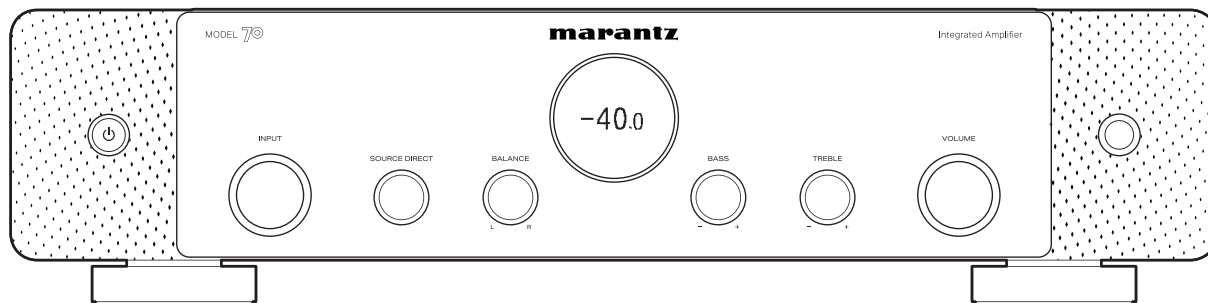


marantz



MODEL 70 | Integrated Amplifier

Owner's Manual

Accessories	4
Inserting the batteries	5
Operating range of the remote control unit	5
Part names and functions	6
Front panel	6
Rear panel	8
Remote control unit	10

Connections

Connecting speakers	16
Connecting speakers	17
Connecting the subwoofer	17
Connecting a playback device	18
Connecting a TV	19
Connecting this unit to the HDMI ARC terminal on a TV	19
Connecting this unit to the Optical or Coaxial terminal on a TV	21
Connecting to a device with digital audio output connectors	23
Connecting a power amplifier	24
Connecting devices with remote control connectors	25
Performing operations by RC on this unit without visual contact	25
Remotely connecting Marantz audio devices	26
Connecting the power cord	27

Playback

Basic operation	29
Turning the power on	29
Switching the power to standby	29
Selecting the input source	30
Adjusting the volume	30
Turning off the sound temporarily (Muting)	30
Playing CDs	31
Listening to music on a Bluetooth device	32
Listening to music on a Bluetooth device	33
Pairing with other Bluetooth devices	34
Reconnecting to this unit from a Bluetooth device	34
Listening to audio on Bluetooth headphones	35
Listening to audio on Bluetooth headphones	36
Adjusting the volume of Bluetooth headphones	37
Confirming the device and codec of the connected Bluetooth headphones	37
Reconnecting to a Bluetooth headphones	38
Disconnecting Bluetooth headphones	38
Playing digital input	39
Convenience functions	41
Adjusting the tone and balance	41
Playback in source direct mode	41
Switching the filter characteristics	42
Switching the display's brightness	42



Settings

Menu map	43
Menu operation	44
TV Auto-Play	45
HDMI Power Off Control	45
Bluetooth	46
Volume Limit	47
Auto-Standby	47
Reset	48
Setting remote control codes	49
Setting remote control codes for the remote control	50
Setting remote control codes for the main unit	50

Tips

Tips	52
Troubleshooting	54
Power does not turn on / Power is turned off	55
Operations cannot be performed through the remote control unit	57
Display on this unit shows nothing	58
No sound comes out	58
Desired sound does not come out	59
Sound is interrupted or noise occurs	60
Bluetooth cannot be played back	61
Audio from digital devices cannot be played back (HDMI ARC, Coaxial, Optical)	63
The input source switches to "HDMI", "OPTICAL" or "COAXIAL"	63
The HDMI control function does not work	64
It doesn't switch between FILTER 1/2	64

Appendix

Digital input	65
Playing back a Bluetooth device	65
About HDMI	66
Explanation of terms	67
Trademark information	68
Specifications	69
Index	73



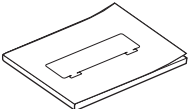
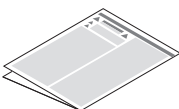
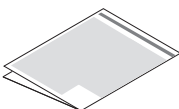
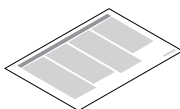
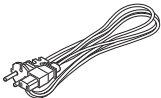
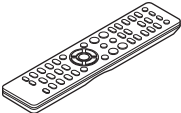
Thank you for purchasing this Marantz product.

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

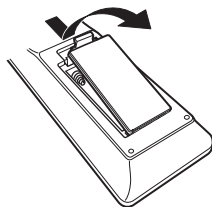
Check that the following parts are included with the product.

 Quick Start Guide	 Safety Instructions	 Cautions on Using Batteries	 Notes on radio
 Power cord	 Remote control unit (RC006PMCD)	 2× R03/AAA batteries	

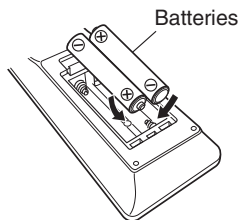


Inserting the batteries

- 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.



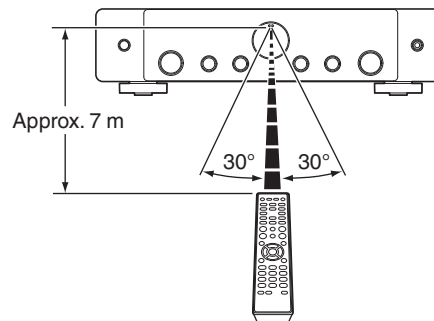
- 3 Put the rear lid back on.

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.

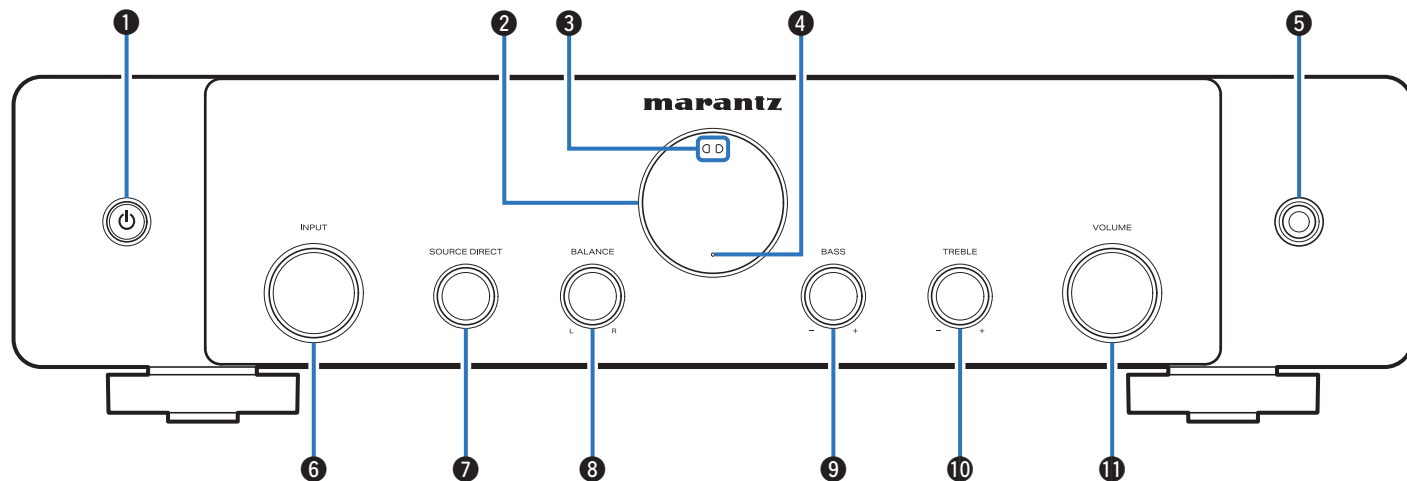
Operating range of the remote control unit

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



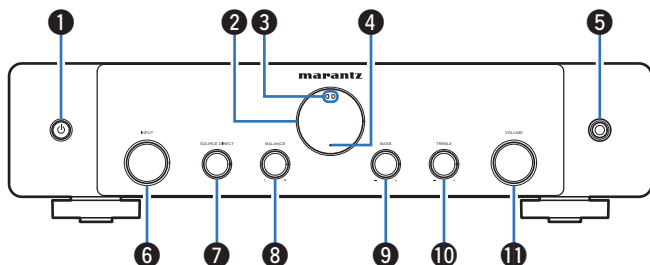
Part names and functions

Front panel



For details, see the next page.





1 Power (⏻) button

This turns the power on/off (standby). (🔧 p. 29)

2 Display

This displays various pieces of information.

3 Remote control sensor

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

4 Protection circuit indicator

This blinks when the protection circuit has operated. (🔧 p. 56)

5 Headphones jack

Used to connect headphones.

When the headphones are plugged into this jack, audio will no longer be output from the connected speakers and from the PREAMP OUT connectors.

