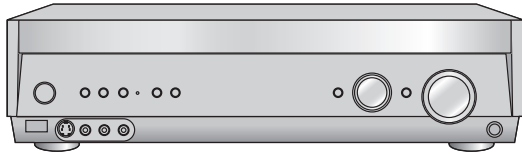
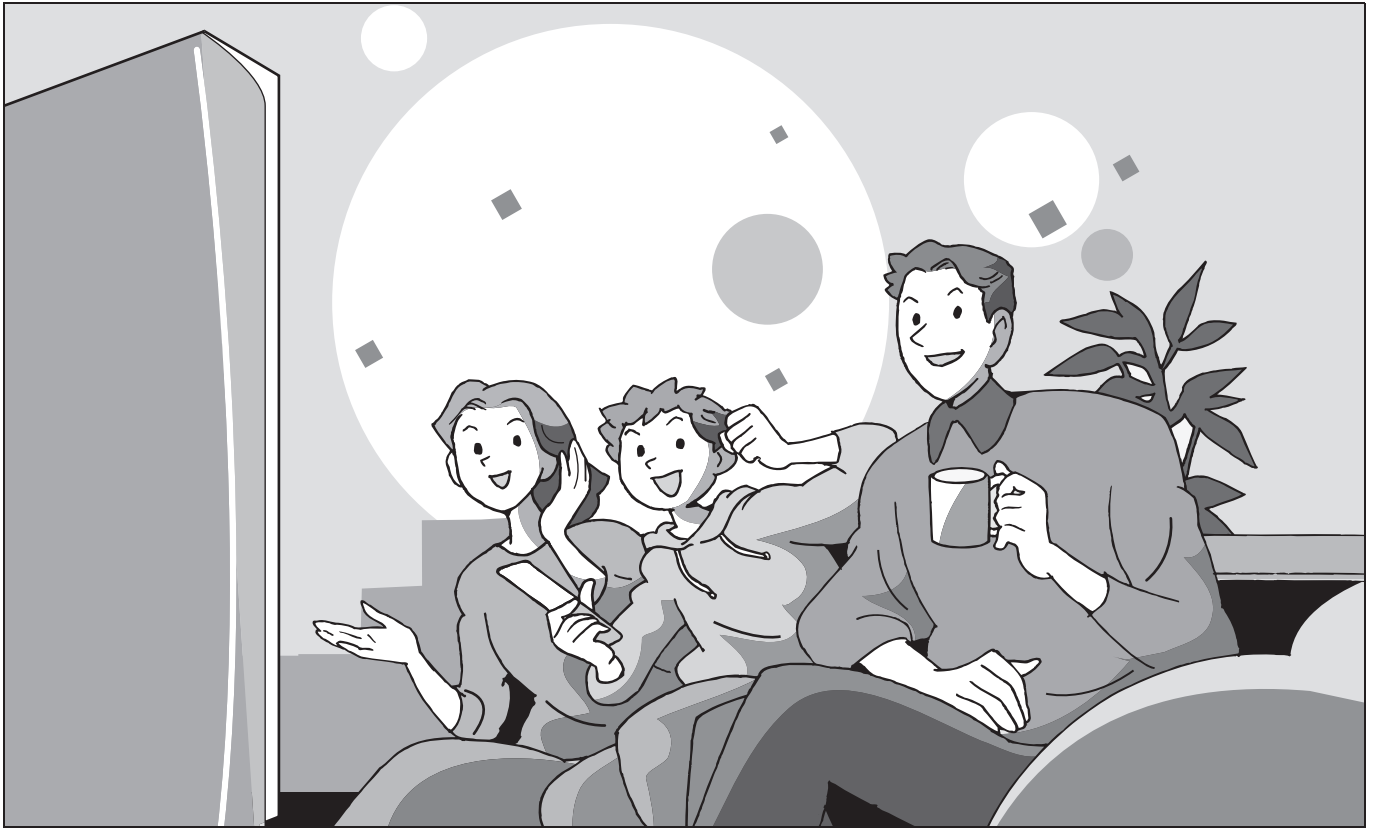


Panasonic®



Operating Instructions *AV Control Receiver*

Model No. **SA-XR57**



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

* For Canada only: The word "Participant" is
used in place of the word "Partner".

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

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

In the U.S.A.: 1-800-211-PANA(7262)
In Canada: 905-624-5505

For U.S.A. only


The warranty can be found on page 38.

For Canada only

The warranty can be found on page 39.

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.

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

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
Telephone No.: 1-800-211-7262

	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.

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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Before use

Connections

Basic operations

Operations

Reference

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.

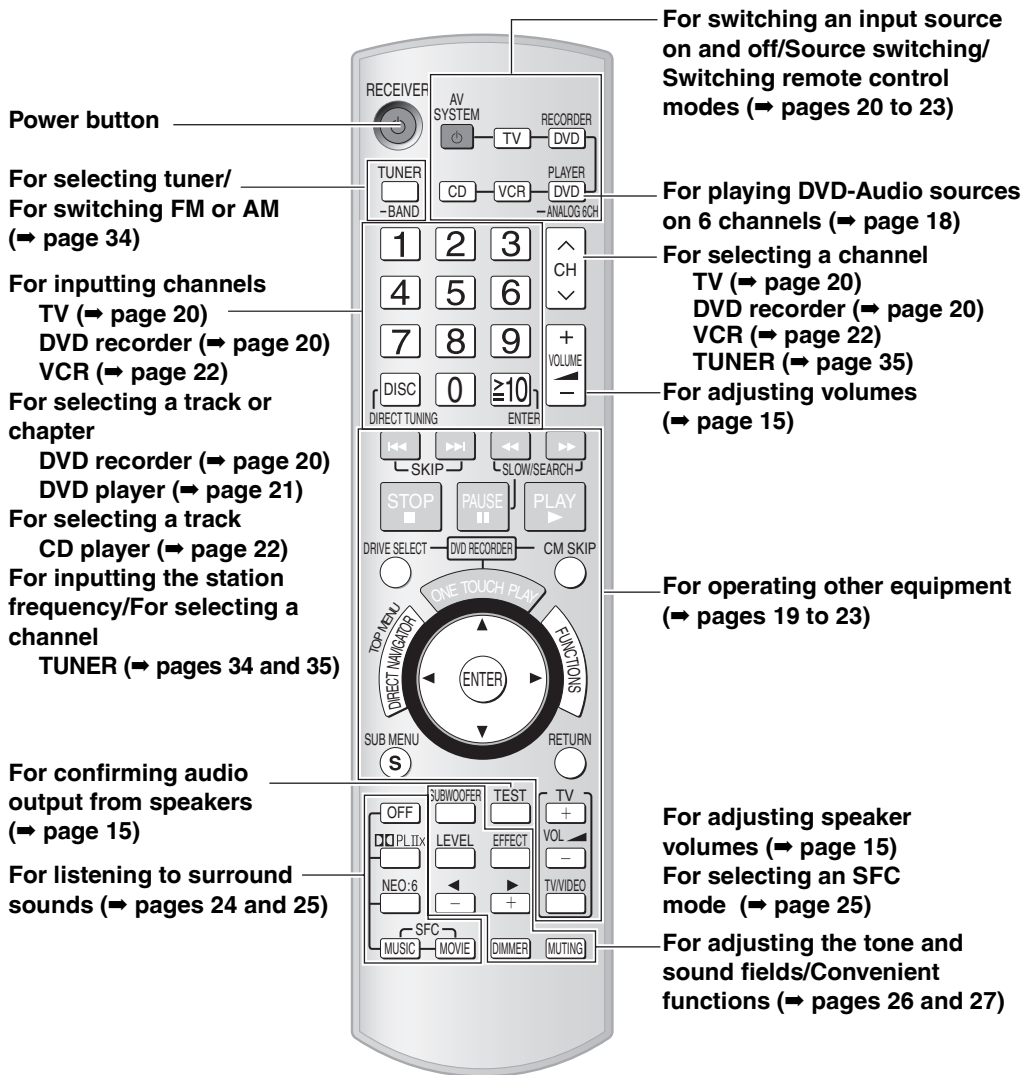
Once you have established a comfortable sound level:

- 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.

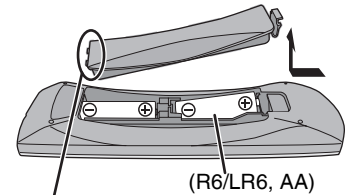
Control guide

Remote control



Batteries

Open by pressing a lid edge.

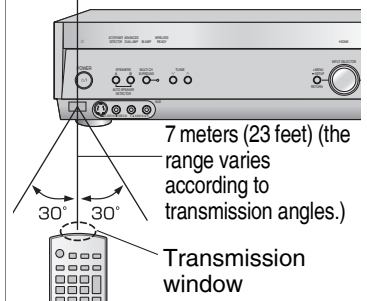


Place this side in before the other side when you close.

- Insert so the poles (+ and -) match those in the remote control.
- Do not use rechargeable type batteries.

Use

Remote control signal sensor



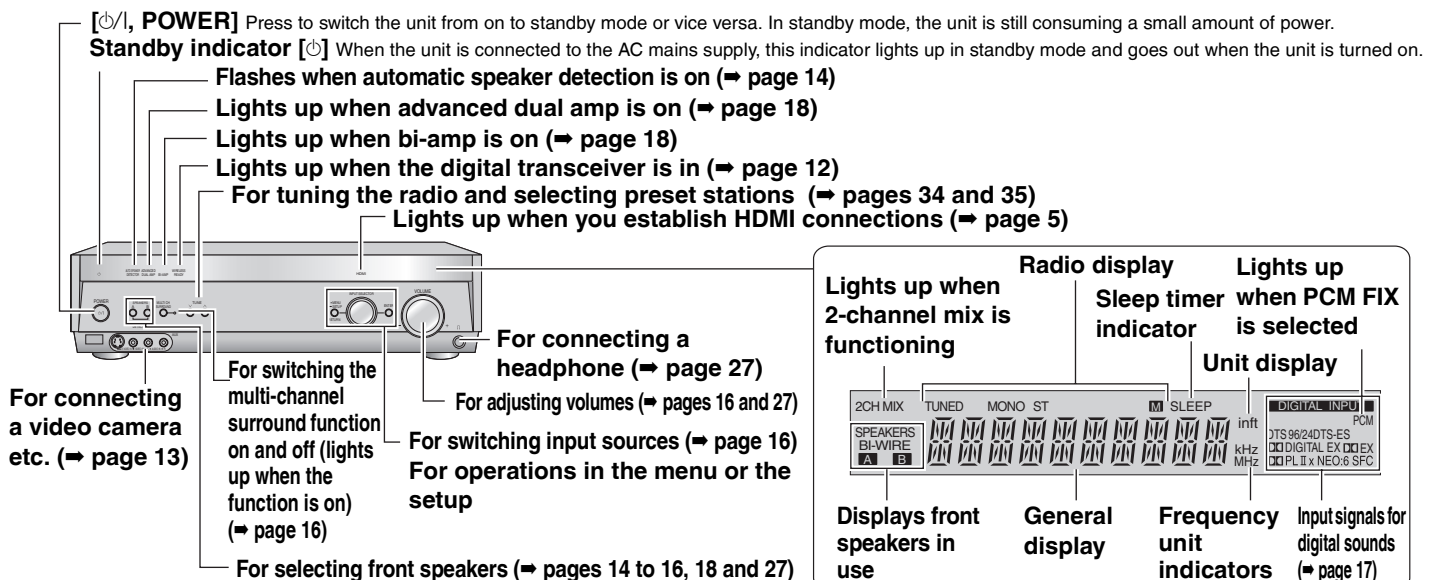
Caution

- Do not place an object between the signal sensor and the remote control.
- Do not place the signal sensor under direct sunlight or the strong light of an inverter fluorescent lamp.
- Keep the transmission window and the unit's sensor free from dust.

