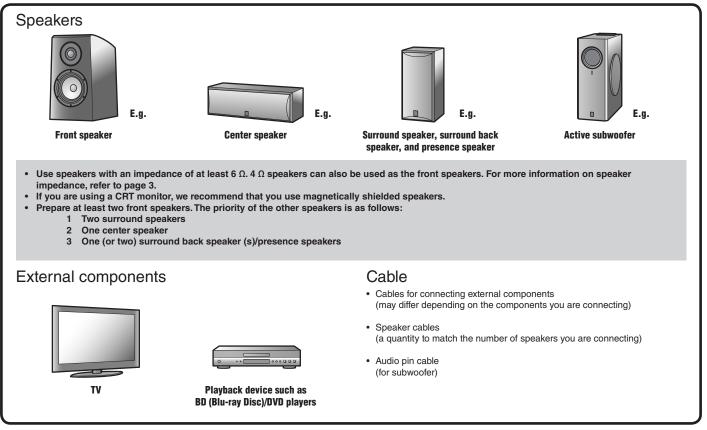
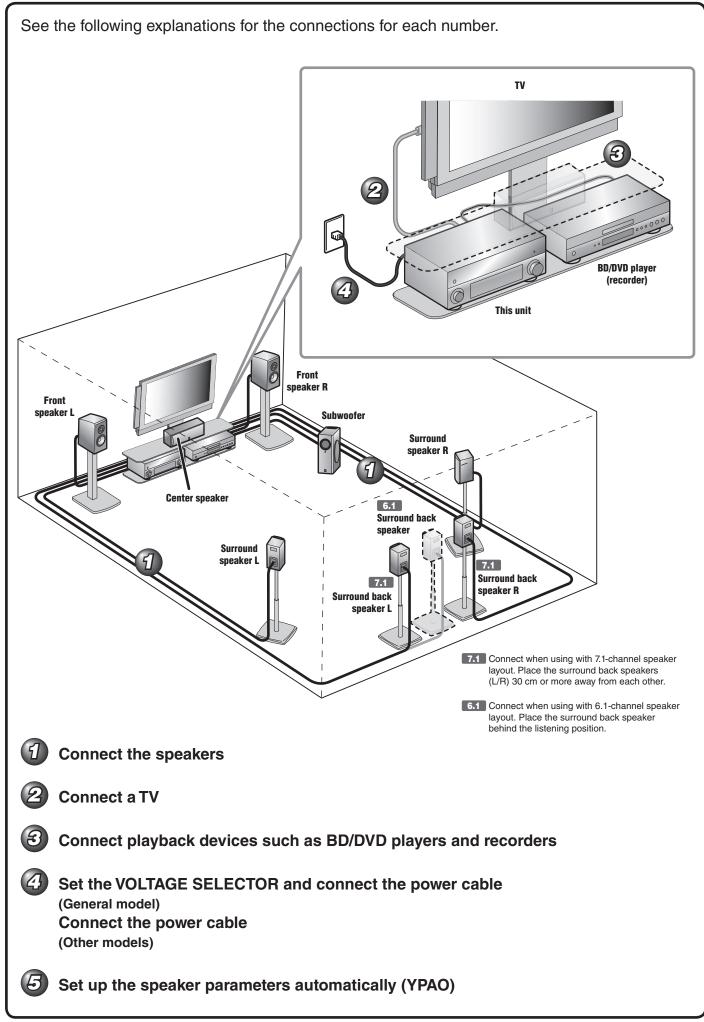


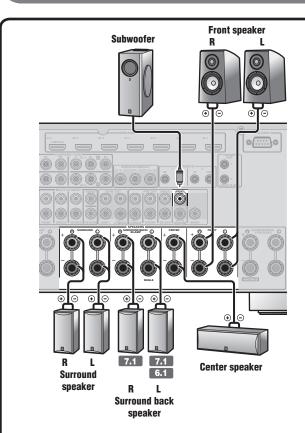
Items necessary for connection



- 1 -



Connect the speakers

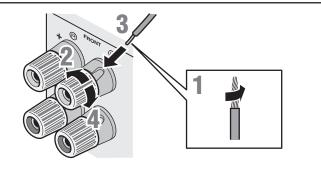


7.1 Connect when using with 7.1-channel speaker layout.6.1 Connect when using with 6.1-channel speaker layout.

Caution:

