

HW-C900

AV Receiver System user manual

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Safety information

SAFETY WARNINGS

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER(OR BACK). NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
- To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

CAUTION

- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The Mains plug is used as a disconnect device and shall stay readily operable at any time.

This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

FCC NOTE (for U.S.A):

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution : FCC regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

IMPORTANT SAFETY INSTRUCTIONS

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth an uncontrolled environment.

This equipment should be installed and operated with minimum distance 7.9 inches between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Wireless Internet Radio) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

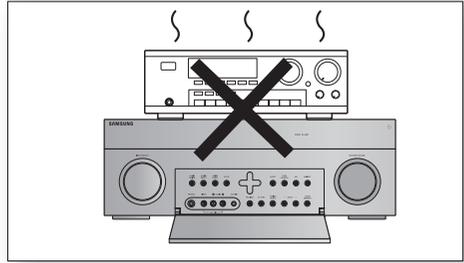
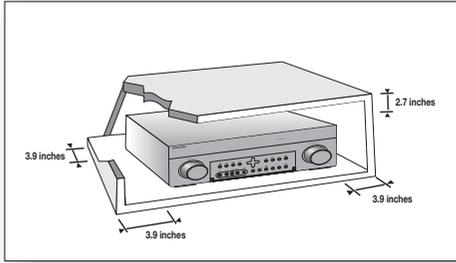
Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these Instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachment/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

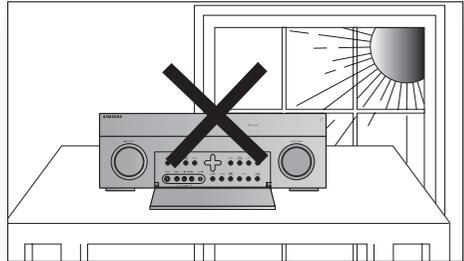
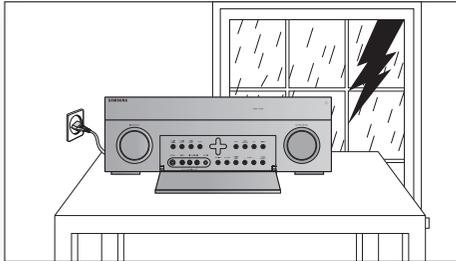


Safety information

PRECAUTIONS

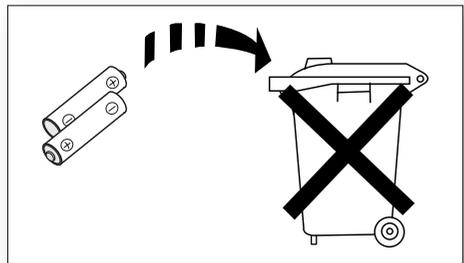
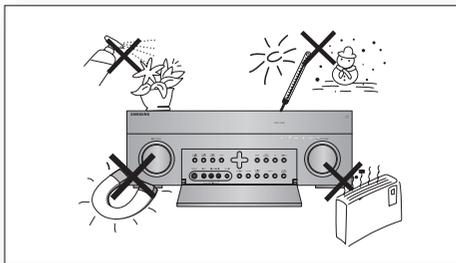


Ensure that the AC power supply in your house complies with the identification sticker located on the back of your player. Install your player horizontally, on a suitable base (furniture), with enough space around it for ventilation (3-4inches). Make sure the ventilation slots are not covered. Do not stack anything on top of the amplifier. In order to disconnect the player completely from the power supply, remove the AC plug from the wall outlet, especially when left unused for a long period of time.



During thunderstorms, disconnect the AC plug from the wall outlet. Voltage peaks due to lightning could damage the unit.

Do not expose the unit to direct sunlight or other heat sources. This could lead to overheating and malfunction of the unit.



Protect the player from moisture (i.e. vases), and excess heat (e.g. fireplace) or equipment creating strong magnetic or electric fields (i.e. speakers...). Disconnect the power cable from the AC supply if the player malfunctions. Your player is not intended for industrial use.

The batteries used with this product contain chemicals that are harmful to the environment. Do not dispose of batteries in the general household trash.

Use of this product is for personal use only. Condensation may occur if your player or disc have been stored in cold temperatures. If transporting the player during the winter, wait approximately 2 hours until the unit has reached room temperature before using.

Features

Digital AV Receiver

This product is a pure digital AV receiver that performs digital signal processing to minimize signal distortion and loss.

Dolby Pro Logic IIx

Dolby Pro Logic IIx is a new technology that provides discrete 7.1 channels out of 2 channel or multi channel sources. It also provides Music, Movie and Game modes. Dolby Pro Logic IIx is an improved surround system that is optimized to a 7.1 CH multimedia system, enabling you to maximize your entertainment experience.

Dolby Pro Logic IIz

Dolby Pro Logic IIz adds front height channels to surround sound, creating a 7.1 playback system for video games, home music, and movies; bringing enhanced spatial effects and enveloping sound.

Dolby Digital EX

Adds a surround back channel for more spacious sound compared to regular 5.1 channel Dolby Digital.

Dolby Digital Plus

Dolby Digital Plus is the next-generation audio technology for all high-definition programming and media.

Dolby True-HD

Dolby True-HD is Dolby's next-generation lossless technology developed for high-definition disc-based media.

DTS 96/24

DTS 96/24 encodes standard 16 bit/44.1 kHz sound to 24 bit/96kHz and applies it to a 5.1 CH sound track.

DTS (Digital Theater Systems)

DTS provides a discrete 5.1 CH digital audio signal for both music and movie contents and uses less compression than Dolby Digital for richer sound.

DTS-HD (Master Audio, High Resolution) (Digital Theater Systems - High Definition)

DTS-HD Audio provides the highest quality multi-channel sound possible.

It delivers sound quality that matches the clear and vivid images of high-definition video.

DTS NEO:6

Provides a full range of 6 channels by converting a digital PCM or analog stereo signal using DTS digital matrix decoding.

DTS-ES (Extended Surround)

The DTS-ES (Extended Surround) system is a new multi digital signal format that was developed by Digital Theater Systems Inc.

Supporting full compatibility with the conventional DTS digital surround sound format, the DTS-ES (Extended Surround) system improves the surround signal for a 360-degree surround effect.

DTS-ES adds an additional rear center surround channel for 6.1 channel sound.

iPod

You can enjoy music files by connecting your iPod/iPhone to the AV Receiver with the supplied iPod dock.

SFE (Sound Field Effect) Using 32bit Audio Digital Signal Processing

Provides more realistic surround sound with normal stereo audio sources.

Anynet+ (HDMI-CEC) Function

Anynet+ is a function that can be used to operate this AV Receiver with a Samsung TV remote control, by connecting the receiver to a SAMSUNG TV using an HDMI Cable. (This function is available only in connection with Samsung TV and DVD player supporting Anynet+(HDMI-CEC).)

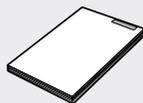
ACCESSORIES



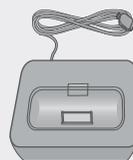
Remote Control
(AH59-02297A)/
Batteries (AAA size)
(4301-000116)



FM antenna
(AH42-00017A)



User's manual
(AH68-02312R)



iPod Dock
(AH96-00051A)



ASC microphone
(AH30-00099A)

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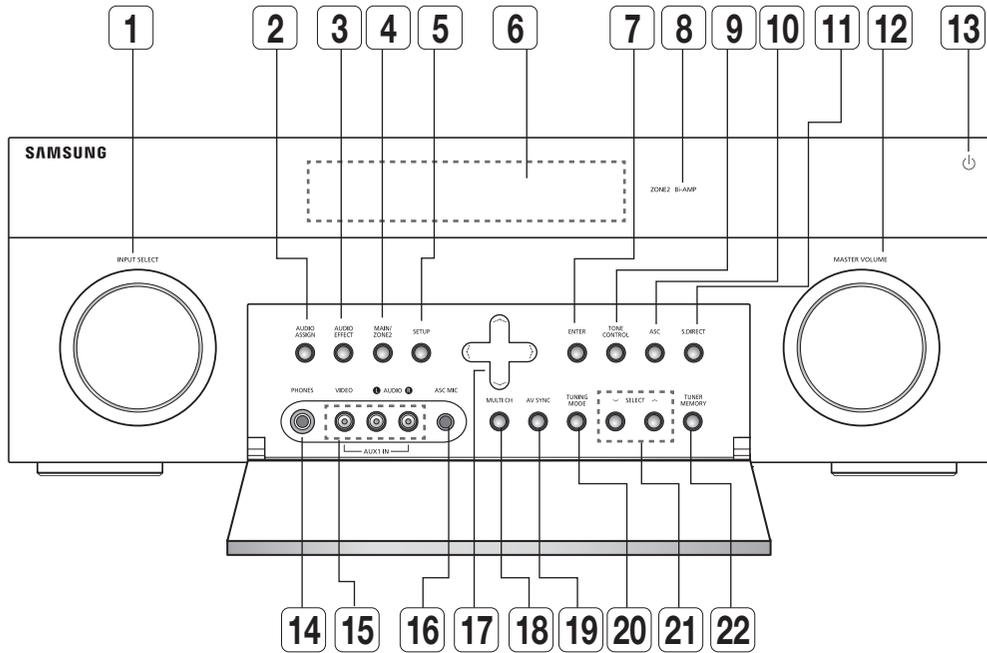
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Description

FRONT PANEL

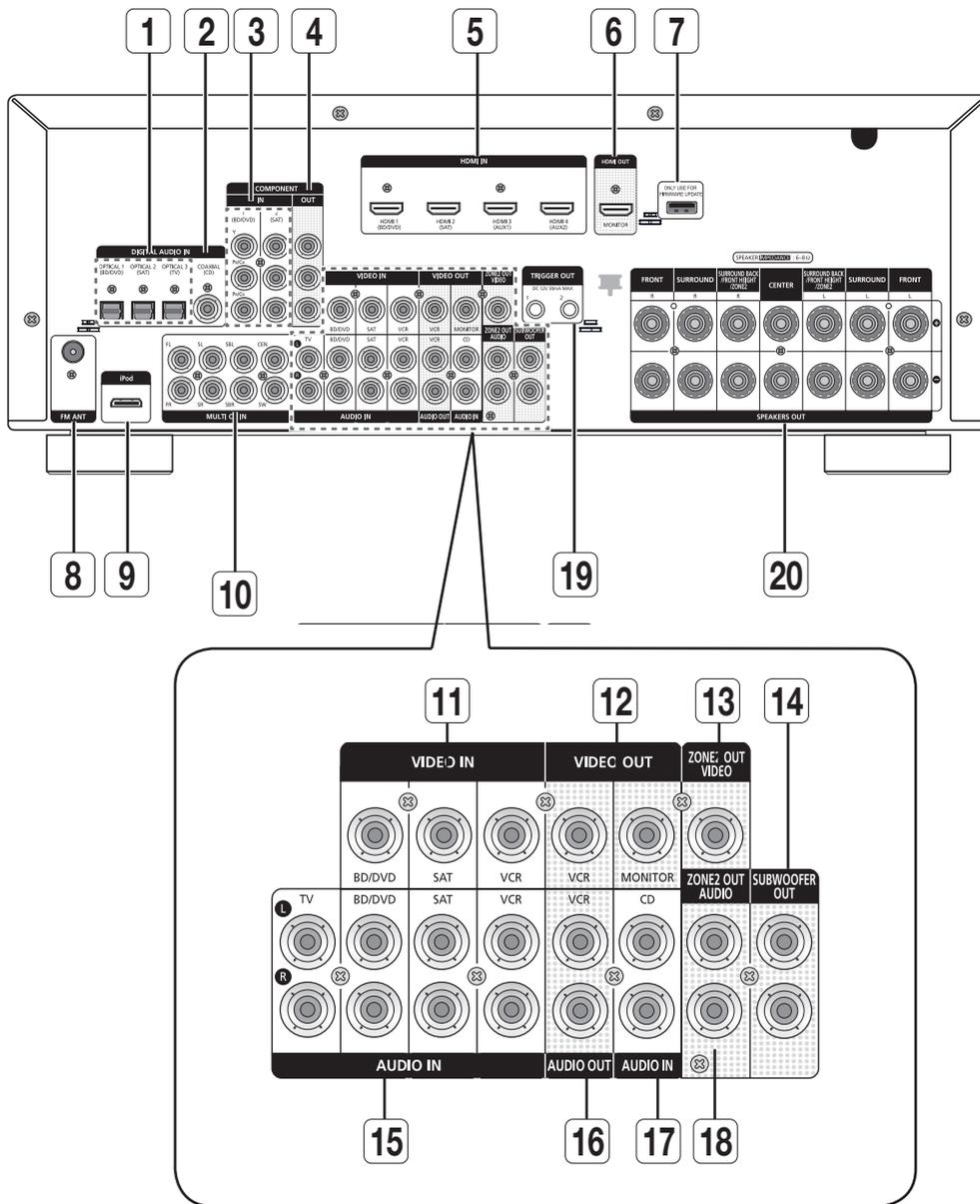


1	INPUT SELECT CONTROL	Used to select a source. (FM → BD/DVD → SAT → TV → VCR → CD → AUX1 → AUX2 → 7.1 MULTI CH → IPOD AUDIO → IPOD VIDEO).
2	AUDIO ASSIGN BUTTON	Toggles to select an input mode for the selected source.
3	AUDIO EFFECT BUTTON	Toggles to select a surround sound mode.
4	MULTI ZONE BUTTON	Selects either ZONE2 or main unit.
5	SETUP BUTTON	Displays the SETUP menu.
6	DISPLAY	Displays the speaker/audio input status, listening mode, etc.
7	ENTER BUTTON	Used to select an item in the SETUP menu.
8	ZONE2/BI-AMP INDICATOR	The indicator lights on when you turn on ZONE2 or Bi-AMP.
9	TONE CONTROL BUTTON	Used to set the bass, treble level and tone to on/off.
10	ASC BUTTON	Used to select the ASC (Auto Sound Calibration) mode.

11	S.DIRECT BUTTON	Used to select the S.DIRECT mode. (Output the original signal as it is without applying the sound field effect or any other sound effect.)
12	MASTER VOLUME CONTROL	Adjusts the volume level.
13	POWER	Turns the receiver on/off.
14	PHONE JACK	Used to connect a set of headphones.
15	AUX IN JACKS	Auxiliary AV input terminals used to connect a camcorder, portable DVD player or gaming device.
16	ASC MIC JACK	Used to connect the ASC MIC for setting up ASC (Auto Sound Calibration).
17	UP(∧), DOWN(∨), LEFT(<), RIGHT(>) BUTTONS	Used to move the cursor up, down, left or right. Also used to select detailed options in the AUDIO EFFECT mode and to change the tone level.
18	MULTI CH BUTTON	Used to select a connected 7.1 multi channel player.
19	AV SYNC BUTTON	Used to select the Audio Delay Mode.
20	TUNING MODE BUTTON	Used to select the Manual or Preset mode for FM radio.
21	SELECT BUTTON	Used to change the radio frequency.
22	TUNER MEMORY BUTTON	Used to set a preset radio frequency.

Description

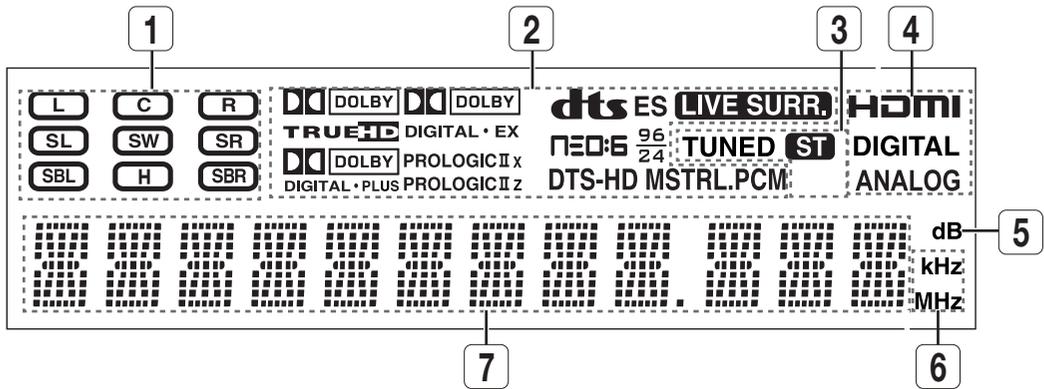
REAR PANEL



1	OPTICAL IN JACKS (DIGITAL AUDIO IN)	Receives the digital optical audio signal.
2	COAXIAL IN JACK (DIGITAL AUDIO IN)	Receives the digital coaxial audio signal.
3	COMPONENT VIDEO IN JACKS	Receives the component video signal.
4	COMPONENT VIDEO OUT JACKS	Outputs the component video signal.
5	HDMI IN JACKS	Receives digital video and audio signals simultaneously using an HDMI cable.
6	HDMI OUT JACK	Outputs digital video and audio signals simultaneously using an HDMI cable.
7	USB PORT	Can be only used for firmware upgrades.
8	FM ANTENNA JACK	Connect the FM Antenna here.
9	iPod JACK	Receives the audio/video signal from an iPod.
10	MULTI CH IN JACKS	Receives the analog audio signal from an external player with a multi-channel port.
11	VIDEO IN JACKS	Receives the video signal from a video player (BD/DVD, SAT,VCR).
12	VIDEO OUT JACKS	Outputs the video signal to a VCR or monitors(TV, Projector etc).
13	ZONE2 VIDEO OUT JACK	Outputs the video signal to the video device that will be used in ZONE2.
14	SUBWOOFER AUDIO OUT JACKS	Connect the subwoofers. (Active subwoofer only)
15	AUDIO IN JACKS	Receives the audio signal from a video player (TV, BD/DVD, SAT,VCR).
16	VCR AUDIO OUT JACKS	Outputs the audio signal to a VCR.
17	CD AUDIO IN JACKS	Receives the audio signal from a CD player.
18	ZONE2 AUDIO OUT JACKS	Outputs the analog audio signal to the external amplifier that will be used in ZONE2.
19	TRIGGER OUT JACKS	Use to switch components in your system on and off according to the input function of the receiver.
20	SPEAKER OUT TERMINALS	<p>Speaker connection terminals.</p> <p>The front speaker and surround back speaker ports can be connected to a speaker that supports bi-amplifying. For connecting to the bi-amplifier, refer to page 19.</p> <p>With ZONE2 activated, you can connect the surround back speaker to a speaker that can be used in Zone 2. For more information about ZONE2 connection, refer to page 20.</p>

Description

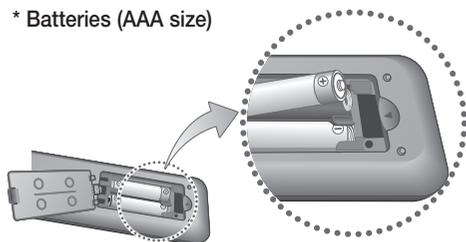
DISPLAY



1	SPEAKER INDICATORS	Displays the connected speakers.
2	LISTENING MODE INDICATORS	Displays the current listening mode.
3	TUNING INDICATORS	Displays the status of the current radio broadcast.
4	AUDIO INPUT INDICATORS	Displays the audio input signal type of the currently connected external audio source.
5	SPEAKER LEVEL INDICATOR	Displays the speaker level.
6	RADIO FREQUENCY INDICATORS	Displays the current radio frequency range.
7	MESSAGE DISPLAY	Informs you of the status of the receiver.