When you set the unit in a cabinet

The remote controlling range may decrease depending on the thickness or colors of glass cabinet doors.

Unit and its display



Home Theater connections

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

Connecting the unit to a TV, DVD recorder and DVD player

HDMI connections for enjoying high-quality sounds and pictures easily

HDMI stands for High-Definition Multimedia Interface.

- HDMI enables you to transmit digital audio and video signals using a single cable. You can also transmit control signals using HDMI connections (⇒ page 19).
- HDMI enables you to digitally transmit multi-channel sounds in DVD-Audio.
- The [HDMI] indicator stays on while you enjoy sounds and pictures through HDMI connections.



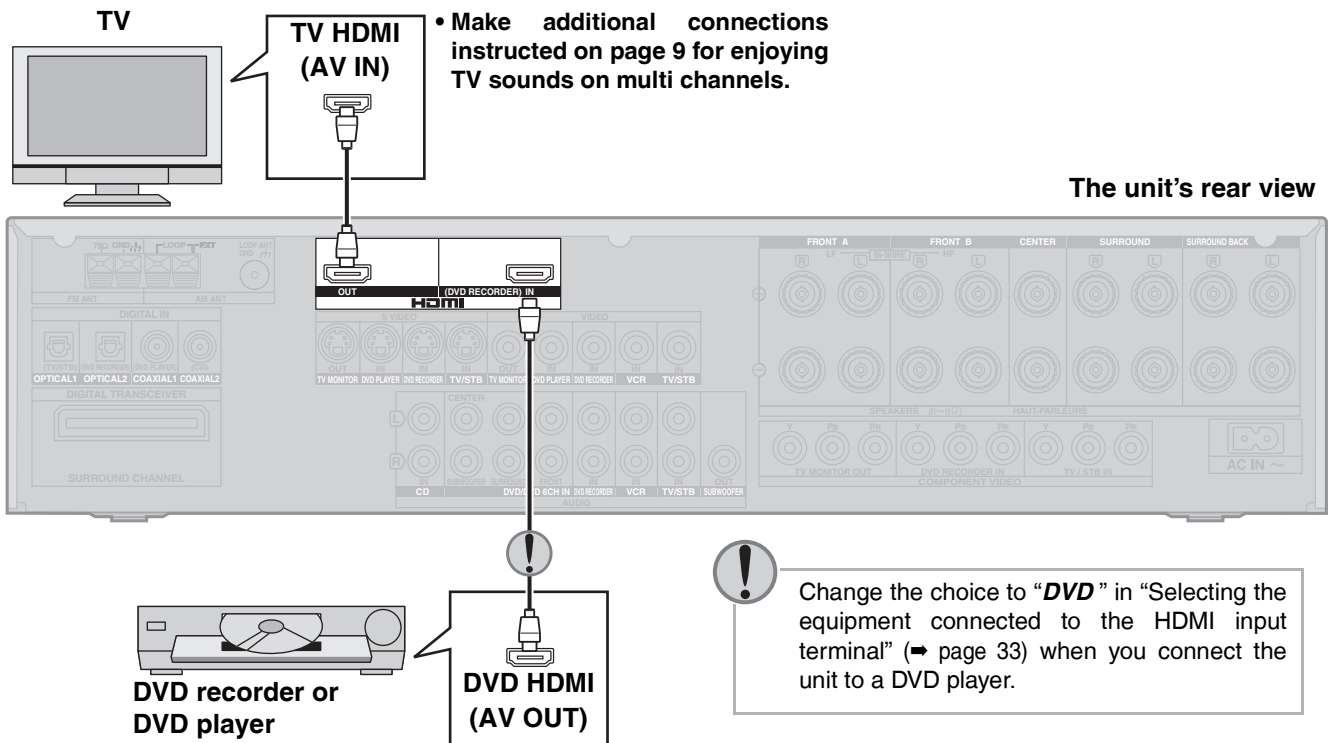
Connection cable (All cables are sold separately)

Video and Audio cable

HDMI Cable (It is recommended that you use Panasonic's HDMI cable.)
[Recommended part number: RP-CDHG15 (1.5 m), RP-CDHG30 (3.0 m), RP-CDHG50 (5.0 m) etc.]

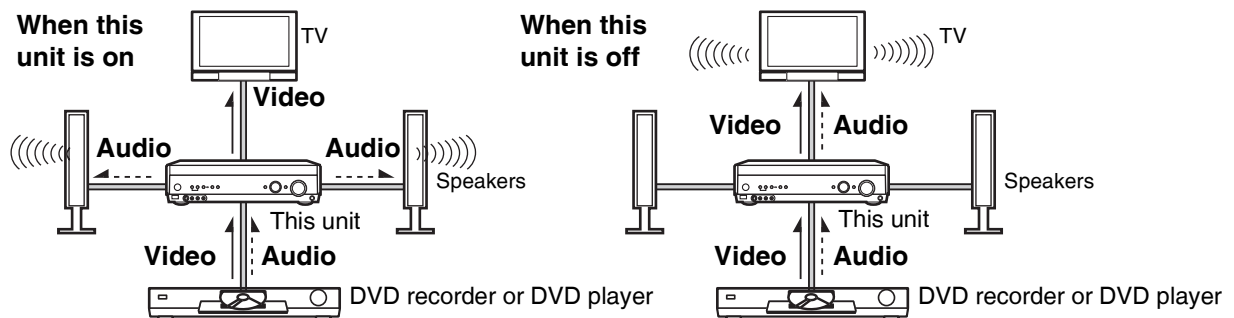


We advise you to use a cable that is 5 meters (16.4 feet) long or shorter for HDMI connections in order to stabilize operations and prevent deterioration in picture quality.



How audio and video signals flow when you make HDMI connections

Audio and video signals travel from the DVD recorder or DVD player to the TV by way of this unit even when the unit is off (the standby through function).



Note

- Make connections instructed in "To enjoy high-quality analog sounds using DVD-Audio discs (DVD analog 6-channel connections)" (⇒ page 8) and perform DVD analog 6-channel playback (⇒ page 18) when the DVD recorder or DVD player you connected is unable to make digital output of multi-channel sounds in DVD-Audio (e.g. HDMI Ver. 1.0 equipment).
- You can enjoy Home Theater features easily by pressing [ONE TOUCH PLAY] on this unit's remote control when you connect the unit through HDMI to a Panasonic TV (VIERA) or DVD recorder (DIGA) available for HDAVI Control operations (⇒ page 19).
- The audio signal transmitted through HDMI takes priority when you use both HDMI and digital terminals (⇒ pages 6 and 7) for connection.