NOTE

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

6 INPUT selector knob

This selects the input source. (🔧 p. 30)

7 SOURCE DIRECT knob

This turns source direct mode on/off. (🔧 p. 41)

8 BALANCE control knob

This adjusts the balance of the volume output from the left and right speakers. (🔧 p. 41)

9 BASS control knob

This setting adjusts the volume level for the bass. (🔧 p. 41)

10 TREBLE control knob

This setting adjusts the volume level for the treble. (🔧 p. 41)

11 VOLUME knob

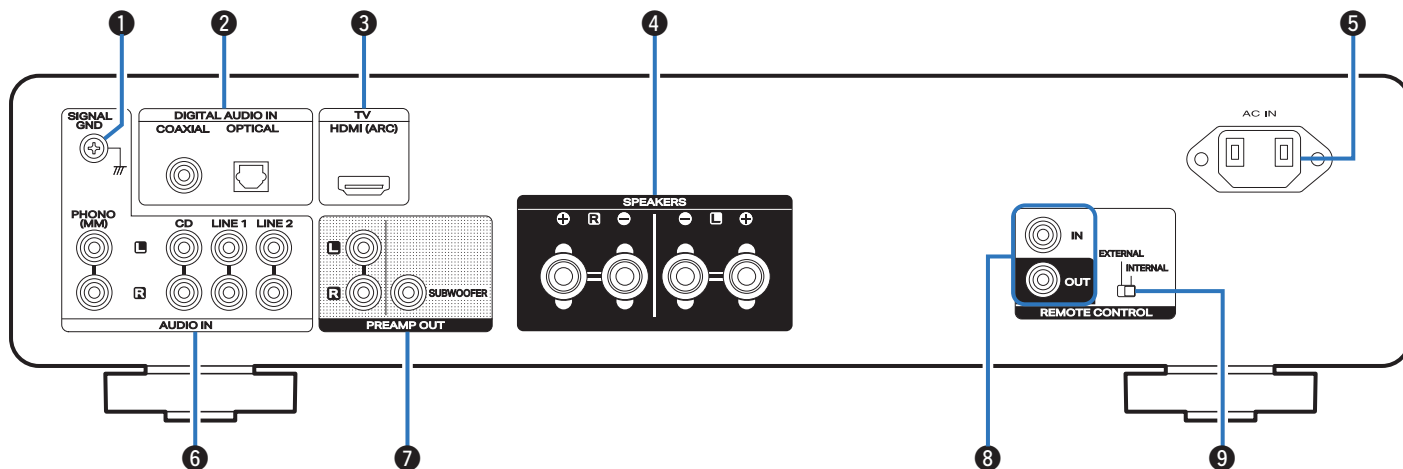
This adjust the volume level. (🔧 p. 30)



- 8, 9 and 10 can be adjusted when 7 is off (Source direct mode is off). (🔧 p. 41)

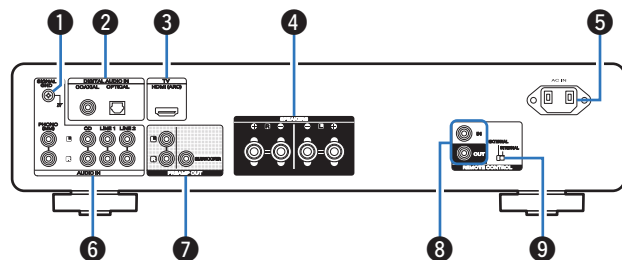


Rear panel



For details, see the next page.





1 SIGNAL GND terminal

Used to connect the ground wire of a turntable. (🔧 p. 18)

2 Digital audio input connectors (DIGITAL AUDIO IN)

Used to connect devices equipped with digital audio output connectors. (🔧 p. 23)

3 HDMI connector (TV)

Used to connect an ARC function-compatible TV. (🔧 p. 19)

4 Speaker terminals (SPEAKERS)

Used to connect speakers. (🔧 p. 16)

5 AC inlet (AC IN)

Used to connect the power cord. (🔧 p. 27)

6 Analog audio input connectors (AUDIO IN)

Used to connect devices equipped with analog audio output connectors. (🔧 p. 18)

7 PREAMP OUT connectors

Use this to add such equipment as a power amplifier or subwoofer.

- “Connecting the subwoofer” (🔧 p. 17)
- “Connecting a power amplifier” (🔧 p. 24)



- When connecting a subwoofer, also consult the subwoofer instruction manual.

8 Remote control input/output connectors (REMOTE CONTROL)

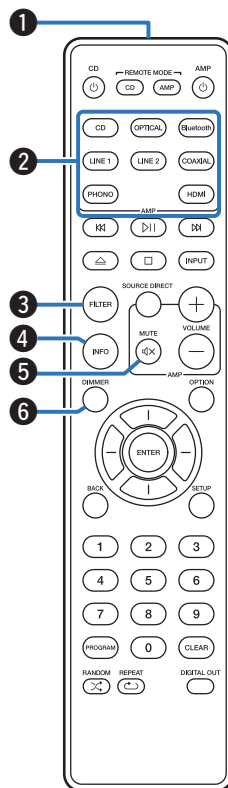
Used to connect to a Marantz audio device that is compatible with the remote control function. (🔧 p. 25)

9 EXTERNAL/INTERNAL switch

Turn this switch to “INTERNAL” to operate the unit by pointing the remote control at this unit connected to a Marantz audio device using the remote control connection. (🔧 p. 26)



Remote control unit



The remote control provided with this unit can control a Marantz CD player.

- “CD player operations” (👉 p. 13)

■ Operating this unit

To operate this unit, press REMOTE MODE AMP button to switch the remote control operating mode to this unit.

1 Remote control signal transmitter

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

2 Input source select buttons

These select the input source. (👉 p. 30)

3 FILTER button

Switches the filter characteristics when digital audio is input or during Bluetooth playback. (👉 p. 42)

4 Information button (INFO)

This switches the information shown in the display during playback.

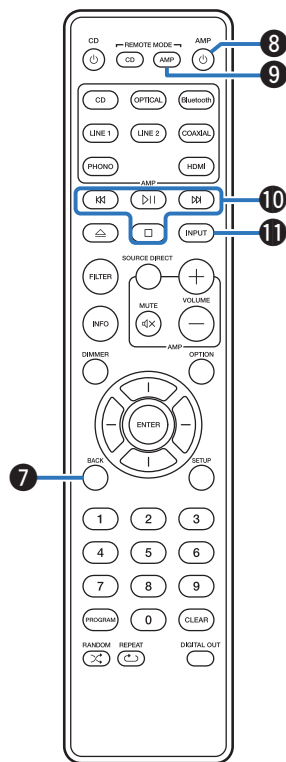
5 MUTE button (🔇)

This mutes the output audio. (👉 p. 30)

6 DIMMER button

Adjust the display brightness of this unit. (👉 p. 42)





7 BACK button

Returns to the previous item.

8 Power (AMP) button

This turns the power on/off (standby). (p. 29)

9 Remote mode select button (REMOTE MODE AMP)

Switches the remote control operating mode to this unit.

10 System buttons

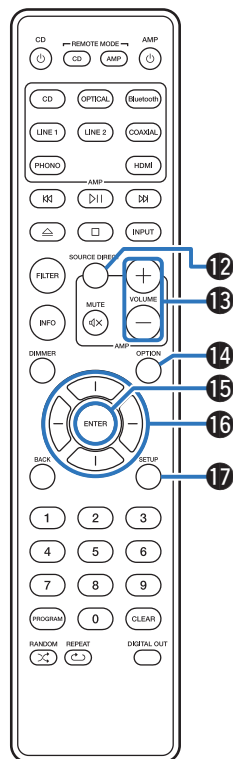
These perform Bluetooth playback related operations.

- Play/pause button (▶|◀)
Press this button to pause during playback. If pressed while paused or stopped, resumes playback from the last track played.
- Forward-skip button (▶▶)
Press this button during playback to play the next track.
- Reverse-skip button (◀◀)
Press this button during playback to restart the current track or play the previous track.
- Stop button (◻)
Press this button to stop during playback.

11 INPUT button

This selects the input source. (p. 30)



**12 SOURCE DIRECT button**

This turns source direct mode on/off. (☞ p. 41)

13 VOLUME buttons (+/-)

These adjust the volume level. (☞ p. 30)

14 OPTION button

The option menu will appear on the display when using Bluetooth headphones.

- “Adjusting the volume of Bluetooth headphones” (☞ p. 37)
- “Confirming the device and codec of the connected Bluetooth headphones” (☞ p. 37)

15 ENTER button

This determines the selection.

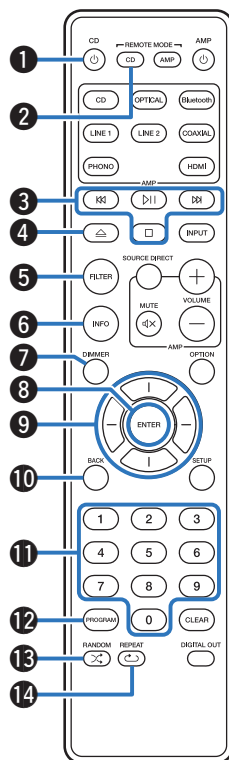
16 Cursor buttons

These select items.

17 SETUP button

The setting menu is displayed on the display. (☞ p. 44)





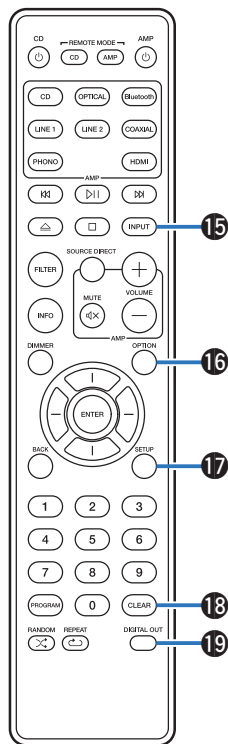
CD player operations

A Marantz CD player can be operated.

To operate CD player, press REMOTE MODE CD button to switch the remote control to the CD player operation mode.

- 1 Power (CD) button
- 2 Remote mode select button (REMOTE MODE CD)
- 3 System buttons
- 4 Disc tray open/close button (△)
- 5 FILTER button
- 6 Information button (INFO)
- 7 DIMMER button
- 8 ENTER button
- 9 Cursor buttons
- 10 BACK button
- 11 Number buttons (0 – 9)
- 12 PROGRAM button
- 13 RANDOM button (✕)
- 14 REPEAT button (↺)





- 15 **INPUT** button
- 16 **OPTION** button
- 17 **SETUP** button
- 18 **CLEAR** button
- 19 **DIGITAL OUT** button



- The remote control may not operate some products.



■ Contents

Connecting speakers	16
Connecting a playback device	18
Connecting a TV	19
Connecting to a device with digital audio output connectors	23
Connecting a power amplifier	24
Connecting devices with remote control connectors	25
Connecting the power cord	27

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.