INSERT REMOTE CONTROL BATTERIES

* Batteries (AAA size)

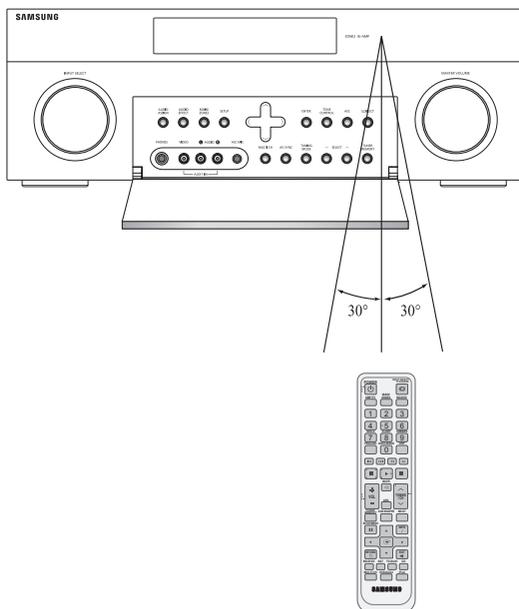


Follow these precautions to avoid leaking or cracking cells:

- Place batteries in the remote control so they match the polarity : (+) to (+) and (-) to (-).
- Assuming typical TV usage, the batteries last for about one year.
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose the batteries to heat or a flame.

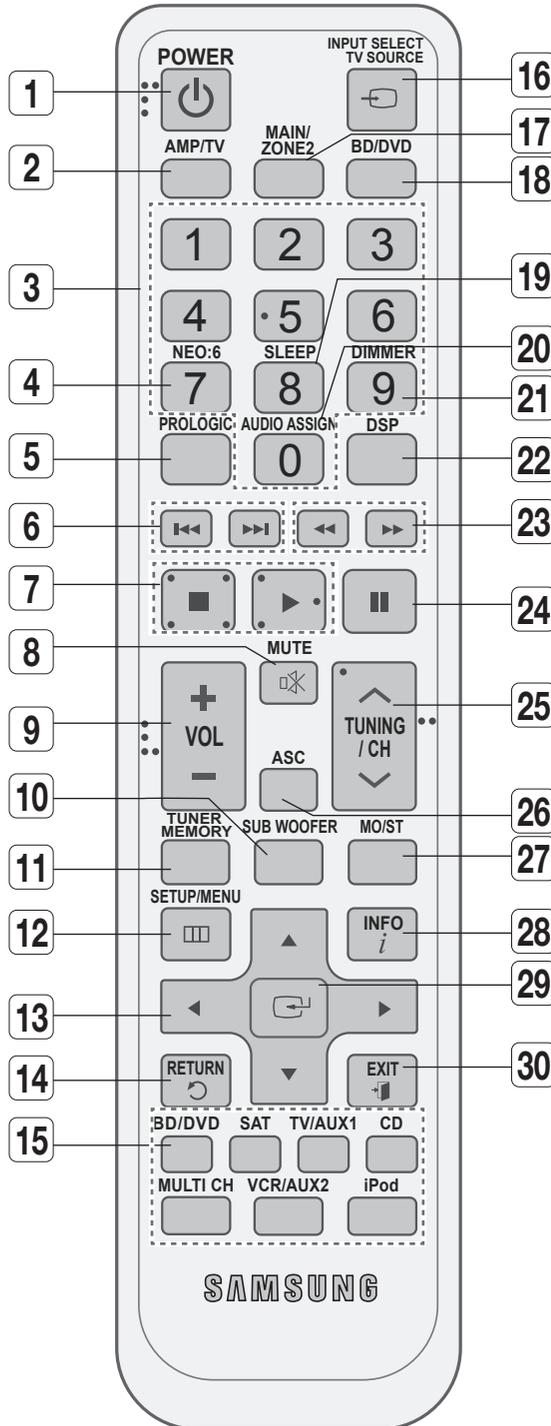
OPERATION RANGE OF THE REMOTE CONTROL

The remote control can be used up to approximately 23 feet/7 meters in a straight line. It can also be operated at a horizontal angle of up to 30° from the remote control sensor.



Description

TOUR OF THE REMOTE CONTROL



1	POWER BUTTON	Turns the receiver on/off.
2	AMP/TV BUTTON	Used to select the AMP/TV mode. - If you select the AMP mode, the button will flash orange. - If you select the TV mode, the button will flash green.
3	NUMBER BUTTONS	Used to select a TV channel.
4	NEO : 6 BUTTON	Select the desired NEO:6 mode.
5	PROLOGIC BUTTON	Select the desired Dolby Pro Logic audio mode.
6	SKIP BUTTONS	Press to skip backwards or forwards on a connected DVD/BD player or iPod.
7	STOP/PLAY BUTTON	Press to stop/start playback on a connected DVD/BD player or iPod.
8	MUTE BUTTON	Mutes the sound of a connected device.
9	VOLUME CONTROL BUTTONS	Adjusts the volume of the selected device.
10	SUBWOOFER BUTTON	Used to set the Subwoofer level.
11	TUNER MEMORY BUTTON	Used to set a preset radio frequency.
12	SETUP/MENU BUTTON	Displays the SETUP menu.
13	UP/DOWN/LEFT/RIGHT BUTTONS	Used to navigate the menus.
14	RETURN BUTTON	Used to return to the previous menu from the SETUP menu.
15	FUNCTION SELECTOR BUTTONS	Used to select an input source.
16	INPUT SELECT, TV SOURCE BUTTON	Toggles to find and select an input source. Press to select a connected TV's video source.
17	MAIN/ZONE2	Selects either ZONE2 or main unit. If you select ZONE2, you can use the control functions available in ZONE2.
18	BD/DVD BUTTON	Used to select the BD/DVD mode. - If you select the BD mode, the button will flash orange. - If you select the DVD mode, the button will flash green.
19	SLEEP BUTTON	Used to set the Sleep Timer.
20	AUDIO ASSIGN BUTTON	Toggles to select an input mode for the selected source.
21	DIMMER BUTTON	Adjusts the brightness of the display.
22	DSP BUTTON	Used to select the SFE mode.
23	SEARCH BUTTON	Press to search backwards or forwards.
24	PAUSE BUTTON	Pauses playback on a connected device.
25	TUNING/CHANNEL BUTTONS	Used to change the radio broadcasting frequency or TV channel.
26	ASC BUTTON	Used to set the Auto Sound Calibration function.
27	MO/ST BUTTON	Select MONO or STEREO for radio broadcasts.
28	INFO BUTTON	Display information on the connected device currently being used.
29	ENTER BUTTON	Used to select an item in the SETUP menu.
30	EXIT BUTTON	Exits the SETUP menu.

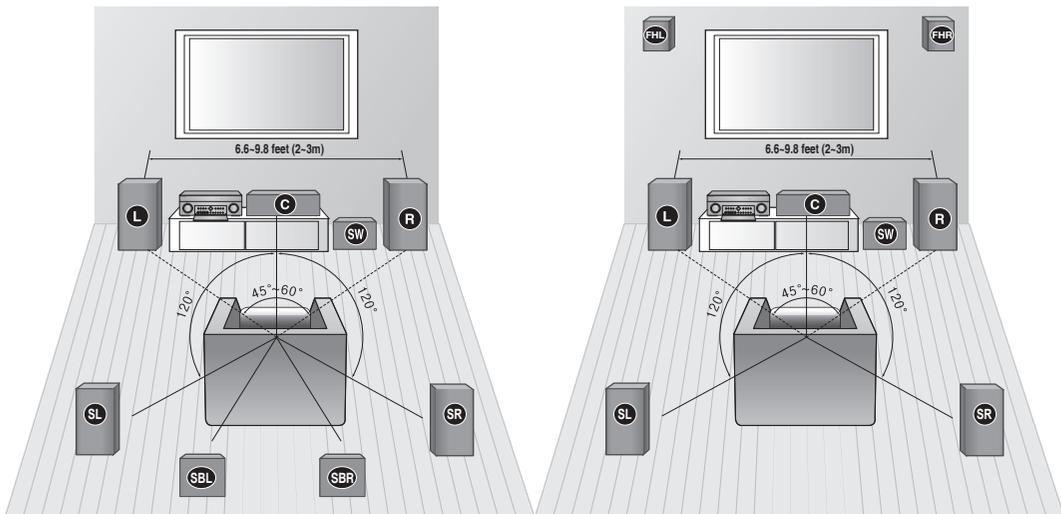
Connections

This section involves various methods of connecting the AV receiver to other external components. Before moving or installing the product, be sure to turn off the power and disconnect the power cord.

SPEAKER POSITIONING

There are two methods for positioning the speakers.

When using Dolby Pro Logic IIz, place the Surround Back Speakers in the FHL, FHR position and connect them to SURROUND BACK/ FRONT HEIGHT Jack.



L, R, C, SW, SL, SR, SBL, SBR (Dolby Pro Logic IIx)

L, R, C, SW, SL, SR, FHL, FHR (Dolby Pro Logic IIz)

Position of AV Receiver

Place the AV Receiver on a dedicated stand or rack.

Subwoofer **SW**

The position of the subwoofer is not so critical. Place it anywhere you like.

Front Speakers **L R**

Place these speakers in front of your listening position, facing inwards (about 45°) toward you.

Place the speakers so that their tweeters will be at the same height as your ears.

Align the front face of the front speakers with the front face of the center speaker or place them slightly in front of the center speaker.

Center speaker **C**

It is best to install it at the same height as the front speakers.

You can also install it directly over or under the TV.

Surround Speakers **SL SR**

Place these speakers behind your listening position.

If there isn't enough room, place these speakers so they face each other.

Place them about 2 to 3 feet (60 to 90cm) above your ears, facing slightly downward.

Unlike the front and center speakers, the surround speakers are used to handle mainly sound effects and sound will not come from them all the time.

Surround Back Speakers **SBL SBR**

If you are using two rear center speakers, place them behind the listening position.

Place the surround back speaker about 2.3-3.3 feet (70 cm to 1 m).

Front Height Speakers **FHL FHR** (Using Dolby Pro Logic IIz)

When using Dolby Pro Logic IIz, place the Surround Back Speakers on the FHL, FHR position above the front L and front R speakers at least 3.3 feet(1 m) above each one.



- When you attach the speakers to the wall, make sure to fasten them tightly so they do not fall off.

Speaker Configuration

For the best surround-sound experience, you should connect seven speakers and a powered subwoofer.

The following table shows which channels you should use based on the number of speakers you have.

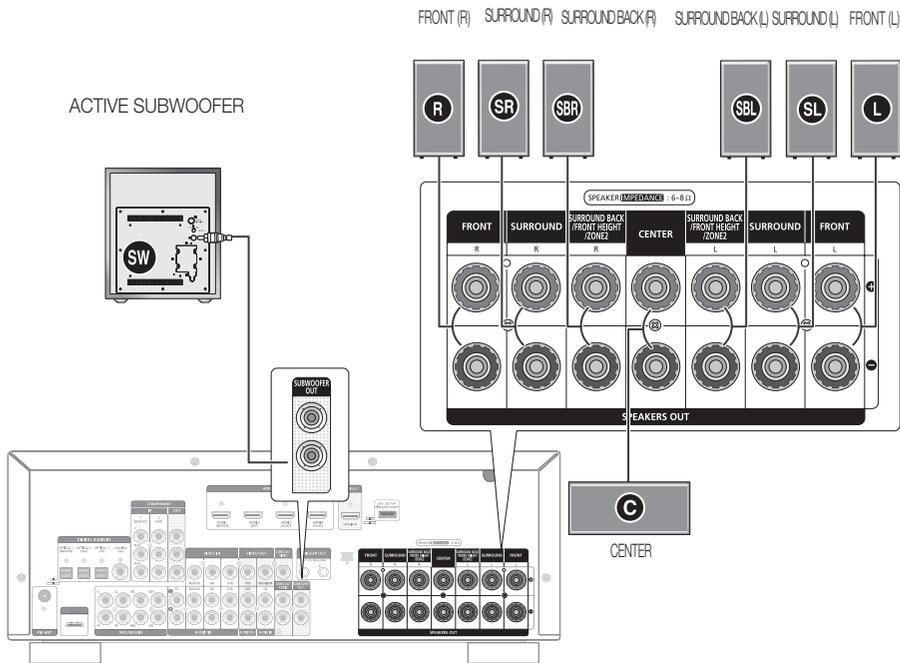
2 speakers	3 speakers	4 speakers	5 speakers	7 speakers (DPL IIx)	7 speakers (DPL IIz)
L	L	L	L	L	L
R	R	R	R	R	R
	C		C	C	C
		SL	SL	SL	SL
		SR	SR	SR	SR
				SBL	FHL
				SBR	FHR



- No matter how many speakers you use, a powered subwoofer is recommended for powerful and solid bass.
- If you place a speaker near your TV set, screen color may be distorted because of the magnetic field generated by the speaker. If this occurs, place the speaker away from your TV set.

Connections

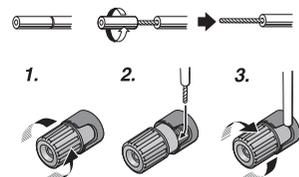
CONNECTING THE SPEAKERS



- 
 - If you want to use two active subwoofer speakers, connect both subwoofer speakers into the SUBWOOFER OUT terminals in the rear panel.
 - When using Dolby Pro Logic IIz, connect the Surround Back Speakers (FHL, FHR) to SURROUND BACK/FRONT HEIGHT Jack.

Connecting Speaker Wire

1. Loosen the knob by turning counterclockwise.
2. Insert the bare part of the wire into the hole in the side of each terminal.
3. Tighten the knob by turning clockwise to secure the wire.

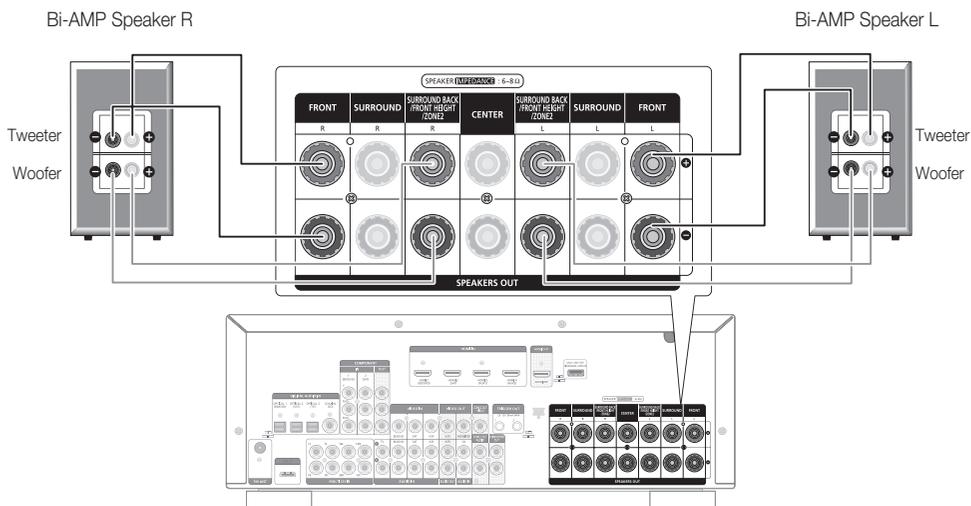


- 
 - Keep the subwoofer speaker out of reach of children to prevent them from inserting their hands or objects into the duct (hole).
 - Never touch speaker terminals while the power is on. Doing so could result in electric shock.
 - Make sure the polarities (+ and -) are correct.

CONNECTING THE BI-AMP SPEAKER

Connect the tweeter (high range) port and woofer (low range) to the front port and surround back speaker port respectively as appropriate. Then, you can use the bi-amplification feature that supports enriched high range and base tones.

1. Connect the FRONT L connector (rear side of main unit) to the Tweeter port in the front left speaker.
2. Connect the FRONT R connector (rear side of main unit) to the Tweeter port in the front right speaker.
3. Connect the SURROUND BACK L connector (rear side of main unit) to the Woofer port in the front left speaker.
4. Connect the SURROUND BACK R connector (rear side of main unit) to the Woofer port in the front right speaker.



- To enable the Bi-Amp feature, you must set SB SETUP to Bi-AMP in SETUP menu. See page 42.
- With the Bi-amp feature, you can use up to 5.1 channels for speaker output in the main unit.

- If Bi-amp is active, you may encounter a restricted access if you have not removed the shorting bar (like a jumper) in both tweeter and subwoofer ports in the front speaker.
- Before you can use bi-amp, ensure that you use a speaker that supports bi-amplifying.

Connections

ZONE 2

- In addition to your main listening room, you can also enjoy playback in the other room (Zone 2).
- You can simultaneously play back the same source in both the Main Zone and Zone 2. You can also play back the separate sources in the Main Zone and Zone 2.
- Use an RCA video cable to connect the AV receiver's ZONE 2 Video OUT jacks to an Video input on your Zone 2 TV.

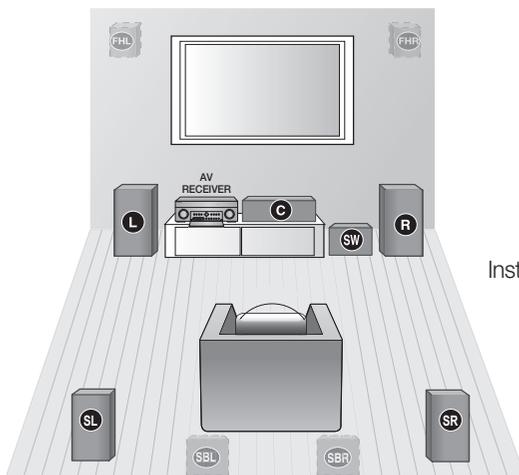


- It is not possible to play the digital audio signals input from the HDMI, Coaxial or Optical connectors.
- Use analog connections for Zone 2 playback.
- Video output is available in Zone 2.

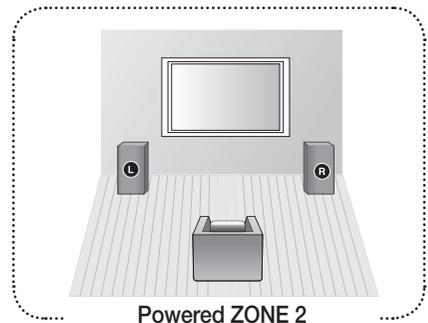
Connecting the Zone 2 Speaker

There are two ways you can connect Zone 2 speakers:

1. Connecting the Zone 2 speakers directly to the main unit (Powered ZONE 2)
2. Connecting using the external amplifier (ZONE2)



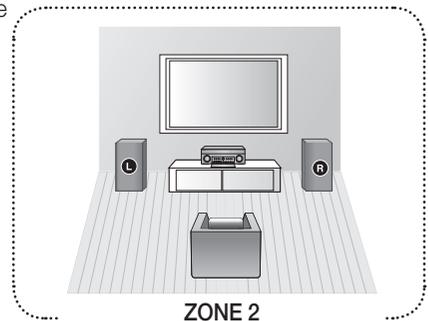
Install speaker in main space



Powered ZONE 2

Connecting speaker directly to main unit

Install speaker in sub space



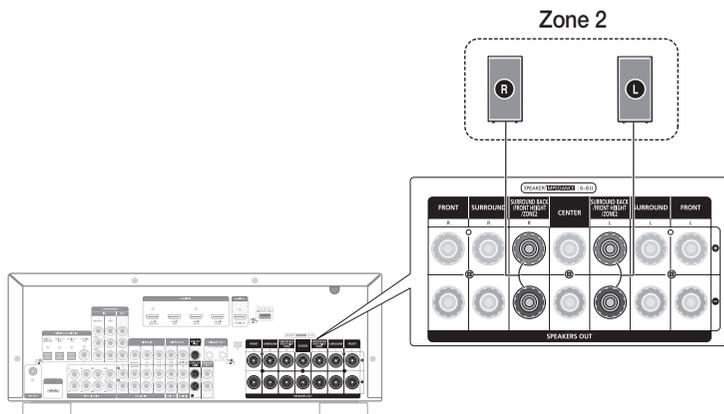
ZONE 2

Connecting using the external amplifier

1. Connecting the speakers directly to the main unit (Powered ZONE2)

This setup allows 5.1-channel playback in your main room and 2-channel stereo playback in Zone 2, with a different source in each room.

