

OWNER'S MANUAL

HIGH PERFORMANCE 3D AV RECEIVER SYSTEM

Please read this manual carefully before operating your set and retain it for future reference.

MODEL ARX9000 (ARX9000/ARX9000W, SR96TS-F/S/C/W)



1 Safety Information



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



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Cautions and Warnings

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

WARNING: Do not install this equipment in a confined space such as a book case or similar unit.

CAUTION: The apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION: Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over heating. The openings shall be never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product shall not be placed in a builtin installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instruction has been adhered to.

CAUTION concerning the Power Cord

Most appliances recommend they be placed upon a dedicated circuit;

That is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized service center. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance. To disconnect power from the mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.

This device is equipped with a portable battery or accumulator.

Safety way to remove the battery or the battery from the equipment:

Remove the old battery or battery pack, follow the steps in reverse order than the assembly. To prevent contamination of the environment and bring on possible threat to human and animal health, the old battery or the battery put it in the appropriate container at designated collection points. Do not dispose of batteries or battery together with other waste. It is recommended that you use local, free reimbursement systems batteries and accumulators. The battery shall not be exposed to excessive heat such as sunshine, fire or the like.

Copyrights

It is forbidden by law to copy, broadcast, show, broadcast via cable, play in public, or rent copyrighted material without permission. This product features the copy protection function developed by Macrovision. Copy protection signals are recorded on some discs. When recording and playing the pictures of these discs picture noise will appear. This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 OR 625 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS MODEL 525p AND 625p UNIT, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.

You have to set the disc format option to [Mastered] in order to make the discs compatible with the LG players when formatting rewritable discs. When setting the option to Live File System, you cannot use it on LG players.

(Mastered/ Live File System : Disc format system for Windows Vista)

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2 Preparation

Introduction

About the "⊘" Symbol Display

"O" may appear on your TV display during operation and indicates that the function explained in this owner's manual is not available on that specific media.

Symbols Used in this Manual

Indicates special notes and operating features.

CAUTION

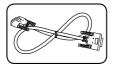
Indicates cautions for preventing possible damages from abuse.

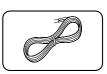
A section whose title has one of the following symbols are applicable only to the disc represented by the symbol.

MOVIE	Movie files contained in the USB
MUSIC	Music files contained in the USB
рното	Photo files contained in the USB

Accessories

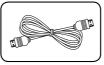
Please check and identify the supplied accessories.

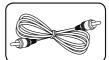




System cable (1)

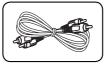
Speaker cables (7)

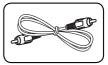




HDMI cable (1)

Coaxial cable (1)





Analog audio cable (1)

Composite video cable (1)



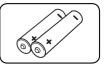
FM antenna (1)



Remote control (1)



AM antenna (1)



Batteries (2)

Required cables

The hookup diagrams on the subsequent pages assume the use of the following connection cables. You must purchase the connection cables separately if necessary.

Analog audio cable

White (L) Red (R)



Composite video cable

Yellow

- -
- Analog audio/Composite video cable

	-(100)	
White (L/audio)		
Red (R/audio)		

Optical digital audio cable •



Coaxial digital audio cable





HDMI cable



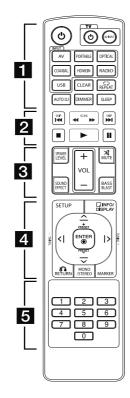
• Portable cable (Ø 3.5 mm Stereo plug)

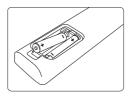


Note

- Turn off the power to all components before making any connections.
- When connecting an audio/video cable, be sure to match the color-coded pins to the appropriate jacks on the components: yellow (video) to yellow; white (left, audio) to white; and red (right, audio) to red.
- When connecting optical digital cables, insert the cable plugs straight in until they click into place.
- Do not bend or tie optical digital audio cables.

Remote control





Remove the battery cover on the rear of the Remote Control, and insert two batteries (size AAA) with \bigoplus and \bigoplus matched correctly.

POWER ((): Switches the unit ON or OFF.

TV control buttons: Controls the TV. (LG TV only)

- 🕛: Turns the TV on or off.
- **AV/INPUT**: Switches the TV's input source between the TV and other input sources.

INPUT buttons: Selects the input source you want to use. (Page 26)

- AV: Selects the input source connected to AV IN 1/2 jack.
- **PORTABLE**: Selects the input source connected to PORT. IN jack.
- **OPTICAL**: Selects the input source connected to OPTICAL IN 1/2 jack.
- **COAXIAL**: Selects the input source connected to COAXIAL IN 1/2 jack.
- HDMI IN: Selects the input source connected to HDMI IN 1/2/3 jack.
- RADIO: Selects the FM/AM.
- **USB**: Selects the input source connected to USB port.

CLEAR: Deletes a preset stations. (Page 29)

C⊃ **REPEAT**: Selects a play mode. (Repeat playback/ Random playback) (Page 33)

AUTO DJ: Selects the AUTO DJ mode. (Page 33)

DIMMER: The display window is darken by half and the Backlightings will be turned off. (Page 36)

SLEEP: Sets the system to turn off automatically at a specified time. (Page 37)

I◀◀/▶▶ (SKIP): Goes to the next or previous chapter / track / file.

◄◄/▶▶ (SCAN): Searches backward or forward.

■ (STOP): Stops playback.

► (PLAY): Starts playback.

II (PAUSE): Pauses playback.

SPEAKER LEVEL: Sets the sound level of desired speaker. (page 26)

SOUND EFFECT: Selects a sound effect mode. (Page 27)

VOL (-/+): Adjusts speaker volume.

MUTE (⋈): Turns off the sound temporarily. Press the button again to restore the sound.

BASS BLAST: Selects the BASS BLAST sound mode directly. (Page 28)

SETUP: Displays or exits the [SETUP] menu.

RETURN (*): Moves backwards in the menu or exits the setup menu.

INFO/DISPLAY (,): Displays or exits On-screen Display. (Page 33,34,36)

ENTER (()): Acknowledges menu selection.

MARKER: Marks music files on the [MUSIC] menu. (Page 32)

PRESET (-/+): Selects a preset stations.

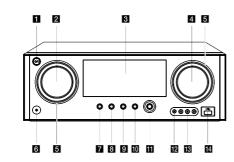
TUNING (-/+): Tunes in the desired radio station.

 $\Lambda/V/\langle \rangle$ (up/ down/ left/ right): Selects an option in the menu.