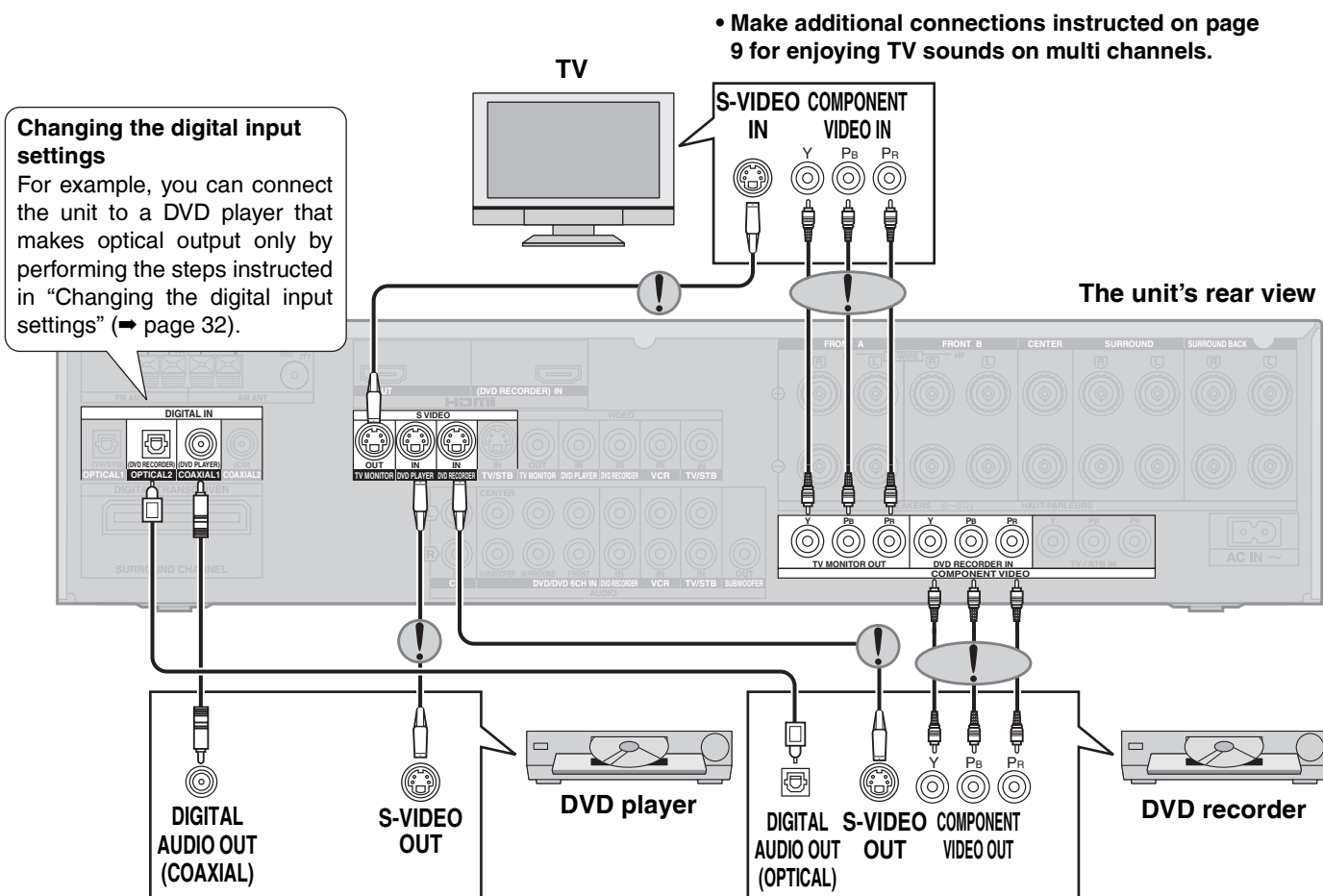
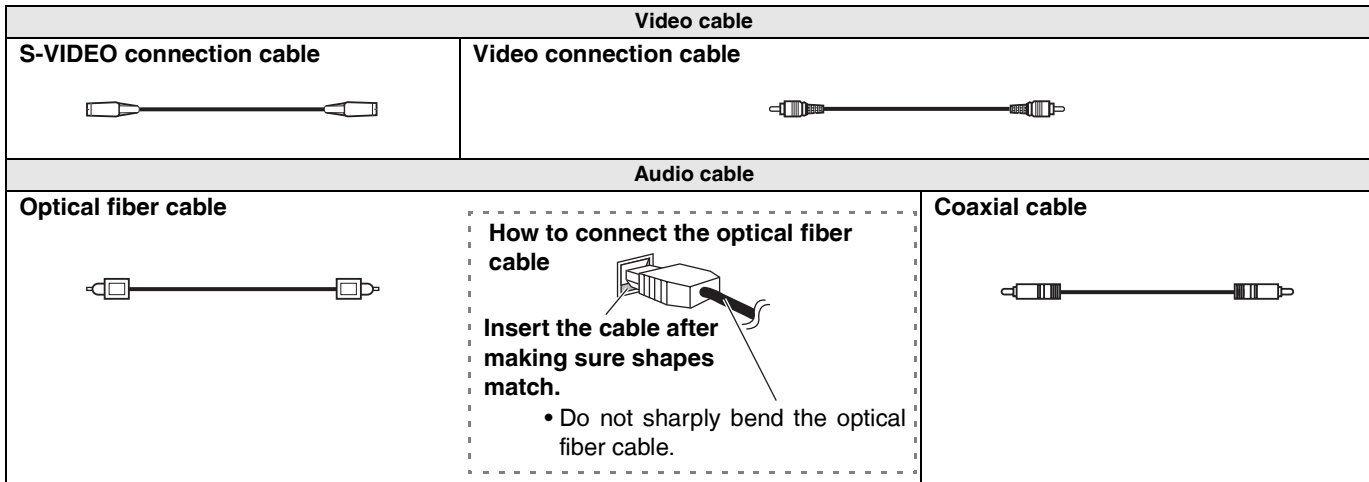
Home Theater connections

Connecting the unit to a TV, DVD recorder and DVD player

To enjoy high-quality pictures

Connection cable (All cables are sold separately)

- Check terminals on your TV, DVD recorder or DVD player and obtain corresponding connection cables.
- Select one and use it for connection when your TV, DVD recorder or DVD player has two or more video terminals. The component video terminal can produce more accurate colors than the S video terminal.



Points regarding video terminals

- The input video signal can be sent out through an output terminal of the same type only.
- The component video terminals (color-difference video terminal) outputs red (P_R), blue (P_B), and luminance (Y) signals separately. The terminals reproduces colors with greater accuracy for this reason.



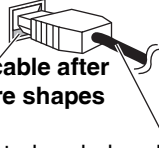

Note

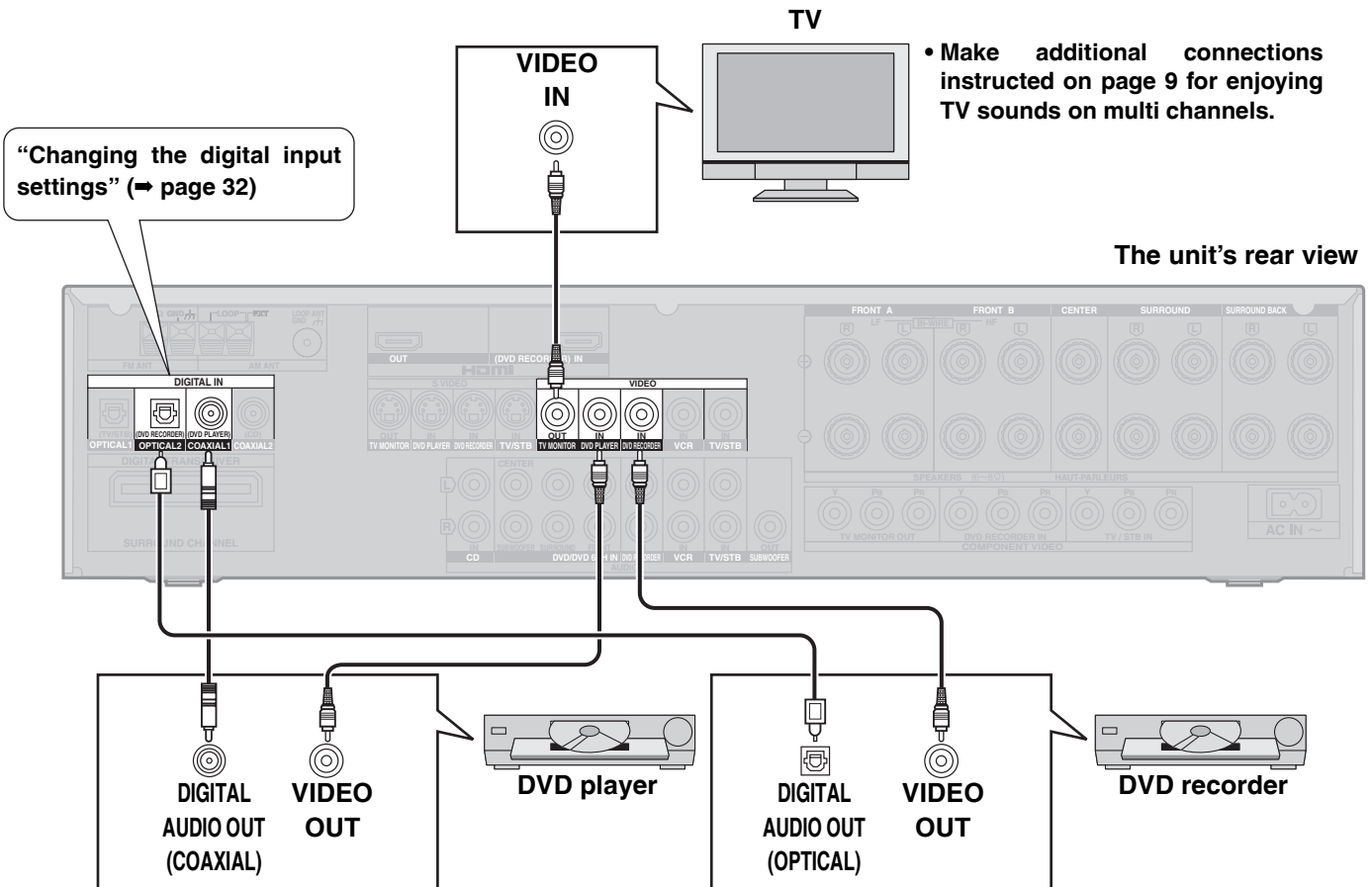
See page 13 for connecting the unit to a cable box or satellite receiver.

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

To enjoy standard-quality pictures

Connection cable (All cables are sold separately)

Video cable	
Video connection cable 	
Audio cable	
Optical fiber cable 	<p>How to connect the optical fiber cable</p> <p>Insert the cable after making sure shapes match.</p> <ul style="list-style-type: none"> • Do not sharply bend the optical fiber cable. 
Coaxial cable 	




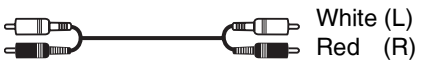

Note

See page 13 for connecting the unit to a cable box or satellite receiver.

Home Theater connections

Connecting the unit to a TV, DVD recorder and DVD player

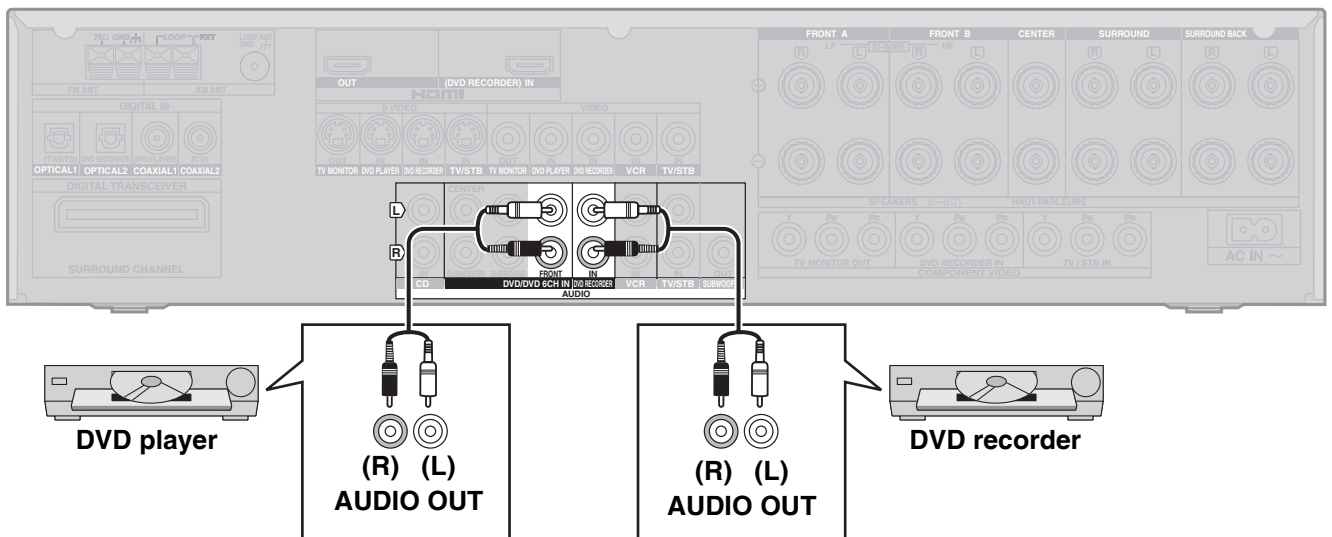
Connection cable (All cables are sold separately)