- Connect your Zone 2 speakers to the AV receiver's Surround Back Speaker terminals.

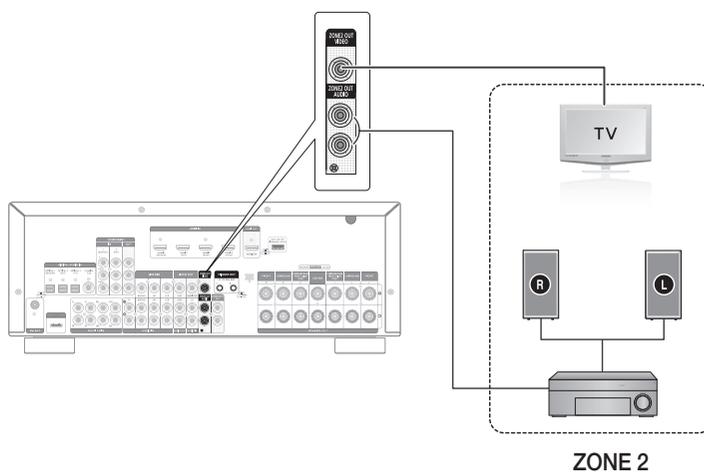


- To enable the Powered ZONE2 feature, you must set SB SETUP to ZONE2 in SETUP menu. See page 42.
- You can adjust the volume of Powered ZONE2 using the volume control in the main unit when ZONE2 SETUP is set to VARIABLE.

2. Connecting using the external amplifier (ZONE2)

This setup allows 7.1-channel playback in your main listening room and 2-channel stereo playback in Zone 2, with a different source in each room.

- Use an RCA audio cable to connect the AV receiver's ZONE 2 OUT L/R jacks to an analog audio input on your Zone 2 amplifier.
- Connect your Zone 2 speakers to the speaker terminals on your Zone 2 amplifier



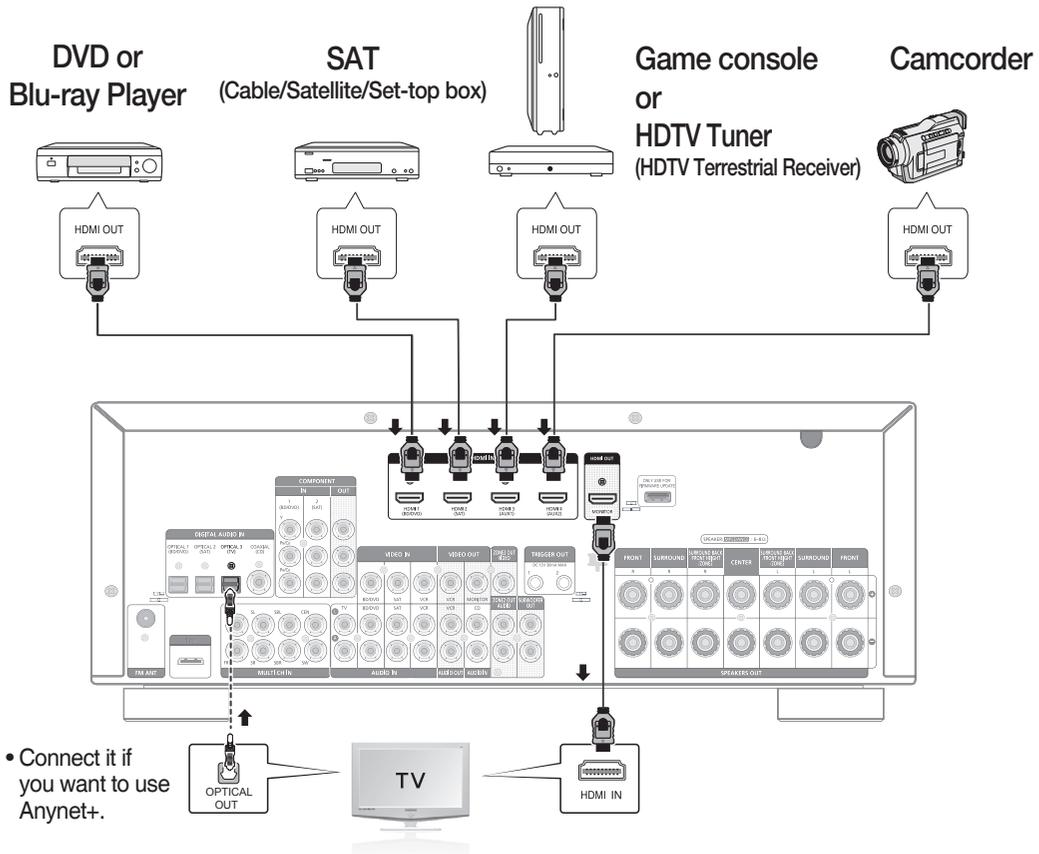
- The Volume in Zone 2 using the external amplifier with volume control (like AV Receiver or Pre-Main Amplifier) can be controlled in the external amplifier.
- If external amplifier does not provide the volume control function like Power Amplifier, set ZONE2 to "VOL VARIABLE" in SETUP menu.

CONNECTING EXTERNAL DEVICES/YOUR TV VIA HDMI

HDMI is a digital standard interface for connection to such devices as a TV, projector, DVD player, Blu-ray player, set-top box and more.

HDMI removes any loss of signal from analog conversion, enabling you to enjoy video and audio sound quality as it was originally created in the digital source.

By connecting through the HDMI(High-Definition Multimedia Interface) interface, you can play back digital video and audio.



High-bandwidth Digital Content Protection System (HDCP) support

To play digital contents through the HDMI connection, both the connected external device and TV must support High-bandwidth Digital Content Protection System (HDCP). This product supports HDCP.

Compatibility with a TV Supporting HDMI	
A TV with an HDMI jack.	Video/Audio
A TV with a DVI-D jack (TV supporting HDCP)	Video
A TV with a DVI-D jack (TV not supporting HDCP)	-



- Audio from SACD discs will not be heard with this connection. To play a DVD disc whose copyright is protected by CPPM, use a player supporting CPPM.
- The quality of the audio output through the HDMI jack (sampling frequency and bit rate) may be limited by the performance of the connected device.
- Since HDMI connection supports both video and audio, you don't have to connect an additional audio cable.

HDMI FUNCTION

Using Anynet+(HDMI-CEC)

Anynet+ is a function that enables you to control other Samsung Devices with your Samsung TV's remote control. Anynet + can be used by connecting this AV Receiver to a SAMSUNG TV using an HDMI Cable. This is only available with SAMSUNG TVs and SAMSUNG AV Products that support Anynet+.

1. Connect the AV receiver to a Samsung TV with an HDMI cable. (See page 22)
2. Set the Anynet+ function on your TV.
(See the TV instructions manual for more information.)
 - You can operate the volume on the AV receiver by using Volume buttons on the TV remote control.

To turn on Anynet+

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲ ▼** buttons to select **HDMI SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲ ▼** buttons to select **HDMI ANYNET+**, and then press the **ENTER** or **▶** button.
5. Press the **▲ ▼** buttons to set **ANYNET+** to **ON**.

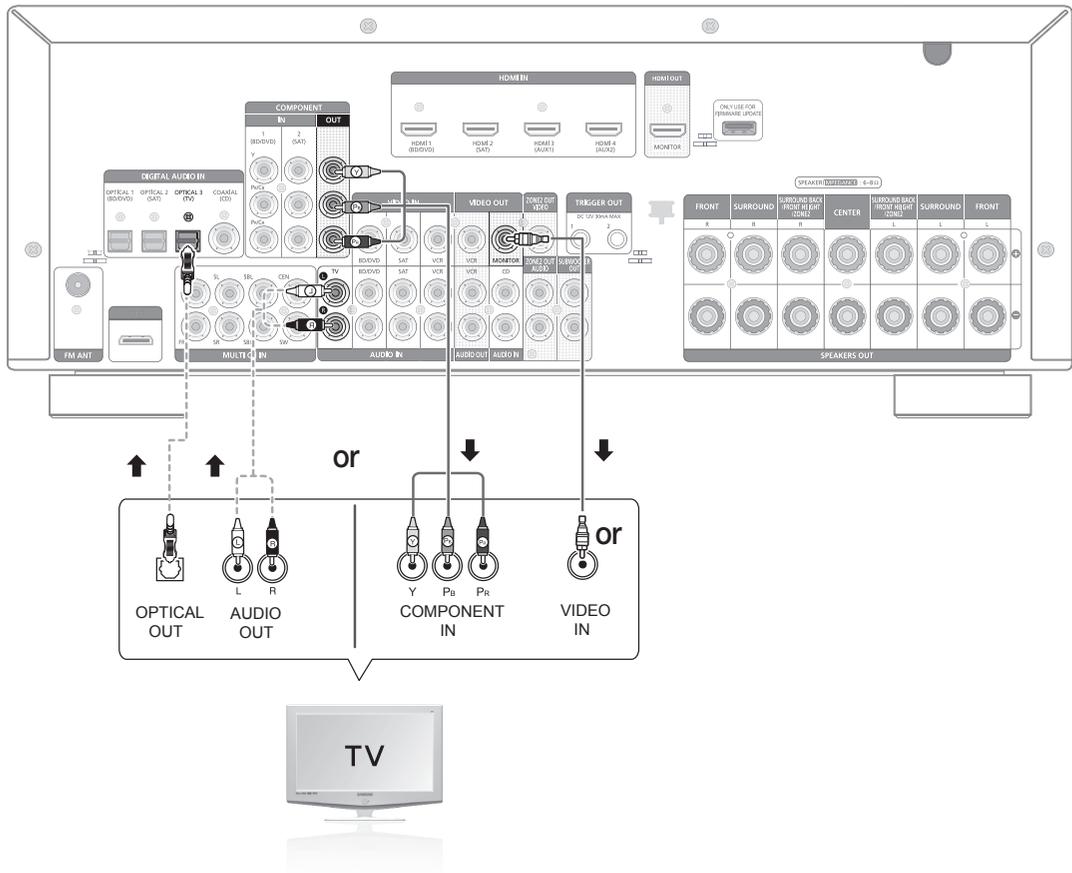
- To exit setup mode-

- Press the **SETUP/MENU** button.
SETUP OFF appears on the display and Setup Mode is exited.



- If you use an HDMI cable to connect a Samsung TV to your AV Receiver, you can operate the AV receiver using the TV's remote control. This function is available only in connection with Samsung TV and DVD player supporting Anynet +(HDMI-CEC).
- Please check your TV for the *Anynet+* logo. If your TV has an *Anynet+* logo, then it supports the Anynet+ function.
- When you are making Anynet+ connection, do not connect more than two AV receivers (Anynet+ installed). Otherwise, it can cause a malfunction.

CONNECTING TO YOUR TV



Video Connection

If your television is equipped with Component Video inputs, connect a Component video cable(not supplied) from the Component Video Output (P_R, P_B and Y) jacks on the back of your AV Receiver to the Component Video Input jacks on your TV.

OR

Connect the Video cable from the VIDEO OUT (MONITOR) jack on the back of your AV Receiver to the Video Input jack on your TV.

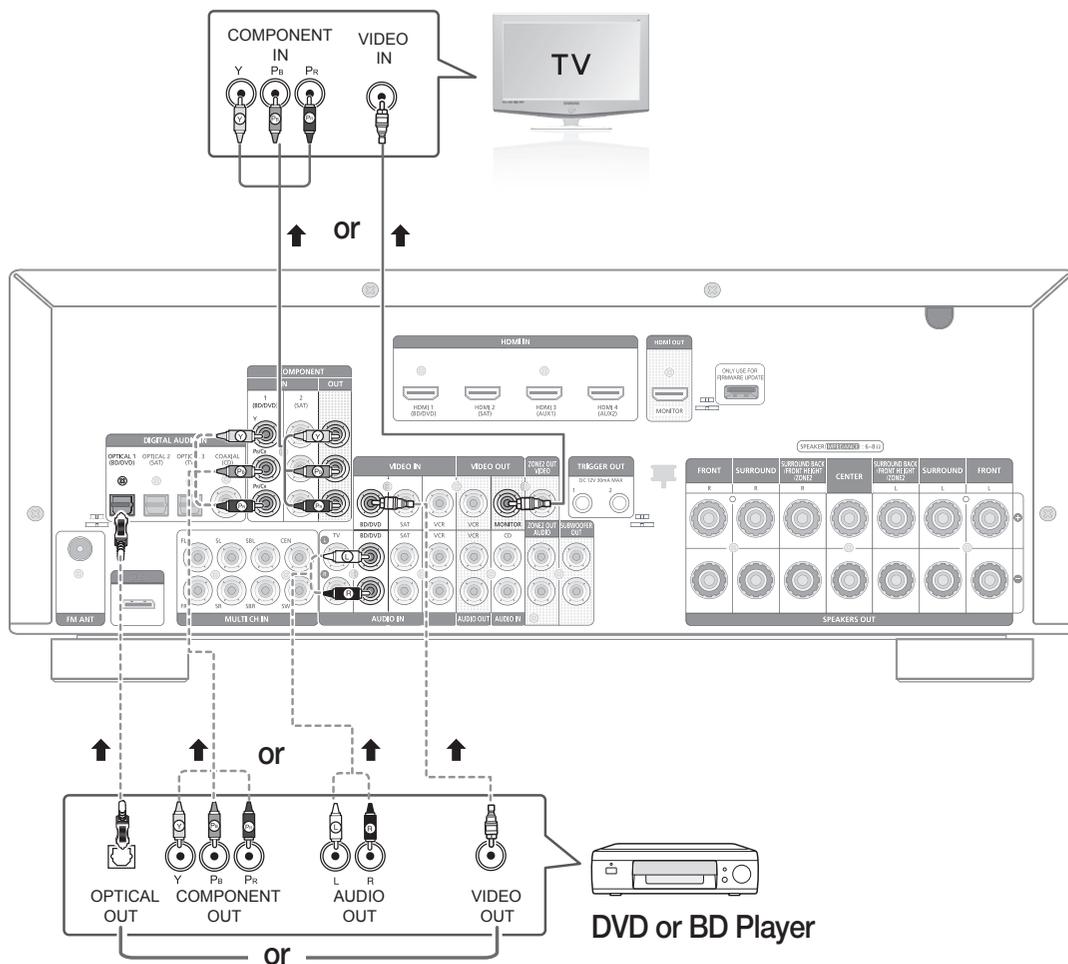
Audio Connection

Connect the Digital Input (OPTICAL 3) on your AV Receiver to the Digital Output of the TV.

OR

Connect AUDIO IN (TV) on your AV Receiver to the Audio Out of the TV.

CONNECTING A DVD OR BD(Blu-ray) PLAYER



Video Connection

Connect a Component video cable(not supplied) from the COMPONENT IN (BD/DVD) (Pr, Pb and Y) jacks on the back of your AV Receiver to the Component Video Output jacks on your DVD/BD player.

OR

Connect a Video cable from the VIDEO IN (BD/DVD) jack on the back of your AV Receiver to the Video Output jack on your DVD/BD player.

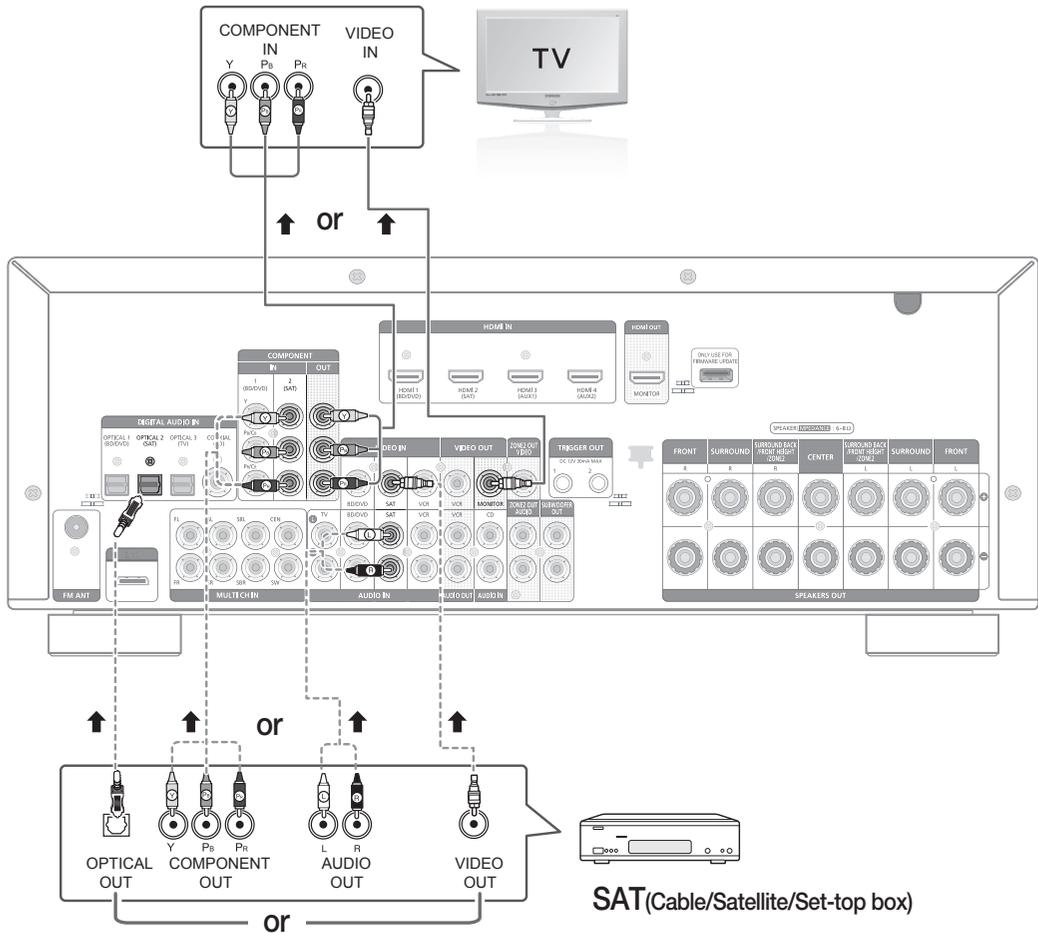
Audio Connection

Connect the Digital Input (OPTICAL 1) on your AV Receiver to the Digital Output of the DVD/BD player.

OR

Connect AUDIO IN (BD/DVD) on your AV Receiver to the Audio Out of the DVD/BD player.

CONNECTING A CABLE, SATELLITE OR SET-TOP BOX



Video Connection

Connect a Component video cable(not supplied) from the COMPONENT IN (SAT) (Pr, Pb and Y) jacks on the back of your AV Receiver to the Component Video Output jacks on your SAT.

OR

Connect a Video cable from the VIDEO IN (SAT) jack on the back of your AV Receiver to the Video Output jack on your SAT.

Audio Connection

Connect the Digital Input (OPTICAL 2) on your AV Receiver to the Digital Output of the SAT.

