YAMAHA

AV Receiver

RX-S600
RX-S600 D

Owner's Manual

Read the supplied booklet "Safety Brochure" before using the unit.

English

CONTENTS

Accessories

Check that the following accessories are supplied with the product.

☐ Remote control

☐ Batteries (AAA, R03, UM-4) (x2)

Insert the batteries the right way round.
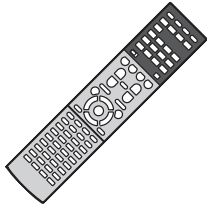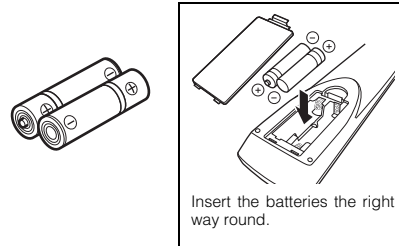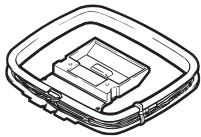
☐ AM antenna (RX-S600)

☐ FM antenna (RX-S600)
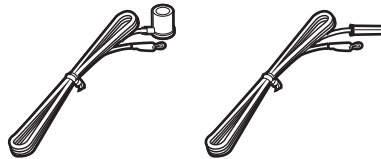
*One of the above is supplied depending on the region of purchase.

☐ DAB/FM antenna (RX-S600D)

☐ YPAO microphone
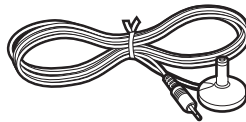
☐ CD-ROM
 (Owner's Manual)

☐ Easy Setup Guide

☐ Safety Brochure

Operating range of the remote control

• Point the remote control at the remote control sensor on the unit and remain within the operating range shown below.

Within 6 m (20 ft)

30°　30°
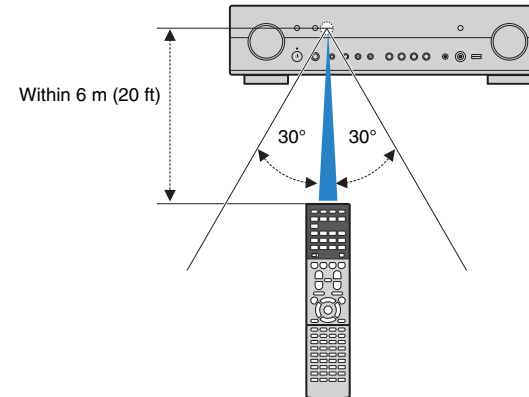
• The illustrations of the main unit and remote control used in this manual are of the RX-S600 (U.S.A. model), unless otherwise specified.

• Some features are not available in certain regions.

• Due to product improvements, specifications and appearance are subject to change without notice.

• This manual explains operations using the supplied remote control.

• This manual describes all the "iPod", "iPhone" and "iPad" as the "iPod". "iPod" refers to "iPod", "iPhone" and "iPad", unless otherwise specified.

• ⚠ indicates precautions for use of the unit and its feature limitations.

• ☀ indicates supplementary explanations for better use.

FEATURES

What you can do with the unit

Wide variety of supported content

- iPod/iPhone/iPad → **p.56**
- USB → **p.60**
- Media server (PC/NAS) → **p.63**
- Internet radio → **p.66**
- AirPlay → **p.68**

Network contents

iPod/iPhone/iPad

USB device

Supports 2- to 5.1-channel speaker system. Allows you to enjoy your favorite acoustic spaces in various styles.

- Automatically optimizing the speaker settings to suit your room (YPAO) → **p.32**
- Reproducing stereo or multichannel sounds with the sound fields like actual movie theaters and concert halls (CINEMA DSP) → **p.39**
- Enjoying compressed music with enhanced sound (Compressed Music Enhancer) → **p.43**
- Playing back music in multiple rooms (multi-zone) → **p.70**

Speakers

Audio

Audio

3D and 4K Ultra HD signals supported

HDMI Control

BD/DVD player

Audio/Video

Control

Audio/Video
(via HDMI or MHL)

Smartphone/Tablet
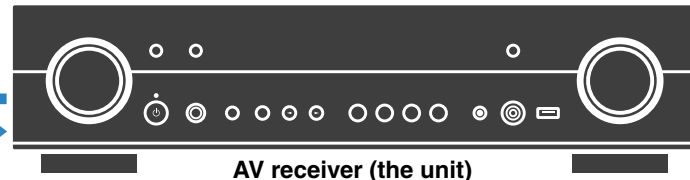
AV receiver (the unit)

Change the input source and favorite settings with one touch (SCENE) → **p.37**

HDMI Control

Audio

Audio/Video
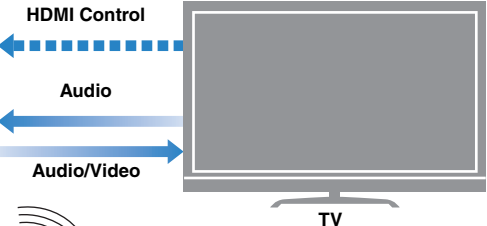
TV

TV remote control

Sequential operation of a TV, AV receiver, and BD/DVD player (HDMI Control) → **p.111**

Full of useful functions!

❑ Connecting various devices (p.24)

A number of HDMI jacks and various input/output jacks on the unit allow you to connect video devices (such as BD/DVD players), audio devices (such as CD players), game consoles, camcorders, and other devices.
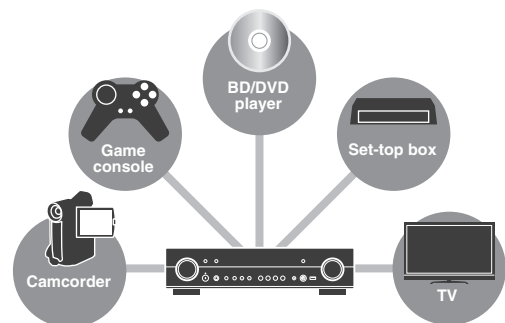
❑ Playing back TV audio in surround sound with a single HDMI cable connection (Audio Return Channel: ARC) (p.19)

When using an ARC -compatible TV, you only need one HDMI cable to enable video output to the TV, audio input from the TV, and the transmission of HDMI Control signals.
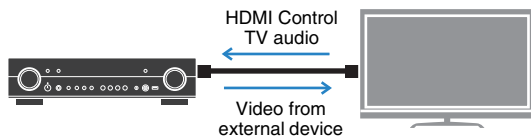
❑ Easy operation and wireless music playback from iPhone or Android device

By using the application for smartphone/tablet "AV CONTROLLER", you can control the unit from an iPhone, iPad, iPod touch or Android devices. Visit the Yamaha website for details.

❑ Creating 3-dimensional sound fields (p.39)

The Virtual Presence Speaker (VPS) function allows you to create a 3-dimensional sound field in your own room (CINEMA DSP 3D).
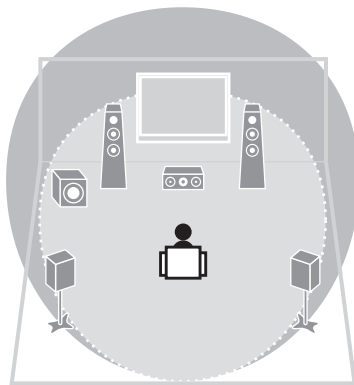
❑ Enjoying pure high fidelity sound (p.42)

When the direct playback mode is enabled, the unit plays back the selected source with the least circuitry, which lets you to enjoy Hi-Fi sound quality.

❑ Listening to FM/AM radio (p.44)(RX-S600)

❑ Listening to DAB radio (p.48) and FM radio (p.52) (RX-S600D)

❑ Easy operation with a TV screen

You can operate the iPod or USB storage device, view information, or easily configure the settings using the on-screen menu.

❑ Low power consumption

The ECO mode (power saving function) reduces the unit's power consumption and helps to create an eco-friendly home theater system (p.88).

Useful tips

The combination of video/audio input jacks does not match an external device...

Use "Audio In" in the "Option" menu to change the combination of video/audio input jacks so that it matches the output jack(s) of your external device (p.26).

Video and audio are not synchronized...

Use "Lipsync" in the "Setup" menu to adjust the delay between video and audio output (p.86).

I want to hear audio from the TV speakers...

Use "Audio Output" in the "Setup" menu to select the output destination of signals input into the unit (p.84). Your TV speakers may be selected as an output destination.

I want to use the supplied remote control to operate external devices…

Register the remote control codes of the external devices (such as a TV and BD/DVD players) (p.95).

I want to change the on-screen menu language...

Use "Language" in the "Setup" menu to select a language from English, Japanese, French, German, Spanish, Russian, Italian and Chinese (p.31).

I want to update the firmware...

Use "Network Update" (p.98) in the "Setup" menu or "UPDATE" (p.94) in the "ADVANCED SETUP" menu to update the unit's firmware.

Many other settings are available that let you to customize the unit. For details, see the following pages.

- SCENE settings (p.37)
- Sound/video settings and signal information for each source (p.74)
- Various function settings (p.79)
- System settings (p.93)

Part names and functions

Front panel

(RX-S600 U.S.A. model)
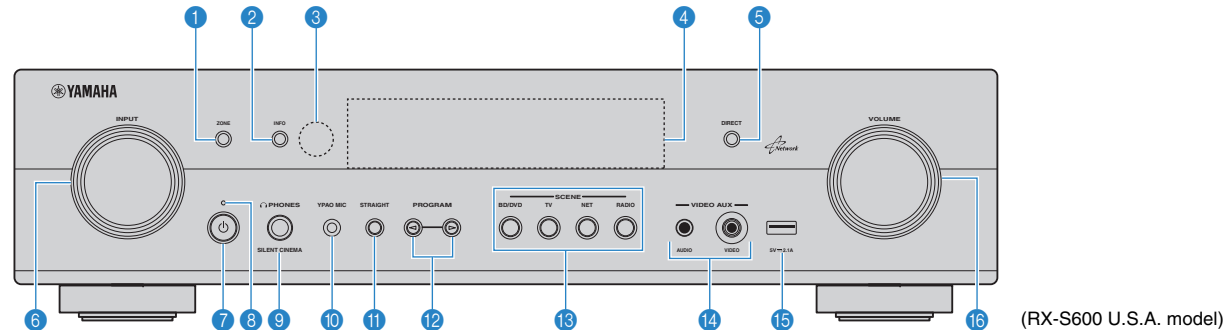
① ZONE key
Enables/disables the audio output to Zone2 (p.71).

② INFO key
Selects the information displayed on the front display (p.73).

③ Remote control sensor
Receives remote control signals (p.5).

④ Front display
Displays information (p.9).

⑤ DIRECT key
Enables/disables the direct playback mode (p.42).

⑥ INPUT knob
Select an input source.

⑦ ⏻ (power) key
Turns on/off (standby) the unit.

⑧ Standby indicator
Lights up when the unit is in standby mode under any of the following conditions.
• HDMI Control is enabled (p.84)
• Standby Through is enabled (p.84)
• Network Standby is enabled (p.91)
• An iPod is being charged (p.56)

⑨ PHONES jack
For connecting headphones.

⑩ YPAO MIC jack
For connecting the supplied YPAO microphone (p.32).

⑪ STRAIGHT key
Enables/disables the straight decode mode (p.41).

⑫ PROGRAM keys
Select a sound program or a surround decoder (p.38).

⑬ SCENE keys
Select the registered input source and sound program with one touch. Also, turns on the unit when it is in standby mode (p.37).

⑭ VIDEO AUX jacks
For connecting devices, such as camcorders and game consoles (p.27).

⑮ USB jack
For connecting a USB storage device (p.60) or an iPod (p.56).

⑯ VOLUME knob
Adjusts the volume.

Front display (indicators)
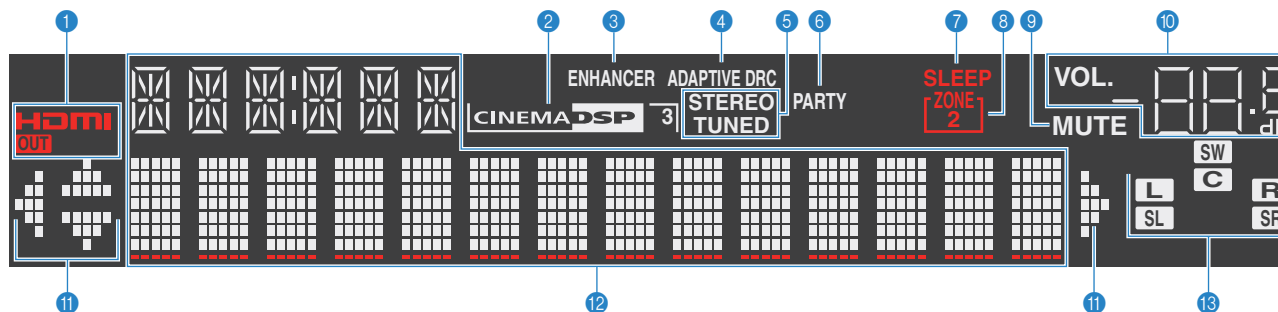
1 HDMI

Lights up when HDMI signals are being input or output.

OUT

Lights up when HDMI signals are being output.

2 CINEMA DSP

Lights up when CINEMA DSP (p.39) is working.

CINEMA DSP 3

Lights up when CINEMA DSP 3D (p.41) is working.

3 ENHANCER

Lights up when Compressed Music Enhancer (p.43) is working.

4 ADAPTIVE DRC

Lights up when Adaptive DRC (p.75) is working.

5 STEREO

Lights up when the unit is receiving a stereo FM radio signal.

TUNED

Lights up when the unit is receiving an FM/AM radio station (RX-S600) or FM radio station (RX-S600D) signal.

6 PARTY

Lights up when the unit is in the party mode. (p.72)

7 SLEEP

Lights up when the sleep timer is on.

8 ZONE2

Lights up when audio output to Zone2 is enabled (p.70).

9 MUTE

Blinks when audio is muted.

10 Volume indicator

Indicates the current volume.

11 Cursor indicators

Indicate the remote control cursor keys currently operational.

12 Information display

Displays the current status (such as input name and sound mode name). You can switch the information by pressing INFO (p.73).

13 Speaker indicators

Indicate speaker terminals from which signals are output.

SW Subwoofer
L Front speaker (L)
R Front speaker (R)
C Center speaker
SL Surround speaker (L)
SR Surround speaker (R)

Rear panel
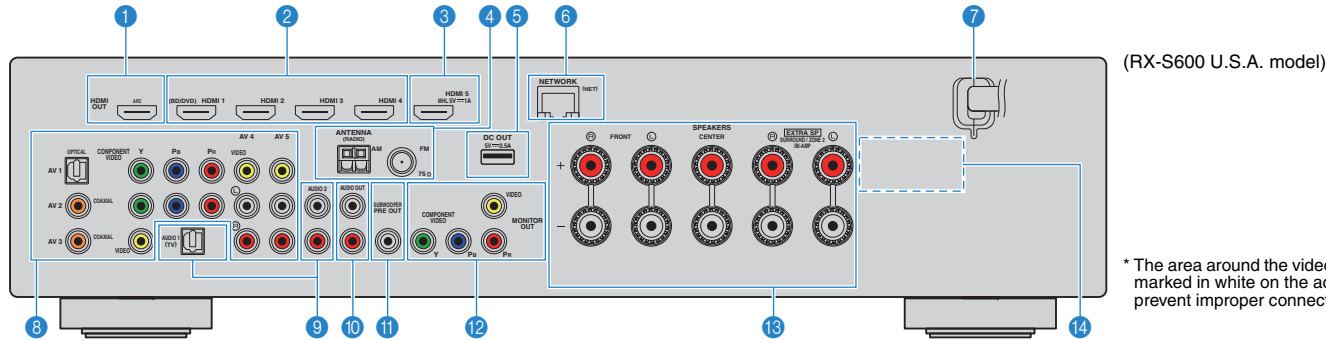
(RX-S600 U.S.A. model)

* The area around the video/audio output jacks is marked in white on the actual product to prevent improper connections.

❶ HDMI OUT jack

For connecting to an HDMI-compatible TV and outputting video/audio signals (p.19). When using ARC, TV audio signal can also be input through the HDMI OUT jack.

❷ HDMI 1–4 jacks

For connecting to HDMI-compatible playback devices and inputting video/audio signals (p.24).

❸ HDMI 5/MHL jack

For connecting to an HDMI- or MHL-compatible playback device and inputting video/audio signals (p.24).

❹ ANTENNA jacks

For connecting the radio antennas (p.28).

❺ DC OUT jack

For supplying power to a Yamaha AV accessory. For details on connections, refer to the instruction manual of the AV accessory.

❻ NETWORK jack

For connecting to a network (p.29).

❼ Power cable

For connecting to an AC wall outlet (p.30).

❽ AV 1–5 jacks

For connecting to video/audio playback devices and inputting video/audio signals (p.24).

❾ AUDIO 1–2 jacks

For connecting to an audio playback device and inputting audio signals (p.27).

❿ AUDIO OUT jacks

For outputting audio to a recording device (such as a tape deck) (p.30).

⓫ SUBWOOFER PRE OUT jack

For connecting to a subwoofer (with built-in amplifier) (p.16).

⓬ MONITOR OUT jacks
COMPONENT VIDEO jacks:

For connecting to a TV that supports component video and outputting video signals (p.23).

VIDEO jack:

For connecting to a TV that supports composite video and outputting video signals (p.23).

⓭ SPEAKERS terminals

For connecting to speakers (p.16).

⓮ VOLTAGE SELECTOR

(General model only)
Selects the switch position according to your local voltage (p.30).

Remote control

(RX-S600)
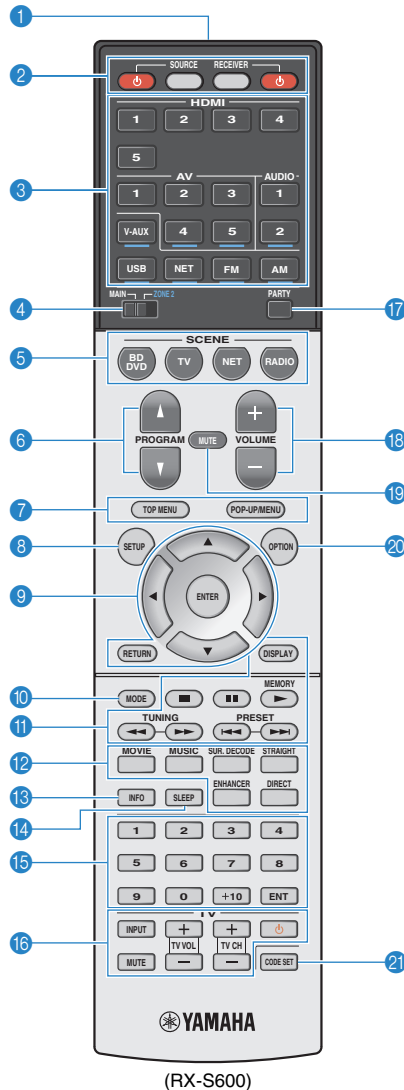
❶ Remote control signal transmitter

Transmits infrared signals.

❷ SOURCE ⏻ key

Turns on/off an external device.

SOURCE key

Sets the remote control to operate external devices (p.96). This key lights up in green after pressed.

RECEIVER key

Sets the remote control to operate the unit (p.96). This key lights up in orange after pressed.

RECEIVER ⏻ key

Turns on/off (standby) the unit.

❸ Input selection keys

Select an input source for playback.

HDMI 1–4	HDMI 1–4 jacks
HDMI 5	HDMI 5/MHL jack
AV 1–5	AV 1–5 jacks
AUDIO 1–2	AUDIO 1–2 jacks
V-AUX	VIDEO AUX jack (on the front panel)
USB	USB jack (on the front panel)
NET	NETWORK jack (press repeatedly to select a desired network source)
FM	FM radio
AM	AM radio (RX-S600)
DAB	DAB radio (RX-S600D)

❹ MAIN/ZONE2 switch

Changes the zone (main zone or Zone2) that is controlled by the remote control (p.71).

❺ SCENE keys

Select the registered input source, sound program, and various settings with one touch. Also, turns on the unit when it is in standby mode (p.37).

❻ PROGRAM keys

Select a sound program (p.38).

❼ External device operation keys

Select menus for external devices (p.96).

❽ SETUP key

Displays the setup menu (p.78).

❾ Menu operation keys

Cursor keys	Select a menu or a parameter.
ENTER	Confirms a selected item.
RETURN	Returns to the previous screen.

❿ MODE key

Switchesd between "Stereo" and "Mono" for FM radio reception (p.44, p.52).
Switches the iPod operation modes (p.58).

⓫ Radio keys

Operate the FM/AM/DAB radio when "TUNER" is selected as the input source (p.44, p.48, p.52).

MEMORY	Registers radio stations as presets.
PRESET	Select a preset station.
TUNING	Select the radio frequency.

External device operation keys

Let you play back and perform other operations for external devices when an input source other than "TUNER" is selected (p.96).

⓬ Sound mode keys

Select a sound mode (p.38).

⓭ INFO key

Selects the information displayed on the front display (p.73).

⓮ SLEEP key

Switches the unit to standby mode automatically after a specified period of time has elapsed (sleep timer). Press repeatedly to set the time (120 min, 90 min, 60 min, 30 min, off).

⓯ Numeric keys

Let you enter numerical values, such as radio frequencies.

⓰ TV operation keys

Let you select TV input and volume, and perform other TV operations (p.95).

⓱ PARTY key

Turns on/off the party mode (p.72).

⓲ VOLUME keys

Adjust the volume.

⓳ MUTE key

Mutes the audio output.

⓴ OPTION key

Displays the option menu (p.74).

㉑ CODE SET key

Registers remote control codes of external devices on the remote control (p.95).

☀️

• To operate external devices with the remote control, register a remote control code for each device before using (p.95).

PREPARATIONS

General setup procedure

1 **Placing speakers (p.13)**

Select the speaker layout for the number of speakers that you are using and place them in your room.

2 **Connecting speakers (p.16)**

Connect the speakers to the unit.

3 **Connecting a TV (p.19)**

Connect a TV to the unit.

4 **Connecting playback devices (p.24)**

Connect video devices (such as BD/DVD players) and audio devices (such as CD players) to the unit.

5 **Connecting the radio antennas (p.28)**

Connect the supplied FM/AM/DAB antennas to the unit.

6 **Connecting to a network (p.29)**

Connect the unit to a network.

7 **Connecting audio recording devices (p.30)**

Connect audio recording devices to the unit.

8 **Connecting the power cable (p.30)**

After all the connections are complete, plug in the power cable.

9 **Selecting an on-screen menu language (p.31)**

Select the desired on-screen menu language (default: English).

10 **Optimizing the speaker settings automatically (YPAO) (p.32)**

Optimize the speaker settings, such as volume balance and acoustic parameters, to suit your room (YPAO).

This completes all the preparations. Enjoy playing movies, music, radio and other content with the unit!

1 Placing speakers

Select the speaker layout for the number of speakers that you are using and place the speakers and subwoofer in your room. This section describes the representative speaker layout examples.

Caution

• Under its default settings, the unit is configured for 6-ohm speakers. When connecting speakers with impedance of 8 ohm or more, set the unit's speaker impedance to "8 Ω MIN". For details, see "Setting the speaker impedance" (p.15).

Speaker type	Abbr.	Function	Speaker system (the number of channels)			
			5.1	4.1	3.1	2.1
Front (L)	FL	Produce front right/left channel sounds (stereo sounds).	●	●	●	●
Front (R)	FR		●	●	●	●
Center	C	Produces center channel sounds (such as movie dialogue and vocals).	●		●	
Surround (L)	SL	Produce surround right/left channel sounds.	●	●		
Surround (R)	SR		●	●		
Subwoofer	SW	Produces LFE (low-frequency effect) channel sounds and reinforces the bass parts of other channels. This channel is counted as "0.1".	●	●	●	●

• You can use the Zone2 function or bi-amp connections simultaneously with the 2.1- or 3.1-channel system.

5.1-channel system
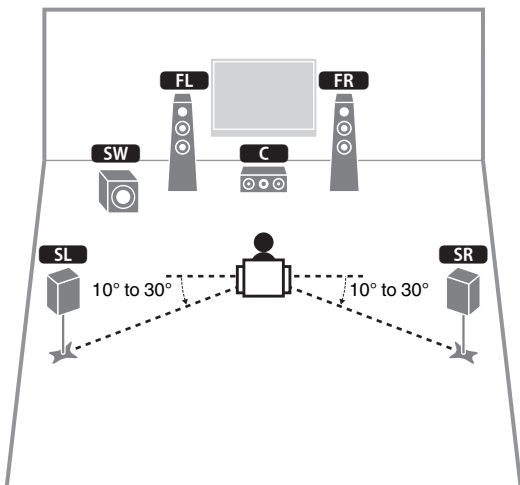
3.1-channel system
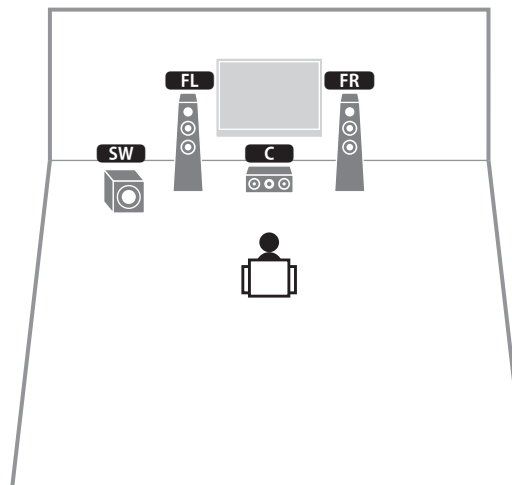
4.1-channel system
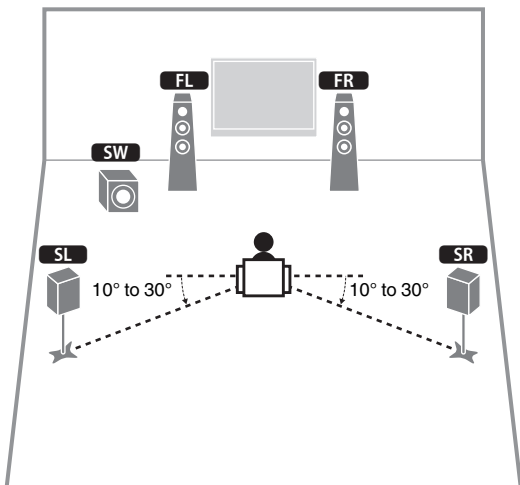
2.1-channel system
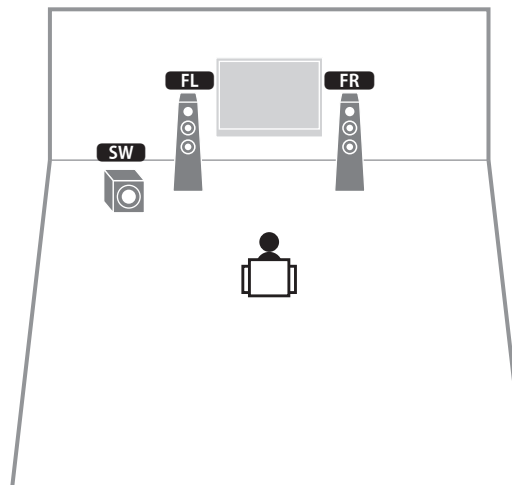
■ Setting the speaker impedance

Under its default settings, the unit is configured for 6-ohm speakers. When connecting speakers with impedance of 8 ohm or more, set the speaker impedance to "8 Ω MIN".

1 Before connecting speakers, connect the power cable to an AC wall outlet.

2 While holding down STRAIGHT on the front panel, press ⏻ (power).
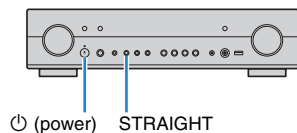
⏻ (power)   STRAIGHT

3 Check that "SP IMP." is displayed on the front display.

```
SP IMP.··6ΩMIN
```

4 Press STRAIGHT to select "8 Ω MIN".

5 Press ⏻ (power) to set the unit to standby mode and remove the power cable from the AC wall outlet.

You are now ready to connect the speakers.

2 Connecting speakers

Connect the speakers placed in your room to the unit. The following diagrams provide connections for 5.1-channel system as examples. For other systems, connect speakers while referring to the connection diagram for the 5.1-channel system.

Caution

- Remove the unit's power cable from an AC wall outlet and turn off the subwoofer before connecting the speakers.
- Ensure that the core wires of the speaker cable do not touch one another or come into contact with the unit's metal parts. Doing so may damage the unit or the speakers. If the speaker cables short circuit, "Check SP Wires" will appear on the front display when the unit is turned on.

Cables required for connection (commercially available)

Speaker cables (x the number of speakers)

Audio pin cable (x1: for connecting a subwoofer)

5.1-channel system

The unit (rear)
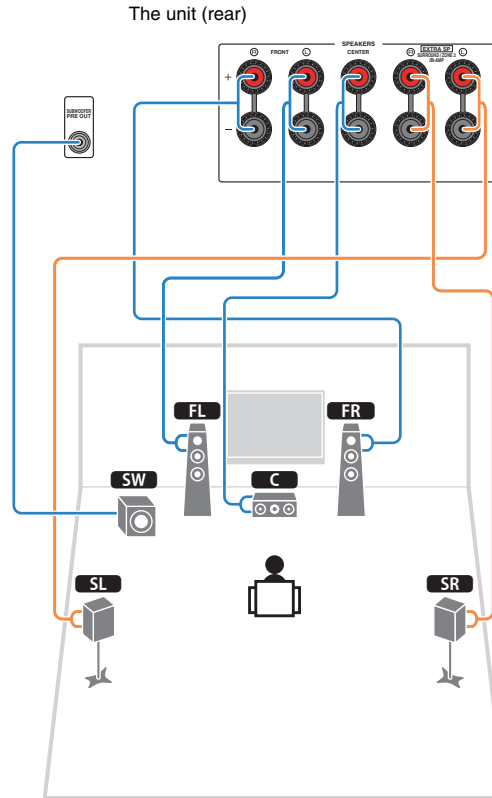
■ Connecting speaker cables

Speaker cables have two wires. One is for connecting the negative (-) terminal of the unit and the speaker, and the other is for the positive (+) terminal. If the wires are colored to prevent confusion, connect the black wire to the negative and the other wire to the positive terminal.

① Remove approximately 10 mm (3/8") of insulation from the ends of the speaker cable and twist the bare wires of the cable firmly together.

② Loosen the speaker terminal.

③ Insert the bare wires of the cable into the gap on the side (upper right or bottom left) of the terminal.

④ Tighten the terminal.

+ (red)

- (black)
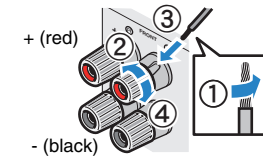
Using a banana plug

(U.S.A., Canada, China, Australia and General models only)

① Tighten the speaker terminal.

② Insert a banana plug into the end of the terminal.

Banana plug
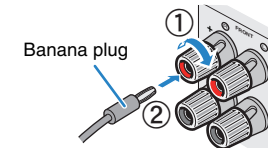
■ Connecting the subwoofer (with built-in amplifier)

Use an audio pin cable to connect the subwoofer.

Audio pin cable
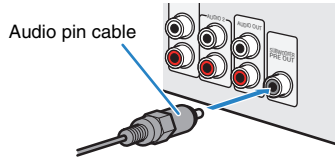
Connecting front speakers that support bi-amp connections

When using front speakers that support bi-amp connections, connect them to the FRONT jacks and SURROUND/ZONE 2/BI-AMP jacks.

To enable the bi-amp function, set "Power Amp Assign" (p.81) in the "Setup" menu to "BI-AMP" after connecting the power cable to an AC wall outlet.

The unit (rear)
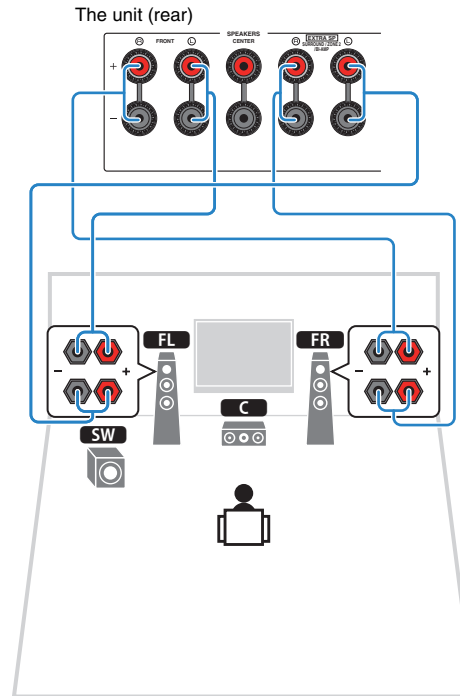
• The FRONT jacks and SURROUND/ZONE 2/BI-AMP jacks output the same signals.

Caution

• Before making bi-amp connections, remove any brackets or cables that connect a woofer with a tweeter. Refer to the instruction manual of the speakers for details. If you are not making bi-amp connections, make sure that the brackets or cables are connected before connecting the speaker cables.