Speaker cable	
Subwoofer cable	
Audio cable	
HDMI cable	
Optical cable	
Coaxial digital cable	
Remote connector cable	



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" (p. 67))
- Never touch the speaker terminals while the power cord is connected. Doing so could result in electric shock.
- Use speakers with an impedance of 4 – 16 Ω /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.



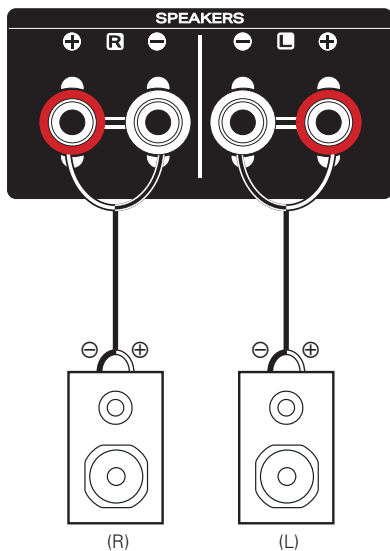
- 3** Insert the speaker cable's core wire to the hilt into the speaker terminal.



- 4** Turn the speaker terminal clockwise to tighten it.

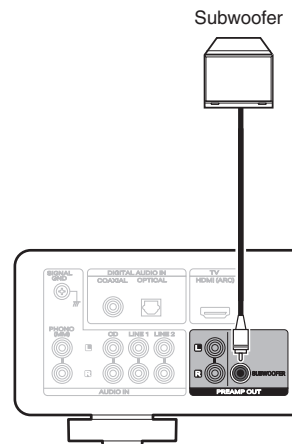


Connecting speakers



Connecting the subwoofer

Use a subwoofer cable to connect the subwoofer.

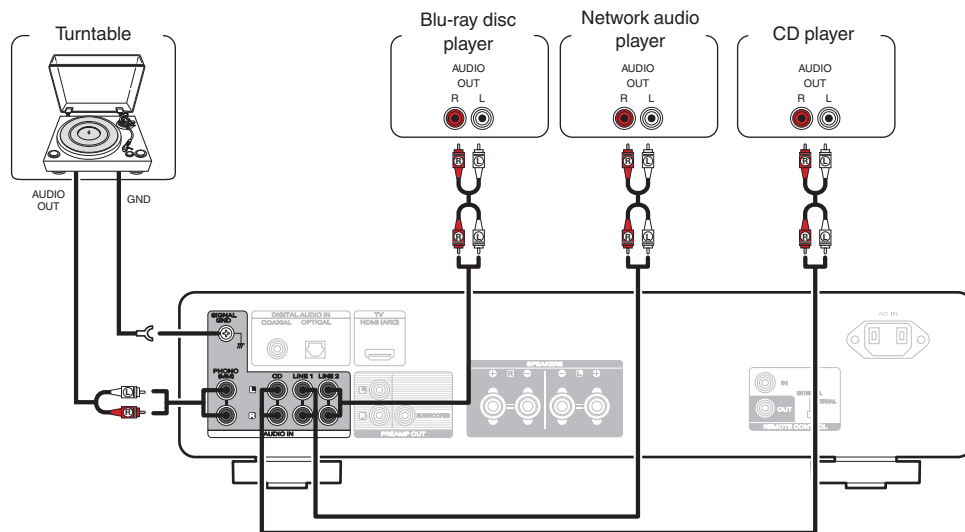


Connecting a playback device

You can connect turntables, Blu-ray disc players, network audio players and CD players to this unit.

This unit is compatible with turntables equipped with a moving magnet (MM) phono cartridge. When you connect to a turntable with a low output moving coil (MC) cartridge, use a commercially available MC head amp or a step-up transformer.

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.

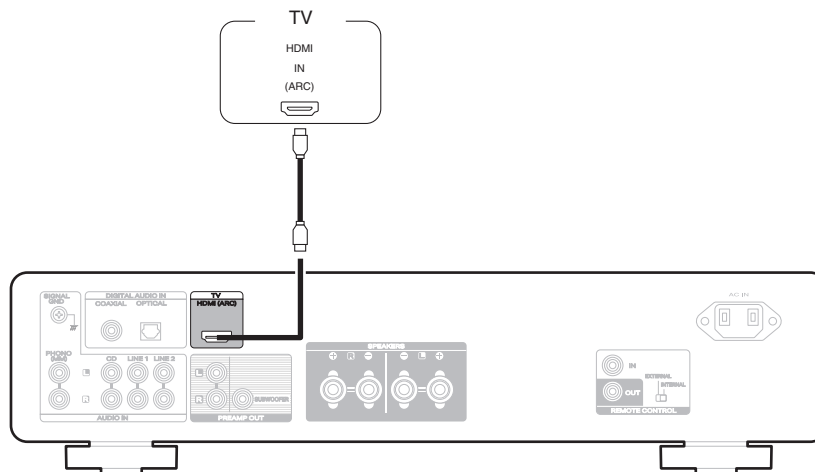


Connecting a TV

This unit can be connected to a TV for high-quality playback of the TV audio.

Connecting this unit to the HDMI ARC terminal on a TV

If the HDMI terminal on your TV supports ARC, connect with HDMI.





- When connecting a TV to this unit, turn off the audio output of the TV's internal speakers. See the owner's manual of your TV for details.
- When connecting the HDMI (ARC) terminal of this device to your TV, connect it to the HDMI input terminal of your TV that supports the ARC function.
- When connecting to a TV that does not support the ARC function, use an Optical connection or a Coaxial connection to play the TV audio. (🔍 p. 21)

NOTE

- Only the PCM 2-channel setting can be used to play sound from a TV via the HDMI ARC function. Set "PCM 2ch" as the audio format in the TV settings.
- 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 unit.
- Do not input non-PCM signals, such as Dolby Digital, DTS and AAC. This causes noise and could damage the speakers.

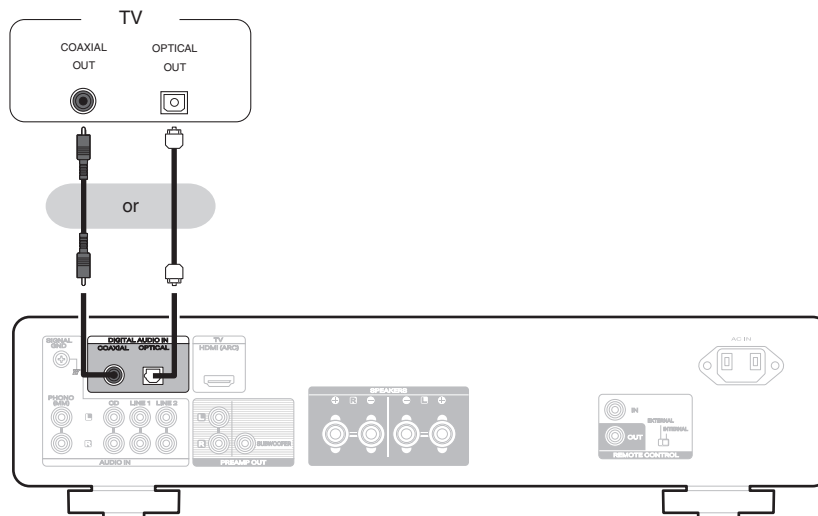
■ Specifications of supported audio formats

See "Digital input" (🔍 p. 65).



Connecting this unit to the Optical or Coaxial terminal on a TV

If the HDMI terminal on your TV does not support ARC or your TV does not have any HDMI terminals, connect with an optical cable or a coaxial digital cable.





- When connecting a TV to this unit, turn off the audio output of the TV's internal speakers. See the owner's manual of your TV for details.

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

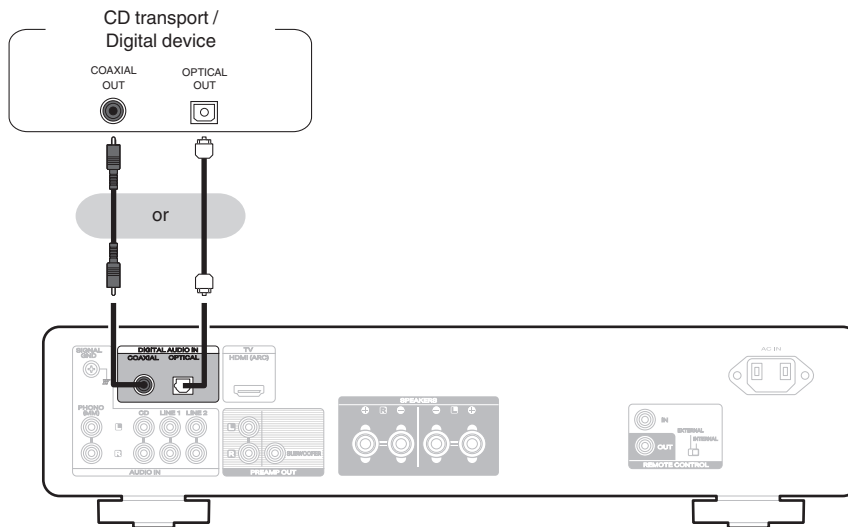
■ Specifications of supported audio formats

See "Digital input" (🔍 p. 65).