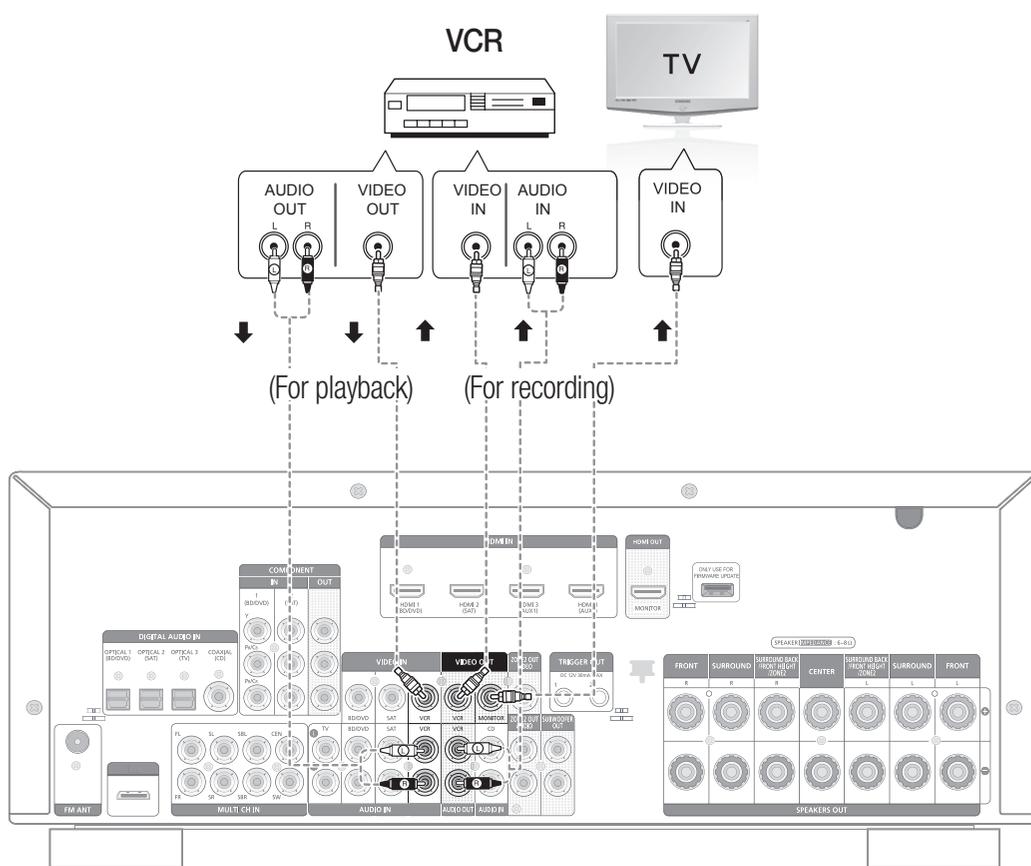
OR

Connect AUDIO IN (SAT) on your AV Receiver to the Audio Out of the SAT.



- Disconnect the power plug from the outlet if you will not use this unit for a long period of time.
- If the cable/set-top box has only one audio output jack, connect it to either the right or left audio input jack of the main unit. Connect the audio cable's red plug to the red jack and white cable to the white jack.

CONNECTING A VCR



Video Connection

For playback

Connect a Video cable from the VIDEO IN (VCR) jack on the back of your AV Receiver to the Video Output jack on your VCR.

For recording

Connect a Video cable from the VIDEO OUT (VCR) jack on the back of your AV Receiver to the Video Input jack on your VCR.

Audio Connection

For playback

Connect AUDIO IN (VCR) on your AV Receiver to the Audio Out of the VCR.

For recording

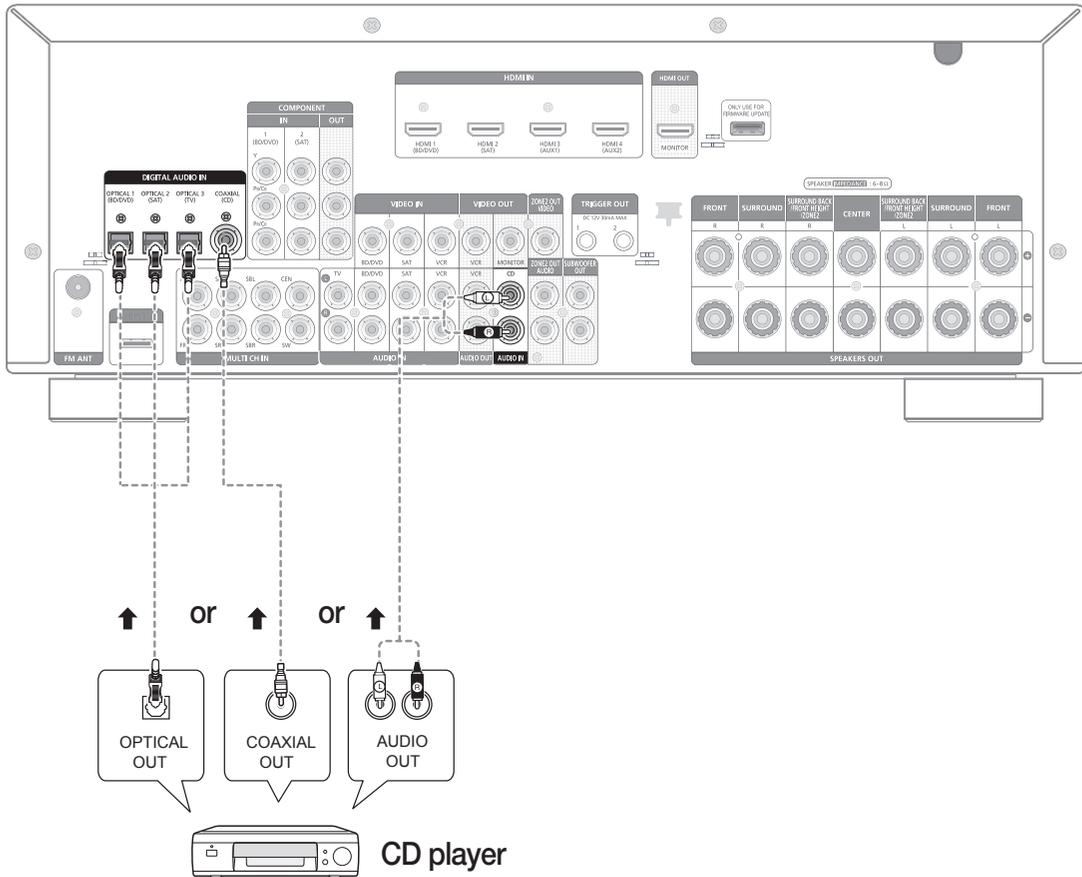
Connect AUDIO OUT (VCR) on your AV Receiver to the Audio In of the VCR.



■ Disconnect the power plug from the outlet if you will not use this unit for a long period of time.

Connections

CONNECTING A CD PLAYER



Audio Connection

Connect the Digital Input (COAXIAL, OPTICAL 1~3) on your AV Receiver to the Digital Output of the CD Player.

OR

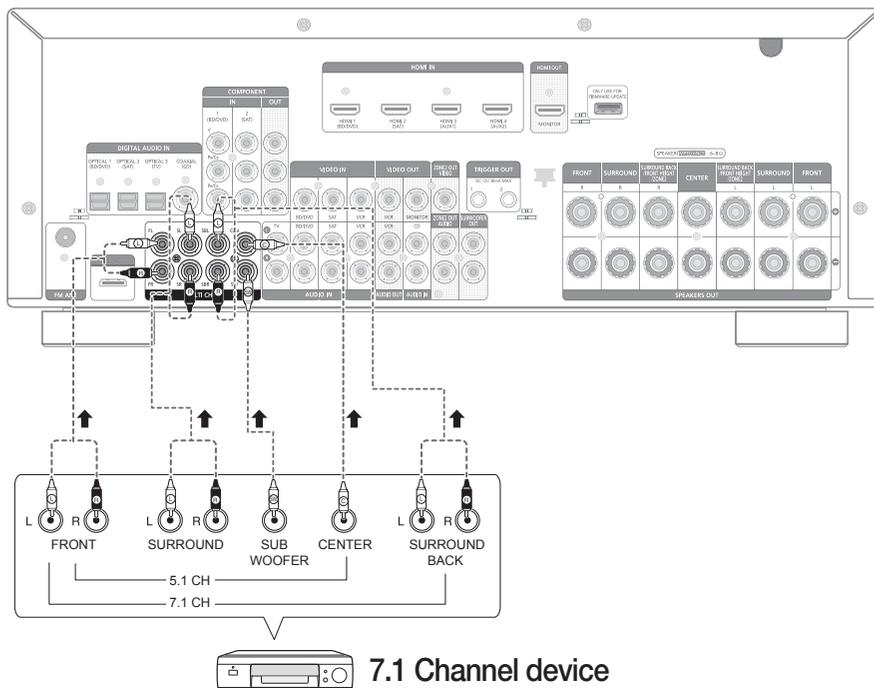
Connect AUDIO IN (CD) on your AV Receiver to the Audio Out of the CD player.



- If the CD player has only one audio output jack, connect it to either the right or left audio input jack of the main unit. Connect the audio cable's red plug to the red jack and white cable to the white jack.
- If the CD player has only OPTICAL digital output jack, connect it to OPTICAL 1~3 JACK of the main unit. Please see "AUDIO SETUP" at Page.35.

CONNECTING 7.1 CHANNEL DEVICES

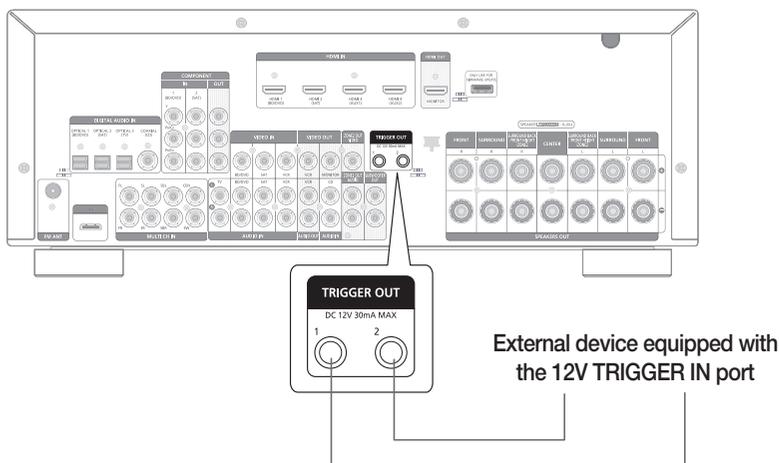
You can connect the AV receiver to a DVD player, SUPER AUDIO CD player or other device with 7.1 channel output.



CONNECTING THE TRIGGER OUT JACKS

Once you connect TRIGGER OUT 1 and 2 ports on the rear panel to TRIGGER IN (if available) of the external device, you can control various functions of the external device including turning it on/off.

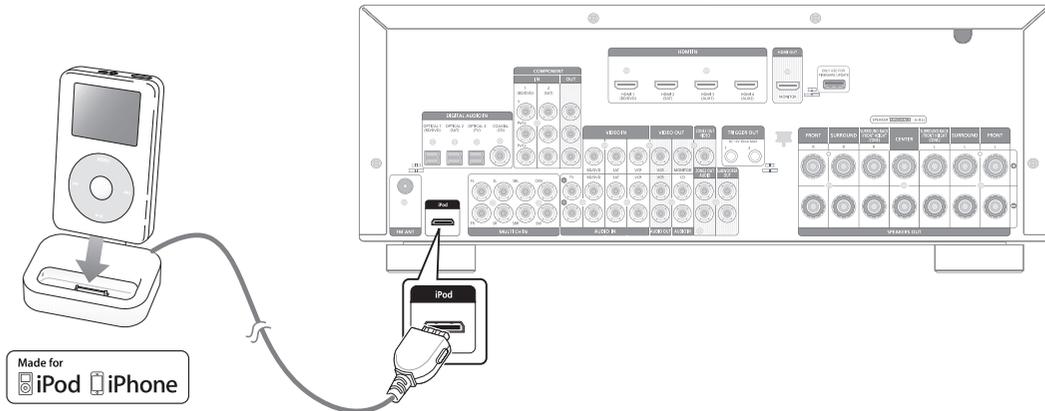
Once you set TRIGGER OUT1(T1) and TRIGGER OUT2(T2) to either BD/DVD or SAT from the 12-V TRIGGER OUT setup menu, the TRIGGER OUT port will output a maximum 12V/30mA electrical signal if you set the input source to either BD/DVD or SAT. For more information, see page 54.



Connections

CONNECTING AN iPod

You can listen to audio from an iPod through the main unit. For iPod operation with your receiver, see this page and pages 58 ~ 59.



1. Connect the iPod dock connector to the iPod jack on your receiver.
2. Place the iPod in the Dock.
 - If you want to play a movie stored in your iPod player, you should set the player's **TV Out** option to **On** before inserting it into the dock. See page 59.
3. Press the **iPod** button on the remote control.
 - You can also use the **INPUT SELECT** button on the main unit.
The mode switches as follows :
FM → BD/DVD → SAT → TV → VCR → CD → AUX 1 → AUX 2 → 7.1 MULTI CH → IPOD AUDIO → IPOD VIDEO

Disconnecting an iPod

Follow the steps below to prevent damage to an iPod and data when disconnecting from your AV receiver.

1. Press the **INPUT SELECT** button on the main unit to switch to a mode other than **IPOD AUDIO** or **IPOD VIDEO**.
- OR
1. Turn off the AV Receiver.
 2. Disconnect the iPod player from the iPod dock, or remove the iPod dock connector from the AV receiver.



- You must have the VIDEO (Monitor or VCR) output connected to your TV to view iPod video. See page 24.
- Adjust the volume to a moderate level before you connect your iPod and AV Receiver.
- When the unit is powered on and you connect an iPod, the unit will charge your iPod's battery.
- Make sure to connect the dock connector so that the label "**SAMSUNG**" faces upward.
- "Made for iPod" means that an electronic accessory has been designed to connect specifically to an iPod and has been certified by the developer to meet Apple performance standards.
- "Made for iPhone" means that an electronic accessory has been designed to connect specifically to an iPhone and has been certified by the developer to meet Apple performance standards.

CONNECTING AN iPod (Continued)

iPod models that are compatible with HW-C900

 iPod nano 1st generation 1GB 2GB 4GB	 iPod nano 2nd generation (aluminum) 1GB 2GB 4GB	 iPod nano 3rd generation (video) 4GB 8GB	 iPod nano 4th generation (video) 8GB 16GB
 iPod 1st+2nd generation 5GB 10GB 20GB	 iPod 3rd generation 10GB 15GB 20GB 30GB 40GB	 iPod 4th generation 20GB 40GB	 iPod 5th generation(video) 30GB 60GB 80GB
 iPod 4th generation (color display) 20GB 30GB 40GB 60GB	 iPod mini 4GB 6GB	 iPod classic 80GB 120GB 160GB	
 iPod touch 1st generation 4GB 16GB 32GB	 iPod touch 2nd generation 8GB 16GB 32GB	 iPhone iPhone 3G iPhone 3GS	



- "Made for iPod" means that the dock has been designed to connect specifically for the iPod and has been certified by the developer to meet Apple performance standards.
- Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

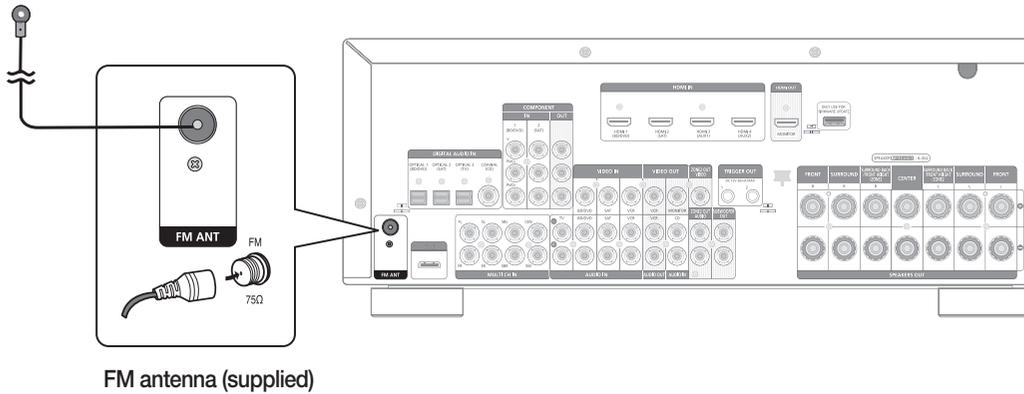
iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

iPhone is a trademark of Apple Inc.

Connections

CONNECTING THE FM ANTENNA

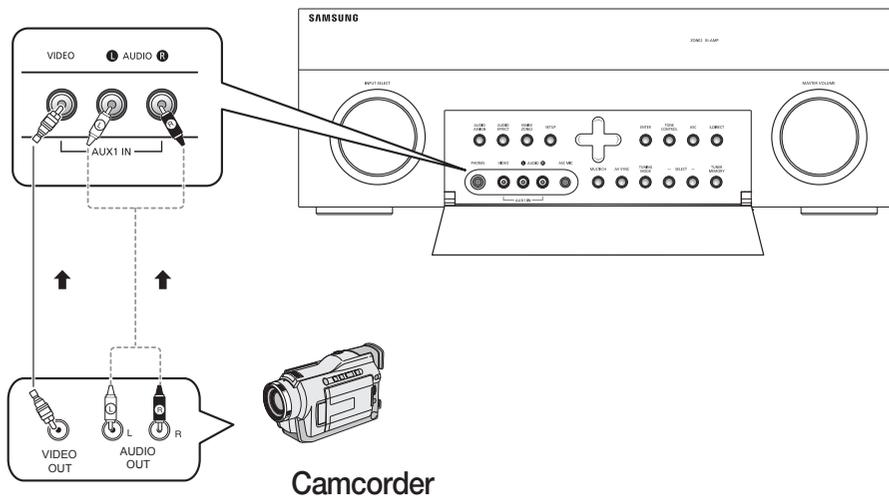
1. Connect the FM antenna supplied to the FM ANTENNA terminal as a temporary measure.
2. Slowly move the antenna wire around until you find a location where reception is good, then fasten it to a wall or other rigid surface.



- Do not place the antenna cable close to the power cord. Keep it as far away as possible.
- If you experience poor FM reception, use an external antenna.

CONNECTING AUX COMPONENTS

You can connect external devices you use for a short time (camcorder, game console, mobile equipment, etc.) to the front of this unit for convenience.



Basic functions of your AV Receiver

BEFORE USING THE AV RECEIVER

Turning On/Off

Connect the power plug to the outlet.
This unit will set to Standby mode.

Press the **POWER** button on the main unit for 2 seconds.

- This unit will be turned on.
- You can also turn the unit on/off by pressing the **POWER** button on the remote control.

Remote control functions

You can operate your AMP (this AV receiver)/ TV and BD(Samsung only)/DVD player with this remote control.
See pages 62 ~ 64 for more details.

To select a function

Method 1

Press the **INPUT SELECT** button.

- Each time you press this button, **FM** → **BD/DVD** → **SAT** → **TV** → **VCR** → **CD** → **AUX1** → **AUX2** → **7.1 MULTI CH** → **IPOD AUDIO** → **IPOD VIDEO** will be selected in turn.

Method 2

Press the **TUNING/CH**, **BD/DVD**, **SAT**, **TV/AUX1**, **CD**, **MULTI CH**, **VCR/AUX2** or **iPod** button.

- You can directly select the desired function.

