

Panasonic®

Operating Instructions *Home Theater Audio System*

Model No. **SC-HT56**



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

VIERA Link™

Dear customer

Thank you for purchasing this product.
Before connecting, operating or adjusting this
product, please read the instructions completely.
Please keep this manual for future reference.

If you have any questions contact 1-800-211-PANA (7262)

The warranty can be found on page 23.



As an ENERGY STAR® Partner,
Panasonic has determined that this
product meets the ENERGY STAR®
guidelines for energy efficiency.

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable 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 attachments/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.



FCC Note:

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.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.


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.

Responsible Party:

Panasonic Corporation of North America
One Panasonic Way
Secaucus, NJ 07094

Support Contact:

Panasonic Consumer Electronics Company
Telephone No.: 1-800-211-PANA (7262)



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The 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 appliance.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- **DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

System	SC-HT56
AV Control Receiver	SA-HT56
Front speakers	SB-HF56
Surround speakers	SB-HS760
Center speaker	SB-HC760
Subwoofer	SB-HWX50

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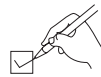
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Supplied accessories



Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts.
(Product numbers correct as of September 2008. These may be subject to change.)
To order accessories, refer to "Accessory Purchases" on page 23.

- | | |
|--|---|
| <input type="checkbox"/> 1 AC power supply cord
(K2CB2CB00021) | <input type="checkbox"/> 2 Batteries |
| <input type="checkbox"/> 1 FM indoor antenna
(RSA0007-L1) | <input type="checkbox"/> 1 Calibration microphone
(L0CBAB000125) |
| <input type="checkbox"/> 1 AM loop antenna
(N1DAAAA00002) | <input type="checkbox"/> 1 Remote control
(N2QAYB000319) |
| <input type="checkbox"/> 1 Speaker sticker sheet
(RQCXA0013-1) | <input type="checkbox"/> Speaker cables
3.0 m/9.8 ft. x 2 (REEX0449K-2K)
3.0 m/9.8 ft. x 1 (REEX0449K-2M)
8.0 m/26.2 ft. x 2 (REEX0449E-2K) |

Listening caution



Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion-and, most importantly, without affecting your sensitive hearing.

We recommend that you avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

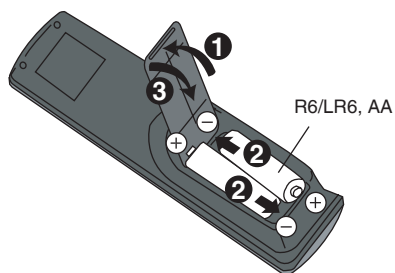
- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

The remote control



Batteries

- Insert so the poles (+ and -) match those in the remote control.
- Do not use rechargeable type batteries.
- Do not heat or expose to flame.
- Do not leave the batteries in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

CAUTION

Danger of explosion if battery is incorrectly replaced.

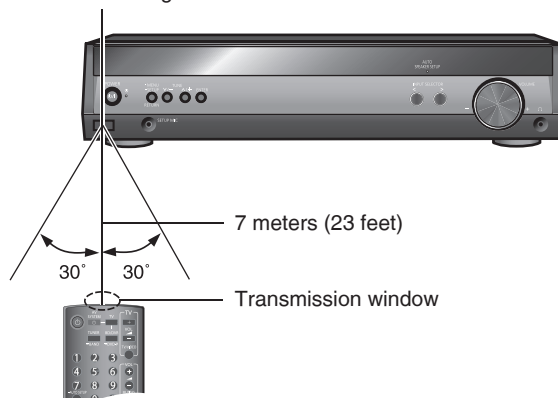
Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.

Remote control signal sensor



Note

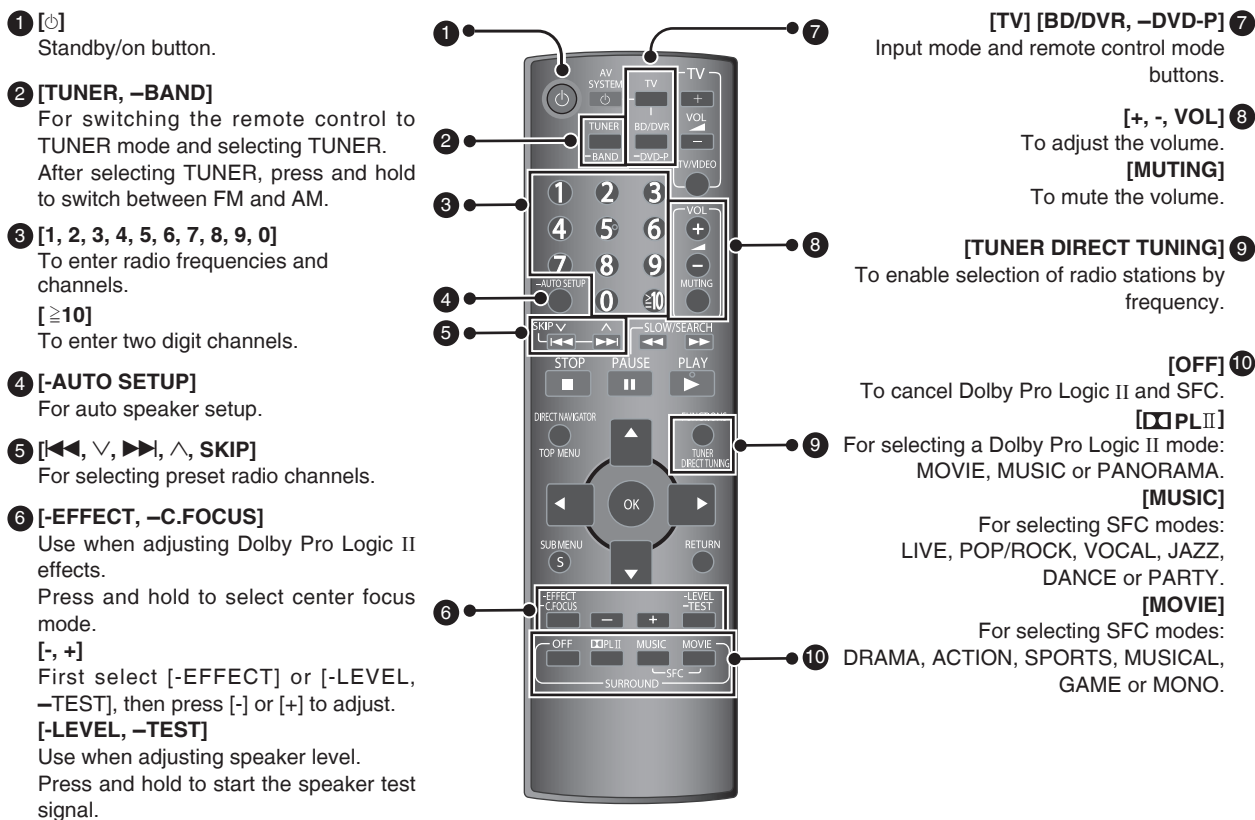
- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

Control guide

Remote control

This page describes the buttons used to control this unit.

See the guide at pages 20 and 21 for the buttons that control other units.



Control guide

Main unit



1 Standby indicator [⏻]

When the unit is connected to the AC power supply, this indicator lights up in standby mode and goes out when the unit is turned on.

[⏻/I, POWER]

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

2 [-MENU, -SETUP, RETURN]

- For entering menus and setup to make various settings.
- For returning to previous menus.

3 [TUNE, V / -, ^ / +]

For tuning the radio and selecting menu or setup items.

4 [ENTER]

Used during menu or setup operations.

5 [AUTO SPEAKER SETUP]

Flashes during Auto Speaker Setup. Lights when the setup finishes.

6 [INPUT SELECTOR, <, >]

For selecting input.

7 [VOLUME]

Volume control.

8 [⏻] Headphone jack

Plug type: Ø3.5 mm (1/8") stereo

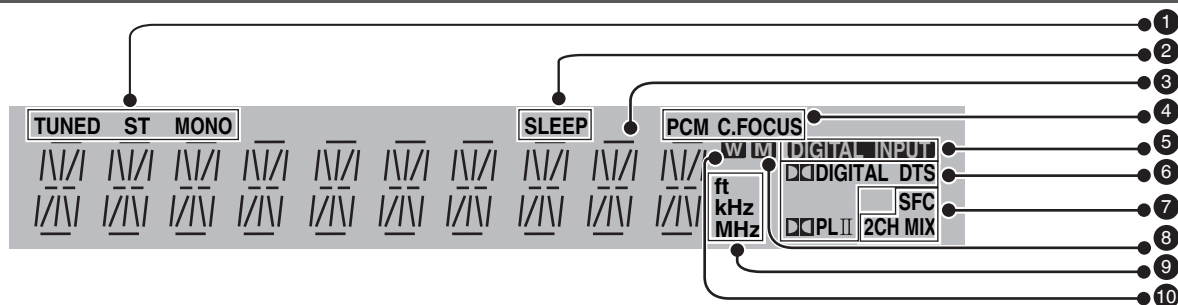
- Sound does not come from the speakers if you connect headphones.
- Avoid listening for prolonged periods of time to prevent hearing damage.