Video cable	
Video connection cable	
	
Audio cable	
<p>Stereo connection cable</p>  <p>White (L) Red (R)</p>	<p>Optical fiber cable</p>  <div style="border: 1px dashed black; padding: 5px; margin-top: 10px;"> <p>How to connect the optical fiber cable</p> <p>Insert the cable after making sure shapes match.</p> <ul style="list-style-type: none"> Do not sharply bend the optical fiber cable. </div>

To enjoy analog sounds

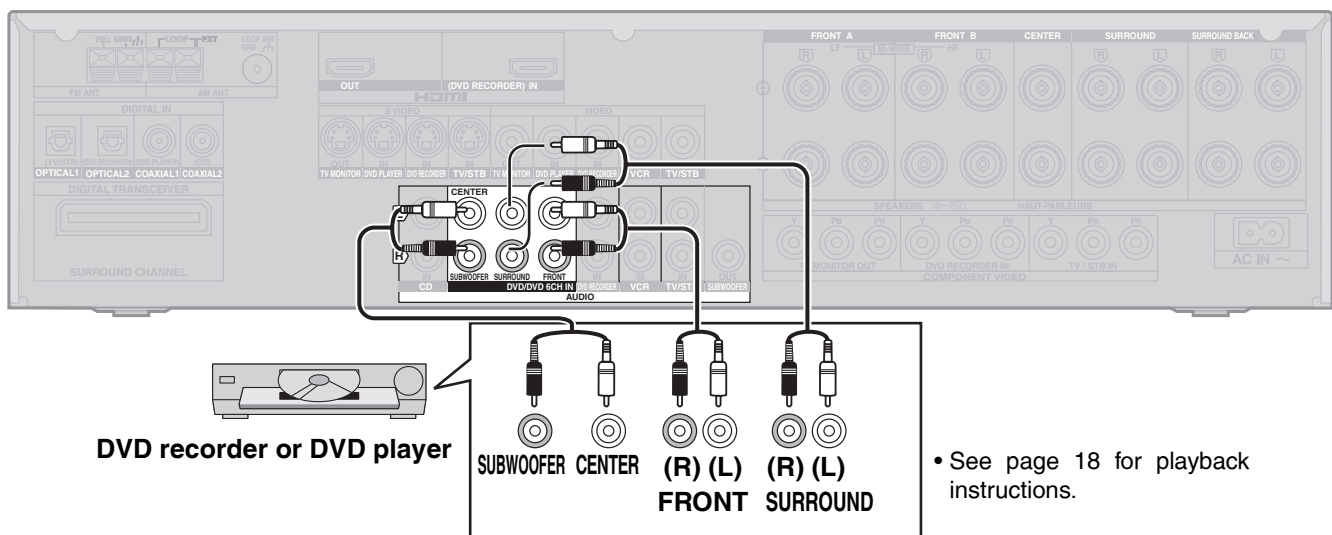
Make analog connections according to your equipment and preference. See pages 6 and 7 for video connections.

The unit's rear view



To enjoy high-quality analog sounds using DVD-Audio discs (DVD analog 6-channel connections)

The unit's rear view



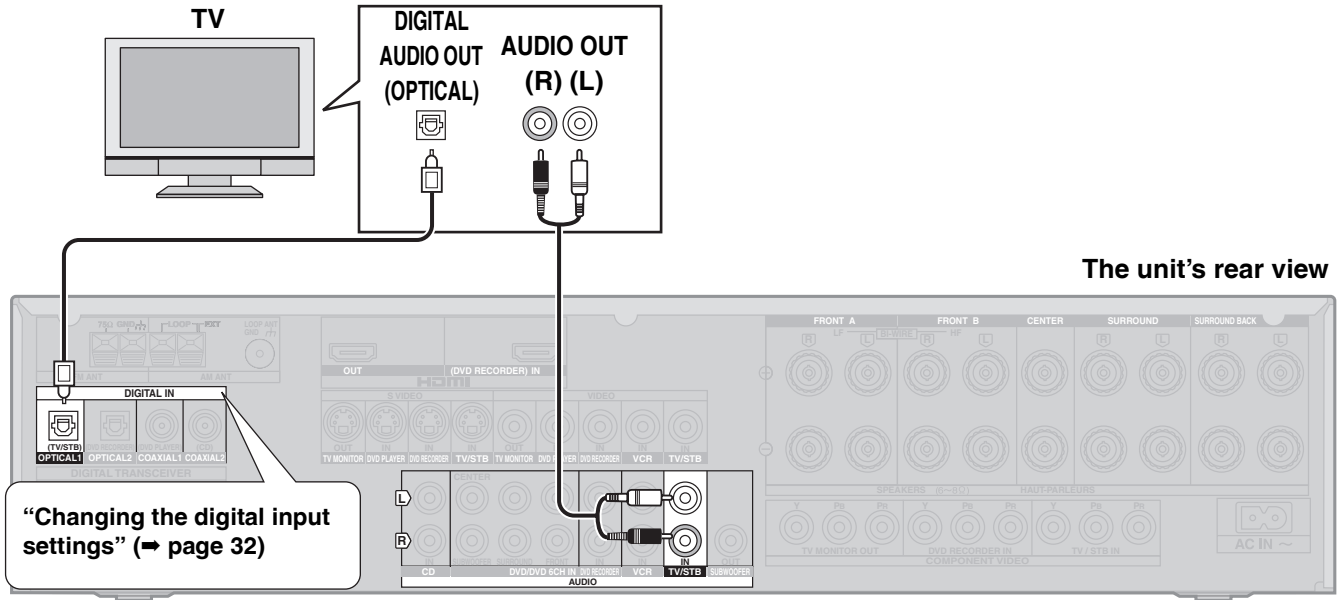
• See page 18 for playback instructions.

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

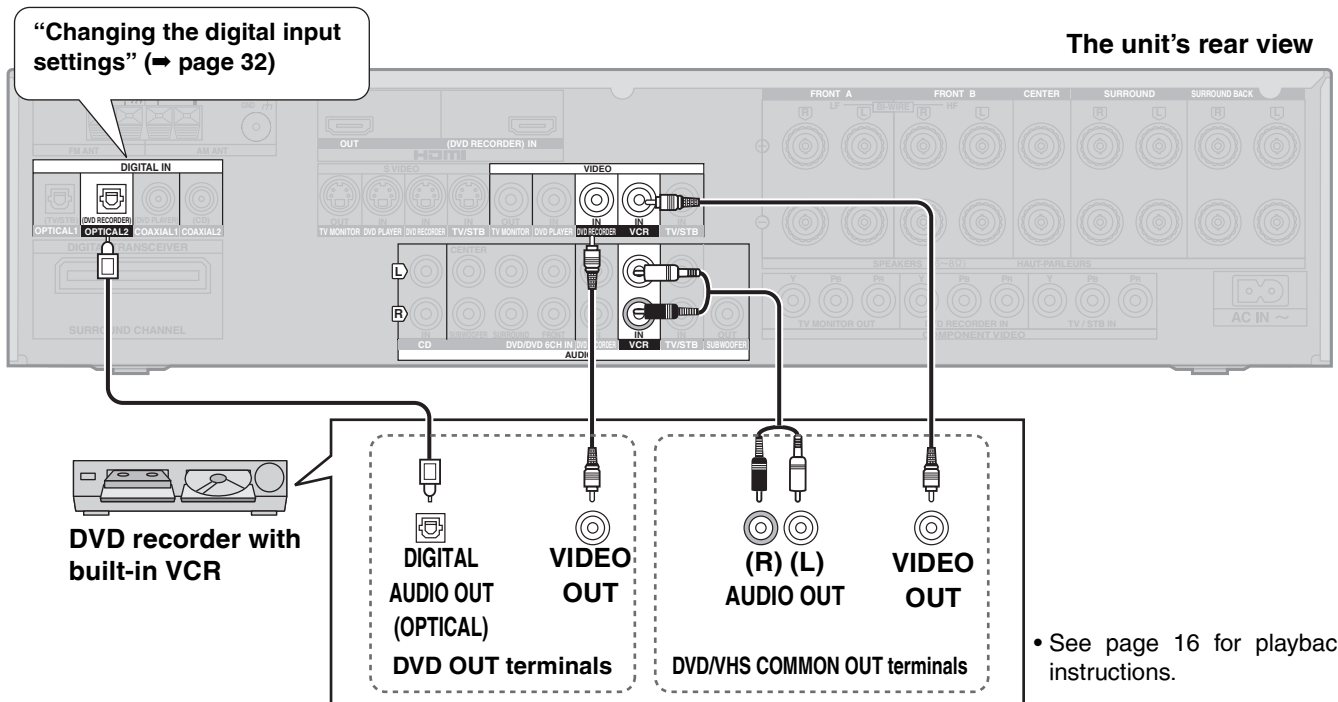
To enjoy TV sounds on multi channels

Make the following connections in addition to those instructed on pages 5 to 7.

- Speakers produce sounds when you make connections for either digital audio (OPTICAL) output or analog audio output. Make connections according to your equipment and preference.
- Use the optical fiber cable for connection when your TV has the digital output terminal.



Connection to a DVD recorder with built-in VCR

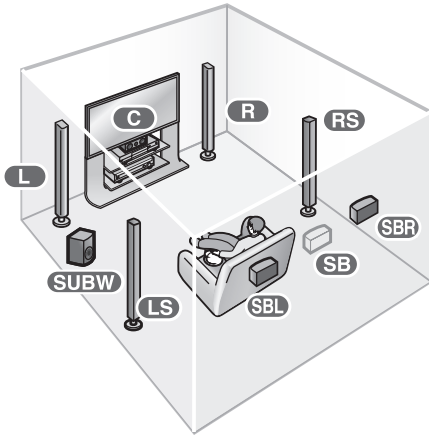


Home Theater connections

Connecting speakers

Placing and connecting speakers according to their numbers

The ideal placement is to set each speaker (excluding the subwoofer) the same distance away from the listening-viewing position. Measure the actual distance from each of the connected speakers to the listening-viewing position and perform steps instructed in "Setting distances" (→ page 31) when you cannot install speakers the same distance away.