BASICS OF ZONE2

1. When the ZONE2 speaker is connected properly, turn on the main unit and use **MULTI ZONE2** in the front panel or **MAIN/ZONE** button on the remote control to select ZONE2.
2. Press **POWER** to turn on the ZONE2 feature, and use **INPUT SELECT CONTROL** to select a source that you want to output to ZONE2.
You can also use the **INPUT SELECT** on the main unit.
The mode function as follows :
FM → **BD/DVD** → **SAT** → **TV** → **VCR** → **CD** → **AUX 1**



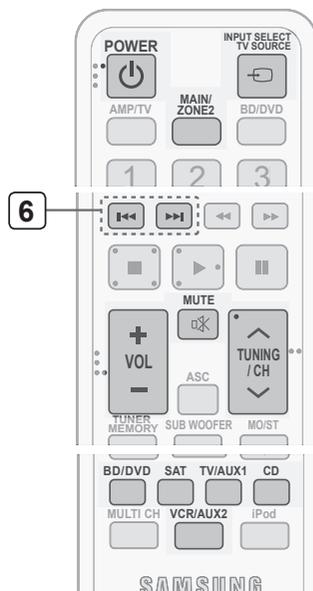
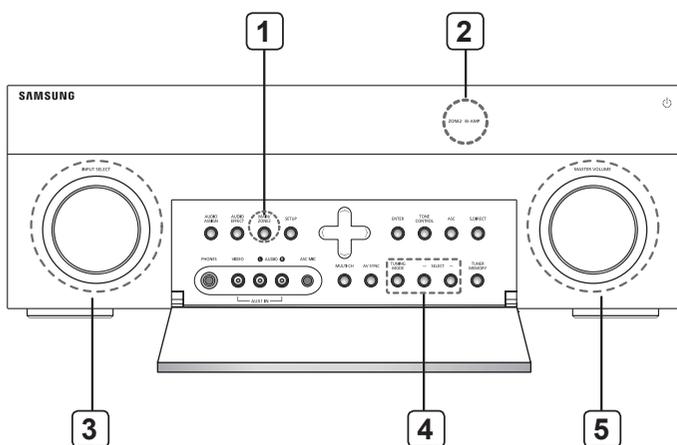
- However, you cannot listen to one FM program in the main zone and a different program in the sub zone.
- The **SETUP** menu will be disabled in ZONE2 mode.

Basic functions of your AV Receiver

BASICS OF ZONE2 (Continued)

Using the ZONE 2 controls

Operation	This Unit	Remote Control Unit	Display & Indicator
Main On	 POWER	 POWER	
Zone 2 Mode	 MULTI ZONE	 MAIN/ZONE2	
Zone 2 Power On	 POWER	 POWER	 
Function (Turn on ZONE2 to display "Z" next to the display of the input source.)	 INPUT SELECT	 INPUT SELECT BD/DVD SAT TV/AUX1 CD VCR/AUX2 DIRECT FUNCTION KEY	 ↓ 
Volume (Variable Mode) (Fixed Mode)	 MASTER VOLUME	 VOL 	 
Zone 2 Control Off (Zone 2 Mode → Main Zone Mode)	 MULTI ZONE	 MAIN/ZONE2	 ↓ 
Zone 2 Power Off	 POWER	 POWER	 



1	MULTI ZONE	4	Tuner Preset Mode
2	Indicator	5	Volume Control
3	Function	6	Tuner Preset Frequency

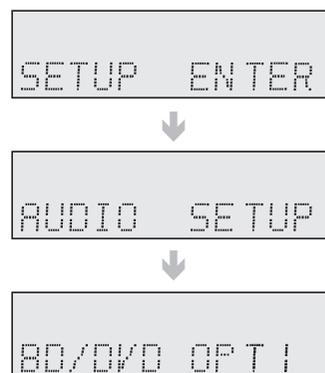
- In ZONE2 FM mode, you can switch only between the preset channels that you have specified in the main zone.
- ZONE2 is enabled only for an analog input source; the digital source is not applicable. If you still encounter a failure after following all these instructions, check if the input source is of the analog type. You cannot listen to one FM program in the main zone and a different program in the sub zone.
- You can use MUTE on the remote control to mute the output sound of ZONE2.
- Main Zone : Off, Zone 2 : On → It is possible to change into the state of "Main Zone : On, Zone 2 : On" from the state of "Main Zone : Off, Zone 2 : On" .

AUDIO SETUP

Selecting a source device and connection jack (Digital Audio In)

Select the external devices you have connected to the receiver.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **AUDIO SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select a desired jack.
 - Devices switch as follows; BD/DVD, SAT, TV, CD



- To exit setup mode -

- Press the **SETUP/MENU** button on the remote control. **SETUP OFF** appears on the display and Setup Mode is exited.



- You can also use the **SETUP**, **▲**, **▼**, **<**, **>**, **ENTER** buttons on the front of your AV Receiver.

Basic functions of your AV Receiver

SELECTING DIGITAL/(HDMI)/ANALOG

You can listen to sound in 2 channel analog , Dolby Digital or DTS using this unit.

1. Press the **INPUT SELECT** button to select a desired function (BD/DVD, SAT,TV, CD, AUX). See page 33.
2. Press the **AUDIO ASSIGN** button on the remote control to select the audio input source of the external device you have connected.
 - Each time you press this button, the input mode changes as follows:



• For BD/DVD function



• For SAT function



• For TV function



• For CD function



• For AUX1 function



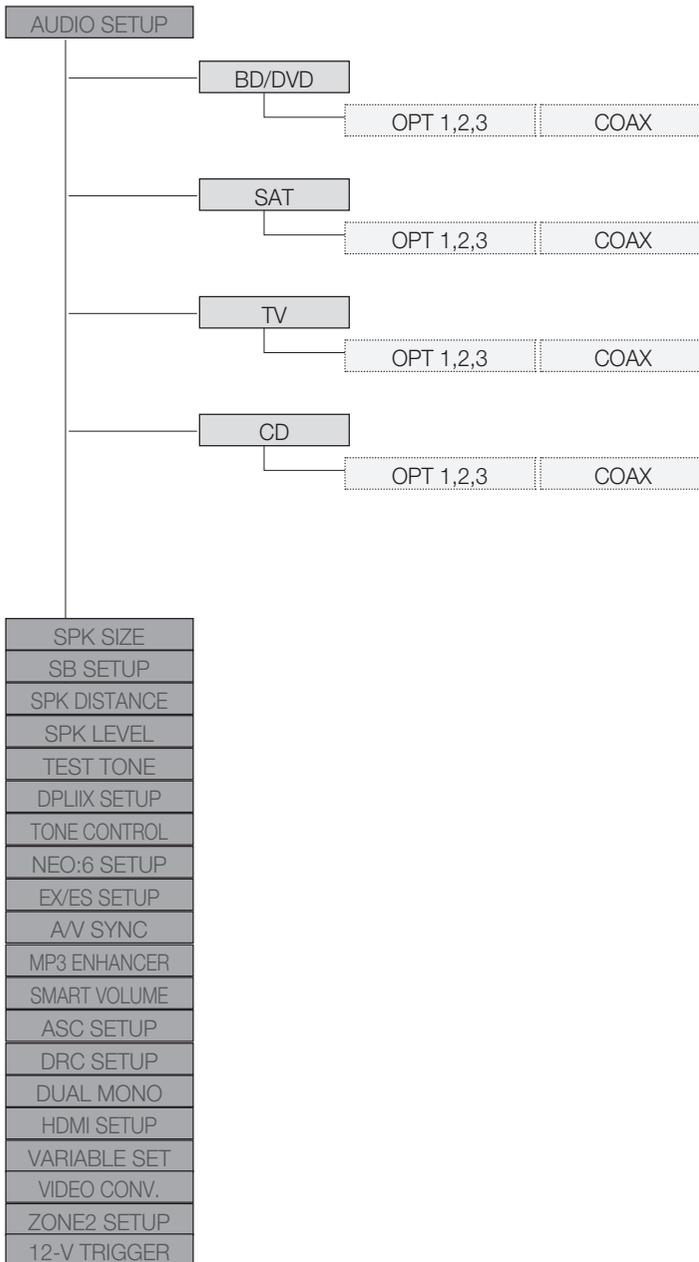
- You can also change the input mode by pressing the **AUDIO ASSIGN** button on the front of your AV Receiver.
- You can enjoy Dolby Digital or DTS if you connect the digital audio output jack of an external audio component to the optical or coaxial digital audio input jack on the main unit.
- For the TV function, the TV ARC menu will be displayed only if an ARC-compliant TV is connected.

Setup

For your convenience, you can set this AV receiver's features for the best use.

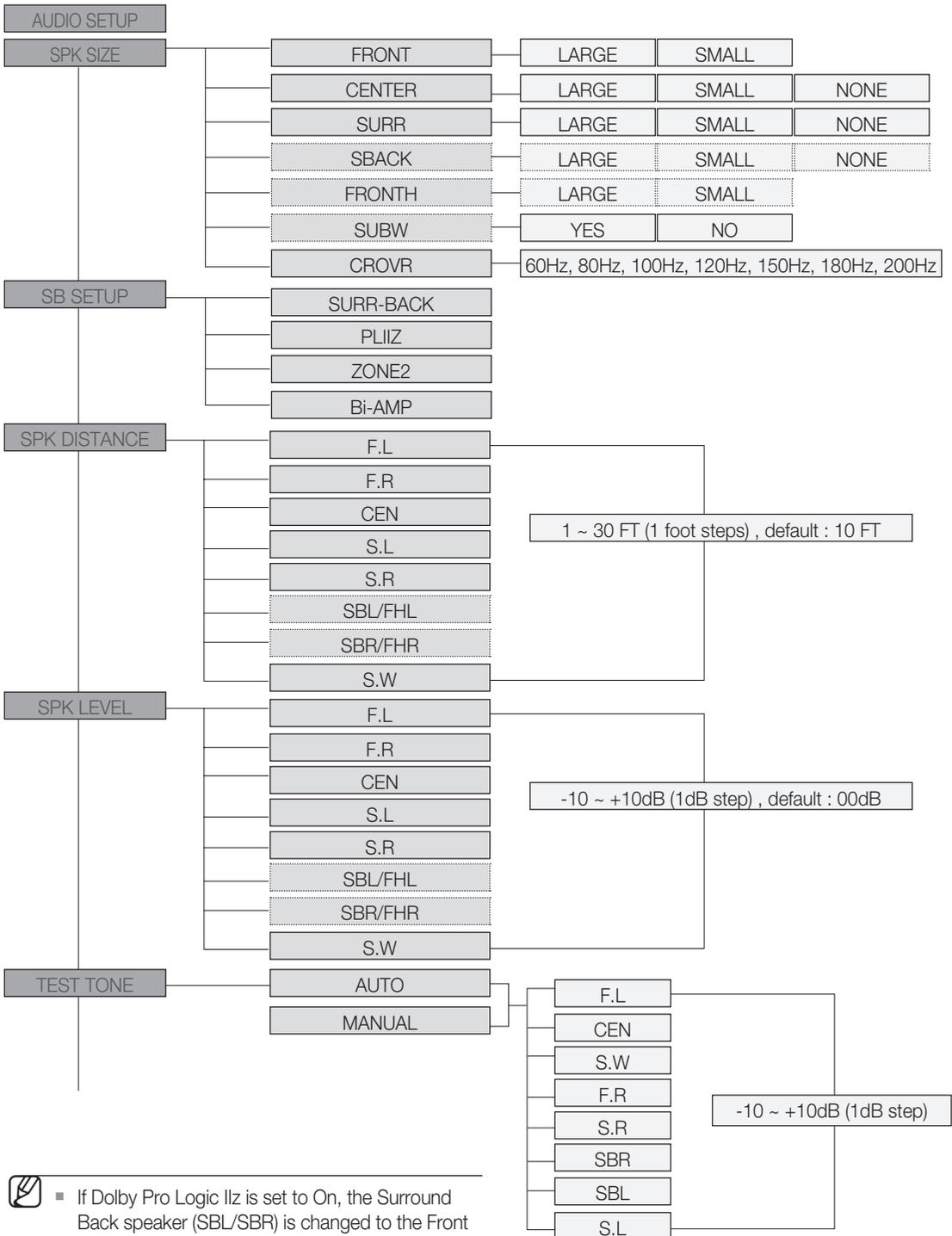
SETUP MENU TREE

Here's a quick look at how the setup menus are organized on your AV Receiver.



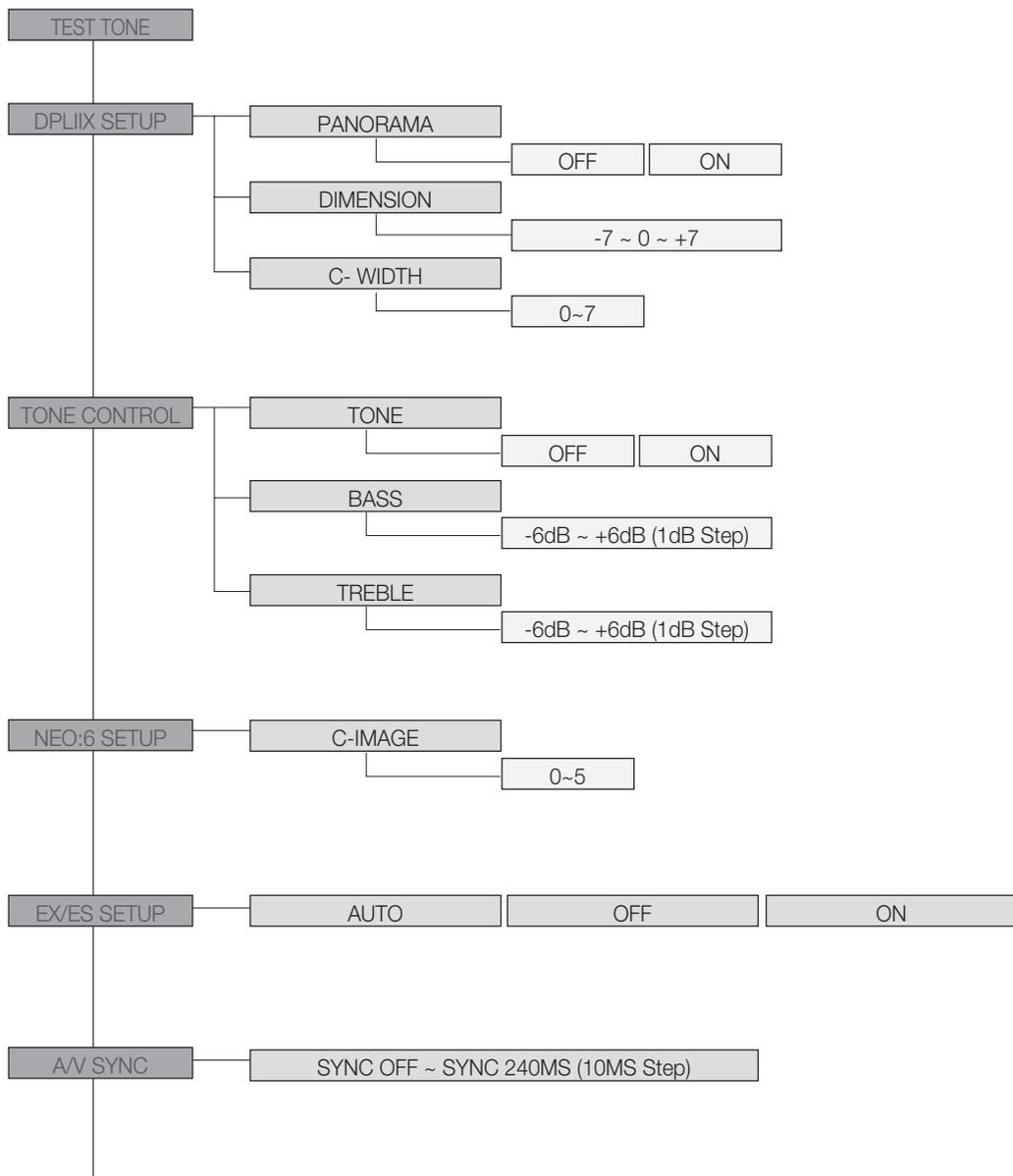
Setup

SETUP MENU TREE (Continued)



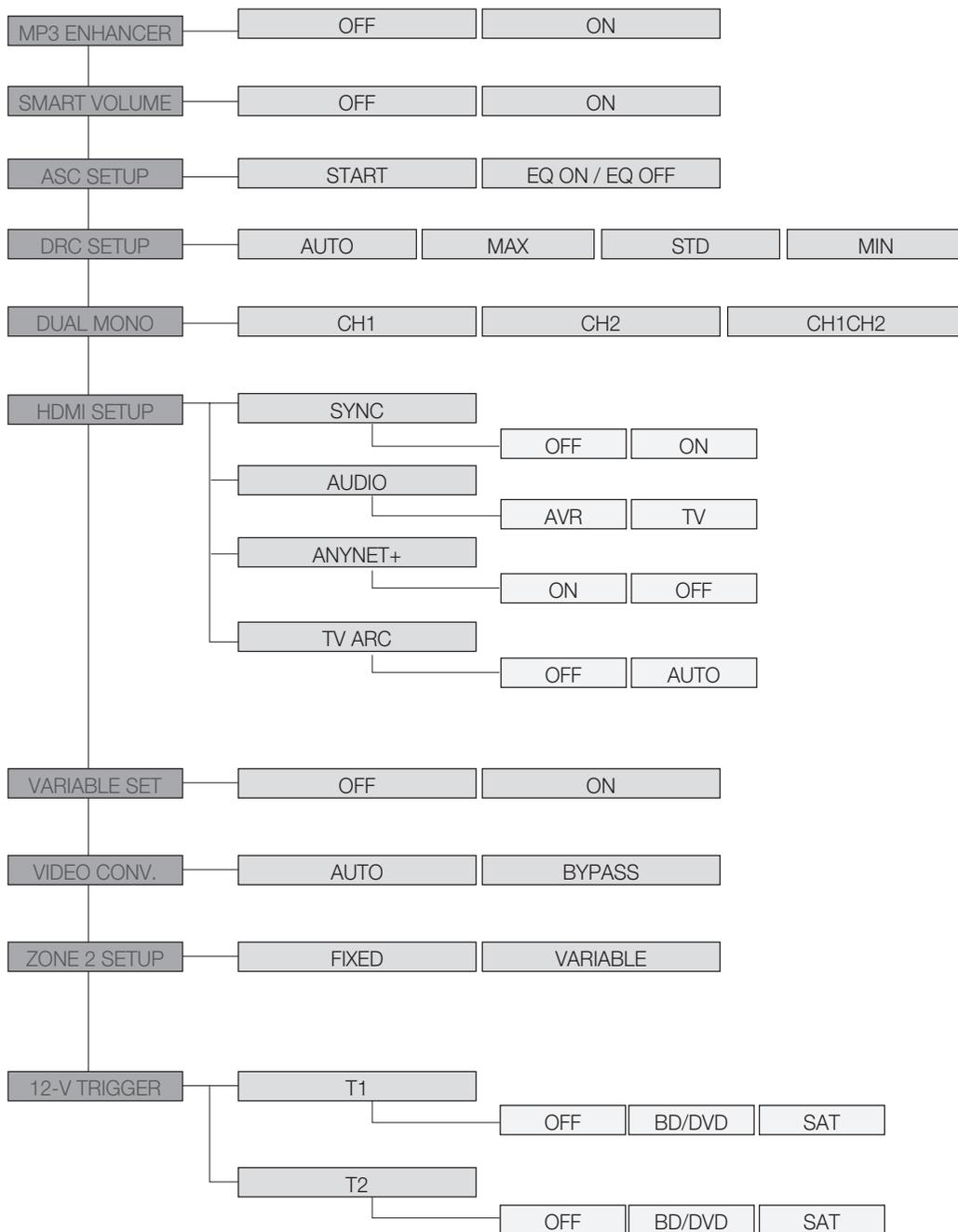
- 
 If Dolby Pro Logic IIz is set to On, the Surround Back speaker (SBL/SBR) is changed to the Front Height Speaker (FHL/FHR).

SETUP MENU TREE (Continued)



Setup

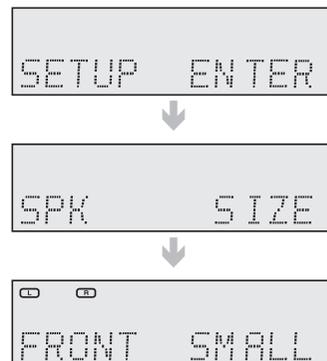
SETUP MENU TREE (Continued)



SETTING THE SPEAKER SIZE

Signal outputs and frequency response from the speaker will be adjusted according to your speaker configuration and whether certain speakers are used or not.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP**, **ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **SPK SIZE**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the speaker you want, and then press the **ENTER** or **▶** button.
 - Each time you press the **▲▼** buttons, FRONT → CENTER → SURR → SBACK(DPLIX) → FRONTH(DPLIZ) → SUBW → CROVR will be selected in turn.
5. Press the **▲▼** buttons to set the mode (LARGE, SMALL etc.) for the selected speaker.
6. Repeat steps 3-5 to set the mode for each speaker.



