and turn on the power again.	<u>25</u>
	This unit's amplifier circuit has failed. Unplug the power cord and contact our customer service center.	-



# ■ No sound comes out

Symptom	Cause / Solution	Page
Audio is not output.	Check the connections for all devices.	<u>13</u>
	Insert connection cables all the way in.	_
	Check that the covered part of the speaker cable is not inserted into the speaker terminal.	<u>19</u>
	Check cables for damage.	_
	Check that a proper input source is selected.	<u>26</u>
	Check that power to this unit and the connected devices is on.	_
	Adjust to an appropriate volume level on this unit and the connected devices.	<u>27</u>
	To playback via a Bluetooth connection, perform pairing between this unit and the Bluetooth device.	<u>31</u>
	When the muting mode is enabled, cancel the muting.	<u>27</u>
	No sound is output from the speakers when headphones are connected.	7



# ■ Sound is distorted or interrupted, or noise occurs

Symptom	Cause / Solution	Page
Sound is distorted or interrupted, or noise occurs.	Adjust to an appropriate volume level on this unit and the connected devices.	<u>27</u>
	Place the device connected via Bluetooth closer to this unit.	_
	Place this unit away from microwaves, wireless LAN devices, etc.	_
	Turn off and on power to Bluetooth devices.	_
	Turn down the volume of the playback device connected to the AUX connector.	_
	Switch "H/P AMP Gain" to "High" if using headphones with high impedance or low sensitivity.	<u>39</u>

## ■ Desired sound does not come out

Symptom	Cause / Solution	Page
No sound comes out of a	Check that speaker cables are properly connected.	<u>19</u>
specific speaker.	Set the left/right volume balance using "Balance" in the setup menu.	<u>39</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>20</u>
Set values are not reflected in "Bass", "Treble" and "Balance".	Set "Off" to the "Source Direct".	<u>39</u>
Headphone volume is low.	Switch "H/P AMP Gain" to "High" if using headphones with high impedance or low sensitivity.	<u>39</u>



# ■ 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.	<u>29</u>
"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.	<u>29</u>

# ■ 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>17</u>
	Operate the remote control unit within a distance of about 7 m from this unit and at an angle of within 30°.	<u>18</u>
	Remove any obstacle between this unit and the remote control unit.	_
	The coin-shaped lithium battery (CR2025) is not positioned correctly. Correct the positioning so that the + symbol engraved on the battery faces upwards.	<u>17</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 wireless 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.	_



# ■ Bluetooth cannot be played back

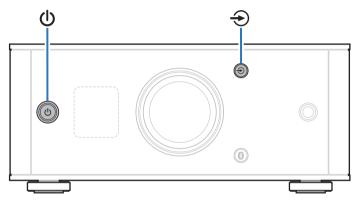
Symptom	Cause / Solution	Page
Bluetooth devices cannot be connected to this unit.	The Bluetooth function in the Bluetooth device has not been enabled. See the Owner's Manual of the Bluetooth device to enable the Bluetooth function.	_
	Bring the Bluetooth device near to this unit.	_
	The Bluetooth device cannot connect with this unit if it is not compatible with the A2DP profile.	_
	Turn the power of the Bluetooth device off and on again, and then try again.	_
	The Bluetooth function is off. Press Bluetooth button, activate the Bluetooth function and connect again.	<u>40</u>
The sound is cut off.	Bring the Bluetooth device near to this unit.	_
	Remove obstructions between the Bluetooth device and this unit.	_
	To prevent electromagnetic interference, locate this unit away from microwave ovens, wireless LAN devices and other Bluetooth devices.	_
	Reconnect the Bluetooth device.	_



# **Resetting to factory settings**

Perform this when this unit does not operate properly.

Various settings are reset to the factory default values. Make settings again.



1 When this unit is in the standby mode, press 𝐧 while holding ᠊ᢒ.

"INITIALIZE" appears on the display and this unit restarts.

#### NOTE

• Pairing information stored on this unit is also initialized. Perform pairing again.



# Specifications of supported audio formats

# **D/A Converter**

## □ Coaxial/Optical

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

# Playing back Bluetooth devices

This unit supports the following Bluetooth profiles.