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. 39)



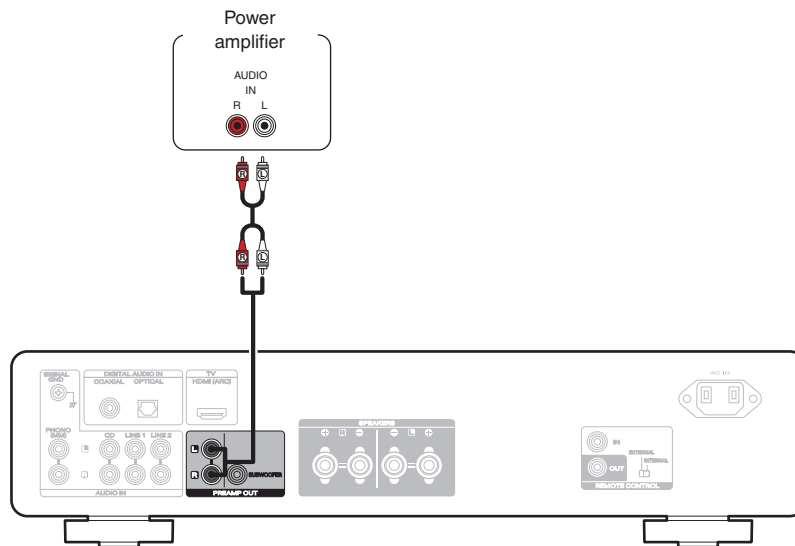
■ Specifications of supported audio formats

See “Digital input” (🔍 p. 65).



Connecting a power amplifier

Connect a power amplifier to the unit to use it as a pre-amplifier.



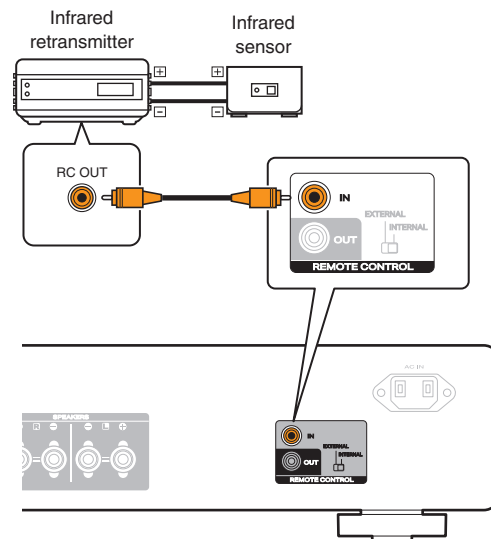
- The volume of the audio signal from the PREAMP OUT connectors is linked to the speakers volume.



Connecting devices with remote control connectors

Performing operations by RC on this unit without visual contact

You can connect an external IR receiver to the REMOTE CONTROL connectors to perform operations on this unit with the included remote control unit without visual contact. This might be necessary if the unit is hidden in a cupboard or corner, so you can't directly point with the remote control unit to the device.

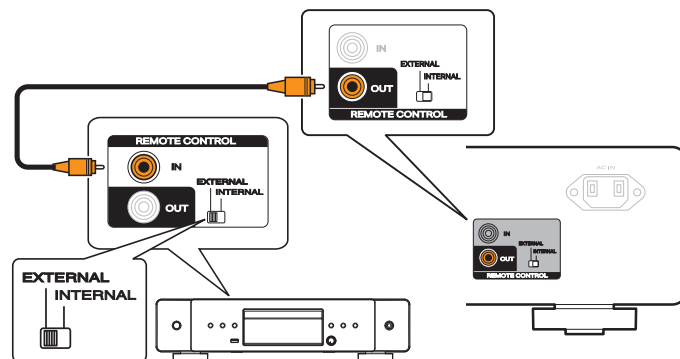


Remotely connecting Marantz audio devices

You can transmit remote control signals simply by connecting a Marantz audio device to the REMOTE CONTROL IN/OUT connectors using the remote connection cable provided with the device.

Set the EXTERNAL/INTERNAL switch on the rear panel of this unit and the connected device as follows.

- Turn this unit's EXTERNAL/INTERNAL switch to "INTERNAL".
- Turn the EXTERNAL/INTERNAL switch of the connected device to "EXTERNAL".

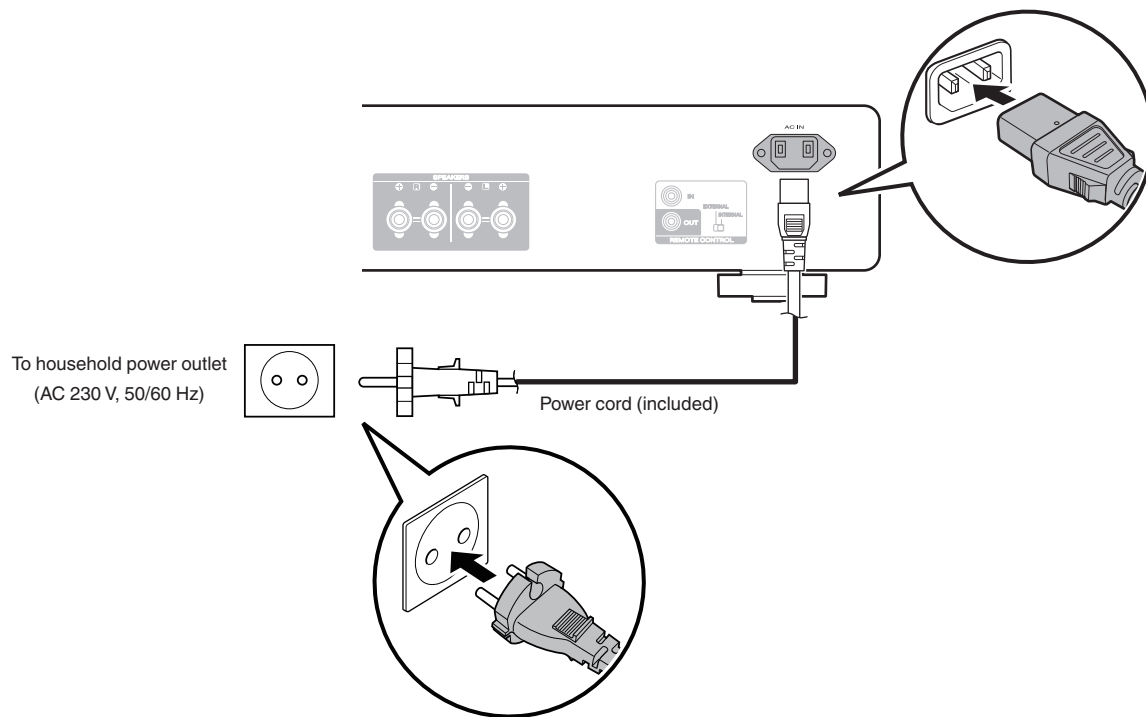


- To operate the unit, point the remote control at the remote sensor of this unit.
- To use this unit by itself without connecting a Marantz audio device, turn the switch to "INTERNAL".
- When the switch is set to "EXTERNAL", the remote sensor reception of this unit is disabled.



Connecting the power cord

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



■ Contents

Basic operation

Turning the power on	29
Switching the power to standby	29
Selecting the input source	30
Adjusting the volume	30
Turning off the sound temporarily (Muting)	30

Playback a device

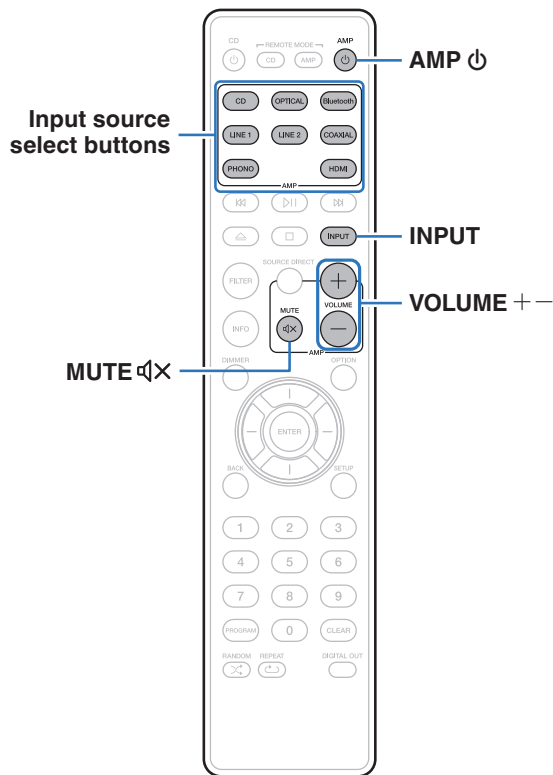
Playing CDs	31
Listening to music on a Bluetooth device	32
Listening to audio on Bluetooth headphones	35
Playing digital input	39

Convenience functions

Adjusting the tone and balance	41
Playback in source direct mode	41
Switching the filter characteristics	42
Switching the display's brightness	42



Basic operation



Turning the power on

- 1 Press **AMP ϕ** to turn on power to the unit.
The display turns on.



- You can also press ϕ on the main unit to turn on power from standby mode.

Switching the power to standby

- 1 Press **AMP ϕ** .
The unit switches to standby mode.



- You can also switch the power to standby by pressing ϕ on the main unit.

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, 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 appears on the display.



- You can also select the input source by pressing INPUT.
- 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.

The volume level appears on the display.



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

Turning off the sound temporarily (Muting)

1 Press MUTE .

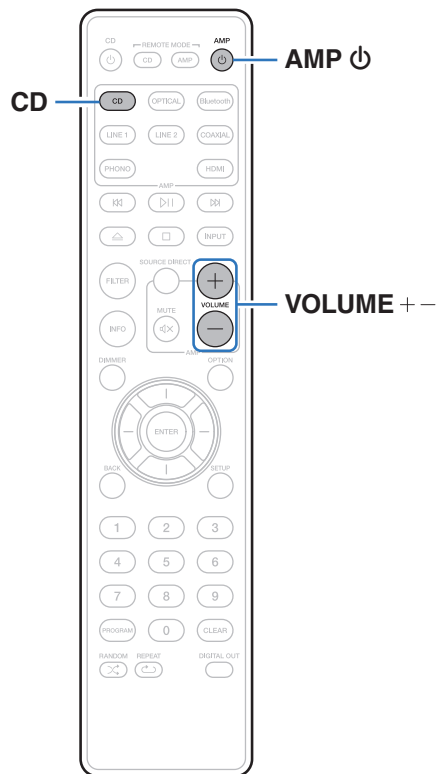
"Mute" is displayed on the display.



