



AV Receiver

RX-V671

Owner's Manual

Be sure to read "Safety Brochure" (supplied booklet) before using this unit.

English for U.S.A.

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Error indications on the front display

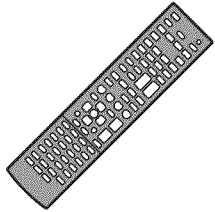
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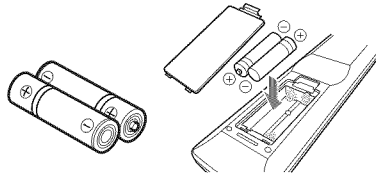
Accessories

Check that the following accessories are supplied with this product.

■ Remote control

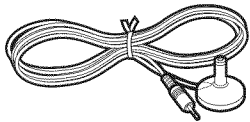


■ Batteries (AAA, R03, UM-4) (x 2)

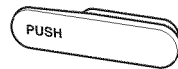


Insert into the remote control in the correct polarity (+/-)

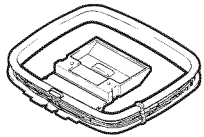
■ YPAO microphone



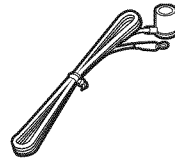
■ VIDEO AUX input cover



■ AM antenna



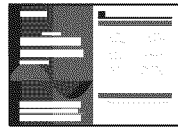
■ FM antenna



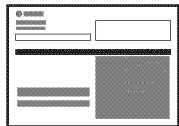
■ CD-ROM (Owner's Manual)



■ Easy Setup Guide

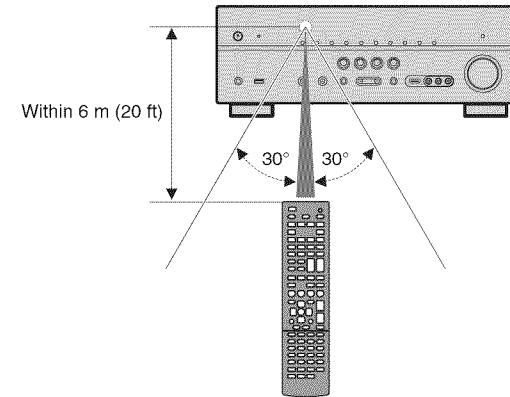


■ Safety Brochure



Operating range of the remote control

- Aim the remote control directly at the remote control sensor on this unit during operation.



- Some features are not available in certain regions.
- Design and specifications are subject to change in part as a result of improvements, etc. In case of differences between the manual and product, the product has priority.
- This manual mainly explains operations using the supplied remote control.
- This manual describes both the "iPod" and "iPhone" as the "iPod". "iPod" means both "iPod" and "iPhone" unless the explanation describes exceptions.
- "!" indicates the cautions concerning operations or setup of the unit.
- "💡" indicates the explanations for better use.

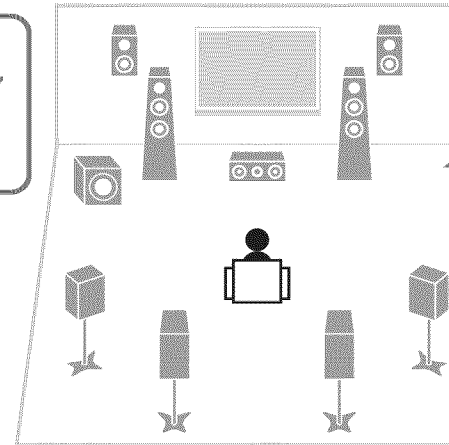
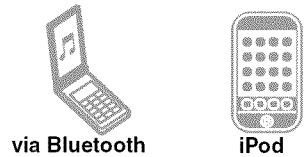
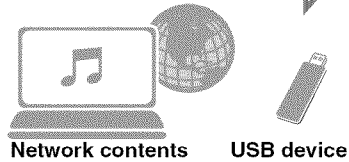
FEATURES

What you can do with this unit

Ready for any kind of contents

iPod ➔ p.54 Network ➔ p.64 to p.67
 USB ➔ p.61 Bluetooth ➔ p.59

*Requires optional Bluetooth receiver for playback via Bluetooth



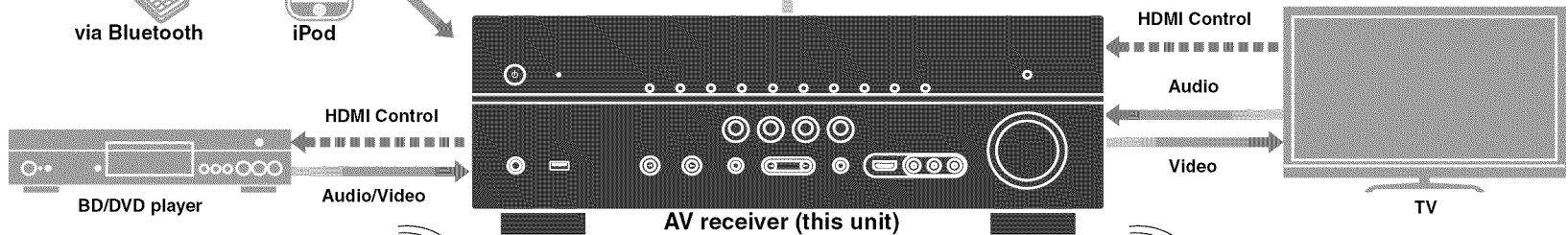
Speakers
 Audio

Supports 2 to 7.1 (plus presence) channel speaker system. Allows you to enjoy favorite acoustic spaces in various styles.

Automatically optimizing the speaker settings to suit your room (YPAO) ➔ p.33

Sound field reproductions like actual movie theaters and concert halls from stereo or multi-channel audio sources (CINEMA DSP) ➔ p.41

Enjoying compressed music with enhanced sound (Compressed Music Enhancer) ➔ p.44



Operating external devices with the supplied remote control ➔ p.104



Selecting the input source and favorite settings at once (SCENE) ➔ p.39

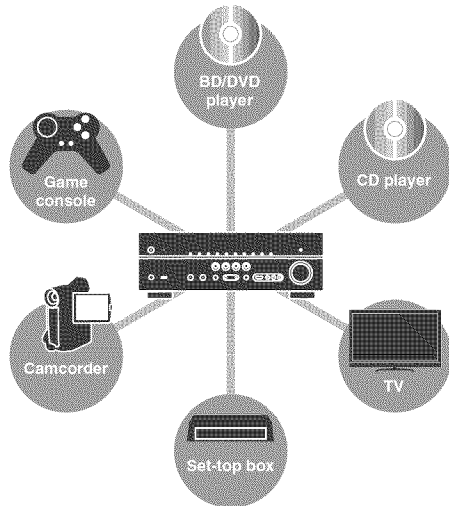


Operating the TV, AV receiver and BD/DVD player in combination (HDMI Control) ➔ p.121

Full of useful functions!

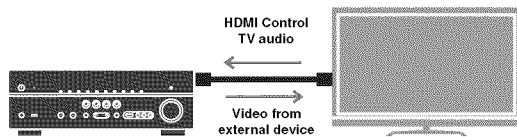
● Connecting various devices (p.26)

A number of HDMI jacks and various input/output jacks on this unit allow you to connect video devices such as BD/DVD players, audio devices such as CD players, game consoles and camcorders, and so on.



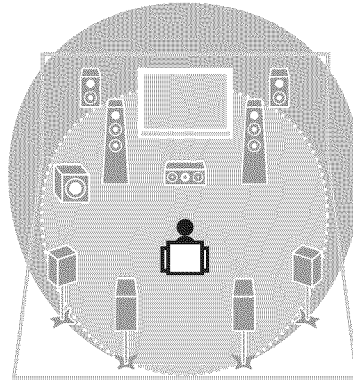
● Playing back TV audio in surround sound with a single HDMI cable connection (Audio Return Channel: ARC) (p.21)

When using a TV that supports ARC, you only need a single HDMI cable to connect the TV and this unit to output video to the TV, input audio from the TV, and transmit HDMI Control signals.



● Creating stereoscopic sound fields (p.43)

Connection of presence speakers enables to create a natural stereoscopic sound field in your room (CINEMA DSP 3D). Even when no presence speakers are connected, this unit automatically creates Virtual Presence Speaker (VPS) to produce 3D surround sound.



● Listening to FM/AM radio (p.45) or SIRIUS Satellite Radio (p.48)

This unit is equipped with the built-in FM/AM tuner and SIRIUS jack for connecting the SiriusConnect tuner (sold separately). You can register favorite radio stations as presets.

● Enjoying pure high fidelity sound (p.44)

When the Pure Direct mode is enabled, this unit plays back the selected source with the least circuitry. It allows you to enjoy Hi-Fi sound quality.

● Easy operation with a TV screen

You can navigate the various contents (iPod, USB, network, etc.), view the information, or configure the settings using the on-screen menu.

At time like this

The combination of video/audio input jacks prepared on this unit does not match an external device...

Use "Audio In" in the "Input" menu to change the combination of video/audio input jacks so that it match the output jack of your external device (p.27).

Video and audio are not synchronized...

Use "Lipsync" in the "Setup" menu to adjust the delay between video and audio output (p.93).

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

Use "Audio Output" in the "Setup" menu to select whether to output audio signals through this unit and the TV (p.95).

I want this unit to be turned off automatically when not in use...

Use "Auto Power Down" in the "Setup" menu to set the amount of time for auto-standby (p.97).

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 and Russian (p.99).

I want to update the firmware...

Use "UPDATE" in the "ADVANCED SETUP" menu to update the firmware of this unit (p.103). If this unit is connected to the Internet, the corresponding message will be displayed on the TV when a newer firmware is available (p.107).

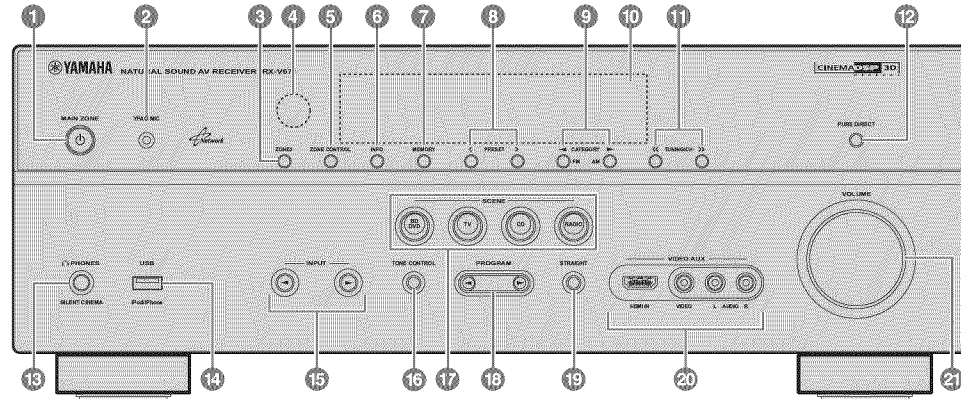
There are many other settings to customize this unit.

For details, see the following pages.

- Input settings (p.79)
- Scene settings (p.82)
- Sound program and surround decoder settings (p.85)
- Various function settings (p.88)
- Information view (audio signal, video signal, etc.) (p.100)
- System settings (p.102)

Part names and functions

Front panel



1 MAIN ZONE

Turns on/off (standby) this unit.

2 YPAO MIC jack

For connecting the supplied YPAO microphone (p.33).

3 ZONE2

Enables/disables the audio output to Zone2 (p.71).

4 Remote control sensor

Receives remote control signals (p.5).

5 ZONE CONTROL

Switches the zones (main or Zone2) to operate with the front panel controllers (p.71).

6 INFO

Selects the information displayed on the front display (p.75).

7 MEMORY

Registers FM/AM radio stations as preset stations (p.45).
Registers SIRIUS Satellite Radio channels as preset channels (p.50).
Registers USB/network contents as shortcuts (p.72).

8 PRESET

Selects a preset FM/AM radio station (p.46).
Selects a preset SIRIUS Satellite Radio channel (p.50).
Selects a USB/network content from shortcuts (p.72).

9 FM/AM (CATEGORY)

Switches between FM and AM (p.45).
Selects a channel category for SIRIUS Satellite Radio (p.49).

10 Front display

Displays information (p.9).

11 TUNING/CH

Selects an FM/AM radio frequency (p.45) or a SIRIUS Satellite Radio channel (p.49).

12 PURE DIRECT

Enables/disables Pure Direct (p.44).

13 PHONES jack

For connecting headphones.

14 USB jack

For connecting a USB storage device (p.61) or an iPod via USB (p.54).

15 INPUT

Selects an input source.

16 TONE CONTROL

Adjusts the high-frequency range and low-frequency range of sounds output from speakers and headphones (p.77).

17 SCENE

Selects the registered input source and sound program at once. Additionally, you can turn on this unit when it is in standby mode (p.39).

18 PROGRAM

Selects a sound program or a surround decoder (p.40).

19 STRAIGHT

Enables/disables the straight decode mode (p.43).

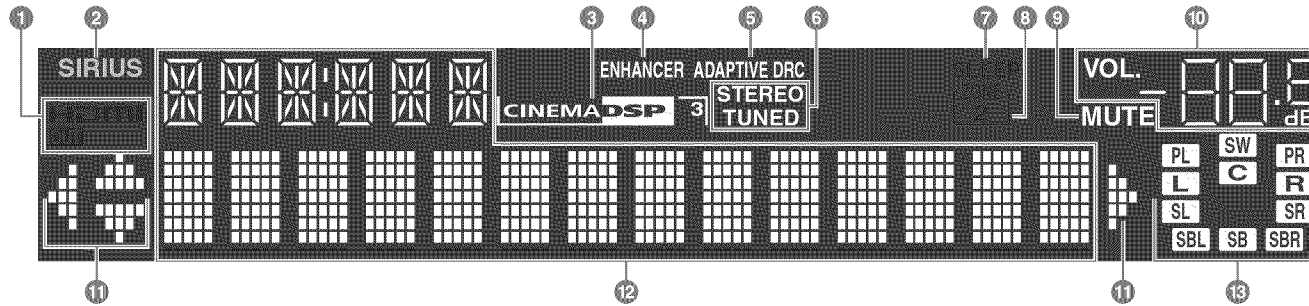
20 VIDEO AUX jacks

For connecting camcorders, game consoles, etc (p.29). To protect against dust, attach the supplied VIDEO AUX input cover when not in use.

21 VOLUME

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 SIRIUS

Lights up when "SIRIUS" is selected as the input source.

3 CINEMA DSP

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

CINEMA DSP 3D

Lights up when CINEMA DSP 3D (p.43) is working.

4 ENHANCER

Lights up when Compressed Music Enhancer (p.44) is working.

5 ADAPTIVE DRC

Lights up when Adaptive DRC (p.77) is working.

6 STEREO

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

TUNED

Lights up when this unit is receiving an FM/AM radio station signal.

7 SLEEP

Lights up when the sleep timer is on.

8 ZONE 2

Lights up when the audio output to Zone2 is enabled.

9 MUTE

Flashes 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 (input name, sound mode name, etc). You can switch the information by pressing INFO (p.75).

13 Speaker indicators

Indicate speaker terminals from which signals are output.

L Front speaker (L)

R Front speaker (R)

C Center speaker

SL Surround speaker (L)

SR Surround speaker (R)

SBL Surround back speaker (L)

SBR Surround back speaker (R)

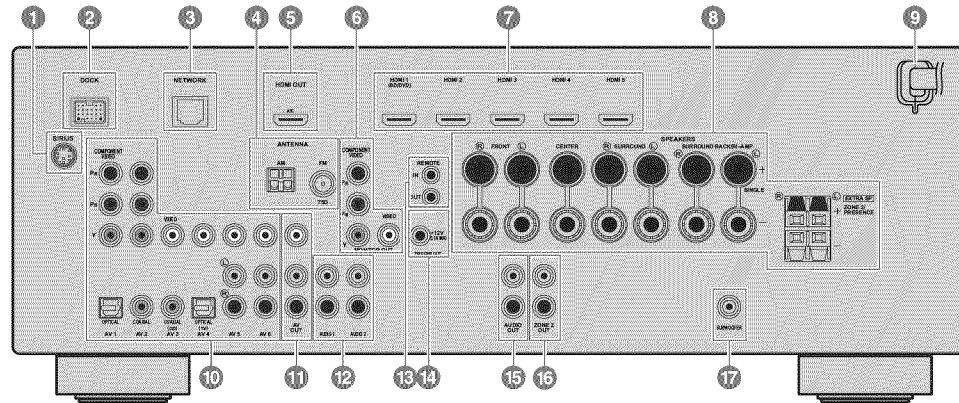
SB Surround back speaker

PL Presence speaker (L)

PR Presence speaker (R)

SW Subwoofer

Rear panel



1 SIRIUS jack

For connecting a SiriusConnect tuner (sold separately) (p.48).

2 DOCK jack

For connecting an optional Yamaha products such as iPod dock (p.55), iPod wireless system (p.55) and Bluetooth receiver (p.59).

3 NETWORK jack

For connecting to the network (p.30).

4 ANTENNA jacks

For connecting FM and AM antennas (p.29).

5 HDMI OUT jack

For connecting an HDMI-compatible TV to output video/ audio signals (p.21). When using ARC, TV audio signal is input through this jack.

6 MONITOR OUT jacks

COMPONENT VIDEO jack:

For connecting a TV compatible with component video to output video signals (p.25).

VIDEO jack:

For connecting a TV compatible with composite video to output video signals (p.25).

7 HDMI1~5 jacks

For connecting HDMI-compatible playback devices to input video/audio signals (p.26).

8 SPEAKERS terminals

For connecting speakers (p.17).

9 Power cable

For connecting to an AC wall outlet (p.32).

10 AV1~6 jacks

For connecting video/audio playback devices to input video/ audio signals (p.26).

11 AV OUT jacks

For outputting video/audio to a recording device (VCR, etc.) when an analog input (V-AUX, AV3~6 or AUDIO1~2) is selected (p.31).

12 AUDIO1~2 jacks

For connecting audio playback devices to input audio signals (p.28).

13 REMOTE IN/OUT jacks

For connecting a Yamaha product compatible with SCENE link playback (p.31), or connecting an infrared signal receiver/emitter to operate devices including this unit from another room (p.70).

14 TRIGGER OUT jack

For connecting a device that supports the trigger function (p.32).

15 AUDIO OUT jacks

For outputting audio to a recording device (tape deck, etc.) when an analog input (V-AUX, AV5~6 or AUDIO1~2) is selected (p.31).

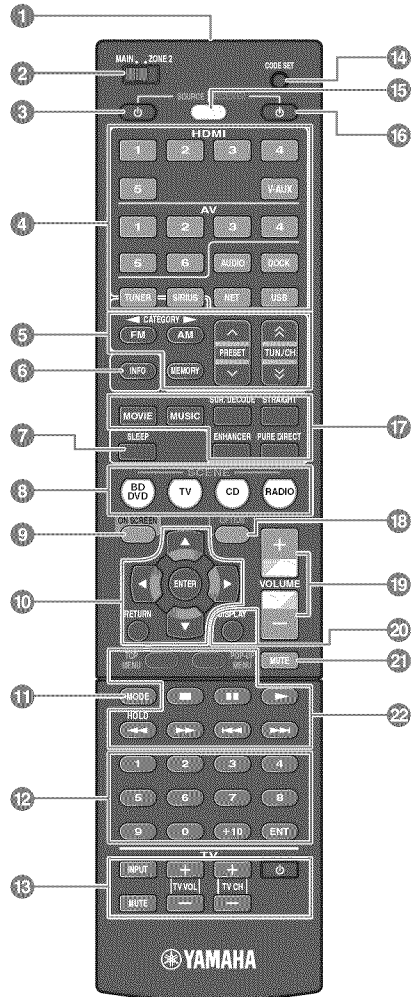
16 ZONE2 OUT jacks

For connecting external amplifier used in Zone2 to output audio (p.70).

17 SUBWOOFER jack

For connecting a subwoofer with built-in amplifier (p.17).

Remote control



1 Remote control signal transmitter

Transmits infrared signals.

2 MAIN/ZONE2

Switches the zones (main or Zone2) to operate with the remote control (p.71).

3 SOURCE

Turns on/off an external device.

4 Input selection keys

Select an input source to play back.

- HDMI1~5** HDMI1~5 jacks
- V-AUX** VIDEO AUX jacks (on the front panel)
- AV1~6** AV1~6 jacks
- AUDIO** AUDIO1~2 jacks (press repeatedly to switch between "AUDIO1" and "AUDIO2")
- DOCK** DOCK jack
- TUNER** FM/AM radio
- SIRIUS** SIRIUS jack
- NET** NETWORK jack (press repeatedly to select a desired network source)
- USB** USB jack (on the front panel)

5 Radio keys

Operate the FM/AM radio when "TUNER" is selected as the input source or SIRIUS Satellite Radio when "SIRIUS" is selected.

- FM** Switches to FM radio.
- AM** Switches to AM radio.
- (CATEGORY)** Selects a channel category for SIRIUS Satellite Radio.
- MEMORY** Registers FM/AM radio stations or SIRIUS Satellite Radio channels as presets.
- PRESET** Selects a preset FM/AM radio station or a preset SIRIUS Satellite Radio channel.
- TUN/CH** Selects an FM/AM radio frequency or a SIRIUS Satellite Radio channel.

6 INFO

Selects the information displayed on the front display (p.75).

7 SLEEP

Switches this 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).

8 SCENE

Selects the assigned input source and sound program at once. Additionally, you can turn on this unit when it is in standby mode (p.39).

9 ON SCREEN

Displays the on-screen menu on the TV.

10 Menu operation keys

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

11 MODE

Switches between "Stereo" and "Mono" for FM radio reception.
Switches the iPod operation modes (p.57).

12 Numeric keys

Enter numerical values such as radio frequencies.

13 TV operation keys

Operate TV input, TV volume, etc (p.104).

14 CODE SET

Registers remote control codes of external devices on the remote control (p.104).

15 SOURCE/RECEIVER

Switches the devices (this unit or external device) to operate with the remote control (p.105). You can operate this unit when this key lights up in orange, and an external device when this key lights up in green.

16 RECEIVER

Turns on/off (standby) this unit.

17 Sound mode keys

Select a sound mode (p.40).

18 OPTION

Displays the option menu (p.76).

19 VOLUME

Adjusts the volume.

20 DISPLAY

Display the status information on the TV (p.75).

21 MUTE

Mutes the audio output.

22 External device operation keys

Operate playback and menu display etc. for external devices (p.105).



- To operate external devices with the remote control, register a remote control code for each device in advance (p.104).

SETUP

General setup procedure

- 1 Placing speakers (p.13)** Select the speaker layout depending on the number of speakers and place the speakers in your room.
- 2 Connecting speakers (p.17)** Connect the speakers to this unit.
- 3 Connecting a TV (p.21)** Connect a TV to this unit.
- 4 Connecting playback devices (p.26)** Connect video devices (BD/DVD players, etc.) and audio devices (CD players, etc.) to this unit.
- 5 Connecting the FM/AM antennas (p.29)** Connect the supplied FM/AM antennas to this unit.
- 6 Connecting to the network (p.30)** Connect this unit to the network.
- 7 Connecting other devices (p.31)** Connect external devices such as recording devices.
- 8 Connecting the power cable (p.32)** After all the connections are complete, plug in the power cable.
- 9 Optimizing the speaker settings automatically (YPAO) (p.33)** Optimize the speaker settings such as volume balance and acoustic parameters to suit your room (YPAO).

Now all the preparations are complete. Enjoy playing movies, music, radio, etc. with this unit!