• A2DP (Advanced Audio Distribution Profile):

When a Bluetooth device that supports this specification is connected, you can perform high quality streaming distribution of monaural and stereo audio data.

• AVRCP (Audio/Video Remote Control Profile) :

When a Bluetooth device that supports this specification is connected, you can operate the Bluetooth device from this unit.

## **Bluetooth communications**

The radio waves broadcast from this unit may interfere with operations on medical equipment. The radio wave interference may cause a malfunction. Therefore, make sure to turn off power to this unit and Bluetooth devices in the following places.

- Hospitals, trains, airplanes, gas stands, and other places where flammable gas may occur.
- · Places near automatic doors and fire alarms.



# **Explanation of terms**

#### **Bluetooth**

Technology for near field wireless communications. This unit can connect to Bluetooth devices wirelessly. To establish a Bluetooth connection, you must perform pairing (registering) beforehand.

### 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.

### **Pairing**

Pairing (registration) is an operation that is required in order to connect a Bluetooth device to this unit using Bluetooth. When paired, the devices authenticate each other and can connect without mistaken connections occurring.

When using Bluetooth connection for the first time, you need to pair this unit and the Bluetooth device to be connected.

This unit can store pairing information for a maximum of 8 devices.

#### **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.

#### Linear PCM

Uncompressed PCM (Pulse Code Modulation) signals. Unlike lossy compression audio sources such as MP3, no audio quality or dynamic range deteriorates.



# **Trademark information**



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# Qualcomm® aptX® low latency



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# **Specifications**

## Audio section

Output performance

Rated output: both channels driven

20 W+20 W (8 Ω/ohms, 1 kHz, T.H.D. 0.7 %) 40 W+40 W (4 Ω/ohms, 1 kHz, T.H.D. 1.0 %)

**Output connectors:** Speaker: 4-16  $\Omega$ /ohms

Headphones: Φ6.3 mm jack

Total harmonic distortion:0.05 % (Digital in, Rated output -3 dB, 8  $\Omega$ /ohms, 1 kHz)S/N ratio:100 dB (Digital in, 25 W, 8  $\Omega$ /ohms, 1 kHz, IHF-A)

· Digital input signal

Audio formats: Digital audio interface (Linear PCM)

Coaxial input: $0.5 \text{ Vp-p/50 } \Omega/\text{ohms}$ Optical input:More than – 27 dBm

Wavelength: 660 nm

· Input performance

Input sensitivity/impedance: AUX:  $0.13 \text{ V} / 22 \text{ k}\Omega/\text{kohms}$ 



## ■ Bluetooth section

 Communication system:
 Bluetooth version 3.0

 Transmission power:
 Maximum 2.5 mW (Class2)

 Maximum communication range:
 Approx. 10 m in line of sight \*

Frequency band: 2.4 GHz band

Modulation method: FHSS (Frequency-Hopping Spread Spectrum)

**Supported profiles:** A2DP 1.3/AVRCP 1.5

Supported codecs: aptX Low Latency/AAC/SBC

## General

Power supply: AC230 V, 50/60 Hz

 $\begin{array}{ll} \mbox{Power consumption:} & 35\mbox{ W} \\ \mbox{Power consumption in standby mode:} & 0.2\mbox{ W} \\ \end{array}$ 

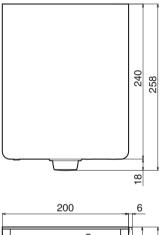
For purposes of improvement, specifications and design are subject to change without notice.

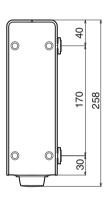


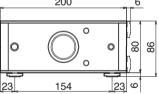
<sup>\*</sup> The actual communication range varies depending on the influence of such factors as obstructions between devices, electromagnetic waves from microwave ovens, static electricity, cordless phones, reception sensitivity, antenna performance, operating system, application software etc.

## **■** Dimensions

Unit: mm







■ Weight: 2.7 kg



ICE A
Auto Standby
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<b>©</b> B
Bluetooth device
ter C
CD player 21, 22, 28
Ø₹ D
Display 8
t <b>∂</b> F F
Front panel 6
Installing horizontally
Installing vertically 15

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Multi point function	
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