- To cancel mute, either adjust the volume or press MUTE  again.



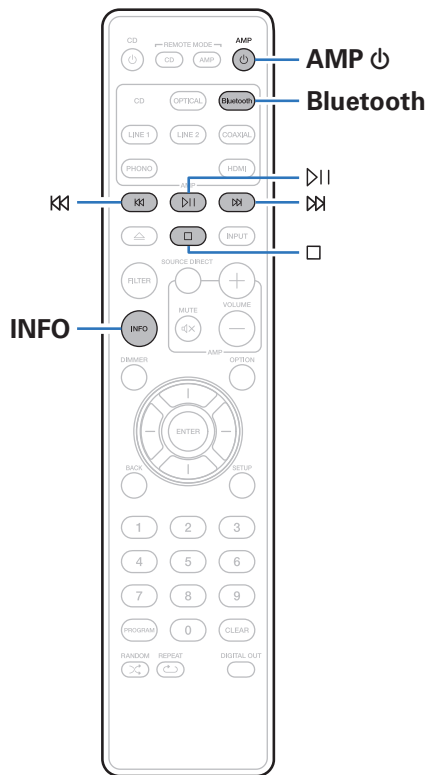
Playing CDs



- 1 Prepare for playback.**
Check the connection, then turn on this units. ("Connecting a playback device" (p. 18))
- 2 Press AMP ϕ to turn the power on.**
- 3 Press the input source select button (CD) to switch the input source to "CD".**
"CD" is displayed on the display.
- 4 Playback the CD.**
- 5 Use VOLUME + - to adjust the volume.**



Listening to music on a Bluetooth device



Music files stored on Bluetooth devices such as smartphones, digital music players, etc. can be enjoyed on this unit by pairing and connecting this unit with the Bluetooth device.

Communication is possible up to a range of about 30 m.

NOTE

- To play back music from a Bluetooth device, the Bluetooth device needs to support the A2DP profile.



Listening to music on a Bluetooth device

In order to enjoy music from a Bluetooth device on this unit, the Bluetooth device must first be paired with this unit.

Once the Bluetooth device has been paired, it does not need to be paired again.

1 Press AMP  to turn the power on.

2 Press Bluetooth.

When playing content via Bluetooth on this unit for the first time, the unit will go into the pairing mode automatically and "Bluetooth Pairing..." will appear on the display of the unit.

3 Activate the Bluetooth settings on your Bluetooth device.

4 Select this unit when its name appears in the list of devices displayed on the screen of the Bluetooth device.

Connect to the Bluetooth device while "Bluetooth Pairing..." is being displayed on the display of the unit.

Perform the connection with the Bluetooth device close to the unit (about 1 m).

5 Play music using any app on your Bluetooth device.

- The Bluetooth device can also be operated with the remote control of this unit.
- The next time the Bluetooth button is pressed on the remote control unit, this unit automatically connects to the last Bluetooth device that was connected.

Operation buttons	Function
	Playback / Pause
	Stop
	Skip to previous track / Skip to next track
INFO	Switch the displays to the Bluetooth information screen



Pairing with other Bluetooth devices

Pair a Bluetooth device with this unit.

- 1 Activate the Bluetooth settings on your Bluetooth device.**
- 2 Press and hold Bluetooth on the remote control unit for at least 3 seconds.**
This unit will go into the pairing mode.
- 3 Select this unit when its name appears in the list of devices displayed on the screen of the Bluetooth device.**



- This unit can be paired with a maximum of 6 Bluetooth devices. When a 7th Bluetooth device is paired, it will be registered in place of the oldest registered device.

NOTE

- To operate the Bluetooth device with the remote control of this unit, the Bluetooth device needs to support the AVRCP profile.
- The remote control of this unit is not guaranteed to work with all Bluetooth devices.
- Depending on the type of Bluetooth device, this unit outputs audio that is coupled to the volume setting on the Bluetooth device.

Reconnecting to this unit from a Bluetooth device

After pairing is completed, the Bluetooth device can be connected without performing any operations on this unit.

This operation also needs to be performed when switching the Bluetooth device for playback.

- 1 If a Bluetooth device is currently connected, deactivate the Bluetooth setting of that device to disconnect it.**
- 2 Activate the Bluetooth setting of the Bluetooth device to be connected.**
- 3 Select this unit from the Bluetooth device list on your Bluetooth device.**
- 4 Play music using any app on your Bluetooth device.**



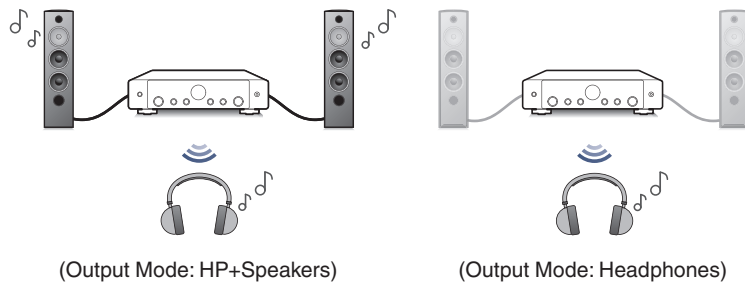
- When the power of this unit and the Bluetooth function of this unit are turned on, the input source will be automatically switched to "Bluetooth" if a Bluetooth device is connected and is played.
- When a Bluetooth device is connected and is played with the unit in the standby state, the power of the unit will be turned on automatically.



Listening to audio on Bluetooth headphones

You can listen to the sounds that are played back in this device from Bluetooth headphones.

Output audio from connected speakers and Bluetooth headphones simultaneously, or only using Bluetooth headphones.



Listening to audio on Bluetooth headphones

- 1 Set “Headphone” to “On” from the “Bluetooth” setting in the setup menu. (🔧 p. 46)
- 2 Select “Output Mode”, and set audio output method.

HP+Speakers (Default):	Audio is output to Bluetooth headphones and speakers. This simultaneous output is suitable for family movie night and other group activities.
Headphones:	Audio is output to Bluetooth headphones only. This is suitable for listening to music or watching movies by yourself at night when you need to keep quiet.
- 3 Enter pairing mode on the Bluetooth headphones you want to connect to this unit.
- 4 Select “Devices” and select the name of the Bluetooth headphones from the device list.
- 5 Adjust the volume of connected Bluetooth headphones after the connection is completed.



- A2DP profile-compatible Bluetooth speakers can be connected following the same steps used to connect Bluetooth headphones.

NOTE

- The volume of Bluetooth headphones cannot be adjusted through the main unit's VOLUME knob or the VOLUME buttons on the remote control unit. Adjust the volume through the Bluetooth headphones.
- If you are using Bluetooth headphones that do not have volume control, or if the volume is insufficient, you can control the volume by adjusting the “HP Level” from the options menu. (🔧 p. 37)
- The settings for “Volume Limit” in the setup menu specified on this unit are not reflected in the sound output of Bluetooth headphones.
- The settings for BASS, TREBLE and BALANCE, or the source direct mode specified on this unit are not reflected to/in the sound output of Bluetooth headphones.
- Audio may be delayed when sent over Bluetooth.
- Bluetooth headphones cannot be connected when use a Bluetooth input source. Furthermore, selecting a Bluetooth input source will terminate the connection between this unit and Bluetooth headphones.



Adjusting the volume of Bluetooth headphones

If you are using Bluetooth headphones that do not have volume control, or if the volume is insufficient, you can control the volume by adjusting the “HP Level” from the options menu.

1 Press **OPTION**.

An option menu screen is displayed.

2 Use cursor Up/Down to select “HP Level”, then press **ENTER**.

3 Use cursor Up/Down to adjust the volume.

–50 dB – +10 dB (Default: 0 dB)



- This setting applies to all connected Bluetooth headphones, regardless of type.

Confirming the device and codec of the connected Bluetooth headphones

1 Press **OPTION**.

An option menu screen is displayed.

2 Use Cursor Up/Down buttons to select a device for the Bluetooth headphones.

The codec is displayed below the device.



Reconnecting to a Bluetooth headphones

Follow any of the steps below to reconnect the most recently used Bluetooth headphones:

- Reconnect to this unit with Bluetooth headphone's reconnect function.
- If “Output Mode” is set to “HP+Speakers”, this unit will automatically connect to the most recently used Bluetooth headphones when power is turned on.
- Select the device you wish to connect from the “Devices” under “Bluetooth” in the setup menu. (👉 p. 46)

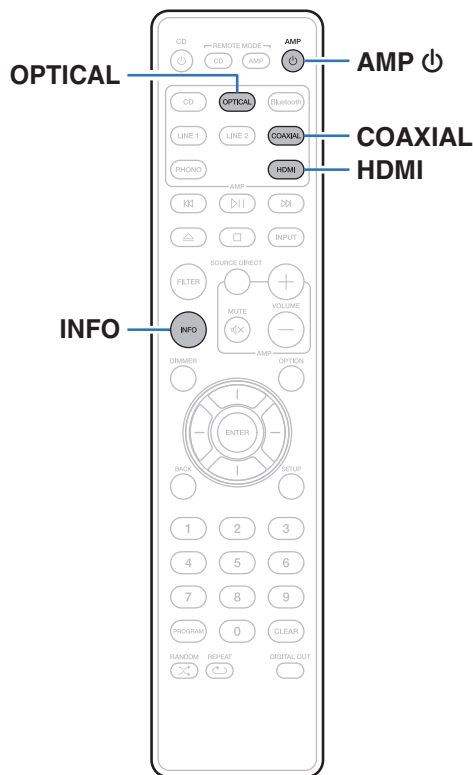
Disconnecting Bluetooth headphones

Complete any of the following steps to disconnect your Bluetooth headphones:

- Turn off your Bluetooth headphones.
- In the setup menu, go to “Bluetooth”, and set “Headphone” to “Off”. (👉 p. 46)



Playing digital input



1 Prepare for playback.

Check the connection, then turn on this units. (“Connecting a TV” (p. 19), “Connecting to a device with digital audio output connectors” (p. 23))

2 Press AMP to turn the power on.

3 Press HDMI, COAXIAL or OPTICAL to switch the input source to “HDMI”, “COAXIAL” or “OPTICAL”.

4 Play the component connected to this unit.

- 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.