- Remove the power cable of this unit from the power outlet before connecting the speakers.
- Generally speaker cables consist of two parallel insulated cables. One of these cables is a different color, or has a line running along it, to indicate different polarity. Insert the different colored (or lined) cable into the "+" (positive, red) terminal on this unit and the speakers, and the other cable into the "-" (minus, black) terminal.
- 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 panel display when this unit is switched on.
- This unit is configured for 8 Ω speakers at the factory setting. When connecting 6 Ω speakers, configure the speaker impedance setting of this unit to 6 Ω . When this unit is configured for 6 Ω speakers, 4 Ω speakers can also be used as the front speakers. For more information on setting the speaker impedance, refer to "Changing speaker impedance" in the Owner's Manual.
- When connecting the presence speakers, refer to "Presence speaker connection" in the Owner's Manual.
- This unit can connect speakers that support Bi-amp connection for front speakers. Refer to "Bi-amp connection" in the Owner's Manual.

Connecting speakers



Remove approximately 10 mm of insulation from the ends of the speaker cables, and twist the bare wires of the cables together firmly so that they will not cause short circuits.

2 Loosen the speaker terminals.

Insert the bare wire of the speaker cable into the gap on the side of the terminal.

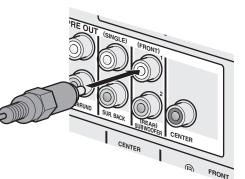
Tighten the terminal.

1

2

Connecting the subwoofer

Connect the subwoofer input jack to the SUBWOOFER 1 jack on this unit with an audio pin cable.



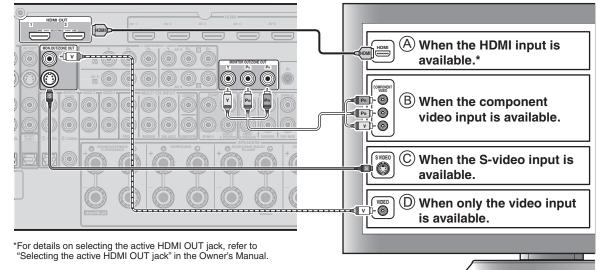
Set the subwoofer volume as follows.

Volume: Set to approximately half volume (or slightly less than half). Crossover frequency (if available): Set to maximum.



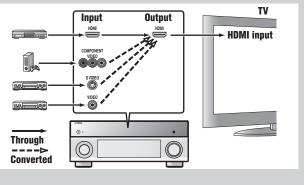
Subwoofer examples

If your TV has multiple inputs, connect with the following priority (\triangle to \bigcirc).



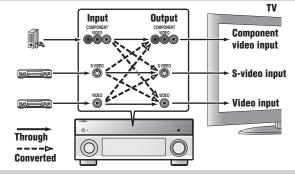
When connecting to an HDMI compatible TV

Video signal such as component video, S-video and video received by this unit is converted to HDMI and output to the TV. Just select HDMI input on the TV to view video from any external source connected to this unit.



When connecting to a non-HDMI compatible TV

Connect to the TV using the same type of connection that you used to connect to the playback device. If the playback device and TV are equipped with different types of analog video jacks, this unit will convert the video signals to another type of video signal, according to the type of video input jacks used on the TV.

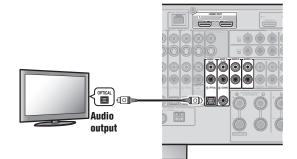


For more information on video signal conversion, refer to "Connecting a TV monitor" in the Owner's Manual.

Listening to TV audio

To play back TV audio on this unit, connect the TV audio output to this unit.

Connect the following input jacks, matching the audio output jacks on your TV. When viewing your TV, select the appropriate input source on this unit.