MONO/STEREO: Selects mono/stereo in FM mode. (Page 28)

0 to 9 numerical buttons: Selects numbered options in a menu.

Front panel



AV RECEIVER SYSTEM

1 STANDBY/ON (小/)

Switches the unit ON or OFF.

2 INPUT SELECTION

Selects the input source. Rotate this knob until the input source you want appears on the display window.

3 Display window Shows the current status of the unit.

4 MASTER VOLUME

Adjusts the speaker volume.

5 Backlighting

Turns on the unit, the backlightings light up.

6 PHONES connector

Connects a stereo headphone plug (ϕ 3.5 mm) to PHONES connector for private listening. (Page 21)

7 USER EQ

Sets the USER EQ mode (BASS, MIDDLE and TREBLE). (Page 28)

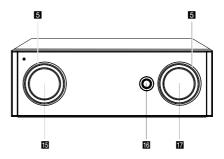
8 ENTER

Acknowledges menu selection.

9 PLAY / PAUSE

Starts playback. Pauses playback, press it again to exit pauses status.

SUBWOOFER AMPLIFIER



Moves to the BASS mode if you press **PLAY/PAUSE** on the front panel while the "USER EQ" is displayed in the display window.

10 STOP

Stops playback.

11 MULTI CONTROL

Adjusts the various options.

12 PORT. IN

Connects a portable device (MP3 player, etc) to PORT. IN jack.

AV IN 2 (L-AUDIO-R, VIDEO)

Connects the components with analog audio/video output jacks (camcorder, video game console, etc).

14 USB port (5 V --- 500 mA)

Connects an USB device to USB port.

15 SOUND EFFECT

Selects a sound effect mode. (Page 27)

16 BASS BLAST Selects the BASS BLAST sound mode directly. (Page 28)

17 SUBWOOFER VOLUME

Adjusts the subwoofer level.

Rear panel

AV RECEIVER SYSTEM 1 2 3 4 5 6 7 8 9

1 Speakers connectors Connects the speaker cables.

2 COAXIAL IN 1/2 (DIGITAL AUDIO IN 1/2)

Connects other components with a coaxial digital audio output.

3 SYSTEM Connector Connects the system cable.

4 ANTENNA connectors

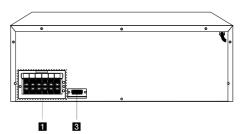
FM – Connects the FM wired antenna. AM – Connects the AM loop antenna.



5 AV IN 1 (VIDEO IN, L-AUDIO-R)

Connects the components with analog audio/video output jacks.

SUBWOOFER AMPLIFIER



6 OUTPUT (VIDEO OUT, L-AUDIO-R)

Connects the components with analog audio/video input jacks.

7 OPTICAL IN 1/2 (DIGITAL AUDIO IN 1/2)

Connects other components with an optical digital audio output.

8 HDMI IN 1/2/3

Connects the component with HDMI output.

9 HDMI OUT

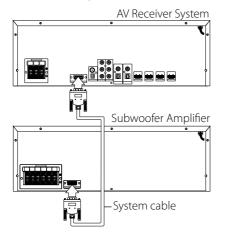
Connects a TV or component with HDMI input.

3 Installation

Connecting the system cable

You can enjoy 7.2 channel surround sound by using this unit.

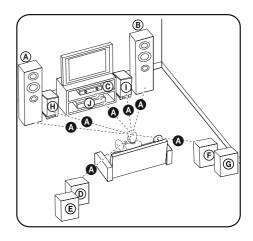
It is necessary to connect the system cable before using this unit. If the system cable is not connected, 'CHECK CABLE' appears on the display window every 10 seconds. Before connecting the system cable, be sure to disconnect the AC power cord.



Connect the SYSTEM jack on the AV Receiver System and Subwoofer Amplifier using a system cable.

Installing speakers

The unit allows you to use 7.2 channel system. The following illustration shows an example of positioning the system. Note that the illustrations in these instructions differ from the actual unit for explanation purposes. For the best possible rear sound, all the speakers other than the subwoofer should be placed at the same distance from the listening position (A).



(A) Front speaker (left)(B) Front speaker (right)

Place the front speakers to the sides of the monitor or screen and as flush with the screen surface as possible.

© Center speaker

Place the center speaker above or below the monitor or screen.

(D) (E) Surround speaker (left) 1, 2 (F) (G) Surround speaker (right) 1, 2

Place these speakers behind your listening position, facing slightly inwards.

(H)(1) Subwoofer 1, 2

The position of the subwoofer is not so critical, because low bass sounds are not highly directional. But it is better to place the subwoofer near the front speakers. Turn it slightly toward the center of the room to reduce the wall reflections.

J Unit

(I) Caution

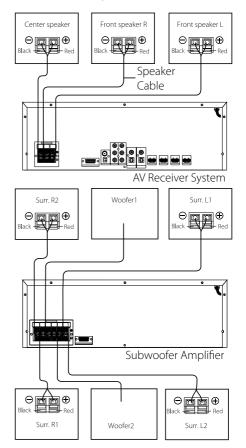
 Do not stack the speakers and be careful that the speaker should not fall down. Otherwise it may result in the speaker malfunctioning and causing personal injury and/or property damage.



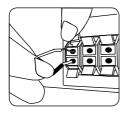
• Make sure to install the speaker with other people in order to prevent it from falling and causing injuries to the installer.

Connecting speakers

Before connecting the cables, be sure to disconnect the AC power cord.



1. Connect the wires to the unit. To connect the cable to the unit, press each plastic finger pad to open the connection terminal. Insert the wire and release the finger pad.



Connect the black end of each wire to the terminals marked - (minus) and the other end to the terminals marked + (plus).

2. Connect the wires to the speakers. Connect the other end of each wire to the correct speaker according to the color coding:

	Color	Speaker	Position
AV Receiver System	Green	Center	Center
	Red	Front	Front right
	White	Front	Front left
Subwoofer Amplifier	Yellow	Surr. R2	Surr. right
	Grey	Surr. R1	Surr. right
	Orange	Subwoofer 1, 2	Any front position
	Blue	Surr. L1	Surr. left
Suk	Purple	Surr. L2	Surr. left

To connect the cable to the speakers, press each plastic finger pad to open the connection terminals on the base of each speaker. Insert the wire and release the finger pad.

Caution -

 Be careful to make sure children not to put their hands or any objects into the *speaker duct.