1 Placing speakers

Select the speaker layout depending on the number of speakers and place the speakers and subwoofer (with built-in amplifier) in your room. This section describes the representative speaker layout examples.

Caution

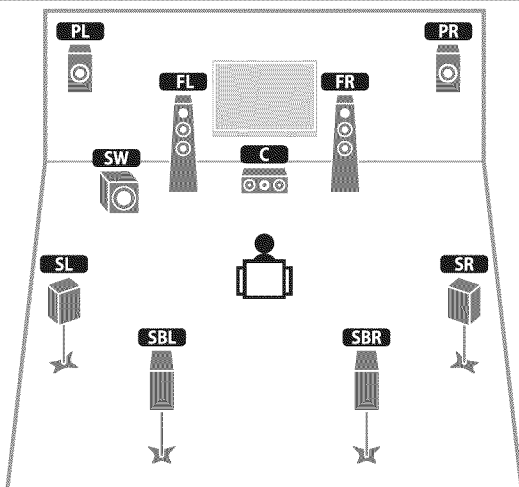
- This unit is configured for 8-ohm speakers at the factory. When connecting 6-ohm speakers, set the speaker impedance of this unit to "6 Ω MIN". In this case, you can also use 4-ohm speakers as the front speakers. For details, see "Setting the speaker impedance" (p.16).

Speaker type	Abbr.	Function	Speaker system (the number of channels)									
			7.1+2	7.1	7.1	6.1	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 (dialogs, vocals, etc).	●	●	●	●	●				●	
Surround (L)	SL	Produce surround right/left channel sounds. Surround speakers also produce surround back channel sounds when no surround back speakers are connected.	●	●	●	●	●	●				
Surround (R)	SR		●	●	●	●	●	●				
Surround back (L)	SBL	Produce surround back right/left channel sounds.	●	●								
Surround back (R)	SBR		●	●								
Surround back	SB	Produces mixed-down surround back right/left channel sounds.				●						
Presence (L)	PL	Produce CINEMA DSP effect sounds. In combination with CINEMA DSP 3D (p.43), the presence speakers create a natural stereoscopic sound field in your room.	●		●							
Presence (R)	PR		●		●							
Subwoofer	SW	Produces LFE (low-frequency effect) channel sounds and reinforces bass parts of other channels. This channel is counted as "0.1".	●	●	●	●	●	●	●	●	●	●



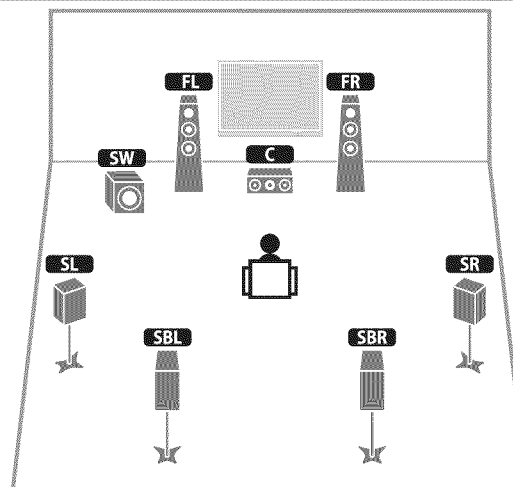
- For information on the ideal speaker layout, see "Ideal speaker layout" (p.116).
- If you have 7 speakers, use two of them as surround back speakers or presence speakers. To reinforce the rear right/left sound field, use them as surround back speakers. To create a natural stereoscopic sound field, use them as presence speakers.

7.1+2 channel system

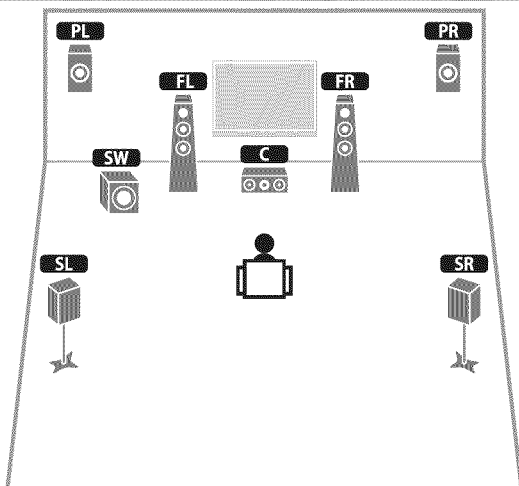


- The surround back speakers and presence speakers do not produce sounds simultaneously. This unit automatically switches the speakers to be used depending on a selected CINEMA DSP (p.41).

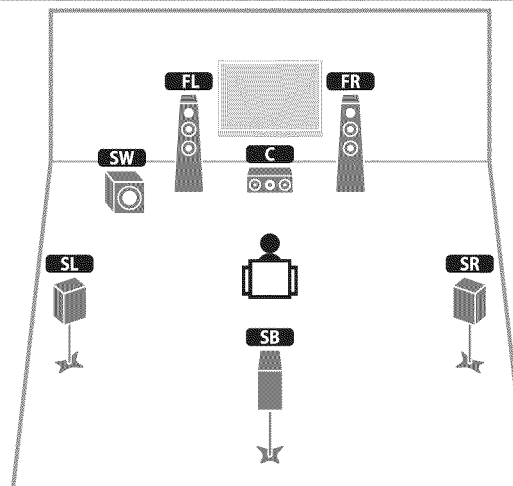
7.1 channel system (using surround back speakers)



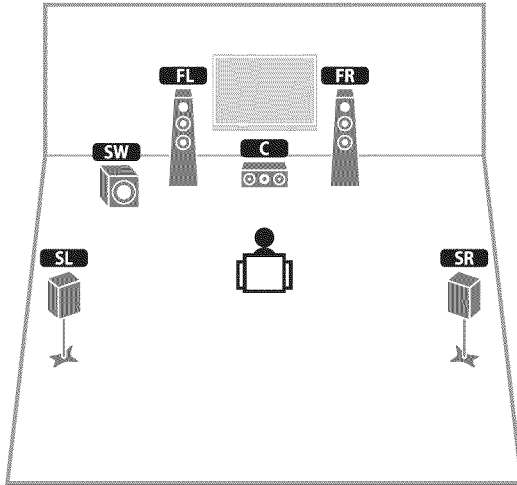
7.1 channel system (using presence speakers)



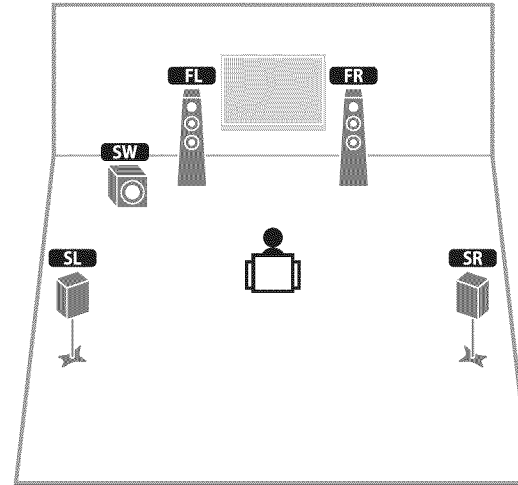
6.1 channel system



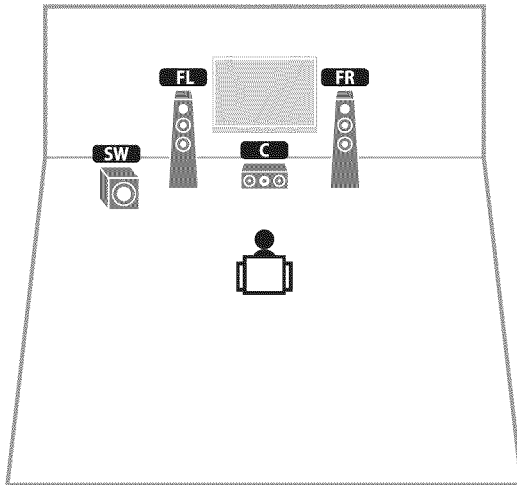
5.1 channel system



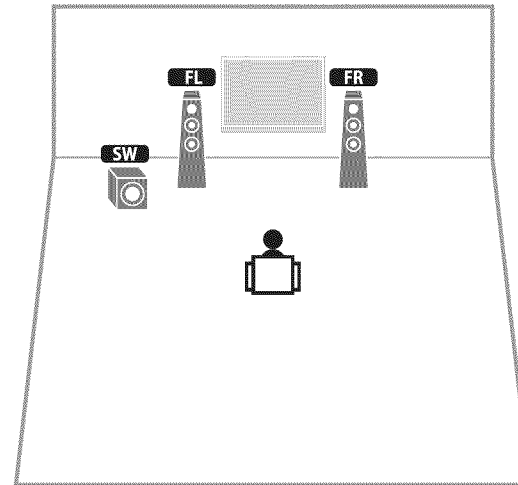
4.1 channel system



3.1 channel system




2.1 channel system

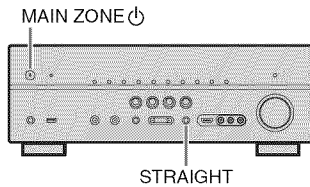


1 Speaker placement 2 3 4 5 6 7 8 9

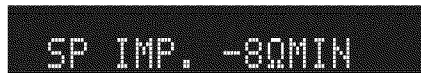
■ Setting the speaker impedance


This unit is configured for 8-ohm speakers at the factory. When connecting 6-ohm speakers, set the speaker impedance to "6 Ω MIN". In this case, you can also use 4-ohm speakers as the front speakers.

- 1 Before connecting speakers, connect the power cable to an AC wall outlet.
- 2 While holding down STRAIGHT on the front panel, press MAIN ZONE .



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



- 4 Press STRAIGHT to select "6 Ω MIN".
- 5 Press MAIN ZONE  to set this unit to standby mode and remove the power cable from the AC wall outlet.

Now you are ready to connect the speakers.

2 Connecting speakers

Connect the speakers placed in your room to the unit. Here are connections of 7.1+2, 7.1 and 6.1 channel system as examples. If you select another system, connect speakers while referring to the connection of 6.1 channel system.

Caution

- Remove the power cable of this unit from an AC wall outlet and turn off the subwoofer before connecting the speakers.
- Be careful that the core of the speaker cable does not touch anything or come into contact with the metal areas of this unit. This may damage this unit or the speakers. If the speaker cables short circuit, "CHECK SP WIRES" will appear on the front display when this unit is turned on.

Cables necessary for connection (commercially available)

Speaker cables (x the number of speakers)

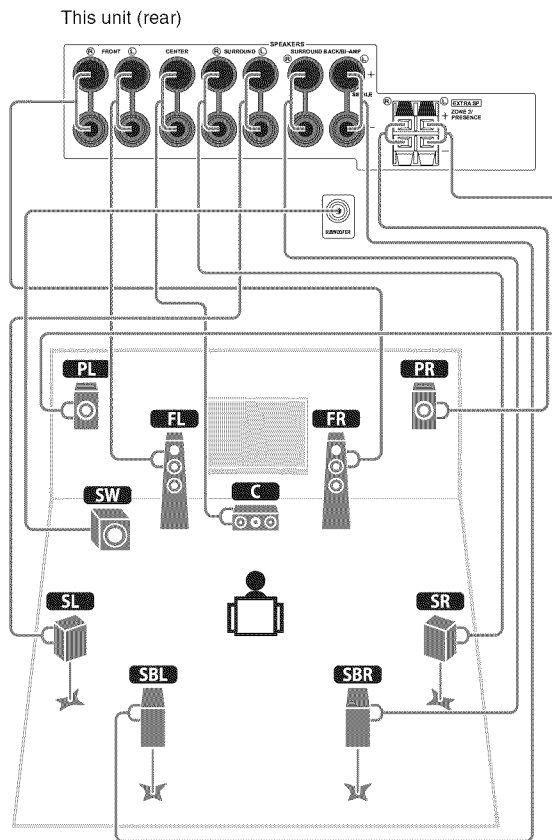


Audio pin cable (x 1)

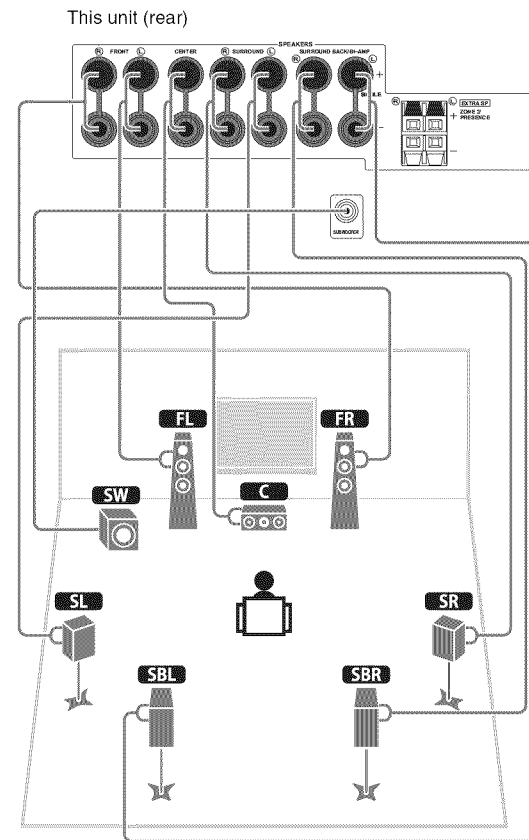
(for connecting a subwoofer)



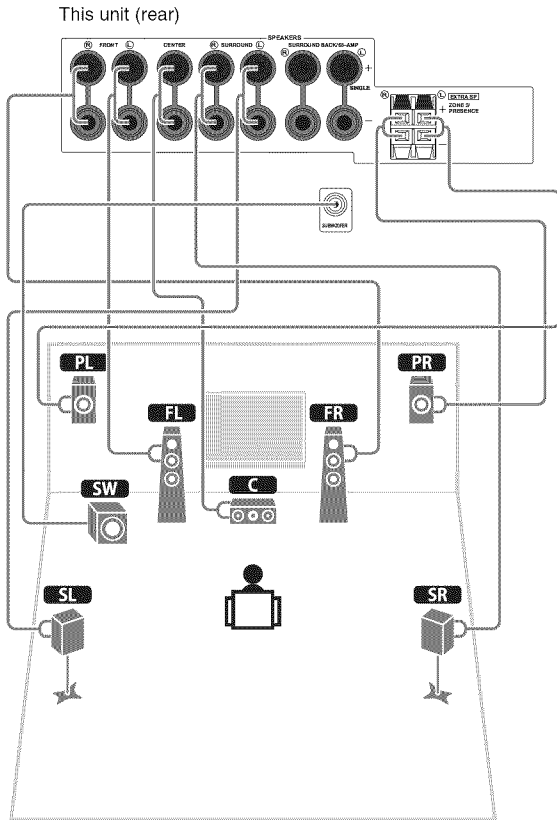
7.1+2 channel system



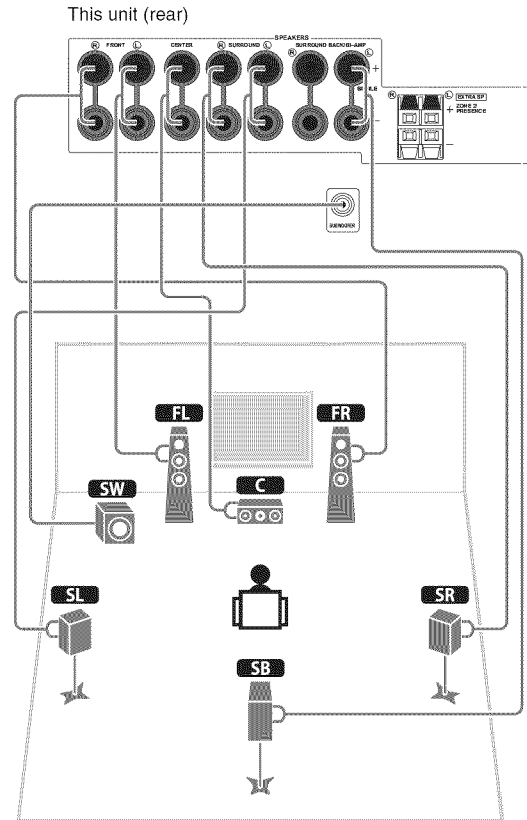
7.1 channel system (using surround back speakers)



7.1 channel system (using presence speakers)



6.1 channel system

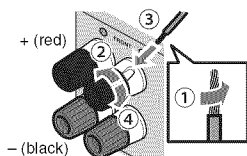


When using only one surround back speaker, connect it to the SINGLE jack (L side).

■ Connecting speaker cables

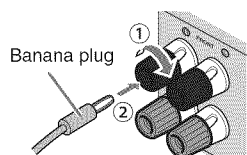
Speaker cables have two wires. One is for connecting the negative (-) terminal of the unit and the speaker, and the other is for the positive (+) terminal. If the wires are colored to prevent confusion, connect the black wire to the negative and the other wire to the positive.

- ① Remove approximately 10 mm of insulation from the ends of the speaker cable, and twist the bare wires of the cable together firmly.
- 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.



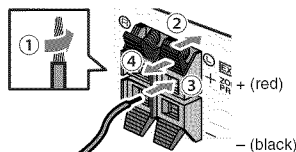
Using a banana plug

- ① Tighten the speaker terminal.
- ② Insert a banana plug into the end of the terminal.



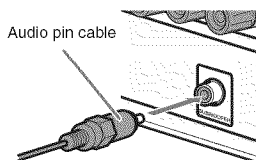
Push-type speaker terminals

- ① Remove approximately 10 mm of insulation from the ends of the speaker cable, and twist the bare wires of the cable together firmly.
- ② Press down the tab.
- ③ Insert the bare wires of the cable into the hole in the terminal.
- ④ Release the tab.



■ Connecting the subwoofer

Use an audio pin cable to connect the subwoofer.

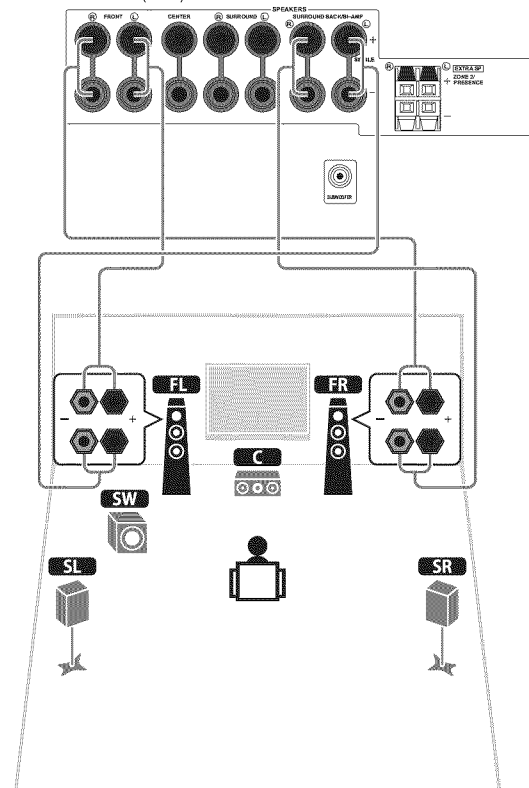


Connecting front speakers that support bi-amp connections

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

To enable the bi-amp function, set “Power Amp Assign” (p.90) in the “Setup” menu to “5ch BI-AMP” after connecting the power cable to an AC wall outlet.

This unit (rear)



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. When not making bi-amp connections, make sure that the brackets or cables are connected before connecting the speaker cables.
- When using bi-amp connections, surround back speakers cannot be used.

Input/output jacks and cables

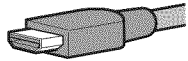
Video/audio jacks

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.
- To connect a device that has a DVI jack, an HDMI/DVI-D cable is required.

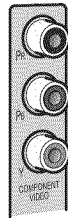


- The HDMI jacks of this unit support the HDMI Control, Audio Return Channel (ARC), and 3D video transmission (through output) features.

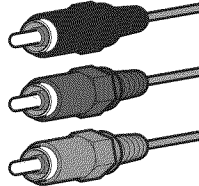
Video jacks

COMPONENT VIDEO jacks

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

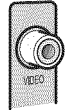


Component video cable

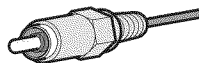


VIDEO jacks

Transmit analog video signals. Use a video pin cable.



Video pin cable



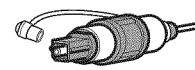
Audio jacks

OPTICAL jacks

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



Digital Optical cable

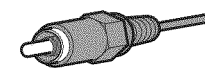


COAXIAL jacks

Transmit digital audio signals. Use a digital coaxial cable.



Digital coaxial cable

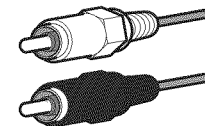


AUDIO jacks

Transmit analog stereo audio signals. Use a stereo pin cable.



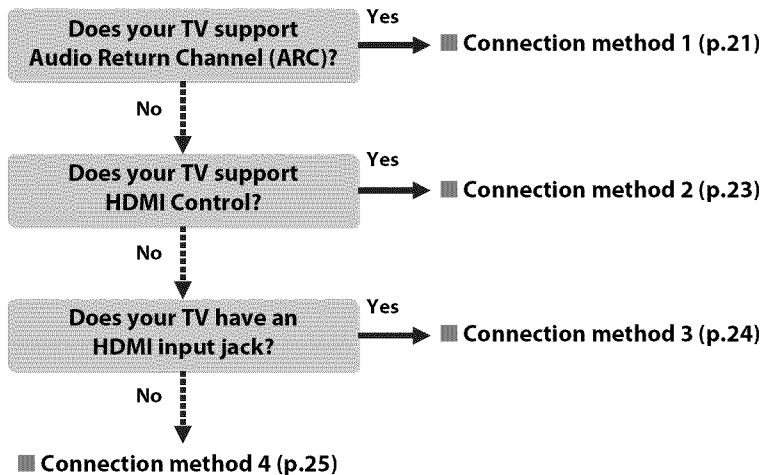
Stereo pin cable



3 Connecting a TV

Connect a TV to this unit so that videos input to this unit can be output to the TV. You can also enjoy playback of TV audio on this unit. The connection method varies depending on functions and video input jacks available on your TV.

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



About HDMI Control

HDMI Control allows you to operate external devices via HDMI. If you connect a TV that supports HDMI Control to this unit with an HDMI cable, you can control this unit (power, volume, etc.) in conjunction with TV remote control operations. You can also control playback devices (HDMI Control-compatible BD/DVD player, etc.) connected to this unit with an HDMI cable. For details, see “HDMI Control” (p.121).

About Audio Return Channel (ARC)

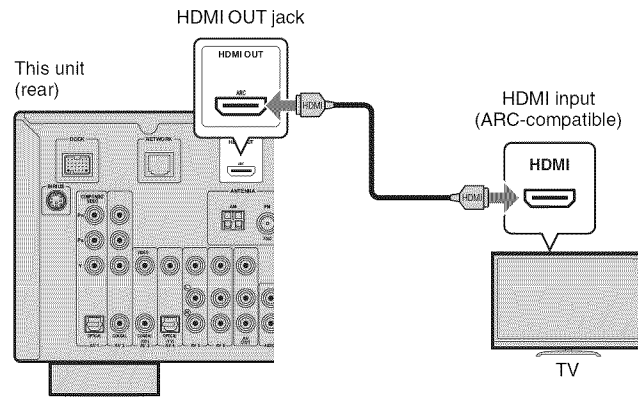
ARC allows audio signals to travel both ways under HDMI Control. So if you connect a TV that supports HDMI Control and ARC to this unit with a single HDMI cable, you can output video/audio to the TV or input TV audio to this unit.