Audio output from TV	Input jack on this unit
Optical digital output	AUDIO1
Coaxial digital output	AUDIO2
Analog output	AUDIO1, AUDIO2, AUDIO3, or AUDIO4
HDMI Audio Return Channel (Described in the right column)	HDMI OUT 1 or HDMI OUT 2

Connecting to AUDIO1 allows you to playback TV audio just by pressing * the SCENE2 key.

When using a TV that supports the Audio Return Channel function and HDMI Control function

When using an HDMI compatible TV that supports

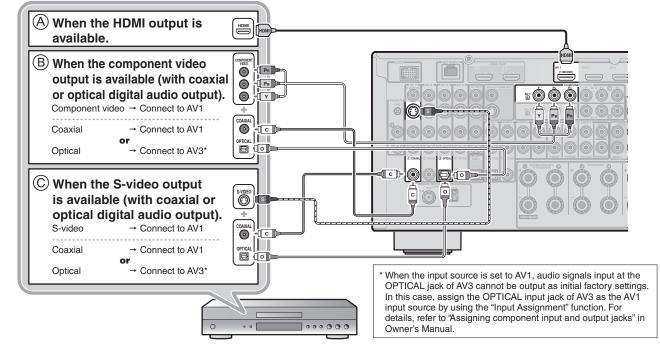
Audio Return Channel functions and / or HDMI Control functions (e.g., Panasonic VIERA Link), you can enjoy the TV sound on this unit.

The audio / video output from the unit to the TV and audio output from the TV to the unit are possible using a single HDMI cable. The input source is switched automatically to match operations carried out on the TV, and that makes TV sound control easier to use.

For the connections and settings, refer to "Using the HDMI Control function" in the Owner's Manual.

Connect playback devices such as BD/DVD players and recorders

If your playback device has multiple audio/video outputs, connect with the following priority (A) to C) to enjoy a higher quality sounds and images. Because pressing the **SCENE1** key makes the settings of this unit suitable for playing back BD/DVD players and selects the AV1 input as well, this section explains how to connect jacks to play back the AV1 input source.



Refer to "Connecting BD/DVD players and other devices" in Owner's Manual for details on connection other than above illustration.

- When playing back a device, select the corresponding input source to which the jack is connected.
- If necessary, you can connect components that cannot be connected using the above methods, such as devices that output video from component video output jacks and audio from analog output jacks. Refer to "Connecting external components" in the Owner's Manual for details.
- At the default settings, input sources and sound programs are preset on the SCENE keys. When a playback device is connected to AV1, pressing the SCENE1 key selects the AV1 input. When a playback device is connected to AUDIO2, pressing the SCENE3 selects the AUDIO2 input. The input source and sound program preset on the SCENE key can be changed.

Default scene settings

SCENE	Input	Audio Select	HDMI Output	Sound Program	Pure Direct Mode	Tone Control	Adaptive DRC	Enhancer
1 (BD/DVD)	AV1	Auto	OUT1+2	Drama	Auto	Bass: 0.0dB Treble: 0.0dB	On	Off
2 (TV)	AUDIO1	Auto	OUT1+2	STRAIGHT	Auto	Bass: 0.0dB Treble: 0.0dB	On	On
3 (CD)	AUDIO2	Auto	OUT1+2	STRAIGHT	Auto	Bass: 0.0dB Treble: 0.0dB	Off	Off
4 (RADIO)	TUNER		OUT1+2	STRAIGHT	Auto	Bass: 0.0dB Treble: 0.0dB	Off	On

The several settings other than ones in the above table can be assigned to the SCENE keys. For more information on the SCENE function, refer to "Changing input settings with a single key (SCENE function)" in the Owner's Manual.

Set the VOLTAGE SELECTOR and connect the power cable (General model)

Connect the power cable (Other models)

(General model only)

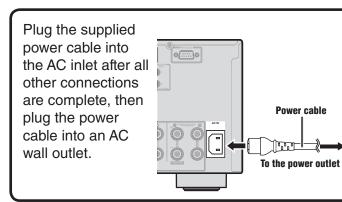
Select the switch position according to your local voltage using a straight slot screwdriver. Voltages are AC 110-120/220-240 V. 50/60 Hz.