- To exit setup mode -

- Press the **SETUP/MENU** button on the remote control. **SETUP OFF** appears on the display and Setup Mode is exited.

Setting the Speaker

SPEAKER	Possible Settings	Default Setting
FRONT (Front)	LARGE, SMALL	SMALL
CENTER (Center)	LARGE, SMALL, NONE	SMALL
SURR (Surround)	LARGE, SMALL, NONE	SMALL
SBACK (Surround Back)	LARGE, SMALL, NONE	SMALL
FRONTH (Front Height)	LARGE, SMALL	SMALL
SUBW (Subwoofer)	YES, NO	YES
CROVR (Crossover Frequency)	60, 80, 100, 120, 150, 180, 200(Hz)	100Hz

- **LARGE** : Select when using large speakers. You can listen to full range sound.
- **SMALL** : Select this when using small speakers.
- **NONE** : Select when no speaker is used.
- **YES (subwoofer)** : Select when using the subwoofer speaker.
- **NO (subwoofer)** : Select when not using the subwoofer speaker.
- **CROVR** : Select the crossover frequency for the best bass response in your speakers.



- You can also use the **SETUP**, **▲**, **▼**, **<**, **>**, **ENTER** buttons on the front of your AV Receiver.
- When the Front speaker is only set to LARGE, you can select LARGE of other speakers.
- When the Surround speaker is only set to LARGE, you can select LARGE of SBACK (Surround Back) speaker.

Setup

CONNECTION SETTING FOR SURROUND BACK

Settings for the surround back speaker differ depending on the connection method and installation site of the speaker to be connected. You must configure the SB SETUP settings according to the connected speaker before you listen to music properly.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **SB SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** to select a proper setting for the surround back speaker.
 - **SURR-BACK** : Select this if you want to install the surround back speaker in the default settings. With this setting, you can enable the Dolby Pro Logic IIx mode.
 - **PLIIz** : Select this if you want to install the surround back speaker in the top front corner. With this setting, you can enable the Dolby Pro Logic IIz mode.
 - **ZONE2** : Select this if you want to connect the ZONE2-specific speakers (left/right) to the surround back port. With this setting, you can enable the Powered ZONE2 feature.
 - **Bi-AMP** : Select this if you want to connect the Bi-Amp compliant speaker to the surround back port. With this setting, you can enable the Bi-Amp feature.

SETUP ENTER



SB SETUP



SB SURR-BACK

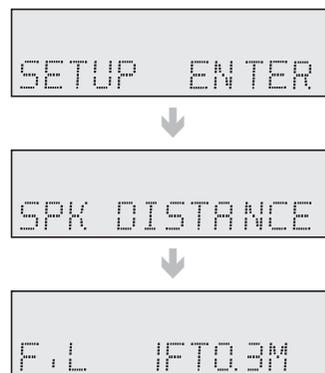


- Depending on the SB SETUP settings, the surround back speaker or front height speaker menus may not be activated or may differ in the speaker menu: SPEAKER SIZE, SPEAKER LEVEL, SPEAKER DISTANCE.
- Depending on your setting, you may not use different features simultaneously. If you set SURR-BACK, for instance, you cannot use the following features: PLIIz, ZONE2 and Bi-AMP.

SETTING THE SPEAKER LISTENING DISTANCE

If the speakers cannot be placed at equal distances from the listening position, you can adjust the delay time of the audio signals from the center and surround speakers.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP**, **ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **SPK DISTANCE**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the speaker you want, and then press the **ENTER** or **▶** button.
 - Each time you press the **▲▼** buttons, F.L → F.R → CEN → S.L → S.R → SBL → SBR → S.W will be selected in turn.
5. Press the **▲▼** buttons to set the Speaker Distance.
 - For the FRONT LEFT, FRONT RIGHT, CENTER, SURR. LEFT, SURR. RIGHT, SURRBACK.LEFT, SURRBACK.RIGHT and SUBWOOFER Speakers, you can set the distance from the speaker to listening position between 1ft ~ 30ft (0.3~9.0m) in intervals of 1ft (0.3m).



- To exit setup mode -

- Press the **SETUP/MENU** button on the remote control. **SETUP OFF** appears on the display and Setup Mode is exited.

- Setting Speaker Distance -

Set the distance from the speaker to listening position in intervals of 1ft(0.3m).

- | | |
|-------------------------------------|--|
| • F.L (front left) : 1ft ~ 30ft | • SW (subwoofer) : 1ft ~ 30ft |
| • F.R (front right) : 1ft ~ 30ft | • SBL (surround back left) : 1ft ~ 30ft |
| • S.L (surround left) : 1ft ~ 30ft | • SBR (surround back right) : 1ft ~ 30ft |
| • S.R (surround right) : 1ft ~ 30ft | • FHL (front height left) : 1ft ~ 30ft |
| • CEN (center) : 1ft ~ 30ft | • FHR (front height right) : 1ft ~ 30ft |



- If the listening position is beyond the range of the speaker distance setup, set the speaker distance to the maximum.
- If Dolby Pro Logic IIz is set to On, the Surround Back speaker (SBL/SBR) is changed to the Front Height Speaker (FHL/FHR).

Setup

SETTING THE SPEAKER LEVEL

You can set the balance and level of speakers.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **SPK LEVEL**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the speaker you want, and then press the **ENTER** or **▶** button.
 - Each time you press this button, F.L → F.R → CEN → S.L → S.R → SBL → SBR → S.W will be selected in turn.
5. Press the **▲▼** buttons to set the Speaker Level mode.
 - You can adjust it from -10 to +10dB in 1 step increments.
 - The sound gets quieter at -10dB and louder at +10dB.



SETUP ENTER



SPK LEVEL



F.L +01^{dB}

- To exit setup mode -

- Press the **SETUP/MENU** button.
SETUP OFF appears on the display and Setup Mode is exited.

- Setting Speaker Level -

- F.L (front left) : -10 ~ +10dB
- F.R (front right) : -10 ~ +10dB
- S.L (surround left) : -10 ~ +10dB
- S.R (surround right) : -10 ~ +10dB
- CEN (center) : -10 ~ +10dB
- SW (subwoofer) : -10 ~ +10dB
- SBL (surround back left) : -10 ~ +10dB
- SBR (surround back right) : -10 ~ +10dB
- FHL (front height left) : -10 ~ +10dB
- FHR (front height right) : -10 ~ +10dB

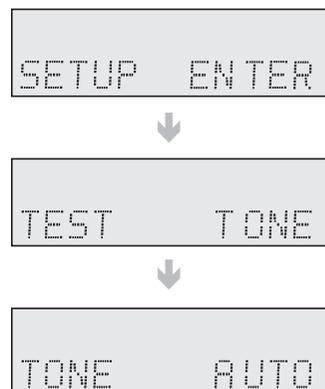


- If Dolby Pro Logic IIz is set to On, the Surround Back speaker (SBL/SBR) is changed to the Front Height Speaker (FHL/FHR).

SETTING THE TEST TONE

Use the test tone to check the speaker connection status or level.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP**, **ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **TEST TONE**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the option you want, and then press the **ENTER** or **▶** button.
 - **AUTO** : Test signal will be automatically output as follows; F.L → CEN → S.W → F.R → S.R → SBR → SBL → S.L.
 - During test tone output, press the **▲▼** buttons to adjust the speaker output level from -10 to +10 dB by 1 step.
 - **MANUAL** : Enables you to adjust the output level of the speaker manually.



- 1) Press the **ENTER** or **▶** button to select the speaker you want. Each time you press the **ENTER** button, F.L → CEN → S.W → F.R → S.R → SBR → SBL → S.L will be selected in turn.
- 2) Press the **▲▼** buttons to set the Test Tone mode you want. You can adjust the speaker output level from -10 to +10dB by 1 step. The sound gets quieter at -10dB and louder at +10dB.

- Test Tone Output -

- F.L (front left) : -10 ~ +10dB
- F.R (front right) : -10 ~ +10dB
- S L (surround left) : -10 ~ +10dB
- S.R (surround right) : -10 ~ +10dB
- CEN (center) : -10 ~ +10dB
- S.W (subwoofer) : -10 ~ +10dB
- SBL (surround back left) : -10 ~ +10dB
- SBR (surround back right) : -10 ~ +10dB

- To stop test tone -

- Press the **SETUP/MENU** button once. **SETUP OFF** appears on the display and test tone stops.



- In the Dolby Pro Logic IIz mode, test signal will be automatically output as follows : F.L → FHL → CEN → S.W → FHR → F.R → S.R → S.L.

Setup

SETTING DOLBY PRO LOGIC MODE

This mode provides up to 7.1 channel sound from 2 channel sources, or provides 7.1 channel sound from 5.1 channel sources for music or movie mode.

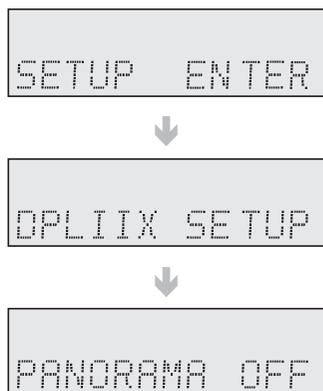
Press the **PROLOGIC** button on the remote control.

- **MOVIE** : Adds realism to the movie soundtrack.
- **MUSIC** : Provides up to 7.1 channel surround sound for digital, analog or existing stereo sources.
- **GAME** : Enhances the excitement of the game's sound.
- **MATRIX** : You will hear up to 7.1 channel surround sound.
- **PL (Pro Logic)** : You will experience a surround effect with 5.1 channel surround sound.
- **OFF** : Output the original signal as it is without applying the sound field effect or any other sound effect.

SETTING DOLBY PRO LOGIC IIx

This function works only in Dolby Pro Logic IIx MUSIC mode.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **DPLIIX SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the option you want, and then press the **ENTER** or **▶** button.
 - **PANORAMA** : You can set it ON or OFF.
(This mode extends the front stereo image to include the surround speakers for an exciting "wraparound" effect with side wall imaging.)
 - **DIMENSION** : You can set from -7 to +7.
(Incrementally adjusts the sound field (DSP) from the front or surround.)
 - **C- WIDTH** : You can set from 0 to 7.
(This sets the width of the center sound image. The higher the setting, the less sound comes from the center speaker.)

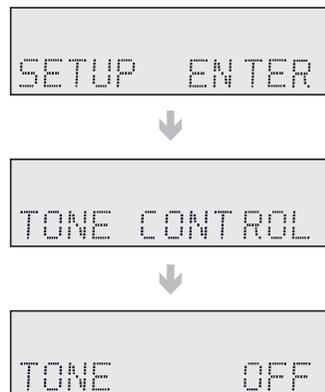


- PANORAMA, DIMENSION and CENTER WIDTH settings are enabled only if the Dolby Pro Logic Mode is set to MUSIC.
- You cannot use Dolby Pro Logic IIx mode for multi channel signals such as Dolby Digital, Dolly Digital +, Dolby true HD, DTS, DTS-HD Master Audio.
- Pro Logic works only for PCM audio signals with sampling frequencies of 32KHz, 44KHz or 48KHz.
- When Dolby Pro Logic IIz is set ON, Dolby Pro Logic IIx can not be used.

SETTING TONE CONTROL

This will enable you to adjust the bass and treble level.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲ ▼** buttons to select **TONE CONTROL**, and then press the **ENTER** or **▶** button.
4. Press the **▲ ▼** buttons to select the option you want, and then press the **ENTER** or **▶** button.
 - Each time you press this button, **TONE → BASS → TREBLE** will be selected in turn.
5. Press the **▲ ▼** buttons to set the Tone Control mode you want.
 - If it is set to **TONE OFF**, the Tone Control function will be disabled.
 - You can adjust it from -6 to +6dB by 1 step.
 - The sound gets quieter at -6dB and louder at +6dB.



- To exit setup mode -

- Press the **SETUP/MENU** button on the remote control. **SETUP OFF** appears on the display and Setup Mode is exited.

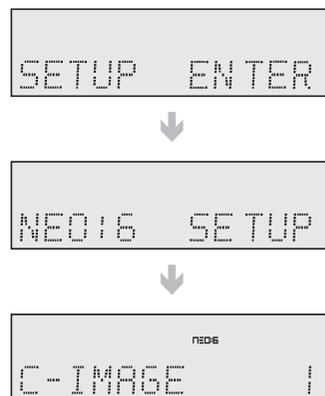


- The Tone Control function can be applied to all channels except for the subwoofer.

SETTING NEO:6 MODE

You can play back 2 channel sound over 7.1 channels when enjoying music or a movie.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲ ▼** buttons to select **NEO:6 SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲ ▼** buttons to set the C-IMAGE mode you want. You can set **C-IMAGE** from 0 to 5. This parameter adjusts the center image through the front and center speakers. "5" is the wider.



- To exit setup mode-

- Press the **SETUP/MENU** button on the remote control. **SETUP OFF** appears on the display and Setup Mode is exited.

Using NEO:6 mode

Press the **NEO:6** button on the remote control.

- **MUSIC** : When listening to music, you can experience sound effects as if you are listening to the actual performance.
- **CINEMA** : Adds realism to the movie soundtrack.
- **OFF** : Output the original signal as it is without applying the sound field effect or any other sound effect.



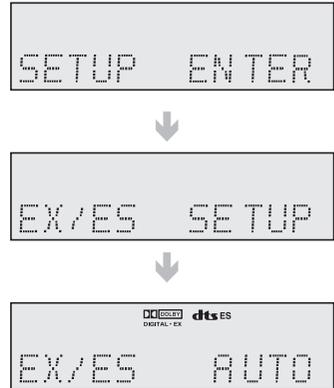
- NEO:6 works only for 2-ch audio signals with sampling frequencies of 32KHz, 44KHz or 48KHz.

Setup

SETTING EX/ES MODE

When surround back speakers are connected, you can listen to 7.1 multi-channel sound using the built-in Dolby Digital Surround EX or DTS ES decoder. This function works when a Dolby Digital or DTS source (such as a DVD player) is input, and does not work with L.PCM and Dolby Digital 2 channel sources.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
 2. Press the **ENTER** button to select **SETUP ENTER**.
 3. Press the **▲▼** buttons to select **EX/ES SETUP**, and then press the **ENTER** or **▶** button.
 4. Press the **▲▼** buttons to set the EX/ES mode you want.
 - **AUTO** : If the unit receives an audio signal that it can recognize, it will select an optimal decoder for playback in 7.1 channels. If the amplifier does not recognize the audio signal, it will not play in 7.1 channel automatically.
 - **ON** : Dolby Digital or DTS signal will be played in 7.1 channel using Dolby Digital Surround EX / DTS ES decoder.
 - **OFF** : Dolby Digital Surround EX / DTS ES decoder will not be used for playback.
- To exit setup mode-
- Press the **SETUP/MENU** button.
SETUP OFF appears on the display and Setup Mode is exited.

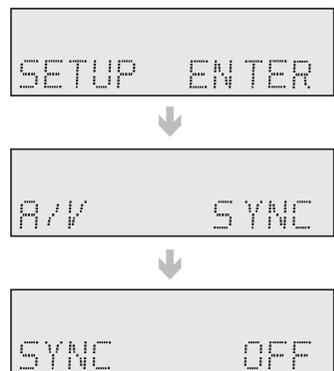


- You cannot use DTS-ES without surround back speakers connected.

AV SYNC

Video may look slower than the audio if it is connected to a digital TV. If this occurs, adjust the audio delay time to match the video.

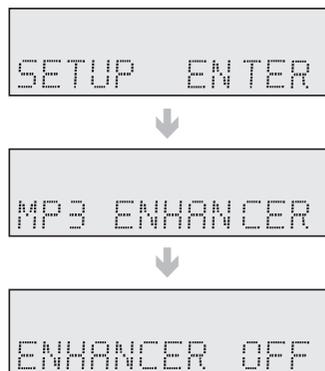
1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **A/V SYNC**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to set the AV Sync mode you want.
 - You can adjust it from OFF to 240MS in 10MS steps.



MP3 ENHANCER

This also helps enhance your sound experience (ex. mp3 music). Use this if you want to hear better sound from a low quality mp3 source.

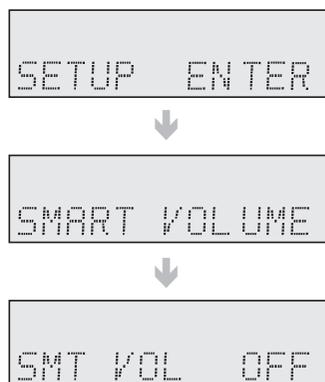
1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **MP3 ENHANCER**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **ON** or **OFF**.



SMART VOLUME

This will regulate and stabilize the volume level against a drastic volume change when changing channels or during a scene transition.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **SMART VOLUME**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **ON** or **OFF**.



Setup

ASC (AUTO SOUND CALIBRATION) SETUP

By setting the ASC function just once when you relocate or install the unit, you can have the unit automatically recognize the distance between speakers, levels between channels, and frequency characteristics to create a 7.1-channel sound field optimized for your environment.

- Before Setting -

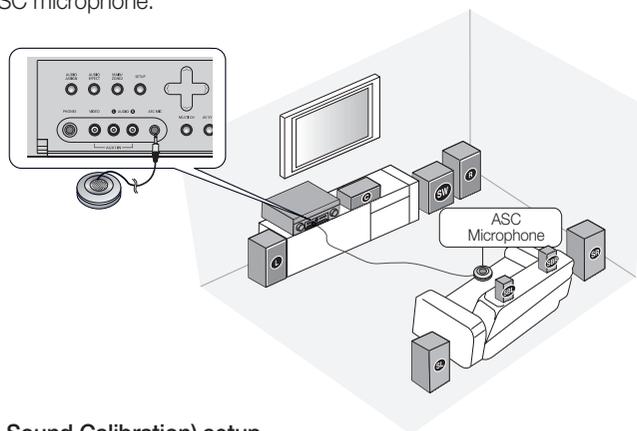
1. Plug the ASC microphone into the **ASC MIC** jack.
2. Place the ASC microphone at the listening position.
3. Press the **ASC** button on the front panel, and then press the **ENTER** button.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **ASC SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **ASC START**, and then press the **ENTER** button.
 - To create the optimal 7.1 channel sound field, the selections are in the following sequence:
L → C → R → SR → SBR → SBL → SL → SW
 - **EQ ON** : The ASC(Auto Sound Calibration) EQ mode is set to on.
 - **EQ OFF**: The ASC(Auto Sound Calibration) EQ mode is set to off.
5. If you see a **ASC READY** message on the screen, press the **ENTER** button to apply the measurement value. And then unplug the ASC microphone.

SETUP ENTER

ASC SETUP

ASC START



To cancel the ASC (Auto Sound Calibration) setup.

This will be automatically reverted if you press the **RETURN** button.

* If ASC error occurs, see "ASC Error List" on page 66.

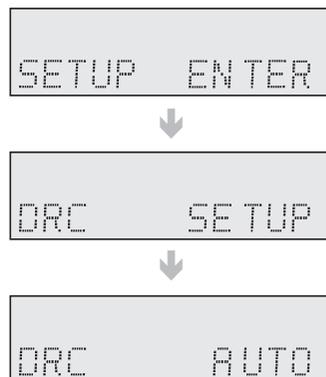


- Setting the ASC function takes about 3 minutes.
- Because the volume level of the tone is fixed during the ASC setup, you cannot adjust the volume using the volume control.
- If the ASC microphone is disconnected during the ASC setup, the setup will be canceled.
- You can also press the **ASC** button on the remote control to use this function.
- If Dolby Pro Logic IIz is set to ON, the selection are in the following sequence : **FL → CEN → FR → SR → FHR → FHL → SL → SW**.