*Speaker duct : A hall for plentiful bass sound on speaker cabinet (enclosure).

- Place the center speaker at a safe distance from the child's reach. Otherwise it may result in the speaker falling down and causing personal injury and/or property damage.
- The speakers contain magnet parts, so color irregularity may occur on the TV screen or PC monitor screen. Please use the speakers far away from either TV screen or PC monitor.

Connecting video devices

You can watch the input image from your video device. There are two ways of connecting your video device to AV Receiver System.

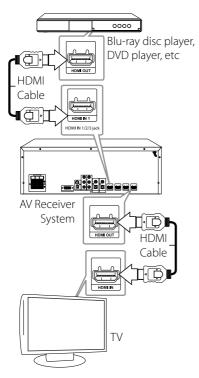
Using an HDMI cable

since HDMI offers both audio and video signal over one cable, you can enjoy them without additional audio cable.

- 1. Connect the HDMI IN 1/2/3 jack on AV Receiver System to your video device with HDMI OUT jack using a HDMI cable.
- 2. Connect the HDMI OUT jack on AV Receiver System to the HDMI IN jack on your TV.
- 3. Set the input source to HDMI (Pages 25-26).

Note

- Before connecting the cables, be sure to disconnect the AC power cord.
- Turn off the power to all components before making any connections.



Note

- HDMI is the abbreviated name for High Definition Multimedia Interface. It is an interface which transmits video and audio signals in digital format. If a connected HDMI device does not accept the audio output of the unit, the HDMI device's audio sound may be distorted or may not output.
- When you use HDMI connection, you can change the resolution for the HDMI output. (Refer to "Resolution Setting" on page 16.)
- When you connect a HDMI or DVI compatible device make sure of the following:
 - Try switching off the HDMI/DVI device and this unit. Next, switch on the HDMI/ DVI device and leave it for around 30 seconds, then switch on this unit.
 - The connected device's video input is set correctly for this unit.
 - The connected device is compatible with 720 x 576i (or 480i), 720 x 576p (or 480p), 1280 x 720p, 1920 x 1080i or 1920 x 1080p video input.
- Not all HDCP-compatible HDMI or DVI devices will work with this unit.
 - The picture will not be displayed properly with non-HDCP device.
 - This unit does not playback and TV screen is changed to black screen.
- If there is noise or lines on the screen, please check the HDMI cable and use a higher version cable than 1.2A HDMI cable.
- Changing the resolution when the connection has already been established may result in malfunctions. To solve the problem, turn off the unit and then turn it on again.
- When the HDMI connection with HDCP is not verified, TV screen is changed to black screen. In this case, check the HDMI connection, or disconnect the HDMI cable.

Resolution Setting

The unit provides several output resolutions for HDMI OUT jack. You can change the resolution using [Setup] menu.

1. Press SETUP.

The [Setup] menu appears.



 Use ∧/V to select [Display] option then press > to move to the second level.



3. Use Λ/V to select the [Resolution] option then press > to move to the third level.



 Use ∧/V to select the desired resolution then press ENTER () to confirm your selection.

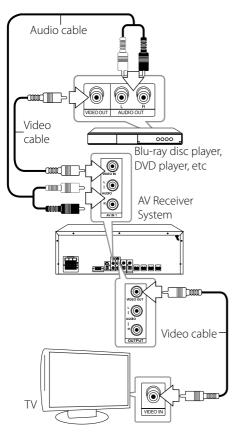
Note

If your TV does not accept the resolution you have to set on the unit, you can set resolution to 576p (or 480p) as follows:

Press
(STOP) for more than 5 seconds.

Using a composite video cable

To enjoy both sounds and images from your device, you have to connect analog audio cable as well as composite video cable.



- Connect the VIDEO IN jack on AV Receiver System to the VIDEO OUT jack on your video device using a composite video cable.
- Connect the left and right AUDIO IN jacks of AV Receiver System to the left and right AUDIO OUT jacks on your video device using an audio cables.
- **3.** Connect the VIDEO OUT jack on your AV Receiver System to the VIDEO IN jack on your TV.
- 4. Set the input source to AV 1(Pages 25-26).

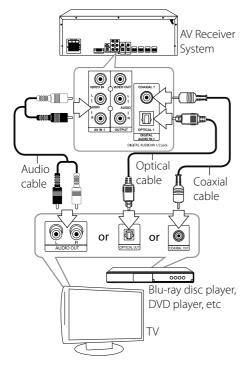


- Turn off the power to all components before making any connections.
- When connecting an audio/video cable, be sure to match the color-coded pins to the appropriate jacks on the components: yellow (video) to yellow; white (left, audio) to white; and red (right, audio) to red.

Connecting audio devices

You can hear the sound from your TV, DVD player, Blu-ray player, CD player, etc.

It is not necessary to connect all the cables. Connect AV Receiver System to an AV IN, a COAXIAL or an OPTICAL jack on your device you want to connect.



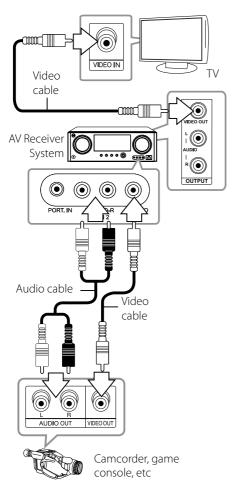
- Connect AV IN 1, COAXIAL 1/2 or OPTICAL 1/2 jack on AV Receiver System to your audio device's OUTPUT jack you want.
- **2.** Set the input source to AV IN 1, COAXIAL 1/2 or OPTICAL 1/2 you connect.(Pages 25-26).

🚺 Note

- Before connecting the cables, be sure to disconnect the AC power cord.
- When connecting an audio cable, be sure to match the color-coded pins to the appropriate jacks on the components: white (left, audio) to white; and red (right, audio) to red.

Connecting other devices

You can easily connect other devices (camcorder, game console, etc) to the jacks on the front panel of AV Receiver System.



- Connect the VIDEO IN jack on the front panel of AV Receiver System to the VIDEO OUT jack on your device using a video cable.
- Connect the left and right AUDIO IN jacks on the front of AV Receiver System to the audio left and right OUT jacks on your device using an audio cables.
- **3.** Connect the VIDEO OUT jack on the back panel of AV Receiver System to the VIDEO IN jack on your TV.
- 4. Set the input source to AV 2 (Pages 25-26).