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

Connect the TV to this unit with an HDMI cable.



- The following explanation is based on the assumption that you have not changed the “HDMI” parameters (p.95) in the “Setup” menu.



- If you make an HDMI connection between your TV and this unit, any videos input to this unit can be output to the TV no matter how you connect video devices to this unit. For details, see “Video signal flow” (p.120).

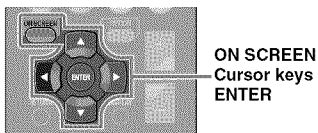
Necessary settings

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

1 After connecting external devices (TV, playback devices, etc.) and power cable of this unit, turn on this unit, TV and playback devices.

2 Configure the settings of this unit.

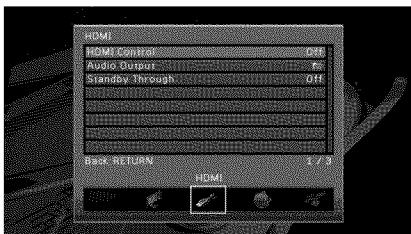
- ① Check that ARC is enabled on the TV.
- ② Switch the TV input to display the video from this unit.
- ③ Press ON SCREEN.



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



- ⑤ Use the cursor keys (<D>) to select "HDMI".



- ⑥ Use the cursor keys to select "HDMI Control" (Δ/▽) and press ENTER.
- ⑦ Use the cursor keys to select "On".
- ⑧ Press ON SCREEN.

3 Configure the settings for HDMI Control.

- ① Enable HDMI Control on the TV and playback devices (HDMI Control-compatible BD/DVD player, etc).
- ② Turn off the main power of the TV and then turn off this unit and playback devices.
- ③ Turn on the main power of the TV and then turn on this unit and playback devices.
- ④ Switch the TV input to display the video from this unit.
- ⑤ Turn on the playback device and check the followings.

On this 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 this unit is properly synchronized with the TV by turning on/off the TV or adjusting the TV volume with the TV remote control.

Now the necessary settings are complete.

If you select a TV program with the TV remote control, the input source of this unit will be automatically switched to "AV4" and the TV audio will be played back on this unit.

If TV audio cannot be heard, check that "ARC" (p.95) in the "Setup" menu is set to "On".



- If HDMI Control does not work properly, try turning off and on (or unplugging and re-plugging) the devices. It may solve the problem.
- If any audio interruption happens while using ARC, set "ARC" (p.95) in the "Setup" menu to "Off" and use a digital optical cable to input TV audio to this unit (p.23).



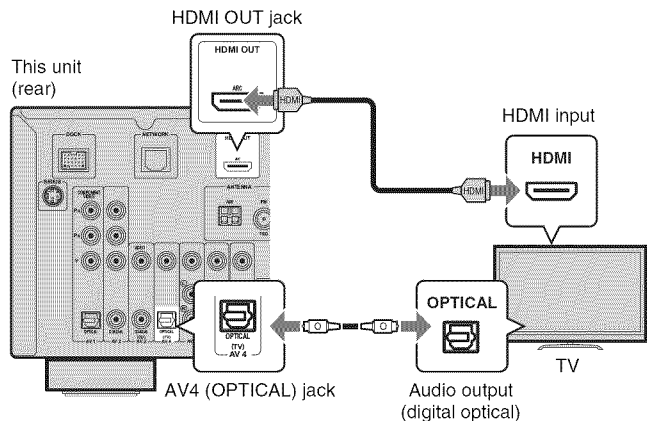
- "AV4" is set as TV audio input at the factory. If you have connected any external device to the AV4 jacks, use "TV Audio Input" (p.95) in the "Setup" menu to change the TV audio input assignment. To use the SCENE function (p.39), you also need to change the input assignment for SCENE(TV).

■ Connection method 2 (HDMI Control-compatible TV)

Connect the TV to this 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.95) in the "Setup" menu.



- If you make an HDMI connection between your TV and this unit, any videos input to this unit can be output to the TV no matter how you connect video devices to this unit. For details, see "Video signal flow" (p.120).

Necessary settings

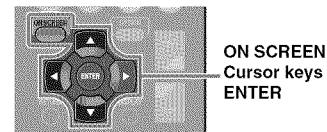
To use HDMI Control, you need to configure the following settings.

For details on settings and operations of your TV, refer to the instruction manual of the TV.

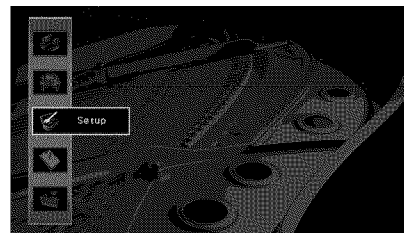
1 After connecting external devices (TV, playback devices, etc.) and power cable of this unit, turn on this unit, TV and playback devices.

2 Configure the settings of this unit.

- ① Switch the TV input to display the video from this unit.
- ② Press ON SCREEN.



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



- ⑤ Use the cursor keys (<D>) to select "HDMI".



- ⑥ Use the cursor keys to select "HDMI Control" (Δ/▽) and press ENTER.
- ⑦ Use the cursor keys to select "On".
- ⑧ Press ON SCREEN.

3 Configure the settings for HDMI Control.

- ① Enable HDMI Control on the TV and playback devices (HDMI Control-compatible BD/DVD player, etc).
- ② Turn off the main power of the TV and then turn off this unit and playback devices.
- ③ Turn on the main power of the TV and then turn on this unit and playback devices.
- ④ Switch the TV input to display the video from this unit.
- ⑤ Turn on the playback device and check the followings.

On this 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 this unit is properly synchronized with the TV by turning on/off the TV or adjusting the TV volume with the TV remote control.

Now the necessary settings are complete.

If you select a TV program with the TV remote control, the input source of this unit will be automatically switched to "AV4" and the TV audio will be played back on this unit.



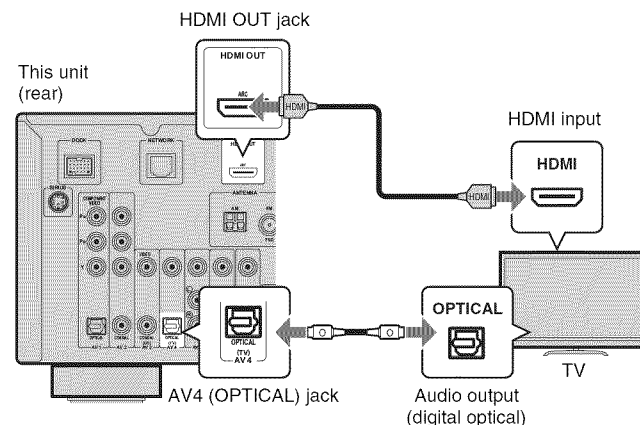
- If HDMI Control does not work properly, try turning off and on (or unplugging and re-plugging) the devices. It may solve the problem.



- "AV4" is set as TV audio input at the factory. If you have connected any external device to the AV4 jacks or if you want to use another input jack (other than OPTICAL) for connecting the TV, use "TV Audio Input" (p.95) in the "Setup" menu to change the TV audio input assignment. To use the SCENE function (p.39), you also need to change the input assignment for SCENE(TV).

■ Connection method 3 (TV with HDMI input jacks)

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



If switch the input source of this unit to "AV4" by pressing AV4 or SCENE(TV), the TV audio will be played back on this unit.



- If you make an HDMI connection between your TV and this unit, any videos input to this unit can be output to the TV no matter how you connect video devices to this unit. For details, see "Video signal flow" (p.120).
- If you have connected any external device to the AV4 jacks or if you want to use another input jack (other than OPTICAL) for connecting the TV, connect the TV to one of the AV1~6 and AUDIO1~2 jacks. To use the SCENE function (p.39), you also need to change the input assignment for SCENE(TV).

■ Connection method 4 (TV without HDMI input jacks)

Depending on the video input jacks available on your TV, choose one of the following connections.

If you select “AV4” as the input source by pressing AV4 or SCENE(TV), the TV audio will be played back on this unit.

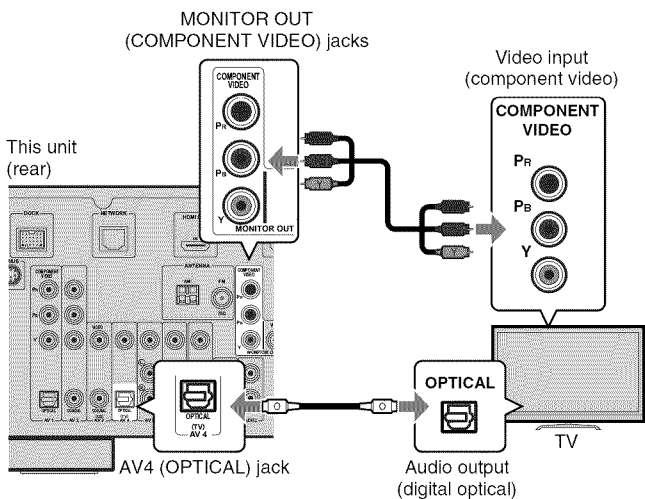


- If you connect your TV to this unit with a cable other than HDMI, videos input to this unit via HDMI cannot be output to the TV. Also, analog videos that can be output to the TV differ according to the “Analog to Analog Conversion” setting. For details, see “Video signal flow” (p.120).

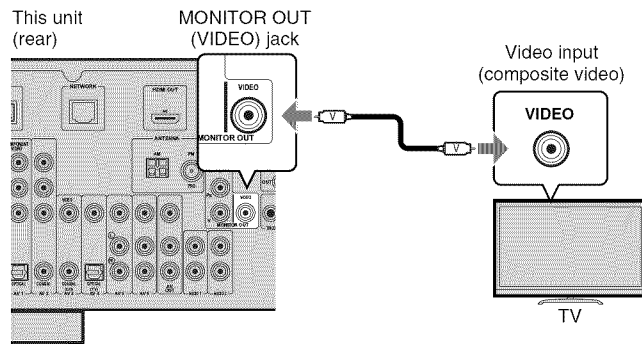


- If you have connected any external device to the AV4 jacks or if you want to use another input jack (other than OPTICAL) for connecting the TV, connect the TV to one of the AV1~6 and AUDIO1~2 jacks. To use the SCENE function (p.39), you also need to change the input assignment for SCENE(TV).

COMPONENT VIDEO connection (with a component video cable)



VIDEO (composite video) connection (with a video pin cable)



4 Connecting playback devices

This 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, a Bluetooth component or a USB storage device, see the following pages.

- Connecting an iPod (p.54)
- Connecting a Bluetooth receiver (p.59)
- Connecting a USB storage device (p.61)

Connecting video devices (BD/DVD players, etc.)

Connect video devices such as BD/DVD players, set-top boxes (STBs) and game consoles to this 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.



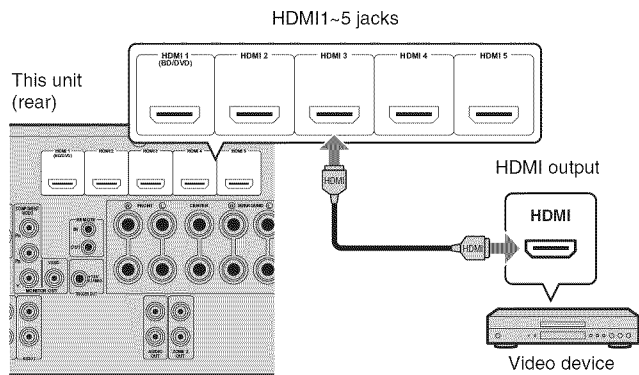
- Videos input to this unit via HDMI cannot be output to a TV connected to this unit with a cable other than HDMI.



- If the combination of video/audio input jacks prepared on this unit does not match your video device, change its combination according to the output jacks of your device (p.27).

HDMI connection

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

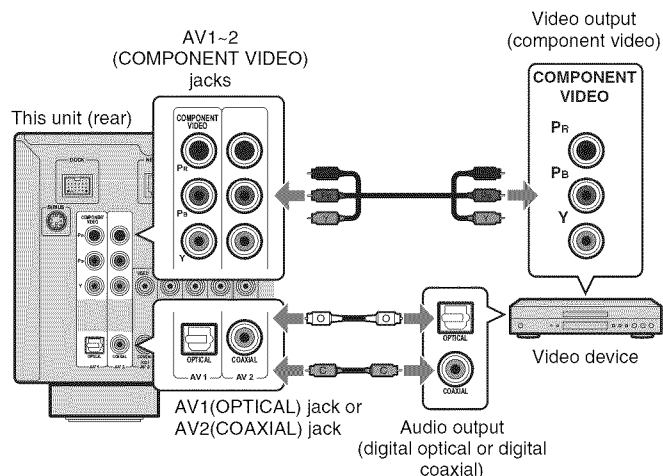


If you select the input source by pressing HDMI1~5, the video/audio played back on the video device will be output from this unit.

Component video connection

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

Output jacks on video device		Input jacks on this unit
Video	Audio	
Component video	Digital optical	AV1 (COMPONENT VIDEO + OPTICAL)
	Digital coaxial	AV2 (COMPONENT VIDEO + COAXIAL)

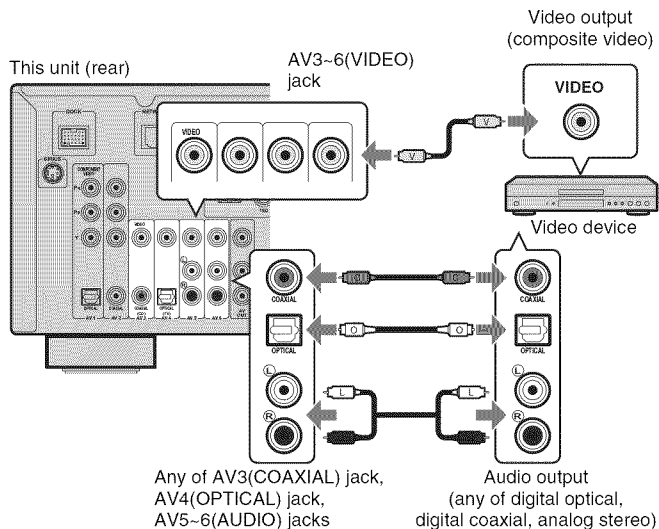


If you select the input source by pressing AV1~2, the video/audio played back on the video device will be output from this unit.

■ Composite video connection

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

Output jacks on video device		Input jacks on this unit
Video	Audio	
Composite video	Digital coaxial	AV3 (VIDEO + COAXIAL)
	Digital optical	AV4 (VIDEO + OPTICAL)
	Analog stereo	AV5 (VIDEO + AUDIO)
		AV6 (VIDEO + AUDIO)



If you select the input source by pressing AV3~6, the video/audio played back on the video device will be output from this unit.

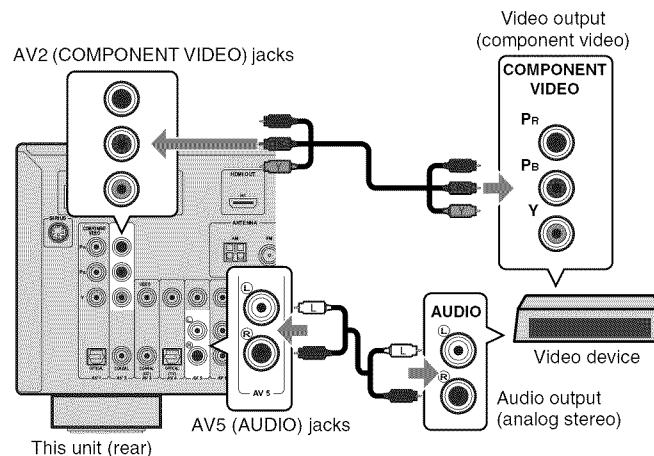
■ Changing the combination of video/audio input jacks

If the combination of video/audio input jacks prepared on this unit does not match your video device, change its combination according to the output jacks of your device. It enables you to connect a video device that has the following video/audio output jacks.

Output jacks on video device		Input jacks on this unit	
Video	Audio	Video	Audio
HDMI	Digital optical	HDMI1~5	AV1 (OPTICAL) AV4 (OPTICAL)
	Digital coaxial	HDMI1~5	AV2~3 (COAXIAL)
	Analog stereo	HDMI1~5	AV5~6 (AUDIO) AUDIO 1~2
Component video	Analog stereo	AV1~2 (COMPONENT VIDEO)	AV5~6 (AUDIO) AUDIO1~2

Necessary setting

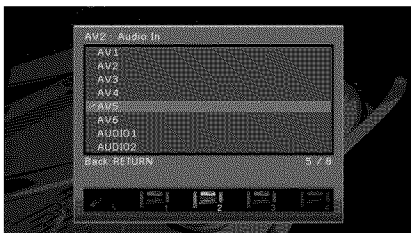
For example, if you have connected a video device to AV2 (COMPONENT VIDEO) and AV5 (AUDIO) jacks of this unit, change the combination setting as follows.



- 1 After connecting external devices (TV, playback devices, etc.) and power cable of this unit, turn on this unit and TV.
- 2 Switch the TV input to display the video from this unit.
- 3 Press ON SCREEN.
- 4 Use the cursor keys to select "Input" and press ENTER.
- 5 Use the cursor keys (< >) to select "AV2" (video input jack to be used) and press the cursor key (Δ).



- 6 Use the cursor keys to select "Audio In" and press ENTER.
- 7 Use the cursor keys to select "AV5" (audio input jack to be used).



- 8 Press ON SCREEN.

Now the necessary setting is complete.

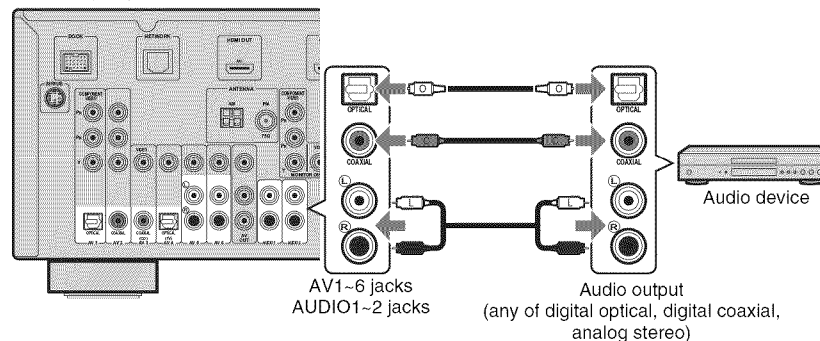
If you select "AV2" as the input source by pressing AV2, the video/audio played back on the video device will be output from this unit.

Connecting audio devices (CD players, etc.)

Connect audio devices such as CD players and MD players to this 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 this unit
Digital optical	AV1 (OPTICAL) AV4 (OPTICAL)
Digital coaxial	AV2~3 (COAXIAL)
Analog stereo	AV5~6 (AUDIO) AUDIO1~2

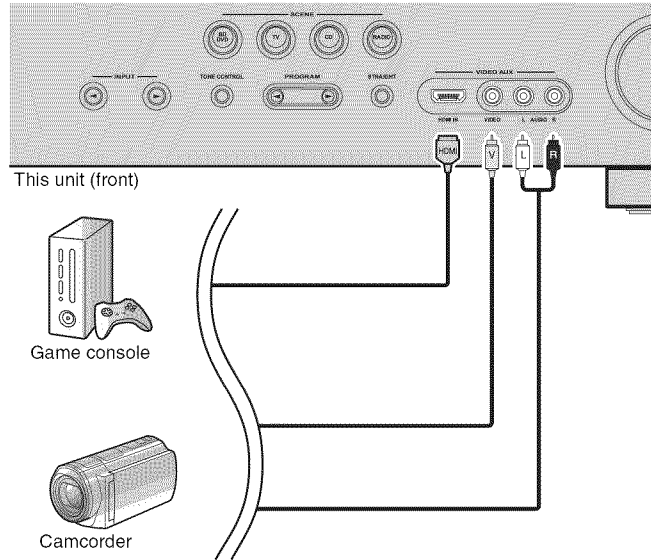
This unit (rear)



If you select the input source by pressing AV1~6 or AUDIO1~2, the audio played back on the audio device will be output from this unit.

Connecting to the jacks on the front panel

Use the VIDEO AUX jacks on the front panel to temporarily connect devices such as a game console and a camcorder to this unit. Before making a connection, stop playback on the device and turn down the volume of this unit.



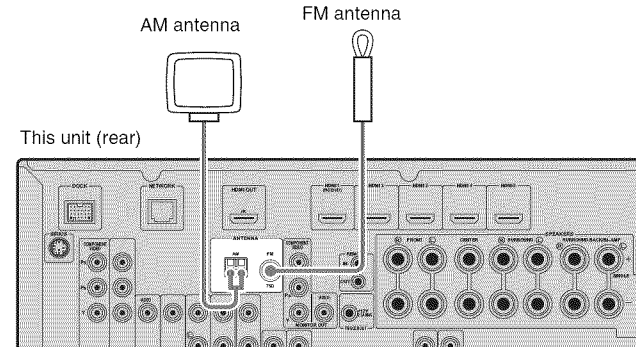
If you select “V-AUX” as the input source by pressing V-AUX, the video/audio played back on the device will be output from this unit.



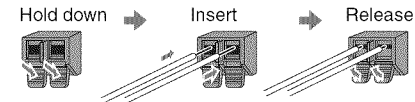
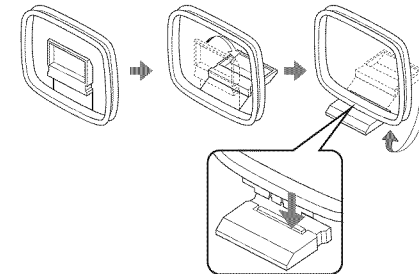
- If you connect video devices to both the HDMI IN jack and VIDEO/AUDIO jacks, this unit outputs video/audio input through the HDMI IN jack.
- To protect against dust, attach the supplied VIDEO AUX input cover when the VIDEO AUX jacks are not in use.

5 Connecting the FM/AM antennas

Connect the supplied FM/AM antennas to this unit.



Assembling and connecting the AM antenna

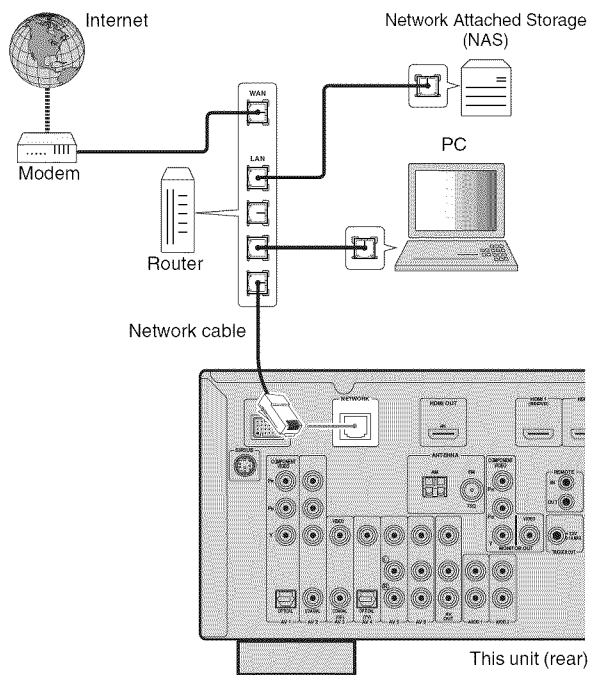


- Unwind the antenna cable from the AM antenna unit only the length needed.
- The wires of the AM antenna have no polarity.