• Surround speakers cannot be used during bi-amp connections.

Connecting Zone2 speakers

The Zone2 function allows you to playback an input source in the room where the unit is installed (main zone) and in another room (Zone2). To connect the Zone2 speakers, see "Playing back music in multiple rooms" (p.70).

Input/output jacks and cables

■ Video/audio jacks

❑ HDMI jacks

Transmit digital video and digital sound through a single jack. Use an HDMI cable.

HDMI cable

!
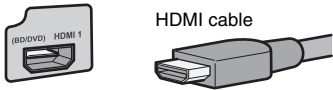
• Use a 19-pin HDMI cable with the HDMI logo. We recommend using a cable less than 5.0 m (16.4 ft) long to prevent signal quality degradation.

☀

• The unit's HDMI jacks support the HDMI Control, Audio Return Channel (ARC), and 3D and 4K Ultra HD video transmission (through output) features.
• Use high speed HDMI cables to enjoy 3D or 4K Ultra HD videos.

❑ HDMI/MHL jack

Transmit digital video and digital sound. Use an MHL cable.

MHL cable

☀

• The HDMI 5/MHL jack of the unit supports both HDMI and MHL connections. Use a cable that matches the jack on your MHL-compatible mobile device. When connecting an HDMI-compatible playback device to the jack, use an HDMI cable. For details on an MHL connection, see "MHL connection" (p.24).

■ Video jacks

❑ COMPONENT VIDEO jacks

Transmit video signals separated into three components: luminance (Y), chrominance blue (P_B), and chrominance red (P_R). Use a component video cable with three plugs.

Component video cable
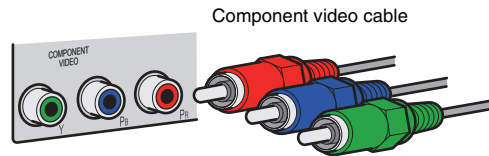
❑ VIDEO jacks

Transmit analog video signals. Use a video pin cable.

Video pin cable
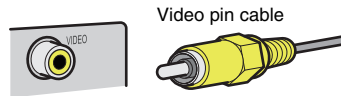
■ Audio jacks

❑ OPTICAL jacks

Transmit digital audio signals. Use a digital optical cable. Remove the tip protector (if available) before using the cable.

Digital optical cable

❑ COAXIAL jacks

Transmit digital audio signals. Use a digital coaxial cable.

Digital coaxial cable

❑ AUDIO jacks

(Stereo L/R jacks)

Transmit analog stereo audio signals. Use a stereo pin cable (RCA cable).

Stereo pin cable
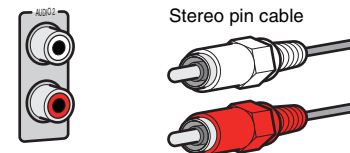
(Stereo mini jack)

Transmits analog stereo audio signals. Use a stereo mini-plug cable.

Stereo mini-plug cable

3 Connecting a TV

Connect a TV to the unit so that video input to the unit can be output to the TV.

You can also enjoy playback of TV audio on the unit.

The connection method varies depending on the functions and video input jacks available on your TV.

Refer to the instruction manual of the TV and choose a connection method.

```
┌─────────────────────────┐   Yes
│ Does your TV support     │ ──────▶ ■ Connection Method 1 (p.19)
│ Audio Return Channel     │
│ (ARC)?                   │
└─────────────────────────┘
            │ No
            ▼
┌─────────────────────────┐   Yes
│ Does your TV support     │ ──────▶ ■ Connection Method 2 (p.21)
│ HDMI Control?            │
└─────────────────────────┘
            │ No
            ▼
┌─────────────────────────┐   Yes
│ Does your TV have an     │ ──────▶ ■ Connection Method 3 (p.22)
│ HDMI input jack?         │
└─────────────────────────┘
            │ No
            ▼
■ Connection Method 4 (p.23)
```
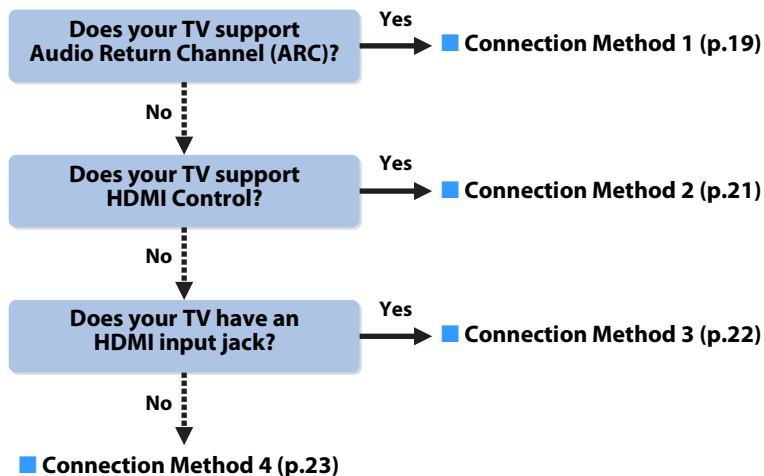
When connecting a video device with an analog video output

- If you will connect any video device to the AV 1–2 (COMPONENT VIDEO) jacks of the unit, you also need to connect the TV to the MONITOR OUT (COMPONENT VIDEO) jacks (p.23).
- If you will connect any video device to the AV 3–5 (VIDEO) jacks or the VIDEO AUX (VIDEO) of the unit, you also need to connect the TV to the MONITOR OUT (VIDEO) jack (p.23).

When using a set-top box to watch TV

- Connect the set-top box to the unit in the same way as playback devices (p.24). If you will receive TV broadcasts only from the set-top box, you do not need to make an audio cable connection between the TV and the unit or configure the ARC setting.

About HDMI Control

HDMI Control allows you to operate external devices via HDMI. If you connect a TV that supports HDMI Control to the unit with an HDMI cable, you can control the unit's power and volume with the TV's remote control. You can also control playback devices (such as an HDMI Control-compatible BD/DVD player) connected to the unit with an HDMI cable. For details, see "HDMI Control" (p.111).

About Audio Return Channel (ARC)

ARC allows audio signals to travel both ways under HDMI Control. If you connect a TV that supports HDMI Control and ARC to the unit with a single HDMI cable, you can output video/audio to the TV or input TV audio to the unit.

■ Connection Method 1 (HDMI Control/ARC-compatible TV)

Connect the TV to the unit with an HDMI cable.

!

- The following explanation is based on the assumption that you have not changed the "HDMI" parameters (p.84) in the "Setup" menu.
- Use an HDMI cable that supports ARC.
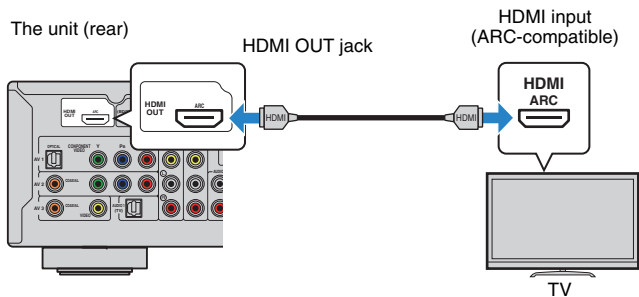
- By connecting a TV to the unit with an HDMI cable, you can navigate the iPod, USB storage device and network sources, or configure the settings of the unit with the menu displayed on the TV.

❑ **Necessary settings**

To use HDMI Control and ARC, you need to configure the following settings.

For details on settings and operating your TV, refer to the instruction manual for the TV.

1 **After connecting external devices (such as a TV and playback devices) and the power cable to the unit, turn on the unit, TV, and playback devices.**

2 **Configure the settings of the unit.**

① Check that ARC is enabled on the TV.

② Switch the TV input to display video from the unit.

③ Press SETUP.

SETUP
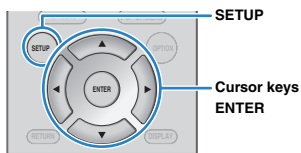
Cursor keys
ENTER

④ Use the cursor keys to select "HDMI" and press ENTER.
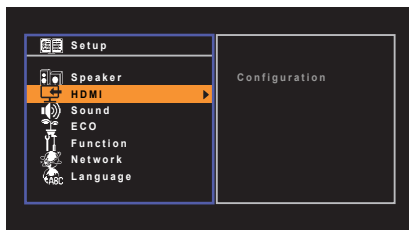
⑤ Press ENTER again.

⑥ Use the cursor keys (△/▽) to select "HDMI Control" and the cursor keys (◁/▷) to select "On" as shown below.
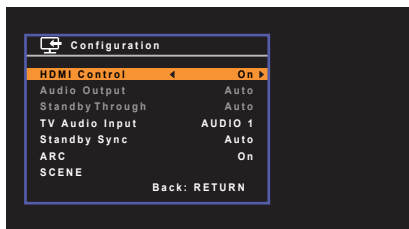
⑦ Press SETUP.

3 **Configure the settings for HDMI Control.**

① Enable HDMI Control on the TV and playback devices (such as HDMI Control-compatible BD/DVD player).

② Turn off the TV's main power and then turn off the unit and playback devices.

③ Turn on the unit and playback devices and then turn on the TV's main power.

④ Switch the TV input to display video from the unit.

⑤ Check the following.

On the unit: The input to which the playback device is connected is selected. If not, select the input source manually.

On the TV: The video from the playback device is displayed.

⑥ Check that the unit is properly synchronized with the TV by turning off the TV or adjusting the TV volume with the TV remote control.

This completes the necessary settings.

If you select a TV program with the TV remote control, the input source of the unit will be automatically switched to "AUDIO 1" and the TV audio will be played back on the unit.

If you cannot hear the TV's audio, check that "ARC" (p.85) in the "Setup" menu is set to "On".

⚠

• If HDMI Control does not work properly, try turning off and on (or unplugging and then plugging in again) the devices. It may solve the problem.

• If the unit is not synchronized to the TV's power operations, check the priority of the audio output setting on the TV.

• If the audio is interrupted while using ARC, set "ARC" (p.85) in the "Setup" menu to "Off" and use a digital optical cable to input TV audio to the unit (p.21).

☼

• "AUDIO 1" is set as TV audio input at the factory. If you have connected any external device to the AUDIO 1 jacks, use "TV Audio Input" (p.84) in the "Setup" menu to change the TV audio input assignment. To use the SCENE function (p.37), you also need to change the input assignment for SCENE(TV).

■ Connection Method 2 (HDMI Control-compatible TV)

Connect the TV to the unit with an HDMI cable and a digital optical cable.

• The following explanation is based on the assumption that you have not changed the "HDMI" parameters (p.84) in the "Setup" menu.

The unit (rear)   HDMI OUT jack   HDMI input

AUDIO 1 (OPTICAL) jack

Audio output (digital optical)

TV
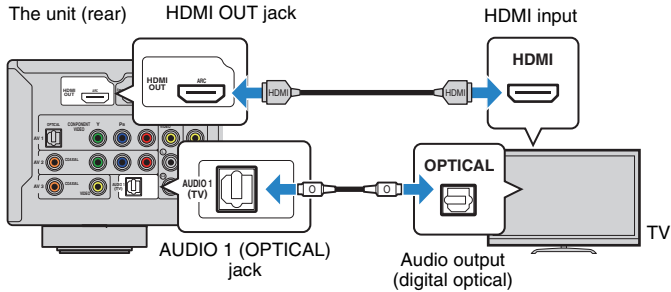
• By connecting a TV to the unit with an HDMI cable, you can navigate the iPod, USB storage device and network sources, or configure the settings of the unit with the menu displayed on the TV.

❑ Necessary settings

To use HDMI Control, you need to configure the following settings.
For details on settings and operating your TV, refer to the instruction manual for the TV.

1 **After connecting external devices (such as a TV and playback devices) and power cable of the unit, turn on the unit, TV, and playback devices.**

2 **Configure the settings of the unit.**

① Switch the TV input to display video from the unit.

② Press SETUP.

SETUP

Cursor keys
ENTER

③ Use the cursor keys to select "HDMI" and press ENTER.

Setup

Speaker   Configuration
HDMI
Sound
ECO
Function
Network
Language

④ Press ENTER again.

⑤ Use the cursor keys ($\triangle$/$\triangledown$) to select "HDMI Control" and the cursor keys ($\triangleleft$/$\triangleright$) to select "On" as shown below.

Configuration
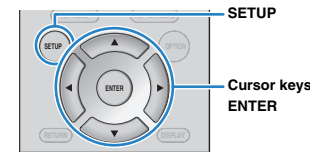
HDMI Control   ◄   On ►
Audio Output   Auto
Standby Through   Auto
TV Audio Input   AUDIO 1
Standby Sync   Auto
ARC   On
SCENE
                  Back: RETURN

⑥ Press SETUP.

3 Configure the settings for HDMI Control.

① Enable HDMI Control on the TV and playback devices (such as a HDMI Control-compatible BD/DVD player).

② Turn off the TV's main power and then turn off the unit and playback devices.

③ Turn on the unit and playback devices and then turn on the TV.

④ Switch the TV input to display video from the unit.

⑤ Check the following.

On the unit: The input to which the playback device is connected is selected. If not, select the input source manually.

On the TV: The video from the playback device is displayed.

⑥ Check that the unit is properly synchronized with the TV by turning off the TV or adjusting the TV volume with the TV remote control.

This completes the necessary settings.

If you select a TV program with the TV remote control, the input source of the unit will be automatically switched to "AUDIO 1" and the TV audio will be played back on the unit.

> • If HDMI Control does not work properly, try turning off and on (or unplugging and then plugging in again) the devices. It may solve the problem.
> • If the unit is not synchronized to the TV's power operations, check the priority of the audio output setting on the TV.

> • "AUDIO 1" is set as TV audio input at the factory. If you have connected any external device to the AUDIO 1 jacks or if you want to use another input jack (other than OPTICAL) for connecting the TV, use "TV Audio Input" (p.84) in the "Setup" menu to change the TV audio input assignment. To use the SCENE function (p.37), you also need to change the input assignment for SCENE(TV).

■ **Connection Method 3 (TV with HDMI input jacks)**

Connect the TV to the unit with an HDMI cable and a digital optical cable.

The unit (rear)   HDMI OUT jack   HDMI input

AUDIO 1 (OPTICAL) jack   Audio output (digital optical)   TV
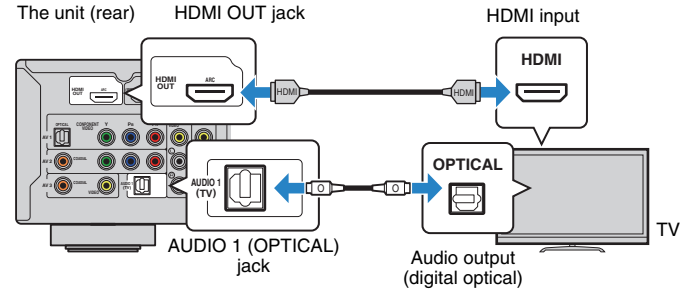
If you switch the input source of the unit to "AUDIO 1" using the AUDIO 1 or SCENE(TV) keys, the TV audio will be played back on the unit.

> • By connecting a TV to the unit with an HDMI cable, you can navigate the iPod, USB storage device and network sources, or configure the settings of the unit with the menu displayed on the TV.
> • If you have connected any external device to the AUDIO 1 jack or if you want to use another input jack (other than OPTICAL) for connecting the TV, connect the TV to one of the AV 1–5 and AUDIO 2 jacks. To use the SCENE function (p.37), you also need to change the input assignment for SCENE(TV).

■ Connection Method 4 (TV without HDMI input jacks)

When connecting any video device to the AV 1–2 (COMPONENT VIDEO) jacks of the unit, connect the TV to the MONITOR OUT (COMPONENT VIDEO) jacks.

When connecting any video device to the AV 3–5 (VIDEO) jacks or the VIDEO AUX (VIDEO) jack of the unit, connect the TV to the MONITOR OUT (VIDEO) jack.

If you select "AUDIO 1" as the input source by pressing AUDIO 1 or SCENE(TV), the TV audio will be played back on the unit.

!

• If you connect your TV to the unit with a cable other than HDMI, video input to the unit via HDMI cannot be output to the TV.

• Operations with TV screen are available only when your TV is connected to the unit via HDMI.

☼

• If you have connected any external device to the AUDIO 1 jack or if you want to use another input jack (other than OPTICAL) for connecting the TV, connect the TV to one of the AV 1–5 and AUDIO 2 jacks. To use the SCENE function (p.37), you also need to change the input assignment for SCENE(TV).

❑ COMPONENT VIDEO connection (with a component video cable)
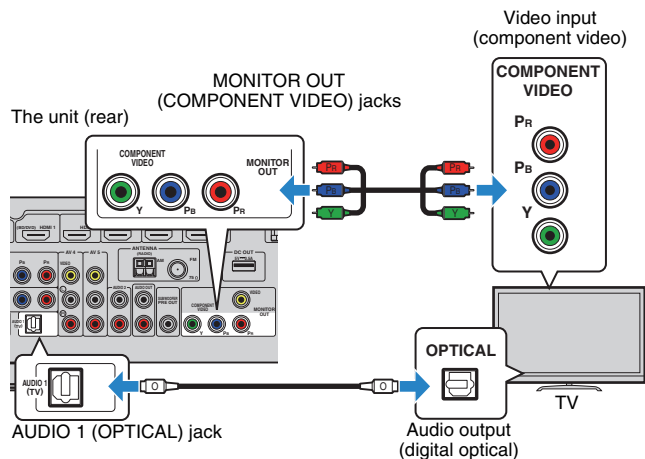
❑ VIDEO (composite video) connection (with a video pin cable)
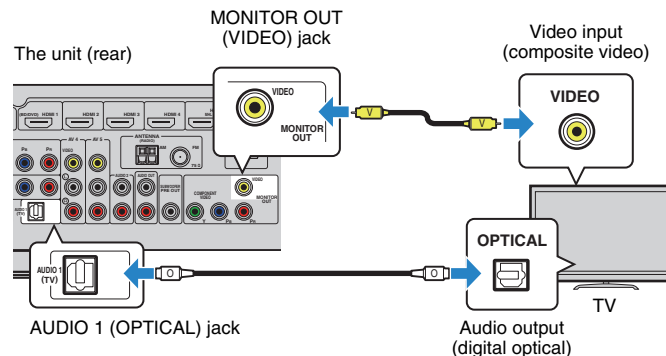
4 Connecting playback devices

The unit is equipped with a variety of input jacks including HDMI input jacks to allow you to connect different types of playback devices. For information on how to connect an iPod or a USB storage device, see the following pages.
– Connecting an iPod (p.56)
– Connecting a USB storage device (p.60)

Connecting video devices (such as BD/DVD players)

Connect video devices such as BD/DVD players, set-top boxes (STBs) and game consoles to the unit. Depending on the video/audio output jacks available on your video device, choose one of the following connections. We recommend using an HDMI connection if the video device has an HDMI output jack.

- If the combination of video/audio input jacks available on the unit does not match your video device, change its combination according to the output jacks of your device (p.26).

■ HDMI connection

Connect a video device to the unit with an HDMI cable.

HDMI 1–5 jacks

The unit (rear)

HDMI output
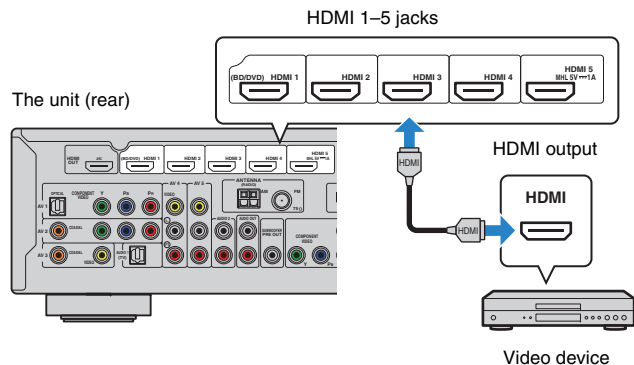
HDMI

Video device

If you select the input source by pressing HDMI 1–5, the video/audio played back on the video device will be output from the unit.

- To watch videos input to the HDMI 1–5 jacks, you need to connect your TV to the HDMI OUT jack of the unit (p.19 to 22).

❑ MHL connection

Connect an MHL-compatible mobile device (such as smartphones) to the unit with an MHL cable. You can enjoy full HD videos and multichannel audio sources stored on the mobile device. The HDMI 5/MHL jack of the unit enables you to input videos and audio directly from the mobile device to the unit.

The unit (rear)   HDMI 5/MHL jack

MHL output

Mobile device

If you select the input source by pressing HDMI 5, the video/audio played back on the mobile device will be output from the unit.

- To watch videos input to the HDMI 5/MHL jack, you need to connect your TV to the HDMI OUT jack of the unit (p.19 to 22).
- You need to prepare an MHL cable that match the jack on your mobile device.

- You can operate the mobile device using the menu operation keys, external device operation keys and numeric keys on the remote control. However, some features may not be compatible, depending on the mobile device or its application. In this case, operate the mobile device itself.
- If "Standby Through" (p.84) in the "Setup" menu is set to "On", you can output mobile device videos/audio to the TV or operate the mobile device using the remote control of the unit even when the unit is in standby mode.
- The unit supplies power to the mobile device in the following conditions.
  – The unit is turned on.
  – The unit is in standby mode while "Standby Through" (p.84) in the "Setup" menu is set to "On".

■ Component video connection

Connect a video device to the unit with a component video cable and an audio cable (digital optical or digital coaxial). Choose a set of input jacks (on the unit) depending on the audio output jacks available on your video device.

Output jacks on video device		Input jacks on the unit
Video	Audio	
Component video	Digital optical	AV 1 (COMPONENT VIDEO + OPTICAL)
	Digital coaxial	AV 2 (COMPONENT VIDEO + COAXIAL)

AV 1–2 (COMPONENT VIDEO) jacks

The unit (rear)

Video output
(component video)

AV 1 (OPTICAL) jack or
AV 2 (COAXIAL) jack

Audio output (digital optical or digital coaxial)
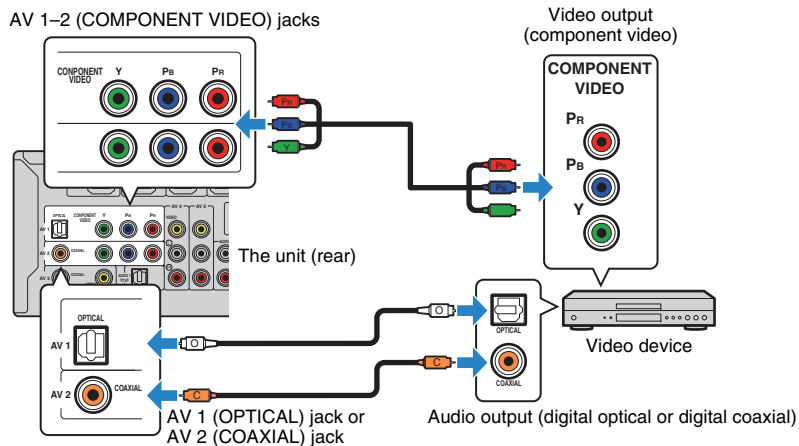
Video device

If you select the input source by pressing AV 1–2, the video/audio played back on the video device will be output from the unit.

⚠️

• To watch videos input to the AV 1–2 (COMPONENT VIDEO) jacks, you need to connect your TV to the MONITOR OUT (COMPONENT VIDEO) jacks of the unit (p.23).

■ Composite video connection

Connect a video device to the unit with a video pin cable and an audio cable (digital coaxial, or stereo pin cable). Choose a set of input jacks (on the unit) depending on the audio output jacks available on your video device.

Output jacks on video device		Input jacks on the unit
Video	Audio	
Composite video	Digital coaxial	AV 3 (VIDEO + COAXIAL)
	Analog stereo	AV 4–5 (VIDEO + AUDIO)

AV 3–5 (VIDEO) jack

Video output
(composite video)

Video device

The unit (rear)

Any of AV 3 (COAXIAL) jack,
AV 4–5 (AUDIO) jacks

Audio output
(either digital coaxial or
analog stereo)
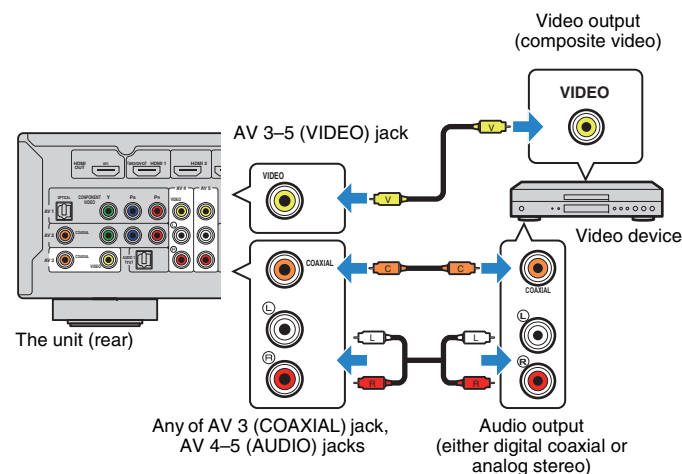
If you select the input source by pressing AV 3–5, the video/audio played back on the video device will be output from the unit.

⚠️

• To watch videos input to the AV 3–5 (VIDEO) jacks, you need to connect your TV to the MONITOR OUT (VIDEO) jack of the unit (p.23).

■ Changing the combination of video/audio input jacks

If the combination of video/audio input jacks available on the unit does not match your video device, change its combination according to the output jacks of your device. You can connect a video device that has the following video/audio output jacks.

Output jacks on video device		Input jacks on the unit	
Video	Audio	Video	Audio
HDMI	Digital optical	HDMI 1–5	AV 1 (OPTICAL) AUDIO 1 (OPTICAL)
	Digital coaxial	HDMI 1–5	AV 2–3 (COAXIAL)
	Analog stereo	HDMI 1–5	AV 4–5 (AUDIO) AUDIO 2
Component video	Analog stereo	AV 1–2 (COMPONENT VIDEO)	AV 4–5 (AUDIO) AUDIO 2
Composite video	Digital optical	AV 3	AV 1 (OPTICAL) AUDIO 1 (OPTICAL)

❑ Necessary setting

For example, if you have connected a video device to AV 2 (COMPONENT VIDEO) and AV 5 (AUDIO) jacks of the unit, change the combination setting as follows.
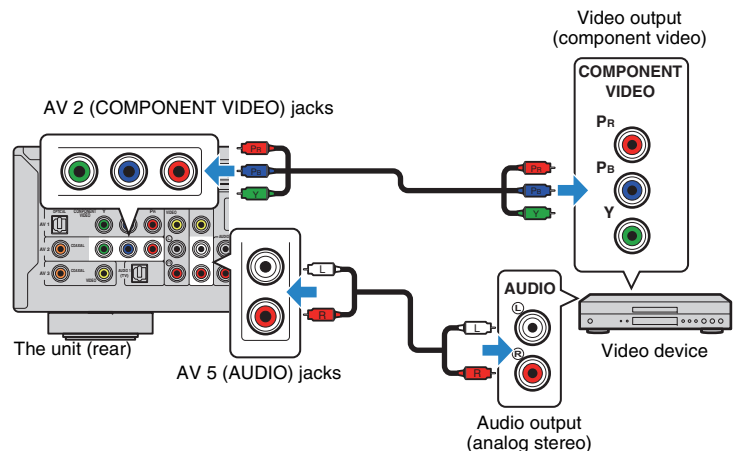
Video output
(component video)

COMPONENT
VIDEO

AV 2 (COMPONENT VIDEO) jacks

The unit (rear)

AV 5 (AUDIO) jacks

AUDIO

Video device

Audio output
(analog stereo)

1 After connecting external devices (such as a TV and playback devices) and power cable of the unit, turn on the unit.

2 Press AV 2 to select "AV 2" (video input jack to be used) as the input source.

AV 2

OPTION
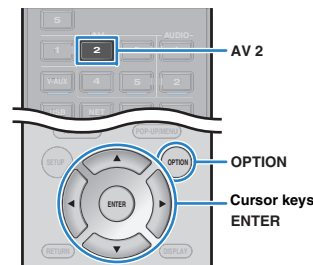
Cursor keys
ENTER

3 Press OPTION.

4 Use the cursor keys (△/▽) to select "Audio In" and press ENTER.

OPTION   VOL.−40.0dB
≑Audio In

5 Use the cursor keys (◁/▷) to select "AV 5" (audio input jack to be used).

AV2   VOL.−40.0dB
◁ Audio······AV5▷

6 Press OPTION.

This completes the necessary settings.

If you select "AV 2" as the input source by pressing AV 2, the video/audio played back on the video device will be output from the unit.

Connecting audio devices (such as CD players)

Connect audio devices such as CD players and MD players to the unit. Depending on the audio output jacks available on your audio device, choose one of the following connections.

Audio output jacks on audio device	Audio output jacks on the unit
Digital optical	AV 1 (OPTICAL) AUDIO 1 (OPTICAL)
Digital coaxial	AV 2–3 (COAXIAL)
Analog stereo	AV 4–5 (AUDIO) AUDIO 2

The unit (rear)

AV 1–5 jacks
AUDIO 1–2 jacks

Audio output
(either digital optical,
digital coaxial, or analog stereo)
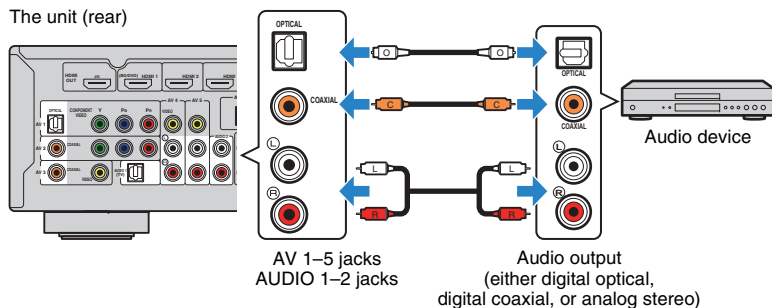
Audio device

If you select the input source by pressing AV 1–5 or AUDIO 1–2, the audio played back on the audio device will be output from the unit.

Connecting to the jacks on the front panel

Use the VIDEO AUX jacks on the front panel to temporarily connect devices such as camcorders and portable audio players to the unit.

Before making a connection, stop playback on the device and turn down the volume on the unit.

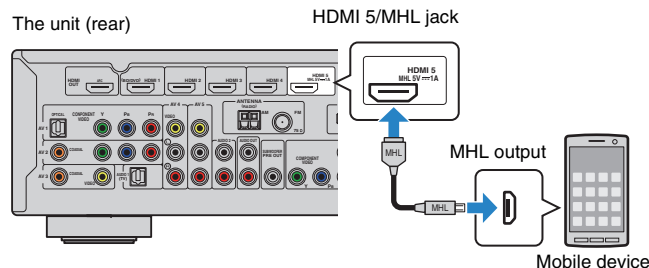The unit (front)

Portable audio player

Camcorder
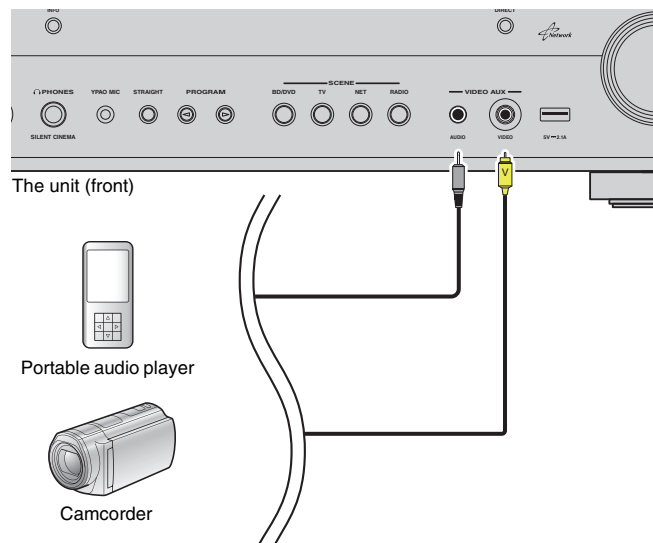
If you select "V-AUX" as the input source by pressing V-AUX, the video/audio played back on the device will be output from the unit.

> ❗
> • To watch videos input to the VIDEO AUX (VIDEO) jack, you need to connect your TV to the MONITOR OUT (VIDEO) jack of the unit (p.23).
> • You need to prepare the video/audio cables that match the output jacks on your device.

> ☀
> • For details on how to connect an iPod or a USB storage device, see "Connecting an iPod" (p.56) or "Connecting a USB storage device" (p.60).
> • When "USB" is selected as the input source, video signals input to the VIDEO AUX (VIDEO) jack are output from the MONITOR OUT (VIDEO) jack.

5 Connecting the radio antennas

■ FM/AM antennas (RX-S600)

Connect the supplied FM/AM antennas to the unit.

Fix the end of the FM antenna to a wall, and place the AM antenna on a flat surface.