9 [SETUP MIC] jack

For calibration microphone.

10 Remote control signal sensor

Display



1 [TUNED, ST, MONO]

Radio indicators

TUNED: A station is tuned

ST: A stereo FM broadcast is tuned

MONO: You have switched to monaural mode to improve reception

2 [SLEEP]

Sleep timer indicator.

3 General display

Shows the input mode, radio frequency and other general information.

4 [PCM, C.FOCUS]

PCM: Lights when the PCMFIX mode is set

C.FOCUS: Appears when you are using Center Focus

5 [DIGITAL INPUT]

Lights when input is digital.

6 [DIGITAL, DTS, PLII]

Lights to indicate the source's input signal and decoding format used.

DIGITAL: Dolby Digital sources

DTS: DTS sources

PLII: Dolby Pro Logic II decoder is being used

7 [SFC, 2CH MIX]

SFC: Appears when you are using an SFC mode

2CH MIX: Appears when you are listening to a multi-channel source with headphones

8 [M]

Flashes or lights during presetting.

9 [ft, kHz, MHz]

Distance and frequency unit indicators

ft: feet (speaker distance)

kHz: AM, or PCM sampling frequency

MHz: FM

10 [W]

Lights when you are using the digital transmitter (→ page 7). Flashes when there is no link between the main unit and the wireless system (For details, refer to the operating instructions for SH-FX67).

STEP 1 Speaker setup

Supplied accessories

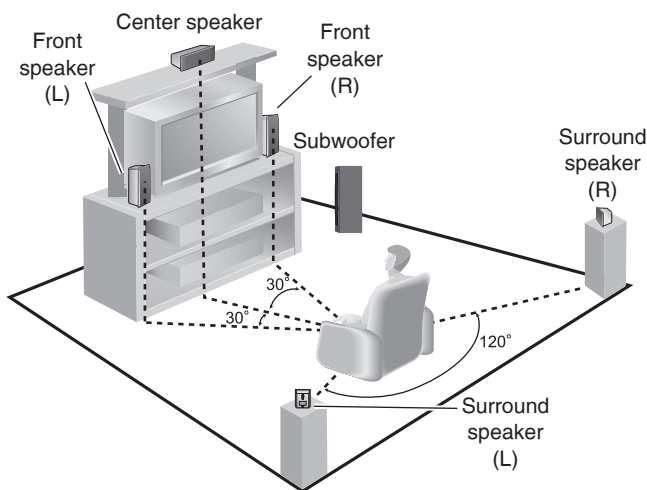
Speaker cables
(3 short, 2 long)



1 Speaker sticker sheet



Placement of speakers



Positioning for best effect

How you set up your speakers can affect the bass and the sound field.

Note the following points.

- Place speakers on flat secure bases.
- Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with a thick curtain.

Place the front, center, and surround speakers at approximately the same distance from the seating position.

Auto Speaker Setup compensates for any differences

(→ pages 11 to 12).

The angles in the diagram are approximate.

Front speakers (left, right)

Place on the left and right of the TV at seated ear height so that there is good coherency between the picture and sound.

Center speaker

Place underneath or above the center of the TV. Aim the speaker at the seating area.

Surround speakers (left, right)

Place on the side of or slightly behind the seating area, higher than ear level.

Subwoofer

The subwoofer can be placed in any position as long as it is at a reasonable distance from the TV.

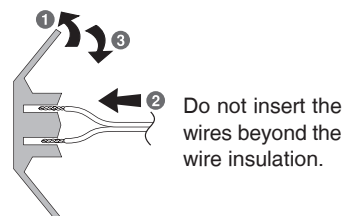
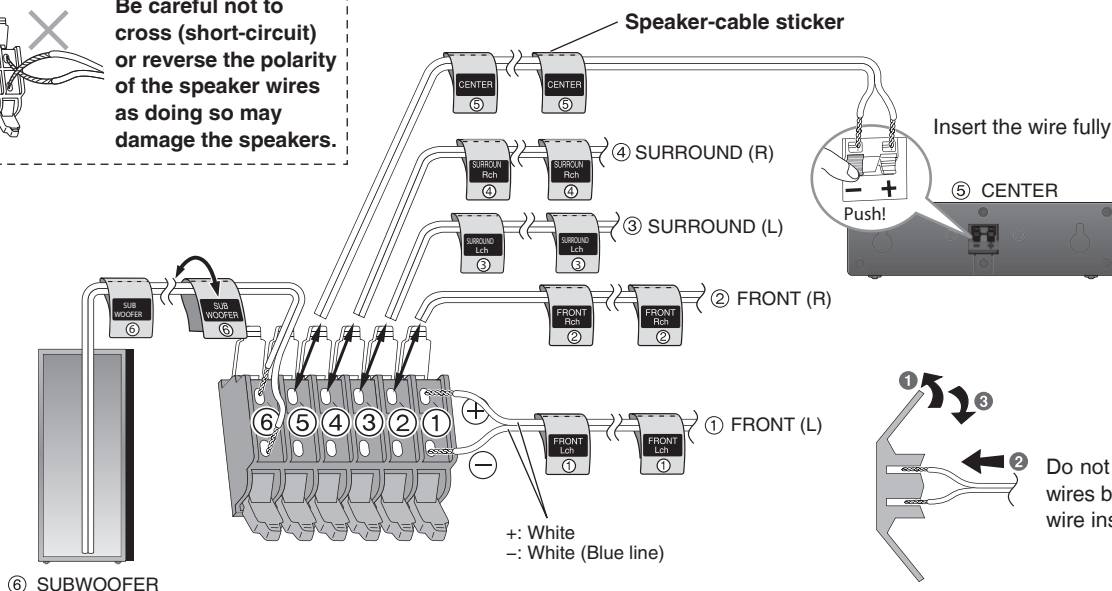
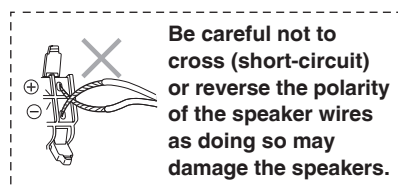
Note that some experimentation can yield the smoothest low frequency performance. Placement near a corner can increase the apparent output level, but can result in unnatural bass.

Note

Keep your speakers at least 10 mm ($\frac{13}{32}$ ") away from the system for proper ventilation.

Connect the speakers to the receiver

Attach the speaker-cable stickers to make connection easier.



- Turn off all components before making any connections.
- Peripheral equipment and cables sold separately unless otherwise indicated.
- To connect equipment, refer to the appropriate operating instructions.

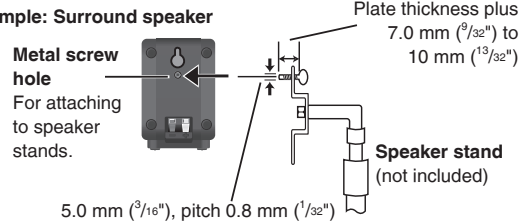
Other speaker setup options

■ Fitting optional speaker stands (For front, center and surround speakers)

Ensure the stands meet these conditions before purchasing them. Note the diameter and length of the screws and the distance between screws as shown in the diagram.

- The stands must be able to support over 10 kg (22 lb.).
- The stands must be stable even if the speakers are in a high position.

Example: Surround speaker

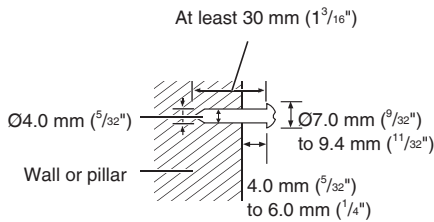


■ Attaching to a wall

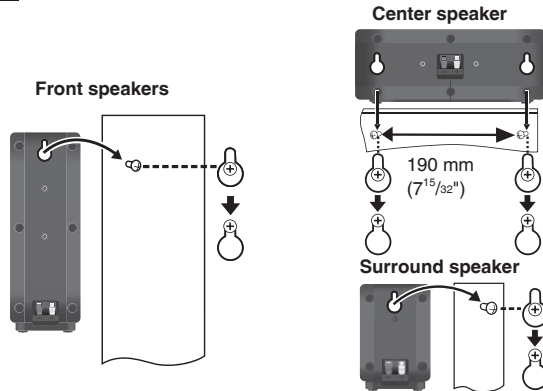
You can attach the surround, center and front speakers to a wall.

- The wall or pillar on which the speakers are to be attached should be capable of supporting 10 kg (22 lb.) per screw. Consult a qualified building contractor when attaching the speakers to a wall. Improper attachment may result in damage to the wall and speakers.

1 Drive the screw (not included) into the wall



2 Fit the speaker securely onto the screw(s) with the hole(s)



Caution

- Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.
- Do not attempt to attach these speakers to walls using methods other than those described in this manual.

If irregular coloring occurs on your television

The supplied speakers are designed to be used close to a television, but the picture may be affected with some televisions and setup combinations.

If this occurs, turn the television off for about 30 minutes.

The television's demagnetizing function should correct the problem. If it persists, move the speakers further away from the television.

Notes on front speakers

These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.