6 Connecting to the network

Connect this 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 PCs and DLNA servers such as Network Attached Storage (NAS) on this unit.



- Some security software installed on your PC or the firewall settings of your network devices (such as a router) may block the access of this unit to the network devices or the Internet. In such cases, configure the security software or firewall settings appropriately.
- You can connect this unit to up to 16 music servers (PC, etc.), and each server must be connected to the same subnet as this unit.
- To use the service via the Internet, broadband connection is strongly recommended.



- When using a router that supports the DHCP function, the network parameters (IP address, etc.) will be automatically assigned to this unit without configuring the network settings of this unit. If your router does not support the DHCP function or you want to configure the network parameters manually, configure the network settings (p.96).
- You can check whether the network parameters (IP address, etc.) are properly assigned to this unit in "Network" (p.101) in the "Information".

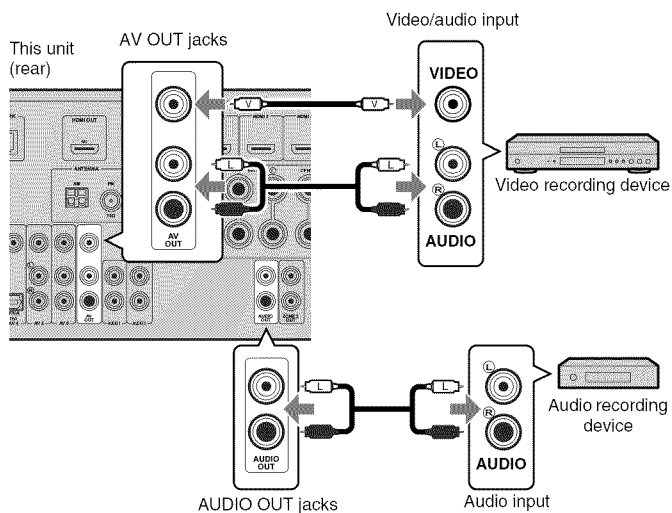
7 Connecting other devices

Connecting video/audio recording devices

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

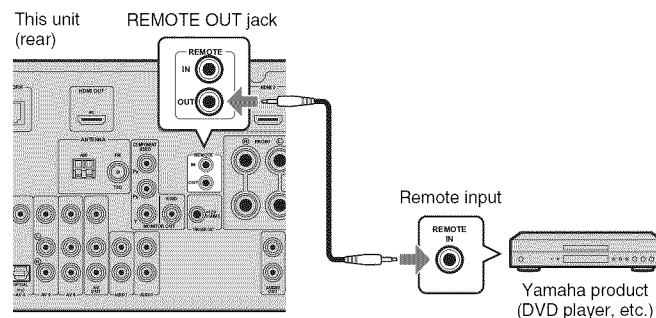


- To copy video/audio from a video device, connect the video device to the AV5-6 jacks or V-AUX (VIDEO/AUDIO) jacks of this unit.
- To copy audio from an audio device, connect the audio device to the AV5-6 jacks, AUDIO1-2 jacks or V-AUX (AUDIO) jacks of this unit.



Connecting a device compatible with SCENE link playback (remote connection)

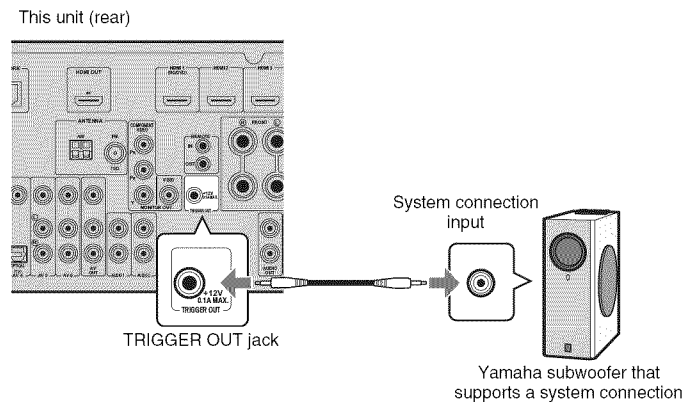
If you have a Yamaha product that has the capability of the SCENE control signal transmission, you can control the Yamaha product in conjunction with a scene selection (p.39) by connecting it to the REMOTE OUT jack with a monaural mini-jack cable.



- If you connect a Yamaha product compatible with SCENE link playback to the REMOTE OUT jack, you can start playback on the Yamaha product in conjunction with a scene selection (p.39). To enable the SCENE link playback, specify the device type in "Device Control" (p.83) in the "Scene" menu.
- You also connect an infrared signal receiver/emitter to operate devices in the main zone from Zone2 (p.70).

Connecting a device compatible with the trigger function

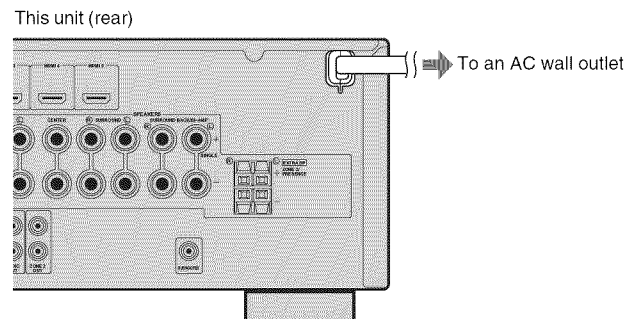
The trigger function can control an external device in conjunction with operations (power-on/off, input selection, etc.) on this unit. If you have a Yamaha subwoofer that supports a system connection or a device with a trigger input jack, you can use the trigger function by connecting the external device to the TRIGGER OUT jack.

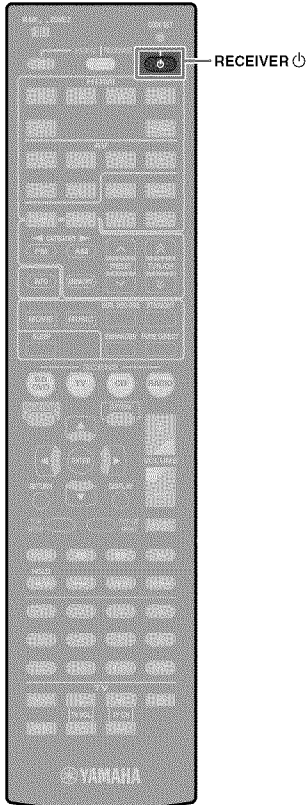


- You can configure the trigger function settings in "Trigger Output" (p.98) in the "Setup" menu.

8 Connecting the power cable

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





9 Optimizing the speaker settings automatically (YPAO)

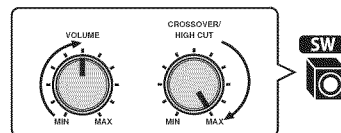
By using the Yamaha Parametric room Acoustic Optimizer (YPAO) function, this unit automatically detects speaker connections and distances from the listening position, and optimizes the speaker settings such as volume balance and acoustic parameters to suit your room.



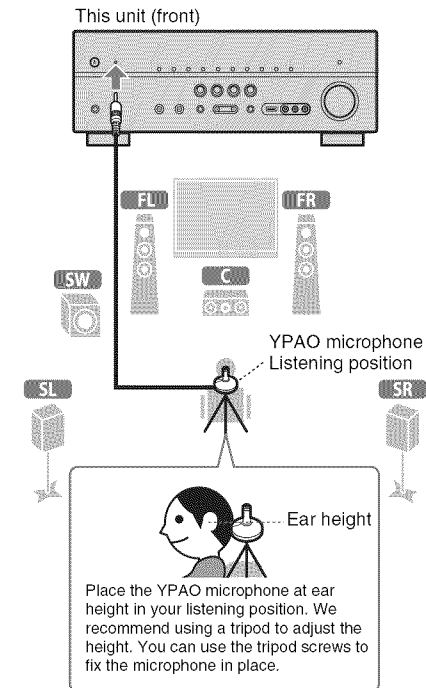
Please note the following when using YPAO.

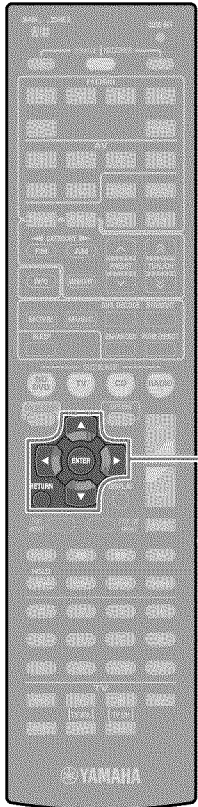
- Use YPAO after connecting a TV and speakers to this unit.
- During the measuring process, the test tones are output at high volume. Take care that the test tone does not frighten small children. Also, refrain from using this function at night when it may be a nuisance to others.
- During the measuring process, you cannot adjust the volume.
- During the measuring process, keep the room as quiet as possible.
- Do not connect headphones.
- If your subwoofer supports the auto-standby function, disable it.

- 1 Press **RECEIVER** to turn on this unit.
- 2 Turn on the TV and switch the TV input to display the video from this unit.
- 3 Turned on the subwoofer and set the volume to half. If the cross-over frequency is adjustable, set it to maximum.

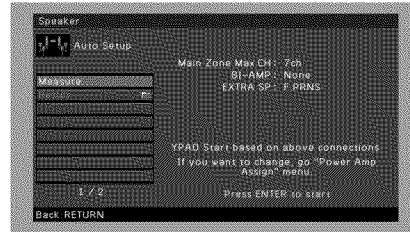


- 4 Place the YPAO microphone at ear height in your listening position and connect it to the YPAO MIC jack on the front panel.





The following screen appears on the TV.



- To cancel the operation, disconnect the YPAO microphone before starting the measurement.



- YPAO measurement is not performed correctly when any obstacles are in the room.
- During the measuring process (about 3 minutes), keep stuff in the corners or remove it from the room.

5 To start the measurement, use the cursor keys to select “Measure” and press ENTER.

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



- To cancel the measurement, press RETURN.

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



- If any error message (such as E-1) or warning message (such as W-1) appears, see “Error messages” (p.36) or “Warning messages” (p.37).



- To check the measurement results, select “Result”. For details, see “Checking the measurement results” (p.35).

6 Use the cursor keys to select “Save/Cancel” and press ENTER.

7 To save the measurement results, use the cursor keys to select “SAVE” and press ENTER.



The corrected speaker settings are applied.



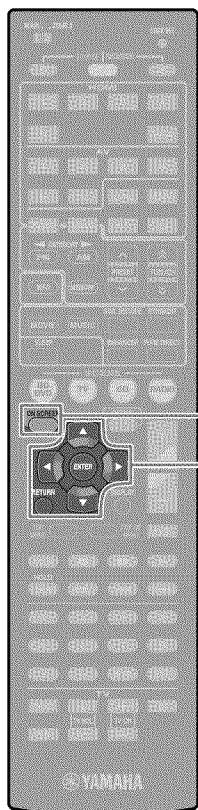
- To finish the measurement without saving the result, select “CANCEL”.

8 Disconnect the YPAO microphone from this unit.

Now optimization of the speaker settings is complete.

Caution

- Since the YPAO microphone is sensitive to heat, do not place the microphone in any place where it will be subjected to direct sunlight or high temperatures (top of an AV equipment, etc).



ON SCREEN
Cursor keys
ENTER
RETURN

Checking the measurement results

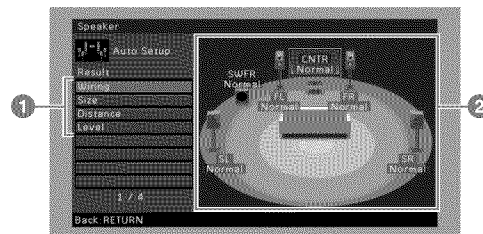
You can check the YPAO measurement results.

- 1 After the measurement, use the cursor keys to select “Result” and press ENTER.



- You can also select “Result” from “Auto Setup” (p.88) in the “Setup” menu. In this case, the previous measurement results are displayed.

The following screen appears.



- 1 Measurement result items
- 2 Measurement result details

- 2 Use the cursor keys to select an item

Wiring

Polarity of each speaker
Normal: The speaker cable is connected with the correct polarity (+/-).
Reverse: The speaker cable may be connected with the reversed polarity (+/-).

Size

Size of each speaker (cross-over frequency of the subwoofer)
Large: The speaker can reproduce low-frequency signals effectively.
Small: The speaker cannot reproduce low-frequency signals effectively.

Distance

Distance from the listening position to each speaker

Level

Output level adjustment for each speaker



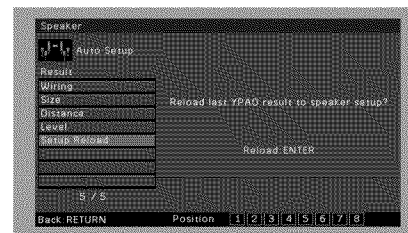
- A speaker with any problem is indicated with a red-boxed message.

- 3 To finish checking the results and return to the previous screen, press RETURN.

Reloading the previous YPAO adjustments

When the speaker settings you have configured manually are not suitable, follow the procedure below to discard the manual settings and reload the previous YPAO adjustments.

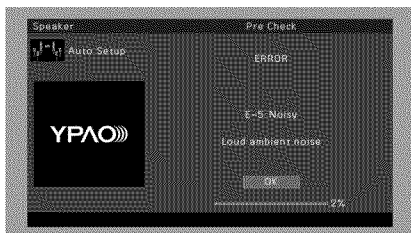
- 1 In the “Setup” menu, select “Speaker”, “Auto Setup” and then “Result” (p.87).
- 2 Use the cursor keys to select “Setup Reload” and press ENTER.



- 3 To exit from the menu, press ON SCREEN.

Error messages

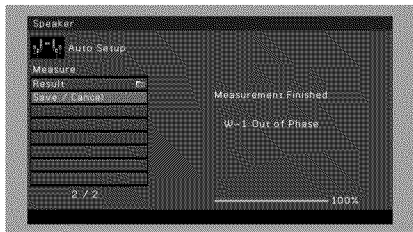
If any error message is displayed during the measurement, resolve the problem and perform YPAO again.



Error message	Cause	Remedy
E-1: No Front SP	Front speakers are not detected.	
E-2: No Sur. SP	Either of surround speakers is not detected.	Follow the on-screen instructions to exit YPAO, turn off this unit, and then check the speaker connections.
E-3: No F.PRNS SP	Either of presence speakers is not detected.	
E-4: SBR→SBL	A surround back speaker is connected to the R side only.	When using only one surround back speaker, you need to connect it to the SINGLE jack (L side). Follow the on-screen instructions to exit YPAO, turn off this unit, and then reconnect the speaker.
E-5: Noisy	The noise is too loud.	Keep the room quiet and follow the on-screen instructions to start the measurement again. If you select "PROCEED", the measurement starts again on the condition this unit ignores the noisy error even if noises are detected.
E-6: Check Sur.	Any surround back speaker is connected while no surround speakers are connected.	Surround speakers should be connected when using surround back speakers. Follow the on-screen instructions to exit YPAO, turn off this unit, and then reconnect the speakers.
E-7: No MIC	The YPAO microphone has been removed.	Connect the YPAO microphone to the YPAO MIC jack firmly and follow the on-screen instructions to start the measurement again.
E-8: No Signal	The YPAO microphone cannot detect test tones.	Connect the YPAO microphone to the YPAO MIC jack firmly and follow the on-screen instructions to start the measurement again. If this error occurs repeatedly, contact the nearest authorized Yamaha dealer or service center.
E-9: User Cancel	The measurement has been canceled.	Follow the on-screen instructions to start the measurement again. To cancel the measurement, select "EXIT".
E-10: Internal Error	An internal error has occurred.	Follow the on-screen instructions to exit YPAO, turn off and on this unit. If this error occurs repeatedly, contact the nearest authorized Yamaha dealer or service center.

Warning messages

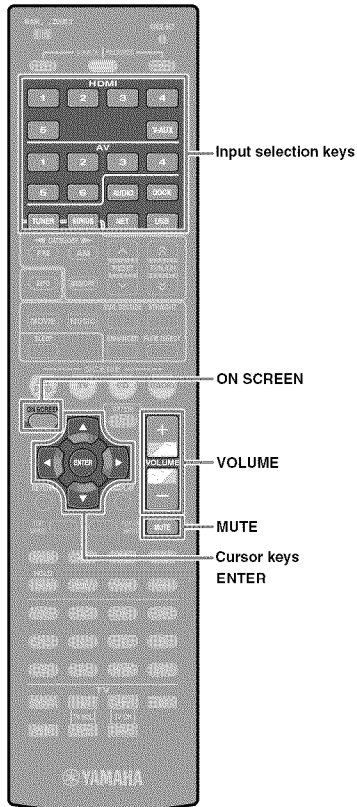
Even if any warning message is displayed after the measurement, you can save the measurement results by following on-screen instructions. However, we recommend you perform YPAO again to use this unit with the optimal speaker settings.



Warning message	Cause	Remedy
W-1: Out of Phase	Any of the speaker cables may be connected with the reversed polarity (+/-).	Select "Wiring" in "Result" (p.35) and check the cable connections (+/-) of the speaker indicated with "Reverse". If the speaker is connected incorrectly, turn off this 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.
W-2: Over Distance	Any of the speakers is placed more than 24 m (80 ft) from the listening position.	Select "Distance" in "Result" (p.35) and move the speaker indicated with ">24.0m (>80.0ft)" within 24 m (80 ft) of the listening position.
W-3: Level Error	There are a significant volume differences between the speakers.	Check the use environment and cable connections (+/-) of each speaker, and the volume of the subwoofer. We recommend using the same speakers or speakers with as similar specifications as possible.

PLAYBACK

Basic playback procedure



- 1 Turn on external devices (TV, BD/DVD player, etc.) connected to this 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 of the external device. For details on the following operations, see the corresponding pages.

 - Listening to FM/AM radio (p.45)
 - Listening to SIRIUS Satellite Radio (p.48)
 - Playing back iPod music/videos (p.54)
 - Playing back music via Bluetooth (p.59)
 - Playing back music stored on a USB storage device (p.61)
 - Playing back music stored on PCs (p.64)
 - Listening to Internet radio (p.67)

- 4 Press VOLUME to adjust the volume.**

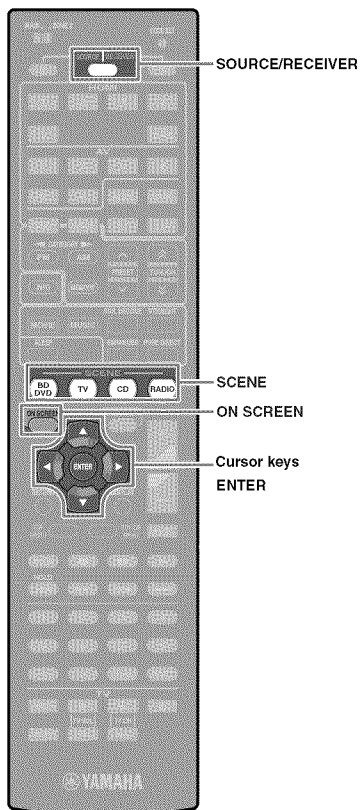


- To mute the audio output, press MUTE. Press MUTE again to unmute.
- To adjust treble/bass parts of sound, use the “Option” menu or TONE CONTROL on the front panel (p.77).



On-screen input selection

- 1 Press ON SCREEN.
- 2 Use the cursor keys to select “Input” and press ENTER.
- 3 Use the cursor keys to select a desired input source and press ENTER.



Selecting the input source and favorite settings at once (SCENE)

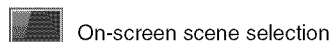
The SCENE function allows you to select the assigned input source, sound program and Compressed Music Enhancer on/off at once.

1 Press SCENE.

The input source and settings registered to the corresponding scene are selected. This 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
BD/DVD	HDMI1	MOVIE (Drama)	Off
TV	AV4	STRAIGHT	On
CD	AV3	STRAIGHT	Off
RADIO	TUNER	MUSIC (7ch Stereo)	On



- ① Press ON SCREEN.
- ② Use the cursor keys to select "Scene" and press ENTER.
- ③ Use the cursor keys to select a desired scene and press ENTER.

Configuring scene assignments

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

- Select an input source (p.38)
- Select a sound program (p.40)
- Enable/disable Compressed Music Enhancer (p.44)

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

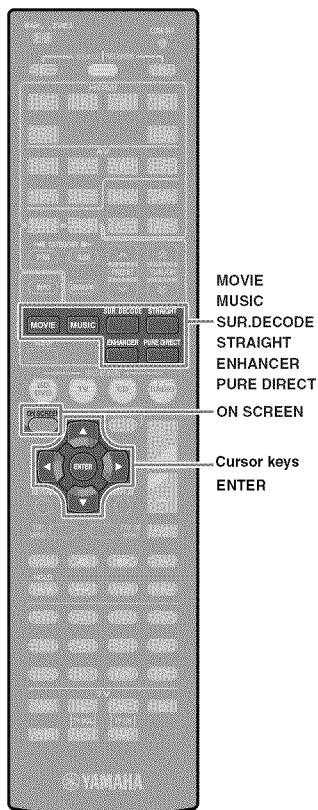


3 If you want to control the corresponding playback device after selecting the scene, hold down the corresponding SCENE key and input selection key together for more than 3 seconds.

Once the setting is completed successfully, SOURCE/RECEIVER blinks twice.



- If you have not registered the remote control code of the playback device yet, see "Setting the remote control codes for playback devices" (p.105) to register it.
- You can also configure scene assignments in the "Scene" menu (p.82).
- You can start playback of external devices connected to this unit via HDMI or a Yamaha product connected to the REMOTE OUT jack, in conjunction with a scene selection (SCENE link playback). To enable the SCENE link playback, specify the device type in "Device Control" (p.83) in the "Scene" menu.



Selecting the sound mode

This unit is equipped with a variety of sound programs and surround decoders that allow you to enjoy playback sources with a favorite sound mode (sound field effect, stereo playback, etc).

Selecting a sound program suitable for movies (p.41)

Press MOVIE repeatedly.

Selecting a sound program suitable for music or stereo playback (p.42)

Press MUSIC repeatedly.

Selecting a surround decoder (p.43)

Press SUR.DECODE repeatedly.

Switching to the straight decode mode (p.43)

Press STRAIGHT.

Switching to the Pure Direct mode (p.44)

Press PURE DIRECT.

Enable Compressed Music Enhancer (p.44)

Press ENHANCER.



On-screen sound program/surround decoder selection

- ① Press ON SCREEN.
- ② Use the cursor keys to select "Sound Program" and press ENTER.
- ③ Use the cursor keys to select a sound program/surround decoder and press ENTER.



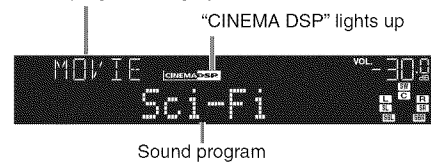
- You can change the settings of the surround programs and surround decoders in the "Sound Program" menu (p.84).
- The sound mode can be applied separately to each input source.
- When you play back audio signals with sampling frequency of higher than 96 kHz or DTS Express sources the straight decode mode (p.43) is automatically selected.
- You can check which speakers are currently outputting sound with the speaker indicators on the front panel (p.9) or the "Audio Signal" screen in the "Information" menu (p.100).