AM antenna　　　　FM antenna

The unit (rear)
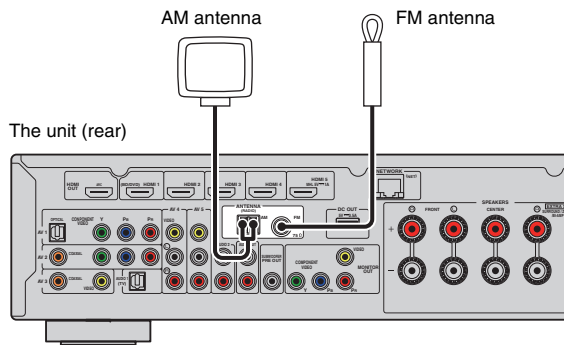
Assembling and connecting the AM antenna

Hold down　　　Insert　　　Release
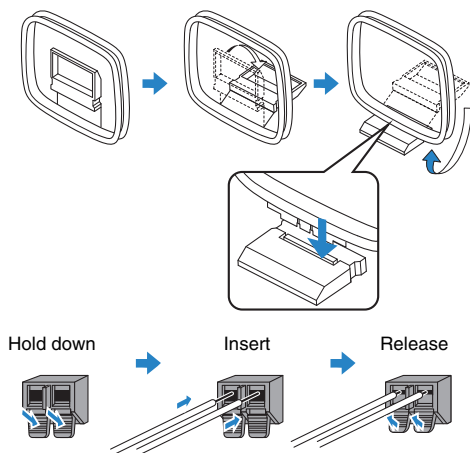
- Unwind only the length of cable needed from the AM antenna unit.
- The wires of the AM antenna have no polarity.

■ DAB/FM antenna (RX-S600D)

Connect the supplied DAB/FM antenna to the unit and fix the antenna ends to a wall.

DAB/FM antenna

The unit (rear)
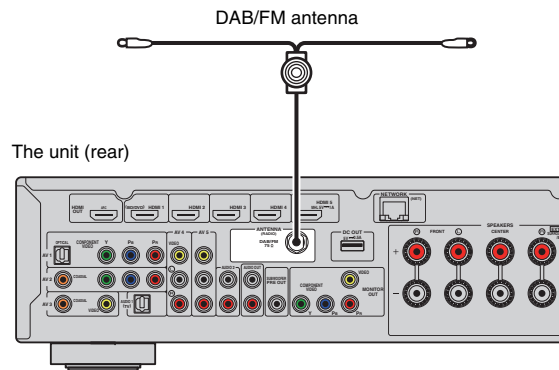
- The antenna should be stretched out horizontally.
- If you cannot obtain good reception on the radio, adjust the height, direction or placement of the DAB/FM antenna.

6 Connecting to a network

Connect the unit to your router with a commercially-available STP network cable (CAT-5 or higher straight cable).

You can enjoy Internet radio or music files stored on media servers, such as PCs and Network Attached Storage (NAS), on the unit.

Internet

Network Attached Storage (NAS)

PC

Modem

Router

Network cable

The unit (rear)

• If you are using a router that supports DHCP, you do not need to configure any network settings for the unit, as the network parameters (such as the IP address) will be assigned automatically to it. You only need to configure the network settings if your router does not support DHCP or if you want to configure the network parameters manually (p.90).

• You can check whether the network parameters (such as IP address) are properly assigned to the unit in "Information" (p.90) in the "Setup" menu.

!
• Some security software installed on your PC or the firewall settings of network devices (such as a router) may block the access of the unit to the network devices or the Internet. In these cases, configure the security software or firewall settings appropriately.

• Each server must be connected to the same subnet as the unit.

• To use the service via the Internet, broadband connection is strongly recommended.

7 Connecting audio recording devices

You can connect audio recording devices to the AUDIO OUT jacks. These jacks output analog audio signals selected as the input.

> ❗
> • To copy audio from an audio device, connect the audio device to the AV 4–5 jacks, AUDIO 2 jacks, or VIDEO AUX (AUDIO) jacks of the unit.
> • Be sure to use the AUDIO OUT jacks only for connecting recording devices.

The unit (rear)　　　　AUDIO OUT jacks　　　　Audio input

Audio recording device
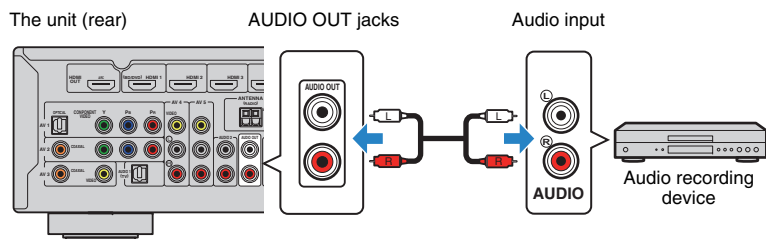
8 Connecting the power cable

> **Before connecting the power cable (General model only)**
>
> Set the switch position of VOLTAGE SELECTOR according to your local voltage. Voltages are AC 110–120/220–240 V, 50/60 Hz.
>
> ❗
> • Make sure you set VOLTAGE SELECTOR of the unit BEFORE plugging the power cable into an AC wall outlet. Improper setting of VOLTAGE SELECTOR may cause damage to the unit and create a potential fire hazard.
>
> VOLTAGE SELECTOR
>
> The unit (rear)
>
>
>
> VOLTAGE SELECTEOR
> 110V　220V
> 120V　240V
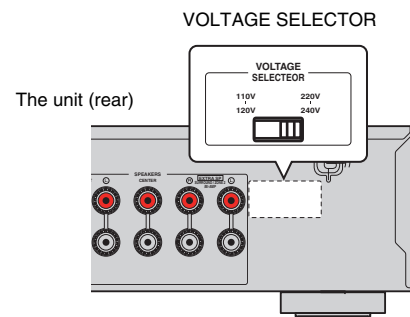
After all the connections are complete, plug in the power cable.

The unit (rear)

To an AC wall outlet

RECEIVER ⏻

SETUP

Cursor keys
ENTER
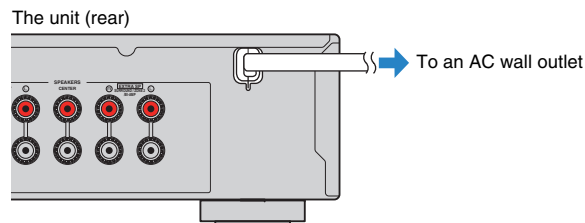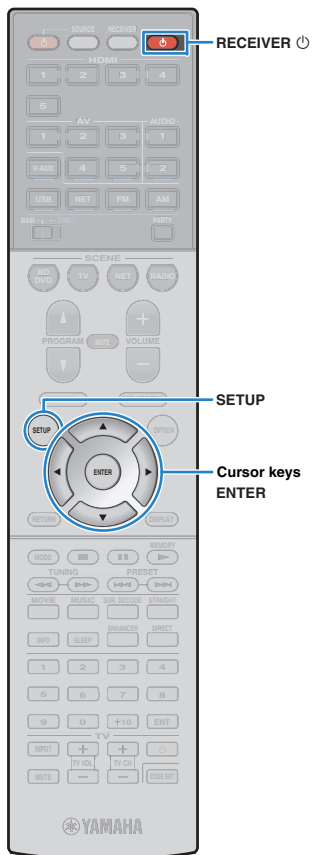
9 Selecting an on-screen menu language

Select the desired on-screen menu language from English (default), Japanese, French, German, Spanish, Russian, Italian and Chinese.

1 Press RECEIVER ⏻ to turn on the unit.

2 Turn on the TV and switch the TV input to display video from the unit (HDMI OUT jack).

!

• Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.

3 Press SETUP.

4 Use the cursor keys to select "Language" and press ENTER.

```
Setup

Speaker          English
HDMI             日本語
Sound            Français
ECO              Deutsch
Function         Español
Network          Русский
                 Italiano
Language    ▶    中文
```

5 Use the cursor keys to select the desired language.

```
Setup

Speaker          English
HDMI             日本語
Sound            Français
ECO              Deutsch
Function         Español
Network          Русский
                 Italiano
Language         中文
```
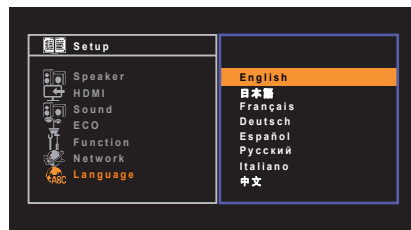
6 To exit from the menu, press SETUP.

💡

• The information on the front display is provided in English only.

RECEIVER ⏻

10 Optimizing the speaker settings automatically (YPAO)

The Yamaha Parametric room Acoustic Optimizer (YPAO) function detects speaker connections, measures the distances from them to your listening position(s), and then automatically optimizes the speaker settings, such as volume balance and acoustic parameters, to suit your room.

!

• Please note the following when using YPAO.

– Use YPAO after connecting a TV and speakers to the unit.

– During the measuring process, test tones are output at high volume. Ensure that the test tones do not frighten small children. Also, refrain from using this function at night when it may be a nuisance to others.

– During the measuring process, you cannot adjust the volume.

– During the measuring process, keep the room as quiet as possible.

– Do not connect headphones.

1 Press RECEIVER ⏻ to turn on the unit.

2 Turn on the TV and switch the TV input to display video from the unit (HDMI OUT jack).

!

• Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.

3 Turn on the subwoofer and set the volume to half. If the crossover frequency is adjustable, set it to maximum.

VOLUME   CROSSOVER/
                HIGH CUT

MIN   MAX   MIN   MAX

SW
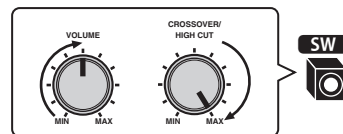
4 Place the YPAO microphone at your listening position (same height as your ears) and connect it to the YPAO MIC jack on the front panel.

The unit (front)

FL   FR

SW   C

YPAO microphone
Listening position

SL   SR

Ear height

Place the YPAO microphone at your listening position (same height as your ears). We recommend the use of a tripod as a microphone stand. You can use the tripod screws to stabilize the microphone.

The following screen appears on the TV.

Auto Setup

Start   Press SETUP key
Exit   to Start

Power Amp Assign
Basic

RECEIVER

SETUP
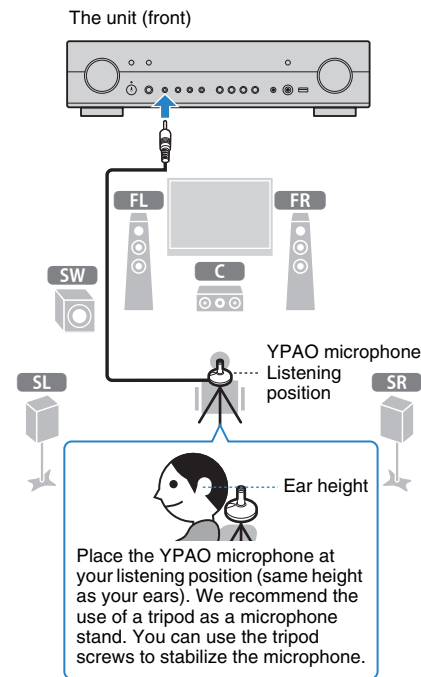
Cursor keys
ENTER
RETURN
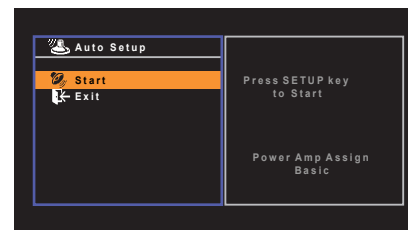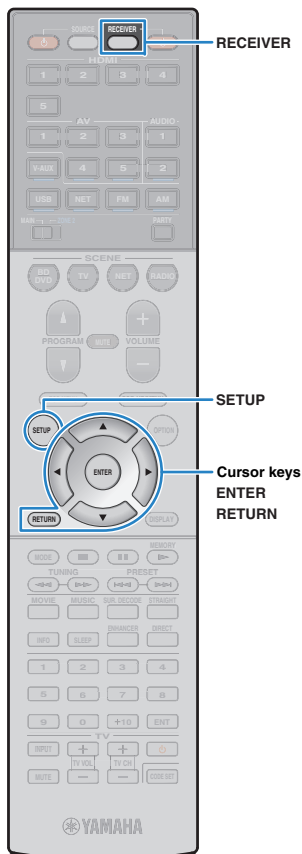
💡
- To cancel the operation, disconnect the YPAO microphone, or use the cursor keys to select "Exit" and press ENTER, before starting the measurement.
- To change the internal amplifier assignment, use "Power Amp Assign" (p.81) in the "Setup" menu.

❗
- Do not stand between the speakers and the YPAO microphone during the measurement process (about 3 minutes).
- Move to the corner of the room or leave the room.

5 **To start the measurement, use the cursor keys to select "Start" and press SETUP.**

The measurement will start in 10 seconds. Press ENTER to start the measurement immediately.

💡
- To stop the measurement temporarily, press RETURN and follow the procedure in "Error messages" (p.34).
- If cursor keys do not work, the remote control may be set to the external device operation mode. In this case, press RECEIVER to set the remote control to the unit operation mode and then use the cursor keys.

The following screen appears on the TV when the measurement finishes.

```
🔊 Auto Setup          Measurement
                       Finished
📝 Start               Result
↙ Exit              ▥ 3 / 2 / 0.1 ch   ①
                    ▤ 3.0 / 10.5 m     ②
                    ⋮ -3.0 / +10.0 dB  ③
                       OK:ENTER
                                       ④
```
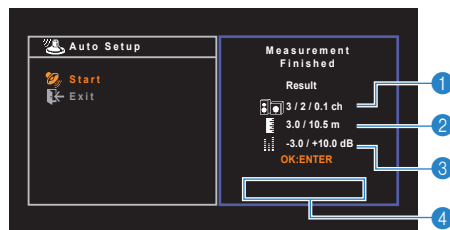
① **The number of speakers (front side/rear side/subwoofer)**

② **Speaker distance (nearest/farthest)**

③ **Adjustment range of speaker output level**

④ **Warning message (if available)**

❗
- If any error message (such as E-1) or warning message (such as W-1) appears, see "Error messages" (p.34) or "Warning messages" (p.35).

💡
- A speaker with a problem is indicated by blinking of the speaker indicators in the front display.
- If multiple warnings are given (when operating with the front display), use the cursor keys (△/▽) to check the other warning messages.

6 **To save the measurement results, use the cursor keys (◁/▷) to select "SAVE" and press ENTER.**

```
🔊 Auto Setup          Measurement
                       Finished
📝 Start               Result
↙ Exit  ◀ SAVE ▶    ▥ 3 / 2 / 0.1 ch
                    ▤ 3.0 / 10.5 m
                    ⋮ -3.0 / +10.0 dB
```
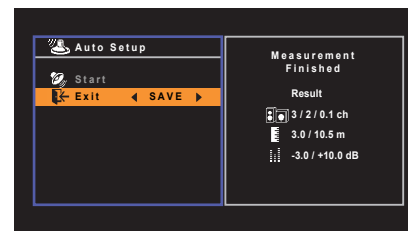
The adjusted speaker settings are applied.

💡
- To finish the measurement without saving the result, select "CANCEL".

7 **Disconnect the YPAO microphone from the unit.**

This completes optimization of the speaker settings.

Caution
- The YPAO microphone is sensitive to heat, so should not be placed anywhere where it could be exposed to direct sunlight or high temperatures (such as on top of AV equipment).

Error messages

If any error message is displayed during the measurement, resolve the problem and perform YPAO again.
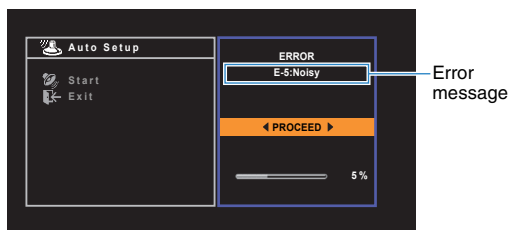
TV screen

Front display

■ Procedure to handle errors

1 Check the content of error message and press ENTER.

2 Use the cursor keys (◁/▷) to select the desired operation.

To exit the YPAO measurement:
① Select "EXIT" and press ENTER.
② Use the cursor keys (△/▽) to select "Exit" and press ENTER.
③ Disconnect the YPAO microphone from the unit.

To retry the YPAO measurement from beginning:
Select "RETRY" and press ENTER.

To proceed with the current YPAO measurement (for E-5 and E-9 only):
Select "PROCEED" and press ENTER.

Error message	Cause	Remedy
E-1:No Front SP (E-1:NO FRNT SP)	Front speakers are not detected.	Exit YPAO, turn off the unit, and then check the speaker connections.
E-2:No Sur. SP (E-2:NO SUR SP)	One of the surround speakers cannot be detected.	
E-5:Noisy (E-5:NOISY)	The noise is too loud.	Keep the room quiet and retry YPAO. If you select "PROCEED", YPAO takes the measurement again and ignores any noise detected.
E-7:No MIC (E-7:NO MIC)	The YPAO microphone has been removed.	Connect the YPAO microphone to the YPAO MIC jack firmly and retry YPAO.
E-8:No Signal (E-8:NO SIGNAL)	The YPAO microphone cannot detect test tones.	Connect the YPAO microphone to the YPAO MIC jack firmly and retry YPAO. If this error occurs repeatedly, contact the nearest authorized Yamaha dealer or service center.
E-9:User Cancel (E-9:CANCEL)	The measurement has been canceled.	Retry or exit YPAO as necessary.
E-10:Internal Err. (E-10:INTERNAL)	An internal error has occurred.	Exit YPAO, and turn off and on the unit. If this error occurs repeatedly, contact the nearest authorized Yamaha dealer or service center.

• Texts in parentheses denote indicators on the front display.

Warning messages

If a warning message is displayed after the measurement, you can still save the measurement results by following on-screen instructions.

However, we recommend you perform YPAO again in order to use the unit with the optimal speaker settings.

TV screen

Warning message

Front display

Problem speaker (blinks)

■ Procedure to handle warnings

1 Check the content of warning message and press ENTER.

2 Use the cursor keys (◁/▷) to select the desired operation.

To save the measurement results:

Select "SAVE" and press ENTER.

To discard the measurement result:

Select "CANCEL" and press ENTER.

3 Disconnect the YPAO microphone from the unit.

Warning message	Cause	Remedy
W-1:Out of Phase (W-1:PHASE)	A speaker cable may be connected with the reverse polarity (+/-).	Check the cable connections (+/-) of the problem speaker. If the speaker is connected incorrectly, exit YPAO, turn off the unit, and then reconnect the speaker cable. Depending on the type of speakers or room environment, this message may appear even if the speakers are connected correctly. In this case, you can ignore the message.
W-2:Over Distance (W-2:DISTANCE)	A speaker is placed more than 24 m (80 ft) from the listening position.	Exit YPAO, turn off the unit, and place the problem speaker within 24 m (80 ft) of the listening position.
W-3:Level Error (W-3:LEVEL)	There are significant volume differences between the speakers.	Check the usage environment and cable connections (+/-) of each speaker, and the volume of the subwoofer. If there is any problem, exit YPAO, turn off the unit, and then reconnect speaker cable or correct the speaker positions. We recommend using the same speakers or speakers with specifications that are as similar as possible.

- Texts in parentheses denote indicators on the front display.

PLAYBACK

Basic playback procedure

Input selection keys

MUTE

VOLUME
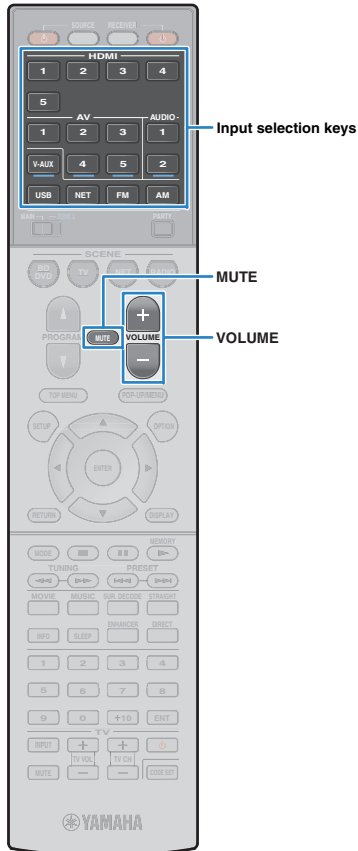
1 **Turn on the external devices (such as a TV or BD/DVD player) connected to the unit.**

2 **Use the input selection keys to select an input source.**

3 **Start playback on the external device or select a radio station.**

Refer to the instruction manual for the external device.

For details on the following operations, see the corresponding pages.

- Listening to FM/AM radio (RX-S600) (p.44)
- Listening to DAB radio (RX-S600D) (p.48)
- Listening to FM radio (RX-S600D) (p.52)
- Playing back iPod music (p.56)
- Playing back music stored on a USB storage device (p.60)
- Playing back music stored on media servers (PCs/NAS) (p.63)
- Listening to Internet radio (p.66)
- Playing back iTunes/iPod music via a network (AirPlay) (p.68)

4 **Press VOLUME to adjust the volume.**

- To mute the audio output, press MUTE. Press MUTE again to unmute.
- To adjust the treble/bass settings, use the "Option" menu (p.75).
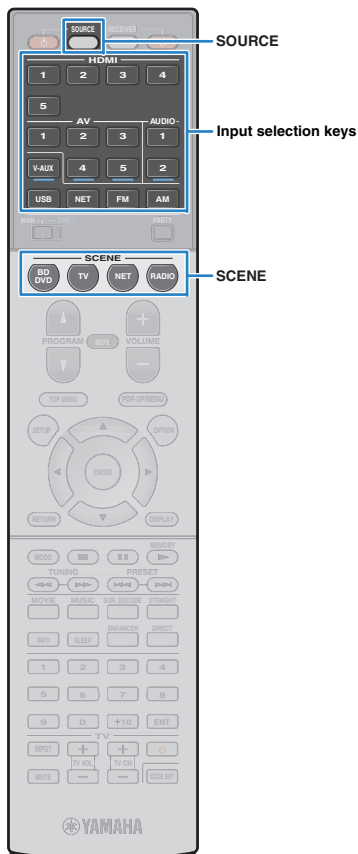
Selecting the input source and favorite settings with one touch (SCENE)

The SCENE function allows you to select the assigned input source, sound program, and Compressed Music Enhancer on/off with just one touch.

1 Press SCENE.

The input source and settings registered to the corresponding scene are selected. The unit turns on automatically when it is in standby mode.

By default, the following settings are registered for each scene.

SCENE	Input	Sound program	Compressed Music Enhancer	SCENE link playback
BD/DVD	HDMI 1	MOVIE (Sci-Fi)	Off	On
TV	AUDIO 1	STRAIGHT	On	On
NET	NET RADIO	MUSIC (5ch Stereo)	On	Off
RADIO	TUNER	MUSIC (5ch Stereo)	On	Off

• The SCENE link playback function allows you to automatically turn on the TV or start playback of an external device connected to the unit via HDMI, in conjunction with a scene selection. To enable SCENE link playback, set "SCENE" (p.85) in the "Setup" menu to "On".

Configuring scene assignments

1 Perform the following operations to prepare the settings you want to assign to a scene.

• Select an input source (p.36)
• Select a sound program (p.38)
• Enable/disable Compressed Music Enhancer (p.43)

2 Hold down the desired SCENE key until "SET Complete" appears on the front display.

```
SCENE 1                VOL. -30.0 dB
SET Complete       L C R
                   LFE SL SR
```

3 If you want to control the corresponding playback device after selecting the scene, hold down the corresponding SCENE key and input selection key together for more than 3 seconds.

Once the setting is completed successfully, SOURCE blinks twice.

• If you have not registered the remote control code of the playback device yet, see "Registering the remote control codes for playback devices" (p.96) to register it.

• You can also configure scene assignments for Zone2 playback (p.72).

Selecting the sound mode

The unit is equipped with a variety of sound programs and surround decoders that allow you to enjoy playback sources with your favorite sound mode (such as sound field effect or stereo playback).

❑ Selecting a sound program suitable for movies

• Press MOVIE repeatedly.

This mode lets you enjoy sound field effects optimized for viewing video sources, such as movies, TV programs, and games (p.39).

❑ Selecting a sound program suitable for music or stereo playback

• Press MUSIC repeatedly.

This mode lets you enjoy sound field effects optimized for listening music sources or stereo playback (p.40).

❑ Selecting a surround decoder

• Press SUR.DECODE repeatedly.

This mode lets you enjoy unprocessed multichannel playback from 2-channel sources (p.42).

❑ Switching to the straight decode mode

• Press STRAIGHT.

This mode lets you enjoy unprocessed sounds in original channels (p.41).

❑ Switching to the direct playback mode

• Press DIRECT.

This mode lets you enjoy pure high fidelity sound by reducing the electrical noise from other circuitry (p.42).

❑ Enabling Compressed Music Enhancer

• Press ENHANCER.

This mode lets you enjoy compressed music with additional depth and breadth (p.43).

MOVIE
MUSIC
SUR.DECODE
STRAIGHT
ENHANCER
DIRECT

- You can also switch the sound programs and surround decoder by pressing PROGRAM on the front panel.
- The sound mode can be applied separately to each input source.
- When you play back audio signals with a sampling rate of higher than 96 kHz or playing back DTS Express, the straight decode mode (p.41) is automatically selected.
- You can check which speakers are currently outputting sound by looking at the speaker indicators on the unit's front panel (p.9).

Enjoying sound field effects (CINEMA DSP)

CINEMA DSP

The unit is equipped with a variety of sound programs that utilize Yamaha's original DSP technology (CINEMA DSP). It allows you to easily create sound fields like actual movie theaters or concert halls in your room.

Sound program category

"CINEMA DSP" lights up

MOVIE   VOL. -30.0

Sci-Fi

Sound program

!
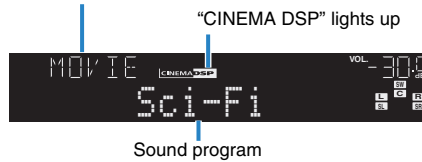
• When you play back DTS-HD sources, the DTS decoder is automatically selected.

☆

• You can adjust the sound field effect level in "DSP Level" (p.75) in the "Option" menu.

■ Sound programs suitable for movies (MOVIE)

The following sound programs are optimized for viewing video sources, such as movies, TV programs, and games.

Standard	This program creates a sound field that emphasizes the surround feeling without disturbing the original acoustic positioning of multichannel audio, such as Dolby Digital and DTS. Its design is based on the concept of the ideal movie theater, in which the audience is surrounded by beautiful reverberations from the left, right, and rear.
Spectacle	This program delivers the scale and grandeur of spectacular movie productions. It delivers an expansive sound space to match the cinemascope wide-screen, and boasts a broad dynamic range, providing everything from small delicate sounds to powerful loud booms.
Sci-Fi	This program clearly reproduces the finely elaborated sound design of the latest Sci-Fi and SFX movies. You can enjoy a variety of cinematographically created virtual spaces reproduced with clear separation between dialogue, sound effects, and background music.
Adventure	This program is ideal for reproducing the sound design of action and adventure movies precisely. The sound field restrains reverberations, but puts emphasis on reproducing a sensation of expansiveness on both sides, powerful space expanded widely to the left and right. The restrained depth creates a clear and powerful space, while also maintaining the articulation of the sounds and the separation of the channels.

Drama	This program features stable reverberations that match a wide range of movie genres, from serious dramas to musicals and comedies. The reverberations are modest, but suitably stereophonic. The sound effects and background music are reproduced with a gentle echo that does not impinge on the articulation of the dialogue. You'll never get tired listening for long periods.
Mono Movie	This program reproduces monaural video sources, such as classic movies, in an atmosphere of a good old movie theater. The program creates a pleasant space with depth, by adding breadth and the appropriate reverberation to the original audio.
Sports	This program allows listeners to enjoy the rich vividness of sport broadcasts and light entertainment programs. In sports broadcasts, the commentators' voices are positioned clearly at the center, while the atmosphere inside the stadium is realistically conveyed by the peripheral delivery of the sounds of the fans in a suitable space.
Action Game	This program is suitable for action games, such as car racing and fighting games. The reality of, and emphasis on, various effects makes the player feel like they are right in the middle of the action, allowing for greater concentration. Use this program in combination with Compressed Music Enhancer for a more dynamic and strong sound field.
Roleplaying Game	This program is suitable for role-playing and adventure games. This program adds depth to the sound field for natural and realistic reproduction of background music, special effects, and dialogue from a wide variety of scenes. Use this program in combination with Compressed Music Enhancer for a clearer and more spatial sound field.

■ Sound programs suitable for music/stereo playback (MUSIC)

The following sound programs are optimized for listening to music sources.

You can also select stereo playback.

Hall in Munich	This program simulates a Munich concert hall with approximately 2,500 seats that uses stylish wood for the interior finishing. Fine, beautiful reverberations spread richly, creating a calming atmosphere. The listener's virtual seat is at the center left of the arena.
Hall in Vienna	This program simulates a 1700-seat, middle-sized concert hall with a shoebox shape that is traditional in Vienna. Pillars and ornate carvings create extremely complex reverberations from all around the audience, producing a very full, rich sound.
Chamber	This program creates a relatively wide space with a high ceiling, like an audience hall in a palace. It offers pleasant reverberations that are suitable for courtly music and chamber music.
Cellar Club	This program simulates an intimate concert venue with a low ceiling and homey atmosphere. A realistic, live sound field delivers powerful sounds that make you feel as if you are sitting in the front row in front of a small stage.
The Roxy Theatre	This program creates the sound field of a 460-seat rock music concert venue in Los Angeles. The listener's virtual seat is at the center left of the hall.
The Bottom Line	This program creates the sound field at stage front in The Bottom Line, a famous New York jazz club once. The floor can seat 300 people to the left and right in a sound field offering real and vibrant sound.
Music Video	This program allows you to enjoy videos of pop, rock, and jazz concerts, as if you were there yourself. Immerse yourself in the hot concert atmosphere thanks to the vividness of the singers and solos on stage, a presence sound field that emphasizes the beat of rhythm instruments, and a surround sound field that reproduces the space of a big live hall.
2ch Stereo	Use this program to mix down multichannel sources to 2 channels. When multichannel signals are input, they are down mixed to 2 channels and output from the front speakers (this program does not utilize CINEMA DSP).
5ch Stereo	Use this program to output sound from all speakers. When you play back multichannel sources, the unit mixes down the source to 2 channels, and then outputs the sound from all speakers. This program creates a larger sound field and is ideal for background music at parties.

Enjoying stereoscopic sound fields (CINEMA DSP 3D)

CINEMA DSP 3D

CINEMA DSP 3D creates a natural stereoscopic sound field in your room.

CINEMA DSP 3D functions when both of the following conditions are met.

- One of the sound programs (except 2ch Stereo and 5ch Stereo) is selected (p.39).
- "CINEMA DSP 3D Mode" (p.85) in the "Setup" menu is set to "On".

"CINEMA DSP 3" lights up

```
MUSIC   CINEMADSP3        VOL. -30.0
Hall in Vienna            dB
```

Enjoying sound field effects without surround speakers (Virtual CINEMA DSP)

If you select one of the sound programs (except 2ch Stereo and 5ch Stereo) when no surround speakers are connected, the unit automatically creates the surround sound field using the front-side speakers.

STRAIGHT

Enjoying unprocessed playback

You can play back input sources without any sound field effect processing.

Playing back in original channels (straight decode)

When the straight decode mode is enabled, the unit produces stereo sound from the front speakers for 2-channel sources such as CDs, and produces unprocessed multichannel sounds for multichannel sources.

1 **Press STRAIGHT.**

Each time you press the key, the straight decode mode is enabled or disabled.

```
                          VOL. -30.0
                          dB
        STRAIGHT
```

■ Playing back 2-channel sources in multichannel (surround decoder)

The surround decoder enables unprocessed multichannel playback from 2-channel sources. When a multichannel source is input, it works the same way as the straight decode mode.

For details on each decoder see "Glossary" (p.108).

1 Press SUR.DECODE to select a surround decoder.

Each time you press the key, the surround decoder changes.

```
SUR.DEC               VOL. -30.0 dB
  ⊔⊔Pro Logic
```

⊔⊔Pro Logic	Uses the Dolby Pro Logic decoder suitable for all sources.
⊔⊔PLII Movie	Use the Dolby Pro Logic II decoder suitable for movies.
⊔⊔PLII Music	Use the Dolby Pro Logic II decoder suitable for music.
⊔⊔PLII Game	Use the Dolby Pro Logic II decoder suitable for games.
Neo: 6 Cinema	Uses the DTS Neo: 6 decoder suitable for movies.
Neo: 6 Music	Uses the DTS Neo: 6 decoder suitable for music.

💡
• You can adjust the surround decoder parameters in "DSP Parameter" (p.85) in the "Setup" menu.

SUR.DECODE

DIRECT

Enjoying pure high fidelity sound (direct playback)

When the direct playback mode is enabled, the unit plays back the selected source with the least circuitry in order to reduce the electrical noise from other circuitry (such as the front display). It allows you to enjoy Hi-Fi sound quality.