Wireless system connection



Set your sound free with Panasonic's wireless receiver and speaker systems

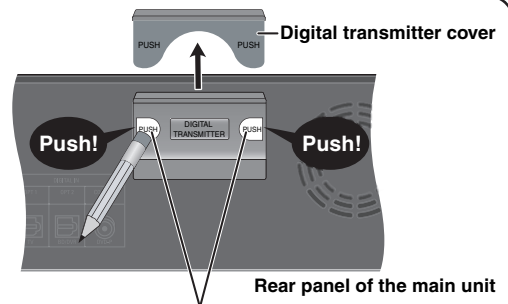
Attach the SH-FX67 digital transmitter for wireless surround sound. You can also connect your portable audio equipment to the wireless system.

For details, refer to the operating instructions for SH-FX67.

Note

Remove the digital transmitter cover before installing any optional Panasonic wireless accessory.

- Replace the cover when the digital transmitter is not in use.



You can use the blunt end of a writing instrument to push here until the cover pops out.

STEP

2

Home theater connections

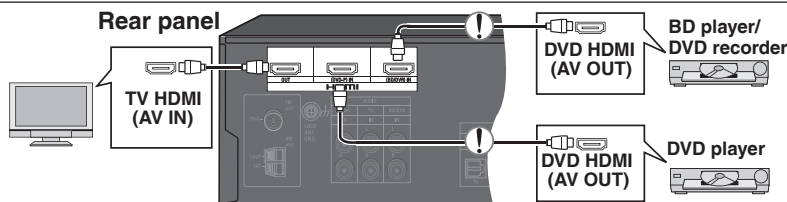
HDMI and VIERA Link "HDAVI Control"™

High-quality audio and video simply with HDMI connection

- The HDMI (High Definition Multimedia Interface) connection means you only need one cable to transmit digital audio and video between two pieces of equipment.

HDMI Cable (not included) (Use a Panasonic HDMI cable for best results.)

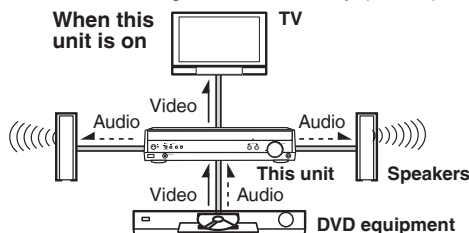
- It is recommended that you use Panasonic's HDMI cable.
Recommended part number: RP-CDHG10 (1.0 m/3.3 ft.), RP-CDHG15 (1.5 m/4.9 ft.), RP-CDHG20 (2.0 m/6.6 ft.), RP-CDHG30 (3.0 m/9.8 ft.), RP-CDHG50 (5.0 m/16.4 ft.), etc.
- Non-HDMI-compliant cables cannot be utilized.

**Note**

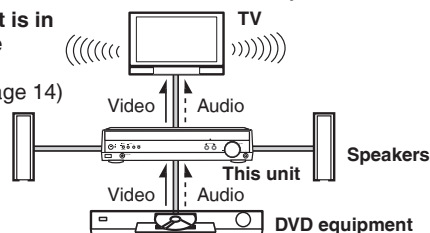
Connect only DVD equipment to the HDMI input terminal of the unit. Connecting other equipment may prevent the output of sounds or show distorted pictures.

Audio and video signal flow when you have used HDMI connections

The audio and video signals from DVD equipment pass through to the television even if this unit is set to standby.



When this unit is in standby mode
(in standby ON condition, ⇒ page 14)

**For your reference**

- Audio signals from HDMI connection takes priority to digital terminal connections (⇒ page 9).
- This unit's HDMI can carry video signals up to 1125p (1080p) (even when this unit is in standby mode).
1125p: a progressive (non-interlace) scanning system that sends 1,125 scan lines every 1/60 second.
- Please use High Speed HDMI Cables that have the HDMI logo (as shown on the cover).
- When outputting 1080p signal, please use the HDMI cables 16.4 feet or less.

Using the VIERA Link "HDAVI Control"**What is VIERA Link "HDAVI Control" ?**

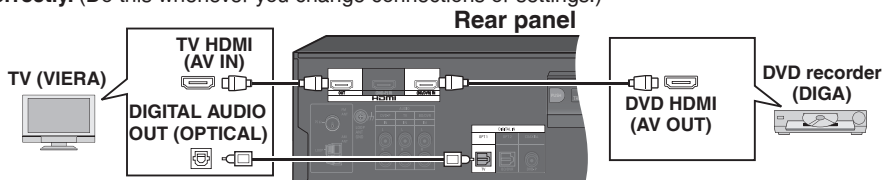
VIERA Link™ is a new name for EZ Sync™.

VIERA Link "HDAVI Control" is a convenient function that offers linked operations of this system, and a Panasonic TV (VIERA) or DVD recorder (DIGA) under "HDAVI Control". You can use this function by connecting the equipment with the HDMI cable. See the operating instructions for connected equipment for operational details.

- VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
- This system supports "HDAVI Control 2" function.**
"HDAVI Control 2" is the newest standard (current as of February, 2007) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.
- Please refer to individual manuals for other manufacturers' equipment supporting VIERA Link function.

Preparation

- Connect your other Panasonic home theater equipment (VIERA Link "HDAVI Control" compatible VIERA television or DIGA DVD recorder) with an HDMI cable (above).
- Read your television's operating instructions and make the settings necessary to activate the VIERA Link "HDAVI Control".
- Switch on all your equipment, then switch your television off then on again and check that images from DIGA appear correctly. (Do this whenever you change connections or settings.)



- To take advantage of the multi-channel sounds now available with digital television, use a digital connection if your TV has a digital output terminal.
- To turn off VIERA Link "HDAVI Control", "HDMI settings", ⇒ page 14.

- Turn off all components before making any connections.
- Peripheral equipment and cables sold separately unless otherwise indicated.
- To connect equipment, refer to the appropriate operating instructions.

Other accessories

Stereo connection cable



Optical fiber cable



Coaxial cable



Notes on digital input

This unit can decode the following signals:

- **Dolby Digital, DTS**
- **PCM, including PCM with sampling frequencies of 96 kHz or 88.2 kHz**

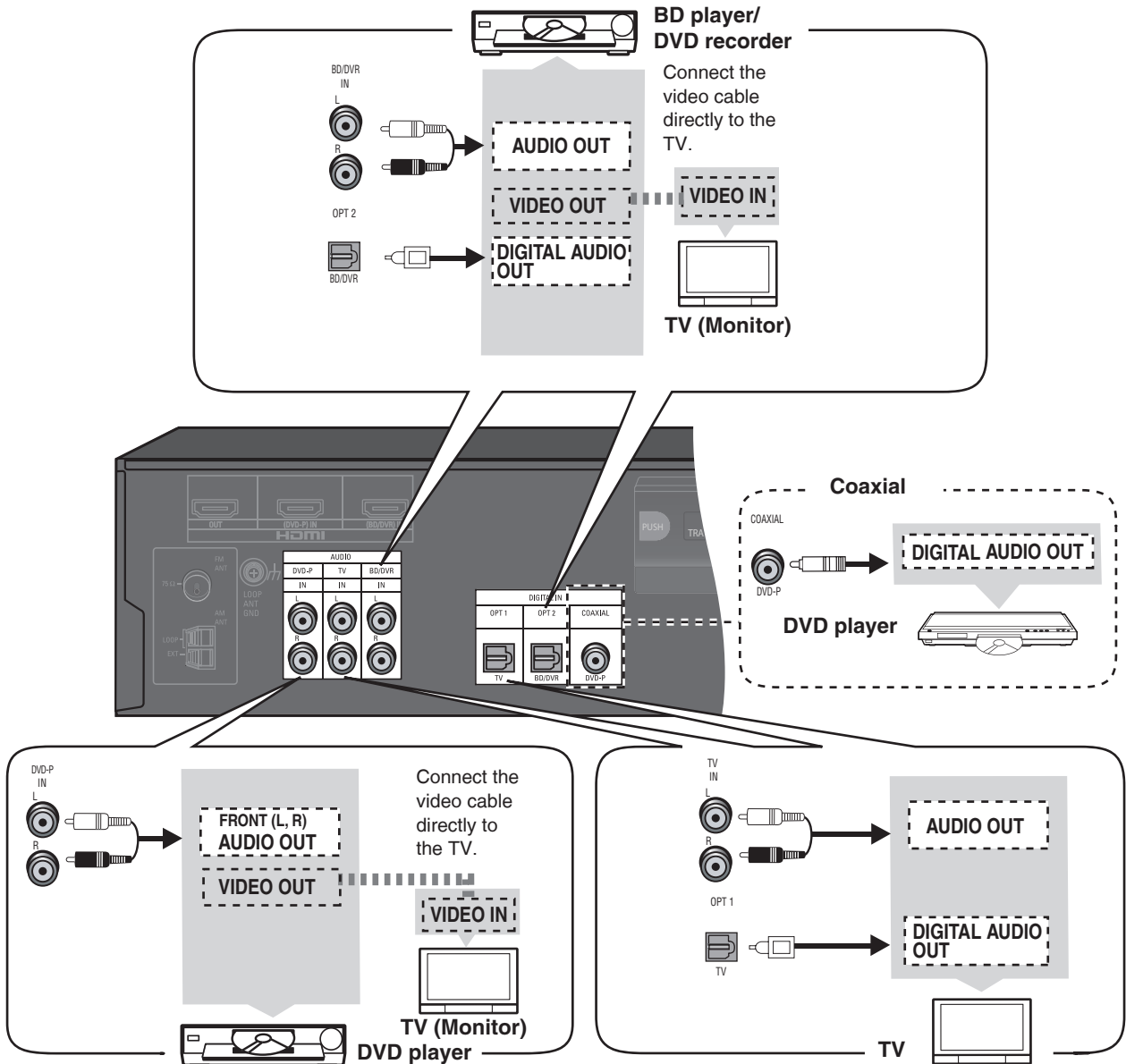
It cannot decode:

- **Other digital signals, such as MPEG**
- **Dolby Digital RF signals from a laser disc player**

Note

- Use digital connection to enjoy Dolby Digital or DTS.
- Do not bend the optical fiber cable.