Enjoying sound field effects (CINEMA DSP)

CINEMA DSP

This 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



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

■ Sound programs suitable for movies (MOVIE)

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

□ MOVIE THEATER

Standard	This program creates a sound field emphasizing the surround feeling without disturbing the original acoustic positioning of multi-channel audio such as Dolby Digital and DTS. It has been designed with the concept of an ideal movie theater, in which the audience is surrounded by beautiful reverberations from the left, right and rear.
Spectacle	This program represents the spectacular feeling of large-scale movie productions. It reproduces a broad theater sound field that matches cinemascope and wider-screen movies with an excellent dynamic range providing everything from very small sound effects to large, impressive sounds.
Sci-Fi	This program clearly reproduces the finely elaborated sound design of the latest science fiction and special effects-featuring movies. You can enjoy a variety of cinematographically created virtual spaces reproduced with clear separation between dialog, sound effects and background music.
Adventure	This program is ideal for precisely reproducing the sound design of action and adventure movies. The sound field restrains reverberations but puts emphasis on reproducing a powerful space expanded widely to the left and right. The reproduced depth is also restrained relatively to ensure the separation between audio channels and the clarity of the sound.

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 offer an optimum 3D feeling, reproducing effects tones and background music softly but cubically around clear words and center positioning in a way that does not fatigue the listener even after long hours of viewing.
Mono Movie	This program is provided for reproducing monaural video sources such as a classic movie in an atmosphere of a good old movie theater. The program produces the optimum expansion and reverberation to the original audio to create a comfortable space with a certain sound depth.

□ ENTERTAINMENT

Sports	This program allows the listeners to enjoy stereo sport broadcasts and studio variety programs with enriched live feeling. In sports broadcasts, the voices of the commentator and sportscaster are positioned clearly at the center while the atmosphere of the stadium expands in an optimal space to offer the listeners a feeling of presence in the stadium.
Action Game	This program is suitable for action games such as car racing, fighting games and FPS 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 dialog from a wide variety of scenes. Use this program in combination with Compressed Music Enhancer for a more clear and spatial sound field.
Music Video	This program offers an image of a concert hall for live performance of pop, rock and jazz music. The listener can indulge oneself in a hot live space thanks to the presence sound field that emphasizes the vividness of vocals and solo play and the beat of rhythm instruments, and to the surround sound field that reproduces the space of a big live hall.

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

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

You can also select stereo playback.

□ CLASSICAL

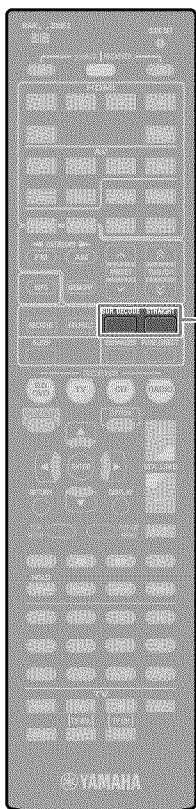
Hall in Munich	This program simulates a concert hall with approximately 2500 seats in Munich, using stylish wood for the interior finishing as normal standards for European concert halls. Fine, beautiful reverberations spread richly, creating a calming atmosphere. The listener's virtual seat is at the center left of the arena.
Hall in Vienna	This program simulates an approximately 1700-seat, middle-sized concert hall with a shoebox shape that is traditional in Vienna. Pillars and ornate carvings create extremely complex reflections 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.

□ LIVE/CLUB

Cellar Club	This program simulates a live house with a low ceiling and homey atmosphere. A realistic, live sound field features powerful sound as if the listener is in a row in front of a small stage.
The Roxy Theatre	This program creates the sound field of a rock music live house in Los Angeles, with approximately 460 seats. 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.

□ STEREO

2ch Stereo	Use this program to mix down multi-channel sources to 2 channels. When multi-channel signals are input, they are down mixed to 2 channels and output from the front speakers (this program does not utilize CINEMA DSP).
7ch Stereo	Use this program to output sound from all speakers. When you playback multi-channel sources, this unit down-mixes 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, etc.



■ Enjoying stereoscopic sound fields (CINEMA DSP 3D)



CINEMA DSP 3D enables to create 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 7ch Stereo) is selected (p.41).
- "CINEMA DSP 3D MODE" (p.77) in the "Option" menu is set to "On" (default).

"CINEMA DSP 3D" lights up



- We recommend using presence speakers to have a full effect of the stereoscopic sound fields. However, this unit creates Virtual Presence Speaker (VPS) to produce stereoscopic sound fields even when no presence speakers are connected.

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

If you select one of the sound programs (except 2ch Stereo and 7ch Stereo) when no surround speakers are connected, this unit automatically creates the surround sound field using the front-side speakers.

Enjoying unprocessed playback

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

■ Enjoying unprocessed sounds in original channels (straight decode)

When the straight decode mode is enabled, each speaker produces each channel audio signal directly (without sound field processing). When you play back 2-channel sources such as CD, stereo sound is heard from the front speakers. When you play back multi-channel sources, this unit produces unprocessed multi-channel sounds.

1 Press STRAIGHT.

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



■ Enjoying unprocessed multi-channel sounds (surround decoder)

The surround decoder enables unprocessed multi-channel playback from 2-channel sources. When a multi-channel source is input, it works the same way as the straight decode mode. For details on each decoder see "Glossary" (p.117).

1 Press SUR.DECODE to select a surround decoder.

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



☑ Pro Logic

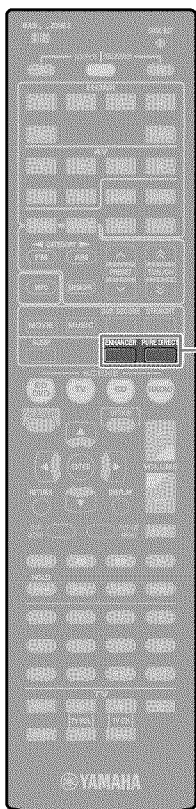
Uses the Dolby Pro Logic decoder suitable for any sources.

☑ PLIIx Movie

Uses the Dolby Pro Logic IIx decoder (or Dolby Pro Logic II decoder) suitable for movies.

☑ PLII Movie

Uses the Dolby Pro Logic II decoder suitable for movies.



ENHANCER
PURE DIRECT

PLIIx Music	Uses the Dolby Pro Logic IIx decoder (or Dolby Pro Logic II decoder) suitable for music.
PLII Music	Uses the Dolby Pro Logic II decoder suitable for music.
PLIIx Game	Uses the Dolby Pro Logic IIx decoder (or Dolby Pro Logic II decoder) suitable for games.
PLII Game	Uses 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 cannot select the Dolby Pro Logic IIx decoders when headphones are connected or when "Surround Back" in the "Setup" menu is set to "None".

Enjoying pure high fidelity sound (Pure Direct)

When the Pure Direct mode is enabled, this unit plays back the selected source with the least circuitry to reduce the electrical noise from other circuitry (front display etc). It allows you to enjoy Hi-Fi sound quality.

1 Press PURE DIRECT.

Each time you press the key, the Pure Direct mode is enabled or disabled.



- When the Pure Direct mode is enabled, the following functions are not available.
 - Selecting sound programs
 - Adjusting the tone control
 - Operating the on-screen menu
 - Viewing information on the front display (when not operated)

Enjoying compressed music with enhanced sound (Compressed Music Enhancer)

compressed music ENHANCER

Compressed Music Enhancer improves the sound enhancer near to the original depth and width of compressed music sources. 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



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

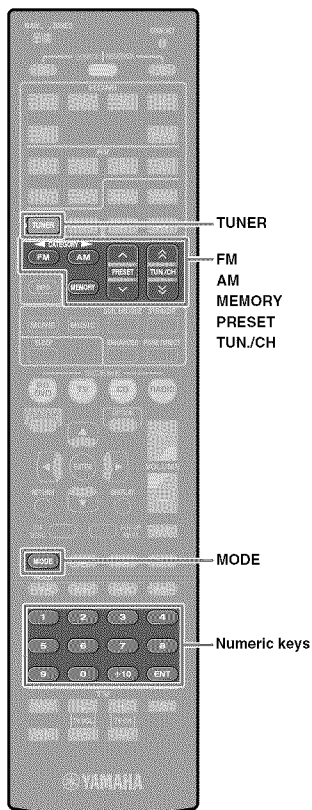


- You can also use "Enhancer" (p.78) in the "Option" menu to enable/disable Compressed Music Enhancer.

Enjoying surround sound with headphones (SILENT CINEMA)



You can enjoy surround or sound field effects like a multi-channel 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

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



- If you cannot have a good reception on the radio, adjust the direction of the FM/AM antennas.

Selecting a frequency for reception

- 1 Press **TUNER** to select “TUNER” as the input source.
- 2 Press **FM** or **AM** to select a band.



- 3 Use the following keys to set a frequency.

TUN./CH: Increase/decrease the frequency. Hold down the key for about a second to search the station automatically.

Numeric keys: Enter a frequency directly. For example, to select 98.5 MHz, press “9”, “8” and “5”.



“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 receivable range



- You can switch between stereo and monaural for FM radio reception by pressing **MODE**. When signal reception for FM radio station is unstable, switching to monaural may improve it.

Registering favorite radio stations (preset)

You can register up to 40 radio stations as presets. Once you registered stations, you can easily tune into those stations by selecting the preset number.



- You can automatically register FM radio stations with strong signals using “Auto Preset” (p.47).

Registering a radio station

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

- 1 Follow “Selecting a frequency for reception” (p.45) to tune into a desired radio station.
- 2 Hold down **MEMORY** for more than 2 seconds.

The radio station will be registered to the preset number “01” for the first time. After that, it will be registered to an empty preset number (next to the lastly-registered preset number).



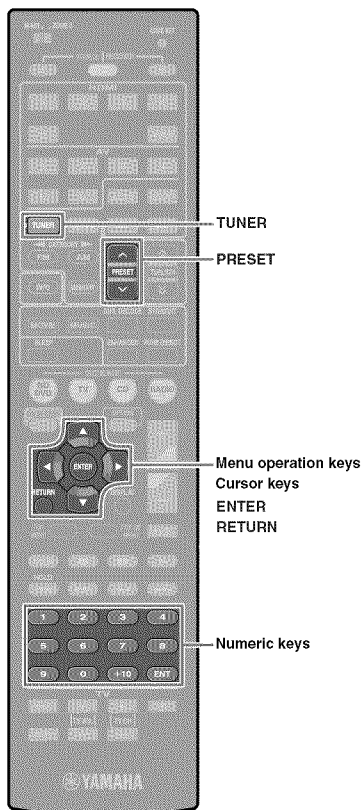
Preset number



- To select a preset number to which the station will be registered, press **MEMORY** once after tuning into a desired radio station, use **PRESET** or numeric keys to select a preset number, and then press **MEMORY** again.



“Empty” (not in use) or frequency currently registered



■ Selecting a preset station

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

- 1 Press **TUNER** to select “TUNER” as the input source.
- 2 Press **PRESET** repeatedly to select a desired radio station.

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



- “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.



- To clear preset stations, use “Clear Preset” or “Clear All Preset” (p.47).

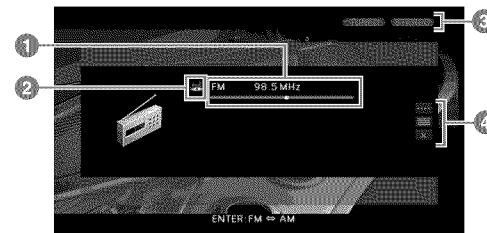
Operating the radio on the TV

You can view the radio information or select a radio station on the TV.

- 1 Press **TUNER** to select “TUNER” as the input source.

The playback screen is displayed on the TV.

■ Playback screen



1 Radio station information

Displays the information of the selected radio station such as the selected band (FM/AM) and frequency.

2 Band icon

Select this icon and press ENTER to switch between FM and AM.

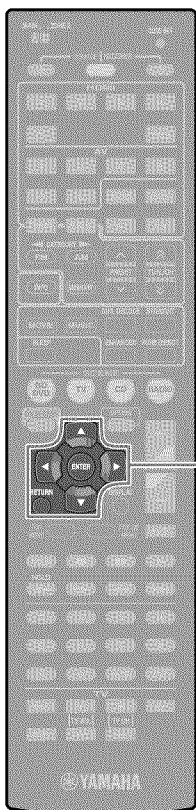
3 TUNED/STEREO indicators

“TUNED” lights up when a signal is received from a radio station.
“STEREO” lights up when a stereo signal is received.

4 Operation menu

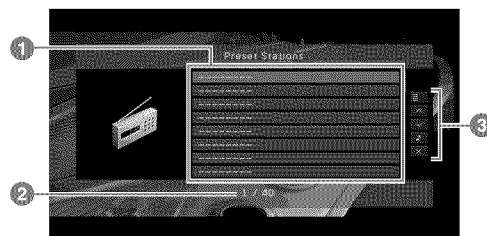
Use the cursor keys to select an item and press ENTER to confirm the selection.
To close the submenu, press RETURN.

Menu	Submenu	Function
Manual Tuning	Tuning (+/-)	Selects a frequency.
	Auto (+/-)	Selects a radio station automatically.
	Memory	Registers the selected station as presets.
	Direct	Enters a frequency directly.
Browse		Moves to the browse screen (preset station list).
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



Menu operation keys
 Cursor keys
 ENTER
 RETURN

■ Browse screen



① Preset station list

Displays the list of preset stations. Use the cursor keys to select a preset station and press ENTER to tune into it.

② Preset number

③ Operation menu

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

To close the submenu, press RETURN.

Menu	Submenu	Function
	Memory	Registers the current station to the preset number selected in the list.
Utility	Auto Preset	Automatically registers FM radio stations with strong signals (up to 40 stations).
	Clear Preset	Clear the preset station selected in the list.
	Clear All Preset	Clear all the preset stations.
1 Page Up		Moves to the previous/next page of the list.
1 Page Down		
Now Playing		Moves to the playback screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.

Listening to SIRIUS Satellite Radio™

To listen to Satellite Radio, you'll need to connect a SIRIUS Satellite Radio tuner (sold separately) to your SIRIUS-Ready receiver. SIRIUS Satellite Radio is available to residents of the US (except Alaska and Hawaii) and Canada.

Satellite Radio delivers a variety of commercial-free music from categories ranging from Pop, Rock, Country, R&B, Dance, Jazz, Classical and many more plus coverage of all the top professional and college sports including play by play games from select leagues and teams. Additional programming includes expert sports talk, uncensored entertainment, comedy, family programming, local traffic and weather and news from your most trusted sources.

Once you've purchased a SIRIUS tuner you'll need to activate it and subscribe to begin enjoying the service. Easy to follow installation and setup instructions are provided with the SIRIUS tuner. There are a variety of programming packages available, including the option of adding "The Best of XM" programming to the SIRIUS service. The "Best of XM" service is not available to SIRIUS Canada subscribers at this time. Please check with SIRIUS Canada for any updates using the numbers and web address below.

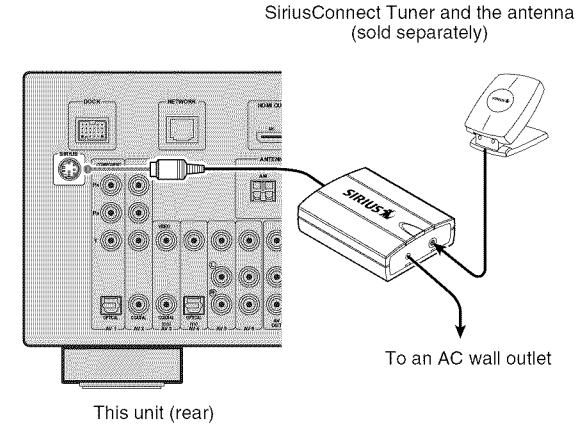
Family friendly packages are also available to restrict channels featuring content that may be inappropriate for children. To subscribe to SIRIUS, U.S. and Canadian customers can call 1-888-539-SIRI (1-888-539-7474) or visit siriusxm.com (US) or siriuscanada.ca (Canada).

SIRIUS Radio Legal

SIRIUS and all related marks and logos are trademarks of Sirius XM Radio Inc. and its subsidiaries. All other marks and logos are the property of their respective owners. All rights reserved. SIRIUS subscription sold separately. Taxes and a one-time activation fee may apply. SIRIUS tuner required (sold separately) to receive the SIRIUS service. All programming and fees subject to change. It is prohibited to copy, decompile, disassemble, reverse engineer, hack, manipulate or otherwise make available any technology or software incorporated in receivers compatible with the SIRIUS Satellite Radio System. Service not available in Alaska or Hawaii.

Connecting the SiriusConnect™ tuner

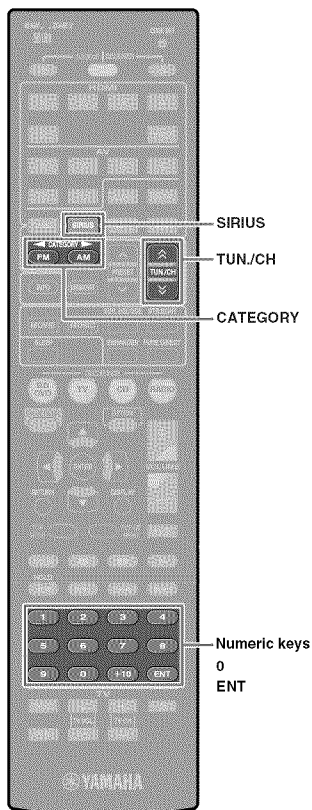
Connect the SiriusConnect tuner (sold separately) to the SIRIUS jack of this unit. For details, see the instruction manuals provided with the SiriusConnect tuner.



- To ensure optimal reception of the SIRIUS Satellite Radio signals, the antenna of the SiriusConnect tuner must be placed at or near a window with no obstacles in the path to the sky. The orientation of the antenna for the best reception differs depending on the area. Refer to the instruction manuals provided with the SiriusConnect tuner for the installation of the antenna. You can mount it indoors or outdoors.
- Use the antenna reception level information on the front display (p.51) or the TV screen (p.51) to check the antenna reception level and adjust the orientation of the antenna.
- You need to connect the SiriusConnect tuner to an AC wall outlet.

Note

- "CHECK SR TUNER" or "ANTENNA ERROR" appears when the connection of the SiriusConnect tuner or antenna is incorrect. In this case, check the connection of the SiriusConnect tuner and the antenna.
- "NOT SUPPORTED" appears when this unit does not support the connected SiriusConnect tuner.

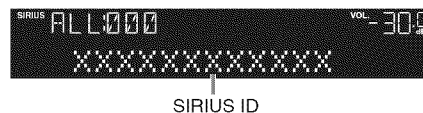


Activating SIRIUS Satellite Radio™ subscription

Before using the SIRIUS Satellite Radio feature, you need to activate your SIRIUS Satellite Radio subscription. To activate the subscription, you need the SIRIUS ID which is uniquely assigned to the SiriusConnect tuner. SIRIUS ID is 12-digit number which is indicated on the package of the SiriusConnect tuner and on the label of the SiriusConnect tuner. SIRIUS ID is also configured on the front display when you tune into the SIRIUS Satellite Radio channel “0”.

■ Displaying the SIRIUS ID of your SiriusConnect tuner

- 1 Press SIRIUS to select “SIRIUS” as the input source.
 - 2 Press 0 and then ENT to display the SIRIUS ID.
- About 3 seconds later, 12-digit SIRIUS ID appears on the front display.



Write down the SIRIUS ID in the space provided below.

ID: _____

3 Contact SIRIUS Satellite Radio to activate your subscription.

Once the activation is finished, “SUB UPDATE” appears.

SIRIUS Satellite Radio online information

Contact for activation
 URL: <https://activate.siriusradio.com/>
 Phone: 1-888-539-SIRIUS (1-888-539-7474)



- “F/W UPDATE” appears when the SiriusConnect tuner is updating the firmware.
- “UPDATING” appears when the SiriusConnect tuner is updating the channel list.
- “SIRIUS LOADING” appears when this unit is communicating with the SiriusConnect tuner.

Selecting a SIRIUS Satellite Radio™ channel



- If any error message appears on the front display, see “Error indications for SIRIUS Satellite Radio™” (p.115).

- 1 Press SIRIUS to select “SIRIUS” as the input source.
- 2 Use the following keys to select a SIRIUS Satellite Radio channel.

TUN./CH: Switches the SIRIUS Satellite Radio channels (All Channel Search). Hold down the key for quick search.

All Channel Search Channel number/name

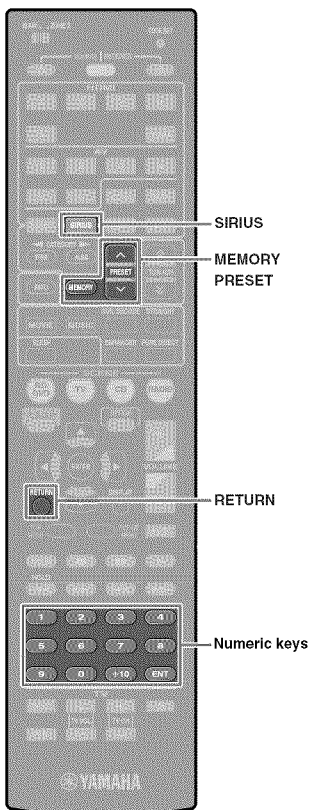


CATEGORY: Switches the channel categories. Hold down the key for quick search. If you press TUN./CH within 10 seconds after selecting a category, you can switch the channel within the selected category (Category Search).

Category Search Channel number Category name



Numeric keys: Enter a channel number directly. For example, to select the channel 123, press “1”, “2” and “3”. To specify a one-digit or two-digit channel number, enter the channel number and then press ENT (or just leave it).



- This unit skips the following channels during All Channel Search or Category Search. This is not a malfunction.
 - Channels that are not currently in service.
 - Channels that you do not subscribe to.
 - Channels that are locked (p.53).
- To listen to the locked channels (p.53), use the numeric keys to enter the channel number directly or PRESET to select from the preset number, and then enter the 4-digit Parental Lock code number.

Registering favorite channels (preset)

You can register up to 40 SIRIUS Satellite Radio channels as presets. Once you registered channels, you can easily recall those channels by selecting the preset number.

■ Registering a channel

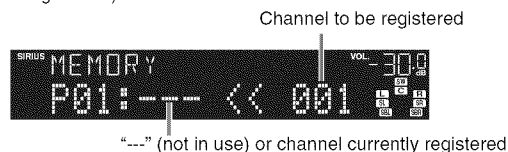
Select a SIRIUS Satellite Radio channel and register it to a preset number.

- 1 Follow “Selecting a SIRIUS Satellite Radio™ channel” (p.49) to select a desired channel.
- 2 Hold down MEMORY for more than 2 seconds.

The channel will be registered to the preset number “01” for the first time. After that, it will be registered to an empty preset number (next to the lastly-registered preset number).



- To select a preset number to which the channel will be registered, press MEMORY once after selecting a desired channel, use PRESET to select a preset number, and then press MEMORY again (or RETURN to cancel the registration).



■ Selecting a preset channel

Recall a registered channel by selecting the preset number.

- 1 Press SIRIUS to select “SIRIUS” as the input source.
- 2 Press PRESET repeatedly to select a desired channel.

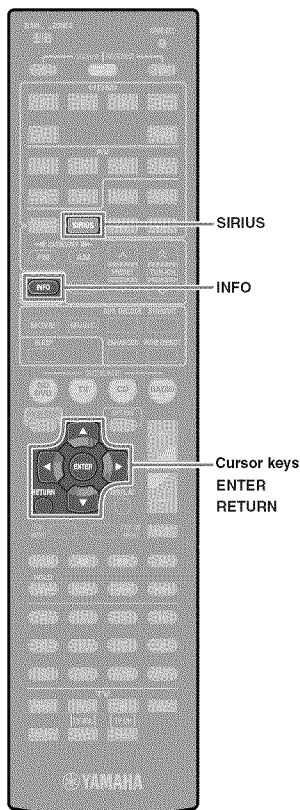
You can also enter a preset number (01 to 40) directly by using the numeric keys.