1 Press DIRECT.

Each time you press the key, the direct playback mode is enabled or disabled.

```
                      VOL. -30.0 dB
        DIRECT
```

❗
• When the direct playback mode is enabled, the following functions are not available.
  – Selecting sound programs
  – Adjusting the tone control
  – Operating the on-screen and "Option" menus
  – Viewing information on the front display (when not in operation)
  – Zone2 function

Enjoying compressed music with enhanced sound (Compressed Music Enhancer)

compressed music
ENHANCER

Compressed Music Enhancer adds depth and breadth to the sound, allowing you to enjoy a dynamic sound close to the original sound before it was compressed. This function can be used along with any other sound modes.

1 Press ENHANCER.

Each time you press the key, Compressed Music Enhancer is enabled or disabled.

"ENHANCER" lights up

ENHANCER   VOL-_ -30.0 dB
CINEMADSP

Enhancer On

ENHANCER ───────────────────

!

- Compressed Music Enhancer does not work on the following audio sources.
  - Signals whose sampling rate is over 48 kHz
  - High-definition streaming audio

☼

- You can also use "Enhancer" (p.75) in the "Option" menu to enable/disable Compressed Music Enhancer.

Enjoying surround sound with headphones (SILENT CINEMA)

🎧 SILENT ™
    CINEMA

You can enjoy surround or sound field effects, like a multichannel speaker system, with stereo headphones by connecting the headphones to the PHONES jack and selecting a sound program or a surround decoder.
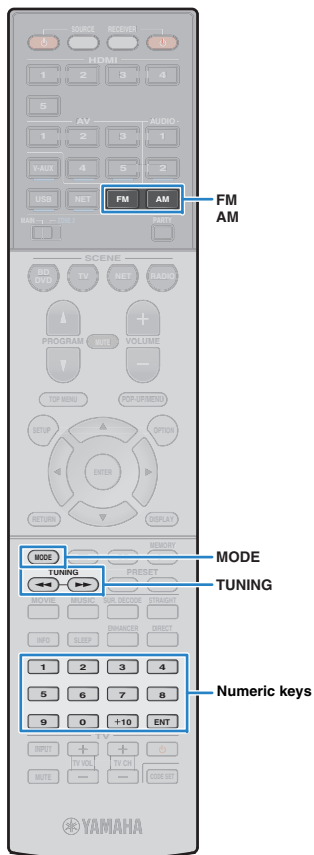
Listening to FM/AM radio (RX-S600)

You can tune into a radio station by specifying its frequency or selecting from registered radio stations.

❗

- The radio frequencies differ depending on the country or region where the unit is being used. The explanation of this section uses a display with frequencies used in U.K. and Europe models.
- If you cannot obtain good reception on the radio, adjust the direction of the FM/AM antennas.

Setting the frequency steps

(Asia and General models only)

At the factory, the frequency step setting is set to 50 kHz for FM and 9 kHz for AM. Depending on your country or region, set the frequency steps to 100 kHz for FM and 10 kHz for AM.

1 Set the unit to standby mode.

2 When holding down STRAIGHT on the front panel, press ⏻ (power).

⏻ (power)
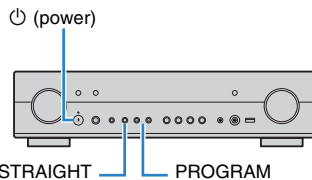
STRAIGHT —— PROGRAM

3 Press PROGRAM repeatedly to select "TU".

TU····FM50/AM9

4 Press STRAIGHT to select "FM100/AM10".

5 Press ⏻ (power) to set the unit to standby mode and turn it on again.

Selecting a frequency for reception

1 Press FM or AM to select a band.

VOL. -30.0 dB
FM 87.50MHz

2 Use the following keys to set a frequency.

TUNING: Increase/decrease the frequency. Hold down the key for about a second to search stations automatically.

Numeric keys: Enter a frequency directly. For example, to select 98.50 MHz, press "9", "8", "5" and "0" (or ENT).

STEREO TUNED VOL. -30.0 dB
FM 98.50MHz

"TUNED" lights up when a signal is received from a radio station.

"STEREO" also lights up when a stereo signal is received.

❗

- "Wrong Station!" appears when you enter a frequency that is out of reception range.

💡

- You can switch between "Stereo" (stereo) and "Mono" (monaural) for FM radio reception by pressing MODE. When the signal reception for an FM radio station is unstable, switching to monaural may improve it.
- You can watch videos input from external devices while listening to radio by selecting the video input jack in "Video Out" (p.77) in the "Option" menu.

FM
AM

MODE

TUNING

Numeric keys
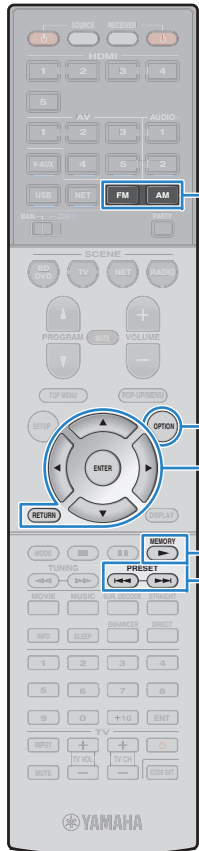
(RX-S600)

Registering favorite radio stations (presets)

You can register up to 40 radio stations as presets. Once you have registered stations, you can easily tune into them by selecting their preset numbers.

■ Registering radio stations automatically (Auto Preset)

Automatically register FM radio stations with strong signals (up to 40 stations).

💡
- To register AM radio stations, follow "Registering a radio station manually".
- (U.K. and Europe models only)
  Only Radio Data System broadcasting stations are stored automatically by the Auto Preset function.

1 **Press FM or AM to select "TUNER" as the input source.**

2 **Press OPTION.**

3 **Use the cursor keys to select "Auto Preset".**

```
OPTION          VOL -30.0
♦Auto Preset
```

4 **To start the Auto Preset process, press ENTER.**

The registration will start in 5 seconds. Press ENTER again to start the registration immediately.

"SEARCH" appears during Auto Preset

```
READY           VOL -30.0
♦01:FM 87.50MHz
```

Preset number from which to start the registration

💡
- To specify the preset number from which to start the registration, press PRESET or cursor keys (△/▽) to select a preset number within 5 seconds after step 4 (while "READY" is displayed) and then press ENTER (or just wait for 5 seconds).
- To cancel the Auto Preset process, press RETURN.

When the Auto Preset process finishes, "FINISH" appears and the "Option" menu closes automatically.

```
FINISH          VOL -30.0
Auto Preset
```

■ Registering a radio station manually

Select a radio station manually and register it to a preset number.

1 **Follow "Selecting a frequency for reception" (p.44) to tune into the desired radio station.**

2 **Hold down MEMORY for more than 2 seconds.**

The first time that you do register a station, the selected radio station will be registered to the preset number "01". Thereafter, each radio station you select will be registered to the next empty (unused) preset number after the most recently registered number.

```
MEMORY    STEREO   VOL -30.0
          TUNED
01:FM 98.50MHz
```

Preset number

💡
- To select a preset number for registering, press MEMORY once after tuning into the desired radio station, press PRESET to select a preset number, and then press MEMORY again.

```
98.50     STEREO   VOL -30.0
          TUNED
02:Empty
```

"Empty" (not in use) or the frequency currently registered

FM AM (labeled on remote)

OPTION

Cursor keys
ENTER
RETURN

MEMORY
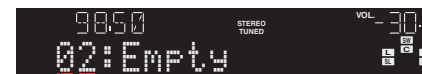
PRESET

(RX-S600)

■ Selecting a preset station

Tune into a registered radio station by selecting its preset number.

1 **Press FM or AM to select "TUNER" as the input source.**

2 **Press PRESET repeatedly to select the desired radio station.**

You can also enter a preset number (01 to 40) directly by using the numeric keys after pressing PRESET once.

```
PRESET        STEREO    VOL.-30.0
01:FM 98.50MHz       TUNED        dB
```

!

• "No Presets" appears when no radio stations are registered.
• "Wrong Num." appears when an invalid number is entered.
• "Empty" appears when a preset number not in use is entered.

■ Clearing preset stations

Clear radio stations registered to the preset numbers.

1 **Press FM or AM to select "TUNER" as the input source.**

2 **Press OPTION.**

3 **Use the cursor keys to select "Clear Preset" and press ENTER.**

```
OPTION              VOL.-30.0
⬍Clear Preset              dB
```

4 **Use the cursor keys (△/▽) to select a preset station to be cleared and press ENTER.**

```
CLEAR         STEREO    VOL.-30.0
⬍01:FM 98.50MHz      TUNED        dB
```
Preset station to be cleared

If the preset station is cleared, "Cleared" appears and then the next in-use preset number is displayed.

```
CLEAR               VOL.-30.0
01:Cleared              dB
```

5 **Repeat step 4 until all desired preset stations are cleared.**

6 **To exit from the menu, press OPTION.**

(RX-S600)

FM
AM

OPTION

Cursor keys
ENTER

PRESET

Numeric keys

(RX-S600)

OPTION
Cursor keys
ENTER
RETURN
INFO

Radio Data System tuning

(U.K. and Europe models only)

Radio Data System is a data transmission system used by FM stations in many countries. The unit can receive various types of Radio Data System data, such as "Program Service", "Program Type," "Radio Text" and "Clock Time", when it is tuned into a Radio Data System broadcasting station.

■ Displaying the Radio Data System information

1 Tune into the desired Radio Data System broadcasting station.

- We recommend using "Auto Preset" to tune into the Radio Data System broadcasting stations (p.45).

2 Press INFO.
Each time you press the key, the displayed item changes.

```
INFO          STEREO    VOL.-30.0dB
              TUNED
 Program Type
```
Item name

About 3 seconds later, the corresponding information for the displayed item appears.

```
9850          STEREO    VOL.-30.0dB
              TUNED
 CLASSICS
```
Information

Program Service	Program service name
Program Type	Current program type
Radio Text	Information on the current program
Clock Time	Current time
DSP Program	Sound mode name
Audio Decoder	Decoder name
Frequency	Frequency

- "Program Service", "Program Type", "Radio Text", and "Clock Time" are not displayed if the radio station does not provide the Radio Data System service.

■ Receiving traffic information automatically

When "TUNER" is selected as the input source, the unit automatically receives traffic information. To enable this function, follow the procedure below to set the traffic information station.

1 When "TUNER" is selected as the input source, press OPTION.

2 Use the cursor keys to select "Traffic Program" (TrafficProgram) and press ENTER.

The traffic information station search will start in 5 seconds. Press ENTER again to start the search immediately.

- To search upward/downward from the current frequency, press the cursor keys (△/▽) while "READY" is displayed.
- To cancel the search, press RETURN.
- Texts in parentheses denote indicators on the front display.

The following screen appears for about 3 seconds when the search finishes.

```
FINISH        STEREO    VOL.-30.0dB
              TUNED
 TP FM101.30MHz
```
Traffic information station (frequency)

- "TP Not Found" appears for about 3 seconds when no traffic information stations are found.
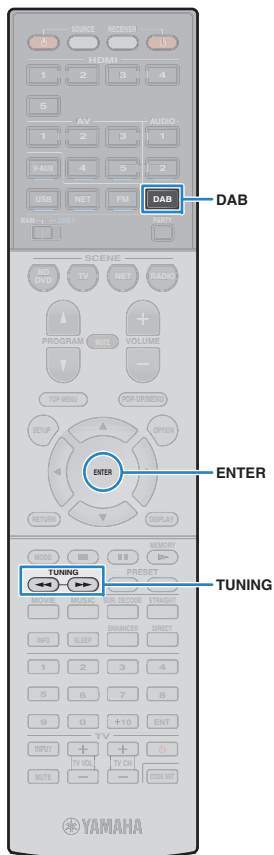
Listening to DAB radio (RX-S600D)

DAB (Digital Audio Broadcasting) uses digital signals for clearer sound and more stable reception compared to analog signals. The unit can also receive DAB+ (an upgraded version of DAB) that allows for more stations using MPEG-4 audio codec (AAC+), which has a more efficient transmission method.

!

- The unit supports Band III (174 to 240 MHz) only.
- Be sure to check the DAB coverage in your area in that not all areas are currently being covered. For a list of nationwide DAB statuses and worldwide DAB frequencies, check WorldDMB online at
  http://www.worlddab.org/.

☀

- For details on the antenna connection, see "Connecting the DAB/FM antenna" (p.28).

Preparing the DAB tuning

Before tuning into DAB radio stations, follow the procedure below to perform an initial scan.

1 Press DAB to select the DAB band.

The following message appears on the front panel if you have not performed an initial scan yet.

```
SCAN                    VOL. -30.0dB
Press [ENTER]
```

2 Press ENTER to start an initial scan.

```
SCAN                    VOL. -30.0dB
>>>------- 30%
```

When the initial scan finishes, the unit automatically tunes into the first DAB radio station as stored in station order.

```
DAB                     VOL. -30.0dB
BBC Radio 4
```

☀

- If no DAB radio stations are found by an initial scan, the message in Step 1 appears again. Press ENTER to start an initial scan again.
- You can check reception strength of each DAB channel label (p.51).
- To perform an initial scan again after some DAB radio stations are stored, select "Init Scan" (p.49) in the "Option" menu. If you perform an initial scan again, the DAB radio stations currently registered to the preset numbers will be cleared.

Selecting a DAB radio station for reception

You can select a DAB radio station from the stations stored by the initial scan.

1 Press DAB to select the DAB band.

2 Press TUNING repeatedly to select a DAB radio station.

```
DAB                     VOL. -30.0dB
Daily Service
```

!

- "Off Air" appears when the selected DAB radio station is currently not available.
- When the unit is receiving a secondary station, "2" appears next to "DAB".

Secondary station

```
DAB  2                  VOL. -30.0dB
BBC National
```

☀

- You can watch videos input from external devices while listening to radio by selecting the video input jack in "Video Out" (p.77) in the "Option" menu.

DAB

ENTER

TUNING
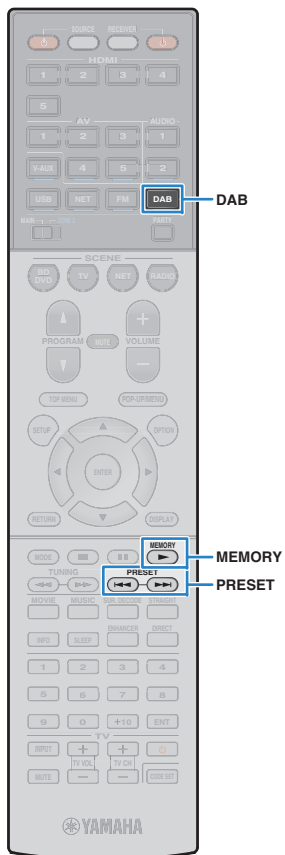
(RX-S600D)

Registering favorite DAB radio stations (presets)

You can register up to 40 DAB radio stations as presets. Once you have registered stations, you can easily tune into them by selecting their preset numbers.

💡

- You can register up to 40 favorite radio stations each for DAB and FM bands.

■ Registering a DAB radio station as presets

Select a DAB radio station and register it to a preset number.

1 **Follow "Selecting a DAB radio station for reception" (p.48) to tune into the desired DAB radio station.**

2 **Hold down MEMORY for more than 2 seconds.**

The first time that you do register a station, the selected radio station will be registered to the preset number "01". Thereafter, each radio station you select will be registered to the next empty (unused) preset number after the most recently registered number.

MEMORY
VOL. −30.0dB
01:BBC Radio 4

Preset number

💡

- To select a preset number for registering, press MEMORY once after tuning into the desired DAB radio station, press PRESET to select a preset number, and then press MEMORY again.

MEMORY
VOL. −30.0dB
02:Empty

"Empty" (not in use) or "Overwrite?" (in use)

■ Selecting a preset DAB radio station

Tune into a registered DAB radio station by selecting its preset number.

1 **Press DAB to select the DAB band.**

2 **Press PRESET repeatedly to select the desired DAB radio station.**

You can also enter a preset number (01 to 40) directly by using the numeric keys after pressing PRESET once.

VOL. −30.0dB
PRESET:01

❗

- "No Presets" appears when no DAB radio stations are registered.
- "Wrong Num." appears when an invalid number is entered.
- "Empty" appears when a preset number not in use is entered.

(RX-S600D)

DAB

MEMORY
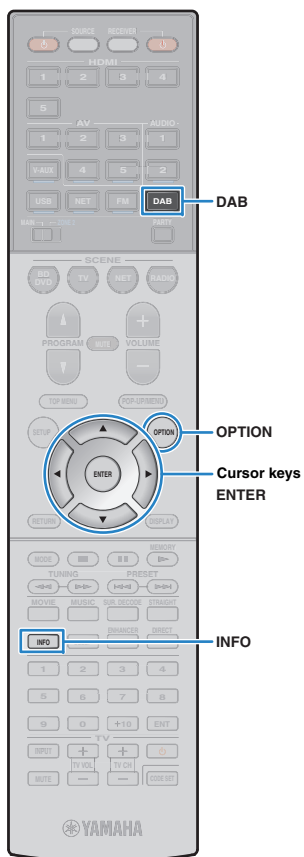
PRESET

■ Clearing preset DAB radio stations

Clear DAB radio stations registered to the preset numbers.

1 Press DAB to select the DAB band.

2 Press OPTION.

3 Use the cursor keys to select "Clear Preset" and press ENTER.

```
OPTION          VOL.-30.0dB
‡Clear Preset
```

4 Use the cursor keys (△/▽) to select a preset station to be cleared and press ENTER.

```
CLEAR           VOL.-30.0dB
‡01:Clear?
```

Preset station to be cleared

If the preset station is cleared, "Cleared" appears and then the next in-use preset number is displayed.

```
CLEAR           VOL.-30.0dB
 01:Cleared
```

5 Repeat step 4 until all desired preset stations are cleared.

6 To exit from the menu, press OPTION.

DAB

OPTION

Cursor keys
ENTER

INFO

(RX-S600D)

Displaying the DAB information

The unit can receive various types of DAB information when it is tuned into a DAB radio station.

1 Tune into the desired DAB radio station.

2 Press INFO.

Each time you press the key, the displayed item changes.

```
INFO            VOL.-30.0dB
 Program Type
```

Item name

About 3 seconds later, the corresponding information for the displayed item appears.

```
DAB             VOL.-30.0dB
 Classic Music
```

Information

Service Label	Station name
DLS (Dynamic Label Segment)	Information on the current station
Ensemble Label	Ensemble name
Program Type	Station genre
Date And Time	Current date and time
Audio Mode	Audio mode (monaural/stereo) and bit rate
CH Label/Freq.	Channel label and frequency
Signal Quality	Signal reception quality (0 [none] to 100 [best])
DSP Program	Sound mode name
Audio Decoder	Decoder name

!

• Some information may not be available depending on the selected DAB radio station.

(RX-S600D)

DAB
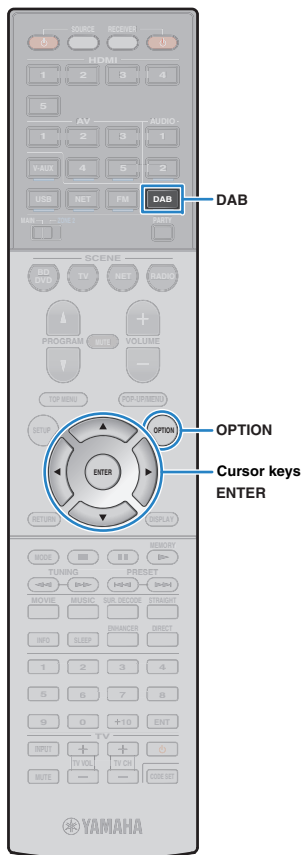
OPTION

Cursor keys
ENTER

Checking reception strength of each DAB channel label

You can check reception strength of each DAB channel label (0 [none] to 100 [best]).

1 Press DAB to select the DAB band.

2 Press OPTION.

3 Use the cursor keys to select "Tune Aid" and press ENTER.

4 Use the cursor keys (◁/▷) to select the desired DAB channel label.

DAB channel label   Reception strength

5 To exit from the menu, press OPTION.

■ DAB frequency information

The unit supports Band III (174 to 240 MHz) only.

Frequency	Channel label	Frequency	Channel label
174.928 MHz	5A	208.064 MHz	9D
176.640 MHz	5B	209.936 MHz	10A
178.352 MHz	5C	211.648 MHz	10B
180.064 MHz	5D	213.360 MHz	10C
181.936 MHz	6A	215.072 MHz	10D
183.648 MHz	6B	216.928 MHz	11A
185.360 MHz	6C	218.640 MHz	11B
187.072 MHz	6D	220.352 MHz	11C
188.928 MHz	7A	222.064 MHz	11D
190.640 MHz	7B	223.936 MHz	12A
192.352 MHz	7C	225.648 MHz	12B
194.064 MHz	7D	227.360 MHz	12C
195.936 MHz	8A	229.072 MHz	12D
197.648 MHz	8B	230.784 MHz	13A
199.360 MHz	8C	232.496 MHz	13B
201.072 MHz	8D	234.208 MHz	13C
202.928 MHz	9A	235.776 MHz	13D
204.640 MHz	9B	237.488 MHz	13E
206.352 MHz	9C	239.200 MHz	13F
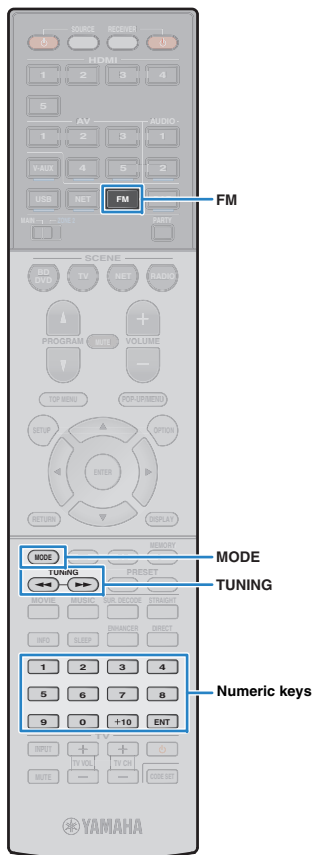
Listening to FM radio (RX-S600D)

You can tune into an FM radio station by specifying its frequency or selecting from registered radio stations.

Selecting a frequency for reception

1 **Press FM to select the FM band.**

```
                              VOL. -30.0dB
            FM 87.50MHz
```

2 **Use the following keys to set a frequency.**

TUNING: Increase/decrease the frequency. Hold down the key for about a second to search stations automatically.

Numeric keys: Enter a frequency directly. For example, to select 98.50 MHz, press "9", "8", "5" and "0" (or ENT).

```
                STEREO         VOL. -30.0dB
                TUNED
            FM 98.50MHz
```

"TUNED" lights up when a signal is received from an FM radio station.

"STEREO" also lights up when a stereo signal is received.

FM

MODE

TUNING

Numeric keys

(RX-S600D)

!
• "Wrong Station!" appears when you enter a frequency that is out of reception range.

• You can switch between "Stereo" (stereo) and "Mono" (monaural) for FM radio reception by pressing MODE. When the signal reception for an FM radio station is unstable, switching to monaural may improve it.

• You can watch videos input from external devices while listening to radio by selecting the video input jack in "Video Out" (p.77) in the "Option" menu.
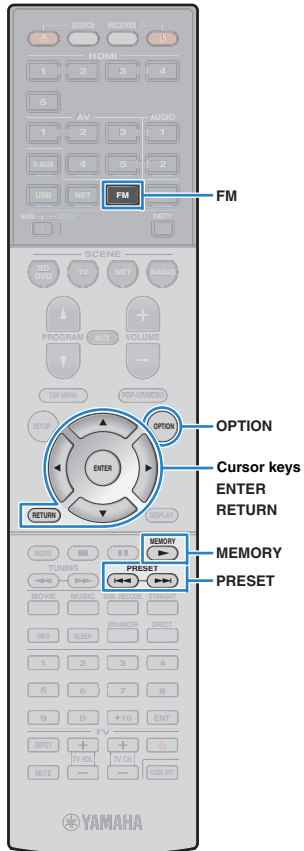
Registering favorite FM radio stations (presets)

You can register up to 40 FM radio stations as presets. Once you have registered stations, you can easily tune into them by selecting their preset numbers.

☆

• You can register up to 40 favorite radio stations each for DAB and FM bands.

■ Registering FM radio stations automatically (Auto Preset)

Automatically register FM radio stations with strong signals (up to 40 stations).

☆

• (U.K. and Europe models only)
Only Radio Data System broadcasting stations are stored automatically by the Auto Preset function.

1 Press FM to select the FM band.

2 Press OPTION.

3 Use the cursor keys to select "Auto Preset".

```
OPTION              VOL -30.0
                         dB
↕Auto Preset
```

4 To start the Auto Preset process, press ENTER.

The registration will start in 5 seconds. Press ENTER again to start the registration immediately.

"SEARCH" appears during Auto Preset

```
READY               VOL -30.0
                         dB
↕01:FM 87.50MHz
```

Preset number from which to start the registration

☆

• To specify the preset number from which to start the registration, press PRESET or cursor keys (△/▽) to select a preset number within 5 seconds after step 4 (while "READY" is displayed) and then press ENTER (or just wait for 5 seconds).

• To cancel the Auto Preset process, press RETURN.

When the Auto Preset process finishes, "FINISH" appears and the "Option" menu closes automatically.

```
FINISH              VOL -30.0
                         dB
Auto Preset
```

■ Registering an FM radio station manually

Select an FM radio station manually and register it to a preset number.

1 Follow "Selecting a frequency for reception" (p.44) to tune into the desired FM radio station.

2 Hold down MEMORY for more than 2 seconds.

The first time that you do register an FM radio station, the selected radio station will be registered to the preset number "01". Thereafter, each radio station you select will be registered to the next empty (unused) preset number after the most recently registered number.

```
MEMORY      STEREO    VOL -30.0
            TUNED          dB
01:FM 98.50MHz
```

Preset number

☆

• To select a preset number for registering, press MEMORY once after tuning into the desired radio station, press PRESET to select a preset number, and then press MEMORY again.

```
9850        STEREO    VOL -30.0
            TUNED          dB
02:Empty
```

"Empty" (not in use) or the frequency currently registered

FM

OPTION

Cursor keys
ENTER
RETURN

MEMORY
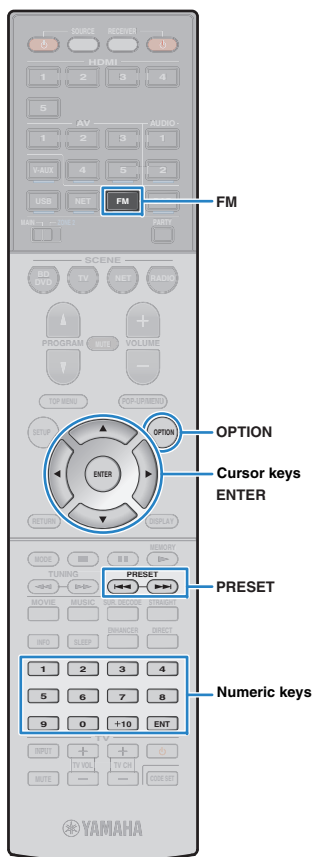
PRESET

(RX-S600D)

■ Selecting a preset FM radio station

Tune into a registered FM radio station by selecting its preset number.

1 Press FM to select the FM band.

2 Press PRESET repeatedly to select the desired FM radio station.

You can also enter a preset number (01 to 40) directly by using the numeric keys after pressing PRESET once.

```
PRESET              STEREO    VOL. -30.0
01:FM  98.50MHz           TUNED         dB
```

- "No Presets" appears when no FM radio stations are registered.
- "Wrong Num." appears when an invalid number is entered.
- "Empty" appears when a preset number not in use is entered.

■ Clearing preset FM radio stations

Clear FM radio stations registered to the preset numbers.

1 Press FM to select the FM band.

2 Press OPTION.

3 Use the cursor keys to select "Clear Preset" and press ENTER.

```
OPTION                        VOL. -30.0
⬍Clear Preset                          dB
```

4 Use the cursor keys (△/▽) to select a preset station to be cleared and press ENTER.

```
CLEAR               STEREO    VOL. -30.0
⬍01:FM  98.50MHz          TUNED         dB
```

Preset station to be cleared

If the preset station is cleared, "Cleared" appears and then the next in-use preset number is displayed.

```
CLEAR                         VOL. -30.0
01:Cleared                             dB
```

5 Repeat step 4 until all desired preset stations are cleared.

6 To exit from the menu, press OPTION.

(RX-S600D)

FM
OPTION
Cursor keys
ENTER
PRESET
Numeric keys

Radio Data System tuning

(U.K. and Europe models only)

Radio Data System is a data transmission system used by FM stations in many countries. The unit can receive various types of Radio Data System data, such as "Program Service", "Program Type," "Radio Text" and "Clock Time", when it is tuned into a Radio Data System broadcasting station.

■ Displaying the Radio Data System information

1 **Tune into the desired Radio Data System broadcasting station.**

- We recommend using "Auto Preset" to tune into the Radio Data System broadcasting stations (p.45).

2 **Press INFO.**
Each time you press the key, the displayed item changes.

```
INFO                STEREO      VOL. -30.0 dB
Program Type        TUNED
```

Item name

About 3 seconds later, the corresponding information for the displayed item appears.

```
98.50               STEREO      VOL. -30.0 dB
CLASSICS            TUNED
```

Information

Program Service	Program service name
Program Type	Current program type
Radio Text	Information on the current program
Clock Time	Current time
DSP Program	Sound mode name
Audio Decoder	Decoder name
Frequency	Frequency

- "Program Service", "Program Type", "Radio Text", and "Clock Time" are not displayed if the radio station does not provide the Radio Data System service.

(RX-S600D)

INFO

Playing back iPod music

You can play back iPod music on the unit using a USB cable supplied with the iPod.

!

- An iPod may not be detected by the unit or some features may not be compatible, depending on the model or software version of the iPod.
- To play back iPod videos on the unit, an Apple Composite AV Cable* (not supplied) is required. Connect the USB and composite video plugs of the Apple Composite AV Cable to the USB jack and VIDEO AUX (VIDEO) jack of the unit, and connect your TV and the unit with a video pin cable (p.23). To select a video, operate the iPod itself in the simple play mode (p.58).
  - * You cannot use the Apple Composite AV Cable with the iPod which has the Lightning connector, or the iPod which does not support the video playback.

Made for.

iPod touch (1st, 2nd, 3rd, 4th and 5th generation)

iPod nano (2nd, 3rd, 4th, 5th, 6th and 7th generation)

iPhone 5, iPhone 4S, iPhone 4, iPhone 3GS, iPhone 3G, iPhone

iPad (4th and 3rd generation), iPad 2, iPad, iPad mini

(as of July 2013)

Connecting an iPod

Connect your iPod to the unit with the USB cable supplied with the iPod.

1 **Connect the USB cable to the iPod.**

2 **Connect the USB cable to the USB jack.**

The unit (front)

:̣
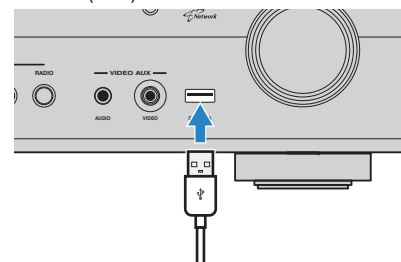
- The iPod charges while it is connected to the unit. If you set the unit to standby mode while the iPod is charging, the iPod continues to charge up to 4 hours. If "Network Standby" (p.91) in the "Setup" menu is set to "On", it continues to change without limit.

!

- Disconnect the iPod from the USB jack when it is not in use.
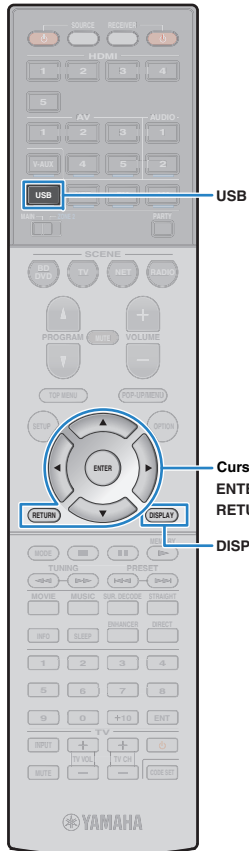
Playback of iPod content

Follow the procedure below to operate the iPod contents and start playback.

You can control the iPod with the menu displayed on the TV screen.

!

- Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display, or directly operate the iPod itself in the simple play mode (p.58).
- "_" (underscore) will be displayed for characters not supported by the unit.

1 Press USB to select "USB" as the input source.

The browse screen is displayed on the TV.

☼

- If playback is ongoing on your iPod, the playback screen is displayed.

2 Use the cursor keys to select an item and press ENTER.

If a song is selected, playback starts and the playback screen is displayed.