TV, BD player/DVD recorder and DVD player



STEP

3

Antenna and AC power supply connections

- Turn off all components before making any connections.
- Peripheral equipment and cables sold separately unless otherwise indicated.
- To connect equipment, refer to the appropriate operating instructions.

Supplied accessories

1 AC power supply cord



1 FM indoor antenna



1 AM loop antenna



FM indoor antenna

Adhesive tape
Fix the end of the antenna where reception is best.

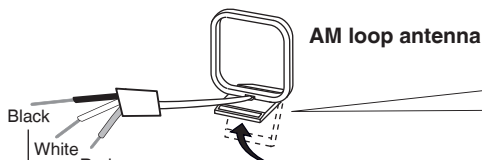
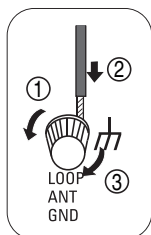
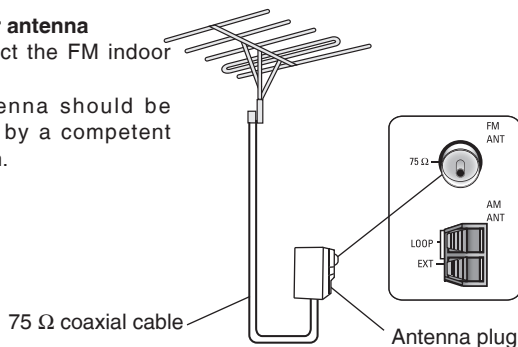


For best reception

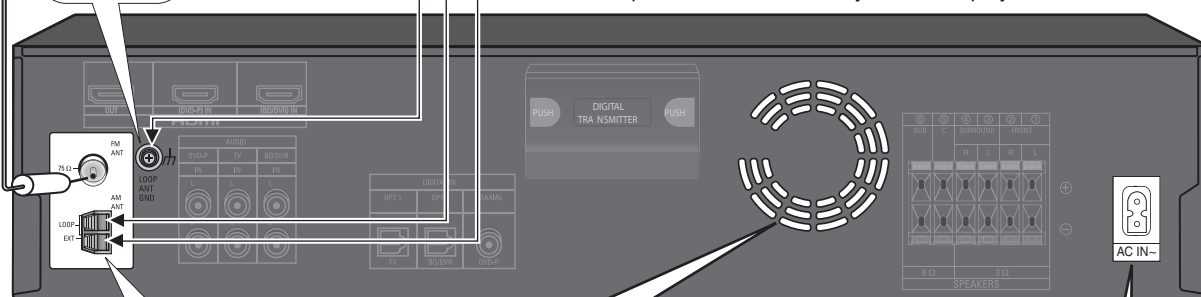
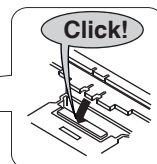
FM outdoor antenna

- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.

FM outdoor antenna



Keep the antenna cord away from DVD players and other cords.

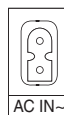


The cooling fan operates at high power output levels only.

AC power supply cord

Connect this cord after all other cables are connected.

Household AC outlet
(AC 120 V/60 Hz)



Conserving power

The unit consumes 0.7 W (in HDMI standby on condition) even when it is turned off with [⏻/I]. To save power when the unit is not to be used for a long time, unplug it from the household AC outlet. You will need to reset some memory items after plugging in the unit.

Note

- The included AC power supply cord is for use with this unit only. Do not use it with other equipment.
- Do not use an AC power supply cord from other equipment.

- Turn off all components before making any connections.
- Peripheral equipment and cables sold separately unless otherwise indicated.
- To connect equipment, refer to the appropriate operating instructions.

Auto speaker setup allows you to achieve a satisfactory listening environment easily with the use of the supplied calibration microphone as a detector of sound signals. The unit will first perform automatic speaker detection, then checks and adjusts the following settings.

DETECTION

- Checks which speakers you have connected.

DISTANCE

- Checks the distance of each speaker from the listening position and adjusts the timing of each channel automatically.

FREQUENCY

- Makes any further corrections to the frequency response.

LEVEL

- Checks and adjusts each speaker level automatically.

Loud test tones are output from the speakers during setup, so keep children out of the room.

Before setup

Conduct the auto speaker setup in a quiet environment. A noisy background will give unsatisfactory results.

Process for auto speaker setup

1 Turn on the unit.

Press .

- The standby indicator goes off when you turn on the unit.



2 Connect the calibration microphone to the [SETUP MIC] jack on the front panel.

Note

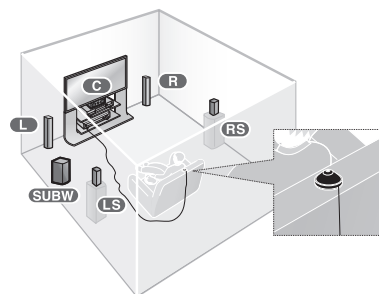
The calibration microphone is sensitive to heat. Keep it away from direct sunlight and do not place it on top of the unit.

Calibration microphone
(included)



3 Placing of calibration microphone.

- Place on a flat surface at the seating area.
- Set calibration microphone position at your ear height.



STEP 4 Auto speaker setup

- Turn off all components before making any connections.
- Peripheral equipment and cables sold separately unless otherwise indicated.
- To connect equipment, refer to the appropriate operating instructions.

4 Start performing auto speaker setup.

a) Press and hold .

- [AUTO SPEAKER SETUP] indicator starts flashing.



- “**AUTO SETUP**” appears on the display.

b) The unit checks that you have correctly connected the calibration microphone.

c) The automatic setup starts with STEP 1, STEP 2, and STEP 3 calibration as follows.

STEP1 – DETECTION/DISTANCE → STEP2 – FREQUENCY → STEP3 – LEVEL

For your reference

- Loud test tones are output from each speaker during the configuration.
- During setup, operations may stop when there is an error message on the display. Refer below for troubleshooting.



5 Auto speaker setup finishes.

- “**COMPLETE**” appears on the display and all calibrations are saved.
- [AUTO SPEAKER SETUP] indicator lights.

To exit, press and hold .

- Disconnect the calibration microphone.

To cancel during setup

Press any button on the main unit or remote control. “**CANCELED**” appears on the display.

Note

- Perform auto speaker setup again if you have changed the speakers, speaker positions, or the layout of your listening environment.
- If you find speaker output unsatisfactory, reset all auto speaker setup settings and change them manually. Refer to “Auto setup” (➡ page 13).
- The calibration will give optimal result for “DISTANCE”. Therefore, you are unable to adjust the setting manually.

Troubleshooting for auto speaker setup

While performing auto speaker setup, errors may occur and the messages will blink or scroll on the display, depending on the conditions. Press any button on the main unit or remote control to stop the setup.

After troubleshooting, press and hold  to start the setup process again.

Message	Solutions	Pages
“ INSERT MIC ”	• Calibration microphone is not detected. Insert the microphone correctly.	11
“ CHECK CONNECTION TO LS/RS SPEAKERS ”	• One of the surround speakers is not detected. Check the connections.	6
“ CHECK CONNECTION TO L/R SPEAKERS ”	• Check the front (L) and (R) connections.	6

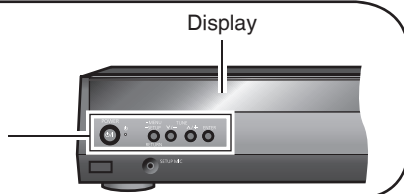
Note

- Auto speaker setup may produce an unsatisfactory result with some speaker setups and configurations.
- Auto speaker setup will not start if you have muted the speakers. Turn the muting off (➡ page 19).
- Auto speaker setup will not start if you have plugged in headphone. Unplug any headphone.
- VIERA Link “HDMI Control”™ (➡ page 8) is disabled during auto speaker setup.

Settings

Change the settings to suit your equipment to the environment in which you are using it. Before making any changes, read the descriptions of the settings, note the factory settings and ranges, and refer to the equipment's instructions.

Switch on.