Front speakers (left **L** , right **R**)

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 (**C**)

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

Surround speakers (left **LS** , right **RS**)

Place on the side of or slightly behind the seating area, about one meter (3 feet) higher than ear level.

Surround back speakers (left **SBL** , right **SBR** /when you connect one speaker only **SB**)

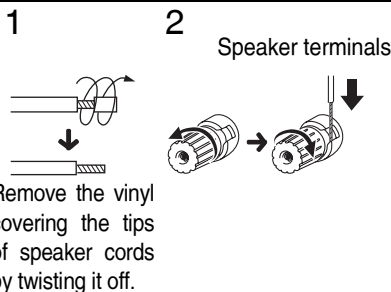
Place behind the seating area, about one meter (3 feet) higher than ear level.

Subwoofer (**SUBW**)

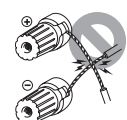
The subwoofer can be placed in any position as long as it is at a reasonable distance from the TV.

The number of speakers	Placement
7 or 6 (including the center speaker)	<ul style="list-style-type: none"> This is a placement suited for playing 6.1-channel sources (DTS-ES and Dolby Digital Surround EX materials). This placement offers 7.1/6.1-channel playback of 2-channel and 5.1-channel sources with the aid of Dolby Pro Logic IIx , NEO: 6, and SFC technology.
6 or 5 (excluding the center speaker)	<ul style="list-style-type: none"> This placement offers 6.1/5.1-channel playback without the center speaker. Sounds assigned to the center speaker are distributed to and output from front speakers on the left and right.
5 (including the center speaker)	<ul style="list-style-type: none"> This is a placement suited for playing 5.1-channel sources (Dolby Digital and DTS materials). This placement offers 5.1-channel playback of 2-channel sources with the aid of Dolby Pro Logic IIx , NEO: 6, and SFC technology.
4 (excluding the center speaker)	<ul style="list-style-type: none"> Sounds assigned to the center speaker come out of front speakers on the left and right in a distributed manner when you use Dolby Pro Logic IIx , NEO:6 and SFC on 2-channel sources and sources recorded on 5.1 and more channels. Sounds assigned to surround back speakers are distributed to and output from surround speakers on the left and right.
3 (including the center speaker)	<ul style="list-style-type: none"> Sounds assigned to surround and surround back speakers come out of front speakers on the left and right in a distributed manner when you use Dolby Pro Logic IIx , NEO:6 and SFC on 2-channel sources and sources recorded on 4.1 and more channels.
2 (excluding the center speaker)	<ul style="list-style-type: none"> This is a placement suited for playing 2-channel sources. Sounds assigned to all other speakers are consolidated and output from front speakers on the left and right when you play multi-channel sources in this arrangement.

How to connect speaker cables

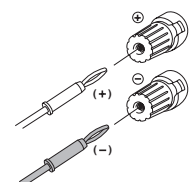


- Note**
- Connect speaker cords properly to terminals after making sure left and right, and "⊕" and "⊖." Improper connections may cause the unit to develop problems.
 - Do not short-circuit speaker cords. The action may damage circuits.



If using 4-mm plug

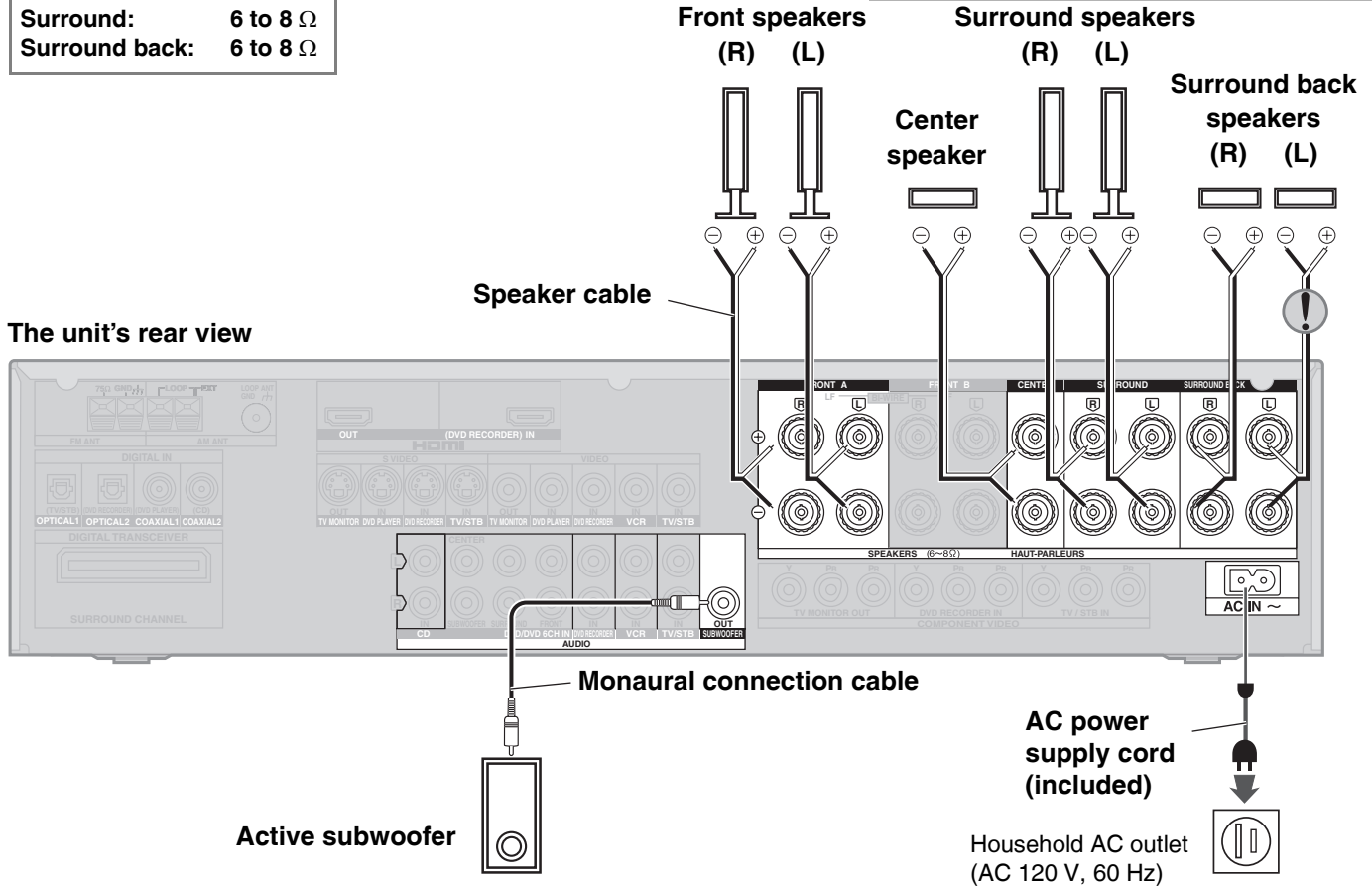
Turn speaker terminals clockwise and tighten them before inserting plugs into their holes.



- 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.

Speaker impedance	
Front A:	6 to 8 Ω
Center:	6 to 8 Ω
Surround:	6 to 8 Ω
Surround back:	6 to 8 Ω

! Use the terminal for the left speaker when you connect one surround back speaker only.



Connect AC power supply cord after all other cables and cords are connected.

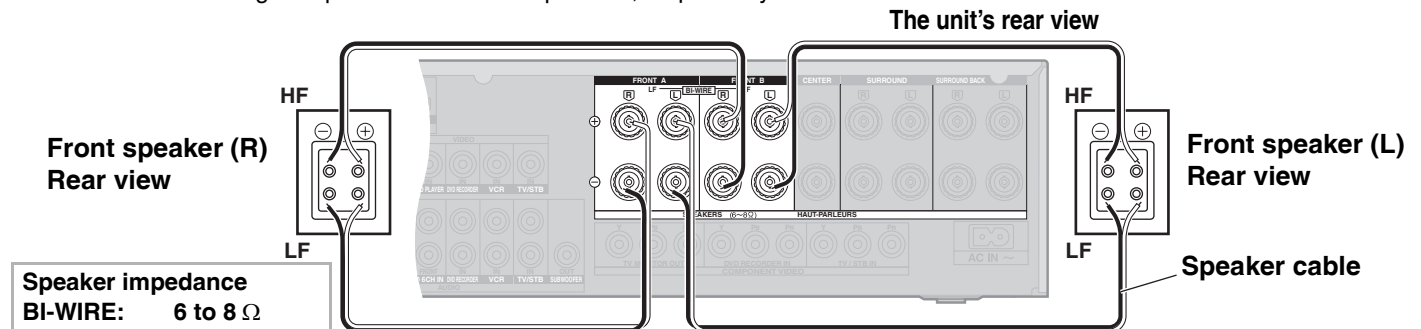
- The included AC power supply cord is for use with this unit only. Do not use it with other equipment.
- Do not use an AC power supply cord from any other type of equipment with this unit.
- If the unit is left unplugged for longer than two weeks, all settings will revert to the factory settings. Perform the settings again if this occurs.

Note

Do not forget to take steps instructed in "Detecting speakers automatically" (⇒ page 14) after connecting a new speaker or making a similar change.

Connecting speakers designed for bi-wiring

- Speakers designed for bi-wiring have separate connection terminals for high frequency and low frequency signals.**
- Bi-wiring prevents high frequency and low frequency signals from interfering with each other. It offers playback in high audio quality.
 - Different amplifiers for high frequency and low frequency signals produce bi-amp stereo sounds that are clearer and higher in audio quality when you play sources containing analog audio and 2-channel PCM signals (⇒ page 18).
 - HF and LF stand for high frequencies and low frequencies, respectively.



Speaker impedance	
BI-WIRE:	6 to 8 Ω

Note

- Make sure to connect speakers' HF terminals with the unit's FRONT B terminals, and speakers' LF terminals with the unit's FRONT A terminals. "Correcting the HF and LF difference" (⇒ page 32) becomes unavailable when you make reverse connections.
- Make sure to select "YES" in "Setting bi-wiring connections" (⇒ page 31) when you connect the unit to speakers designed for bi-wiring. The speakers do not produce adequate sounds unless you make this setting.