- When "TV Auto-Play" is set in the menu, this unit automatically turns on when the TV connected to the unit is turned on, and the input source switches to "HDMI", "COAXIAL" or "OPTICAL". (🔍 p. 45)
- If you connect your TV via the Optical or Coaxial connection, this unit cannot be put to standby when you turn off your TV. If you want to automatically put this device on standby, set "Auto-Standby" in the settings menu. (🔍 p. 47)

NOTE

- Do not input non-PCM signals, such as Dolby Digital, DTS and AAC. This causes noise and could damage the speakers.
- Only the PCM 2-channel setting can be used to play sound from a TV via the ARC function. Set "PCM 2ch" as the audio format in the TV settings.

■ Display format and sample rate

During playback, press INFO.

- Each time the button is pressed, switches the display on and off.

■ Specifications of supported audio formats

See "Digital input" (🔍 p. 65).

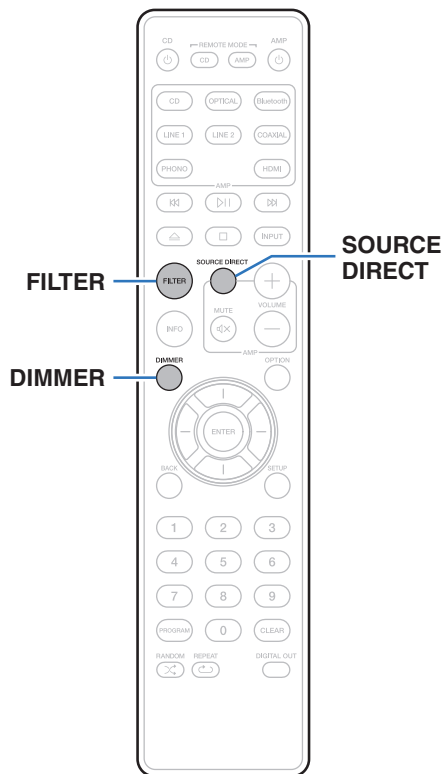
■ HDMI control function

Connect this unit to a TV that supports the HDMI control function with an HDMI cable and enable the HDMI control setting on the TV to perform basic operations on this unit (changing the input source, turning the power on and off, adjusting the volume) with the remote control of the TV.

Refer to "About HDMI" (🔍 p. 66) for more information about the HDMI control function.



Convenience functions



This section explains how to use convenient functions that can be used for each input source.

Adjusting the tone and balance

- 1 Turn the **BASS**, **TREBLE** and **BALANCE** on the main unit to adjust the tone and balance.



- BASS, TREBLE and BALANCE cannot be adjusted when this unit is in source direct mode. Press SOURCE DIRECT on the remote control or turn the SOURCE DIRECT knob on the main unit to turn off the source direct mode.

Playback in source direct mode

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

- 1 Press **SOURCE DIRECT** to turn on source direct mode.
“Source Direct” is displayed on the display.



- Turn the SOURCE DIRECT knob on the main unit to alternately turn on and off the source direct mode.



Switching the filter characteristics

This unit is equipped with a sound quality adjusting function which allows users to enjoy the desired playback sound quality. This function only works when a digital audio signal is input or during Bluetooth playback.

1 Press FILTER.

This unit switches between Filter 1 and Filter 2 each time the button is pressed.

Filter 1 (Default):

Offers a short impulse response for both pre-echo and post-echo. Large amount of audio information clearly reproduces deep stereo imaging and the relative position of the sound source.

Filter 2:

Both pre-echo and post-echo are slightly longer. The sound characteristics is edge and powerful.

Switching the display's brightness

The display brightness can be adjusted between four levels. Switching the display off reduces a source of noise that affects sound quality, enabling higher sound quality playback.

1 Press DIMMER.

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



- If the buttons are operated when the display is turned off, information is displayed temporarily.
- The display brightness is set to most brightly by default.



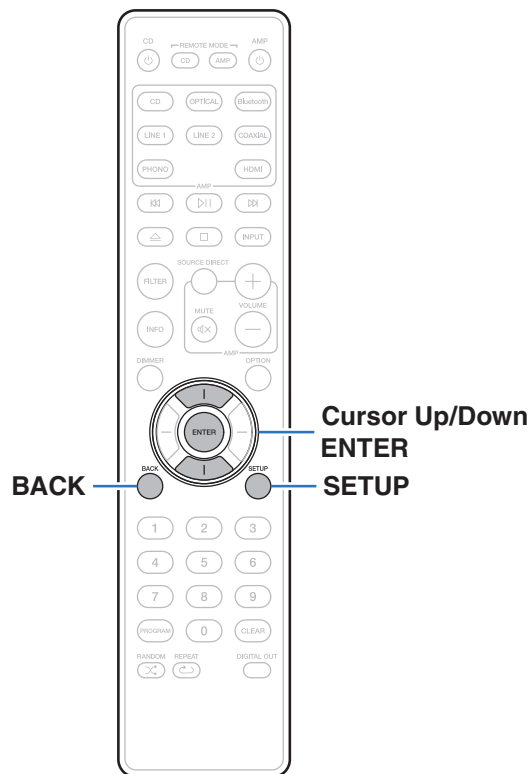
Menu map

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
TV Auto-Play	Set the “TV Auto-Play” function, which automatically switches the input source and plays the TV audio when a TV audio signal is input to this unit.	45
HDMI Power Off Control	Set the “HDMI Power Off Control” function that is keyed to the power off operation of your TV to turn the device’s power to standby.	45
Bluetooth	Stopping Bluetooth function reduces a source of noise that affects sound quality, enabling higher sound quality playback. It also sets the Bluetooth transmitter settings.	46
Volume Limit	Make a setting for maximum volume. The volume cannot be increased above this setting.	47
Auto-Standby	Sets whether to automatically switch the unit to the standby mode when there is no audio input and no operations are performed for more than 15 minutes.	47
Reset	Various settings are reset to the factory default values.	48





Menu operation

- 1 Press SETUP.**
The menu is displayed on the display.
- 2 Use Cursor Up/Down buttons to select the menu to be set or operated, then press ENTER.**
- 3 Use Cursor Up/Down buttons to change to desired setting.**
- 4 Press ENTER to enter the setting.**
 - To return to the previous item, press BACK.
 - Exiting the Menu, press SETUP while the menu is displayed. The display returns to the normal display.



TV Auto-Play

Set the “TV Auto-Play” function, which automatically switches the input source and plays the TV audio when a TV audio signal is input to this unit. Configure it according to the terminal used to connect to the TV.

HDMI ARC / Optical / Coaxial / Off

(Default: HDMI ARC)



- When an audio signal from the selected input source is detected while the unit is in standby, its power will automatically turn on and the TV audio will play.
- Depending on your TV, the “TV Auto-Play” function may not work.

HDMI Power Off Control

Set the “HDMI Power Off Control” function that is keyed to the power off operation of your HDMI connected TV to turn the device's power to standby.

All
(Default):

Regardless of the input source of this device, if the power of the TV is turned off, the power of this device automatically becomes standby.

HDMI ARC:

If the input source is HDMI and you power off the TV, the power of this device automatically becomes standby.

Off:

This unit is not linked to the power of the TV.



Bluetooth

Bluetooth

Stopping Bluetooth receiver and transmitter functions 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.

Headphone

Enables or disables the Bluetooth headphones transmitter.

Perform these settings when you are listening to audio playback of this unit with Bluetooth headphones.

On:	Enables the Bluetooth headphones transmitter feature.
Off (Default):	Disables the Bluetooth headphones transmitter feature.

Output Mode

Selects the audio output method.

HP + Speakers (Default):	Audio is output to Bluetooth headphones and speakers.
Headphones:	Audio is output to Bluetooth headphones only.

Devices

- Available devices are displayed in the list once you start pairing mode on the Bluetooth headphones you want to connect. Select your Bluetooth headphones from the list to pair them.
- This unit can only pair with one Bluetooth headphone at a time. However, up to 6 Bluetooth headphones can be registered. Switch between registered devices from "Devices" in the "Bluetooth" setup menu.
- To remove a saved Bluetooth device from the list, use the Cursor Up/Down buttons to select it, press the OPTION button, and then press the ENTER button when "Forget This Device" is displayed.



- A2DP profile-compatible Bluetooth speakers can be connected following the same steps used to connect Bluetooth headphones.



NOTE

- Bluetooth transmitter and Bluetooth receiver function cannot be used at the same time. Bluetooth transmitter function is not available when listening to music on a Bluetooth device.
- Even when "Headphone" is set to "On", press Bluetooth on the remote control to select the "Bluetooth" source and enable the Bluetooth receiver function.
To listen to music stored on Bluetooth devices such as smartphones on this unit, press Bluetooth on the remote control to switch the input source to Bluetooth, then reconnect the Bluetooth device.

Volume Limit

Make a setting for maximum volume. The volume cannot be increased above this setting.

Off (Default):	Do not set a maximum volume. (0)
-60 – -5	

Auto-Standby

Sets whether to automatically switch the unit to the standby mode when there is no audio input and no operations are performed for more than 15 minutes.

On (Default):	Enable Auto Standby mode.
Off:	Disable Auto Standby mode.