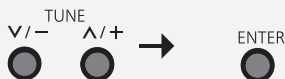


1 Enter the setup mode.



Press and hold.

2 Select the item you want to change.



2a Select and press [ENTER].

**DISTANCE ↔ AUTO SETUP ↔ INPUT
MODE ↔ HDMI ↔ DRCOMP ↔
ATTENUATOR ↔ REMOTE ↔ TV DELAY ↔
RESET ↔ EXIT**

- Refer to pages 13 and 14 for each item settings.
- For "REMOTE", refer to page 21.
- For "RESET", refer to page 19.

2b Select and press [ENTER].

3 Change the setting.



Press to change the setting.



Press once to enter.

4 Exit the setup mode.



Press repeatedly until "EXIT" appears.



Press [ENTER] to completely exit the setup mode.

Note

Auto speaker setup calibration will give optimal result for "DISTANCE". Therefore, you are unable to adjust the setting manually.

Distance

- Enter the distance of the front, center and surround speakers from the seating position.

Change the distance so that the sound from all the speakers (except for the subwoofer) reaches you at the same time.

You can select distances between 3 feet and 30 feet.

The factory settings are: LR (front): 10 ft (feet)
C (center): 10 ft (feet)
S (surround): 5 ft (feet)

Auto setup

- Reset the settings done in auto speaker setup.

YES: Reset all auto speaker setup settings

NO: To cancel (factory setting)

Input mode

- This unit automatically detects whether input is digital or analog, but you can fix the input mode.

AUTO: The unit automatically detects whether input is digital or analog. (factory setting)

ANALOG: Select to make the unit accept analog input.

DIG: Select to make the unit accept digital input.

PCMFIX¹: Select to input to PCM.

2a	2b	3
DISTANCE	LR	3 feet to 30 feet
	C	
	S	

↑

Repeat for each speaker channel

AUTO SETUP	DEFAULT	NO YES
------------	---------	-----------

INPUT MODE	TV	AUTO ANALOG DIG PCMFIX
	DVR	
	DVD	

¹ In rare cases, the unit may have trouble recognizing PCM signals and this may cause the beginning of tracks to be cut off. Select "PCMFIX" if this occurs.

- With DTS, the signals may not be recognized at all. Engage the DTS FIX mode if this occurs.

To engage the DTS FIX mode:

Press and hold [-MENU] and [ENTER] at the same time. "DTS" lights.

To cancel the DTS FIX mode:

Press and hold [-MENU] and [ENTER] at the same time.

The mode cancels when input mode is set to AUTO or when the unit is turned off.

Note

When a FIX mode is on, the unit cannot process other signals. This may cause noise to be output. If this occurs, select an input mode other than PCMFIX, or cancel the DTS FIX mode.

Settings

Switch on.



- MENU
- SETUP
RETURN



ENTER

Display



HDMI settings

- To reduce standby power consumption.
- Choice for turning off the VIERA Link "HDAVI Control™" (➡ page 8).

Standby selection

OFF: Standby power consumption reduced (approximately 0.3 W).

- Signals from DVD equipment cannot pass through HDMI connection to the television when the unit is in standby (➡ page 8).
- VIERA Link "HDAVI Control" (➡ page 8) does not work when the unit is in standby.

ON: Normal standby power consumption (factory setting)

VIERA Link "HDAVI Control"

OFF: VIERA Link "HDAVI Control" is OFF

ON: VIERA Link "HDAVI Control" is ON (factory setting)

DRCOMP

(Dynamic range compression)

- Change this setting to listen to software recorded with Dolby Digital at low volume (such as late at night) and maintain audio clarity. It reduces the peak level in loud scenes without affecting the sound field.

OFF: The software is played with the original dynamic range (factory setting).

STANDARD: The level recommended by the producer of the software for household viewing.

MAX: The maximum allowable compression (recommended for night viewing).

Attenuator

(A/D Attenuator)

- Turn the A/D attenuator on if "OVERFLOW" lights frequently when using 2-channel analog input. The factory setting is OFF.

TV delay

- Delay audio if there appears to be a difference in timing between audio and pictures. The factory setting is ON.

2a	2b	3
HDMI	STNBY	OFF ON
	CTRL	

DRCOMP	OFF	
	STANDARD	
	MAX	

ATTENUATOR	OFF	
	ON	

TV DELAY	OFF	
	ON	

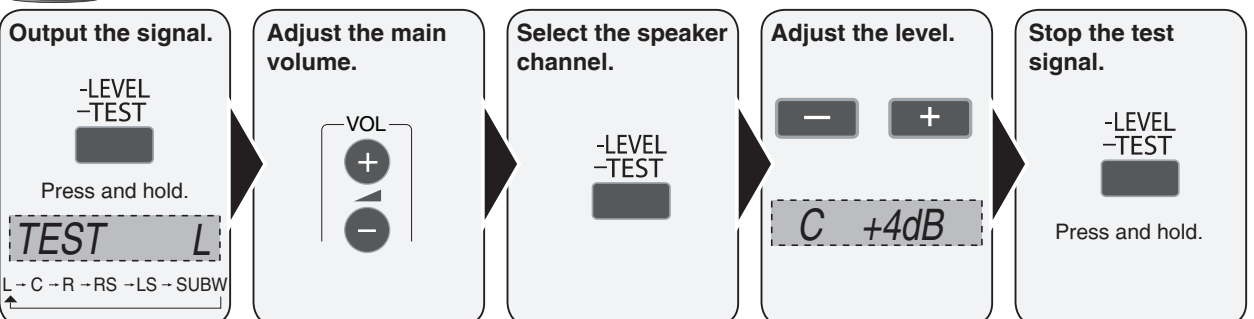
Adjusting speaker output level



-LEVEL
-TEST

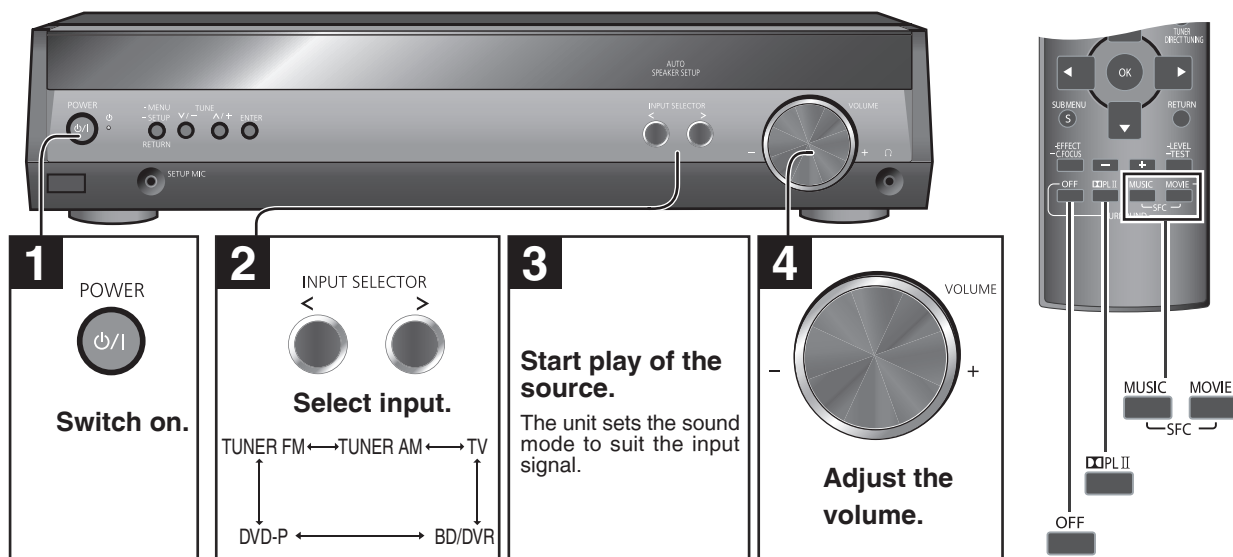
C (center), RS (surround right) and LS (surround left) can be adjusted between -6 dB and +6 dB, with 0 dB being the level of the front speakers. Adjust center and surround output to the same apparent level of the front speakers.

For SUBW (subwoofer), you can select "SUBW OFF" so there is no output, "SUBW MIN" for minimum output, a level between 1 and 19, or "SUBW MAX" for maximum output. Adjust subwoofer output so it is balanced with the front speakers.



Repeat for each speaker channel

Basic operations



Adding surround effects to stereo sources

Using Dolby Pro Logic II

Dolby Pro Logic II processor works not only on sources recorded with Dolby Surround, but also on any stereo source.

Press **PL II** to select a mode from the table at right.

- To cancel, press [OFF].
- You can make fine surround settings when in the MUSIC or PANORAMA mode. (⇒ page 18)

Using the Sound Field Control (SFC)

Enjoy an enhanced sound experience with greater presence and spread by using these SFC modes with PCM or analog stereo sources.

Press **MUSIC** **MOVIE** **SFC** to select a mode from the tables at right.