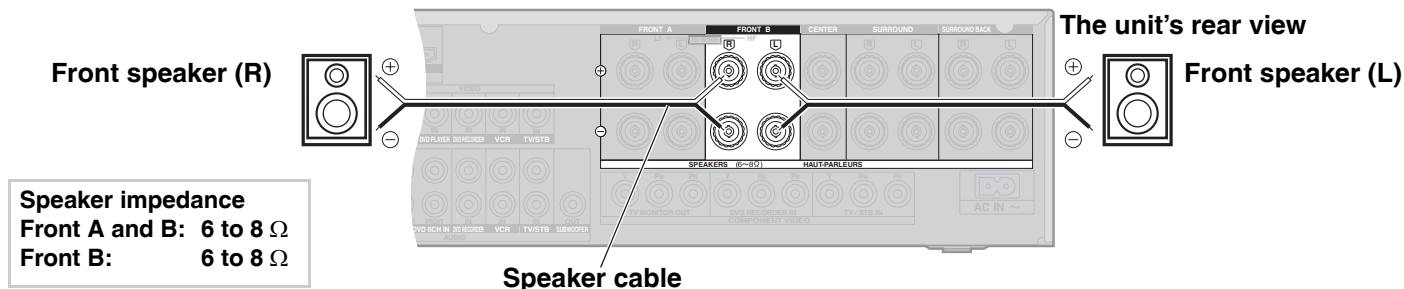
Home Theater connections

- 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.

Connecting speakers

Connecting a second pair of front speakers

Make the following connections when you wish to install a second pair of speakers in another room and enjoy music there.



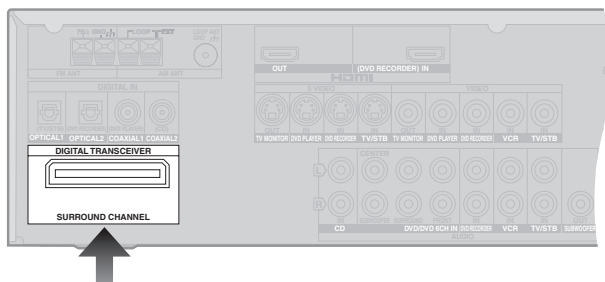
Note

- Select "SPEAKERS B" when you wish to enjoy sounds from speakers connected to the FRONT B terminals (➔ page 18).
- If you select SPEAKERS B only, playback is 2-channel. When a multi-channel source is played, the sounds intended for all the speakers are played through the front left and front right speakers (2CH MIX).

Making surround speakers wireless with SH-FX50/SH-FX60

You can connect left and right surround speakers wirelessly by using Panasonic SH-FX50/SH-FX60 (A set consisting of a digital transceiver and a wireless system (sold separately)) with the unit. To use this option, insert the digital transceiver into the unit's digital transceiver terminal and connect surround speakers to SH-FX50/SH-FX60's wireless system. See SH-FX50/SH-FX60's operating instructions for details.

The unit's rear view



The [WIRELESS READY] indicator stays on while the digital transceiver is in.



The indicator does not go on in the following cases:

The indicator stays off:

- When the [MULTI CH SURROUND] indicator is off
- When surround speakers are set as absent (➔ page 31)

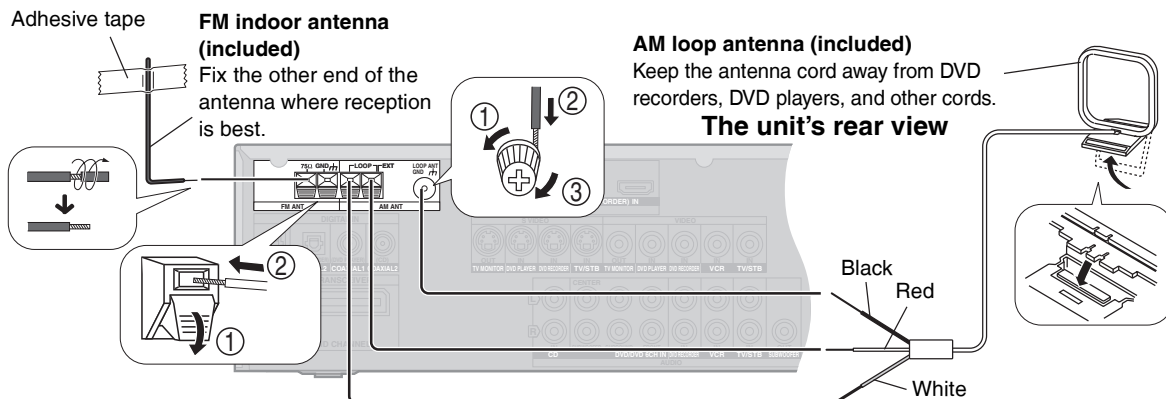
The indicator flashes:

When radio waves are interrupted (when SH-FX50/SH-FX60 is off)

Note

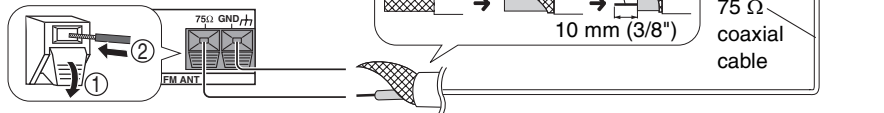
- Audio output changes as follows when you use surround speakers wirelessly.
 - The maximum number of playback channels is 5.1. Surround back speakers become unavailable. Sounds assigned to them are consolidated and output from surround speakers on the left and right.
 - Left and right surround terminals on the unit make no audio output.
- Make sure to turn the unit off when you insert or remove the digital transceiver.
- "2-Way wireless" function of SH-FX60 cannot be used.

Connecting antennas



FM outdoor antenna (not included)

- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.
- Twist the coaxial cable's shield braid firmly and connect it to the GND terminal.



Connecting 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.

Connecting the unit to a cable box or satellite receiver etc.

The unit makes audio output when you make either digital audio (OPTICAL) output connections or analog audio output connections. Make connections according to your equipment and preference.

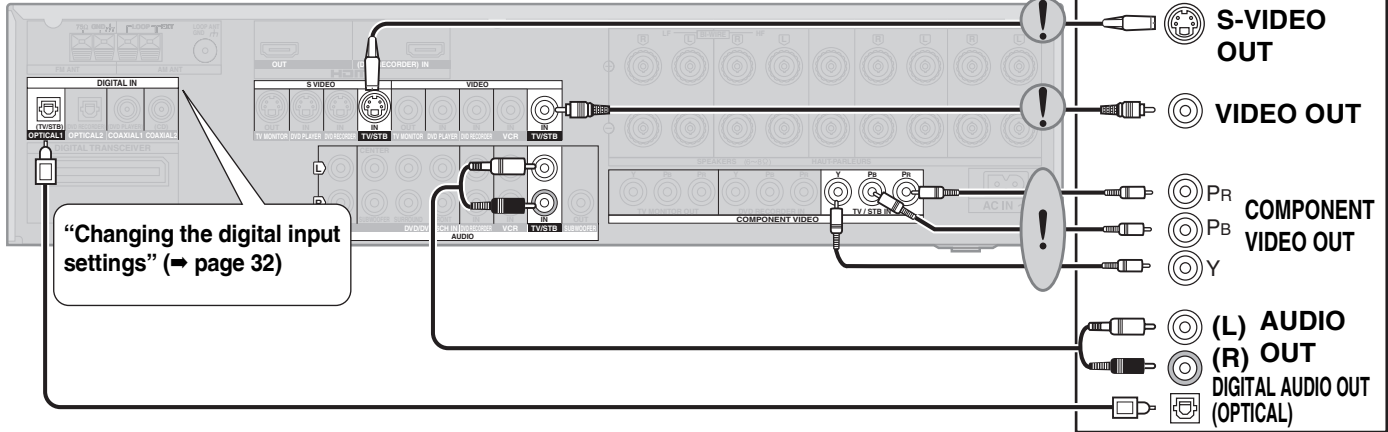


- Use cables that belong to the same type as the video cable you used for connecting the unit to your TV.
- See pages 6 and 7 for connecting the unit to the TV.

Cable box or satellite receiver etc.

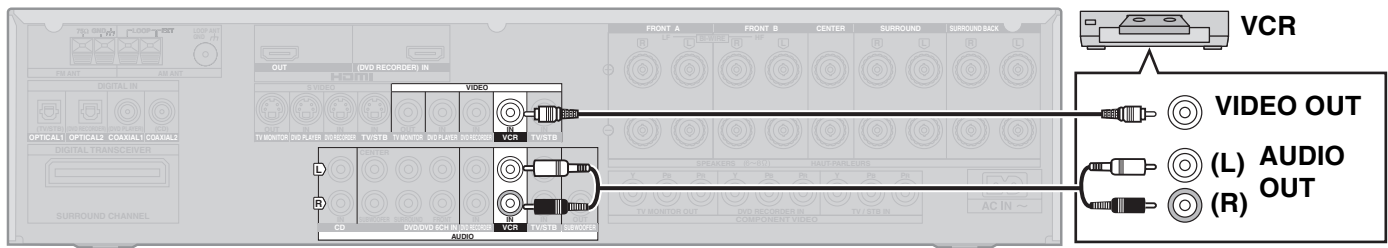


The unit's rear view



Connecting the unit to a VCR

The unit's rear view

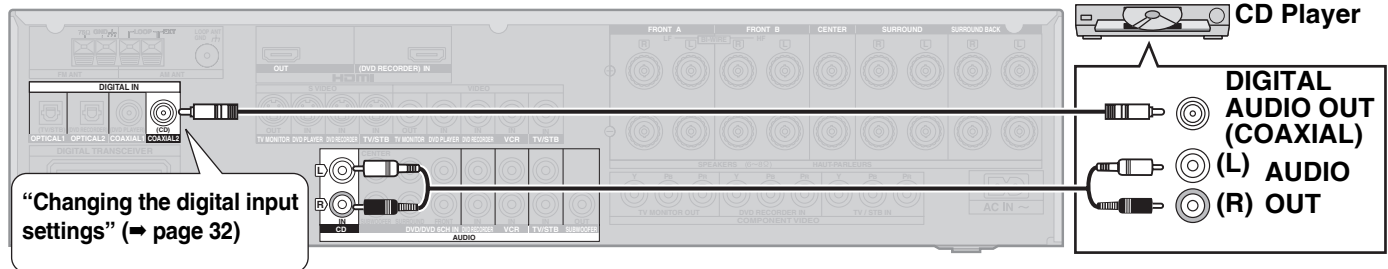


Make connections instructed in "To enjoy standard-quality pictures" (→ page 7) when you connect the unit to a TV or DVD recorder. The VCR makes no video output when you choose connections instructed in "To enjoy high-quality pictures" (→ page 6).