Reset

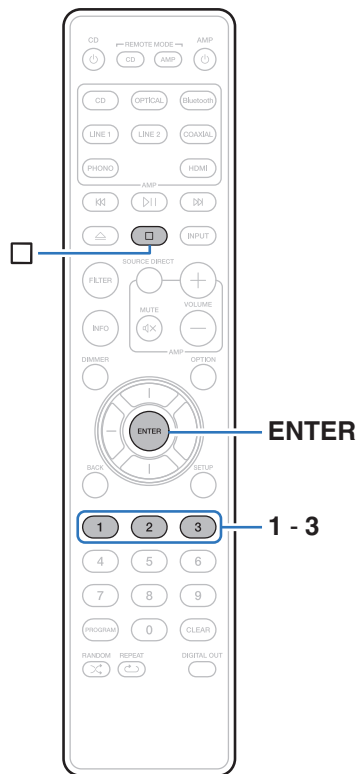
Perform this procedure if the display is abnormal or if operations cannot be performed. Restores the contents of each setting to the factory settings. Make settings again.

Cancel:	Unit is not initialized.
----------------	--------------------------

OK:	Unit is initialized.
------------	----------------------



Setting remote control codes



Remote control codes are set between this unit and the included remote control. You can select one of the three types of remote control codes, and the remote control can be used to control the unit when the same remote control code is used. If three of these units are used in the same location, all three units can be controlled simultaneously using one remote control in the default settings. By setting individual remote control codes between a unit and the remote control, the remote control can be used to control only the unit that has the same remote control code.

Be sure to check the operation of each unit after setting the remote control codes.

The default setting is “AMP 1”.



- Set the remote control cord to “AMP 1” when controlling this unit from a Marantz network CD player or other device connected using a remote connection cable to this unit. (p. 26)



Setting remote control codes for the remote control

■ To set the remote control codes to AMP 1, AMP 2 or AMP 3

1 Hold down and one of the number 1, 2 or 3 buttons for more than 5 seconds.

The remote mode select buttons will flash green.

- Set the remote control code to AMP 1, AMP 2 or AMP 3 according to the selected number button.

NOTE

- The remote control codes returns to the default settings when the batteries are removed. Set the remote control codes again after replacing the batteries.

Setting remote control codes for the main unit

1 Point the remote control for which the remote control code was set at the main unit, and press and ENTER.

When setting the remote control code of the main unit is complete, the remote control code set (AMP 1 – 3) is displayed on the display.



■ Contents

Tips

I want to listen to high sound performance playback	52
I want to adjust the tone myself	52
I want sound playback that is faithful to the original sound	52
I want to switch the filter to change the desired sound quality	52
I want to play TV audio at higher quality	52
I want to prevent this unit from going into standby by linking to the power off operation of an HDMI connected TV	52
I want to turn the display off	52
I want the volume not to become too loud by mistake	53
I want to operate a Marantz CD player using the remote control of this unit	53
I want to use this unit as a pre-amplifier	53
I want to use more than one unit in one location	53

Troubleshooting

Power does not turn on / Power is turned off	55
Operations cannot be performed through the remote control unit	57
Display on this unit shows nothing	58
No sound comes out	58
Desired sound does not come out	59
Sound is interrupted or noise occurs	60
Bluetooth cannot be played back	61
Audio from digital devices cannot be played back (HDMI ARC, Coaxial, Optical)	63
The input source switches to "HDMI", "OPTICAL" or "COAXIAL"	63
The HDMI control function does not work	64
It doesn't switch between FILTER 1/2	64



Tips

I want to listen to high sound performance playback

- Stopping Bluetooth function reduces a source of noise that affects sound quality, enabling higher sound quality playback. Set “Off” to the “Bluetooth”. (👉 p. 46)

I want to adjust the tone myself

- Use the BASS, TREBLE and BALANCE knobs to adjust the sound as desired. (👉 p. 41)

I want sound playback that is faithful to the original sound

- Set the source direct mode on. (👉 p. 41)

I want to switch the filter to change the desired sound quality

- Switch the filter characteristics. (👉 p. 42)

I want to play TV audio at higher quality

- Connect the HDMI terminal of your TV that supports the ARC function to the HDMI (ARC) terminal of this device and switch the input source to HDMI. (👉 p. 19)
- If you are using a TV that does not support the ARC function or a TV that does not have an HDMI terminal, the TV audio can be played by this device using an Optical or Coaxial connection. (👉 p. 21)
- Only 2-channel linear PCM can be input as the digital audio signal to this unit.

I want to prevent this unit from going into standby by linking to the power off operation of an HDMI connected TV

- Change the “HDMI Power Off Control” setting to “Off”. (👉 p. 45)

I want to turn the display off

- Press the DIMMER button to turn the display off. (👉 p. 42)



I want the volume not to become too loud by mistake

- Set the volume upper limit for "Volume Limit" in the menu beforehand. This prevents children or others from increasing the volume too much by mistake. (👉 p. 47)

I want to operate a Marantz CD player using the remote control of this unit

- Marantz CD Players can also be operated with the remote control of this unit. Also refer to the CD player's instruction manuals. (👉 p. 13)

I want to use this unit as a pre-amplifier

- Connect a power amplifier to the PREAMP OUT connectors of this unit. (👉 p. 24)

I want to use more than one unit in one location

- Set individual remote control codes for each combination of devices and remote control. (👉 p. 49)



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

Power is not turned on.

- Check whether the power plug is correctly inserted into the power outlet. (👉 p. 27)
- This unit is in standby mode. Press the  button on the main unit or the AMP  button on the remote control. (👉 p. 29)

Power automatically turns off.

- “Auto-Standby” is set. When approx. 15 minutes pass with no audio input and no operations on the unit, this unit automatically enters the standby mode. To disable “Auto-Standby”, set “Auto-Standby” on the menu to “Off”. (👉 p. 47)
- When this unit and a Marantz audio device compatible with the power off (standby) synchronization function are connected using a remote connection cable, the power of this unit turns off (standby) in synchronization with the power off operation of the device connected to this unit. (👉 p. 26)
- “HDMI Power Off Control” is set. The power of this unit turns off (standby) by linking to the power off operation of an HDMI connected TV. To disable “HDMI Power Off Control”, set “HDMI Power Off Control” on the menu to “Off”. (👉 p. 45)



The power turns off and the protection circuit indicator blinks in orange.

[1 long blink + 2 short blinks]

- Stop playback on the playback device, and then turn the power off and on again.
- If the problem is not solved by turning the power off and on again, this unit's amplifier circuit has failed. Unplug the power cord and contact our customer service center.

[1 long blink + 3 short blinks]

- This unit's power circuit has failed. Unplug the power cord and contact our customer service center.

[1 long blink + 4 short blinks]

- 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.
- Please re-install this unit in a place having good ventilation.
- Stop playback on the playback device, and then turn the power off and on again.

[1 long blink + 5 short blinks]

- 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. (🔧 p. 16)
- Stop playback on the playback device, and then turn the power off and on again.
- If the problem is not solved by turning the power off and on again, this unit's amplifier circuit or power circuit has failed. Unplug the power cord and contact our customer service center.



Operations cannot be performed through the remote control unit

Operations cannot be performed through the remote control unit.

- Batteries are worn out. Replace with new batteries. (🔧 p. 5)
- Operate the remote control unit within a distance of about 7 m from this unit and at an angle of within 30°. (🔧 p. 5)
- Remove any obstacle between this unit and the remote control unit.
- Insert the batteries in the proper direction, checking the $\oplus$ and $\ominus$ marks. (🔧 p. 5)
- 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.
- Press the REMOTE MODE AMP button to switch the remote control operating mode to "AMP". (🔧 p. 10)
- The remote control code between this unit and the remote control is different. Set this unit and the remote control to the same remote control code. (🔧 p. 49)
- When using this unit independently, set the switch to INTERNAL. (🔧 p. 26)



Display on this unit shows nothing

Display is off.

- Press the DIMMER button, and change the setting to anything other than off. (🔧 p. 42)

No sound comes out

No sound comes out of speakers.

- Check the connections for all devices. (🔧 p. 15)
- 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. (🔧 p. 16)
- Securely tighten the speaker terminals. Check speaker terminals for looseness. (🔧 p. 16)
- Check that the proper input source is selected. (🔧 p. 30)
- The volume is set to the minimum level. Adjust the volume to a suitable level. (🔧 p. 30)
- Cancel the muting mode. (🔧 p. 30)
- Check the digital audio output setting on the connected device. The initial settings may be off depending on the device.
- No sound is output from the speaker terminals or the preout connector when headphones are connected. (🔧 p. 7)
- Do not input non-PCM signals, such as Dolby Digital, DTS and AAC. This causes noise and could damage the speakers.
- To playback via a Bluetooth connection, perform pairing between this unit and the Bluetooth device. (🔧 p. 32)



Desired sound does not come out

The volume does not increase.

- The maximum volume is set too low. Set the maximum volume using "Volume Limit" on the menu. (🔧 p. 47)

No sound comes out of a specific speaker.

- Check that speaker cables are properly connected. (🔧 p. 16)
- Adjust the BALANCE control knob. (🔧 p. 41)

No sound is produced from subwoofer.

- Check the subwoofer connections. (🔧 p. 17)
- Turn on the subwoofer's power.

The settings of the BASS, TREBLE and BALANCE knobs are not applied.

- Press the SOURCE DIRECT button to turn off source direct mode. (🔧 p. 41)

The left and right of stereo sound is reversed.

- Check whether the left and right speakers are connected to the correct speaker terminals. (🔧 p. 17)

Sound is not correctly output from the power amplifier connected to the PREAMP OUT connectors.

- Check the power amplifier connections. (🔧 p. 24)
- The volume of the audio signal from the PREAMP OUT connectors is linked to the speakers volume. Adjust the volume to a suitable level. (🔧 p. 30)



Sound is interrupted or noise occurs

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. (👉 p. 18)
- 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. (👉 p. 18)
- The vibrations from the speakers are being transmitted to the player through the floor. Use cushions, etc., to absorb the speakers' vibrations.



Bluetooth cannot be played back

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.
- Set "Bluetooth" in the menu to "On". The Bluetooth function does not work when "Bluetooth" is "Off". (🔧 p. 46)

Smartphones and other Bluetooth devices cannot be connected.