- To cancel, press [OFF].
- You can change the speaker level of SFC. (⇒ page 18)

Note

- Dolby Pro Logic II and SFC modes remain in effect until you turn the mode off.
- When input is PCM with sampling frequencies of 96 kHz or 88.2 kHz, you cannot add surround effects with Dolby Pro Logic II or SFC.
- When input is Dolby Digital or DTS, you can use SFC.

PL II	MOVIE Use this mode when playing movie software recorded in Dolby Surround.
	MUSIC Adds surround effects to stereo sources.
	PANORAMA Sound is spread out more so you feel like you are surrounded by music.
MUSIC	LIVE Brings you up close for "live" stage performance and smoother vocals.
	POP/ROCK For pop, rock, and other music that has a punch to it.
	VOCAL For adding gloss to vocals.
	JAZZ Conveys the exciting and intimate atmosphere of a jazz club.
	DANCE For dance music and other sounds with a strong beat.
	PARTY This mode uses the front and surround speakers so that sound is in stereo regardless of the direction you are facing.
MOVIE	DRAMA For dramas and other material where dialog is important.
	ACTION For action movies and other material where impact is important.
	SPORTS To make you feel like you were in the stadium.
	MUSICAL For musicals and other material where music is important.
	GAME Enjoy gaming with more impact.
	MONO For monaural sound.

MENU operation

This is an outline of the operations you can perform with the MENU.

1 Press [-MENU] once.

-MENU
-SETUP
RETURN

TUNE
V/-

TUNE
^/+

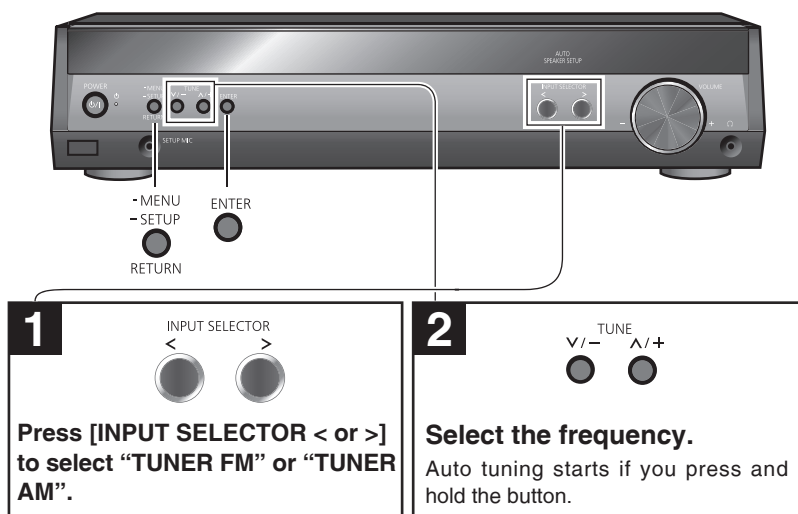
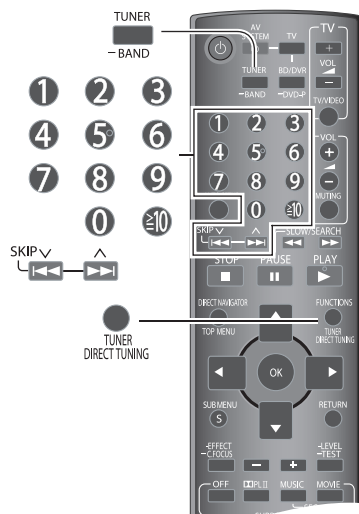
ENTER

Display



2 Main menu	3 Sub menu 1	4 Sub menu 2	5 Exit
<p>TUNE V/- ^/+ → ENTER</p>	<p>TUNE V/- ^/+ → ENTER</p>	<p>TUNE V/- ^/+ → ENTER</p>	<p>-MENU -SETUP RETURN → ENTER</p>
<p>TUNER</p> <p>The radio ➡ page 17</p>	<p>FM MODE (TUNER FM only)</p> <p>MEMORY</p> <p>AUTO MEMO</p> <p>TUNE MODE</p> <p>BEAT PROOF (TUNER AM only)</p>	<p>AUTO</p> <p>MONO</p> <p>MEMO CH 1</p> <p>MEMO CH30</p> <p>START</p> <p>CANCEL</p> <p>MANUAL</p> <p>PRESET</p> <p>MODE 1</p> <p>MODE 2</p>	<p>Press repeatedly until "EXIT" appears.</p> <p>EXIT</p> <p>Press [ENTER] to completely exit the menu mode.</p>
<p>BASS 0</p> <p>Adjust the bass ➡ page 18</p>	<p>BASS -6</p> <p>BASS +6</p>		
<p>TREBLE 0</p> <p>Adjust the treble ➡ page 18</p>	<p>TREBLE -6</p> <p>TREBLE +6</p>		
<p>BALANCE</p> <p>You can adjust the balance of the front speakers ➡ page 18</p>	<p>L R</p>		
<p>DIMMER OFF</p> <p>Dim the display for better viewing in a darkened room ➡ page 19</p>	<p>DIMMER OFF</p> <p>DIMMER 1</p> <p>DIMMER 2</p> <p>DIMMER 3</p>		
<p>SLEEP OFF</p> <p>The SLEEP timer can turn the unit off after a set time ➡ page 19</p>	<p>SLEEP OFF</p> <p>SLEEP 30</p> <p>SLEEP 60</p> <p>SLEEP 90</p> <p>SLEEP 120</p>		<p>Press repeatedly until "EXIT" appears.</p> <p>EXIT</p> <p>Press [ENTER] to completely exit the menu mode.</p>

The radio



Direct tuning

Input the frequency of the station.

Remote control

1. Press [TUNER, -BAND] to select "TUNER".
2. Press and hold [TUNER, -BAND] to select "TUNER FM" or "TUNER AM".
3. Press [TUNER DIRECT TUNING].
4. Press the numbered buttons to enter the frequency.

e.g. To select 107.9 MHz, press [1] → [0] → [7] → [9]

- If you do not press a button while the cursor is flashing, the display returns to the frequency being received.
- If the frequency has not been input correctly, "ERROR" will be displayed.

Automatic presetting

The FM stations the unit can receive are preset in channels 1 to 30. The AM stations the unit can receive are preset in channels 21 to 30 (FM stations are replaced if any were preset in these channels).

Preparation: Tune to either FM 87.9 MHz or AM 530 kHz.

Main unit

1. Press [-MENU] to select "TUNER" → "AUTO MEMO".
2. Press [TUNE √ / - or ∧ / +] to select "START" → [ENTER].

Select "CANCEL" to cancel.

The tuner presets all the stations it can receive into the channels in ascending order.

During automatic presetting, the memory indicator (M) flashes and the frequency scrolls. The memory indicator and channel numbers are displayed for a second when a station is preset. The last station to be preset is displayed when presetting finishes.

Reducing excessive noise

During FM stereo reception

You can improve FM reception by switching reception to monaural.

Main unit

1. Press [-MENU] to select "TUNER" → "FM MODE".
 2. Press [TUNE √ / - or ∧ / +] to select "MONO" → [ENTER].
- Select "AUTO" to cancel.

Manual presetting

Preset the stations one at a time.

Preparation: Tune to the station you want to preset.

Main unit

1. Press [-MENU] to select "TUNER" → "MEMORY".
 2. Press [TUNE √ / - or ∧ / +] to select the channel → [ENTER].
- ("STORED" lights.)

For your reference

FM stations can also be preset in the MONO mode.

Selecting channels

Remote control

1. Press [TUNER, -BAND] to select "TUNER".
2. Press [SKIP ◀◀, √ or ▶▶, ∧].

or

Press the numbered buttons.

For channels 1 to 9, press the corresponding number.

For channels 10 or over, press [≥10], then the two digits.

e.g. To select channel 21: [≥10] → [2] → [1]

Main unit

1. Press [-MENU] to select "TUNER" → "TUNE MODE".
 2. Press [TUNE √ / - or ∧ / +] to select "PRESET" → [ENTER].
- Select "MANUAL" to cancel.
3. After exiting the menu: Press [TUNE √ / - or ∧ / +].

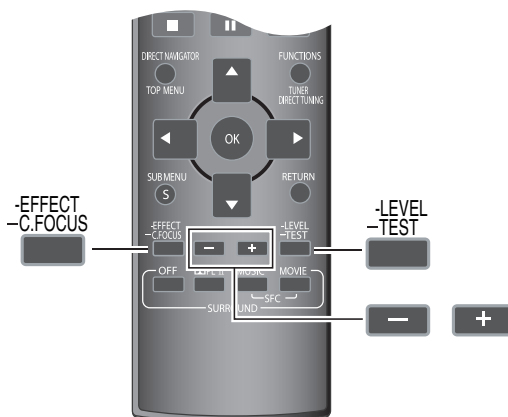
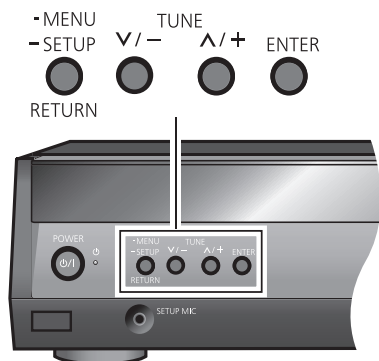
During AM reception

When there is a lot of noise interference with an AM broadcast, try switching this mode.