Connecting the unit to a CD player

The unit makes audio output when you make either digital audio (COAXIAL) output connections or analog audio output connections. Make connections according to your equipment and preference.

The unit's rear view

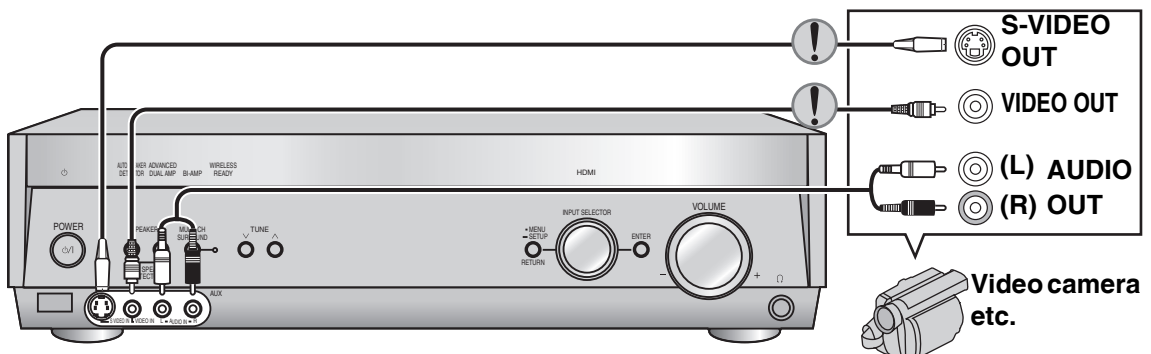


Connecting the unit to a video camera or game player etc.

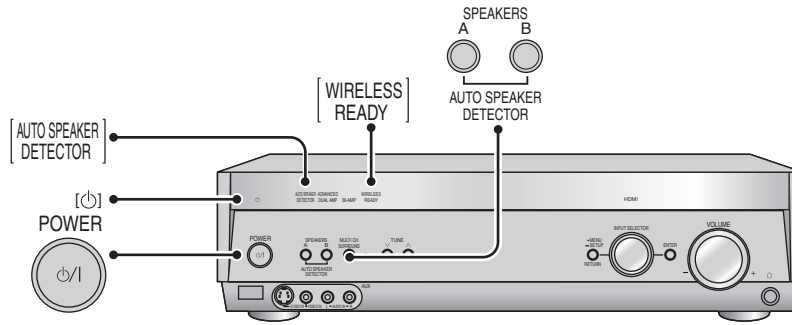
These terminals are convenient for equipment you want to connect only temporarily.



- Use a cable that belongs to the same type as the video cable you used for connecting the unit to your TV.
- See pages 6 and 7 for connecting the unit to the TV.



Before playback



Detecting speakers automatically

The unit checks each speaker's connection status and make speaker settings automatically. Perform the following steps when you connect a new speaker.

The unit considers seven speakers and one subwoofer are connected to the unit (keeps factory settings) unless you perform these steps.

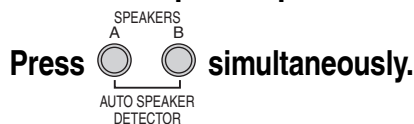
You can also make speaker settings manually (⇒ page 31 "Setting speakers and their sizes").

1 Turn the unit on.

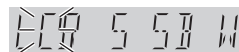
- The standby indicator [⏻] goes off when you turn the unit on.



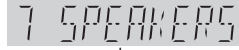
2 Check the speaker presence.



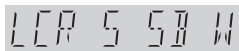
Automatic speaker detection starts.
(The [AUTO SPEAKER DETECTOR] indicator begins to flash when you press the buttons.)



The unit checks the center speaker, surround speakers, surround back speakers and the subwoofer in that order. (The connection status for front speakers is always present.)



The display shows the number of detected speakers (excluding the subwoofer).



The display shows connected speakers.



Automatic speaker detection ends.

(The [AUTO SPEAKER DETECTOR] indicator goes off when detection is through.)

How speakers are displayed

L: Front left **C:** Center **R:** Front right **S:** Surround
SB: Surround back **W:** Subwoofer

- When you connect surround speakers to the unit wirelessly using SH-FX50/SH-FX60 (⇒ page 12)
 - The connection status for "S" becomes present when the unit performs automatic speaker detection.

"WARNING" messages may appear on the display depending on detection results.

CHECK CONNECTION TO SBL SPEAKER	The unit did not detect the left surround back speaker. Use the terminal for the left speaker when you connect one surround back speaker only (⇒ page 11).
NEED TO CONNECT LS/RS SPEAKERS	The unit did not detect left and right surround speakers. Connect surround speakers as well when you connect surround back speakers to the unit.
CHECK CONNECTIONS TO LS/RS SPEAKERS	The unit did not detect one of the two surround speakers. Check speaker connections.

- Note**
- Automatic detection does not work well depending on speakers and cables. Make speaker settings manually in such cases (⇒ page 31).
 - These settings remain effective after the unit goes off.

Points regarding speaker sizes (⇒ page 31)

The factory-set speaker size is "SMALL".

You can set the lowpass filter frequency according to the playback frequency when the speaker size is "SMALL". (The factory-set lowpass filter frequency is 100 Hz.) See "Setting speakers and their sizes" for changing the speaker size to "LARGE".

Confirming audio output from speakers and adjusting volumes

Through these steps, you make sure each of the connected speakers makes audio output. Adjust the output level from each speaker and the output level from the front speakers to achieve balance in the listening-viewing position.

1 Select [SPEAKERS A].

Press 

When only the **SPEAKERS A** setting is selected



or

When **SPEAKERS A** and **SPEAKERS B** settings are selected



• If you select **SPEAKERS B** only, the test signal will not be output.

 When using a **BI-WIRE** connection (⇒ page 11)
Select “**YES**” in “Setting bi-wiring connections” (⇒ page 31).

Press  or 



2 Check the test signal output.

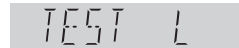
Press 

• A test signal is output from one speaker at a time for two seconds in the following order.

L → **C** → **R** → **RS** → **SBR** → **SBL** → **LS** → **SUBW**
or **L** → **C** → **R** → **RS** → **SB** → **LS** → **SUBW**

(When you connect one surround back speaker only)

• Speakers not connected (⇒ pages 11 and 14) and others manually set as absent (⇒ page 31) do not produce the test signal.



How speakers are displayed

L: Front left
C: Center
R: Front right
RS: Surround right
LS: Surround left
SBR: Surround back right
SBL: Surround back left
SB: Surround back (If you connect one surround back speaker)
SUBW: Subwoofer

3 Adjust the volumes of front speakers to the normal listening level.

Press 



Volume range:
-- **dB** (minimum), **-79 dB** to **0 dB** (maximum)

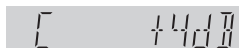
4 Select a speaker for adjustment.

Press  and select a speaker.



5 Adjust the volume of the selected speaker.

Press 



Adjustment range:
-10 dB to **+10 dB** (Factory setting: **0 dB**)

SUBW only:
MIN (minimum) ↔ **1** to **19** ↔ **MAX** (maximum)
(Factory setting: **10**)

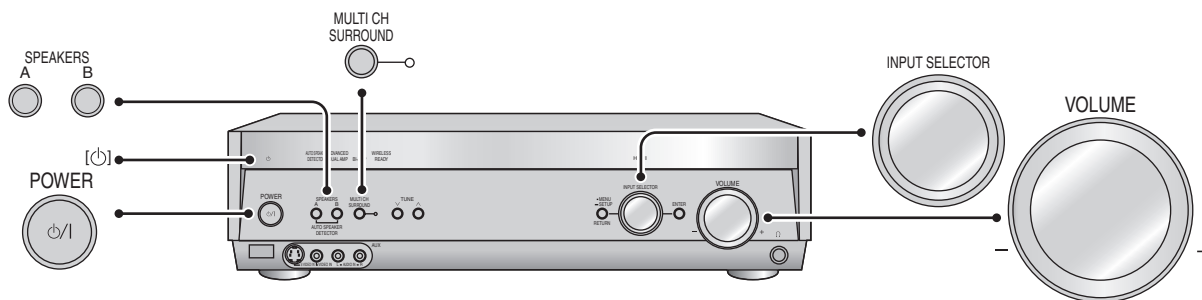
Repeat steps 4 and 5 to adjust the level of each speaker.

• Only the adjusted speaker produces the test signal in steps 4 and 5. Connected speakers start producing the test signal again in the above order 2 seconds after both steps.

6 Stop the test signal.

Press 

Enjoying Home Theater features



Basic playback

1 Turn the unit on.

Press 

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



The [MULTI CH SURROUND] indicator comes on (Factory setting).



Note

Do not forget to perform speaker detection when you play a source on the unit for the first time or when you change the number of connected speakers (⇒ page 14).

2 Select [SPEAKERS A].

Press 



Note

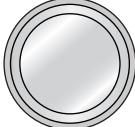
Press [SPEAKERS B] when you use SPEAKERS B. (Playback becomes 2-channel only when you use the SPEAKERS B setting.)

 When using a BI-WIRE connection (⇒ page 11) Select "YES" in "Setting bi-wiring connections" (⇒ page 31).

Press  or 




3 Turn [INPUT SELECTOR] and choose an input source.

Turn 

Input sources:
TUNER FM, TUNER AM, CD, TV/STB, DVD, DVR, VCR (video recorder), **AUX** (external input)
 • If "DVR" is selected, "DVD RECORDER" scrolls once on the display.

Note

You can also choose the input selector using the remote control (⇒ page 4).

 Using a DVD recorder with built-in VCR (⇒ page 9)
 • To play a DVD: Select "DVR".
 • To play a video cassette: Select "VCR".

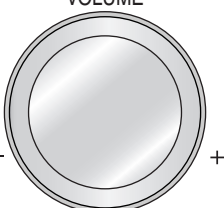
4 Play back the selected input source.

The unit produces 2-channel stereo sounds when you switch off [MULTI CH SURROUND]. Press [MULTI CH SURROUND] again when you wish to use the surround effect.

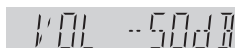
Note

• The unit stores setting about MULTI CH SURROUND use for each input source. The multi-channel surround effect activates whenever you play a multi-channel source.
 • You can start 2-channel mix (2CH MIX) by switching MULTI CH SURROUND off while playing a multi-channel source (excluding DVD-Audio sources that do not allow down-mixing). 2-channel mix goes off when you turn the unit off or when you change the input source.