Note

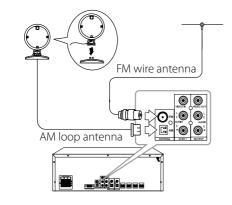
- Before connecting the cables, be sure to disconnect the AC power cord.
- When connecting an audio/video cable, be sure to match the color-coded pins to the appropriate jacks on the components: yellow (video) to yellow; white (left, audio) to white; and red (right, audio) to red.

ທ Installation

Connecting the antennas

Connect the supplied AM loop antenna and FM wire antenna.

Before connecting the antenna, be sure to disconnect the AC power cord.

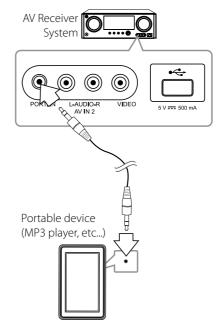


Note

- To prevent noise pickup, keep the AM Loop antenna away from the unit and other components.
- Be sure to fully extend the FM wire antenna. After connecting the FM wire antenna, keep it as horizontal as possible.

Connecting a portable device

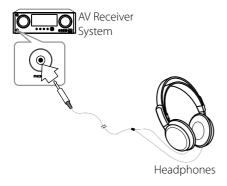
 Connect the PORT. IN jack on AV Receiver System to the head phone or LINE OUT jack on your Portable device (MP3 player, etc.) using a portable cable (Ø 3.5 mm stereo plug).



2. Set the input source to PORTABLE (Pages 25-26).

Connecting headphones

Connect a pair of stereo headphones (ϕ 3.5 mm phone plug) to AV Receiver System's PHONES jack for private listening.



Note

- Always turn down the volume before connecting your headphones.
- You can't hear any sound from speakers, while the headphones plug is inserted in the PHONES jack.

Settings

Adjusting the Setup Settings

You can change the settings of the unit in the [Setup] menu.

1. Press SETUP.

The [Setup] menu appears.



Installation

3

 Use ∧/V to select the first setup option, and press > to move to the second level.



3. Use Λ/V to select a second setup option, and press > to move to the third level.



 Use ∧/V to select a desired setting, and press ENTER () to confirm your selection.

[Language] Menu

Menu Language

Select a language for the [Setup] menu and on-screen display.

[Display] Menu

TV Aspect

Select which screen aspect to use based on the shape of your TV screen.

[4:3]

Select when a standard 4:3 TV is connected.

[16:9]

Select when a 16:9 wide TV is connected.

Display Mode

The Display Mode setting works only when the TV Aspect mode is set to 4:3.

[Letterbox]

Displays a wide picture with bands on the upper and lower portions of the screen.

[Panscan]

Automatically displays the wide picture on the entire screen and cuts off the portions that do not fit.

Resolution

Sets the output resolution of the HDMI video signal. Refer to "Resolution Setting" for details about the resolution (page 16).

[Auto]

If the HDMI OUT jack is connected to TVs providing display information (EDID), automatically selects the resolution best suited to the connected TV.

[576i]

Outputs 576 lines of interlaced video.

[576p]

Outputs 576 lines of progressive video.

[720p]

Outputs 720 lines of progressive video.

[1080i]

Outputs 1080 lines of interlaced video.

[1080p]

Outputs 1080 lines of progressive video.

[Audio] Menu

Speaker Setup

Make the following settings for the built-in 7.2 channel surround speaker.

1. Select [Speaker Setup] on the [Audio] menu.

2. Press ENTER ()

The [SPEAKER] menu appears.



- 3. Use </>> to select the desired speaker.
- **4.** Adjust options using $\Lambda/V/\langle \rangle$ buttons.
- 5. After adjusting the desired options, press **RETURN** (3). The menu moves to the previous screen.

[Speaker]

Note

Select a speaker that you want to adjust.



Certain speaker settings are prohibited by the Dolby Digital licensing agreement.

[Size]

Since the speaker settings are fixed, you cannot change the settings.

[Volume]

Press </> to adjust the output level of the selected speaker.

- Front L/R: 0 to -5
- SubWoofer 1/2, Rear L/R(1/2), Center: 5 to -5

Note

There is the other way to adjust the speaker levels. Refer to page 26.

[Distance]

After you connected speakers to your unit, set the Distance between the speakers and your listening point if the distance of Center or Rear speakers is bigger than the distance of Front speakers. This allows the sound from each speaker to reach the listener at the same time. Press </> to adjust the distance of the selected speaker. This distance is equivalent to a difference of the distance between Center or Rear speaker and Front speakers.

[Speaker Test Start] / [Speaker Test Stop] Select [Speaker Test Start] by using the Λ/V and press **ENTER** (\bigcirc). Press ENTER () again to stop. Adjust the volume to match the volume of test signals memorized in the system.

DRC (Dynamic Range Control)

When a title encoded in Dolby Digital or Dolby Digital Plus is playing back, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). This allows you to listen to a movie at a lower volume without losing clarity of sound. Set [DRC] to [On] for this effect.

HD AV Sync

Sometimes Digital TV encounters a delay between picture and sound. If this happens you can compensate by setting a delay on the sound so that it effectively 'waits' for the picture to arrive: this is called HD AV Sync. Use Λ/V (on the remote control) to scroll up and down through the delay amount, which you can set at anything between 0 ms and 300 ms.

Note

This function is operated only on the sources of USB.

[Others] Menu

DivX(R) VOD

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporantion. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

[Register]

Displays the registration code of your unit.

[Deregister]

Deactivate your unit and display the deactivation code.

4 Operation

Turning On the unit

Before connecting the power cord, connect all your speakers and AV components.

- 1. Plug the power cord into an AC wall outlet.
- Press POWER (♂ or ♂/1) button. The unit turns on, the display window lights up.

To turn off the unit, press **POWER** (\bigcirc or \bigcirc /]) button.

Selecting the input source

This section explains how to select the input source (i.e., the AV component that you want to listen to or watch).

- Press POWER (¹/[−]) to turn the unit on.
- Select a source by rotating the INPUT SELECTION on the front panel. The selected source appears on the display window.