Caution

The VOLTAGE SELECTOR on the rear panel of this unit must be set for your local voltage **BEFORE** plugging the power cable into the AC wall outlet. Improper setting of the VOLTAGE SELECTOR may cause damage to this unit and create a potential fire hazard.

VOLTAGE SELECTOR

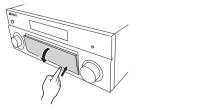




When all connections are complete, adjust the configuration, sizes, and volume balance of the speakers to provide an optimal sound field. This unit is equipped with a Yamaha Parametric Room Acoustic Optimizer (YPAO) function that adjusts the speaker balance automatically with a simple procedure. Be aware of the following when using YPAO. The amount of time for measurement varies from about two to ten minutes according to settings. The test tone is output at high volume. Refrain from using this function at night when it may be a nuisance to others. Take care that the test tone does not frighten small children. YPAO operations can be viewed on the front panel display or TV screen. TV display is used here to explain operation. Check the following before using YPAO. 1 This unit Subwoofer • The headphones are removed. The power is turned on. Volume is set to approximately half, and the cross-over frequency (if present) is set to TV maximum. This unit is connected to the TV correctly. The power is turned on. The video input to which the video output from this unit has been selected. Subwoofer examples YPAO microphone 2 Place the supplied YPAO microphone at ear height in your listening position. When positioning the microphone, we recommend that you use equipment that allows you to adjust the height (such as a tripod) as a microphone stand. When using a tripod, use the tripod screws to fix the microphone in place. Measuring, for multiple listening positions, is also available. For more information, refer to "Setting up the speaker parameters automatically (YPAO)" in the Owner's Manual. Press **RECEIVER** () on the remote control to switch this unit on. 3 Connect the YPAO microphone to the YPAO MIC jack on the front panel. Δ "Mic On View ON SCREEN" SAMAHA appears on the front panel - | Auto Setup display, and the display at right appears on the TV screen. \bigcirc YPAO can be performed viewing only front panel display on this unit without the TV screen. want to change, go "Power Assign" menu. 1/4 Press ENTER to star **YPAO** microphone

Opening and closing the front panel door

Before step 4, gently press the bottom of the door to open it. Keep the door closed when not using controls or jacks behind the front panel door.



This completes preparation. To achieve more accurate results, take note of the following when measuring acoustics.

• Keep the room as quiet as possible for a few minutes.

Continues to the next page

Wait in a corner of the room, or leave it entirely, while acoustics are measured to avoid creating an obstruction between the speakers and the YPAO microphone.

Use the **cursor** Δ / ∇ to select the "Measure" and press **ENTER** to start 5 measurement. When "Multi Position" and/or "Angle" is set to "Yes" Pre Check Pattern1 RECEIVER () (default), the measurement of Multi Position and/ \odot Auto Setup or Angle continues. Refer to "Setting up the speaker parameters automatically (YPAO)" for details on "Multi Position" and "Angle" in the Owner's Manual. Front L YPAO Speaker Pattern1 The display at right appears if measurement finishes I-I. Auto Setup without any problems. Result Displays the results of automatic acoustics urement Finished measurement. For details, refer to "Reviewing the automatic setup parameters" in the Owner's Manual. Save/Exit 2/2 Applies the result to the speaker setup and finishes **ENTER**, Cursor 100% the automatic measurement. Note If a problem occurs, an error message or report is displayed either during or after acoustic measurement. Refer to "When an error message is displayed during measurement," or "When a warning message is displayed after measurement" in the Owner's Manual to resolve the problem and measure acoustics with YPAO again. Use the **cursor** \triangle / ∇ to select "Save/Exit" and press **ENTER**. 6 ❀YAMAHA Use the **cursor** $\triangleleft \triangleright$ to select "SAVE" and press **ENTER**. Pattern1 When the display at right appears, the YPAO setup is I-I Auto Setup complete. NOTICE YPAO setup complete. YPAO Please disconnect microphone Press ENTER. 8 YPAO is terminated. Disconnect the YPAO microphone. 000 0 Ó 000 Œ Ð 0

- 7 -

Enjoy the various functions provided by this unit. For details on the operations, refer to the Owner's

All the preparation is completed.

Manual.

Basic operations