☼
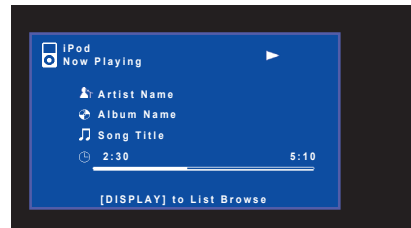
- To return to the previous screen, press RETURN.
- To switch between the browse and playback screens during playback, press DISPLAY.
- To operate the iPod manually to select content or control playback, switch to the simple play mode (p.58).

■ Browse screen

❶ List name

❷ Contents list

Displays the list of iPod content. Use the cursor keys to select an item and press ENTER to confirm the selection.

❸ Item number/total

❹ Status indicators

Display the current repeat/shuffle settings (p.59) and playback status (such as play/pause).

❺ Operation menu

Press the cursor key (▷) and then use the cursor keys (△/▽) to select an item. Press ENTER to confirm the selection.

Icon	Function
⨠	Moves 10 pages backward.
⌃	Moves to the previous page of the list.
⌄	Moves to the next page of the list.
⨟	Moves 10 pages forward.
♪	Moves to the playback screen.

USB

Cursor keys
ENTER
RETURN

DISPLAY

■ Playback screen

[DISPLAY] to List Browse

❶ Status indicators

Display the current repeat/shuffle settings (p.59) and playback status (such as play/pause).

❷ Playback information

Displays the artist name, album name, song title, and elapsed time/song length.

Use the following remote control keys to control playback.

External device operation keys	Function
▶	Resumes playback from pause.
■	Stops playback.
▋▋	Stops playback temporarily.
⏮ ⏭	Skips forward/backward.
◀◀ ▶▶	Searches forward/backward (by holding down).

■ Operating the iPod itself or remote control (simple play)

1 Press MODE to switch to the simple play mode.

The TV menu screen turns off and iPod operations are enabled.

To display the TV menu screen, press MODE again.

2 Operate your iPod itself or the remote control to start playback.

Operational remote control keys	Function
Cursor keys	Select an item.
ENTER	Confirms the selection.
RETURN	Returns to the previous screen.
External device operation keys	
▶ ▋▋	Starts playback or stops playback temporarily.
■	Stops playback.
⏮ ⏭	Skips forward/backward.
◀◀ ▶▶	Searches forward/backward (while holding down).
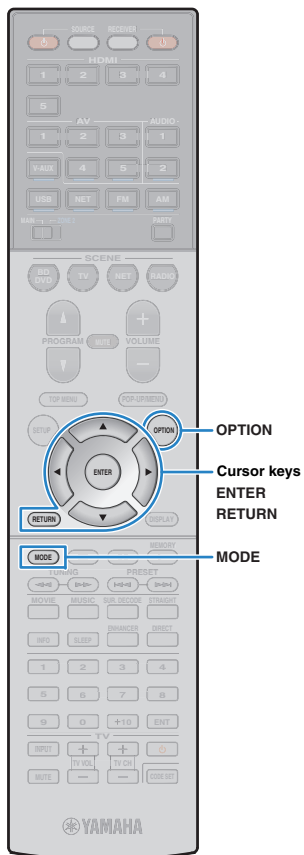
■ Repeat/shuffle settings

You can configure the repeat/shuffle settings of your iPod.

!

• During simple play, configure the repeat/shuffle settings directly on your iPod or press MODE to display the TV menu screen and then follow the procedure below.

1 **When "USB" is selected as the input source, press OPTION.**

2 **Use the cursor keys to select "Repeat" (Repeat) or "Shuffle" (Shuffle) and press ENTER.**

☼

• To return to the previous screen during menu operations, press RETURN.

• Texts in parentheses denote indicators on the front display.

3 **Use the cursor keys ($\lhd$/$\rhd$) to select a setting.**

Item	Setting	Function
Repeat (Repeat)	Off (Off)	Turns off the repeat function.
	One (One)	Plays back the current song repeatedly. "⟳" appears in the TV screen.
	All (All)	Plays back all songs repeatedly. "⟳" appears in the TV screen.
Shuffle (Shuffle)	Off (Off)	Turns off the shuffle function.
	Songs (Songs)	Plays back songs in random order. "⤬" appears in the TV screen.
	Albums (Albums)	Plays back albums in random order. "⤬" appears in the TV screen.

4 **To exit from the menu, press OPTION.**

OPTION

Cursor keys
ENTER
RETURN

MODE
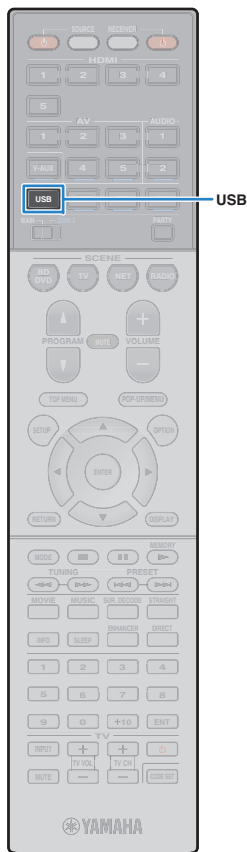
Playing back music stored on a USB storage device

You can play back music files stored on a USB storage device on the unit. Refer to the instruction manuals for the USB storage device for more information.

The unit supports USB mass storage class devices (FAT16 or FAT32 format).

> **!**
> - The unit supports WAV (PCM format only), MP3, WMA, MPEG-4 AAC and FLAC files (1- or 2-channel audio only).
> - The unit is compatible with sampling rate of up to 192 kHz for WAV and FLAC files, and 48 kHz for other files.
> - Some features may not be compatible, depending on the model or manufacturer of the USB storage device.
> - Digital Rights Management (DRM) contents cannot be played back.
> - The unit does not support a USB hub.

Connecting a USB storage device

1 Connect the USB storage device to the USB jack.

The unit (front)
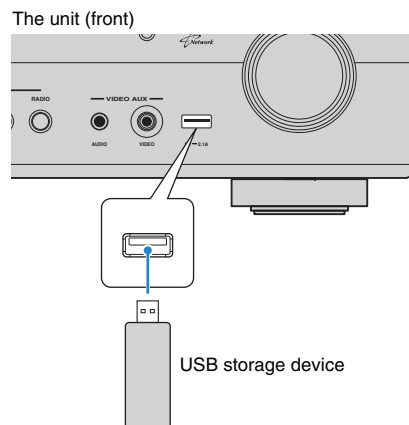
USB storage device

> **☀**
> - If the USB storage device contains many files, it may take time to load the them. In this case, "Loading..." appears in the front display.

> **!**
> - Disconnect the USB storage device from the USB jack when it is not in use.
> - Stop playback of the USB storage device before disconnect it from the USB jack.
> - You cannot connect the PC to the USB jack of the unit.

Playback of USB storage device contents

Follow the procedure below to operate the USB storage device contents and start playback.

You can control the USB memory device with the menu displayed on the TV screen.

> **!**
> - Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.
> - "_" (underscore) will be displayed for characters not supported by the unit.

1 Press USB to select "USB" as the input source.

The browse screen is displayed on the TV.

> **☀**
> - If playback is ongoing on your USB storage device, the playback screen is displayed.

2 **Use the cursor keys to select an item and press ENTER.**

If a song is selected, playback starts and the playback screen is displayed.

```
 USB
 Now Playing              ►

   Artist Name
   Album Name
   Song Title
   2:30

       [DISPLAY] to List Browse
```

- To return to the previous screen, press RETURN.
- To switch between the browse and playback screens during playback, press DISPLAY.
- Files not supported by the unit cannot be selected.

Cursor keys
ENTER
RETURN

DISPLAY

■ Browse screen

```
 a        b               d            e
   USB
   Top              ►  ↺  ⤮

   Blues
   Classical
   Electronica
   Jazz
   Pop
   Rock
   Soundtrack
   Speaking

              1/12
       [DISPLAY] to Now Playing
 c
```

a **List name**

b **Contents list**
Displays the list of USB storage device contents. Use the cursor keys to select an item and press ENTER to confirm the selection.

c **Item number/total**

d **Status indicators**
Display the current repeat/shuffle settings (p.62) and playback status (such as play/pause).

e **Operation menu**
Press the cursor key (▷) and then use the cursor keys (△/▽) to select an item. Press ENTER to confirm the selection.

Icon	Function
⇈	Moves 10 pages backward.
⌃	Moves to the previous page of the list.
⌄	Moves to the next page of the list.
⇊	Moves 10 pages forward.
♪	Moves to the playback screen.

■ Playback screen

❶ Status indicators
Display the current repeat/shuffle settings (p.62) and playback status (such as play/pause).

❷ Playback information
Displays the artist name, album name, song title, and elapsed time.

Use the following remote control keys to control playback.

External device operation keys	Function
►	Resumes playback from pause.
■	Stops playback.
❚❚	Stops playback temporarily.
◄◄ ▶▶	Skips forward/backward.

■ Repeat/shuffle settings
You can configure the repeat/shuffle settings for playback of USB storage device contents.

1 When "USB" is selected as the input source, press OPTION.

2 Use the cursor keys to select "Repeat" (Repeat) or "Shuffle" (Shuffle) and press ENTER.

☼
- To return to the previous screen during menu operations, press RETURN.
- Texts in parentheses denote indicators on the front display.

3 Use the cursor keys (◁/▷) to select a setting.

Item	Setting	Function
Repeat (Repeat)	Off (Off)	Turns off the repeat function.
	One (One)	Plays back the current song repeatedly. "⟳" appears on the TV screen.
	All (All)	Plays back all songs in the current album (folder) repeatedly. "⟳" appears on the TV screen.
Shuffle (Shuffle)	Off (Off)	Turns off the shuffle function.
	On (On)	Plays back songs in the current album (folder) in random order. "⤨" appears on the TV screen.

4 To exit from the menu, press OPTION.

OPTION

Cursor keys
ENTER
RETURN

External device operation keys

Playing back music stored on media servers (PCs/NAS)

You can play back music files stored on your PC or DLNA-compatible NAS on the unit.

!

- To use this function, the unit and your PC must be connected to the same router (p.29). You can check whether the network parameters (such as the IP address) are properly assigned to the unit in "Information" (p.90) in the "Setup" menu.
- The unit supports playback of WAV (PCM format only), MP3, WMA, MPEG-4 AAC and FLAC files.
- The unit is compatible with sampling rates of up to 192 kHz for WAV and FLAC files, and 48 kHz for other files.
- To play back FLAC files, you need to install server software that supports sharing of FLAC files via DLNA on your PC or use a NAS that supports FLAC files.

Media sharing setup

To play back music files stored on your PC or DLNA-compatible NAS, first you need to configure the media sharing setting on each music server.

■ For a PC with Windows Media Player installed

1 Check that Windows Media Player 11 or later is installed on your PC.

2 In the media sharing settings, enable media sharing and allow media to be shared with the device.

■ For a PC or a NAS with other DLNA server software installed

Refer to the instruction manual for the device or software and configure the media sharing settings.

Playback of PC music contents

Follow the procedure below to operate the PC music contents and start playback.

You can control the PC/NAS with the menu displayed on the TV screen.

!

- Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.
- "_" (underscore) will be displayed for characters not supported by the unit.

1 Press NET repeatedly to select "SERVER" as the input source.

The browse screen is displayed on the TV.

```
┌─────────────────────────────────────┐
│ ▤  SERVER                       [≫] │
│     Top                         [∧] │
│  ▤ DESKTOP                      [∨] │
│  ▤ NAS A                        [≪] │
│  ▤ NAS B                        [♪] │
│  ▤ NOTE                             │
│                                     │
│              1/4                    │
└─────────────────────────────────────┘
```

☀

- If playback of a music file selected from the unit is ongoing on your PC, the playback screen is displayed.

2 Use the cursor keys to select a music server and press ENTER.

NET

Cursor keys ENTER

Cursor keys
ENTER
RETURN

DISPLAY

3 **Use the cursor keys to select an item and press ENTER.**

If a song is selected, playback starts and the playback screen is displayed.

```
SERVER
Now Playing              ►

    🎤 Artist Name
    💿 Album Name
    🎵 Song Title
    🕐 2:30

        [DISPLAY] to List Browse
```

• To return to the previous screen, press RETURN.

• To switch between the browse and playback screens during playback, press DISPLAY.

• Files not supported by the unit cannot be selected.

■ Browse screen

a List name

b Contents list
Displays the list of PC content. Use the cursor keys to select an item and press ENTER to confirm the selection.

c Item number/total

d Status indicators
Display the current repeat/shuffle settings (p.65) and playback status (such as play/pause).

e Operation menu
Press the cursor key (▷) and then use the cursor keys (△/▽) to select an item. Press ENTER to confirm the selection.

Icon	Function
⤊	Moves 10 pages backward.
⌃	Moves to the previous page of the list.
⌄	Moves to the next page of the list.
⤋	Moves 10 pages forward.
♪	Moves to the playback screen.

■ Playback screen

```
┌──────────────────────────────────────────┐
│ ▤ SERVER                      ▶ ⟲ ⤨       │──①
│   Now Playing                              │
│   ┌──────────────────────────────────┐    │
│   │ 👤 Artist Name                    │    │
│   │ 💿 Album Name                     │──② │
│   │ ♫ Song Title                      │    │
│   │ 🕐 2:30                           │    │
│   └──────────────────────────────────┘    │
│                                            │
│         [DISPLAY] to List Browse           │
└──────────────────────────────────────────┘
```

① Status indicators

Display the current repeat/shuffle settings (p.65) and playback status (such as play/pause).

② Playback information

Displays the artist name, album name, song title, and elapsed time.

Use the following remote control keys to control playback.

External device operation keys	Function
▶	Resumes playback from pause.
■	Stops playback.
❚❚	Stops playback temporarily.
◀◀	Skips forward/backward.
▶▶	

🔆

• You can also use a DLNA-compatible Digital Media Controller (DMC) to control playback. For details, see "DMC Control" (p.91).

■ Repeat/shuffle settings

You can configure the repeat/shuffle settings for the playback of PC music content.

1 When "SERVER" is selected as the input source, press OPTION.

2 Use the cursor keys to select "Repeat" (Repeat) or "Shuffle" (Shuffle) and press ENTER.

🔆

• To return to the previous screen during menu operations, press RETURN.

• Text in parentheses denotes indicators on the front display.

3 Use the cursor keys (◁/▷) to select a setting.

Item	Setting	Function
Repeat (Repeat)	Off (Off)	Turns off the repeat function.
	One (One)	Plays back the current song repeatedly. "⟲" appears on the TV screen.
	All (All)	Plays back all songs in the current album (folder) repeatedly. "⟳" appears on the TV screen.
Shuffle (Shuffle)	Off (Off)	Turns off the shuffle function.
	On (On)	Plays back songs in the current album (folder) in random order. "⤨" appears on the TV screen.

4 To exit from the menu, press OPTION.

OPTION

Cursor keys
ENTER
RETURN

External device operation keys

Listening to Internet radio

You can listen to Internet radio stations from all over the world.

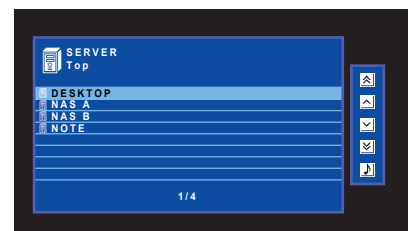You can control the Internet radio with the menu displayed on the TV screen.

!

- Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.
- To use this function, the unit must be connected to the Internet (p.29). You can check whether the network parameters (such as the IP address) are properly assigned to the unit in "Information" (p.90) in the "Setup" menu.
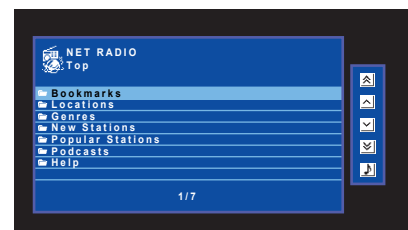- You may not be able to receive some Internet radio stations.
- The unit uses the vTuner Internet radio station database service.
- This service may be discontinued without notice.

1 **Press NET repeatedly to select "NET RADIO" as the input source.**

The browse screen is displayed on the TV.

```
NET RADIO
Top

Bookmarks
Locations
Genres
New Stations
Popular Stations
Podcasts
Help

                1/7
```

2 **Use the cursor keys to select an item and press ENTER.**

If an Internet radio station is selected, playback starts and the playback screen is displayed.

```
NET RADIO
Now Playing                ►

(((•))) Station Name
   Album Name
   Song Title
   2:30

      [DISPLAY] to List Browse
```

- To return to the previous screen, press RETURN.
- To switch between the browse and playback screens during playback, press DISPLAY.
- You can register your favorite Internet radio stations to the "Bookmarks" folder by selecting "NET RADIO" as the input source on the unit and then accessing the following website with the web browser on your PC. To use this feature, you need the vTuner ID of the unit and your e-mail address to create your personal account. You can check the vTunerID (MAC address of the unit) in "Information" (p.90) in the "Setup" menu.
  http://yradio.vtuner.com/

NET

Cursor keys
ENTER
RETURN
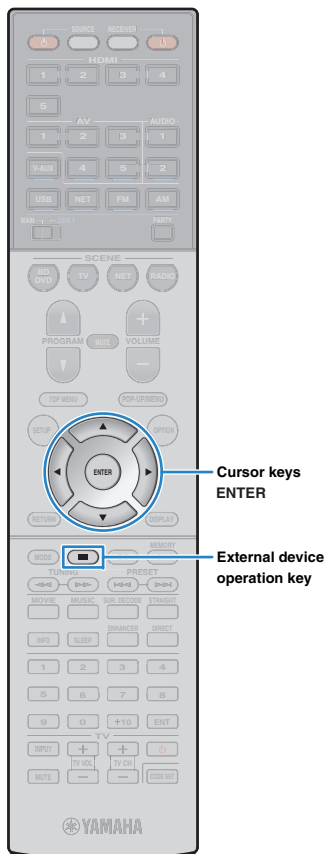
DISPLAY

■ Browse screen

① List name

② Contents list
Displays the list of Internet radio content. Use the cursor keys to select an item and press ENTER to confirm the selection.

③ Item number/total

④ Playback indicator

⑤ Operation menu
Press the cursor key (▷) and then use the cursor keys (△/▽) to select an item. Press ENTER to confirm the selection.

| Icon	Function
⊼	Moves 10 pages backward.
⌃	Moves to the previous page of the list.
⌄	Moves to the next page of the list.
⊻	Moves 10 pages forward.
♪	Moves to the playback screen.

■ Playback screen

① Playback indicator

② Playback information
Displays the station name, album name, song title, and elapsed time.

☼

• Use the external device operation key (■) to stop playback.

• Some information may not be available depending on the station.

Cursor keys
ENTER

External device operation key

Playing back iTunes/iPod music via a network (AirPlay)

The AirPlay function allows you to play back iTunes/iPod music on the unit via network.

iTunes

PC

Router

The unit

Starts playback on iTunes or iPod

Playback starts

iPod

!
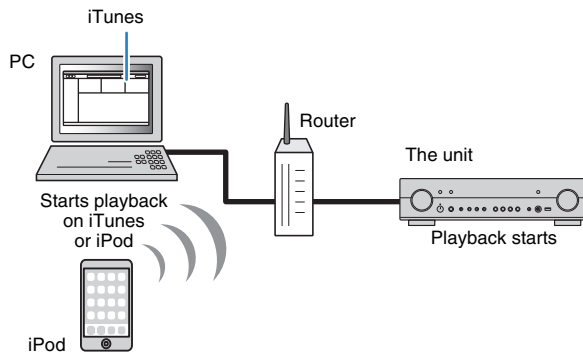
- To use this function, the unit and your PC or iPod must be connected to the same router (p.29). You can check whether the network parameters (such as the IP address) are properly assigned to the unit in "Information" (p.90) in the "Setup" menu.

AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion, and Mac and PC with iTunes 10.2.2 or later.
(as of July 2013)

Playback of iTunes/iPod music contents

Follow the procedure below to play back iTunes/iPod music contents on the unit.

1 Turn on the unit, and start iTunes on the PC or display the playback screen on the iPod.

If the iTunes/iPod recognizes the unit, the AirPlay icon ( ) appears.

iTunes (example)
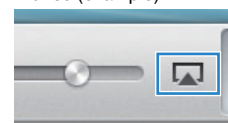
iPod (example)

!
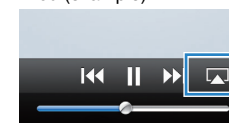
- If the icon does not appear, check whether the unit and PC/iPod are connected to the router properly.

2 On the iTunes/iPod, click (tap) the AirPlay icon and select the unit (network name of the unit) as the audio output device.

iTunes (example)

My Computer
✓ Yamaha XXXXX
Multiple Speakers...

iPod (example)

iPod touch
Yamaha XXXXXX ✓
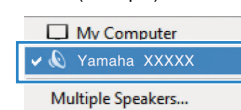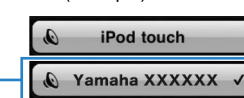
Network name of the unit

3 Select a song and start playback.

The unit automatically selects "AirPlay" as the input source and starts playback.
The playback screen is displayed on the TV.

!

- The playback screen is available only when your TV is connected to the unit via HDMI.

External device operation keys

☀️

- You can turn on the unit automatically when starting playback on iTunes or iPod by setting "Network Standby" (p.91) in the "Setup" menu to "On".
- You can edit the network name (the unit's name on the network) displayed on iTunes/iPod in "Network Name" (p.91) in the "Setup" menu.
- If you select the other input source on the unit during playback, playback on the iTunes/iPod stops automatically.
- You can adjust the unit's volume from the iTunes/iPod during playback. To disable volume controls from iTunes/iPod, set "Volume Interlock" (p.77) in the "Option" menu to "Off".

Caution

- When you use iTunes/iPod controls to adjust volume, the volume may be unexpectedly loud. This could result in damage to the unit or speakers. If the volume suddenly increases during playback, stop playback on the iTunes/iPod immediately.

■ **Playback screen**

① **Playback indicator**

② **Playback information**
Displays the artist name, album name, song title, and elapsed time/song length.

Use the following remote control keys to control playback.

External device operation keys	Function
►	Resumes playback from pause.
■	Stops playback.
▮▮	Stops playback temporarily.
◄◄	Skips forward/backward.
►►	

⚠️

- To control iTunes playback with the remote control of the unit, you need to configure the iTunes preferences to enable iTunes control from remote speakers in advance.

iTunes (example of English version)

Check this box
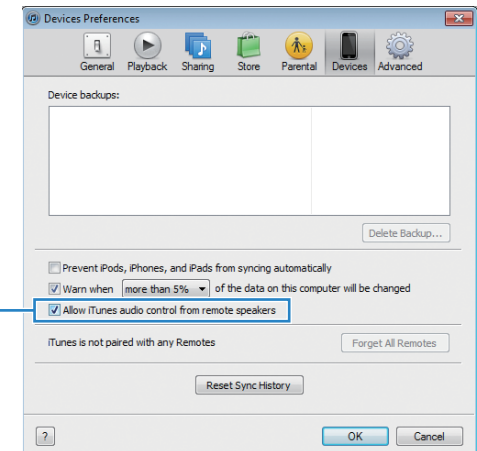
Playing back music in multiple rooms (multi-zone)

The multi-zone function allows you to play back different input sources in the room where the unit is installed (main zone) and in another room (Zone2).

For example, while you are watching TV in the living room (main zone), another person can listen to radio in the study room (Zone2).

Living room (main zone)

Study room (Zone2)

!
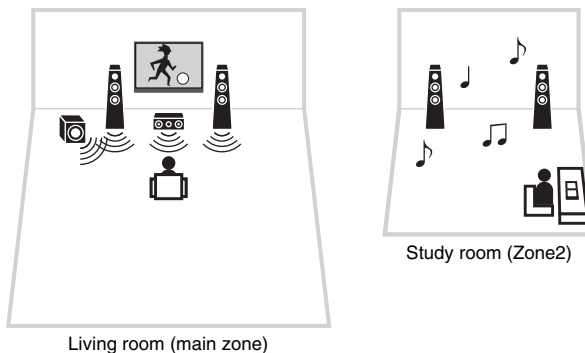
- Analog audio sources (including FM/AM or DAB/FM radio), and USB and network sources can be output to Zone2. To listen to the playback of an external device in Zone2, you need to connect the device to the AUDIO jacks (AV 4–5 or AUDIO 2 jacks) of the unit.
- The party mode (p.72) allows you to play back the same audio output in main zone as Zone2, whatever the input audio signal type.

Preparing Zone2

Connect the device that will be used in Zone2 to the unit.

Caution

- Remove the unit's power cable from the AC wall outlet before connecting speakers or an external amplifier.
- Ensure that the core wires of the speaker cable do not touch one another or come into contact with the unit's metal parts. Doing so may damage the unit or the speakers. If the speaker cables short circuit, "Check SP Wires" will appear on the front display when the unit is turned on.

Connect the speakers placed in Zone2 to the unit with speaker cables.

To utilize the EXTRA SP terminals for Zone2 speakers, set "Power Amp Assign" (p.81) in the "Setup" menu to "Zone2" after connecting the power cable to an AC wall outlet.

The unit (rear)
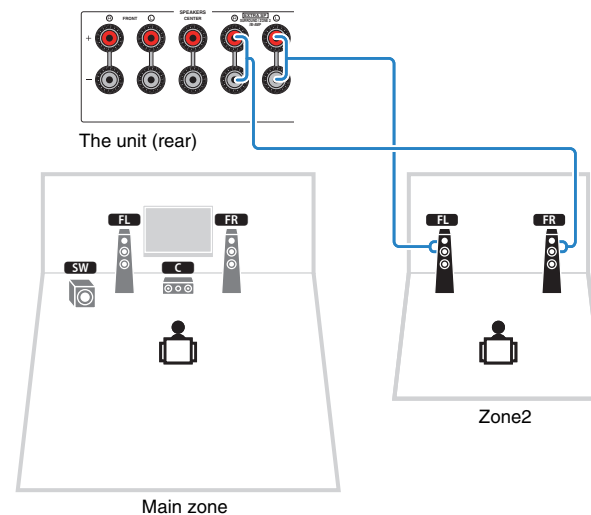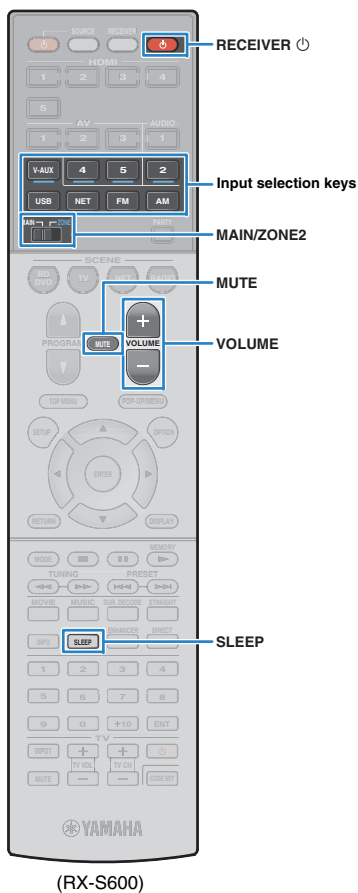
Main zone

Zone2

Controlling Zone2

1 Set MAIN/ZONE2 to "ZONE2".

2 Press RECEIVER ⏻.

Each time you press the key, Zone2 output is enabled or disabled.

When Zone2 output is enabled, "ZONE2" lights up in the front display.

💡
- You can enable/disable Zone2 output using the ZONE key on the front panel (p.8).

3 Use the following keys to select an input source.

AV 4–5: AV 4–5 (AUDIO) jacks

AUDIO 2: AUDIO 2 jacks

V-AUX: VIDEO AUX jack

FM: FM radio

AM: AM radio (RX-S600)

DAB: DAB radio (RX-S600D)

USB: USB jack (on the front panel)

NET: NETWORK jack (press repeatedly to select a desired network source)

❗
- You cannot select USB and network sources exclusively for each zone. For example, if you select "SERVER" for Zone2 when "USB" is selected for the main zone, the input source for the main zone also switches to "SERVER".

💡
- It is useful to assign the frequently-used input to the SCENE key (p.72).

4 Start playback on the external device or select a radio station.

Refer to the instruction manual for the external device.

For details on the following operations, see the corresponding pages.

- Listening to FM/AM radio (RX-S600) (p.44)
- Listening to DAB/FM radio (RX-S600D) (p.48)
- Playing back iPod music (p.56)
- Playing back music stored on a USB storage device (p.60)
- Playing back music stored on media servers (PCs/NAS) (p.63)
- Listening to Internet radio (p.66)
- Playing back iTunes/iPod music via a network (AirPlay) (p.68)

❗
- The on-screen operations are not available for Zone2. Use the front display to control Zone2.
- AirPlay is available in Zone2 only when AirPlay playback is ongoing in the main zone.

💡
- To set the sleep timer (120 min, 90 min, 60 min, 30 min, off), press SLEEP repeatedly. The Zone2 output will be disabled after a specified period of time.
- To adjust the Zone2 volume, press VOLUME or MUTE.
- Use an infrared repeater commercially available to operate the unit and external devices from Zone2. You can also control Zone2 by using the application for smartphone/tablet "AV CONTROLLER". Visit the Yamaha website for details.

Caution
- To avoid unexpected noise, never play back DTS-CDs in Zone2.

RECEIVER ⏻

Input selection keys

MAIN/ZONE2

MUTE

VOLUME

SLEEP

(RX-S600)
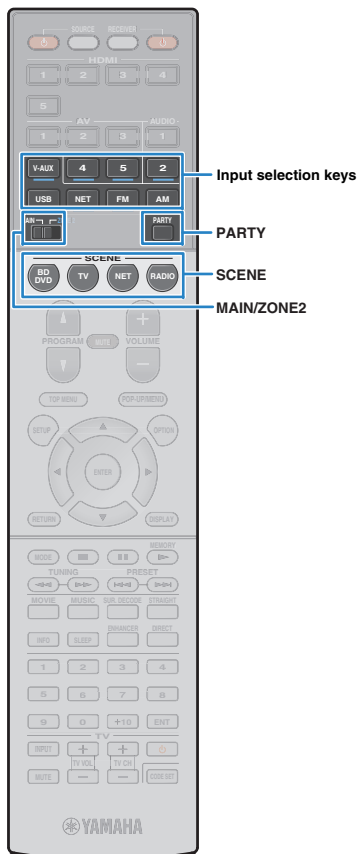
■ Selecting the input source with the SCENE function

You can use the SCENE function to select the input source for Zone2 playback.

> [!NOTE]
> - To use the SCENE function in Zone2, you must configure scene assignments separately from the main zone settings.
> - You can register only the input source to the SCENE key. By default, the following settings are registered for each scene.
>   – BD/DVD: AV 4
>   – TV: AUDIO 2
>   – NET: NET RADIO
>   – RADIO: TUNER

1 Set MAIN/ZONE2 to "ZONE2".

2 Press SCENE.

The input source registered to the corresponding scene is selected and Zone2 output is enabled.

❑ Configuring scene assignments

1 Set MAIN/ZONE2 to "ZONE2".

2 Select a Zone2 input source.

3 Hold down the desired SCENE key until "SET Complete" appears on the front display.

Input selection keys

PARTY

SCENE

MAIN/ZONE2

■ Enjoying the same source in multiple rooms (party mode)

The party mode allows you to play back in Zone2 the same music that is being played back in the main zone. During the party mode, stereo playback is automatically selected for all zones. Utilize this function when you want to use main zone music as background music for a house party.

1 Press PARTY.

Each time you press the key, the party mode is turned on or off.

When the party mode is turned on, "PARTY" lights up in the front display.
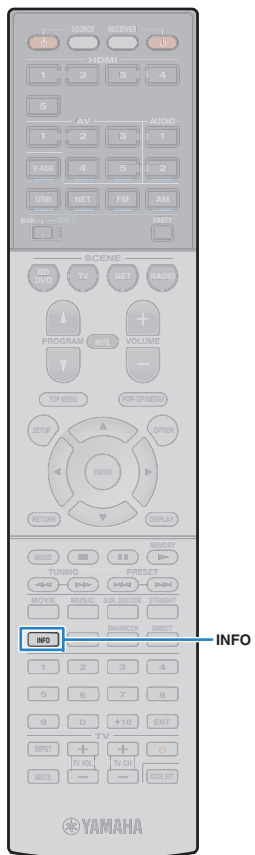
Viewing the current status

Switching information on the front display

1 Press INFO.

Each time you press the key, the displayed item changes.

```
INFO                VOL. -30.0 dB
Audio Decoder       [L SL C R SR]
```

Item name

About 3 seconds later, the corresponding information for the displayed item appears.

```
HDMI 1              VOL. -30.0 dB
□□Pro Logic         [L SL C R SR]
```

Information

💡

• Available items vary depending on the selected input source. The displayed item can also be applied separately to each input source group.