To select the	Display
Component connected to AV IN 1 jack	AV 1
Component connected to AV IN 2 jack	AV 2
Portable device connected to PORT. IN jack	PORTABLE
Component connected to OPTICAL IN 1 jack	OPTICAL 1
Component connected to OPTICAL IN 2 jack	OPTICAL 2
Component connected to COAXIAL IN 1 jack	COAXIAL 1
Component connected to COAXIAL IN 2 jack	COAXIAL 2
Component connected to HDMI IN 1 jack	HDMI IN - 1
Component connected to HDMI IN 1 jack	HDMI IN - 2
Component connected to HDMI IN 1 jack	HDMI IN - 3
FM frequency	FM
AM frequency	AM
USB device connected to USB port	USB

To select the required input source using the remote control, use the **INPUT** buttons.

To select the	Button
Component connected to AV IN 1/2 jack	AV
Portable device connected to PORT. IN jack	PORTABLE
Component connected to OPTICAL IN 1/2 jack	OPTICAL
Component connected to COAXIAL IN 1/2 jack	COAXIAL
Component connected to HDMI 1/2/3 jack	HDMI IN
Built-in tuner	RADIO
USB device connected to USB port	USB

- **3.** Turn on the component and start playback.
- To adjust the volume, rotate the MASTER VOLUME on the front panel, or press VOL (-/+) on remote control.

To activate the muting function

Press **MUTE** (⋈) on the remote control. '𝔅' appears on the display window. To cancel, press **MUTE** (𝔅) on the remote control again or change the volume level.

Adjusting the speaker levels

You can adjust the level of each speaker. These settings are applied to all sound fields. You can adjust from -5 to +5 in 1 step.

 Press SPEAKER LEVEL on the remote control repeatedly to select a desired speaker to set.

The indicator changes cyclically in the display window as follows.

 $\mathsf{SW} \twoheadrightarrow \mathsf{FL} \twoheadrightarrow \mathsf{C} \twoheadrightarrow \mathsf{FR} \twoheadrightarrow \mathsf{RR} \twoheadrightarrow \mathsf{RL}$

2. Press VOL (-/+) to adjust the sound level of the selected speaker while the indicator is displayed in the display window.

Display	Description
SW	Subwoofer 1,2 (-5 to +5)
FL	Front speaker (left) (-5 to 0)
С	Center speaker (-5 to +5)
FR	Front speaker (right) (-5 to 0)
RR	Rear speaker 1,2 (right) (-5 to +5)
RL	Rear speaker 1,2 (left) (-5 to +5)

3. Repeat and adjust the sound level of the other speakers.

Enjoying various sound mode

You can enjoy various sound mode. For details, refer to the Sound effect, Bass Blast and USER EQ. (Pages 27-28)

Sound effect

You can select a suitable sound mode. Rotate **SOUND EFFECT** repeatedly until the desired mode appears on the display window.

Display	Description
NAT PLUS	You can enjoy the natural sound effect same as a 5.1 channel.
NATURAL	You can enjoy comfortable and natural sound.
Local specialization equalizer	Regionally optimized sound effect. (DANGDUT/ ARABIC/ PERSIAN/ INDIA/ REGUETON/ MERENGUE/ SAMBA/ SALSA/ CUMBIA/ AFRO HIP HOP)
AUTO EQ	Sets the sound equalizer to the mode that is the most similar to the genre which is included in the MP3 ID3 tag of song files.
POP CLASSIC JAZZ ROCK	This program lends an enthusiastic atmosphere to the sound, giving you the feeling you are at an actual rock, pop, jazz or classic concert.
MP3-OPT	This function is optimized for compressible MP3 file. It improves the treble sound.

BASS BLAST	During playback, reinforces the bass sound.
LOUDNESS	Improves the bass and treble sound.
VIRTUAL	You can enjoy more virtual surround sound.
PL MOVIE PL MUSIC	Dolby Pro Logic II enables you to play stereo source on 5.2 channel.
BYPASS	You can enjoy the sound without equalizer effect.

Note

- In some of surround modes, some speakers, there's no sound or low sound. It depends on the mode of surround and the source of audio, it is not defective.
- You may need to reset the surround mode, after switching the input, sometimes even after the sound track changed.
- Depending on region, specific Local specialization equalizer is selected.

Bass Blast

You can set the BASS BLAST sound mode directly.

Press BASS BLAST repeatedly.

Display	Description
BASS BLAST	During playback, reinforces the bass sound.
BYPASS	You can enjoy the sound without equalizer effect.

Setting the USER EQ

You can listen to music with desired sound effect by adjusting the BASS, MIDDLE and TREBLE.

- Press USER EQ on the front panel.
 "USER EQ" appears on the display window.
- Press PLAY / PAUSE on the front panel while the "USER EQ" is displayed in the display window.
- **3.** Select the BASS, MIDDLE or TREBLE by pressing **ENTER** on the front panel.
- Rotate MULTI CONTROL on the front panel to set sound level.
- **5.** Press **PLAY / PAUSE** on the front panel to finish the settings.

Listening to FM/AM radio

You can listen to FM and AM broadcasts through the built-in tuner. Before operation, make sure you have connected the FM and AM antennas to the unit. (Page 20)

Automatic tuning

- Rotate INPUT SELECTION to select tuner (FM or AM). Or press RADIO with the remote control to select tuner (FM or AM).
- 2. Press TUNING or TUNING + for more than 2 seconds.

Press **TUNING -** for more than 2 seconds to scan from high to low.

Press **TUNING +** for more than 2 seconds to scan from low to high.

The unit stops scanning whenever a station is received.

In case of poor FM stereo reception

If the FM stereo reception is poor and "ST." flashes in the display window, select monaural audio so that the sound will be less distorted by pressing the **MONO/STEREO**.

The "ST." indicator disappears in the display window. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.

Manual tuning

Press **TUNING** - or **TUNING** + briefly and repeatedly on the FM or AM mode to select a station you want. Or rotate **MULTI CONTROL** on the unit.

Presetting radio stations

You can preset up to 50 FM or AM stations. Then you can easily tune in the stations you often listen to.

- Rotate INPUT SELECTION to select tuner (FM or AM). Or press RADIO with the remote control to select tuner (FM or AM).
- 2. Tune in the station that you want to preset using Automatic tuning or Manual tuning.
- 3. Press ENTER ().

A preset number flashes in the display window for a few seconds. When a preset number flashes, do the step 4.

- Press PRESET or PRESET + to select a preset number you want.
 If a preset number is not flashed before you select the preset number, start again from the step 3.
- 5. Press ENTER () again.

The station is stored to the selected preset number. If a preset number is not flashed before you press **ENTER** (•), start again from the step 3.