- “PR Empty” appears when no channels are registered.
- “Wrong Num.” appears when an invalid number is entered.
- “Empty” appears when a preset number not in use is entered.



- To clear preset stations, use “Clear Preset” or “Clear All Preset” (p.52).



Displaying the SIRIUS Satellite Radio™ information

You can switch the SIRIUS Satellite Radio information displayed on the front display.

1 Press INFO.

Each time you press the key, the item switches.



Item name

About 3 seconds later, the information is displayed.

Channel number (always displayed)



Information

Channel	Channel name
Category	Channel category
Artist/Song	Artist name, song title
Composer	Composer name
Antenna Level	Antenna reception level
DSP Program	Sound program selected on this unit
Audio Decoder	Decoder selected on this unit

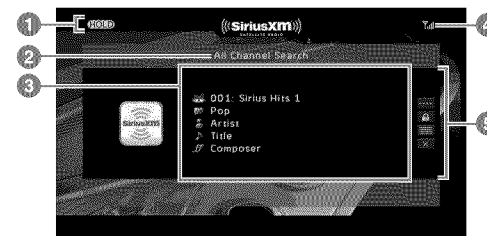
Operating SIRIUS Satellite Radio™ on the TV

You can view the SIRIUS Satellite Radio information or select a channel on the TV.

1 Press SIRIUS to select “SIRIUS” as the input source.

The playback screen is displayed on the TV.

■ Playback screen



1 HOLD indicator

Displays when the hold function is enabled.

2 Current search mode (or preset number)

3 Playback information

Displays the channel name, channel category, artist name, song title and composer name.

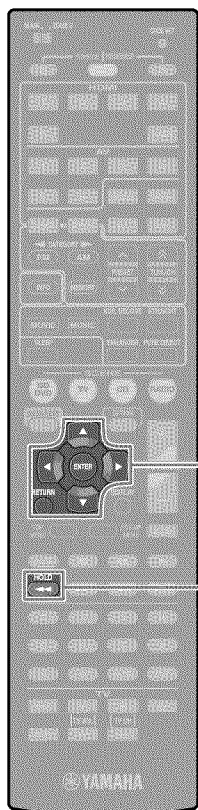
Use the cursor keys to select information to be scrolled.

4 Antenna reception level

5 Operation menu

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

To close the submenu, press RETURN.



Menu operation keys
Cursor keys
ENTER
RETURN

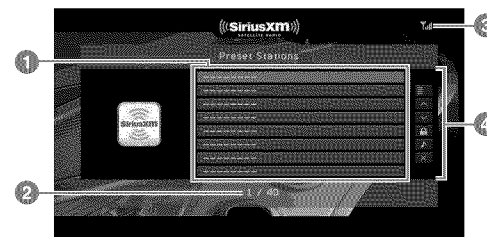
HOLD

Menu	Submenu	Function
Radio Control	Channel (+/-)	Switches the SIRIUS Satellite Radio channels (All Channel Search). Hold down the button for quick search.
	Category (+/-)	Switches the channel categories. Hold down the button for quick search. If you press "Channel (+/-)" within 10 seconds after selecting a category, you can switch the channel within the selected category (Category Search).
	Memory	Registers the selected channel as presets.
	Direct	Enters a frequency directly.
	Hold	Enables/disables the hold function. When the hold function is enabled, the playback information (artist name, song title, etc.) will remain displayed.
Parental Lock		Restricts access to specific channels. For details, see "Restricting access to specific channels (Parental Lock)" (p.53).
Browse		Moves to the browse screen (preset channel list).
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



- You can also use HOLD on the remote control to enable/disable the hold function.

Browse screen



1 Preset channel list

Displays the list of preset channels. Use the cursor keys to select a preset channel and press ENTER to recall it.

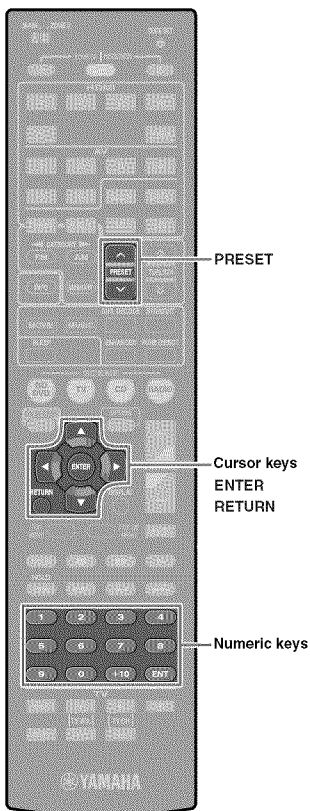
2 Preset number

3 Antenna reception level

4 Operation menu

Use the cursor keys to select an item and press ENTER to confirm the selection.
To close the submenu, press RETURN.

Menu	Submenu	Function
Utility	Memory	Register the current channel to the preset number selected in the list.
	Clear Preset	Clear the preset channel selected in the list.
	Clear All Preset	Clear all the preset channels.
1 Page Up		Moves to the previous/next page of the list.
1 Page Down		Moves to the previous/next page of the list.
Parental Lock		Restricts access to specific channels. For details, see "Restricting access to specific channels (Parental Lock)" (p.53).
Now Playing		Moves to the playback screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



■ Restricting access to specific channels (Parental Lock)

You can restrict access to specific SIRIUS Satellite Radio channels by setting a Parental Lock code number. The locked channel will be skipped during All Channel Search or Category Search.

- 1 In the playback screen or browse screen, select “Parental Lock”.
- 2 Use the cursor keys and ENTER to enter a desired 4-digit code number.

If you have already set the code number, enter it.



- To clear the entry, select “Clear”.

- 3 Use the cursor keys to select “Enter” and press ENTER.

The Parental Lock setting screen appears.

- 4 Use the cursor keys to select a channel category and press ENTER.

- 5 Use the cursor keys to select a channel to be locked and press ENTER.

Each time you press ENTER, the channel is locked or unlocked.



- To return to the previous screen, press RETURN.
 - To listen to a locked channel, use the numeric keys to enter the channel number directly or PRESET to select from the preset number, and then enter the 4-digit code number.
- !
- If you forget the code number or want to change it, use “SR LOCK” (p.102) in the “ADVANCED SETUP” menu to reset the code number.

Playing back iPod music/videos

You can play back iPod music/videos on this unit using a USB cable supplied with iPod, an optional Yamaha iPod universal dock (such as YDS-12) or an optional Yamaha iPod wireless system (YID-W10).



- This manual describes both the “iPod” and “iPhone” as the “iPod”. “iPod” means both “iPod” and “iPhone” unless the explanation describes exceptions.
- Some features may not be compatible depending on the model or software version of an iPod, or the model of an iPod dock.

Functional differences depending on the way of connection

	USB cable supplied with iPod	Yamaha iPod universal dock (such as YDS-12)	Yamaha iPod wireless system (YID-W10)
Audio output	✓	✓	✓
Video output	✓*	✓	—
Operation with remote control of the unit	✓	✓	—
Operation with iPod	✓	✓	✓
Operation on TV screen	✓	✓	—
Charging	✓	✓	✓
Charging during standby mode	—	✓	✓
Supported iPod	iPod touch iPod nano (2 gen. to 6 gen.) iPod classic iPhone 4 iPhone 3GS iPhone 3G iPhone	iPod touch iPod nano iPod classic iPod with video iPod with color display iPod with click wheel iPod mini iPhone 4 iPhone 3GS iPhone 3G iPhone	iPod touch iPod nano iPod classic iPod with video iPhone 4 iPhone 3GS iPhone 3G iPhone

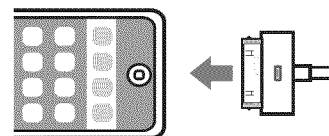
* Requires an Apple Composite AV Cable (not supplied). Connect the USB and composite video plugs of the Apple Composite AV cable to the USB jack and VIDEO AUX (VIDEO) jack of this unit and set “Video Out (USB)” (p.81) in the “Input” menu to “V-AUX”.

Connecting an iPod

■ Using a USB cable

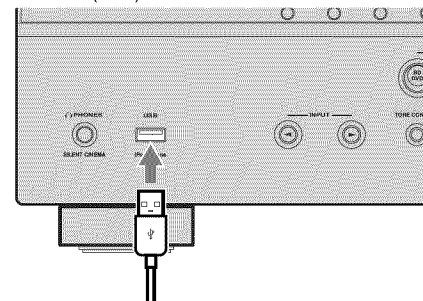
Connect your iPod to this unit with the USB cable supplied with the iPod.

1 Connect the USB cable to the iPod.



2 Connect the USB cable to the USB jack.

This unit (front)

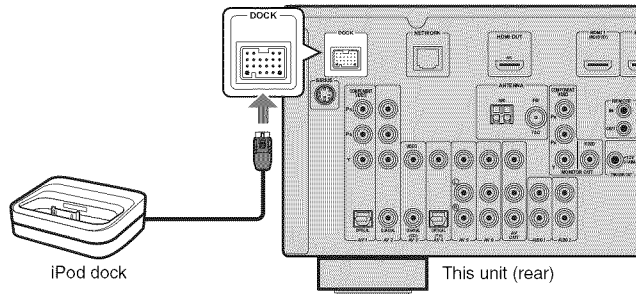


■ Using an iPod dock

Refer to the instruction manual of the iPod dock in addition.

- 1 When this unit is in standby mode, connect the iPod dock to the DOCK jack.**

Locate the iPod dock at the distance as far as from this unit.



- 2 Connect your iPod to the iPod dock and turn on this unit.**



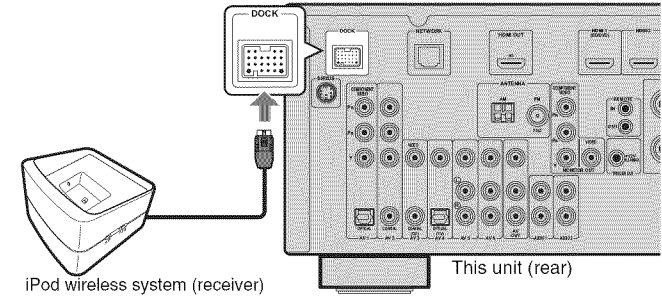
- While an iPod is connected to the iPod dock, the iPod is charged. You can select whether to charge the iPod when this unit is in standby mode using "Standby Charge" (p.80) in the "Input" menu.

■ Using an iPod wireless system

When using an iPod wireless system, operate your iPod itself to start playback after making a connection. Refer to the instruction manual of the iPod wireless system in addition.

- 1 When the power cable is removed from an AC wall outlet, connect the iPod wireless system (receiver) to the DOCK jack.**

Locate the iPod wireless system (receiver) at the distance as far as from this unit.



- 2 Connect the power cable to an AC wall outlet.**
- 3 Connect your iPod to the iPod wireless system (transmitter).**
- 4 On your iPod, select the content and start playback.**

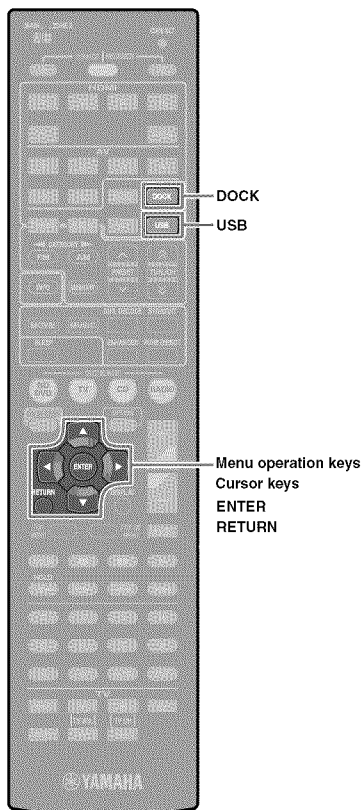
This unit automatically turns on and selects "DOCK" as the input source.



- You can select whether to control this unit (power on/off, input selection and volume adjustment) in conjunction with iPod operations using "iPod Interlock" (p.81) in the "Input" menu. When the iPod interlock function is disabled, turn on this unit and select the input source manually.
- While the iPod wireless system (transmitter) is placed on the iPod wireless system (receiver), the iPod is charged. You can select whether to charge the iPod when this unit is in standby mode using "Standby Charge" (p.80) in the "Input" menu.

Caution

- When you use iPod controls to adjust volume, the volume may be unexpectedly loud. This could result in damage to this unit or speakers. If the volume suddenly increases during playback, remove the iPod from the iPod wireless system (transmitter) immediately. To prevent this problem, we recommend using "Max Volume" (p.93) in the "Setup" menu to set the maximum volume level for this unit.



Playback of iPod contents

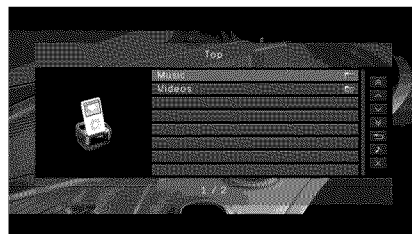
When using a USB cable or an iPod dock, you can control the iPod with the menu displayed on the TV.



- When using an iPod wireless system, you cannot control the iPod from the TV screen. Operate your iPod itself to select the content and start playback.

- 1 When using a USB cable: press USB to select “USB” as the input source.
When using an iPod dock: press DOCK to select “DOCK” as the input source.**

The browse screen is displayed on the TV.



* Display example (when using an iPod dock)

- 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.



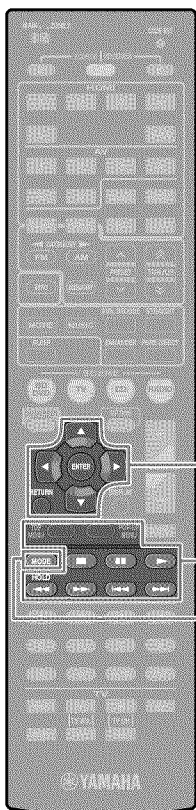
- To return to the previous screen, press RETURN.
- To operate the iPod itself to select a content or control playback, switch to the simple play mode (p.57).

■ Browse screen



- 1 Status indicators**
Display the current shuffle/repeat settings (p.58) and playback status (play/pause, etc).
- 2 List name**
- 3 Contents list**
Displays the list of iPod contents. Use the cursor keys to select an item and press ENTER to confirm the selection.
- 4 Item number/total**
- 5 Operation menu**
Use the cursor keys to select an item and press ENTER to confirm the selection.

Menu	Function
1 Page Up	Moves to the previous/next page of the list.
1 Page Down	Moves to the previous/next page of the list.
10 Pages Up	Moves to 10 pages forward/backward.
10 Pages Down	Moves to 10 pages forward/backward.
Return	Returns to the higher-level list.
Now Playing	Moves to the playback screen.
Screen Off	Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



■ Playback screen



① Status indicators

Display the current shuffle/repeat settings (p.58) and playback status (play/pause, etc).

② Playback information

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

Use the cursor keys to select information to be scrolled.

③ Album image

④ Operation menu

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

To close the submenu, press RETURN.

Menu	Submenu	Function
		Resumes playback from pause.
		Stops playback.
		Stops playback temporarily.
Play Control		Skips forward/backward.
		Searches forward/backward (by holding down).
		Searches forward/backward (while holding down).
Browse		Moves to the browse screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



- You can also use the external device operation keys on the remote control to control playback.

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

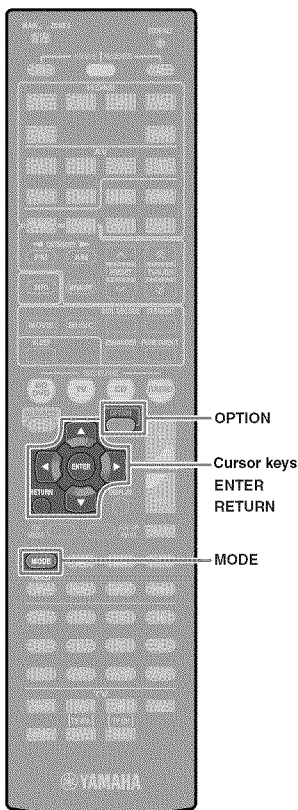
1 Press MODE to switch to the simple play mode.

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	Moves to the browse screen.	
ENTER	Confirms the selection.	
RETURN	Returns to the previous screen.	
	Starts playback or stops playback temporarily.	
	Stops playback.	
External device operation keys		Skips forward/backward.
	Searches forward/backward (while holding down).	
	Searches forward/backward (while holding down).	



■ Shuffle/repeat settings

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







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

- 1** When “USB” or “DOCK” is selected as the input source, press **OPTION**.
- 2** Use the cursor keys to select “Shuffle” (Shuffle) or “Repeat” (Repeat) and press **ENTER**.

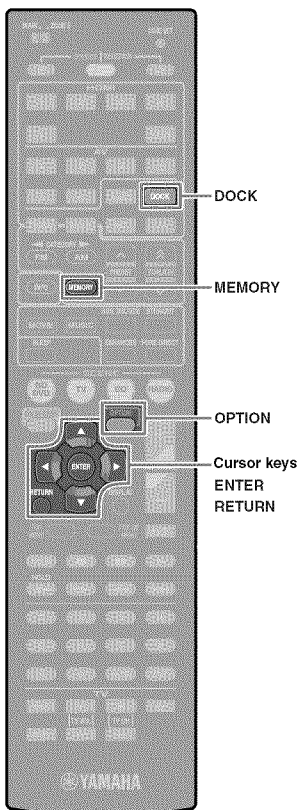


- To return to the previous screen during menu operations, press **RETURN**.
- Texts in parentheses denote indications on the front display.

- 3** Use the cursor keys (</>) to select a setting and press **ENTER**.

Item	Setting	Function
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.
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.

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



Playing back music via Bluetooth

You can play back music stored on a Bluetooth component on this unit using a Yamaha Bluetooth wireless audio receiver (such as YBA-10, optional). Refer to the instruction manuals of the Bluetooth receiver and your Bluetooth component in addition. This unit supports A2DP (Advanced Audio Distribution Profile) of the Bluetooth profile.

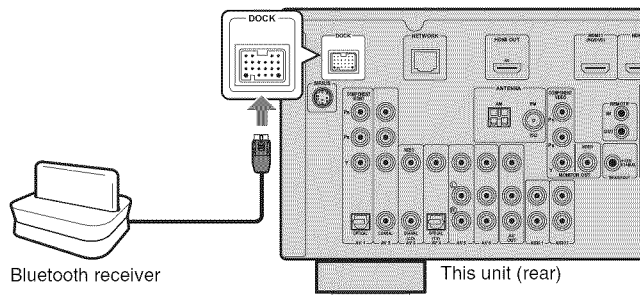


- When connecting your Bluetooth component to the Bluetooth receiver for the first time, you need to perform “pairing” (mutual recognition for 2 Bluetooth components). After that, you only need to establish a wireless connection between those components to play back music via Bluetooth. “Pairing” must be performed between each combination. So if you have several Bluetooth components, you need to pair each of your Bluetooth components with the Bluetooth receiver.

Connecting a Bluetooth receiver

- 1 When this unit is in standby mode, connect the Bluetooth receiver to the DOCK jack.

Locate the Bluetooth receiver at the distance as far as from this unit.



- 2 Turn on this unit.

Pairing Bluetooth components

Be sure to perform pairing when connecting a Bluetooth component to the Bluetooth receiver for the first time, or when the pairing setting has been deleted.



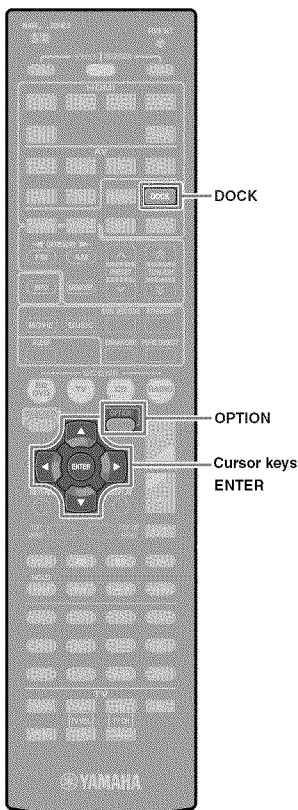
- The Yamaha Bluetooth receiver (YBA-10) can be paired with up to eight Bluetooth components. When the ninth component is paired, the pairing setting for the component which has not been used for the longest period of time will be deleted.
- Texts in parentheses denote indications on the front display.

- 1 Press **DOCK** to select “DOCK” as the input source.
- 2 Turn on your Bluetooth component and set it to the pairing mode.
- 3 Press **OPTION**, use the cursor keys to select “Pairing” (Pairing), and then press **ENTER**.

Searching starts. If your Bluetooth component recognizes the Bluetooth receiver, the model name (such as “YBA-10 YAMAHA”) will be displayed in the device list of your component.



- To cancel the search, press **RETURN**.
- You can also start the search by holding down **MEMORY** instead of step 3. (To cancel the search, press **MEMORY** again.)



4 Select the Bluetooth receiver from the device list and enter the pass key "0000".

"Completed" appears when the pairing is complete.



- Depending on Bluetooth components, "BT connected" appears when the pairing is complete. In this case, the wireless connection has been already established. You just need to start playback on your Bluetooth component to enjoy it on this unit.

5 To exit from the menu, press OPTION.

Establishing a wireless connection and playing back

When the pairing is complete, follow the procedure below to establish a wireless connection between your Bluetooth component and the Bluetooth receiver. When the connection is established, this unit outputs sounds played back on the Bluetooth component.



- Depending on Bluetooth components, a wireless connection is established automatically or by operating the Bluetooth component. In this case, you can skip steps 2 and 3 below.
- Texts in parentheses denote indications on the front display.

- 1 Press **DOCK** to select "DOCK" as the input source.
- 2 Press **OPTION**.
- 3 Use the cursor keys to select "Connect" (Connect) and then press **ENTER**.

"BT connected" appears when the wireless connection is established.

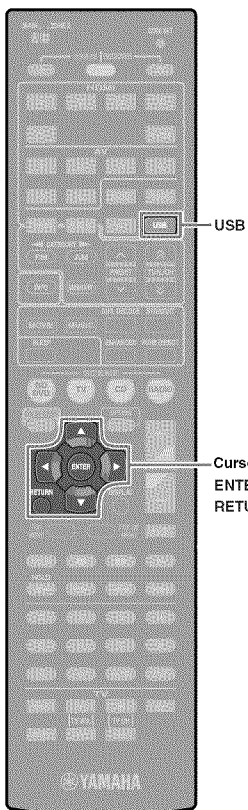


- If the Bluetooth receiver is paired with more than one Bluetooth component, the lastly-connected component is automatically chosen. When you cannot establish a connection with an intended component, perform pairing again or perform the connection operation from the intended component.
- "Not found" appears if a connection cannot be established. Check the followings and try again.
 - The Bluetooth component and Bluetooth receiver are paired.
 - The Bluetooth component is turned on and the Bluetooth mode is enabled.
 - The Bluetooth component is within 10 m (32 ft) of the Bluetooth receiver.

4 Start playback on your Bluetooth component.



- To terminate the wireless connection, select "Disconnect" (Disconnect) in step 3.



Playing back music stored on a USB storage device

You can play back music files stored on a USB storage device on this unit. Refer to the instruction manuals of the USB storage device in addition.

This unit supports USB mass storage class devices (FAT 16 or FAT 32 format, except USB HDDs).