Input source group	Item
HDMI 1–5 **AV 1–5** **AUDIO 1–2** **V-AUX**	Input (input source name), DSP Program (sound mode name), Audio Decoder (decoder name*)
USB **SERVER** **AirPlay**	Song (song title), Artist (artist name), Album (album name), DSP Program (sound mode name), Audio Decoder (decoder name*) * During simple playback of iPod: Input (input source name), DSP Program (sound mode name), Audio Decoder (decoder name)
NET RADIO	Song (song title), Album (album name), Station (station name), DSP Program (sound mode name), Audio Decoder (decoder name*)
TUNER (DAB)	See "Displaying the DAB information" (p.50) for details.
TUNER (FM)	Frequency (frequency), DSP Program (sound mode name), Audio Decoder (decoder name*) * (U.K. and Europe models only) Radio Data System data is also available when the unit is tuned into a Radio Data System broadcasting station (p.47).

* The name of the audio decoder currently activated is displayed. If no audio decoder is activated, "Decoder Off" appears.
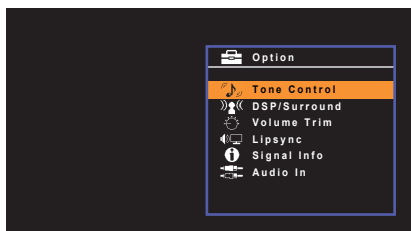
INFO

Configuring playback settings for different playback sources (Option menu)

You can configure separate playback settings for different playback sources. This menu is available on the front panel (or on the TV screen), allowing you to easily configure settings during playback.

1 **Press OPTION.**

```
OPTION          VOL.  -30.0dB
♦Tone Control
```

Front display

TV screen

2 **Use the cursor keys to select an item and press ENTER.**

• To return to the previous screen during menu operations, press RETURN.

3 **Use the cursor keys (◁/▷) to select a setting.**

4 **To exit from the menu, press OPTION.**

Option menu items

• Available items vary depending on the selected input source.

• Text in parentheses denotes indicators on the front display.

• Depending on the region of purchase, some menu items for audio streaming services are also available. For details, refer to each manual on the supplied CD-ROM.

Item		Function	Page
Tone Control (Tone Control)		Adjusts the high-frequency range and low-frequency range of sounds.	75
DSP/Surround (DSP/Surround)	**DSP Level (DSP Level)**	Adjusts the sound field effect level.	75
	Adaptive DRC (A.DRC)	Sets whether the dynamic range (from maximum to minimum) is automatically adjusted when the volume is adjusted.	75
	Enhancer (Enhancer)	Enables/disables Compressed Music Enhancer.	75
Volume Trim (Volume Trim)	**Input Trim (In.Trim)**	Corrects volume differences between input sources.	76
	Subwoofer Trim (SW.Trim)	Fine-adjusts the subwoofer volume.	76
Lipsync (Lipsync)		Enables/disables the "Lipsync" setting in the "Setup" menu.	76
Signal Info (Signal Info)		Displays information about the video/audio signal.	76
Audio In (Audio In)		Combines the video jack of the selected input source with an audio jack of others.	77
Video Out (Video Out)		Selects a video to be output with radio sounds.	77
Auto Preset (Auto Preset)		Automatically registers FM radio stations with strong signals as presets.	45, 53
Clear Preset (Clear Preset)		(RX-S600) Clears FM/AM radio stations (p.46) registered to preset numbers. (RX-S600D) Clears DAB radio stations (p.50) or FM radio stations (p.54) registered to preset numbers.	—

Item	Function	Page
Traffic Program (TrafficProgram)	(RX-S600 U.K. and Europe models only) Automatically searches for a traffic information station.	47
Init Scan (Init Scan)	(RX-S600D only) Performs an initial scan for DAB radio reception.	48
Tune Aid (Tune Aid)	(RX-S600D only) Checks reception strength of each DAB channel label.	51
Repeat (Repeat)	Configures the repeat setting for the iPod (p.59), USB storage device (p.62), or media server (p.65).	—
Shuffle (Shuffle)	Configures the shuffle setting for the iPod (p.59), USB storage device (p.62), or media server (p.65).	—
Volume Interlock (Interlock)	Enables/disables volume controls from iTunes/iPod via AirPlay.	77

■ Tone Control (Tone Control)

Adjusts the high-frequency range (Treble) and low-frequency range (Bass) of sounds.

Choices
Treble (Treble), Bass (Bass)

Setting range
-6.0 dB to Bypass (Bypass) to +6.0 dB, *0.5 dB increments

Default
Bypass (Bypass)

• If you set an extreme value, sounds may not match those from other channels.

■ DSP/Surround (DSP/Surround)

Configures the sound field program and surround settings.

❏ DSP Level (DSP Level)

Adjusts the sound field effect level.

Setting range
-6 dB to +3 dB (1 dB increments)

Default
0 dB

❏ Adaptive DRC (A.DRC)

Sets whether the dynamic range (from maximum to minimum) is automatically adjusted when the volume level is adjusted. When it is set to "On", it is useful for listening to playback at a low volume at night.

Settings

On (On)	Automatically adjusts the dynamic range.
Off (Off) (default)	The dynamic range is not automatically adjusted.

If "On" is selected, the dynamic range becomes narrow at a low volume and wide at a high volume.
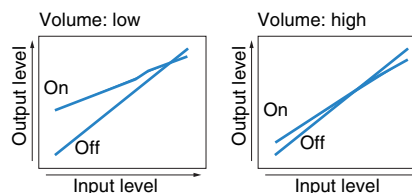
❏ Enhancer (Enhancer)

Enables/disables Compressed Music Enhancer (p.43).

• This setting is applied separately to each input source.
• You can also use ENHANCER on the remote control to enable/disable Compressed Music Enhancer (p.43).

Settings

Off (Off)	Disables Compressed Music Enhancer.
On (On)	Enables Compressed Music Enhancer.

Default
TUNER, USB, (network sources) : On (On)
Others: Off (Off)

■ Volume Trim (Volume Trim)

Fine-adjusts volume difference between input sources or subwoofer volume.

❑ Input Trim (In.Trim)

Corrects volume differences between input sources. If you are bothered by volume differences when switching between input sources, use this function to correct it.

💡

• This setting is applied separately to each input source.

Setting range
-6.0 dB to +6.0 dB (0.5 dB increments)

Default
0.0 dB

❑ Subwoofer Trim (SW.Trim)

Fine-adjusts the subwoofer volume.

Setting range
-6.0 dB to +6.0 dB (0.5 dB increments)

Default
0.0 dB

■ Lipsync (Lipsync)

Enables/disables the adjustment configured in "Lipsync" (p.86) in the "Setup" menu.

💡

• This setting is applied separately to each input source.

Settings

Off (Off)	Disables the "Lipsync" adjustment.
On (On)	Enables the "Lipsync" adjustment.

Default
AirPlay: Off (Off)
Others: On (On)

■ Signal Info (Signal Info)

Displays information about the video/audio signal.

Choices

Format (FORMAT)	Audio format of the input signal
Channel (CHAN)	The number of source channels in the input signal (front/surround/LFE) For example, "3/2/0.1" means 3 front channels, 2 surround channels, and LFE.
Sampling (SAMPL)	The number of samples per second of the input digital signal
Bitrate (B RATE)	The amount of data per second of the input bitstream signal
Input (V IN)	Type and resolution of input signal
Output (V OUT)	Type and resolution of output signal

💡

• To switch the information on the front display, press the cursor keys (△/▽) repeatedly.

■ Audio In (Audio In)

Combines the video jack of the selected input source (HDMI 1–5 or AV 1–3) with an audio jack of others. For example, use this function in the following cases.

- Connecting a playback device that supports HDMI video output, but not HDMI audio output
- Connecting a playback device that has component video jacks and analog stereo jacks (such as game consoles)

Input sources
HDMI 1–5, AV 1–3

■ Setup procedure

(To input audio through a digital optical jack)

Select "AV 1" or "AUDIO 1" and connect the device to the unit's corresponding audio jacks with a digital optical cable.

(To input audio through a digital coaxial jack)

Select "AV 2" or "AV 3" and connect the device to the unit's corresponding audio jacks with a digital coaxial cable.

(To input audio through analog audio jacks)

Select "AV 4", "AV 5", or "AUDIO 2", and connect the device to the unit's corresponding audio jacks with a stereo pin cable.

■ Video Out (Video Out)

Selects a video to be output with radio sounds.

Settings

Off (Off) (default)	Does not output video.
HDMI 1–5, AV 1–5, V-AUX	Outputs video input through the corresponding video input jacks.

■ Volume Interlock (Interlock)

Enables/disables volume controls from iTunes/iPod via AirPlay.

Settings

Off (Off)	Disables volume controls from iTunes/iPod.
Limited (Ltd) (default)	Enables volume controls from iTunes/iPod within the limited range (-80 dB to 0 dB and mute).
Full (Full)	Enables volume controls from iTunes/iPod in the full range (-80 dB to +16.5 dB and mute).

CONFIGURATIONS

Configuring various functions (Setup menu)

You can configure the unit's various function with the menu displayed on the TV screen.

!

• Operations with TV screen are available only when your TV is connected to the unit via HDMI. If not, carry out operations while viewing the front display.

☼

• If new firmware is available, the envelope icon (✉) appears in the screen (p.98).

1 **Press SETUP.**

2 **Use the cursor keys to select a menu and press ENTER.**
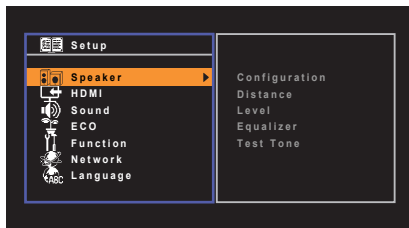
3 **Use the cursor keys to select an item and press ENTER.**

☼
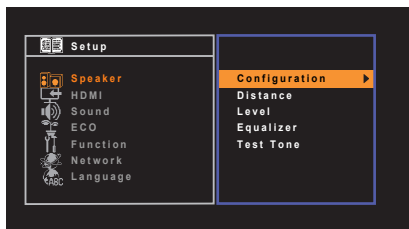
• To return to the previous screen during menu operations, press RETURN.

4 **Use the cursor keys (◁/▷) to select a setting and press ENTER.**

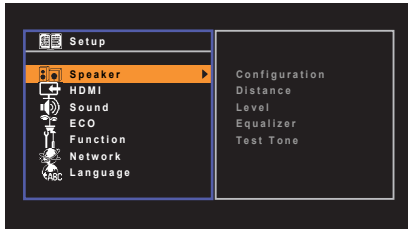**5** **To exit from the menu, press SETUP.**

Setup menu items

Menu	Item		Function	Page
Speaker	Configuration	Power Amp Assign	Selects a speaker system.	81
		Subwoofer	Selects whether or not a subwoofer is connected.	81
		Front	Selects the size of the front speakers.	81
		Center	Selects whether or not a center speaker is connected and its size.	81
		Surround	Selects whether or not surround speakers are connected and their size.	82
		Crossover	Sets the lower limit of the low-frequency component that can be output from speakers whose size is set to "Small".	82
		Subwoofer Phase	Sets the phase of the subwoofer.	82
		Extra Bass	Sets the speakers to produce the front channel low-frequency components.	82
	Distance		Sets the distance between each speaker and listening position.	82
	Level		Adjusts the volume of each speaker.	82
	Equalizer		Adjusts the tone with an equalizer.	83
	Test Tone		Enables/disables the test tone output.	83
HDMI	Configuration	HDMI Control	Enables/disables HDMI Control.	84
		Audio Output	Selects a device to output audio.	84
		Standby Through	Selects whether to output videos/audio (input through HDMI jacks) to the TV when the unit is in standby mode.	84
		TV Audio Input	Selects an audio input jack of the unit to be used for TV audio input.	84
		Standby Sync	Selects whether to use HDMI control to link the standby behavior of the TV and the unit.	85
		ARC	Enables/disables ARC.	85
		SCENE	Enables/disables SCENE link playback.	85

Menu	Item		Function	Page
Sound	**DSP Parameter**	**CINEMA DSP 3D Mode**	Enables/disables CINEMA DSP 3D.	85
		Panorama	Enables/disables the broadening effect of the front sound field.	85
		Center Width	Adjusts the broadening effect of the center sound field.	86
		Dimension	Adjusts the difference in level between the front and surround sound fields.	86
		Center Image	Adjusts the center orientation level (broadening effect) of the front sound field.	86
	Lipsync	**Select**	Selects the method to adjust the delay between video and audio output.	86
		Adjustment	Adjusts the delay between video and audio output manually.	86
	Volume	**Dynamic Range**	Selects the dynamic range adjustment method for bitstream audio (Dolby Digital and DTS signals) playback.	87
		Main Zone Max Volume	Sets the main zone maximum volume to prevent excessive loudness.	87
		Main Zone Initial Volume	Sets the main zone initial volume for when this receiver is turned on.	87
		Zone2 Max Volume	Sets the Zone2 maximum volume to prevent excessive loudness.	87
		Zone2 Initial Volume	Sets the Zone2 initial volume for when the Zone2 is turned on.	87
ECO	**Auto Power Standby**		Sets the amount of time for the auto-standby function.	88
	ECO Mode		Enables/disables the eco mode (power saving mode).	88
Function	**Input Rename**		Changes the input source name displayed on the front display.	88
	Dimmer		Adjusts the brightness of the front display.	89
	Memory Guard		Prevents accidental changes to the settings.	89
	DC OUT	**Power Mode**	Selects how to supply power through the DC OUT jack.	89
	Party Mode Set		Enables/disables switching to the party mode.	89
Network	**Information**		Displays the network information on the unit.	90
	IP Address		Configures the network parameters (such as IP address).	90
	MAC Address Filter		Sets the MAC address filter to limit access to the unit from other network devices.	91
	DMC Control		Selects whether to allow a DLNA-compatible Digital Media Controller (DMC) to control playback.	91
	Network Standby		Selects whether to enable/disable the function that turns on the unit from other network devices.	91
	Network Name		Edits the network name (the unit's name on the network) displayed on other network devices.	91
	Network Update		Updates the firmware via the network.	92
Language			Select an on-screen menu language.	92

Speaker

Configures the speaker settings manually.

```
Setup
  Speaker          ▶    Configuration
  HDMI                  Distance
  Sound                 Level
  ECO                   Equalizer
  Function              Test Tone
  Network
  Language
```

■ Configuration

Configures the output characteristics of the speakers.

☆
- When you configure the speaker size, select "Large" if the woofer diameter of your speaker is 16 cm (6-1/4") or larger or "Small" if it is smaller than 16 cm (6-1/4").

❏ Power Amp Assign

Selects a speaker system.

In addition to the 5.1-channel speaker system, various speaker configurations are possible using the Zone2 speakers or bi-amp connection.

Settings

Basic (default)	Select this option when you use a normal speaker system (not using Zone2 speakers or a bi-amp connection).
BI-AMP	Select this option when you connect front speakers that support bi-amp connections (p.17).
Zone2	Select this option when you use Zone2 speakers (p.70) in addition to the speaker system in the main zone.

❏ Subwoofer

Selects whether or not a subwoofer is connected.

Settings

Use (default)	Select this option when a subwoofer is connected. The subwoofer will produce LFE (low-frequency effect) channel audio and low-frequency components from other channels.
None	Select this option when no subwoofer is connected. The front speakers will produce LFE (low-frequency effect) channel audio and low-frequency components from other channels.

❏ Front

Selects the size of the front speakers.

Settings

Small (default)	Select this option for small speakers. The subwoofer will produce front channel low-frequency components (configurable in "Crossover").
Large	Select this option for large speakers. The front speakers will produce all of the front channel frequency components.

☆
- "Front" is automatically set to "Large" when "Subwoofer" is set to "None".

❏ Center

Selects whether or not a center speaker is connected and its size.

Settings

Small (default)	Select this option for small speakers. The subwoofer or front speakers will produce center channel low-frequency components (configurable in "Crossover").
Large	Select this option for large speakers. The center speaker will produce all of the center channel frequency components.
None	Select this option when no center speaker is connected. The front speakers will produce center channel audio.

❏ Surround

Selects whether or not surround speakers are connected and their sizes.

Settings

Small (default)	Select this option for small speakers. The subwoofer or front speakers will produce surround channel low-frequency components (configurable in "Crossover").
Large	Select this option for large speakers. The surround speakers will produce all of the surround channel frequency components.
None	Select this option when no surround speakers are connected. The front speakers will produce surround channel audio. Virtual CINEMA DSP works when you select a sound program.

• "Surround" is automatically set to "None" when "Power Amp Assign" is set to "BI-AMP" or "Zone2".

❏ Crossover

Sets the lower limit of the low-frequency components that can be output from a speaker whose size is set to "Small". A frequency sound lower than the specified value will be produced from the subwoofer or front speakers.

Settings

40 Hz, 60 Hz, 80 Hz (default), 90 Hz, 100 Hz, 110 Hz, 120 Hz, 160 Hz, 200 Hz

• If the volume and crossover frequency are adjustable on your subwoofer, set the volume to half and crossover frequency to maximum.

❏ Subwoofer Phase

Sets the phase of the subwoofer. When the bass sound is lacking or unclear, switch the subwoofer phase.

Settings

Normal (default)	Does not reverse the subwoofer phase.
Reverse	Reverses the subwoofer phase.

❏ Extra Bass

Sets the speakers to produce the front channel low-frequency components.

Settings

Off (default)	Depending on the size of the front speakers, either the subwoofer or front speakers produce the front channel low-frequency components.
On	Both the front speakers and subwoofer produce the front channel low-frequency components.

• This setting is not available when "Subwoofer" is set to "None", or when "Front" is set to "Small".

■ Distance

Sets the distance between each speaker and listening position so that sounds from the speakers reach the listening position at the same time. First, select the unit of distance from "Meter" or "Feet".

Choices

Front L, Front R, Center, Surround L, Surround R, Subwoofer

Setting range

0.30 m to 24.00 m (1.0 ft to 80.0 ft), 0.05 m (0.2 ft) increments

Default

Front L, Front R, Subwoofer: 3.00 m (10.0 ft)
Center: 2.60 m (8.6 ft)
Others: 2.40 m (8.0 ft)

■ Level

Adjusts the volume of each speaker.

Choices

Front L, Front R, Center, Surround L, Surround R, Subwoofer

Setting range

-10.0 dB to +10.0 dB (0.5 dB increments)

Default

Front L, Front R, Subwoofer: 0.0 dB
Others: -1.0 dB

• By using test tones, you can make an adjustment while confirming its effect.

■ Equalizer

Adjusts the tone with an equalizer.

❑ EQ Select

Selects the type of equalizer to be used.

Settings

|	
PEQ	Applies the parametric equalizer values obtained by the YPAO measurement (p.32).
GEQ (default)	Select this option when you want to adjust the equalizer manually. For details, see "Manual equalizer adjustment".
Off	Does not use the equalizer.

• "PEQ" is available only when the YPAO has been performed (p.32).

• By using test tones, you can make an adjustment while confirming its effect.

■ Manual equalizer adjustment

1 Set "EQ Select" to "GEQ".

2 Use the cursor keys (△/▽) to select "Channel" and the cursor keys (◁/▷) to select the desired speaker channel.

3 Use the cursor keys (△/▽) to select the desired band (frequency) and the cursor keys (◁/▷) to adjust the gain.

Setting range
-6.0 dB to +6.0 dB
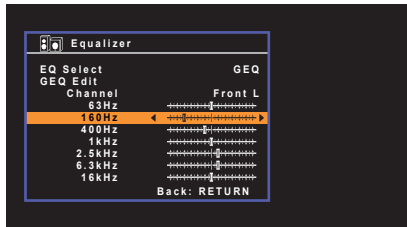
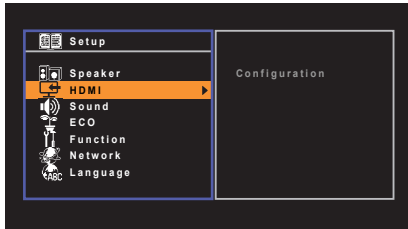
4 To exit from the menu, press SETUP.

■ Test Tone

Enables/disables the test tone output. Test tone output helps you to adjust the speaker balance or equalizer while confirming its effect.

Settings

Off (default)	Does not output test tones.
On	Outputs test tones automatically when you adjust the speaker balance or equalizer.

HDMI

Configures the HDMI settings.

```
┌─────────────────────────────────┐
│ ▤▤ Setup                         │
│ ┌───────────────┐                │
│ │ ▥ Speaker     │ Configuration  │
│ │ ⇄ HDMI      ▶ │                │
│ │ ▥ Sound       │                │
│ │   ECO         │                │
│ │ ↓ Function    │                │
│ │   Network     │                │
│ │ ⌁ Language    │                │
│ └───────────────┘                │
└─────────────────────────────────┘
```

■ Configuration

❑ HDMI Control

Enables/disables HDMI Control (p.111).

Settings

Off (default)	Disables HDMI Control.
On	Enables HDMI Control. Configure the settings in "TV Audio Input", "Standby Sync", "ARC", and "SCENE".

> ⚠
> • To use HDMI control, you need to perform the HDMI Control link setup (p.111) after connecting HDMI Control-compatible devices.

❑ Audio Output

Selects a device to output audio.

> ☼
> • This setting is available only when "HDMI Control" is set to "Off".

Amp

Enables/disables the audio output from the speakers connected to the unit.

Settings

Off	Disables the audio output from the speakers.
On (default)	Enables the audio output from the speakers.

HDMI OUT (TV)

Enables/disables the audio output from a TV connected to the HDMI OUT jack.

Settings

Off (default)	Disables the audio output from the TV.
On	Enables the audio output from the TV.

❑ Standby Through

Select whether to output videos/audio (input through HDMI jacks) to the TV when the unit is in standby mode. If this function is set to "On", you can use the input selection keys (HDMI 1–5) to select an HDMI input even when the unit is in standby mode (the standby indicator on the unit blinks).

Settings

Off (default)	Does not output videos/audio to the TV.
On	Outputs videos/audio to the TV. (The unit consumes more power than when "Off" is selected.)

> ☼
> • This setting is available only when "HDMI Control" is set to "Off".

❑ TV Audio Input

Selects an audio input jack of the unit to be used for TV audio input when "HDMI Control" is set to "On". The unit's input source automatically switches to TV audio when the TV input is switched to its built-in tuner.

Settings
AV 1–5, AUDIO 1–2

Default
AUDIO 1

> ⚠
> • When using ARC to input TV audio to the unit, you cannot use the input jacks selected here for connecting an external device because the input will be used for TV audio input.

❏ Standby Sync

Select whether to use HDMI control to link the standby behavior of the TV and the unit when "HDMI Control" is set to "On".

Settings

Off	Does not set the unit to standby mode when the TV is turned off.
On	Sets the unit to standby mode when the TV is turned off.
Auto (default)	Sets the unit to standby mode when the TV is turned off only when the unit is receiving TV audio or HDMI signals.

❏ ARC

Enables/disables ARC (p.19) when "HDMI Control" is set to "On".

Settings

Off	Disables ARC.
On (default)	Enables ARC.

> **!**
>
> • You do not need to change this setting normally. In case noises are produced from the speakers connected to the unit because TV audio signals input to the unit via ARC are not supported by the unit, set "ARC" to "Off" and use the TV's speakers.

❏ SCENE

Enables/disable SCENE link playback when "HDMI Control" is set to "On".

When SCENE link playback is enabled, HDMI Control-compatible devices connected to the unit via HDMI automatically works as follows, with a scene selection.

• TV: turning on and displaying video from the playback device
• Playback device: starting playback

Choices (SCENE keys)
BD/DVD, TV, NET, RADIO

Settings

Off	Disables SCENE link playback for the selected SCENE key.
On	Enables SCENE link playback for the selected SCENE key.

Default
BD/DVD, TV: On
NET, RADIO: Off

> **!**
>
> • SCENE link playback may not work properly due to the compatibility between devices. We recommend using TV and playback devices from the same manufacturer so that HDMI Control works more effectively.

Sound

Configures the audio output settings.
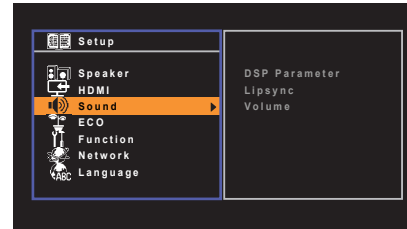
■ DSP Parameter

Configures the surround decoder settings.

❏ CINEMA DSP 3D Mode

Enables/disables CINEMA DSP 3D (p.41). If this function is set to "On", CINEMA DSP 3D functions with the selected sound programs (except 2ch Stereo and 5ch Stereo).

Settings

Off	Disables CINEMA DSP 3D.
On (default)	Enables CINEMA DSP 3D.

❏ Panorama

Enables/disables the broadening effect of the front sound field. When this function is enabled, you can wrap front right/left channel sounds around the field and generate a spacious sound field in combination with the surround sound field. This setting is effective when "⊓⊓PLII Music" is selected.

Settings

Off (default)	Disables the broadening effect of the front sound field.
On	Enables the broadening effect of the front sound field.

❑ Center Width

Adjusts the broadening effect of the center sound field. Higher to enhance the broadening effect, and lower to reduce it (closer to center). This setting is effective when "◻PLII Music" is selected.

Setting range
0 to 7

Default
3

❑ Dimension

Adjusts the difference in level between the front and surround sound fields. Higher to strengthen the front sound field and lower to strengthen the surround sound field. This setting is effective when "◻PLII Music" is selected.

Setting range
-3 to +3

Default
0

❑ Center Image

Adjusts the center orientation level (broadening effect) of the front sound field. Higher to strengthen the center orientation level (less broadening effect) and lower to weaken (more broadening effect). This setting is effective when "Neo:6 Music" is selected.

Setting range
0.0 to 1.0

Default
0.3

■ Lipsync

Adjusts the delay between video and audio output.

• You can enable/disable the Lipsync function by input sources in "Lipsync" (p.76) in the "Option" menu.

❑ Select

Selects the method to adjust the delay between video and audio output.

Setting range

Manual	Select this option when you want to adjust the delay between video and audio output manually. Adjust the audio output timing in "Adjustment".
Auto (default)	Adjusts the delay between video and audio output automatically when a TV that supports an automatic lipsync function is connected to the unit via HDMI. If necessary, you can fine-adjust the audio output timing in "Adjustment".

• "Select" is automatically set to "Manual" depending on the TV connected to the unit.

❑ Adjustment

Adjusts the delay between video and audio output manually when "Select" is set to "Manual". You can fine-adjust the audio output timing when "Select" is set to "Auto".

Setting range
0 ms to 250 ms (1 ms increments)

Default
0 ms

■ Volume

Configures the volume settings.

❏ Dynamic Range

Selects the dynamic range adjustment method for bitstream audio (Dolby Digital and DTS signals) playback.

Settings

Maximum (default)	Produces audio without adjusting the dynamic range.
Standard	Optimizes the dynamic range for regular home use.
Min/Auto	Sets the dynamic range for clear sound even at night or at low volumes. When playing back Dolby TrueHD signals, the dynamic range is automatically adjusted based on the input signal information.

❏ Main Zone Max Volume

Sets the main zone maximum volume to prevent excessive loudness.

Setting range
-30.0 dB to +15.0 dB (5.0 dB increments), +16.5 dB

Default
+16.5 dB

❏ Main Zone Initial Volume

Sets the main zone initial volume when the receiver is turned on.

Settings

Off (default)	Sets the level to the volume level of the unit when it last entered standby mode.
Mute	Sets the unit to mute the audio output.
-80.0 dB to +16.5 dB (0.5 dB increments)	Sets the level to the specified volume level.

❏ Zone2 Max Volume

Sets the Zone2 maximum volume to prevent excessive loudness.

Setting range
-30.0 dB to +15.0 dB (5.0 dB increments), +16.5 dB

Default
+16.5 dB

• This setting is available only when "Power Amp Assign" (p.81) is set to "Zone2".

❏ Zone2 Initial Volume

Sets the Zone2 initial volume for when the Zone2 is turned on.

Settings

Off (default)	Sets the level at the volume level of the unit when it last entered standby mode.
Mute	Sets the unit to mute the audio output.
-80.0 dB to +16.5 dB (0.5 dB increments)	Sets the level to the specified volume level.

• This setting is available only when "Power Amp Assign" (p.81) is set to "Zone2".

ECO

Configures the power supply settings.
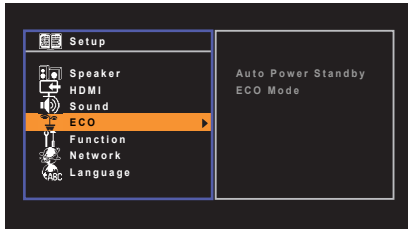
■ Auto Power Standby

Sets the amount of time for the auto-standby function. If you do not operate the unit for the specified time, the unit will automatically go into standby mode.

Settings

Off	Does not set the unit to standby mode automatically.
2 hours, 4 hours, 8 hours, 12 hours	Sets the unit to standby mode when you have not operated the unit for the specified time. For example, when "2 hours" is selected, the unit will switch to standby mode if you do not operate it for 2 hours.

Default
U.K. and Europe models: 8 hours
Other models: Off

• Just before the unit enters standby mode, "AutoPowerStdby" appears and then countdown starts in the front display.

■ ECO Mode

Enables/disables the eco (power saving) mode.
When the eco mode is enabled, you can reduce the unit's power consumption.

Settings

Off (default)	Disables the eco mode.
On	Enables the eco mode.

• Be sure to press ENTER to restart the unit after selecting a setting. The new setting will take effect after the unit is restarted.

• When "ECO Mode" is set to "On", the front panel display may become dark.

• If you want to play audio at high volume, set "ECO Mode" to "Off".

Function

Configures the functions that make the unit easier to use.
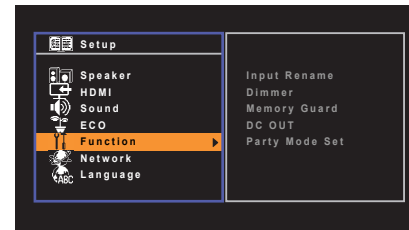
■ Input Rename

Changes the input source name displayed on the front display.

Input sources
HDMI 1–5, AV 1–5, AUDIO 1–2, USB, V-AUX

■ Procedure

1 Use the cursor keys (△/▽) to select an input source to be renamed and press ENTER.

• To select a name from the presets, use the cursor keys (△/▽) to select an input source and the cursor keys (◁/▷) to select a preset name.

2 **Use the cursor keys (◁/▷) to move the edit position and the cursor keys (△/▽) to select a character.**

```
┌─────────────────────────────┐
│ ⏚  Input Rename             │
│    HDMI1                    │
│           ▲                 │
│    ◀Blu-ray    ▶           │
│           ▼                 │
│           OK:ENTER          │
│       CANCEL:RETURN         │
│                             │
└─────────────────────────────┘
```
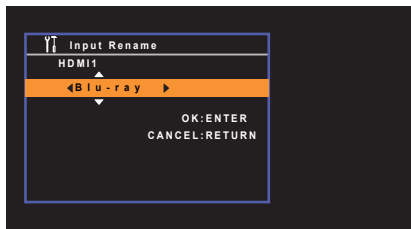
3 **To confirm the new name, press ENTER.**

• To cancel the entry, press RETURN.

4 **To change another input source name, repeat steps 1 to 3.**

5 **To exit from the menu, press SETUP.**

■ Dimmer

Adjusts the brightness of the front display.

Setting range
-4 to 0 (higher to brighten)

Default
0

• The front display may become dark when "ECO Mode" (p.88) is set to "On".

■ Memory Guard

Prevents accidental changes to the settings.

Settings

Off (default)	Does not protect the settings.
On	Protects the settings until "Off" is selected.

• When "Memory Guard" is set to "On", the lock icon (🔒) is displayed on the menu screen.

```
┌─────────────────────────────┐
│ ⏚  Memory Guard      🔒     │ ── Icon
│    Memory Guard      ◀On▶   │
│                             │
│                             │
│                             │
│       Back:RETURN           │
└─────────────────────────────┘
```
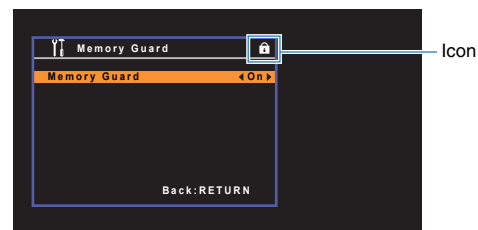
■ DC OUT

Configures the DC OUT jack setting.

❏ Power Mode

Selects how to supply power to the Yamaha AV accessory connected to the DC OUT jack.

Settings

Continuous (default)	Supplies power through the DC OUT jack continuously regardless of the power state (on/standby) of the unit.
Power Sync.	Supplies power through the DC OUT jack only when the unit is turned on.

■ Party Mode Set

Enables/disables switching to the party mode (p.72).

Settings

Disable	Disables switching to the party mode.
Enable (default)	Enables switching to the party mode. You can turn on/off the party mode by pressing PARTY on the remote control.

Network

Configures the network settings.

```
Setup
  Speaker          Information
  HDMI             IP Address
  Sound            MAC Address Filter
  ECO              DMC Control
  Function         Network Standby
  Network      ▶   Network Name
  Language         Network Update
```
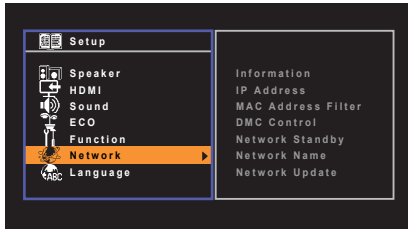
■ Information

Displays the network information on the unit.