6. Repeat the steps 2 to 5 to preset another station.

Tuning to preset stations

Before tuning to preset stations, make sure you preset radio stations. (Page29)

- Rotate INPUT SELECTION to select tuner (FM or AM). Or press RADIO with the remote control to select tuner (FM or AM).
- Press PRESET or PRESET + repeatedly to select the preset station you want.
 Each time you press the button, you can select a preset station.

Deleting the preset stations

You can delete a preset station you want.

- Rotate INPUT SELECTION to select tuner (FM or AM). Or press RADIO with the remote control to select tuner (FM or AM).
- 2. Select the preset station to delete by pressing **PRESET -** or **PRESET+**.
- 3. Press CLEAR.
- Press CLEAR again while the preset number flashes in the display window for a few seconds. The preset station is deleted.
- **5.** Repeat the steps 2 to 4 to delete another preset station.

Deleting all the preset stations

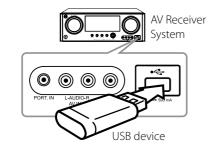
- Press and hold CLEAR for about two seconds. "ERASE ALL" appears on the display window.
- Press CLEAR again while "ERASE ALL" is displayed.
 All the preset stations are cleared.

Playing the USB device

This unit can play movie, music and photo files contained in the USB device.

Basic operations

1. Insert an USB device to the USB port until it fits into place.



2. Rotate INPUT SELECTION on the front panel to select until the "USB" appears on the display window. Or press USB on the remote control.

When you connect the USB device contained music files only in the USB device, the unit plays music files automatically. If the USB device is containing various types of files, the [USB] menu for the file type selection will appear.



[USB] menu

Select [Music], [Movie] or [Photo] using
 , and press ENTER () to play the file.

To stop playback

MUSIC MOVIE PHOTO

Press 🔳 (STOP) during playback.

To pause playback

Press II (PAUSE) during playback. Press ► (PLAY) to resume playback.

To scan forward or backward MUSIC MOVIE

Press ◀◀ or ▶► to play fast forward or fast reverse during playback. You can change the various playback speeds by pressing ◀◀ or ▶► repeatedly. Press ▶ (PLAY) to return to normal speed.

To skip to the next/previous chapter/ track/file MUSIC MOVIE

During playback, press I ← or ► to go to the next chapter/track/file or to return to the beginning of the current chapter/track/file. Press I ← twice briefly to step back to the previous chapter/track/file.

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During playback, press I ← or ►► to go to the previous/next file.

To slow down the playing speed MOVIE

While the playback is paused, press repeatedly to play various speeds of slow motion.

Resume playback MUSIC MOVIE

The unit records the point where you pressed the (STOP) depending on the file.

If "III (Resume Stop)" appears on the screen briefly, press (PLAY) to resume playback (from the scene point).

If you press ■ (STOP) twice, "■ (Complete Stop)" appears on the screen. The unit will clear the stopped point.

Removing the USB device from the unit

- 1. Choose a different function mode or press ■ (STOP) twice in a row.
- 2. Remove the USB device from the unit.

Compatible USB Devices

- MP3 Player : Flash type MP3 player.
- USB Flash Drive : Devices that support USB 2.0 or USB 1.1.
- Some USB device may not work with this unit.



Note

- Devices which require additional program installation connected to a computer, are not supported.
- Do not extract the USB device while in operation.
- For a large capacity USB, it may take longer than a few minute to be searched.
- Regular back up is recommended to prevent data loss.
- If you use a USB extension cable or USB hub, the USB device is not recognized.
- Using NTFS file system is not supported. (Only FAT(16/32) file system is supported.)
- This unit is not supported when the total number of files is 1000 or more.
- External HDD, Multi Media Card readers. Locked devices, or hard type usb devices are not supported.
- USB Port of the unit cannot be connected to PC. The unit cannot be used as a storage device.
- USB device: USB device that supports USB 1.1 and USB 2.0.
- Digital camera and mobile phone are not supported.

Listening to music

You can play music files contained in a USB device.

- 1. Select [Music] using </>> on the [USB] menu.
- 2. Press ENTER (). The unit plays music files automatically.

Using the [MUSIC] menu



Options	Buttons	Description
UP FOLDER		Returning to the upper folder.
↑ /↓	Select a desired option	Moving to the previous or next page.
Select All	using Λ / V/	Marking all the files.
Deselect All		Deselecting all the marked files.
Mark 🗹	MARKER	Marking the selected files.
▲▼ ◀► Move	∧/V/ 	Moving to another file.
● Select	ENTER (O)	Activating a file.
Close	RETURN (& D)	Returning to the [USB] menu.



Note

- The file requirements are described on page 33.
- You can use various playback functions. Refer to pages 30-31.

Playing your favorite music

This enables you to play the marked music in order by marking your favorite files.

- 1. During playback, select your favorite files using Λ/V .
- 2. Press MARKER.

The \mathbf{M} indicator appears on the [MUSIC] menu.

- 3. Repeat steps 1-2.
- **4.** Press ► (PLAY) or **ENTER** (④). The play mode is displayed on the [MUSIC] menu.



- **5.** Select the desired play mode using Λ/V . [Mark Play]: Plays the marked files in order. [Current Play]: Plays the files in order from the highlighted position.
- 6. Press ENTER ().

Note

- If you want to delete a marker, select the marked file and then press MARKER.
- The markers are also cleared when the USB device is removed, the unit is switched to power off or the function is switched to others.

Playing repeatedly or randomly

During playback, press C⊃ **REPEAT** repeatedly to select a desired mode.

Display	Description
REPEAT	The current file will be played repeatedly.
REPEAT ALL	All the files will be played repeatedly.
RANDOM	The files will be played in random order.
Off (No display)	Returns to normal playback.

AUTO DJ playback

AUTO DJ blends the end of one song into the beginning of another for seamless playback.

During playback, press **AUTO DJ** repeatedly to select a desired mode.

Display	Description
AUTO DJ RANDOM	The music is played randomly on this mode.
AUTO DJ SEQUENTIAL	The music is played repeatedly on this mode.
AUTO DJ OFF	Returns to normal playback.

Music file requirement

Music file compatibility with this unit is limited as follows :

- Sampling frequency : within 32 to 48 kHz (MP3), within 32 to 48 kHz (WMA)
- Bit rate : within 32 to 320 kbps (MP3), 40 to 192 kbps (WMA)
- Support Version : v2, v7, v8, v9
- Maximum files : Under 999
- File extensions : ".mp3"/ ".wma"
- CD-ROM file format : ISO 9660/ JOLIET
- We recommend that you use Easy-CD Creator, which creates an ISO 9660 file system.