DRC SETUP

You can use this function to enjoy Dolby Digital sound when watching movies at low volume at night. DRC compresses the audio to make the loudest sounds quieter and the quietest sounds louder.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲ ▼** buttons to select **DRC SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲ ▼** buttons to set the DRC Setup mode you want.
 - **AUTO** : The Dynamic Range Control will be set automatically based on the information provided by the Dolby TrueHD Soundtrack.
 - **MAX** : Sets DRC effect to maximum.
 - **STD** : Sets DRC effect to standard.
 - **MIN** : Sets DRC effect to minimum.



DUAL MONO SETUP

Dual mono programs have two independent mono channels.

You can use this function when dual mono programs are played.

When you use this function, select audio channels CH1, CH2 or both Channel.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲ ▼** buttons to select **DUAL MONO**, and then press the **ENTER** or **▶** button.
4. Press the **▲ ▼** buttons to select the DUAL MONO option you want.
 - **CH1** : Channel 1 is heard only.
 - **CH2** : Channel 2 is heard only.
 - **CH1CH2** : Both channels are heard from front speakers.

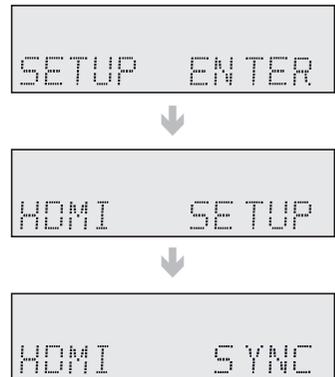


Setup

HDMI SETUP

Use this if you want to receive audio from HDMI connected external devices.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **HDMI SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select the option you want, and then press the **ENTER** or **▶** button.
5. Press the **▲▼** buttons to set the HDMI Setup mode you want.
 - **HDMI SYNC** : ON, OFF
The AV receiver can be set to automatically correct any delay between the video and the audio, based on the data from the connected TV.
 - ON : HDMI Sync is enabled.
 - OFF : HDMI Sync is disabled.
 - **HDMI AUDIO** : AVR(Audio Video Receiver), TV
This preference determines whether audio received at the HDMI IN is output by the HDMI OUT.
If you want to listen to audio from an HDMI connected external device through your HDMI connected TV's speakers, set it to TV. Otherwise, leave it on AVR to listen to audio from the A/V receiver.
 - AVR : HDMI audio is not output
 - TV : HDMI audio is output
 - **HDMI ANYNET+** : ON, OFF
Anynet+ is a function that enables you to control other Samsung Devices with your Samsung TV's remote control.
 - ON : Anynet+ is enabled.
 - OFF : Anynet+ is disabled.
 - **TV ARC** : AUTO , OFF
If you use the HDMI cable to connect between HDMI IN of an Audio Return Channel-compliant TV and HDMI OUT (ARC) of the main unit, you can listen to the TV sound through the main unit connected speaker without the further connection.
 - AUTO : The audio signal from the TV can be sent to the HDMI OUT of the main unit.
 - OFF : Turn TV ARC function off.

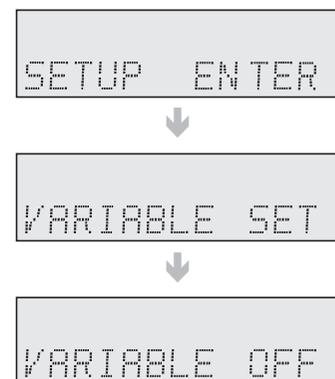


- HDMI Audio is enabled only if both the HDMI INPUT and HDMI OUT are connected properly and working normally.
- HDMI Sync function works only if your HDMI compatible TV supports this function.
- If ANYNET+ is set to OFF, TV ARC will be set to OFF accordingly that cannot switch to AUTO.
- The TV ARC function will be active only via the HDMI OUT terminal.

VARIABLE SET (Low Power Consumption SETUP)

This function enhances electric power efficiency.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **VARIABLE SET**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **ON** or **OFF**.
 - **ON** :This is Samsung's electric power efficiency function, you can save about 30 % for power consumption.
 - **OFF**: Normal power efficiency function.



- This function is not available after the Tone Control, Speaker Level, SFE mode or ASC is changed from the factory setting.

VIDEO CONV. (Video Conversion)

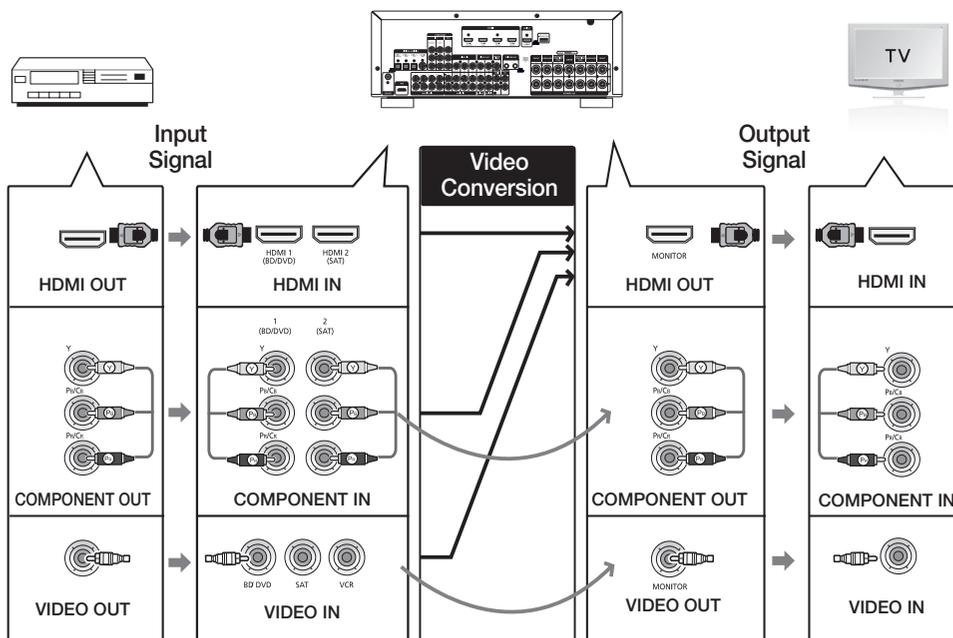
You can convert the incoming composite or component video signal into a maximum quality of the connected TV if you output the converted video via HDMI OUT.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **VIDEO CONV.**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **BYPASS** or **AUTO**.
 - **BYPASS** : Converts the input video source into the digital counterpart without changing the resolution.
 - **AUTO** : Converts the incoming video signal before outputting in the maximum resolution that the connected TV supports.



Video conversion flow according to the connected port

As shown in the illustration, if the unit's HDMI Out is connected to a TV or monitor, the analog video source (composite or component) from the video device is processed for up-conversion automatically for HDMI output. If connected to a TV or monitor through Composite or Component ports, corresponding analog signal will be output respectively, without any conversion. In case if the unit and video source device is connected in multiple methods (HDMI, Component and Composite video) at the same time: Video input signal is automatically selected in the order of **Component Video** → **Composite Video**.



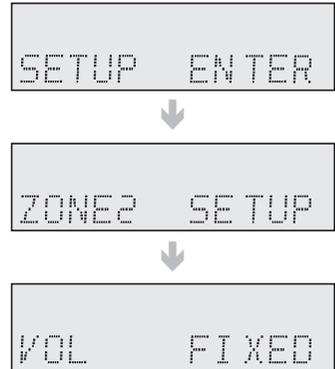
- This enables upconverting up to a quality of 1080p.
- Auto conversion is not applied to a video source incoming from HDMI IN port.
- The maximum resolution of the input video signal is 1080i.
- If the input is 1080i (Component) signal, the output will be in 1080i including HDMI. (1080p is not available for output)
- Video conversion is compatible with the NTSC color system only.

Setup

ZONE2 SETUP

You can use the remote control or the master volume of the main unit to adjust the volume of ZONE2.

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **ZONE2 SETUP**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **VARIABLE** or **FIXED**.
 - **VARIABLE** : You can control the ZONE2 volume directly in the main unit.
 - **FIXED** : Select this if you can control the ZONE2 volume directly in the external amplifier.



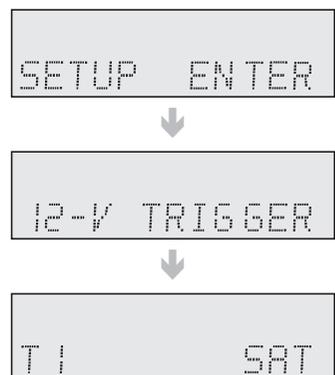
- However, you can still use the **MUTE** button on the remote control regardless of the ZONE2 SETUP settings.
- If SB is set to ZONE2, “ZONE2 SETUP” will be changed to “VOL VARIABLE” accordingly.

12-V TRIGGER

Two different 12 Volt trigger outputs allow automatic activation of externally controlled devices.

Each port supports 12V/30mA trigger-activated functions (BD/DVD, SAT)

1. Press the **SETUP/MENU** button on the remote control.
 - Each time the button is pressed, the mode switches between **SETUP ENTER** and **SETUP OFF**.
2. Press the **ENTER** button to select **SETUP ENTER**.
3. Press the **▲▼** buttons to select **12-V TRIGGER**, and then press the **ENTER** or **▶** button.
4. Press the **▲▼** buttons to select **T1** or **T2**, and then press the **ENTER** or **▶** button.
5. Press the **▲▼** buttons to set the external device mode you want.
 - **BD/DVD** : When switching to BD/DVD mode, 12V signal will be output to the TRIGGER OUT terminal.
 - **SAT** : When switching to SAT mode, 12V signal will be output to the TRIGGER OUT terminal.
 - **OFF** : 12-V TRIGGER will be disabled.



USING THE SURROUND MODES

Using the AUDIO EFFECT button on the front of the main unit

Selecting the DPLIIx mode

1. Press the **AUDIO EFFECT** button to select **DPLIIX**.
 - Each time you press this button, **DPLIIX** → **NEO:6** → **SFE** will be selected in turn.
2. Press the **UP/DOWN** (\wedge , \vee) button.
 - Each time you press the **UP/DOWN** (\wedge , \vee) button, **MUSIC** → **GAME** → **MATRIX** → **PL** → **PL OFF** → **MOVIE** will be selected in turn.
 - If you turn Dolby Pro Logic IIz on, **HEIGHT** → **PL OFF** will be selected in turn.
 - You can also select the DPLIIx mode by pressing the **PROLOGIC** button on the remote control.

Selecting the NEO:6 mode

1. Press the **AUDIO EFFECT** button briefly to select **NEO:6**.
 - Each time you press this button, **DPLIIX** → **NEO:6** → **SFE** will be selected in turn.
2. Press the **UP/DOWN** (\wedge , \vee) button.
 - Each time you press the **UP/DOWN** (\wedge , \vee) button, **MUSIC** → **CINEMA** → **OFF** will be selected in turn.
 - You can also select the NEO:6 mode by pressing the **NEO : 6** button on the remote control.

Selecting the SFE mode

1. Press the **AUDIO EFFECT** button to select **SFE**.
 - Each time you press this button, **DPLIIX** → **NEO:6** → **SFE** will be selected in turn.
2. Press the **UP/DOWN** (\wedge , \vee) button.
 - Each time you press the **UP/DOWN** (\wedge , \vee) button, **STEREO** → **HALL 1** → **HALL 2** → **J.CLUB** → **CHURCH** → **ROCK** → **CLASSIC** → **LIVE** → **GAME** → **MOVIE** → **CONCERT** → **STADIUM** will be selected in turn.
 - You can also select the SFE mode by pressing the **DSP** button on the remote control.



- You cannot use Dolby Pro Logic IIx mode for Analog multi channel signals, LPCM multi channel signals from HDMI, Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio and DTS-HD High Resolution Audio.
- Pro Logic works with the audio signals with sampling frequencies of 32KHz, 44KHz or 48KHz.

Using the S.DIRECT button on the front of the main unit

Output the original signal as it is without applying the sound field effect or any other sound effect.

Press the **S.DIRECT** button.



- The screen will display "DIRECT" instead of "S.DIRECT".

Operation

USING THE SURROUND MODES (Continued)

Input Signal and Surround Chart

o = active, -- = inactive

Input Signal	Surround Mode	Output Channel					Display Information	
		L/R	C	SL SR	SBL SBR	SUBW	Signal Format	Channel Status
Dolby Digital	Dolby Digital	o	o	o	--	o	Digital + Dolby Digital	L, C, R, SL, SR, SBL, SW
Dolby Digital EX	Dolby Digital EX	o	o	o	o	o	Digital +Dolby Digital EX	L, C, R, SL, SR, SBL, SBR, SW
	Dolby Digital + ProLogic IIx	o	o	o	o	o	Digital + Dolby Digital + ProLogic IIx	L, C, R, SL, SR, SBL, SBR, SW
	Dolby Digital + ProLogic Iiz	o	o	o	o (Height)	o	Digital + Dolby Digital + ProLogic Iiz	L, C, R, SL, SR, H, SW
Dolby Digital Plus	Dolby Digital Plus	o	o	o	o	o	Digital + Dolby Digital Plus	L, C, R, SL, SR, SBL, SBR, SW
Dolby TrueHD	Dolby TrueHD	o	o	o	o	o	Dolby TrueHD	L, C, R, SL, SR, SBL, SBR, SW
DTS (5.1-ch)	DTS Surround	o	o	o	--	o	DTS	L, C, R, SL, SR, SBL, SW
DTS-ES	DTS Digital + ProLogic IIx	o	o	o	o	o	DTS + ProLogic IIx	L, C, R, SL, SR, SBL, SBR, SW
DTS 96/24	DTS Digital + ProLogic Iiz	o	o	o	o (Height)	o	DTS + ProLogic Iiz	L, C, R, SL, SR, SBL, SBR, SW
	DTS-ES	o	o	o	o	o	DTS ES	L, C, R, SL, SR, SBL, SBR, SW
	DTS 96/24	o	o	o	--	o	DTS 96/24	L, C, R, SL, SR, SBL, SW
DTS-HD	DTS-HD Master Audio	o	o	o	o	o	DTS-HD MSTR	L, C, R, SL, SR, SBL, SBR, SW
	DTS-HD High Resolution	o	o	o	o	o	DTS-HD	L, C, R, SL, SR, SBL, SBR, SW
LPCM Multi-Channel	Multi-Channel	o	o	o	o	o	Digital + LPCM	L, C, R, SL, SR, SBL, SBR, SW
	Multi-Channel	o	o	o	o (Height)	o	Digital + LPCM	L, C, R, SL, SR, H, SW
2-ch PCM	Stereo	o	--	--	--	o	Digital + LPCM	L, R, SW
	ProLogic IIx	o	o	o	o	o	Digital + LPCM + Dolby Digital + ProLogic IIx	L, C, R, SL, SR, SBL, SBR, SW
	ProLogic Iiz	o	o	o	o (Height)	o	Digital + LPCM + Dolby Digital + ProLogic Iiz	L, C, R, SL, SR, H, SW
	NEO:6	o	o	o	o	o	Digital + LPCM + DTS + NEO:6	L, C, R, SL, SR, SBL, SBR, SW
	SFE	o	o	o	o	o	Digital + LPCM + LIVE SURR	L, C, R, SL, SR, SBL, SBR, SW
Analog Multi-Channel	Multi-Channel	o	o	o	o	o	Analog	L, C, R, SL, SR, SBL, SBR, SW
	Multi-Channel	o	o	o	o (Height)	o	Analog	L, C, R, SL, SR, H, SW
Analog 2-ch	Stereo	o	--	--	--	o	Analog	L, R, SW
	ProLogic IIx	o	o	o	o	o	Analog + Dolby Digital + ProLogic IIx	L, C, R, SL, SR, SBL, SBR, SW
	ProLogic Iiz	o	o	o	o (Height)	o	Analog + Dolby Digital + ProLogic Iiz	L, C, R, SL, SR, H, SW
	NEO:6	o	o	o	o	o	Analog + DTS NEO:6	L, C, R, SL, SR, SBL, SBR, SW
	SFE	o	o	o	o	o	Analog + LIVE SURR	L, C, R, SL, SR, SBL, SBR, SW

- **L/R** : front speaker (left/right)
- **C** : center speaker
- **SL/SR** : surround speaker (left/right)
- **SBL/SBR** : surround back speaker (left/right)
- **H = FHL/FHR** : front height speaker (left/right)
- **SW** : subwoofer
- **LIVE SURR** : LIVE SURROUND



- Channel status displays are dependent on the speaker configuration.
- SFE mode works with 2-ch signals.
- If Dolby Pro Logic IIz is set to On, the Surround Back speaker(SBL/SBR) is changed to the Front Height Speaker(FHL/FHR), Dolby true HD, Dolby plus, DTS-HD Audio, SFE and NEO:6 will be output 5.1 channel.
- ProLogic IIx and ProLogic IIz works only audio signals with sampling frequencies of 32KHz, 44KHz or 48KHz.

USING THE SUBWOOFER BUTTON

You can set the subwoofer Level.

1. Press the **SUBWOOFER** button.
2. Press the **▲ ▼** buttons to select Subwoofer LEVEL under the Display with S. W. (The display disappears automatically.)

- Setting the Subwoofer Level-

- SW (Subwoofer) : -10 ~ +10dB



LISTENING TO THE RADIO

You can listen to the radio by using either automatic or manual tuning.

1. Press the **INPUT SELECT** button to select **FM**.
2. Select a frequency (radio broadcast).
 - Preset tuning :
Press the **◀▶** buttons on the remote control to select the preset frequency.
 - Manual tuning 1 (Automatic tuning):
Press and hold the **TUNING/CH** (**∇**, **∧**) buttons on the remote control to automatically tune in a frequency.
 - Manual tuning 2 :
Press the **TUNING/CH** (**∇**, **∧**) buttons on the remote control to increase or decrease the frequency step by step.



- You can also use the **SELECT** (**∇**, **∧**) button on the main unit to change the radio frequency.

To Listen in mono/stereo

Press the **MO/ST** button on the remote control.

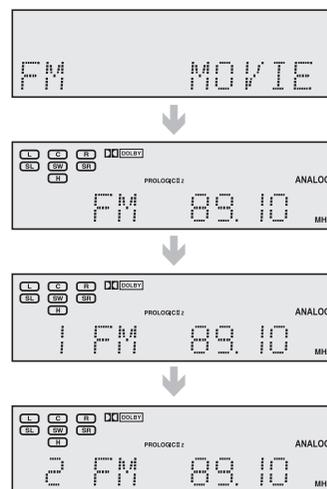
- Each time you press this button, **STEREO** or **MONO** will be selected in turn.
- If you select **MONO** in an area with weak reception, it will help to reduce noise.
- This function works only with the remote control.

Presetting radio stations

You can preset up to 30 FM stations.

E.g.: Setting station FM 89.10 in preset 2.

1. Press the **INPUT SELECT** button to select **FM**.
2. Press the **TUNING/CH** (**∇**, **∧**) buttons on the remote control to select 89.10.
 - Refer to step 2 above to tune in automatically and manually.
3. Press the **MEMORY** button on the main unit.
 - You can also use the **TUNER MEMORY** button on the remote control.
 - Tuner number will blink on the display.
4. Press the **TUNING/CH** (**∇**, **∧**) buttons on the remote control to select preset 2.
 - You can select from presets 1 to 30.
5. Press the **MEMORY** button on the main unit.
 - Tuner number will disappear and station 89.10 will be saved in preset 2.
6. To preset other stations, repeat steps 2 to 5.