Status	The connection status of the NETWORK jack
MAC Address	MAC address
IP Address	IP address
Subnet Mask	Subnet mask
Default Gateway	The IP address of the default gateway
DNS Server (P)	The IP address of the primary DNS server
DNS Server (S)	The IP address of the secondary DNS server
vTuner ID	The ID of the Internet radio (vTuner)

■ IP Address

Configures the network parameters (such as IP address).

❏ DHCP

Select whether to use a DHCP server.

Settings

Off	Does not use a DHCP server. Configure the network parameters manually. For details, see "Manual network settings".
On (default)	Uses a DHCP server to automatically obtain the unit's network parameters (such as IP address).

■ Manual network settings

1 Set "DHCP" to "Off".

2 Use the cursor keys ($\triangle$/$\triangledown$) to select a parameter type.

IP Address	Specifies an IP address.
Subnet Mask	Specifies a subnet mask.
Default Gateway	Specifies the IP address of the default gateway.
DNS Server (P)	Specifies the IP address of the primary DNS server.
DNS Server (S)	Specifies the IP address of the secondary DNS server.

3 Use the cursor keys ($\triangleleft$/$\triangleright$) to move the edit position and the cursor keys ($\triangle$/$\triangledown$) to select a value.

4 To exit from the menu, press SETUP.

■ MAC Address Filter

Sets the MAC address filter to limit access to the unit from other network devices.

❑ Filter

Enables/disables the MAC address filter.

Settings

Off (default)	Disables the MAC address filter.
On	Enables the MAC address filter. In "MAC Address 1–10", specify the MAC addresses of the network devices that will be permitted access to the unit.

❑ MAC Address 1–10

Specifies the MAC addresses (up to 10) of the network devices that will be permitted access to the unit when "Filter" is set to "On".

■ Procedure

1 Use the cursor keys ($\triangle/\triangledown$) to select an MAC address number (1 to 10).

2 Use the cursor keys ($\triangleleft/\triangleright$) to move the edit position and the cursor keys ($\triangle/\triangledown$) to select a value.

3 To exit from the menu, press SETUP.

■ DMC Control

Selects whether to allow DLNA-compatible Digital Media Controller (DMC) to control playback.

Settings

Disable	Does not allow DMCs to control playback.
Enable (default)	Allows DMCs to control playback.

☼

• A Digital Media Controller (DMC) is a device that can control other network devices through the network. When this function is enabled, you can control playback of the unit from DMCs (such as Windows Media Player 12) on the same network.

■ Network Standby

Selects whether the unit can be turned on from other network devices (network standby).

Settings

Off (default)	Disables the network standby function.
On	Enables the network standby function. (The unit consumes more power than when "Off" is selected.)

■ Network Name

Edits the network name (the unit's name on the network) displayed on other network devices.

■ Procedure

1 Press ENTER to enter the name edit screen.

2 Use the cursor keys ($\triangleleft/\triangleright$) to move the edit position and the cursor keys ($\triangle/\triangledown$) to select a character.
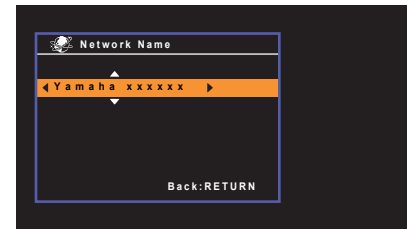
3 To confirm the new name, press ENTER.

4 To exit from the menu, press SETUP.

■ Network Update

Updates the firmware via the network.

❑ Perform Update

Starts the process to update the unit's firmware. For details, see "Updating the unit's firmware via the network" (p.98).

❑ Firmware Version

Displays the version of the firmware installed on the unit.

❑ System ID

Displays the system ID number.

Language

Select an on-screen menu language.
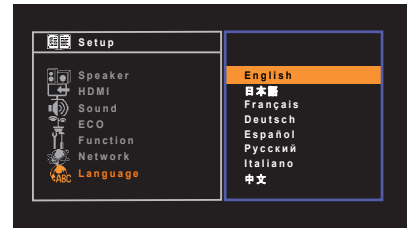
Settings

English (default)	English
日本語	Japanese
Français	French
Deutsch	German
Español	Spanish
Русский	Russian
Italiano	Italian
中文	Chinese

⚠️

• Japanese and Chinese characters used in content information (such as song titles) cannot be displayed.

• The information on the front display is provided in English only.

Configuring the system settings (ADVANCED SETUP menu)

Configure the system settings of the unit while viewing the front display.

1 Set the unit to standby mode.

2 While holding down STRAIGHT on the front panel, press ⏻ (power).

⏻ (power)
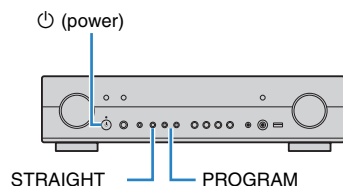
STRAIGHT   PROGRAM

3 Press PROGRAM to select an item.

4 Press STRAIGHT to select a setting.

5 Press ⏻ (power) to set the unit to standby mode and turn it on again.

The new settings take effect.

ADVANCED SETUP menu items

Item	Function	Page
SP IMP.	Changes the speaker impedance setting.	93
REMOTE ID	Selects the unit's remote control ID.	93
TU	(Asia and General models only) Changes the FM/AM tuning frequency setting.	94
TV FORMAT	Switches the video signal type of HDMI output.	94
INIT	Restores the default settings.	94
UPDATE	Updates the firmware.	94
VERSION	Checks the version of firmware currently installed on the unit.	94

Changing the speaker impedance setting (SP IMP.)

SP IMP.··6ΩMIN

Change the unit's speaker impedance settings depending on the impedance of the speakers connected.

Settings

6 Ω MIN (default)	Select this option when you connect 6-ohm speakers to the unit.
8 Ω MIN	Select this option when you connect 8-ohm or higher speakers to the unit.

Selecting the remote control ID (REMOTE ID)

REMOTE ID··ID1

Change the unit's remote control ID so that it matches the remote control's ID (default: ID1). When using multiple Yamaha AV receivers, you can set each remote control with a unique remote control ID for its corresponding receiver.

Settings
ID1 (default), ID2

■ **Changing the remote control ID of the remote control**

1 To select ID1, while holding down the cursor key (◁), hold down SCENE (BD/DVD) for more than 3 seconds.
To select ID2, while holding down the cursor key (◁), hold down SCENE (TV) for more than 3 seconds.

• The registered remote control codes (p.95) are not cleared even if you change the remote control ID.

Changing the FM/AM tuning frequency setting (TU)

(Asia and General models only)

```
TU····FM50/AM9
```

Change the FM/AM tuning frequency setting of the unit depending on your country or region.

Settings

FM100/AM10	Select this when you want to adjust the FM frequency by 100-kHz steps and AM by 10-kHz steps.
FM50/AM9 (default)	Select this when you want to adjust the FM frequency by 50-kHz steps and AM by 9-kHz steps.

Switching the video signal type (TV FORMAT)

```
TV FORMAT·NTSC
```

Switch the video signal type of HDMI output so that it matches to the format of your TV.

Since the unit automatically selects the video signal type so that it matches to the TV, it is unnecessary to change the setting normally. Change the setting only when images on the TV screen do not appear correctly.

Settings
NTSC, PAL

Default
U.S.A., Canada, Korea and General models: NTSC
Other models: PAL

Restoring the default settings (INIT)

```
INIT····CANCEL
```

Restores the default settings for the unit.

Choices

ALL	Restores the default settings for the unit.
CANCEL	Does not perform an initialization.

Updating the firmware (UPDATE)

```
UPDATE·····USB
```

New firmware that provides additional features or product improvements will be released as needed. Updates can be downloaded from our website. If the unit is connected to the Internet, you can download the firmware via the network. For details, refer to the information supplied with updates.

■ **Firmware update procedure**

Do not perform this procedure unless firmware update is necessary. Also, make sure you read the information supplied with updates before updating the firmware.

1 **Press STRAIGHT repeatedly to select "USB" or "NETWORK" and press INFO to start firmware update.**

Choices

USB	Update the firmware using a USB memory device.
NETWORK	Update the firmware via the network.

• If the unit detects newer firmware over the network, the envelope icon (✉) will appear in the screen. In this case, you can also update the unit's firmware by following the procedure in "Updating the unit's firmware via the network" (p.98).

Checking the firmware version (VERSION)

```
VERSION··xx.xx
```

Check the version of firmware currently installed on the unit.

• You can also check the firmware version in "Network Update" (p.92) in the "Setup" menu.

• It may take a while until the firmware version is displayed.

SOURCE

Numeric keys

TV operation keys
TV ⏻

CODE SET

Controlling external devices with the remote control

You can use the unit's remote control to operate external devices (such as BD/DVD players) if you have registered the remote control code of the external device.

!

- You cannot control an external device that does not have a remote control sensor.
- Ensure that the remote control ID of the external device is set to "ID1". If any other ID is selected, the remote control operations may not work properly.
- If the unit's remote control is without batteries for more than 2 minutes, the registered codes may be cleared. If this happens, insert new batteries and register the codes again.

☼

- Under the unit's default settings, the amplifier code (Yamaha: 5098) is set for all the input selection keys. With this setting, you can control HDMI Control-compatible devices connected to the unit with the remote control. (This function may not work depending on the specification of the external device.)

Registering the remote control code for a TV

You can use the unit's remote control to operate a TV if you have registered its remote control code.

☼

- You can also register your TV's remote control code to the unit's input selection keys (p.96). This would allow you to use the cursor keys or numeric keys to operate the TV (this function may not be available on some TV models).

1 Use "Remote Control Code Search" in the CD-ROM to find your TV's remote control code.

☼

- If there are multiple remote control codes, register the first code in the list. If that does not work, try the other codes.

2 Press CODE SET.

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 2.

3 Press TV ⏻.

4 Use the numeric keys to enter the 4-digit remote control code.

Once the remote control code is successfully registered, SOURCE blinks twice.

If it blinks six times, registration has failed. Repeat from Step 2.

■ TV operations

Once you have registered the remote control code for your TV, you can control it using the TV operation keys, regardless of the input source selected on the unit.

	INPUT	Switches the video inputs of the TV.
	MUTE	Mutes the audio output of the TV.
TV operation keys	TV VOL	Adjust the volume of the TV.
	TV CH	Switch the channels of the TV
	TV ⏻	Turns on/off the TV.
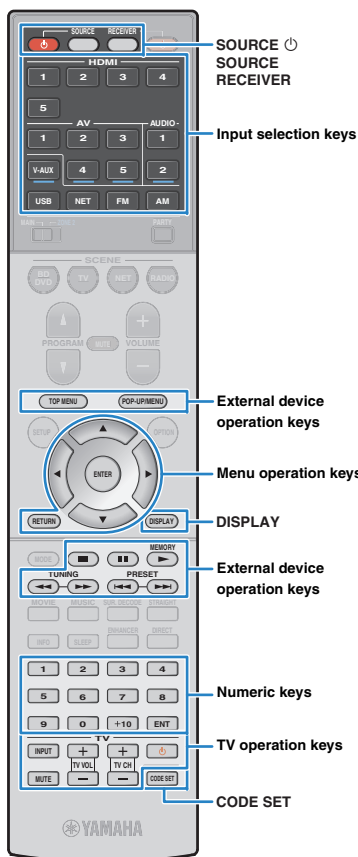
Registering the remote control codes for playback devices

You can use the unit's remote control to operate playback devices if you have registered their remote control codes. You can also use the input selection keys to change the playback devices that are controlled by the remote control, because their remote control codes are assigned to the input selection keys.

1 Use "Remote Control Code Search" in the CD-ROM to find the remote control code for your playback device.

> 💡
> • If there are multiple remote control codes, register the first code in the list. If that does not work, try the other codes.

2 Press CODE SET.

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 2.

3 Press the input selection key.

For example, press HDMI 1 to set the remote control code for the playback device connected to the HDMI 1 jack.

4 Use the numeric keys to enter the 4-digit remote control code.

Once the remote control code is registered successfully, SOURCE blinks twice.

If it blinks six times, registration has failed. Repeat from Step 2.

> 💡
> • For details on how to register a remote control code to a SCENE key, refer to "Configuring scene assignments" (p.37).

Remote control key labels (left column):
- SOURCE (⏻), SOURCE, RECEIVER
- Input selection keys
- External device operation keys
- Menu operation keys
- DISPLAY
- External device operation keys
- Numeric keys
- TV operation keys
- CODE SET

■ Playback device operations

Once you have registered the remote control code for your playback device, you can control it using the following keys after selecting the input source or scene.

> 💡
> • By pressing SOURCE or RECEIVER, you can switch the devices (the unit or external device) that are operated by the menu operation keys, DISPLAY and numeric keys. You can operate the unit after pressing RECEIVER (lights up in orange), and an external device after pressing SOURCE (lights up in green). For example, if you register the remote control code of your BD/DVD player on HDMI 1, you can operate the unit after pressing RECEIVER, and the BD/DVD player after pressing SOURCE.

SOURCE ⏻		Turns on/off the playback device.
Menu operation keys	Cursor keys	Select an item.
	ENTER	Confirms a selected item.
	RETURN	Returns to the previous screen.
DISPLAY		Switches information on the display.
External device operation keys	TOP MENU	Displays the top menu.
	POP-UP MENU	Displays the pop-up menu.
	■	Stops playback.
	▮▮	Stops playback temporarily.
	►	Starts playback of the selected song/video.
	◄◄ ►►	Searches forward/backward (by holding down).
	◄◄ ►►|	Skips forward/backward.
Numeric keys		Enter numerical values.
TV operation keys		Control the TV (p.95).

> ❗
> • These keys work only if the corresponding function is available on your playback device and if the device can be operated with an infrared remote control.
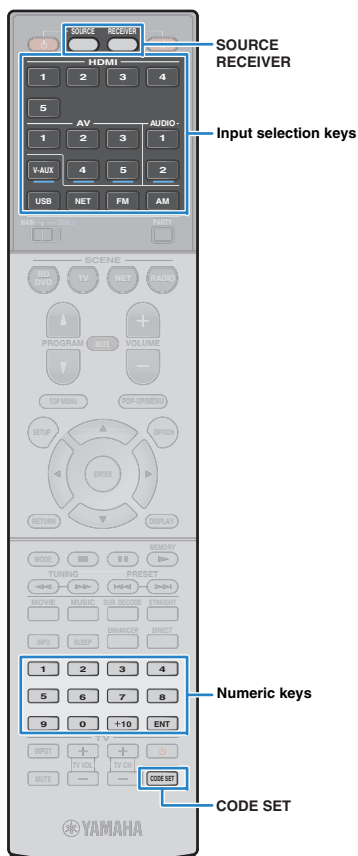
Resetting remote control codes

You can reset a remote control code registered to each input selection key.

1 **Press CODE SET.**

SOURCE blinks twice.

Perform each of the following steps within 1 minute. Otherwise, the setting will be canceled. If this happens, repeat from Step 1.

2 **Press the input selection key.**

3 **Use the numeric keys to enter "5098".**

Once the remote control code is reset successfully, SOURCE blinks twice.

If it blinks six times, resetting has failed. Repeat from Step 1.

> **To reset the remote control to factory default settings**
>
> ① Press CODE SET.
> ② Press RECEIVER.
> ③ Use the numeric keys to enter "9981".

SOURCE RECEIVER

Input selection keys

Numeric keys

CODE SET
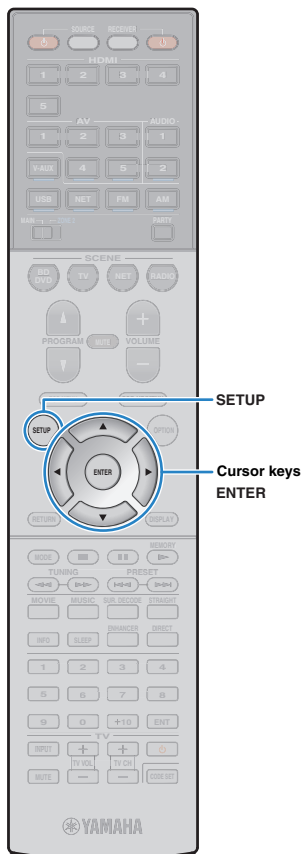
Updating the unit's firmware via the network

New firmware that provides additional features or product improvements will be released as needed. If the unit is connected to the Internet, you can download the firmware via the network and update it.

> **Note**
> - Do not operate the unit or disconnect the power cable or network cable during firmware update. Firmware update takes about 20 minutes or more (depending on your Internet connection speed).
> - If the Internet connection speed is slow or if the unit is connected to the wireless network via a wireless network adapter, network update may not be possible depending on the condition of the wireless connection. In this case, try the firmware update later or use the USB memory device (p.60).
> - To perform the following procedure, your TV must be connected to the unit via HDMI. If not, perform the update from the "ADVANCED SETUP" menu (p.94).
> - For details on update, visit the Yamaha website.

- You can also update the firmware using the USB memory device from the "ADVANCED SETUP" menu (p.94).

1 Press SETUP.

2 Use the cursor keys to select "Network" and press ENTER.

3 Use the cursor keys to select "Network Update" and press ENTER.

If new firmware is available, the envelope icon (✉) appears in the screen.

```
Network Update                    ✉        ──── Icon

Perform Update                      ▶
Firmware Version          x.xx
System ID                 xxxxxxxx



            Update:ENTER
            Back: RETURN
```
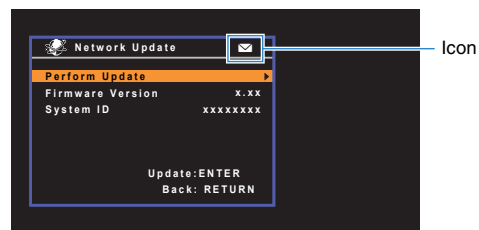
- To cancel the operation without updating the firmware, press SETUP.

4 Use the cursor keys to select "Perform Update" and press ENTER.

The on-screen display turns off and the firmware update starts.

5 If "UPDATE SUCCESS PLEASE POWER OFF!" appears on the front display, press ⏻ (power) on the front panel.

The firmware update is complete.

APPENDIX

Frequently asked questions

The new speaker system does not provide an ideal sound balance...

If you have changed speakers or have a new speaker system, use YPAO to optimize the speaker settings again (p.32). If you want to adjust the speaker settings manually, use "Speaker" in the "Setup" menu (p.81).

Since we have small children, we want to set limitations on the volume control...

If a small child accidentally operates the controls on the main unit or remote control, the volume may suddenly increase. This may also cause injury or damage the unit or speakers. We recommend using "Max Volume" in the "Setup" menu to set the maximum volume level for the unit in advance (p.87).

I am occasionally startled by a sudden loud sound when turning on the unit...

By default, the volume level when the unit last entered standby mode is automatically applied. If you want to fix the volume, use "Initial Volume" in the "Setup" menu to set the volume to be applied when the receiver is turned on (p.87).

We are bothered by volume differences when switching between input sources…

You can correct volume differences between input sources by utilizing "Input Trim" in the "Option" menu (p.76).

I made HDMI connections but HDMI Control does not work at all...

To use HDMI Control, you need to perform the HDMI Control link setup (p.111). After connecting HDMI Control-compatible devices (such as BD/DVD players) to the unit, enable HDMI Control on each device and perform the HDMI Control link setup. This setup is required every time you add a new HDMI Control-compatible device to your system. For information on how HDMI Control works between your TV and playback devices, refer to the instruction manuals for each device.

I want to display a device name or a manufacture name on the front display when selecting an input source...

By default, input source names (such as "HDMI 1" and "AV 1") are displayed on the front display when an input source is selected. If you want to rename them as you like, use "Input Rename" (p.88) in the "Setup" menu. You can also select a name from the presets (such as "Blu-ray" and "DVD").

I want to prevent accidental changes to the settings...

You can protect the settings configured on the unit (such as speaker settings) by utilizing "Memory Guard" in the "Setup" menu (p.89).

The unit's remote control is simultaneously controlling another Yamaha product as well as the unit...

When using multiple Yamaha products, the remote control may work on another Yamaha product or another remote control may work on the unit. If this happens, register different remote control IDs for the devices that you want to control with each remote control (p.93).

I want to enjoy videos/audio played back on the video device even when the unit is in standby mode…

If you have connected a video device to the unit with HDMI, you can output videos/audio played back on the video device to the TV even when the unit is in standby mode. To use this function, set "Standby Through" (p.84) in the "Setup" menu to "On". You can also switch the input source using the remote control of the unit when this function is enabled.

Troubleshooting

Refer to the table below when the unit does not function properly.

If the problem you are experiencing is not listed below or if the instructions below do not help, turn off the unit, disconnect the power cable, and contact the nearest authorized Yamaha dealer or service center.

First, check the following:

① **The power cables of the unit, TV and playback devices (such as BD/DVD players) are connected to AC wall outlets securely.**
② **The unit, subwoofer, TV and playback devices (such as BD/DVD players) are turned on.**
③ **The connectors of each cable are securely inserted in to jacks on each device.**

Power, system and remote control

Problem	Cause	Remedy
The power does not turn on.	The protection circuitry has been activated three times consecutively. If the unit is in this condition, the standby indicator on the unit blinks when you try to turn on the power.	As a safety precaution, capability to turn on the power is disabled. Contact your nearest Yamaha dealer or service center to request repair.
The power does not turn off.	The internal microcomputer has frozen, due to an external electric shock (such as lightning or excessive static electricity) or to a drop in the power supply voltage.	Hold down ⏻ (power) on the front panel for more than 10 seconds to initialize and reboot the unit. (If the problem persists, disconnect the power cable from the AC wall outlet and plug it again.)
The power turns off (standby mode) immediately.	The unit was turned on while a speaker cable was shorted.	Twist the bare wires of each speaker cable firmly and reconnect to the unit and speakers (p.16).
The unit enters standby mode automatically.	The sleep timer worked.	Turn on the unit and start playback again.
	The auto-standby function kicked in because the unit was not used for the specified time.	To disable the auto-standby function, set "Auto Power Standby" in the "Setup" menu to "Off" (p.88).
	The speaker impedance setting is incorrect.	Set the speaker impedance to match your speakers (p.93).
	The protection circuitry has been activated because of a short circuit.	Twist the bare wires of each speaker cable firmly and reconnect to the unit and speakers (p.16).
The unit is not reacting.	The internal microcomputer is frozen, due to an external electric shock (such as lightning or excessive static electricity) or to a drop in the power supply voltage.	Hold down ⏻ (power) on the front panel for more than 10 seconds to initialize and reboot the unit. (If the problem persists, disconnect the power cable from the AC wall outlet and plug it again.)

Problem	Cause	Remedy
The unit cannot be controlled using the remote control.	The unit is out of the operating range.	Use the remote control within the operating range (p.5).
	The batteries are weak.	Replace with new batteries.
	The unit's remote control sensor is exposed to direct sunlight or strong lighting.	Adjust the lighting angle, or reposition the unit.
	The remote control is set to control external devices.	Press RECEIVER to set the remote control to control the unit (the key lights up in orange).
	The remote control IDs of the unit and the remote control are not identical.	Change the remote control ID of the unit or the remote control (p.93).
	The remote control is set to operate the other zone.	Set the remote control to operate the desired zone (p.71).
External devices cannot be controlled using the remote control.	The remote control is set to control the unit.	Press SOURCE to set the remote control to control external devices (the key lights up in green).
	The corresponding remote control code is not set properly.	Set the remote control code again (p.95). Even if the remote control code is registered properly, some products may not respond to the remote control.
The MHL-compatible mobile device cannot be controlled using the remote control.	A remote control code for another playback device is assigned to HDMI 5.	Reset the remote control code registered to HDMI 5 (p.97).
	The mobile device or its application is not externally controllable.	Directly operate the mobile device itself.

Audio

Problem	Cause	Remedy
No sound.	Another input source is selected.	Select an appropriate input source with the input selection keys.
	Signals that the unit cannot reproduce are being input.	Some digital audio formats cannot be played back on the unit. To check the audio format of the input signal, use "Signal Info" in the "Option" menu (p.76).
	The cable connecting the unit and playback device is defective.	If there is no problem with the connection, replace with another cable.
The volume cannot be increased.	The maximum volume is set.	Use "Max Volume" in the "Setup" menu to adjust the maximum volume (p.87).
	A device connected to the output jacks of the unit is not turned on. (This may happen due to the nature of AV receivers.)	Turn on all devices connected to the output jacks of the unit.
No sound is coming from a specific speaker.	The playback source does not contain a signal for the channel.	To check it, use "Signal Info" in the "Option" menu (p.76).
	The currently selected sound program/decoder does not use the speaker.	To check it, use "Test Tone" in the "Setup" menu (p.83).
	Audio output of the speaker is disabled.	Perform YPAO (p.32) or use "Configuration" in the "Setup" menu to change the speaker settings (p.81).
	The volume of the speaker is set too low.	Perform YPAO (p.32) or use "Level" in the "Setup" menu to adjust the speaker volume (p.82).
	The speaker cable connecting the unit and the speaker is defective.	If there is no problem with the connection, replace with another speaker cable.
	The speaker is malfunctioning.	To check it, replace with another speaker. If the problem persists, the unit may be malfunctioning.
Unintended sound is coming from the surround speaker.	"Power Amp Assign" is set to "BI-AMP" or "Zone2".	When "Power Amp Assign" in the "Setup" menu is set to "BI-AMP" or "Zone2", you cannot use the surround speakers. To use the surround speakers, set "Power Amp Assign" to "Basic" (p.81).
No sound is coming from the subwoofer.	The playback source does not contain LFE or low-frequency signals.	To check it, set "Extra Bass" in the "Setup" menu to "On", in order to output the front channel low-frequency components from the subwoofer (p.82).
	Subwoofer output is disabled.	Perform YPAO (p.32) or set "Subwoofer" in the "Setup" menu to "Use" (p.81).
	The volume of the subwoofer is too low.	Adjust the volume on the subwoofer.
	The subwoofer has been turned off by its auto-standby function.	Disable the auto-standby function of the subwoofer or adjust its sensitivity level.
No sound from the playback device (connected to the unit with HDMI).	The TV does not support HDCP (High-bandwidth Digital Content Protection).	Refer to the instruction manuals for the TV and check the TV's specifications.
	The unit is set not to output audio input through HDMI jacks from the SPEAKERS terminals.	In "Audio Output" in the "Setup" menu, set "Amp" to "On" (p.84).
	The number of devices connected to the HDMI OUT jack exceeds the limit.	Disconnect some of the HDMI devices.

Problem	Cause	Remedy
No sound from the TV (when HDMI Control is used).	The TV is set to output audio from the TV speakers.	Change the audio output setting on your TV so that the TV audio is output from the speakers connected to the unit.
	A TV that does not support ARC is connected to the unit only with an HDMI cable.	Use a digital optical cable to make an audio connection (p.21).
	(If the TV is connected to the unit with an audio cable) The TV audio input setting does not match the actual connection.	Use "TV Audio Input" in the "Setup" menu to select the correct audio input jack (p.84).
	(If you are trying to use ARC) ARC is disabled on the unit or TV.	Set "ARC" in the "Setup" menu to "On" (p.85). Also, enable ARC on the TV.
Only the front speakers work on multichannel audio.	The playback device is set to output 2-channel audio (such as PCM) only.	To check it, use "Signal Info" in the "Option" menu (p.76). If necessary, change the digital audio output setting on the playback device.
Noise/hum is heard.	The unit is too close to another digital or radio frequency device.	Move the unit further away from the device.
	The cable connecting the unit and playback device is defective.	If there is no problem with the connection, replace with another cable.
The sound is distorted.	The volume of the unit is too high.	Turn down the volume. If "ECO Mode" is set to "On", set it to "Off" (p.88).
	A device connected to the unit's output jacks is not turned on.	Turn on all devices connected to the unit's output jacks.

Video

Problem	Cause	Remedy
No video.	Another input source is selected on the unit.	Select an appropriate input source with the input selection keys.
	Another input source is selected on the TV.	Switch the TV input to display the video from the unit.
	The video signal output from the unit is not supported by the TV.	Check the video output setting of the playback device. For information about video signals supported by the TV, refer to the instruction manuals for the TV.
	The cable connecting the unit and TV (or playback device) is defective.	If there is no problem with the connection, replace with another cable.
No video from the playback device (connected to the unit with HDMI).	The input video signal (resolution) is not supported by the unit.	To check the information about the current video signal (resolution), use "Signal Info" in the "Option" menu (p.76). For information about video signals supported by the unit, see "HDMI signal compatibility" (p.113).
	The TV does not support HDCP (High-bandwidth Digital Content Protection).	Refer to the instruction manuals for the TV and check the TV's specifications.
	The number of devices connected to the HDMI OUT jack is over the limit.	Disconnect some of the HDMI devices.
The menu of the unit is not displayed on the TV.	The TV is not connected to the unit via HDMI.	You can display the menu of the unit on the TV only when they are connected with an HDMI cable. If necessary, use an HDMI cable to connect them (p.19 to 22).
	Another input source is selected on the TV.	Switch the TV input to display the video from the unit (HDMI OUT jack).

FM/AM radio (AM radio feature is available only on RX-S600.)

Problem	Cause	Remedy
FM radio reception is weak or noisy.	There is multi-path interference.	Adjust the FM antenna height or orientation, or place it in a different location.
	Your area is too far from the FM station transmitter.	Press MODE to select monaural FM radio reception (p.44).
		Use an outdoor FM antenna. We recommend using a sensitive multi-element antenna.
AM radio reception is weak or noisy.	The noises may be caused by fluorescent lamps, motors, thermostats, or other electrical equipment.	It is difficult to completely eliminate noise. It may be reduced by using an outdoor AM antenna.
Radio stations cannot be selected automatically.	Your area is too far from the FM station transmitter.	Select the station manually (p.44).
		Use an outdoor antenna. We recommend using a sensitive multi-element antenna.
	The AM radio signal is weak.	Adjust the AM antenna orientation.
		Select the station manually (p.44).
		Use an outdoor AM antenna. Connect it to the ANTENNA (AM) jack together with the supplied AM antenna.
AM radio stations cannot be registered as presets.	Auto Preset has been used.	Auto Preset is for registering FM radio stations only. Register AM radio stations manually (p.45).

DAB radio (RX-S600D)

Problem	Cause	Remedy
No DAB radio reception.	An initial scan has not been performed.	Perform an initial scan to receive DAB radio (p.48).
No DAB radio reception even after performing an initial scan.	Reception strength of DAB radio is poor.	Check reception strength in "Tune Aid" in the "Option" menu (p.51), and adjust the antenna height or orientation, or place it in a different location.
	There is no DAB coverage in your area.	Check with your dealer or WorldDMB online at "http://www.worlddab.org" for a listing of the DAB coverage in your area.
DAB radio reception is weak or noisy.	There is multi-path interference.	Check reception strength in "Tune Aid" in the "Option" menu (p.51), and adjust the antenna height or orientation, or place it in a different location.
	Your area is too far from the DAB station transmitter.	Use an outdoor antenna. We recommend using a sensitive multi-element antenna.
DAB information is not available or is inaccurate.	The selected DAB radio station may be temporarily out of service or may not provide information.	Contact the DAB broadcaster.
No DAB radio sound.	The selected DAB radio station may be temporarily out of service.	Try the station later or select another station.

USB and network

Problem	Cause	Remedy
The unit does not detect the USB device.	The USB device is not connected to the USB jack securely.	Turn off the unit, reconnect your USB device, and turn the unit on again.
	The file system of the USB device is not FAT16 or FAT32.	Use a USB device with FAT16 or FAT32 format.
Folders and files in the USB device cannot be viewed.	The data in the USB device is protected by the encryption.	Use a USB device without an encryption function.
The network feature does not function.	The network parameters (IP address) have not been obtained properly.	Enable the DHCP server function on your router and set "DHCP" in the "Setup" menu to "On" on the unit (p.90). If you want to configure the network parameters manually, check that you are using an IP address which is not used by other network devices in your network (p.90).
The unit does not detect the PC.	The media sharing setting is not correct.	Configure the sharing setting and select the unit as a device to which music contents are shared (p.63).
	Some security software installed on your PC is blocking the access of the unit to your PC.	Check the settings of security software installed on your PC.
	The unit and PC are not in the same network.	Check the network connections and your router settings, and then connect the unit and the PC to the same network.
	The MAC address filter is enabled on the unit.	In "MAC Address Filter" in the "Setup" menu, disable the MAC address filter or specify the MAC address of your PC to allow it to access to the unit (p.91).
The files in the PC cannot be viewed or played back.	The files are not supported by the unit or the media server.	Use the file format supported by both the unit and the media server. For information about the file formats supported by the unit, see "Playing back music stored on media servers (PCs/NAS)" (p.63).
The Internet radio cannot be played.	The selected Internet radio station is currently not available.	There may be a network problem at the radio station, or the service may have been stopped. Try the station later or select another station.
	The selected Internet radio station is currently broadcasting silence.	Some Internet radio stations broadcast silence at certain of times of the day. Try the station later or select another station.
	Access to the network is restricted by the firewall settings of your network devices (such as the router).	Check the firewall settings of your network devices. The Internet radio can be played only when it passes through the port designated by each radio station. The port number varies depending on the radio station.
The application for smartphone/tablet "AV Controller" does not detect the unit.	The unit and smartphone/tablet are not in the same network.	Check the network connections and your router settings, and then connect the unit and smartphone/tablet to the same network.
	The MAC address filter is enabled on the unit.	In "MAC Address Filter" in the "Setup" menu, disable the MAC address filter or specify the MAC address of your smartphone/tablet to allow it to access to the unit (p.91).
Firmware update via the network is failed.	It may not be possible depending on the condition of the network.	Update the firmware via the network again or use a USB memory device (p.60).