- Smartphones and other Bluetooth devices cannot be connected when "Headphone" is set to "On". Press Bluetooth on the remote control to switch the input source to Bluetooth, then connect the device. (🔧 p. 46)

Cannot connect Bluetooth headphones.

- Bring the Bluetooth headphones near to this unit.
- Turn the power of the Bluetooth headphones off and on again, and then try again.
- Go to "Bluetooth", and set "Headphone" to "On" within the setup menu. (🔧 p. 46)
- Make sure this unit is not already connected to another pair of Bluetooth headphones. Check the currently connected Bluetooth headphones in the "Devices" menu. (🔧 p. 46)
Disconnect the connected Bluetooth headphones before connecting the ones you want to use.
- Bluetooth headphones cannot be connected if Bluetooth is being used as an input source.
- The Bluetooth headphones cannot connect with this unit if it is not compatible with the A2DP profile.
- Connection and operation are not guaranteed for all Bluetooth-enabled devices.
- This unit can only connect to one Bluetooth headphone at a time. However, up to 6 Bluetooth headphones can be registered. You can switch between registered devices from "Devices" in the "Bluetooth" menu. (🔧 p. 46)



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.

The sound is cut off or noise occurs when using Bluetooth headphones.

- Move the Bluetooth headphones closer to this unit.
- Remove obstructions between the Bluetooth headphones and this unit.
- Reconnect the Bluetooth headphones.
- To prevent electromagnetic interference, locate this unit away from microwave ovens, wireless LAN devices and other Bluetooth devices.
- Bluetooth transmits on the 2.4 GHz band which may interfere with Wi-Fi transmitted on this band. Connect other devices to Wi-Fi network on a 5 GHz band if available on your Wi-Fi router.

Audio is delayed on my Bluetooth headphones.

- This unit cannot adjust audio delay on Bluetooth headphones.



Audio from digital devices cannot be played back (HDMI ARC, Coaxial, Optical)

“Unlocked” is displayed.

- When digital audio signals cannot be detected properly, “Unlocked” is displayed. (👉 p. 39)

“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. (👉 p. 39)
- Only the PCM 2-channel setting can be used to play sound from a TV via the HDMI ARC function. Set “PCM 2ch” as the audio format in the TV settings.

The input source switches to “HDMI”, “OPTICAL” or “COAXIAL”

The input source automatically switches to “HDMI”, “OPTICAL” or “COAXIAL” when the TV connected to this unit is turned on.

- Set “Off” to “TV Auto-Play”. (👉 p. 45)



The HDMI control function does not work

The HDMI control function does not work.

- You cannot operate devices that are not compatible with the HDMI control function. In addition, depending on the connected device or the settings, the HDMI control function may not work. In this case, operate the external device directly.
- Check that the HDMI control function setting is enabled on TV connected to this unit.

It doesn't switch between FILTER 1/2

It doesn't switch between FILTER 1/2.

- FILTER 1/2 will only switch when the FILTER button is pressed while a digital audio signal is input or Bluetooth is played. Check the input source.
( p. 30)



Digital input

■ Specifications of supported audio formats

□ HDMI ARC, Coaxial, Optical

	Sampling frequency	Bit length
Linear PCM (2-channel)	32/44.1/48/88.2/96/176.4/192 kHz	16/20/24 bits

Playing back a Bluetooth device

This unit supports the following Bluetooth profile.

- A2DP (Advanced Audio Distribution Profile):
When a Bluetooth device that supports this standard is connected, monaural and stereo sound data can be streamed at a high quality.
- AVRCP (Audio/Video Remote Control Profile):
When a Bluetooth device that supports this standard is connected, the Bluetooth device can be operated from this unit.

■ About Bluetooth communications

Radio waves broadcast from this unit may interfere with the operation of medical devices. Make sure you turn off the power of this unit and Bluetooth device in the following locations as radio wave interference may cause malfunctions.

- Hospitals, trains, aircraft, petrol kiosks and places where flammable gases are generated
- Near automatic doors and fire alarms



About HDMI

This unit supports the following HDMI functions.

- **ARC (Audio Return Channel) function**

Enjoy movies, music, etc., on your TV simply by connecting an ARC function-compatible TV to this unit via HDMI.

- **HDMI control function**

Connect an HDMI control-compatible TV and this unit via HDMI and enable the HDMI control to enable linked control from either device.

- Input source switching

If the TV is turned on, this unit automatically powers on and switches the input source to "HDMI".

- Power off link

The TV power off operation is linked so this unit also turns off.

- Volume adjustment

The volume of this unit can be adjusted using the TV remote control.

- Audio output destination switching

If this unit is turned on, TV audio is output from this unit. If this unit is turned off, TV audio is output from the speakers of the TV.



- Some functions may not operate depending on the connected TV.



Explanation of terms

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. Unlike lossy compression audio sources such as MP3, no audio quality or dynamic range deteriorates.

Source direct

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

Speaker impedance

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

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.

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.



Trademark information



The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by DEI Sales, Inc. is under license. Other trademarks and trade names are those of their respective owners.



Qualcomm® aptX™
Adaptive

Qualcomm aptX is a product of Qualcomm Technologies International, Ltd. Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries, used with permission. aptX is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries, used with permission.



The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



Specifications

■ Audio amplifier

RMS Power output (20 Hz – 20 kHz simultaneous drive of both channels) :	50 W x 2 (8 Ω /ohms load) 65 W x 2 (4 Ω /ohms load)
Total harmonic distortion (20 Hz – 20 kHz simultaneous drive of both channels, 8 Ω/ohms load) :	0.08 %
Frequency response (CD, 1 W, 8 Ω/ohms load) :	5 Hz – 100 kHz $\pm$ 3 dB
Damping factor (8 Ω/ohms load, 20 Hz – 20 kHz) :	100 and over
Input sensitivity/impedance:	PHONO (MM): 1.6 mV / 47 k Ω /kohms CD, LINE 1, LINE 2: 155 mV/15 k Ω /kohms
Output voltage (PREAMP OUT):	L/R: 1.3 V SUBWOOFER: 200 mV
Maximum allowable PHONO input level (1 kHz) MM :	80 mV
RIAA deviation (20 Hz – 20 kHz) :	$\pm$ 1.0 dB
S/N (IHF-A, 8 Ω/ohms load) :	PHONO (MM): 85 dB (5 mV input) CD, LINE 1, LINE 2: 110 dB (rated output)
Tone control:	BASS (50 Hz): $\pm$ 10 dB TREBLE (15 kHz): $\pm$ 10 dB



■ Bluetooth section

Supported Audio Formats: aptX Adaptive / aptX HD / aptX / AAC / SBC - RX
aptX Adaptive / aptX HD / aptX / SBC - TX

Supported Audio Applications: Classic Audio (AVRCP) - RX
Classic Audio - TX

Transmit Power: Power Class 1

Typical Range: 30 m in line of sight *1

*1 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.



■ General

Operating temperature: +5 °C - +35 °C
Power supply: AC 230 V, 50/60 Hz
Power consumption: 150 W
Power consumption in standby modes:

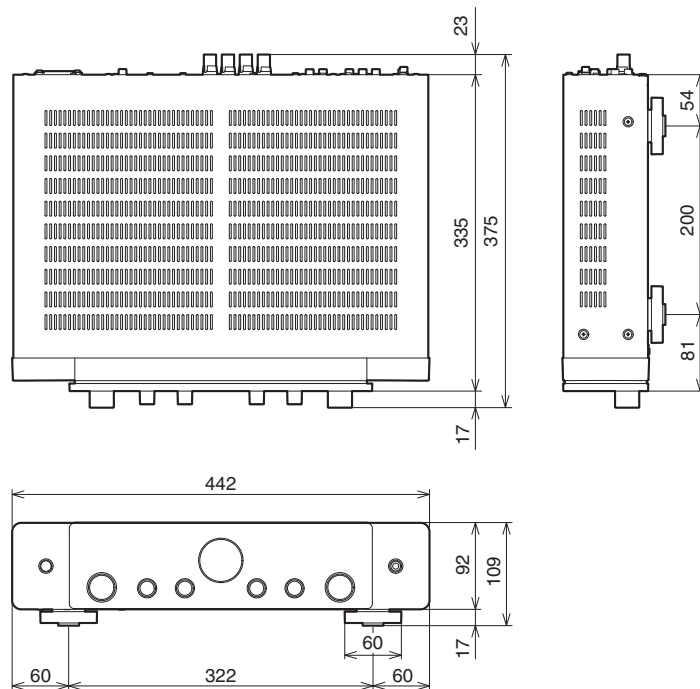
Standby modes	Setting items in the menu			Power consumption
	TV Auto-Play ( p. 45)	HDMI Power Off Control ( p. 45)	Bluetooth ( p. 46)	
Normal standby	Off	Off	Off	0.3 W
Optical standby	Optical	Off	Off	0.5 W
Coaxial standby	Coaxial	Off	Off	0.5 W
CEC standby	HDMI ARC	All	Off	0.5 W
Bluetooth connect	Off	Off	On	1.0 W
All standby	HDMI ARC	All	On	1.0 W

Battery type: Zinc-Carbon (for remote control unit)

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



■ Dimensions (Unit : mm)



■ Weight : 7.9 kg



Index

 A	
Auto Standby mode	47

 B	
Bluetooth device	32
Blu-ray Disc player	18

 C	
CD player	18, 31

 D	
Display's brightness	42

 F	
Front panel	6

 I	
Input source	30

 M	
Menu map	43
Muting	30

 N	
--	--

Network audio player	18
----------------------------	----

 P	
Pairing	32
Power amplifier	24
Protection circuit	67

 R	
Rear panel	8
Remote control codes settings	50
Remote control unit	10

 S	
Source direct	41, 67
Speaker impedance	67
Speakers	16

 T	
Tips	52
Tone	41
Troubleshooting	54
Turntable	18
TV	19

 V	
Volume	30



marantz

3520 11065 00ASA