Playing a movie file

You can play movie files contained in a USB device.

- Select [Movie] using </>
 on the [USB] menu.
- Select a file using ∧/V/</>>, and press
 (PLAY) or ENTER (()) to play the file.

Displaying content information onscreen

You can display and adjust various information and settings about the content.

1. During playback, press **INFO/DISPLAY** (,) to show various playback information.



- **1** Title current title number/total number of titles
- 2 Time elapsed playing time/total playback time
- 3 Audio selected audio language or channel
- 4 Subtitle selected subtitle
- **5** Code Page selected subtitle code page
- **2.** Select an option using Λ/V .
- Use </>> to adjust the selected option value.
- 4. Press INFO/DISPLAY (D) or RETURN (

Note

If no button is pressed for a few seconds, the on-screen display disappears.

Playing from selected time

- 1. Press **INFO/DISPLAY** (D) during playback. The time search box shows the elapsed playing time.
- 2. Select the [Time] option and then input the required start time in hours, minutes, and seconds from left to right.

For example, to find a scene at 2 hours, 10 minutes, and 20 seconds, enter "21020".

 Press ENTER (
) to start playback from selected time.

Hearing different audio

- 1. During playback, press **INFO/DISPLAY** (,) to display the On-Screen display.
- **2.** Use Λ/V to select the [Audio] option.
- 3. Use </>> to select desired audio language, audio track or audio channel.

Selecting a subtitle language

- 1. During playback, press **INFO/DISPLAY** (,) to display the On-Screen display.
- **2.** Use Λ/V to select the [Subtitle] option.
- 3. Use </>> to select desired subtitle language.
- 4. Press RETURN () to exit the On-Screen display.

Changing subtitle code page

If the subtitle is not displayed properly, you can change the subtitle code page to view the subtitle file properly.

- 1. During playback, press **INFO/DISPLAY** (,) to display the On-Screen display.
- **2.** Use Λ/V to select the [Code Page] option.
- **3.** Use **</>** to select desired code option.
- 4. Press RETURN (3) to exit the On-Screen display.

Movie file requirement

Movie file compatibility with this unit is limited as follows :

- Available resolution: within 720 x 576 (W x H) pixels.
- The file name of the DivX subtitle should be entered within 45 characters.
- If there is impossible code to express in the DivX file, it may be displayed as "_" mark on the display.
- Frame rate : less than 30 fps.
- If the video and audio structure of recorded files is not interleaved, either video or audio is outputted.
- Playable movie file : ".avi", ".mpg", ".mpeg", ".divx"
- Playable Subtitle format : SubRip (*.srt/ *.txt), SAMI (*.smi), SubStation Alpha (*.ssa/ *.txt), MicroDVD (*.sub/*.txt), SubViewer 2.0 (*.sub/*.txt), Vobsub (*.sub)
- Playable Codec format: "DIVX3.xx", "DIVX4. xx", "DIVX5.xx", "MP4V3", "3IVX".
- Playable Audio format : "AC3", "DTS", "PCM", "MP3", "WMA".
- Sampling frequency : within 32 to 48 kHz (MP3), within 32 to 48 kHz (WMA)
- Bit rate : within 32 to 320 kbps (MP3), 40 to 192 kbps (WMA)
- For Discs formatted in Live file system, you can not use it on this unit.
- If the name of movie file is different from that of the subtitle file, during playback of a DivX file, subtitle may not be display.
- If you play a DivX file differ from DivXspec, it may not operate normally.

Viewing a photo

You can view photo files contained in a USB device.

 Select [Photo] using </> on the [USB] menu. The [PHOTO] menu appears.



Options	Buttons	Description
UP FOLDER	Select a desired	Returning to the upper folder.
↑ /↓	option using ∧ / V/.	Moving to the previous or next page.
► Slide Show	► (PLAY)	Viewing a slide show.
▲▼ ◀► Move	∧/V/ 	Moving to another file or content.
● Select	ENTER (())	Viewing a particular file.
Close	RETURN (ð)	Returning to the [USB] menu.

Select a file using ∧/V/</>, and press
 (PLAY) or ENTER (() to play the file.

Options	Buttons	Description
► Slide Show	► (PLAY)	Viewing a slide show.
● Select	ENTER (())	Viewing a particular file.

To stop a slide show

Press (STOP) during slide show.

To pause a slide show

Press II (PAUSE) during slide show. Press ► (PLAY) or II (PAUSE) to re-start the slide show.

To skip to the next/previous photo

While viewing a photo in full screen, press < or > to go to the previous or next photo.

Options while viewing a photo

You can use various options while viewing a photo in full screen.

- 1. While viewing a photo in full screen, press **INFO/DISPLAY** () to display the option menu.
- **2.** Select an option using $\Lambda/V/\langle>$.



- Current photo/Total number of photos

 Use </>> to view previous/next photo.
- 2 Slide Show Press ENTER () to start or pause slide show.
- 3 Speed Use ENTER (⊙) to select a delay time between photos in a slide show.
- 4 Rotate Press ENTER () to rotate the photo clockwise/counterclockwise.
- **Go to list** Press **ENTER** (**()**) to return [Photo] menu.
- 3. Press RETURN () or INFO/DISPLAY () to exit the option menu.

Photo file requirement

Photo file compatibility with this unit is limited as follows :

- Max pixel in width : 2760 x 2048 pixel
- Maximum files : Under 999
- Some files may not operate due to a different recording format or the condition of file.
- File extensions: ".jpg", ".jpeg"
- CD-ROM file format : ISO 9660/JOLIET

Dimmer

Press **DIMMER** once. The display window will be darken by half and the Backlightings will be turned off. To cancel it, press **DIMMER** again.

Screen Saver

The screen saver is available only on the USB device mode. The screen saver appears when you leave the unit in Stop mode for about five minutes.

Using the Sleep Timer

You can set the unit to turn off automatically at a specified time.

Press **SLEEP** repeatedly.

The indicator changes cyclically in the display window as follows.

SLEEP $180 \rightarrow 150 \rightarrow 120 \rightarrow 90 \rightarrow 80 \rightarrow 70$ $\rightarrow 60 \rightarrow 50 \rightarrow 40 \rightarrow 30 \rightarrow 20 \rightarrow 10 \rightarrow Off$ (No display)

To check the remaining time, press **SLEEP**. The remaining time appears on the display window.