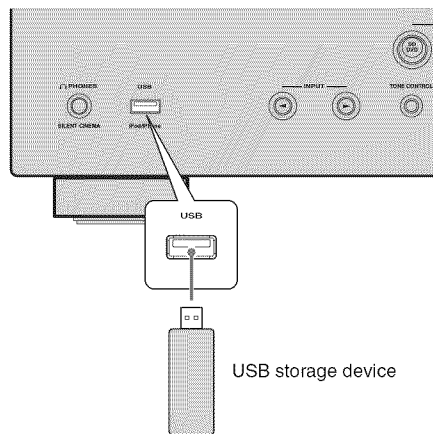


- This unit supports playback of WAV (PCM format only), MP3, WMA, MPEG-4 AAC and FLAC files.
- This unit is compatible with sampling frequency of up to 96 kHz for WAV and FLAC files, and 48 kHz for other files.

Connecting a USB storage device

1 Connect the USB storage device to the USB jack.

This unit (front)



USB storage device



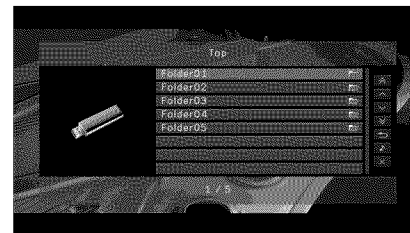
- If the USB storage device contains many files, it may take time to load the files. In this case, "Loading" appears in the front display.

Playback of USB storage device contents

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

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

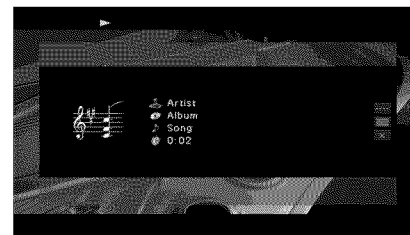
The browse screen is displayed on the TV.



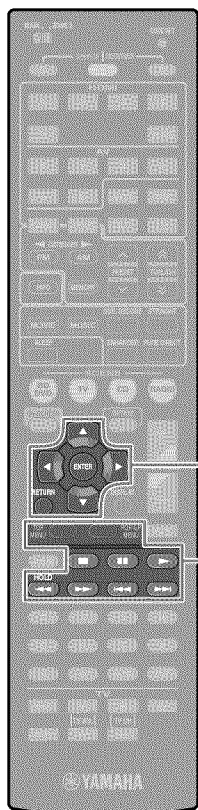
- If playback is ongoing on your USB storage device, the playback screen is displayed.

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.



- To return to the previous screen, press RETURN.
- Files not supported by this unit are not listed.
- You can register your favorite items as shortcuts (p.72) and access them directly by selecting the shortcut numbers.



Menu operation keys
Cursor keys
ENTER
RETURN

External device
operation keys

■ Browse screen



- 1 Status indicators**
Display the current shuffle/repeat settings (p.63) and playback status.
- 2 List name**
- 3 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.
- 4 Item number/total**
- 5 Operation menu**
Use the cursor keys to select an item and press ENTER to confirm the selection.

Menu	Function
1 Page Up	Moves to the previous/next page of the list.
1 Page Down	
10 Pages Up	Moves to 10 pages forward/backward.
10 Pages Down	
Return	Returns to the higher-level list.
Now Playing	Moves to the playback screen.
Screen Off	Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.

■ Playback screen

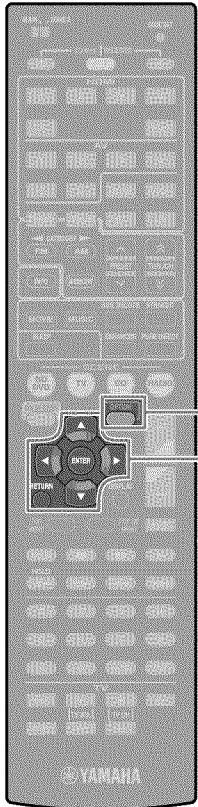


- 1 Status indicators**
Display the current shuffle/repeat settings (p.63) and playback status.
- 2 Playback information**
Displays the artist name, album name, song title and elapsed time. Use the cursor keys to select information to be scrolled.
- 3 Album image**
- 4 Operation menu**
Use the cursor keys to select an item and press ENTER to confirm the selection. To close the submenu, press RETURN.

Menu	Submenu	Function
Play Control		Stops playback.
		Skips forward/backward.
Browse		Moves to the browse screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



- You can also use the external device operation keys () on the remote control to control playback.



OPTION
 Cursor keys
 ENTER
 RETURN

■ Shuffle/repeat settings

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



- The shuffle/repeat settings are shared by USB and network sources.

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

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

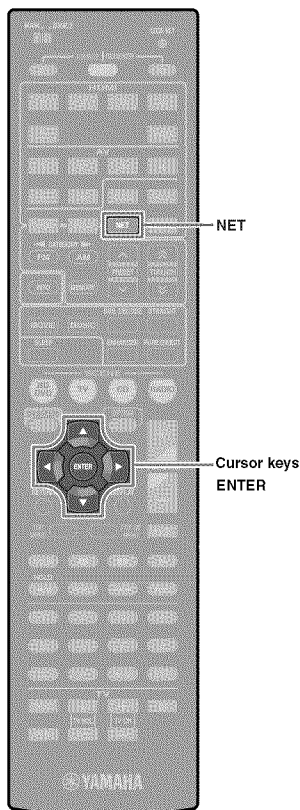


- To return to the previous screen during menu operations, press RETURN.
- Texts in parentheses denote indications on the front display.

3 Use the cursor keys (◀▶) to select a setting and press **ENTER**.

Item	Setting	Function
Shuffle (Shuffle)	Off (Off)	Turns off the shuffle function.
	On (On)	Plays back songs in the current album (folder) in random order. “⌘” appears in the TV screen.
Repeat (Repeat)	Off (Off)	Turns off the repeat function.
	Single (Single)	Plays back the current song repeatedly. “↺” appears in the TV screen.
	All (All)	Plays back all songs in the current album (folder) repeatedly. “↻” appears in the TV screen.

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



Playing back music stored on PCs

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



- To use this function, this unit and your PC must be connected to the network properly (p.30). You can check whether the network parameters (IP address, etc.) are properly assigned to this unit in “Network” (p.101) in the “Information”.
- This unit supports playback of WAV (PCM format only), MP3, WMA, MPEG-4 AAC and FLAC files.
- This unit is compatible with sampling frequency of up to 96 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.

Requirements

This unit can play back music files stored on the following music servers.

- PC with Windows Media Player 11 or later installed
- PC with DLNA/UPnP certificate server software installed
- NAS with DLNA/UPnP certification

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 the media sharing and select this unit as a device to which the media is shared.

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

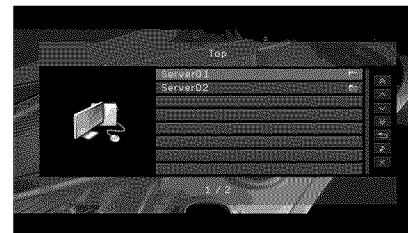
Refer to the instruction manual of the device or software and configure the media sharing setting.

Playback of PC music contents

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

- 1 Press NET repeatedly to select “PC” as the input source.

The browse screen is displayed on the TV.



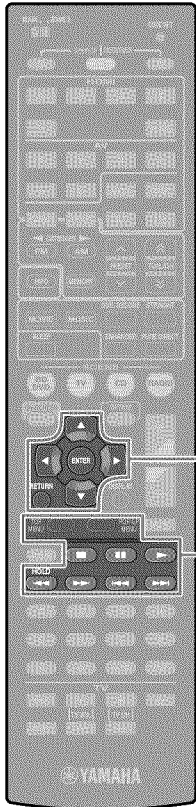
- If playback of a music file selected from this unit is ongoing on your PC, the playback screen is displayed.

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

- 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.





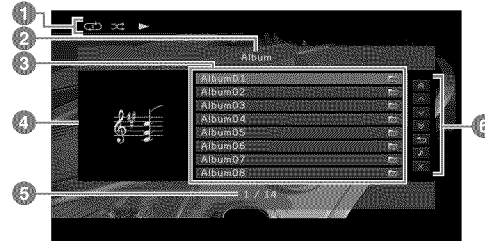
Menu operation keys
Cursor keys
ENTER
RETURN

External device operation keys



- To return to the previous screen, press RETURN.
- Files not supported by this unit are not listed (or cannot be selected even if listed).
- You can register your favorite items as shortcuts (p.72) and access them directly by selecting the shortcut numbers.

■ Browse screen



1 Status indicators

Display the current shuffle/repeat settings (p.66) and playback status (play/pause).

2 List name

3 Contents list

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

4 Album image

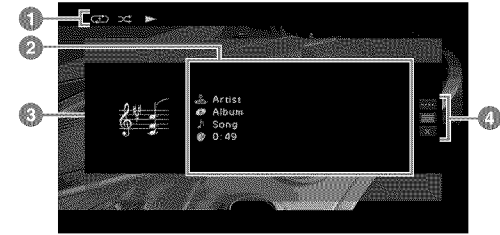
5 Item number/total

6 Operation menu

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

Menu	Function
1 Page Up	Moves to the previous/next page of the list.
1 Page Down	
10 Pages Up	Moves to 10 pages forward/backward.
10 Pages Down	
Return	Returns to the higher-level list.
Now Playing	Moves to the playback screen.
Screen Off	Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.

■ Playback screen



1 Status indicators

Display the current shuffle/repeat settings (p.66) and playback status (play/pause).

2 Playback information

Displays the artist name, album name, song title and elapsed time. Use the cursor keys to select information to be scrolled.

3 Album image

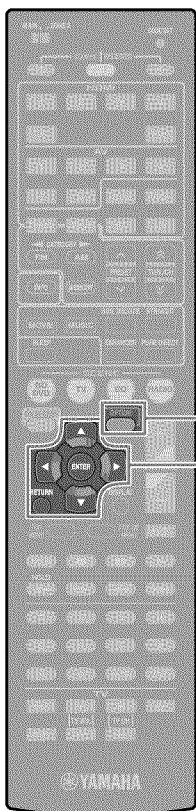
4 Operation menu

Use the cursor keys to select an item and press ENTER to confirm the selection. To close the submenu, press RETURN.

Menu	Submenu	Function
		Resumes playback from pause.
		Stops playback.
Play Control		Stops playback temporarily.
		Skips forward/backward.
Browse		Moves to the browse screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



- You can also use the external device operation keys (▶, ■, ■, ◀, ▶) on the remote control to control playback.
- You can also use a DLNA-compatible Digital Media Controller (DMC) to control playback. For details, see "DMC Control" (p.81).



OPTION

Cursor keys
ENTER
RETURN

■ Shuffle/repeat settings

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



- The shuffle/repeat settings are shared by USB and network sources.

- 1** When “PC” is selected as the input source, press **OPTION**.
- 2** Use the cursor keys to select “Shuffle” (Shuffle) or “Repeat” (Repeat) and press **ENTER**.

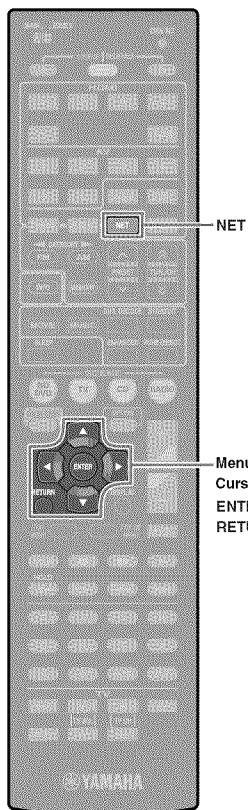


- To return to the previous screen during menu operations, press **RETURN**.
- Texts in parentheses denote indications on the front display.

- 3** Use the cursor keys (◀▶) to select a setting and press **ENTER**.

Item	Setting	Function
Shuffle (Shuffle)	Off (Off)	Turns off the shuffle function.
	On (On)	Plays back songs in the current album (folder) in random order. “⌘” appears in the TV screen.
Repeat (Repeat)	Off (Off)	Turns off the repeat function.
	Single (Single)	Plays back the current song repeatedly. “↺” appears in the TV screen.
	All (All)	Plays back all songs in the current album (folder) repeatedly. “↻” appears in the TV screen.

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



Listening to Internet radio

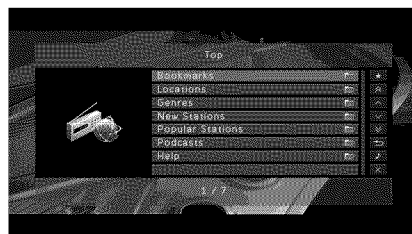
You can listen to Internet radio stations using the vTuner Internet radio station database service particularly customized for this unit, providing a database of numerous radio stations in the world.



- To use this function, this unit must be connected to the Internet (p.30). You can check whether the network parameters (IP address, etc.) are properly assigned to this unit in "Network" (p.101) in the "Information".
- This service may be discontinued without notice.
- Some Internet radio stations may not be played.

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

The browse screen is displayed on the TV.



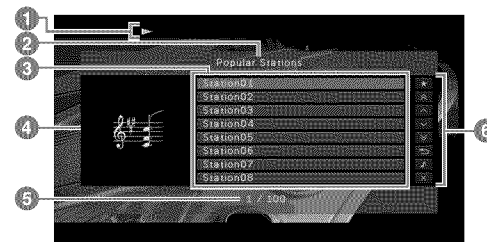
2 Use the cursor keys to select an item and press ENTER.

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



- To return to the previous screen, press RETURN.
- You can register your favorite Internet radio stations as shortcuts (p.72) and access them directly by selecting the shortcut numbers.

Browse screen



1 Playback indicator

2 List name

3 Contents list

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

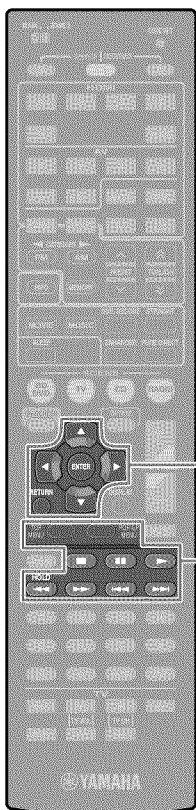
4 Station art

5 Item number/total

6 Operation menu

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

Menu	Function
Bookmark On	Adds the station selected in the list to "Bookmark".
1 Page Up	Moves to the previous/next page of the list.
1 Page Down	
10 Pages Up	Moves to 10 pages forward/backward.
10 Pages Down	
Return	Returns to the higher-level list.
Now Playing	Moves to the playback screen.
Screen Off	Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.



Menu operation keys
Cursor keys
ENTER
RETURN

External device
operation keys



- By adding your favorite Internet radio stations to "Bookmark", you can access to them quickly from "Bookmark". To remove stations from "Bookmark", select the station in "Bookmark" and then "Bookmark Off".
- You can also register your favorite Internet radio stations by accessing the following website with the web browser on your PC. To use this feature, you need the vTuner ID of this unit and your e-mail address to create your personal account. You can check the vTunerID (MAC address of this unit) in the "Network" screen (p.101) in the "Information" menu.
<http://yradio.vtuner.com/>



- You can also use the external device operation keys (▶, ■) on the remote control to control playback.

■ Playback screen



① Playback indicators

② Playback information

Displays the station name and elapsed time.

③ Station art

④ Operation menu

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

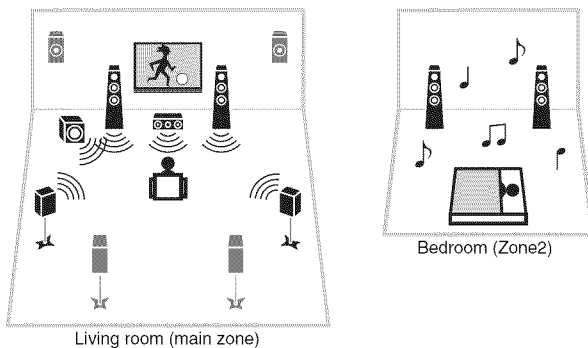
To close the submenu, press RETURN.

Menu	Submenu	Function
Bookmark On		Adds the current station to "Bookmark".
Play Control	■	Stops playback.
Browse		Moves to the browse screen.
Screen Off		Closes the screen display and shows the background. Press one of the menu operation keys to redisplay it.

Playing back music in multiple rooms (multi-zone)

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

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



- Only analog audio signals (including radio, USB and network sources) can be output to Zone2. To listen to playback sounds of an external device in Zone2, you need to connect the device to the AUDIO jacks (AV5-6, AUDIO1-2 or VIDEO AUX jacks) of this unit.

Preparing for Zone2

Connect devices to be set in Zone2 to this unit. The connection method varies depending on an amplifier to use (this unit or external amplifier).

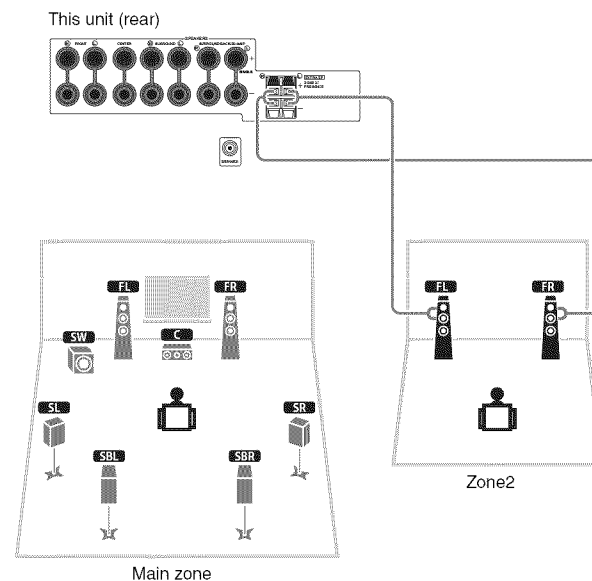
Caution

- Remove the power cable of this unit from an AC wall outlet before connecting speakers or an external amplifier.
- Be careful that the core of the speaker cable does not touch anything or come into contact with the metal areas of this unit. This may damage this unit or the speakers. If the speaker cables short circuit, "CHECK SP WIRES" will appear on the front display when this unit is turned on.

Using the internal amplifier of this unit

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

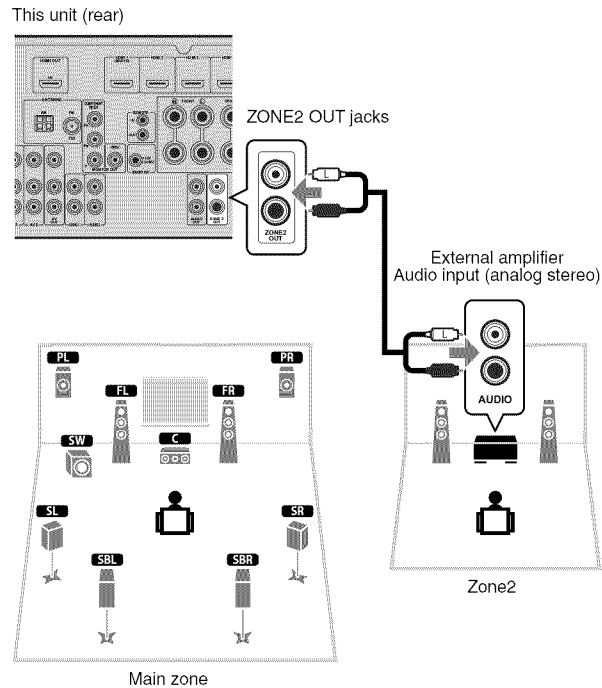
To utilize the EXTRA SP terminals for Zone2 speakers, set "Power Amp Assign" (p.90) in the "Setup" menu to "7ch +1ZONE" after connecting the power cable to an AC wall outlet.



- When Zone2 output is enabled (p.71), the surround back speakers in the main zone do not output sound.

■ Using an external amplifier

Connect the external amplifier placed in Zone2 to this unit with a stereo pin cable.

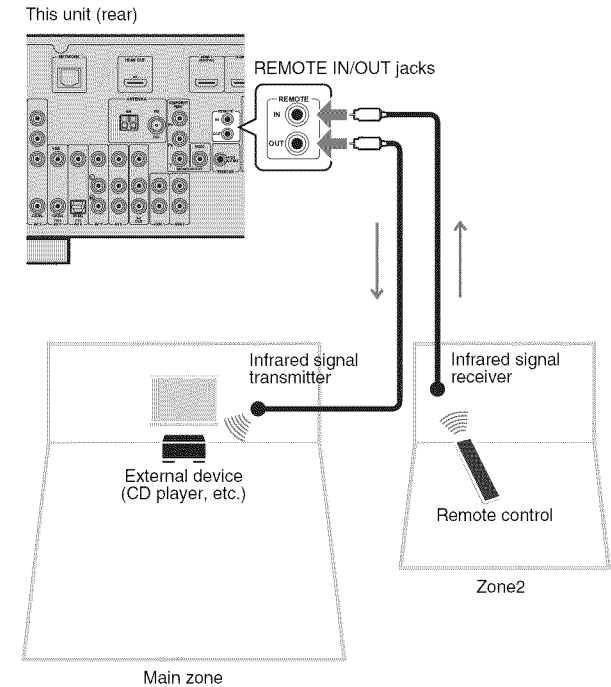


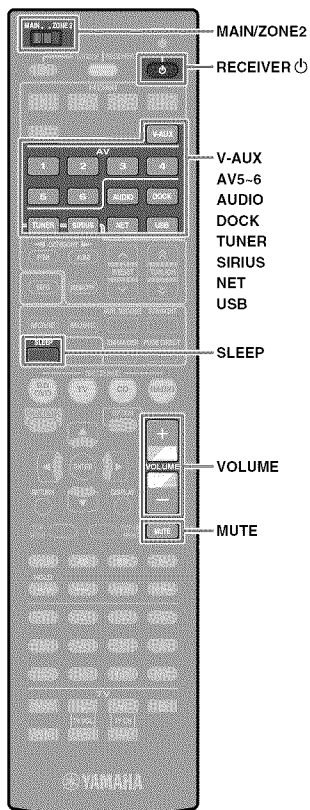
■ Operating this unit from Zone2 (remote connection)

By connecting an infrared signal receiver/emitter to the REMOTE IN/OUT jacks of this unit, you can operate this unit and external devices from Zone2 with the supplied remote control.



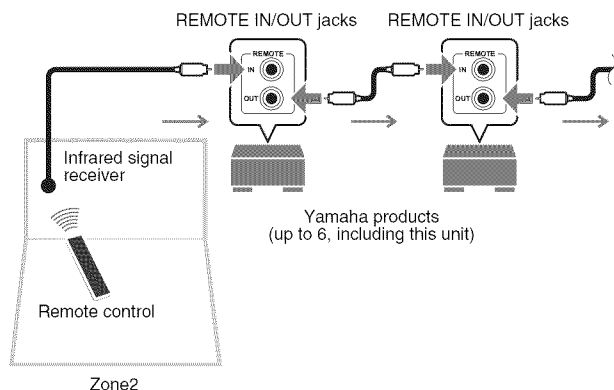
- To operate external devices with the supplied remote control, register a remote control code for each device in advance (p.104).





Remote connections between Yamaha products

If you are using Yamaha products that support remote connections like this unit, an infrared signal transmitter is unnecessary. You can transmit remote control signals by connecting the REMOTE IN/OUT jacks with monaural mini-jack cables and an infrared signal receiver.



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.