Main unit

1. Press [-MENU] to select "TUNER" → "BEAT PROOF".
2. Press [TUNE √ / - or ∧ / +] to select "MODE 1" or "MODE 2" → [ENTER].

Sound field



Adjusting the tone

You can adjust the level of the bass and treble.

Main unit

1. Use the menus to select “BASS” or “TREBLE”.
⇒ MENU operation on page 16.
2. Press [TUNE ∨ / - or ∧ / +] to adjust the tone.

Input signals must be either analog or PCM, and Dolby Pro Logic II and SFC must be off (⇒ page 15).

Dimension Control “DIMEN”

You can adjust the effect of the Dolby Pro Logic II MUSIC and PANORAMA modes (⇒ page 15).

You can make up for differences in the output level of the front and surround speakers.

You can choose a level between -3 and +3: Increase the level to move sound to the front speakers, decrease to move it to the surround speakers.

The factory setting is 0.

Remote control

1. Press [-EFFECT, -C.FOCUS] to select “DIMEN”.
2. Press [-] or [+] to adjust the effect.

Center Width Control “C-WIDTH”

You can adjust the effect of the Dolby Pro Logic II MUSIC and PANORAMA modes (⇒ page 15).

This adjustment helps you realize a more natural sound image when listening to music. Move sound out into the front speakers to improve the overall front image, or add sound to the center speaker to fix the center image.

You can choose a level between 0 (the center speaker is dominant) and 7 (center sound is spread out).

The factory setting is 3.

Remote control

1. Press [-EFFECT, -C.FOCUS] to select “C-WIDTH”.
2. Press [-] or [+] to adjust the effect.

Balance

You can adjust the balance of the front speakers.

Main unit

1. Use the menus to select “BALANCE”.
⇒ MENU operation on page 16.
2. Press [TUNE ∨ / - or ∧ / +] to adjust the balance.

Center focus

Use with discs where the dialogue is recorded in the center channel.

You can make the sound of the center speaker seem like it is coming from within the television.

Remote control

Press and hold [-EFFECT, -C.FOCUS].

“C.FOCUS” lights.

The factory setting is off.

You cannot use this when the sound mode is STEREO.

Adjusting SFC

You can adjust the sound field by adjusting the level of the speakers. This adjustment can be made for each SFC mode (⇒ page 15).

Remote control

1. Press [-LEVEL, -TEST] to select the speaker channel.

Each time you press the button:

C → RS → LS → SUBW

↑

2. Press [-] or [+] to adjust the level.

C, RS, and LS: -6 dB to +6 dB

SUBW: OFF ↔ MIN ↔ 1 - 19 ↔ MAX

Other functions



Sleep timer

The SLEEP timer can turn the unit off after a set time. It does not control any other components.

Main unit

1. Use the menus to select "SLEEP".
⇒ MENU operation on page 16.
2. Press [TUNE V / - or ^ / +] to select the time (in minutes).
The display changes as follows:
SLEEP OFF ↔ SLEEP 30 ↔ SLEEP 60 ↔ SLEEP 90
↔ SLEEP 120

To check the setting

1. Press [-MENU] to enter the main menu.
2. Press [TUNE V / - or ^ / +] to select "SLEEP".
The time remaining appears.

To change the setting

Repeat the procedure from the beginning.

Muting

Remote control

Press [MUTING].

To cancel

Press [MUTING] again.

Muting also cancels when you adjust the volume or switch the unit to standby.

Dimmer

Dim the display for better viewing in a darkened room.

Main unit

1. Use the menus to select "DIMMER".
⇒ MENU operation on page 16.
2. Press [TUNE V / - or ^ / +] to select the level (1, 2, or 3) or OFF.

The RESET function



The operation settings for the unit will be initialized to the settings made at the time of shipment. However, any preset radio stations will not be erased.

1. Press and hold [-SETUP] to enter the setup menu.
2. Press [TUNE V / - or ^ / +] to select "RESET" ⇒ [ENTER].
3. Press [TUNE ^ / +] to select "RESET YES" ⇒ [ENTER].
To cancel, select "RESET NO".

Remote control operation guide

This remote control can operate Panasonic DVD recorders, DVD players, and televisions.

Note that this remote control cannot operate some equipment and that it may not be able to perform some operations.

Before using a Panasonic DVD recorder or player

DVD recorder

Change the remote control code to match the remote control mode of the DVD recorder.

1. Check the remote control mode of the DVD recorder.
2. For about one second hold down both [OK] and the numbered button ([1], [2] or [3]) (the same as the remote control mode of the DVD recorder).

The factory setting is [1].

DVD player

Change the remote control code so you can operate a DVD player.

For about one second hold down both [OK] and [4].



Watching DVDs/TV

Switch on



Switch on the television and select input



Switch on the player and start play

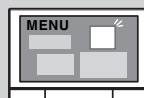
Switch off



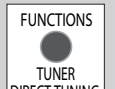
Operating the DVD recorder/DVD player



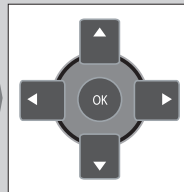
Show disc menus



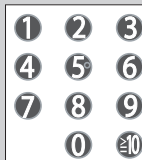
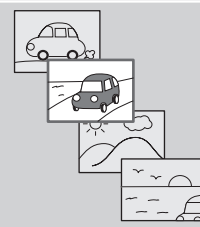
Show disc menus



Show player menus



Select and enter menu items



Start play from a selected item



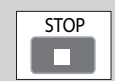
Skip items during play



Search through the disc



Clear menus or return to previous menus



Stop play



Pause play

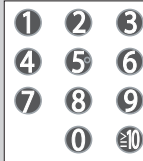


Start slow-motion play

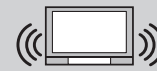


To view frame-by-frame

Operating the TV



Select channels directly

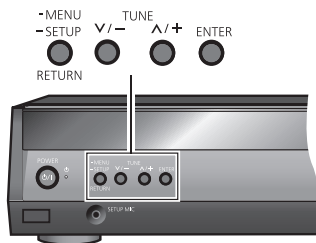


Adjust the volume

Remote control operation guide

Changing the remote control code

Change the code if you find the remote control unintentionally also controls other Panasonic equipment. Do the following to set the remote control code and this unit's remote control mode to the same one.



Change the main unit's mode

1. Enter the SETUP menu.

Press and hold .

2. Select and press [ENTER].



3. Select and press [ENTER].



4. Press [-MENU, -SETUP, RETURN] repeatedly to select "EXIT" and press [ENTER].

Change the remote control's code

5. Press .

6. While pressing , press and hold for about 2 seconds.

To restore the code to "1"

- On the main unit: In step 3, select "1".
- On the remote control: In step 6, while pressing [OK], press and hold [1] for about 2 seconds.

Specifications (IHF'78)

■ AMPLIFIER SECTION

RMS Output Power of each channel driven

10 % total harmonic distortion	
1 kHz Front CH	125 W per channel (3 Ω)
1 kHz Surround CH	125 W per channel (3 Ω)
1 kHz Center CH	250 W per channel (6 Ω)
100 Hz Subwoofer CH	250 W per channel (6 Ω)
Total RMS Output Power	1000 W

Rated minimum sine wave RMS power output

1% total harmonic distortion (Dolby Digital mode)	
120 Hz to 20 kHz Front CH	53 W per channel (3 Ω)
120 Hz to 20 kHz Surround CH	53 W per channel (3 Ω)
120 Hz to 20 kHz Center CH	133 W per channel (6 Ω)
45 Hz to 120 Hz Subwoofer CH	141 W per channel (6 Ω)
Total FTC Output Power	486 W

Rated minimum sine wave RMS power output

1% total harmonic distortion (Stereo mode)	
120 Hz to 20 kHz Front CH	52 W per channel (3 Ω)
45 Hz to 150 Hz Subwoofer CH	141 W per channel (6 Ω)
Total FTC Output Power	245 W

Total harmonic distortion

half power at 1 kHz (Front CH)	0.5 % (3 Ω)
--------------------------------	-------------

Input sensitivity

DVD-P, TV, BD/DVR	450 mV, IHF'66
-------------------	----------------

S/N at rated power

DVD-P, TV, BD/DVR	80 dB
-------------------	-------

Input impedance

DVD-P, TV, BD/DVR	47 kΩ
-------------------	-------

Tone controls

BASS	50 Hz, +6 dB to -6 dB
TREBLE	20 kHz, +6 dB to -6 dB

Digital input/output:

HDMI Input	2
HDMI Output	1
Optical digital input	2
Coaxial digital input	1

Analog input/output

Analog audio input	3
Wireless Ready	SH-FX67

■ OPERATING CONDITION

Operating temperature range 0°C to +40°C (+32°F to +104°F)

Operating humidity range 20% to 80% RH (no condensation)

■ FM TUNER SECTION

Frequency range 87.9 MHz to 107.9 MHz

Sensitivity 11.2 dBf (2 μV), IHF'58

Total harmonic distortion

MONO	0.3%
STEREO	0.4%

S/N

MONO	64 dB
STEREO	63 dB

Antenna terminal

	75 Ω (unbalanced)
--	-------------------

■ AM TUNER SECTION

Frequency range 530 kHz to 1710 kHz

■ SPEAKER SECTION

* Rating with low-cut filter equipped Amplifier

Front speaker (SB-HF56)

Type	1 Way, 1 Speaker
Speaker unit	
Full range	6.5 cm (2 1/2") cone type
Input power (IEC)	125 W* (Max/3 Ω)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	86 Hz to 25 kHz (-16 dB)
	98 Hz to 22 kHz (-10 dB)
Dimensions (W x H x D)	92 mm x 272 mm x 95 mm
	(3 5/8" x 10 23/32" x 3 3/4")
	0.74 kg (1.6 lb.)