To Listen to Preset Station

- Press the **TUNING MODE** button to select **PRESET** and press the **SELECT** (**∇**, **∧**) buttons.

Operation

USING AN iPod

You can enjoy playback of your iPod using the supplied remote control.

Listening to Music (iPod audio function)

You can play music files stored in the iPod player by connecting it to the AV receiver.

1. Connect the iPod dock connector to the iPod jack on the AV Receiver.
2. Place the iPod in the dock.
 - Your iPod is automatically turned on.
3. Press the **INPUT SELECT** button on the remote control to select **IPOD AUDIO** mode.
4. Press the **PLAY** button on the remote control to play.
 - The AV receiver starts playing from the first track of the iPod player.
5. You can use the remote control to control simple playback functions such as the **PLAY**, **PAUSE**, **STOP**, **SKIP (◀▶)** buttons.



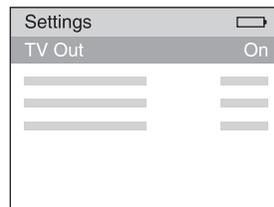
- See page 31 for compatible iPods.
Compatibility depends on the software version of your iPod.
- You can also select iPod by pressing the **iPod** button on the remote control.

USING AN iPod (Continued)

Watching a Movie (iPod Video function)

You can play video files stored in the iPod player on a TV by connecting it to the AV receiver.

1. Connect the iPod dock connector to the iPod jack on the AV receiver.
2. In the iPod screen, move to **Videos > Settings** and set the **TV Out** option to **On**.
3. Place the iPod in the dock.
4. Press the **INPUT SELECT** button on the remote control to select **IPOD VIDEO** mode.
5. Set the AV IN option of the TV connected to the AV receiver to **COMPOSITE**.

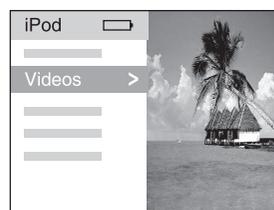


<iPod Screen>



Follow the iPod onscreen guide through the following steps.

6. Press the **▲**, **▼** buttons on the remote control to select **Videos** and press the **ENTER** button.
7. Press the **▲**, **▼** buttons on the remote control to select **Movies** and press the **ENTER** button.
8. Press the **▲**, **▼** buttons to select the file to play and press the **ENTER** button.
 - The iPod's video files will be played on the TV screen.
9. You can use the remote control to control simple playback functions such as the **PLAY**, **PAUSE**, **STOP**, **SKIP (I◀◀, ▶▶I)** buttons.
 - If you press the **PREV** button after the playback, the player will move to the start screen of the current file.
 - Press the **STOP** button to stop playing and return to the list screen.
 - Press the **RETURN** button to return to the previous menu.



<iPod Screen>



- You must have the VIDEO (Monitor or VCR) and HDMI connected to your TV to view iPod video.
- See page 31 for compatible iPods.
Compatibility depends on the software version of your iPod.
- When the current file is played to the end, the next file will not be played automatically.
To play the next file, select a file to play in the list screen of the iPod player.
- No other screen than the playback one will appear on the TV screen. Check other screens on the iPod player.

Operation

CONVENIENT FUNCTIONS

Sleep timer function

You can set the time that this unit will shut itself off.

Press the **SLEEP** button.

- SLEEP : OFF → 15 → 30 → 45 → 60 → 90 → 120 MIN will be selected in turn.



To check sleep timer

Press the **SLEEP** button.

- The remaining time before this unit will shut itself off is shown on the display.
- Pressing the button again changes the sleep time from what you set previously.

To cancel sleep timer

- Press the **SLEEP** button until **SLEEP OFF** appears on the display.

Mute function

This function is useful when answering a doorbell or telephone call.

Press the **MUTE** button.

- MUTE appears on the display.



To output sound again

Press the **MUTE** button again or press the Volume button.

- MUTE will disappear and sound will output.

Adjust the display

You can adjust the brightness of the display.

Press the **DIMMER** button.

- Each time you press this button, the brightness changes as follows :
Dark → Bright.

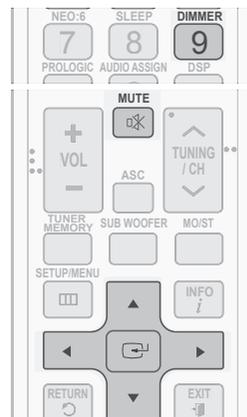


- SLEEP, Mute and the Adjust Display functions can only be operated with the remote control.

Reset function

When the Power is on,

1. Press the **MUTE** button.
 - **MUTE** appears on the display.
2. Press the **2** button five times and then press the **ENTER** button.
 - **INITIAL : NO** appears on the display.
3. Press the **▲ ▼** buttons to select **YES**.
 - The unit will turn off after 5 seconds.



When the Power is Off,

1. Press and hold the **MEMORY** button on the front of your AV Receiver for longer than 5 seconds.
 - **POWER LED** will blink one time.

- 
 - Using the RESET function will erase all stored settings.
 - Do not use this unless necessary.

Using headphones

Use headphones (not supplied) for private listening pleasure.

Connect the headphones to the headphone (PHONES) jack and listen to music.

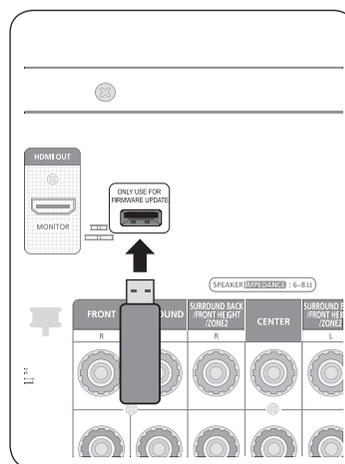
- 
 - Do not turn the volume up too high when you use headphones as it may damage your hearing.

SOFTWARE UPGRADE

Samsung may offer upgrades for AV Receiver's firmware in the future.

Please visit Samsung.com or contact the Samsung call center at 1-800-SAMSUNG (726-7864) to receive information about downloading upgrades and using a USB drive. Upgrades will be possible by connecting a USB drive to the USB port located on your AV Receiver.

- 
 - Insert a USB drive containing the firmware upgrade into the USB port on the back of the main unit.
 - Please be careful not to disconnect the power or remove the USB drive while upgrades are being applied. The main unit will turn off automatically after completing the firmware upgrade. When software is upgraded, settings you have made will return to their default (factory) settings. We recommend you write down your settings so that you can easily reset them after the upgrade.
 - If you failed software upgrade, it is strongly recommended whole USB data format to FAT16 and retry software upgrade.
 - The NTFS USB File System can not be supported.
 - Depending on the manufacturer, the USB may not be supported.



Miscellaneous

OPERATING YOUR TV WITH THE REMOTE CONTROL

1. Press the **POWER** button to turn on the TV.
2. Press the **AMP/TV** button to set the remote to TV mode.
 - If you select the AMP mode, the button will flash orange.
 - If you select the TV mode, the button will flash green.
3. Point the remote control toward the TV.
4. While holding down the **POWER** button, enter the code corresponding to your brand of TV.
 - If there is more than one code listed for your TV in the table, enter one at a time to determine which code works.
 - If the code matches the TV's code, the TV will be turned off.
5. If TV is turned on or off when you press the **POWER** button of the remote control, the setting is completed.
 - You can use the TV POWER, VOLUME, CHANNEL, MENU and Numeric buttons (0-9).



- The remote control may not work on some brands of TVs. Also, some operations may not be possible depending on your brand of TV.
- The remote control will work with Samsung TVs by default.

OPERATING YOUR TV WITH THE REMOTE CONTROL (Continued)

TV Brand Code List

Brand	Code Number	Brand	Code Number	Brand	Code Number
Admiral (M.Wards)	056, 057, 058	Luxman	018	Sylvania	018, 040, 048, 054, 059, 060, 062
A Mark	001, 015	LXI (Sears)	019, 054, 056, 059, 060, 062, 063, 065, 071	Symphonic	061, 095, 096
Anam	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014	Magnavox	015, 017, 018, 048, 054, 059, 060, 062, 072, 089	Tatung	006
AOC	001, 018, 040, 048	Marantz	040, 054	Techwood	018
Bell & Howell (M.Wards)	057, 058, 081	Matsui	054	Teknika	003, 015, 018, 025
Brocsonic	059, 060	MGA	018, 040	TMK	018, 040
Candle	018	Mitsubishi/MGA	018, 040, 054, 059, 060, 075, 101	Toshiba	019, 057, 063, 071, 101, 107, 109, 110, 111, 113
Cetronic	003	MTC	018	Vidtech	018
Citizen	003, 018, 025	NEC	018, 019, 020, 040, 059, 060	Videch	059, 060, 069
CINEMA	097	Nikei	003	Wards	015, 017, 018, 040, 048, 054, 060, 064
Classic	003	Onking	003	Yamaha	018
Concerto	018	Omwa	003	York	040
Contec	046	Panasonic	006, 007, 008, 009, 054, 066, 067, 073, 074	Yupiteru	003
Coronado	015	Penney	018	Zenith	058, 079
Craig	003, 005, 061, 082, 083, 084	Philco	003, 015, 017, 018, 048, 054, 059, 062, 069, 090	Zonda	001
Croslex	062	Philips	015, 017, 018, 040, 048, 054, 062, 072, 112, 114, 117, 118	Dongyang	003, 054
Crown	003	Pioneer	063, 066, 080, 091	LOWE	054
CURTIS MATHES	059, 061, 063	Portland	015, 018, 059	FINLUX	054, 109, 114
CXC	003	Proton	040	YOKO	054
Daewoo	002, 003, 004, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 032, 034, 035, 036, 040, 048, 059, 090, 099, 100	QUASAR	006, 066, 067	LOEWE OPTA	054, 114
Daytron	040	Radio Shack	017, 048, 056, 060, 061, 075	PHONOLA	054, 112, 114
Dynasty	003	RCA/Proscan	018, 059, 067, 076, 077, 078, 092, 093, 094	RADIOLA	054, 112
Emerson	003, 015, 040, 046, 059, 061, 064, 082, 083, 084, 085	Realistic	003, 019	SCHNEIDER	054
Fisher	019, 065, 103	Sampo	040	AKAI	103
Funai	003	Samsung	000, 015, 016, 017, 040, 043, 046, 047, 048, 049, 054, 059, 060, 098	GRUNDIG	108, 109, 113, 119, 120, 121
Futuretech	003	Sanyo	019, 061, 065, 101, 102, 103, 104	BLAUPUNKT	108
General Electric (GE)	006, 040, 056, 059, 066, 067, 068	Scott	003, 040, 060, 061	SIEMENS	108
Hall Mark	040	Sears	015, 018, 019	CGE	113
Hitachi	015, 018, 050, 059, 069	Sharp	015, 057, 064, 101, 105, 106, 115	IMPERIAL	113
Inkel	045	Signature 2000 (M.Wards)	057, 058	MIVAR	113
JC Penny	056, 059, 067, 086	Sony	050, 051, 052, 053, 055, 101	SABA	114
JVC	070	Soundesign	003, 040	BANG&OLUFSEN	114
KTV	059, 061, 087, 088	Spectricon	001	BRIONVEGA	114
KEC	003, 015, 040	SSS	018	FORMENTI	114
KMC	015			METZ	114
LG (Goldstar)	001, 015, 016, 017, 037, 038, 039, 040, 041, 042, 043, 044, 054, 086			WEGA	114
				RADIOMARELLI	114
				SINGER	114
				SINUDYNE	114
				TELEFUNKEN	116

Miscellaneous

OPERATING YOUR DVD OR BD PLAYER WITH THE REMOTE CONTROL

1. Press the **POWER** button to turn on the DVD (BD) player.
2. Press the **BD/DVD** button on the remote control to set the remote to DVD (BD) mode.
3. Point the remote control toward the DVD (BD).
4. While holding down **POWER** button, enter the code corresponding to your brand of DVD (BD).
 - If there is more than one code listed for your DVD (BD) in the table, enter one at a time to determine which code works.
 - If the code matches the DVD (BD)'s code, the DVD (BD) will be turned off.
5. If DVD (BD) is turned on or off when you press the **POWER** button of the remote controller, the setting is completed.
 - You can use DVD (BD) **POWER**, **PLAY**, **PAUSE**, **STOP**, **SKIP**, **MENU** and Numeric buttons (0~9).



- The remote control may not work on some brands of DVD. Also, some operations may not be possible depending on your brand of DVD.
- The remote control will work with Samsung DVD (BD) by default.

DVD Brand Code List

Brand	Code Number	Brand	Code Number	Brand	Code Number
DENON	003, 032	ONKYO	004, 014	TOSHIBA	004, 018
DOONoon	019	OPTIMUS	011	YAMAHA	009, 033
DMTECH	017	PANASONIC	021	ZENITH	004, 024
FISHER	002	PROSCAN	006	TAEGWANG	026
GE	006	PHILIPS	004, 023	PS2	028
HARMAN/KARDON	012	PIONEER	007, 011, 022, 025	X-BOX	029
JVC	010, 013	RCA	006	APEX	030
KENWOOD	008	SAMSUNG	000, 027	Marantz	031
LG	001	SANYO	002		
MAGNAVOX	004	SONY	015, 020		
mitsubishi	005, 016	THETA DIGITAL	011		

BD player Brand Code List

Brand	Code Number
SAMSUNG	000, 001, 002, 003, 004



- The remote control will control Samsung BD players only.

Troubleshooting

Before requesting service, please check the following.

Symptom	Check	Remedy
The unit will not turn on.	<ul style="list-style-type: none"> Is the power cord plugged into the outlet? 	<ul style="list-style-type: none"> Connect the power plug to the outlet.
A function does not work when the button is pressed.	<ul style="list-style-type: none"> Is there static electricity in the air? 	<ul style="list-style-type: none"> Disconnect the power plug and connect it again.
Sound is not produced.	<ul style="list-style-type: none"> Are the speakers and external components connected properly? Is the Mute function on? Is the volume set to minimum? Is the Speaker Size set incorrectly to NONE? 	<ul style="list-style-type: none"> Connect them correctly. Press the MUTE button to cancel the function. Adjust the volume. Refer to pages 41 to select LARGE, SMALL or YES.
Picture does not appear on a TV when the function is selected.	<ul style="list-style-type: none"> Is the external component connected properly? 	<ul style="list-style-type: none"> Connect it correctly.
Remote controller does not work.	<ul style="list-style-type: none"> Are the batteries drained? Is the distance between remote control and main unit too great? 	<ul style="list-style-type: none"> Replace with new batteries. Operate at close distance.
The sound from the left/right channels is reversed.	<ul style="list-style-type: none"> Are the left/right speaker or left/right input/output cables connected properly? 	<ul style="list-style-type: none"> Check the left/right channel and connect it/them correctly.
Can't receive radio broadcasts.	<ul style="list-style-type: none"> Is FM antenna connected properly? 	<ul style="list-style-type: none"> Connect the antenna correctly. If the input strength of antenna signal is weak, install the FM antenna in a place with good reception.
There is no sound from surround speakers.	<ul style="list-style-type: none"> Are the surround speakers connected properly? Is SURR (surround) incorrectly set to NONE in the Speaker Size? Is surround mode set to stereo? 	<ul style="list-style-type: none"> Refer to pages 16 ~18 to connect them properly. Refer to page 41 to select LARGE or SMALL. Refer to pages 55 ~ 56 to select proper Surround Mode.
There is no sound from surround back speakers	<ul style="list-style-type: none"> Are the surround back speakers connected properly? Is SBACK (Surround Back) set to NONE in the Speaker Size? Is Surround Mode set to EX/ES? 	<ul style="list-style-type: none"> Refer to pages 16 ~18 to connect them properly. Refer to page 41 to select LARGE or SMALL. Refer to page 48 to set Surround Mode to EX/ES.
Can't select EX/ES mode.	<ul style="list-style-type: none"> Is SBACK (Surround Back) set to NONE in the Speaker Size? Is the input signal selected properly? 	<ul style="list-style-type: none"> Refer to page 41 to select LARGE or SMALL. Use a 7.1 channel external component.

Troubleshooting

Symptom	Check	Remedy
Can't select Dolby Pro Logic IIx mode.	<ul style="list-style-type: none"> Is the input signal selected properly? 	<ul style="list-style-type: none"> Only 2 channel signal can select Dolby Pro Logic IIx mode. (ex:Dolby Digital, PCM, 2 channel analog input signal.)
Can't select NEO:6 mode.	<ul style="list-style-type: none"> Is the input signal selected properly? 	<ul style="list-style-type: none"> Use PCM and Analog input signal.
There is no sound when playing a DTS encoded DVD.	<ul style="list-style-type: none"> Is Digital input selected? 	<ul style="list-style-type: none"> Check whether the DVD player is properly connected and refer to page 36 to select the digital input.

Product protection function

Heat protection

- The protection function will come on if the main unit or power transformer overheats.

"PROTECTION" will appear in the display .

This function will come on :

- If speaker terminal is shorted
- If speaker cable is shorted

If there is no problem when you turn the unit on again after turning it off, PROTECTION mark will disappear on the display and the unit will work properly.



- If PROTECTION appears on the display, check whether the speaker terminal is shorted and then turn on the unit again.

ASC Error List

Error No.	VFD Message	Action
E01	HP CONCT	Disconnect the headphones.
E02	NO MIC	Connect the microphone.
E03	NOISY	Take an appropriate action to reduce the surrounding noise.
E04	MIC LEVEL	The speaker is too close to the microphone. Check the distance between speaker and microphone.
E05	NO FRONT	Check if the front speaker is connected properly.
E07	LEVEL OVR	Check the position of each of speaker and microphone.
E08	DIST OVR	The distance between speaker and microphone exceeds the acceptable value. Check the location of microphone and each speaker.
E13	TIME OVR	Unplug the power cable and plug it back. Then, perform ASC again.
E14	CODE ERR	Unplug the power cable and plug it back. Then, perform ASC again.

Appendix

SPECIFICATIONS

GENERAL	Power supply	120V, 60 Hz
	Standby power consumption	0.9W
	Power consumption	75W
	Weight	12.3 lbs
	Dimensions (W x H x D)	17 x 6.5 x 14.2 inches
	Operating temperature range	41°F~+95°F
	Operating humidity range	10%~75%
FM TUNER	Frequency response	87.5~108.0MHz
	Usable sensitivity	12dBf
	S/N ratio	MONO/STEREO 55/55dB
	Distortion	MONO/STEREO 0.3/0.8%
	Stereo separation	30dB
AMPLIFIER	Rated output	20Hz~20kHz/THD = 0.9%
	Front speaker (left+right)	6 Ω 120W/CH
	Center speaker	6 Ω 120W/CH
	Surround speaker (left+right)	6 Ω 120W/CH
	Surround back speaker (left+right)	6 Ω 120W/CH
	Input sensitivity/impedance	450mV/47kΩ
	S/N ratio (analog input)	80dB
	Separation (1kHz)	60dB
FREQUENCY RESPONSE	Analog input	20Hz~20kHz(±3dB)
	Digital input/96kHz PCM	20Hz ~44kHz(±3dB)
HDMI	Input	Compatible 1080p
	Output	Compatible 1080p
VIDEO OUTPUT	TV format	NTSC/PAL
	Input level/impedance	1Vp-p/75 Ω
	Output level/impedance	1Vp-p/75 Ω
	Video frequency response	5Hz to 10kHz(-3dB)
	S/N Ratio	60dB

* S/N Ratio, Distortion, Separation and Usable sensitivity are based on measurement using AES (Audio Engineering Society) guidelines.

- Samsung Electronics Co., Ltd reserves the right to change the specifications without notice.
- Weight and dimensions are approximate.
- Design and specifications are subject to change without prior notice.

SAMSUNG AV receiver

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