3 Use the following keys to select an input source.

V-AUX: VIDEO AUX (AUDIO) jacks (on the front panel)

AV5-6: AV5-6 (AUDIO) jacks

AUDIO: AUDIO1-2 jacks (press repeatedly to select a desired network source)

DOCK: DOCK jack

TUNER: FM/AM radio

SIRIUS: SIRIUS jack

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

USB: USB jack (on the front panel)



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

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

Refer to the instruction manual of the external device.

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

- Listening to FM/AM radio (p.45)
- Listening to SIRIUS Satellite Radio™ (p.48)
- Playing back iPod music (p.54)
- Playing back music via Bluetooth (p.59)
- Playing back music stored on a USB storage device (p.61)
- Playing back music stored on PCs (p.64)
- Listening to Internet radio (p.67)



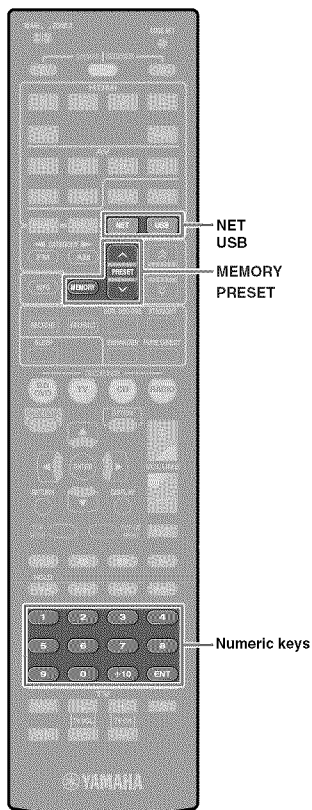
- The on-screen operations are not available for Zone2. Use the front display or web control (p.73) to control Zone2.



- 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 (available only when using the internal amplifier of this unit).

Caution

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



Useful functions

Registering favorite items (shortcut)

You can register up to 40 favorite USB and network contents as shortcuts and access them directly by selecting the shortcut numbers.



- You can also use the “Bookmark” feature to register Internet radio stations (p.67).

Registering an item

Select a desired item and register it to a shortcut number.

- 1 Play back a song or a radio station to be registered.
- 2 Press MEMORY.



Shortcut number (flashes)



- To change a shortcut number to which the item will be registered, use PRESET or numeric keys to select the shortcut number after step 2.



“Empty” (not in use) or item currently registered

- 3 To confirm the registration, press MEMORY.

Recalling a registered item

Recall a registered item by selecting the shortcut number.

- 1 Press NET or USB.
- 2 Press PRESET repeatedly to select a desired item.

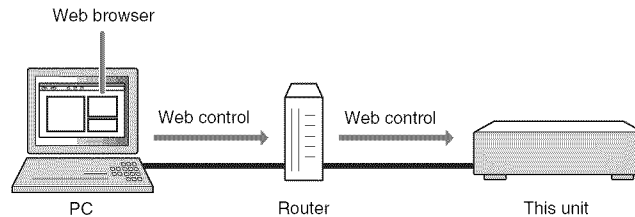
You can also enter a shortcut number (01 to 40) directly by using the numeric keys.



- “No Presets” appears when no items are registered.
- “Empty” appears when a preset number not in use is entered.
- The registered item cannot be recalled in the following cases.
 - A USB storage device which contains the registered item is not connected to this unit.
 - A PC which contains the registered item is turned off or not connected to the network.
 - The registered network content is temporarily unavailable or out of service.
 - The registered item (file) has been deleted or moved to another location.
- When you register music files stored on a USB storage device or a PC, this unit memorizes the relative position of the music files in the folder. If you have added or deleted any music files to or from the folder, this unit may not recall the music file correctly. In such cases, register the items again.

Controlling this unit from the web browser (web control)

You can control this unit with the web control screen displayed in the web browser.



- To use this function, this unit and your PC must be connected to the network properly (p.30).
- Some security software installed on your PC may block the access of this unit to your PC. In such cases, configure the security software appropriately.
- We recommend using Internet Explorer 7.x or 8.x as a web browser.



- If you set "Network Standby" (p.74) to "On", you can display the web control screen even when this unit is in standby mode.
- You can limit access to this unit from the network devices (PCs, etc.) with the MAC address filter (p.74).

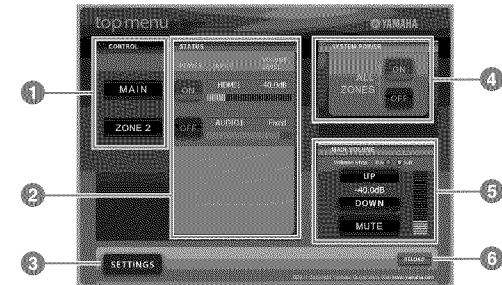
- 1 Start the web browser.**
- 2 Enter the IP address of this unit in the address bar of the web browser.**

You can check the IP address in "Network" (p.101) in the "Information" menu.



- By adding the IP address of this unit to the bookmark of the browser, you will be able to open it without entering the IP address from the next time. However, the IP address of this unit may change if you are using a DHCP server.

Top menu screen



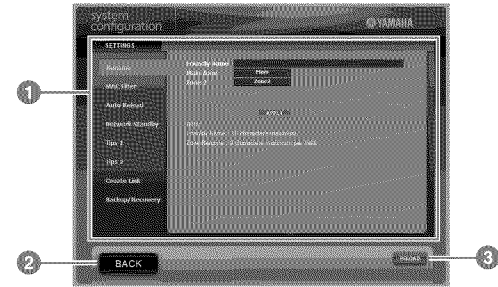
- 1 CONTROL**
Moves to the control screen for the selected zone.
- 2 STATUS**
Turns on/off the power for each zone, or displays the input source and volume set for each zone.
- 3 SETTINGS**
Moves to the settings screen.
- 4 SYSTEM POWER**
Turns on/off the power for all zones.
- 5 MAIN VOLUME**
Adjusts the volume or mutes the audio output for the main zone. You can also switch the step for the volume adjustment.
- 6 RELOAD**
Reloads the current status of this unit.

■ Control screen

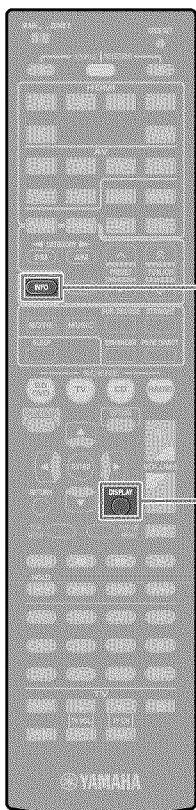


- 1 **PLAY INFO**
Selects an input source or controls playback for the selected zone.
- 2 **TOP MENU**
Moves to the top menu screen.
- 3 **SCENE**
Select a scene for the main zone.
- 4 **POWER**
Turns on/off the power for the selected zone.
- 5 **VOLUME**
Adjusts the volume or mutes the audio output for the selected zone. You can also switch the step for the volume adjustment. (These functions are available only when the internal amplifier of this unit is used.)
- 6 **RELOAD**
Reloads the current status of this unit.

■ Settings screen



- 1 **Rename**
Edits the friendly name (name for this unit in the network) or the name of each zone (p.97). Click "APPLY" to apply the changes to this unit.
MAC Filter
Sets the MAC address filter (p.96) to limit access to this unit from the network devices. Click "APPLY" to apply the changes to this unit.
Auto Reload
Enables/disables automatic reloading. When "Auto Reload" is "On" (enabled), the web control screen reloads the status of this unit every 5 seconds.
Network Standby
Enables/disables the network standby function (p.96).
Tips 1/2
Displays the tips for use of the web control.
Create Link
Creates a shortcut link to the desired control screen.
Backup/Recovery
Creates backup of the settings of this unit on the PC, or restores the settings from the backup.
- 2 **BACK**
Moves to the top menu screen.
- 3 **RELOAD**
Reloads the current status of this unit.



Note

- Do not operate this unit during the recovery process (restoring the settings). Otherwise, the settings may not be restored correctly. When the recovery finishes, click "OK" to set this unit to standby mode.
- The backup does not contain user information (user account, password, etc.) or unit-specific information (MAC address, IP address, etc).

Viewing the current status

■ Switching information on the front display

1 Press INFO.

Each time you press the key, the display item switches.



Item name

About 3 seconds later, the corresponding information appears.



Information



- Available items vary depending on the selected input source. Also, the display item can be applied separately to each input source group.

Input source group	Item
HDMI1-5 V-AUX AV1-6 AUDIO1-2	Input (input source name), DSP Program (sound mode name), Audio Decoder (decoder name)
TUNER	Frequency (frequency), DSP Program (sound mode name), Audio Decoder (decoder name)

SIRIUS (SIRIUS Satellite Radio)

Channel (channel name), Category (channel category), Artist/Song (artist name/song title), Composer (composer name), Antenna level (antenna reception level), DSP Program (sound mode name), Audio Decoder (decoder name)

DOCK

* When using iPod wireless system, Bluetooth receiver, or during simple play:
Input (input source name), DSP Program (sound mode name), Audio Decoder (decoder name)

PC USB

Song (song title), Artist (artist name), Album (album name), DSP Program (sound mode name), Audio Decoder (decoder name)

* When iPod is connected via USB, the display item switches in the same manner as "DOCK".

NET RADIO

Station (station name), DSP Program (sound mode name), Audio Decoder (decoder name)

■ Viewing the status information on the TV

1 Press DISPLAY.

The following information is displayed on the TV.



CINEMA DSP status

2 To close the information display, press DISPLAY.

Configuring settings in accordance with a playback source (Option menu)

You can configure the playback-related settings in accordance with a playback source. Since this menu is operational on the front panel (or on the TV screen), you can easily configure the settings during playback.

1 Press **OPTION**.



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 and press **ENTER**.

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

Option menu items



- Available items vary depending on the selected input source.
- Texts in parentheses denote indications on the front display.

Item	Function	Page
Tone Control (Tone Control)	Adjusts the high-frequency range and low-frequency range of sounds.	77
Adaptive DRC (Adaptive DRC)	Sets whether dynamic range (from maximum to minimum) is adjusted automatically in conjunction with adjusting the volume level.	77
CINEMA DSP 3D Mode (CINEMA DSP 3D)	Enables/disables CINEMA DSP 3D.	77
Dialogue Lift (Dialogue Lift)	Adjusts the vertical position of center sound when presence speakers are used.	77
Extended Surround (EXTD Surround)	Selects the 5.1 to 7.1-channel signal playback method when surround back speakers are used.	78
Volume Trim (Volume Trim)	Corrects volume differences between input sources.	78
Enhancer (Enhancer)	Enables/disables Compressed Music Enhancer.	78
Shuffle (Shuffle)	Configures the shuffle setting for the iPod (p.58), USB storage device (p.63) or PC (p.66).	—
Repeat (Repeat)	Configures the repeat setting for the iPod (p.58), USB storage device (p.63) or PC (p.66).	—
Connect/Disconnect (Connect/Disconnect)	Establishes/terminates a wireless connection between your Bluetooth component and the Bluetooth receiver.	60
Pairing (Pairing)	Performs pairing of your Bluetooth component and the Bluetooth receiver.	59

■ Tone Control (Tone Control)

Adjusts the high-frequency range (Treble) and low-frequency range (Bass) of speaker sounds. When connecting headphones, you can adjust high-frequency range and low-frequency range of sounds output from headphones.

Choices

Treble (Treble), Bass (Bass)

Setting range

-6.0db ~ Bypass (Bypass) ~ +6.0dB *0.5dB steps

Default

Bypass (Bypass)



- If you set the balance extremely off, sounds may not match those from other channels well.

Adjusting with the front panel controls

- ① Press TONE CONTROL to select “Treble” or “Bass”.
- ② Press PROGRAM to make an adjustment.

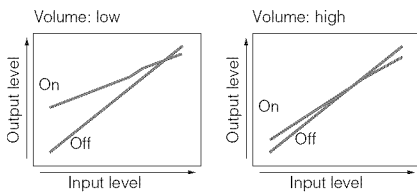
■ Adaptive DRC (Adaptive DRC)

Sets whether dynamic range (from maximum to minimum) is adjusted automatically in conjunction with adjusting the volume level. When it is set to “On”, it is useful for listening to playback at low volume at night.

Settings

On (On)	Adjusts the dynamic range automatically.
Off (Off) (default)	Does not adjust the dynamic range automatically.

If “On” is selected, the dynamic range becomes narrow at a low volume, and becomes wide at a high volume.



■ CINEMA DSP 3D Mode (CINEMA DSP 3D)

Enables/disables CINEMA DSP 3D. If this function is set to “On”, CINEMA DSP 3D functions according to the selected sound programs (except 2ch Stereo and 7ch Stereo).

Settings

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

■ Dialogue Lift (Dialog Lift)

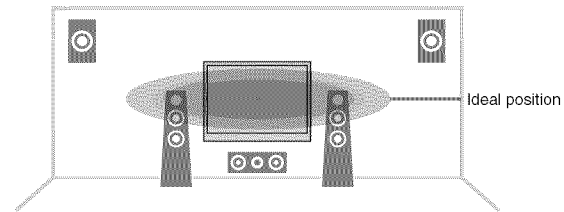
Adjusts the vertical position of center sound such as dialogues when presence speakers are used. If dialogues are heard from a position lower than the TV screen, adjust this setting to raise the position.

Setting range

0~5 (higher raises the position)

Default

0



Extended Surround (EXTD Surround)

Selects how to play back 5.1- to 7.1-channel sources when surround back speakers are used.

Settings

Auto (Auto) (default)	Automatically selects the most suitable decoder if a flag for reproducing surround back channel is present, and reproduces the signals in 6.1- or 7.1-channel. When the DTS or DTS-HD signal is input, the unit reproduces the signal in 7.1-channel regardless of a flag for surround back channel.
<input checked="" type="checkbox"/> PLIIx Movie (<input checked="" type="checkbox"/> PLIIxMo)	Always reproduces signals in 7.1-channel using the Dolby Pro Logic IIx Movie decoder. This setting is available only when two surround back speakers are connected.
<input checked="" type="checkbox"/> PLIIx Music (<input checked="" type="checkbox"/> PLIIxMu)	Always reproduces signals in 6.1- or 7.1-channel using the Dolby Pro Logic IIx Music decoder. This setting is available only when one or two surround back speakers are connected.
EX/ES (EX/ES)	Automatically selects the most suitable decoder, and reproduces signals in 6.1-channel.
Off (Off)	Always reproduces signals in original channels.

Volume Trim (Volume 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

-6.0dB ~ +6.0dB (0.5dB steps)

Default

0.0dB

Enhancer (Enhancer)

Enables/disables Compressed Music Enhancer (p.44).



- This setting is applied separately to each input source.

Settings

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

Default

TUNER, DOCK, (network sources), USB: On (On)

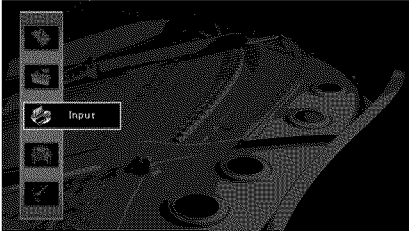
Others: Off (Off)

CONFIGURATIONS

Configuring input sources (Input menu)

You can change the input source settings using the TV screen.

- 1 Press ON SCREEN.
- 2 Use the cursor keys to select “Input” and press ENTER.



- 3 Use the cursor keys (</>) to select an input source to be configured and press the cursor key (△).



The input source of this unit also changes.



- You can still switch the input source by using cursor keys (</>) after step 3.

- 4 Use the cursor keys (△/▽) to select an item and press ENTER.



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

- 5 Use the cursor keys to select a setting and press ENTER.
- 6 To exit from the menu, press ON SCREEN.

Input menu items



- Available items vary depending on the selected input source.

Item	Function	Page
Rename/Icon Select	Changes the input source name and icon.	80
Audio In	Combines the video jack of the selected input source with an audio jack of others.	80
Decoder Mode	Sets the format of digital audio playback to DTS.	80
Standby Charge	Selects whether to charge the iPod when this unit is in standby mode.	80
iPod Interlock	Selects whether to control this unit in conjunction with iPod operations.	81
Video Out	Selects a video to be output with the audio input source.	81
DMC Control	Selects whether to allow a DLNA-compatible Digital Media Controller (DMC) to control playback.	81

■ Rename/Icon Select

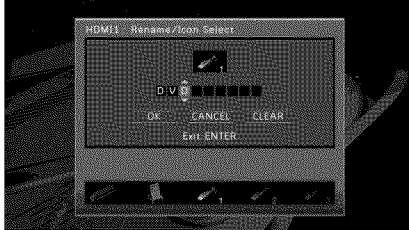
Changes the input source name and icon displayed on the front display or TV screen.

Input sources

HDMI1~5, AV1~6, V-AUX, AUDIO1~2, USB, DOCK

■ Setup procedure

- 1 Use the cursor keys (◀/▶) to select an icon and press the cursor key (▽).
- 2 Press ENTER, use the cursor keys to rename, and then press ENTER again.



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



- To clear the entry, select "CLEAR".

- 4 To exit from the menu, press ON SCREEN.

■ Audio In

Combines the video jack of the selected input source 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 (game consoles, etc.)

Input sources

HDMI1~5, AV1~2

■ Setup procedure

(To input audio through a digital optical jack)

Select "AV1" or "AV4", and connect the device to the corresponding audio jacks of this unit with a digital optical cable.

(To input audio through a digital coaxial jack)

Select "AV2" or "AV3", and connect the device to the corresponding audio jacks of this unit with a digital coaxial cable.

(To input audio through analog audio jacks)

Select "AV5", "AV6", "AUDIO1" or "AUDIO2", and connect the device to the corresponding audio jacks of this unit with a stereo pin cable.

■ Decoder Mode

Sets the format of digital audio playback to DTS.

For example, if this unit does not detect DTS audio and outputs noise, set "Decoder Mode" to "DTS".

Input sources

HDMI1~5, AV1~4, V-AUX

Settings

Auto (default)	Automatically selects an audio format to match the input audio signal.
DTS	Selects DTS only. (Other audio signals are not reproduced.)

■ Standby Charge

Selects whether to charge the iPod connected to the iPod dock or iPod wireless system when this unit is in standby mode.

Input sources

DOCK (iPod)

Settings

On (default)	Charges the iPod even when this unit is in standby mode.
Off	Does not charge the iPod when this unit is in standby mode.

■ iPod Interlock

Selects whether to control this unit in conjunction with operations of the iPod connected to the iPod wireless system.

Input sources

DOCK (iPod)



- This function is available only when an iPod wireless system is connected to this unit.

□ Power & Input

Selects whether to control the power and input source selection of this unit in conjunction with iPod operations.

Settings

On (default)	Enables power and input interlocking controls. When you start playback of the iPod, this unit turns on and "DOCK" is selected as the input source. When you stop playback, this unit enters standby mode after a short time.
Off	Disables power and input interlocking controls.



- When "Power & Input" is set to "On", the iPod connected to the iPod wireless system is changed regardless of the "Standby Charge" setting (p.80).

□ Volume

Selects whether to control the volume of this unit in conjunction with iPod operations.

Settings

On (default)	Enables volume interlocking controls. When you adjust the iPod volume, the volume of the unit is also adjusted.
Off	Disables volume interlocking control.

■ Video Out

Selects a video to be output with the audio input source.

Input sources

TUNER, Sirius Satellite Radio, (network sources), USB

Settings

Off (default)	Does not output videos.
HDMI1~5, AV1~6, V-AUX	Outputs videos input through the corresponding video input jacks.

■ DMC Control

Selects whether to allow DLNA-compatible Digital Media Controller (DMC) to control playback.

Input source

PC

Settings

Disable	Does not allow DMCs to control playback.
Enable (default)	Allows DMCs to control playback.

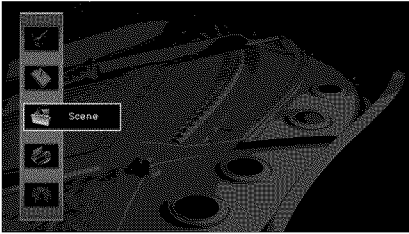


- A Digital Media Controller (DMC) is a device that can control other network devices through the network. When this function is enabled, you can control playback of this unit from DMCs (Windows Media Player 12, etc.) on the same network.

Configuring the SCENE function (Scene menu)

You can change the settings of the SCENE function (p.39) using the TV screen.

- 1 Press ON SCREEN.
- 2 Use the cursor keys to select “Scene” and press ENTER.



- 3 Use the cursor keys (◀/▶) to select a scene to be configured and press the cursor key (△).



- You can still switch the scene by using cursor keys (◀/▶) after step 3.

- 4 Use the cursor keys (△/▽) to select an item and press ENTER.



- 5 Use the cursor keys and ENTER to change the setting.
- 6 To exit from the menu, press ON SCREEN.

Scene menu items

Item	Function	Page
Save	Registers the settings currently applied to this unit to the selected scene.	82
Load	Loads the settings registered to selected scene. You can also configure the SCENE link playback setting or view the scene assignments.	83
Rename/Icon Select	Changes the scene name and icon.	83
Reset	Restores the default settings for the selected scene.	83

■ Save

Registers the settings currently applied to this unit (input source, sound program/surround decoder and Compressed Music Enhancer on/off) to the selected scene.



- If you have changed the input assignment for a scene, you also need to change the external device assigned to the corresponding SCENE key (p.39).

■ Load

Loads the settings registered to selected scene.

Select "DETAIL" to configure the SCENE link playback setting or view the scene assignments.

□ Device Control

Enables to start playback of external devices connected to this unit via HDMI or a Yamaha product connected to the REMOTE OUT jack, in conjunction with a scene selection (SCENE link playback)

Settings

Off	Disables the SCENE link playback function.
HDMI Control	Enables SCENE link playback using HDMI Control signals. Select this if HDMI Control-compatible device (BD/DVD players, etc.) is connected to this unit via HDMI. It also turns on the HDMI Control-compatible TV concurrently.
IR: Yamaha BD/DVD 1	Enables SCENE link playback using remote control signals. Select this if a Yamaha BD/DVD player is connected to the REMOTE OUT jack.
IR: Yamaha BD/DVD 2	Enables SCENE link playback using remote control signals. Select this if a Yamaha BD/DVD player is connected to the REMOTE OUT jack and "IR: Yamaha BD/DVD 1" does not work properly.
IR: Yamaha CD	Enables SCENE link playback using remote control signals. Select this if a Yamaha CD player is connected to the REMOTE OUT jack.

Default

SCENE1 (BD/DVD), SCENE2 (TV): HDMI Control
SCENE3 (CD): IR: Yamaha CD
SCENE4 (RADIO): Off



- To control playback of an HDMI Control-compatible device by SCENE link playback, you need to set "HDMI Control" in the "Setup" menu to "On" and perform the HDMI Control link setup (p.121).

□ Detail

Displays the assignments of the selected scene.

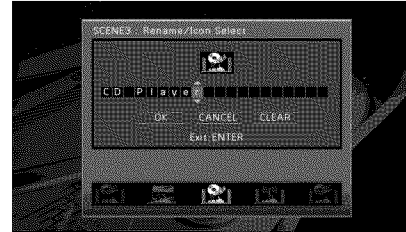
Input	Input source to be used
Mode	Sound program/surround decoder to be used
Enhancer	Compressed Music Enhancer on/off

■ Rename/Icon Select

Changes the scene name and icon displayed on the front display or TV screen.

■ Setup procedure

- 1 Use the cursor keys (</>) to select an icon and press the cursor key (▽).
- 2 Press ENTER, use the cursor keys to rename, and then press ENTER again.



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



- To clear the entry, select "CLEAR".

- 4 To exit from the menu, press ON SCREEN.

■ Reset

Restores the default settings (p.39) for the selected scene.