Surround speaker (SB-HS760)

Type	1 Way, 1 Speaker
Speaker unit	
Full range	6.5 cm (2 1/2") cone type
Input power (IEC)	125 W* (Max/3 Ω)
Output sound pressure level	80 dB/W (1.0 m)
Frequency range	95 Hz to 25 kHz (-16 dB)
	120 Hz to 22 kHz (-10 dB)
Dimensions (W x H x D)	92 mm x 142 mm x 95 mm
	(3 5/8" x 5 19/32" x 3 3/4")
	0.6 kg (1.32 lb.)

Center speaker (SB-HC760)

Type	2 Way, 2 Speakers
Speaker unit	
Full range	6.5 cm (2 1/2") cone type x 2
Input power (IEC)	250 W* (Max/6 Ω)
Output sound pressure level	82 dB/W (1.0 m)
Crossover frequency	5 kHz
Frequency range	80 Hz to 25 kHz (-16 dB)
	96 Hz to 22 kHz (-10 dB)
Dimensions (W x H x D)	270 mm x 94 mm x 95 mm
	(10 5/8" x 3 11/16" x 3 3/4")
	1.3 kg (2.9 lb.)

Weight

Subwoofer (SB-HWX50)

Type	1 Way, 1 Speaker
Speaker unit (Woofer)	16 cm (6 1/2") cone type
Input power IEC	250 W (Max/6 Ω)
Output sound pressure level	78 dB/W (1.0 m)
Frequency range	35 Hz to 200 Hz (-16 dB)
	40 Hz to 198 Hz (-10 dB)
Dimensions (W x H x D)	181 mm x 361 mm x 315 mm
	(7 1/8" x 14 7/32" x 12 13/32")
	4.7 kg (10.4 lb.)

Weight

■ GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	125 W
Dimensions (W x H x D)	430 mm x 105 mm x 388 mm
	(16 15/16" x 4 1/8" x 15 5/32")
	4 kg (8.8 lb.)

Weight

Power consumption in standby mode:

HDMI On:	0.7 W
HDMI Off:	0.3 W

Notes:

1. Specifications are subject to change without notice.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about any of the check points, or if the remedies indicated in the chart do not solve the problem, refer to “Customer Services Directory” on page 23.

■ Common problems

		Page
No power.	• Ensure the AC power supply cord is connected.	10
No sound.	• Turn the volume up.	15
	• Check connections to speakers and other equipment.	6-10
	• Select the correct source.	15
	• Check that the digital signals can be decoded by this unit.	9
	• Turn PCMFIX and DTS FIX off.	13
	• An electrostatic discharge (ESD) may interrupt sound. Turn the unit off and on again.	—
Display is dim.	• Check the DIMMER level.	19
	• An electrostatic discharge (ESD) may cause the display to dim. Turn the unit off and on again.	—
“OVERLOAD”, “F70”, or “F76” appears on the display.	• Turn the unit off, disconnect the AC power supply cord, and consult your dealer.	—
“FAN LOCK” appears on the display.	• Remove the object obstructing the cooling fan.	—

■ Sound

Sound is not heard from the center, surround, or subwoofer speakers.	• The source may be stereo. Use Dolby Pro Logic II or SFC.	15
A ticking noise interrupts the sound.	• The speaker wires are touching each other. Check all your speaker connections.	6
Cannot use Dolby Pro Logic II or SFC.	• You cannot use Dolby Pro Logic II or SFC when input is PCM with sampling frequencies of 96 kHz or 88.2 kHz.	15

■ Radio

The radio cannot be tuned in or there is a lot of noise and interference.	• Connect the appropriate antenna. (You may need an outdoor antenna or one with more elements.)	10
	• Adjust the position of the FM or AM antenna.	10
	• Reduce the treble.	16, 18
	• Turn off nearby televisions, video decks and DVD players.	—
	• Separate the antenna from other cables, leads, and appliances.	—
	• Try changing the sound mode or turning the modes off.	15
There is a lot of noise when listening to AM.	• Try changing the BEAT PROOF mode.	16, 17

■ HDMI

When using an HDMI connection, the first few seconds of sound is cut off.	• Should you be playing a chapter on a DVD: – Change the audio output setting on the DVD player or DVD recorder from “Bitstream” to “PCM”. (6.1-channel sources will however be played as 5.1-channel.) – Select “ PCMFIX ” as instructed in “INPUT MODE” when you play 2-channel sources.	— 13
“U 70-1-1” appears on the display.	• The equipment connected by the HDMI cable is not compatible with the unit's copyright protection technology.	—
“U 70-1-2” appears on the display.	• The unit has received a signal for a picture format that is incompatible with the HDMI connection. Check the settings of the connected equipment.	—
“U 70-3” appears on the display.	• Should anything unusual happen using an HDMI connection: Consult your dealer if the sign remains on the display after these steps. – Turn the connected equipment off and on again.	—
	– Pull out the HDMI cable then reinsert it.	8
	– Reduce the amount of equipment connected in series to the HDMI terminal if exceeding 2 units.	—
The unit does not work properly.	• The unit does not work properly when wrong cords are in HDMI input and output terminals. Turn the unit off, unplug the AC power supply cord, and make connections again.	8
VIERA Link “HDAVI Control™” does not function properly.	• Connect the unit to your TV (VIERA) using the HDMI cable, switch the TV on, unplug the unit's AC power supply cord, and insert it into a household AC outlet again.	—

■ Remote control

The remote control does not work.	• Replace the batteries if they are worn.	4
Other products respond to the remote control.	• Change this unit's remote control code to “ REMOTE 2 ”.	21

Maintenance

If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

Limited Warranty

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way Secaucus, New Jersey 07094

Panasonic Puerto Rico, Inc.
Ave. 65 de Infantería, Km. 9.5
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Panasonic Audio Products Limited Warranty

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product or Part Name	Parts	Labor
Audio Products (except items listed below)	One (1) year	One (1) year
USB Reader-Writer, Personal Computer Card Adapters (in exchange for defective item)	One (1) year	Not Applicable
Accessories: Headphones, Cartridges, Microphones, Adapters	Ninety (90) days	Ninety (90) days
Rechargeable Batteries, DVD-R/-RAM Discs (in exchange for defective item)	Ten (10) days	Not Applicable
SD Memory Cards, Rechargeable Battery Packs (in exchange for defective item)	Ninety (90) days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in or mail-in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

Carry-In or Mail-In Service

For Carry-In or Mail-In Service in the United States call 1-800-211-PANA (1-800-211-7262) or visit Panasonic web site: <http://www.panasonic.com>

Customer Services Directory

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/consumersupport>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

or, send your request by E-mail to:

npcparts@us.panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday – Friday 9 am to 8 pm, EST.)

Panasonic Service and Technology Company

20421 84th Avenue South, Kent, WA 98032

(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

Service in Puerto Rico

Panasonic Puerto Rico, Inc.

Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Phone (787)750-4300, Fax (787)768-2910

For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, travel to and from the servicer, loss of media or images, data or other memory content. The items listed are not exclusive, but are for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Product Service

1. **Damage requiring service** — The unit should be serviced by qualified service personnel if:
 - (a) The AC power supply cord or the plug has been damaged; or
 - (b) Objects or liquids have gotten into the unit; or
 - (c) The unit has been exposed to rain; or
 - (d) The unit does not operate normally or exhibits a marked change in performance; or
 - (e) The unit has been dropped or the cabinet damaged.
2. **Servicing** — Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3. **Replacement parts** — When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
4. **Safety check** — After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

The servicer will require all components to service your system. Therefore, should service ever be necessary, be sure to bring the entire system.

Product information

For product information or assistance with product operation, refer to "Customer Services Directory" on page 23.

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER SC-HT56
SERIAL NUMBER _____

User memo:

DATE OF PURCHASE _____
DEALER NAME _____
DEALER ADDRESS _____
TELEPHONE NUMBER _____

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

CAUTION!

Do not place anything on top of this unit or block the heat radiation vents in any way. In particular, do not place tape decks or CD/DVD players on this unit as heat radiated from it can damage your software.

The socket outlet shall be installed near the equipment and easily accessible.

The mains plug of the power supply cord shall remain readily operable.

To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.

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HDAVI Control™ is a trademark of Panasonic Corporation.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union



This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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