Error indications on the front display

Message	Cause	Remedy
Access denied	Access to the PC is denied.	Configure the sharing settings and select the unit as a device to which music contents are shared (p.63).
Access error	The unit cannot access the USB device.	Turn off the unit and reconnect your USB device. If the problem persists, try another USB device.
	The unit cannot access the iPod.	Turn off the iPod and turn it on again.
	The connected iPod is not supported by the unit.	Use an iPod supported by the unit (p.56).
	There is a problem with the signal path from the network to the unit.	Make sure your router and modem are turned on.
		Check the connection between the unit and your router (or hub) (p.29).
Check SP Wires	The speaker cables short circuit.	Twist the bare wires of the cables firmly and connect to the unit and speakers properly.
Internal Error	An internal error has occurred.	Contact the nearest authorized Yamaha dealer or service center.
MHL Overloaded	An overcurrent is flowing through the MHL-compatible mobile device.	Turn off the unit and check the connection between the unit and mobile device.
No content	There are no playable files in the selected folder.	Select a folder that contains files supported by the unit.
No device	The unit cannot detect the USB device.	Turn off the unit and reconnect your USB device. If the problem persists, try another USB device.
	The unit cannot detect the iPod.	Turn off the iPod and then turn it on again.
Please wait	The unit is preparing for connecting to the network.	Wait until the message disappears. If the message stays more than 3 minutes, turn off the unit and turn it on again.
RemID Mismatch	The remote control IDs of the unit and the remote control are not identical.	Change the remote control ID of the unit or the remote control (p.93).
Unable to play	The unit cannot play back the songs stored on the iPod for some reason.	Check the song data. If it cannot be played on the iPod itself, the song data or storage area may be defective.
	The unit cannot play back the songs stored on the PC for some reason.	Check if the format of files you are trying to play is supported by the unit. For information about the formats supported by the unit, see "Playing back music stored on media servers (PCs/NAS)" (p.63). If the unit supports the file format, but still cannot play back any files, the network may be overloaded with heavy traffic.
Version error	Firmware update is failed.	Update the firmware again.

Glossary

Audio information

■ Audio decoding format

Dolby Digital

Dolby Digital is a compressed digital audio format developed by Dolby Laboratories, Inc. that supports 5.1-channel audio. This technology is used for audio on most DVD discs.

Dolby Digital Plus

Dolby Digital Plus is a compressed digital audio format developed by Dolby Laboratories, Inc. that supports 7.1-channel audio. Dolby Digital Plus remains fully compatible with the existing multichannel audio systems that support Dolby Digital. This technology is used for audio on BD (Blu-ray discs).

Dolby Pro Logic II

Dolby Pro Logic II enables 5-channel playback from 2-channel sources. There are three modes available: "Music mode" for music sources, "Movie mode" for movie sources, and "Game mode" for game sources.

Dolby TrueHD

Dolby TrueHD is an advanced lossless audio format developed by Dolby Laboratories, Inc. to offer a high-definition home theater experience with the quality of the studio master. Dolby TrueHD can carry up to eight channels of 96 kHz/24-bit audio (up to six channels of 192 kHz/24-bit audio) simultaneously. This technology is used for audio on BD (Blu-ray discs).

DTS 96/24

DTS 96/24 is a compressed digital audio format that supports 5.1-channel and 96 kHz/24-bit audio. This format remains fully compatible with the existing multichannel audio systems that support DTS Digital Surround. This technology is used for music DVDs, etc.

DTS Digital Surround

DTS Digital Surround is a compressed digital audio format developed by DTS, Inc. that supports 5.1-channel audio. This technology is used for audio on most DVD discs.

DTS-ES

DTS-ES creates total 6.1-channel audio from 5.1-channel sources that are recorded with DTS-ES. This decoder adds a surround back sound to the original 5.1-channel sound. In the DTS-ES Matrix 6.1 format, a surround back sound is recorded in the surround channels, and in the DTS-ES Discrete 6.1 format, a discrete surround back channel is recorded.

DTS Express

DTS Express is a compressed digital audio format that supports 5.1-channel audio and allows a higher compression rate than the DTS Digital Surround format developed by DTS, Inc. This technology is developed for audio streaming services on the Internet and secondary audio on BD (Blu-ray discs).

DTS-HD High Resolution Audio

DTS-HD High Resolution Audio is a compressed digital audio format developed by DTS, Inc. that supports 7.1-channel and 96 kHz/24-bit audio. DTS-HD High Resolution Audio remains fully compatible with the existing multichannel audio systems that support DTS Digital Surround. This technology is used for audio on BD (Blu-ray discs).

DTS-HD Master Audio

DTS-HD Master Audio is an advanced lossless audio format developed to offer a high-definition home theater experience with the quality of the studio master by DTS, Inc. DTS-HD Master Audio can carry up to eight channels of 96 kHz/24-bit audio (up to six channels of 192 kHz/24-bit audio) simultaneously. This technology is used for audio on BD (Blu-ray discs).

DTS Neo:6

DTS Neo:6 enables 6-channel playback from 2-channel sources. There are two modes available: "Music mode" for music sources and "Cinema mode" for movie sources. This technology provides discrete full-bandwidth matrix channels of surround sound.

DSD (Direct Stream Digital)

DSD (Direct Stream Digital) technology stores audio signals on digital storage media, such as SACD (Super Audio CDs). The signals are stored at a high-frequency sampling rate of 2.8224 MHz. The highest frequency response is equal to or higher than 100 kHz, with a dynamic range of 120 dB. This technology offers better audio quality than that used for CDs.

FLAC

FLAC is a file format for lossless audio data compression. FLAC is inferior to lossy compressed audio formats in compression rate but provides higher audio quality.

MP3

One of the compressed digital audio format used by MPEG. With psychoacoustic technologies, this compression method achieves a high compression rate. Reportedly, it is capable of compressing data quantity by about 1/10 maintaining a certain level of audio quality.

MPEG-4 AAC

An MPEG-4 audio standard. It is used for mobile telephones, portable audio players, and audio streaming services on Internet because it allows a high compression rate of data while maintaining better audio quality than MP3.

PCM (Pulse Code Modulation)

PCM is a signal format under which an analog audio signal is digitized, recorded, and transmitted. This technology is the basis of all other audio format. This technology is used as a lossless audio format called Linear PCM for audio on a variety of media, including CDs and BD (Blu-ray discs).

Sampling frequency/Quantization bit

Sampling frequency and quantization bits indicate the quantity of information when an analog audio signal is digitized. These values are noted as in the following example: "48 kHz/24-bit".

• Sampling frequency

Sampling frequency (the number of times the signal is sampled per second) is called the sampling rate. When the sampling frequency is higher, the range of frequencies that can be played back are wider.

• Quantization bit

The number of quantization bits indicate the degree of accuracy when converting the sound level into a numeric value. When the number of quantized bits is higher, the expression of the sound level is more accurate.

WAV

Windows standard audio file format, which defines the method of recording the digital data obtained by converting audio signals. By default, the PCM method (no compression) is used, but you can also use other compression methods.

WMA (Windows Media Audio)

One of the compressed digital audio formats developed by Microsoft Corporation. With psychoacoustic technologies, this compression method achieves a high compression rate. Reportedly, it is capable of compressing data quantity by about 1/20 maintaining a certain level of audio quality.

■ Others

Bi-amplification connection (Bi-amp)

A bi-amplification connection uses two amplifiers for a speaker. When you use the bi-amplification connection, the unit drives the tweeter and woofer in a speaker with the discrete amplifiers. As a consequence, the tweeter and woofer provide clear audio signal without the interference.

LFE (Low Frequency Effects) 0.1 channel

This channel reproduces low-frequency bass signals and has a frequency range from 20 Hz to 120 Hz. This channel is added to the channels for all bands with Dolby Digital or DTS to enhance low frequency audio effects. This channel is labeled 0.1 because it is limited to only low frequency audio.

Lip sync

Video output sometimes lags behind audio output due to the complexity of signal processing caused by an increase in video signal capacity. Lip sync is a technique for automatically correcting the timing lag between audio and video output.

HDMI and video information

Component video signal

With the component video signal system, the video signal is separated into the Y signal for luminance and the Pb and Pr signals for chrominance. Color can be reproduced more faithfully with this system because each of these signals is independent.

Composite video signal

With the composite video signal system, color, brightness, and synchronization data signals are combined and transmitted with a single cable.

Deep Color

Deep Color is a technology that HDMI specification supports. Deep Color increases the number of available colors within the boundaries defined by the RGB or YCbCr color space. Conventional color systems process the color using 8 bits. Deep Color processes the color with 10, 12, or 16 bits. This technology allows HDTVs and other displays to increase from millions of colors to billions of colors and eliminate on-screen color banding for smooth tonal transitions and subtle gradations between colors.

HDMI

HDMI (High-Definition Multimedia Interface) is the world-wide standard interface for digital audio/video signal transmission. This interface transmits both digital audio and digital video signals using a single cable without any loss. HDMI complies with HDCP (High-bandwidth Digital Content Protection) and provides a secure audio/video interface. For further information on HDMI, visit the HDMI website at "http://www.hdmi.org/".

MHL

MHL (Mobile High-definition Link) is the interface standard for high-speed digital video signal transmission that is developed for mobile devices. This interface transmits both digital audio and digital video signals from mobile devices (such as smartphones) using a single cable with any loss. As with HDMI, MHL complies with HDCP (High-bandwidth Digital Content Protection).

x.v.Color

"x.v.Color" is a technology that the HDMI specification supports. It is a more extensive color space than sRGB and allows the expression of colors that were not hitherto possible. While remaining compatible with the color gamut of sRGB standards, "x.v.Color" expands the color space, and thus can produce more vivid, natural images.

Yamaha technologies

CINEMA DSP (Digital Sound Field Processor)

Since the Dolby Surround and DTS systems were originally designed for use in movie theaters, their effect is best experienced in a theater that has many speakers designed for acoustic effects. Since home conditions (such as room size, wall material, and number of speakers) can differ so widely, it is inevitable that there are differences in the sound that you hear. Based on a wealth of actually measured data, CINEMA DSP, Yamaha's original DSP technology provides the audiovisual experience of a movie theater in your own home.

CINEMA DSP 3D

The actually measured sound field data contain the information of the height of the sound images. CINEMA DSP 3D mode achieves the reproduction of the accurate height of the sound images so that it creates the accurate and intensive 3D sound fields in a listening room.

Compressed Music Enhancer

The Compressed Music Enhancer feature compensates for missing harmonics in compression music formats (such as MP3). As a result, this technology provides improved performance for the overall sound system.

SILENT CINEMA

Yamaha has developed a natural, realistic sound effect DSP algorithm for headphones. Parameters for headphones have been set for each sound program, so that accurate representations of all the sound programs can be enjoyed on headphones.

Virtual CINEMA DSP

Virtual CINEMA DSP allows the system to virtually reproduce the sound field of the surround speakers with front left and right speakers. Even if the surround speakers are not connected, the unit creates the realistic sound field in a listening room.

Virtual Presence Speaker (VPS)

Virtual Presence Speaker allows the system to virtually reproduce the height of the 3D sound field without front presence speakers. Even if the front presence speakers are not connected, the unit creates the 3D sound field in your room.

Video signal flow

Video signals input from a video device to the unit are output to a TV as shown below.
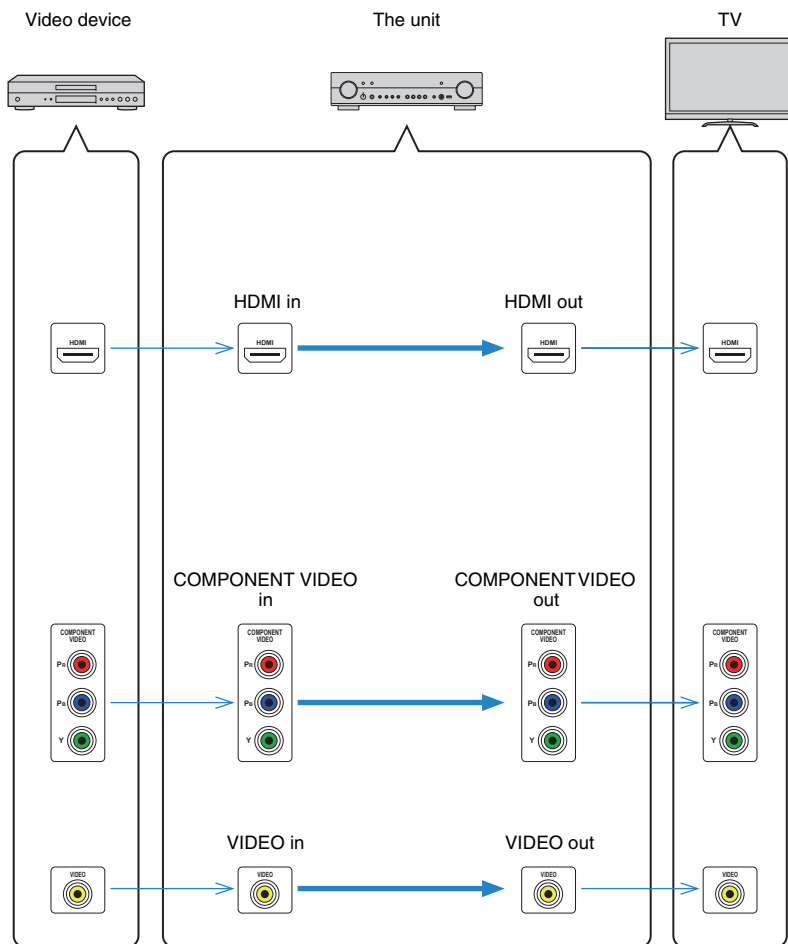
Information on HDMI

HDMI Control

HDMI Control allows you to operate external devices via HDMI. If you connect a TV that supports HDMI Control to the unit with an HDMI cable, you can control the unit (such as power and volume) with TV remote control operations. You can also control playback devices (such as HDMI Control-compatible BD/DVD players) connected to the unit with an HDMI cable.

For details on connections, see "Connecting a TV" (p.19) and "Connecting video devices (such as BD/DVD players)" (p.24).

Operations available from the TV's remote control

• Standby synchronization

• Volume control including mute

• Switching to input audio from the TV when the TV input is switched to its built-in tuner

• Switching to input video/audio from the selected playback device

• Switching between audio output devices (the unit or TV speaker)

(Example)
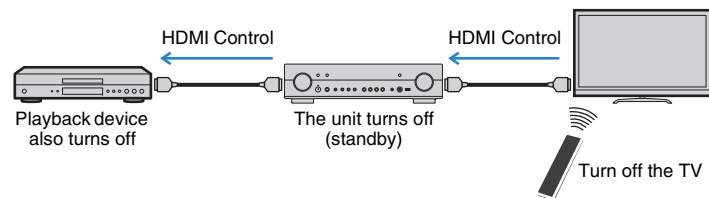
Operations available from the unit's remote control

• Starting playback on the playback device and turning on the TV with a scene selection (p.37)

• Switching the TV input to display the "Setup" menu (when SETUP is pressed)

• Controlling the playback device (playback and menu operations) without registering remote control codes (p.96)

(Example)

HDMI Control   HDMI Control

Playback starts   Turns on and displays video from the playback device

Press SCENE (BD/DVD)
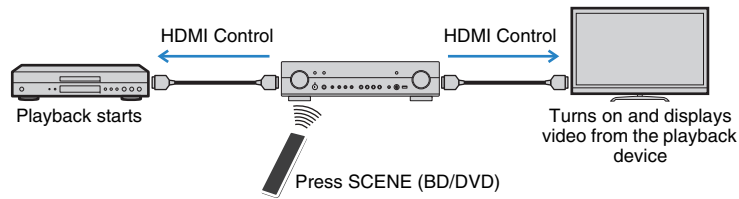
To use HDMI Control, you need to perform the following HDMI Control link setup after connecting the TV and playback devices.

!

• This setup is required every time you add a new HDMI Control-compatible device to your system.

1 **Turn on the unit, TV, and playback devices.**

2 **Enable HDMI Control on the unit, TV, and playback devices (such as HDMI Control-compatible BD/DVD players).**

To enable HDMI Control on the unit, set "HDMI Control" (p.84) in the "Setup" menu to "On" and configure the related items ("TV Audio Input", "Standby Sync", "ARC", and "SCENE").

3 **Turn off the main power of the TV and then turn off the unit and playback devices.**

4 **Turn on the unit and playback devices and then turn on the TV.**

5 **Switch the TV input to display the video from the unit.**

6 **Check the followings.**

On the unit: The input to which the playback device is connected is selected. If not, select the input source manually.
On the TV: The video from the playback device is displayed.

7 **Check that the unit is properly synchronized with the TV by turning off the TV or adjusting the TV volume with the TV remote control.**

!

• If HDMI Control does not work properly, try unplugging the TV in Step 2 and plugging in the TV again in Step 3. It may solve the problem. Also, HDMI Control may not work if the number of connected devices exceeds the limit. In this case, disable HDMI Control on the devices not in use.

• If the unit is not synchronized to the TV's power operations, check the priority of the audio output setting on the TV.

• We recommend using TV and playback devices from the same manufacturer so that HDMI Control works more effectively.

HDMI signal compatibility

Audio signals

Audio signal type	Audio signal format	Compatible media (example)
2ch Linear PCM	2ch, 32 to 192 kHz, 16/20/24 bit	CD, DVD-Video, DVD-Audio
Multichannel Linear PCM	8ch, 32 to 192 kHz, 16/20/24 bit	DVD-Audio, BD (Blu-ray disc), HD DVD
DSD	2 to 5.1ch, 2.8224 MHz, 1 bit	SACD
Bitstream	Dolby Digital, DTS	DVD-Video
Bitstream (High definition audio)	Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio, DTS-HD High Resolution Audio, DTS Express	BD (Blu-ray disc), HD DVD

Video signals

The unit is compatible with the video signals of the following resolutions:

- VGA
- 480i/60 Hz
- 576i/50 Hz
- 480p/60 Hz
- 576p/50 Hz
- 720p/60 Hz, 50 Hz
- 1080i/60 Hz, 50 Hz
- 1080p/60 Hz, 50 Hz, 30 Hz, 25 Hz, 24 Hz
- 4K/30 Hz, 25 Hz, 24 Hz

!

- When CPPM copy-protected DVD-Audio is played back, video/audio signals may not be output, depending on the type of the DVD player.
- The unit is not compatible with HDCP-incompatible HDMI or DVI devices. For details, refer to the instruction manual for each device.
- To decode audio bitstream signals on the unit, set the input source device appropriately so that the device outputs the bitstream audio signals directly (does not decode the bitstream signals on the playback device). For details, refer to the instruction manual for the playback device.

Reference diagram (rear panel)
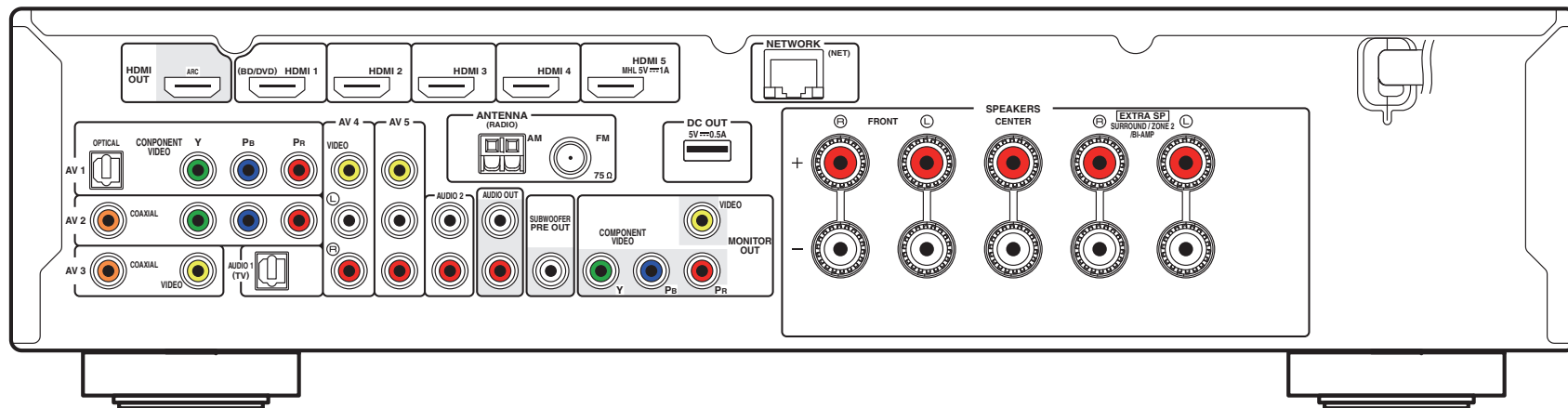
(RX-S600 U.S.A. model)

💡
• The area around the video/audio output jacks is marked in white on the actual product to prevent improper connections.

Trademarks

DOLBY TRUE HD

Manufactured under license from Dolby Laboratories. Dolby, Pro Logic and the double-D symbol are trademarks of Dolby Laboratories.

dts-HD

Manufactured under license under U.S. Patent Nos: 5,956,674; 5,974,380; 6,226,616; 6,487,535; 7,212,872; 7,333,929; 7,392,195; 7,272,567 & other U.S. and worldwide patents issued & pending. DTS-HD, the Symbol, & DTS-HD and the Symbol together are registered trademarks of DTS, Inc.
Product includes software. © DTS, Inc. All Rights Reserved.

Made for iPod · iPhone · iPad · AirPlay

"Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.
Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.
Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

AirPlay, iPad, iPhone, iPod, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

Fraunhofer Institut Integrierte Schaltungen

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

Network

This receiver supports network connections.

HDMI HIGH DEFINITION MULTIMEDIA INTERFACE

HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

MHL

MHL and the MHL logo are a trademark, registered trademark or service mark of MHL, LLC in the United States and/or other countries.

x.v.Color™

"x.v.Color" is a trademark of Sony Corporation.

dlna CERTIFIED™

DLNA™ and DLNA CERTIFIED™ are trademarks or registered trademarks of Digital Living Network Alliance. All rights reserved. Unauthorized use is strictly prohibited.

Windows™

Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Internet Explorer, Windows Media Audio and Windows Media Player are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Android™

Android is a trademark of Google Inc.

DAB Digital Audio Broadcasting   **DAB+** Digital Audio Broadcasting

(For RX-S600D)
The unit supports DAB/DAB+ tuning.

SILENT ™ CINEMA

"SILENT CINEMA" is a trademark of Yamaha Corporation.

Specifications

Input jacks

- Analog Audio
  Audio x 4 (AV 4–5, AUDIO 2, V-AUX [Mini Jack])

- Digital Audio (Supported frequencies: 32 kHz to 96 kHz)
  Optical x 2 (AV 1, AUDIO 1)
  Coaxial x 2 (AV 2–3)

- Video
  Composite x 4 (AV 3–5, V-AUX)
  Component x 2 (AV 1–2)

- HDMI Input
  HDMI x 5 (HDMI 1–5*)
  * HDMI 5: MHL input compatible

- Other jacks
  USB x 1 (USB2.0)
  NETWORK x 1 (100Base-TX/10Base-T)

Output jacks

- Analog Audio
  - Speaker Out x 5 (FRONT L/R, CENTER, SURROUND L/R*)
    * Note: assignment is possible. [SURROUND, BI-AMP (FRONT L/R), ZONE2]
  - Subwoofer Out x 1
  - AUDIO OUT x 1
  - Headphone x 1

- Video
  MONITOR OUT
  - Component x 1
  - Composite x 1

- HDMI Output
  HDMI OUT x 1

Other jacks

- YPAO MIC x 1

- DC OUT x 1

HDMI

- HDMI features: Deep Color, "x.v.Color," Auto Lip Sync, ARC (Audio Return Channel), 3D, 4K Ultra HD

- Video Format (Repeater Mode)
  - VGA
  - 480i/60 Hz
  - 576i/50 Hz
  - 480p/60 Hz
  - 576p/50 Hz
  - 720p/60 Hz, 50 Hz
  - 1080i/60 Hz, 50 Hz
  - 1080p/60 Hz, 50 Hz, 30 Hz, 25 Hz, 24 Hz
  - 4K/30 Hz, 25 Hz, 24 Hz

- Audio Format
  - Dolby TrueHD
  - Dolby Digital Plus
  - Dolby Digital
  - DTS-HD Master Audio
  - DTS-HD High Resolution Audio
  - DTS Express
  - DTS
  - DSD 2-ch to 6-ch
  - PCM 2-ch to 8-ch (Max. 192 kHz/24-bit)

- Content Protection: HDCP compatible

- Link Function: CEC supported

MHL

- Video Format (Repeater Mode)
  - VGA
  - 480i/60 Hz
  - 576i/50 Hz
  - 480p/60 Hz
  - 576p/50 Hz
  - 720p/60 Hz, 50 Hz
  - 1080i/60 Hz, 50 Hz
  - 1080p/30 Hz, 25 Hz, 24 Hz

- Audio Format
  - PCM 2-ch to 8-ch (Max. 192 kHz/24-bit)

- Current Supply Capacity: 1.0 A

TUNER

- Analog Tuner
  [RX-S600 U.K. model]
  FM/AM with Radio Data System x 1 (TUNER)
  [RX-S600 Other models]
  FM/AM x 1 (TUNER)
  [RX-S600D U.K. and Europe models]
  DAB/FM with Radio Data System x 1 (TUNER)
  [RX-S600D Australia model]
  DAB/FM x 1 (TUNER)

USB

- Capable of iPod, Mass Storage Class USB Memory

- Current Supply Capacity: 2.1 A

Network

- PC Client Function

- Compatible with DLNA ver. 1.5

- AirPlay supported

- Internet Radio

Compatible Decoding Formats

- Decoding Format
  - Dolby TrueHD, Dolby Digital Plus
  - Dolby Digital
  - DTS-HD Master Audio, DTS-HD High Resolution Audio, DTS Express
  - DTS 96/24, DTS-ES Matrix 6.1, DTS-ES Discrete 6.1
  - DTS Digital Surround

- Post Decoding Format
  - Dolby Pro Logic
  - Dolby Pro Logic II Music, Dolby Pro Logic II Movie, Dolby Pro Logic II Game
  - DTS Neo:6 Music, DTS Neo:6 Cinema

Audio Section

- Rated Output Power (2-channel driven)
  (20 Hz to 20 kHz, 0.09% THD, 8 Ω)
  Front L/R ....55 W+55 W
  (20 Hz to 20 kHz, 0.09% THD, 6 Ω)
  Front L/R ....60 W+60 W
  (1 kHz, 0.9% THD, 8 Ω)
  Front L/R ....65 W+65 W
  Center .... 65 W
  Surround L/R..65 W+65 W
  (1 kHz, 0.9% THD, 6 Ω)
  Front L/R ....80 W+80 W
  Center .... 80 W
  Surround L/R..80 W+80 W

- Rated Output Power (1-channel driven)
  (1 kHz, 0.9% THD, 8 Ω)
  Front L/R .... 80 W/ch
  Center .... 80 W/ch
  Surround .... 80 W/ch
  (1 kHz, 0.9% THD, 6 Ω)
  Front L/R .... 95 W/ch
  Center .... 95 W/ch
  Surround L/R.. 95 W/ch

- Maximum Effective Output Power (JEITA, 1 kHz, 10% THD, 6 Ω)
  [China, Korea, Asia and General models]
  Front L/R..125 W/ch
  Center...125 W/ch
  Surround L/R ....125 W/ch

- Dynamic Power (IHF)
  Front L/R (8/6/4/2 Ω)....................................90/110/140/160 W

- Input Sensitivity / Input Impedance
  AV 5 etc. (1 kHz, 100 W/6 Ω).............................. 200 mV/47 kΩ

- Maximum Input Signal
  AV 5 etc. (1 kHz, 0.5% THD, Effect On) ....2.3 V

- Output Level / Output Impedance
  AUDIO OUT.. 200 mV/1.2 kΩ
  SUBWOOFER... 1 V/1.2 kΩ

- Headphone Jack Rated Output / Impedance
  AV 5 etc. (1 kHz, 50 mV, 8 Ω)............................. 100 mV/470 Ω

- Frequency Response
  AV 5 etc. to Front (10 Hz to 100 kHz) ....+0/-3 dB

- Signal to Noise Ratio (IHF-A Network)
  AV 5 etc. (Input Shorted 2 V, Speaker Out)
  .... 108 dB or more

- Residual Noise (IHF-A Network)
  Front L/R (Speaker Out) .... 150 µV or less

- Channel Separation
  AV 5 etc. (Input 5.1 kΩ Shorted, 1 kHz/10 kHz)
  .... 60 dB/45 dB or more

- Volume Control
  Range... MUTE, -80 dB to +16.5 dB
  Step .... 0.5 dB

- Tone Control Characteristics
  Bass Boost/Cut............................. ±6 dB/0.5 dB Step at 50 Hz
  Bass Turnover .... 350 Hz
  Treble Boost/Cut..........................±6 dB/0.5 dB Step at 20 kHz
  Treble Turnover..3.5 kHz

- Filter Characteristics
  (fc=40/60/80/90/100/110/120/160/200 Hz)
  H.P.F. (Front, Center, Surround)................................12 dB/oct.
  L.P.F. (Subwoofer) ....24 dB/oct.

Video Section

- Video Signal Type
  [U.S.A., Canada, Korea and General models] ....NTSC
  [Other models] ....PAL

- Video Signal Level
  Composite..1 Vp-p/75 Ω
  Component
    Y ....1 Vp-p/75 Ω
    Pb/Pr ....0.7 Vp-p/75 Ω

- Video Maximum Input Level.......................... 1.5 Vp-p or more

- Video Signal to Noise Ratio............................... 50 dB or more

- Monitor Out Frequency Response
  Component ....5 Hz to 60 MHz, -3 dB

FM Section

- Tuning Range
  [U.S.A. and Canada models].............. 87.5 MHz to 107.9 MHz
  [Asia and General models]
  .... 87.5/87.50 MHz to 108.0/108.00 MHz
  [Other models].............................. 87.50 MHz to 108.00 MHz

- 50 dB Quiet Sensitivity (IHF, 1 kHz, 100% MOD.)
  Mono ....3 µV (20.8 dBf)

- Signal to Noise Ratio (IHF)
  Mono ....70 dB
  Stereo...69 dB

- Harmonic Distortion (IHF, 1 kHz)
  Mono 0.3%
  Stereo...0.5%

- Antenna Input.. 75 Ω unbalanced

AM Section (RX-S600)

- Tuning Range

  [U.S.A. and Canada models] .... 530 kHz to 1710 kHz

  [Asia and General models]...... 530/531 kHz to 1710/1611 kHz

  [Other models].. 531 kHz to 1611 kHz

DAB Section (RX-S600D)

- Tuning Range .... 174 MHz to 240 MHz (Band III)

- Support Audio Format

  .... MPEG 1 Layer II/MPEG 4 HE AAC v2 (AAC+)

- Antenna .... 75 Ω unbalanced

General

- Power Supply

  [U.S.A. and Canada models] .... AC 120 V, 60 Hz

  [General model]............. AC110 to 120/220 to 240 V, 50/60 Hz

  [China model] .... AC 220 V, 50 Hz

  [Korea model] .... AC 220 V, 60 Hz

  [Australia model] .... AC 240 V, 50 Hz

  [U.K. and Europe models] .... AC 230 V, 50 Hz

  [Asia model] .... AC 220 to 240 V, 50/60 Hz

- Power Consumption

  [U.S.A. and Canada models] .... 220 W/300 VA

  [Other models].. 220 W

- Standby Power Consumption

  HDMI Control Off, Standby Through Off............... 0.1 W or less

  HDMI Control On, Standby Through On (No Signals)

  .... 1.0 W (Typical)

  Network Standby On .... 2.0 W (Typical)

- Maximum Power Consumption

  [Asia and General models].. 480 W

- Dimensions (W x H x D)

  .... 435 x 111 x 320 mm (17-1/8" x 4-3/8" x 12-5/8")

  * Including legs and protrusions

- Weight.. 7.8 kg (17.2 lbs)

* Specifications are subject to change without notice.

Index

YAMAHA

YAMAHA CORPORATION