To cancel the sleep function, press **SLEEP** repeatedly until "SLEEP 10" appears, and then press **SLEEP** once again while "SLEEP 10" is displayed.



When the sleep timer is activated, the display window dims and the Backlightings are turned off.

5 Maintenance

Handling the Unit

When shipping the unit

Please save the original shipping carton and packing materials. If you need to ship the unit, for maximum protection, re-pack the unit as it was originally packed at the factory.

Keeping the exterior surfaces clean

- Do not use volatile liquids such as insecticide spray near the unit.
- Wiping with strong pressure may damage the surface.
- Do not leave rubber or plastic products in contact with the unit for a long period of time.

Cleaning the unit

To clean the unit, use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents such as alcohol, benzine or thinner, as these might damage the surface of the unit.

Maintaining the Unit

The unit is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn, the picture quality could be diminished. For details, please contact your nearest authorized service center.

6 Troubleshooting

Troubleshooting

PROBLEM	CAUSE & SOLUTION
No power.	The power cord is disconnected. Plug the power cord into the wall outlet securely.
	The system cable is disconnected. Connect the system cable.
No sound.	• The speaker wires are disconnected. Check the speaker connections.
	The MASTER VOLUME is adjusted too low. Adjust the MASTER VOLUME.
	MUTE button is pressed to ON. Press MUTE button to cancel the muting effect.
	The selected decoding mode is not matched to the input signal format. Select the available decoding mode.
	Incorrect selection of input source. Select the desired input source correctly.
	Incorrect connections between the components. Make connections correctly.
No backlighting.	DIMMER is pressed to ON. Press DIMMER again to cancel the dimmer effect.
	• The sleep timer is set. Check the sleep timer. Press SLEEP on the remote control to check the sleep timer. To cancel the sleep timer, press SLEEP until the backlightings light up.

Radio stations can't be tuned in properly.	The antenna is positioned or connected poorly. Check the antenna connection and adjust its position.
	 The signal strength of the radio station is too weak. Tune to the station manually.
	 No stations have been preset or preset stations have been cleared (when tuning by scanning preset channels). Preset some radio stations, see page 29 for details.
Preset stations cannot be received.	An incorrect station frequency has been memorized. Memorize the correct station frequency.
	• The memorized stations are cleared. Memorize the stations again.
Poor FM reception.	No antenna is connected. Connect the antenna.
	 The antenna is not positioned for the best reception. Change the position of the antenna.
The remote control doesn't work well / at all.	The remote control is not pointed directly at the unit. Point the remote directly at the unit.
	• The remote control is too far from the unit. Use the remote within 23 feet (7 m) of the unit.
	• There is an obstacle in the path between the remote control and the unit. Remove the obstacle.
	 The batteries in the remote control are flat. Replace the batteries with new ones.
'CHECK CABLE' appears on the display window.	 Subwoofer Amplifier's power cord is not connected. Check and connect it correctly.
	System cable is disconnected or connected incorrectly. Check and connect it correctly.
'M-PROTECTION' or 'S-PROTECTION' appears on the display window.	 Improper connections may damage the system due to short-circuit. Ensure that the speaker cables are connected correctly.

7 Appendix

Trademarks and Licenses



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.



 $\text{DivX}^{\circ},$ DivX Certified $^{\circ}$ and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license.



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Manufactured under licence under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks & DTS Digital Surround and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

Specifications

General

- Power requirements: Refer to main label.
- Power consumption: Refer to main label.
- Dimensions (W x H x D): 430 x 150 x 312 mm
- Net Weight (Approx.): 8.55 kg (AV Receiver System : 4.52 kg, Subwoofer Amplifier: 4.03 kg)
- Operating temperature: 41 °F to 95 °F (5 °C to 35 °C)
- Operating humidity: 5 % to 90 %
- Bus Power supply (USB): DC 5 V --- 500 mA

Inputs/ Outputs

- AUDIO OUT:
 2.0 Vrms (1 kHz, 0 dB), 600 Ω,
 RCA jack (L, R) x 1
- VIDEO OUT: 1.0 V (p-p), 75 Ω, sync negative, RCA jack x 1
- HDMI IN 1/2/3, HDMI OUT (video/audio): 19 pin (HDMI standard, Type A)
- OPTICAL IN 1/2: 3 V (p-p), Optical jack x 2
- COAXIAL IN 1/2:3 V (p-p), Coaxial jack x 2
- AV IN 1/2: AUDIO: 2.0 Vrms (1 kHz, 0 dB), 600 Ω, RCA jack (L, R) x 2
 VIDEO: 1.0 V (p-p), 75 Ω, sync negative, RCA jack x 2
- PORT. IN: 0.5 Vrms (ϕ 3.5 mm stereo jack)

Tuner

- FM Tuning Range: 87.50 to 108.00 MHz or 87.5 to 108.0 MHz
- AM Tuning Range: 522 to 1620 kHz, 520 to 1710 kHz, 522 to 1710 kHz or 522 to 1720 kHz

Amplifier

- Stereo mode: 220 W x 2 (6 Ω at 1 kHz)
- Surround mode: Front: 220 W x 2 (6 Ω at 1 kHz) Center: 220 W (6 Ω at 1 kHz) Surround 1,2: 120 W x 4 (12 Ω at 1 kHz) Subwoofer: 220 W x 2 (6 Ω at 1 kHz)

Speakers

- Front speaker Type: 2 Way 3 speaker Impedance: 6 Ω Rated Input Power: 220 W Max. Input power: 440 W Net Dimensions (W x H x D): 255 x 1014 x 314 mm Net Weight: 19.3 kg
- Surround speaker Type: 1 Way 1 speaker Impedance: 12 Ω Rated Input Power: 120 W Max. Input power: 240 W Net Dimensions (W x H x D): 193 x 256 x 250 mm Net Weight: 2.7 kg

- Center speaker Type: 2 Way 3 speaker Impedance: 6 Ω Rated Input Power: 220 W Max. Input power: 440 W Net Dimensions (W x H x D): 545 x 206 x 225 mm Net Weight: 5.8 kg
- Subwoofer Type: 1 Way 1 speaker Impedance: 6 Ω Rated Input Power: 220 W Max. Input power: 440 W Net Dimensions (W x H x D): 386 x 482 x 344 mm Net Weight: 11.4 kg

Designs and specifications are subject to change without prior notice.