5 Adjust the volume.

Turn 

Volume range:
 -- dB (minimum), -79 dB to 0 dB (maximum)



When you finish listening

Be sure to reduce the volume and press  [POWER] to turn the unit to standby.

Digital signals that can be played on this unit

Dolby Digital (including Dolby Digital Surround EX)

This is the digital surround system developed by Dolby Laboratories. Dolby Digital Surround EX adds a surround back channel to the traditional 5.1-channel format of Dolby Digital. This creates a sound with greater presence.



DVD etc.

DTS (including DTS-ES and DTS 96/24)

This is the digital surround system developed by DTS (Digital Theater Systems, Inc.). DTS-ES adds a surround back channel to the traditional 5.1-channel format of DTS. This creates a sound with greater presence. DTS 96/24 provides 96 kHz sound at up to 24 bits. The 96 kHz/24 bit high frequency sounds are played through multiple channels.



DVD etc.

PCM

This unit's DIGITAL IN COAXIAL1 terminal can play up to 192 kHz and the other DIGITAL IN terminals can play up to 96 kHz. Frequencies appear on the display when the unit receives input signals transmitted at the frequencies of 88.2 kHz, 96 kHz, 176.4 kHz, and 192 kHz.

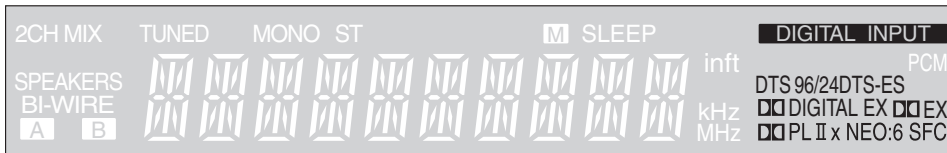


CD, DVD-Audio
etc.

Note

This unit does not play the Dolby Digital RF signal and MPEG audio signal.

How the unit displays audio signals



DIGITAL: Dolby Digital decoder is being used.

DIGITAL EX: Dolby Digital Surround EX decoder (Dolby Pro Logic IIx decoder) is being used when the input signal is Dolby Digital 5.1-channel or Dolby Digital Surround EX. (Displayed only when you connect one surround back speaker.)

EX: Dolby Digital Surround EX decoder (Dolby Pro Logic IIx decoder) is being used when the input signal is DTS 5.1-channel. (Displayed only when you connect one surround back speaker.)

PL IIx: Dolby Pro Logic IIx decoder is being used.

PL II: The display informs Dolby Pro Logic IIx (the Dolby Pro Logic II decoder) is used on 2-channel stereo sources when surround back speakers are absent.

DTS: DTS decoder is being used.

DTS 96/24: DTS 96/24 decoder is being used.

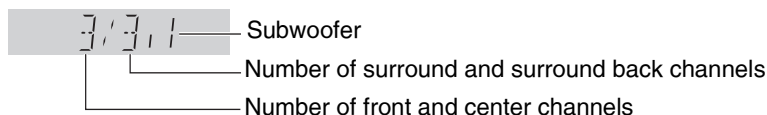
DTS-ES: DTS-ES discrete or matrix decoder is being used. (Displayed only when you connect one surround back speaker.)

NEO:6: DTS NEO:6 matrix decoder is being used.

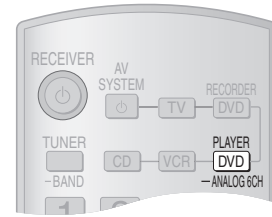
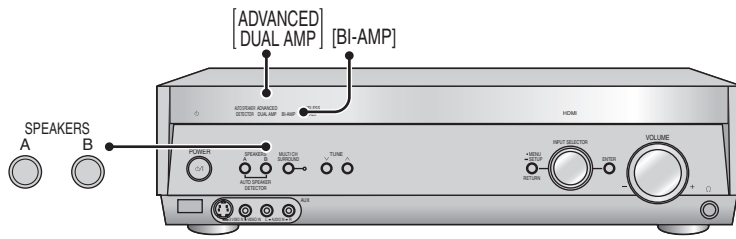
SFC: SFC matrix function is being used.







Note

- The unit makes output through speakers according to the number of signals recorded in sources when you switch Dolby Pro Logic IIx, NEO:6, or SFC off.
Example: The unit makes output through front speakers, the center speaker, surround speakers, and the subwoofer when you play 5.1-channel sources. Surround back speakers go silent.
- The MULTI CH SURROUND effect goes off when the input source contains the 192 kHz PCM signal.
- The number of source channels appears on the display when you switch input sources. (Their number may not appear depending on the selected source.)



Playback options



<p>Using SPEAKERS B</p>	<p>Sound is output from the speakers connected to the FRONT B terminals on this unit.</p> <p>Press </p>	<p> Note</p> <ul style="list-style-type: none"> • Playback is in stereo (2-channel). • When only the SPEAKERS B setting is selected and the input source is multi-channel, “2CH MIX” appears on the display. • To turn off the sound from the speakers connected to the FRONT A terminals, press [SPEAKERS A] and cancel “A”. • Selected speakers output sounds assigned to front 2 channels when you make analog 6-channel connections for DVD-Audio sources. • If you select SPEAKERS B only, the following are set automatically irrespective of settings selected in “Setting speakers and their sizes” (→ page 31). Speaker size: LARGE Subwoofer: NO (Bass is output from the front speakers.)
<p>ADVANCED DUAL AMP function</p>	<p>The advanced dual amp function activates automatically when you use 2-channel stereo playback or 5.1-channel playback. The unit takes advantage of the unused surround back speaker amplifier, and runs one speaker with two amplifiers when this function is on. Advanced dual amplifier offers you sounds that are clearer and higher in audio quality than those available in normal playback.</p>	<ul style="list-style-type: none"> • The [ADVANCED DUAL AMP] indicator stays on while advanced dual amp is at work. <p> Note</p> <p>You can also set the advanced dual amp function off (→ page 33).</p>
<p>Enjoying BI-AMP sounds</p>	<p>This function activates automatically when you play analog audio sources or two-channel PCM signals through bi-wiring connections. The unit takes advantage of the front speaker and the surround speaker amps, and drives the speakers' high-frequency and low-frequency sections separately when this function is on. The advanced dual amp function (→ above) is available with the bi-amp function. When combined, the two functions enhance clarity and audio quality of stereo sounds.</p>	<p>Preparation</p> <ul style="list-style-type: none"> • Refer to page 11 for connecting BI-WIRE speakers. • Select “YES” in “Setting bi-wiring connections” (→ page 31). • Switch the [MULTI CH SURROUND] effect off (→ page 16). <p> Note</p> <p>You cannot use the bi-amp function with analog 6-channel connections for DVD-Audio sources (→ below).</p> <ul style="list-style-type: none"> • The [BI-AMP] indicator stays on while bi-amp is at work. • Refer to page 32 for “Making bi-amp settings”.
<p>Playing DVD-Audio</p>	<p>Enjoying DVD-Audio sources through digital connections</p> <p>Playing DVD ANALOG 6CH</p> <p>Enjoying high quality 2-channel analog sounds</p>	<p>Connect the unit to a DVD recorder or DVD player using the HDMI cable (→ page 5) or a digital cable (COAXIAL 1) (→ pages 6 and 7).</p> <p>Preparation</p> <ul style="list-style-type: none"> • Refer to page 8 for analog 6-channel connections. • Turn SPEAKERS on. (DVD ANALOG 6CH only works when either SPEAKERS A or BI-WIRE is on.) • Set the selector to “DVD”. (→ page 16) <p> Press and hold until “DVD 6CH” is displayed.</p> <p></p> <ul style="list-style-type: none"> • To cancel, press and hold until “DVD” is displayed. <p>Speaker settings (→ pages 14 and 31) are canceled when the unit receives a DVD-Audio multi-channel signal through the HDMI input terminal. Set distances from the listening-viewing position and speaker sizes on your DVD recorder or DVD player in such cases.</p> <p> When the unit is connected to a DVD recorder</p> <p>Playback is unavailable while the input source is “DVR”. Make analog 6-channel connections and switch the mode to “DVD”.</p> <p> Note</p> <p>Speaker settings made on the unit (→ pages 14 and 31) are canceled when you use DVD analog 6-channel playback. Set distances from the listening-viewing position and speaker sizes on your DVD recorder and DVD player.</p> <ol style="list-style-type: none"> 1. Cancel the “DVD 6CH” setting. (→ above) 2. Set the input signal to “ANALOG” in “Setting input signals”. (→ page 32)

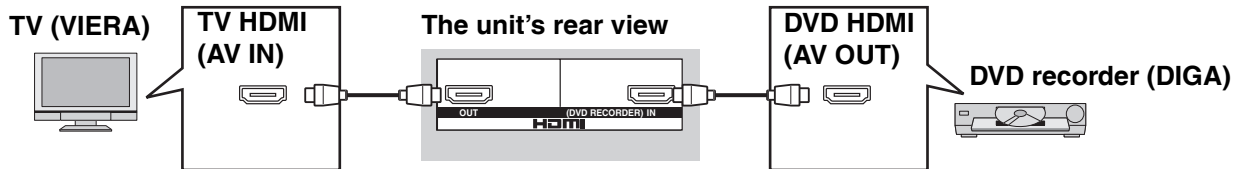
Using HDAVI Control

What is HDAVI Control?

HDAVI Control is a convenient function that offers linked operations of this unit, 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.

Preparation

1. Connect the unit to a Panasonic TV (VIERA) and DVD recorder (DIGA) under HDAVI Control using the HDMI cable (⇒ page 5). (It is recommended that you use Panasonic's HDMI cable. Depending on the cable used, this function may not be possible.)



2. Make settings on the TV (VIERA) to activate HDAVI Control.
3. Turn all equipment on, switch the TV off, put it back on, and check if it shows pictures correctly. (Take these steps after changing connections or settings.)

Available models (As of April 2006)

TV (VIERA): TH-42/50/58PX600, TH-37/42/50PX60, TH-58PX60, TH-42PD60, TH-42/50PX6

DVD recorder (DIGA): DMR-ES25, DMR-ES45V, DMR-EH55, DMR-EH75V, DMR-ES46V



Enjoying Home Theater features through one-touch operations

Direct the remote control to the DVD recorder (DIGA) and press [ONE TOUCH PLAY].

The unit performs the following operation automatically when you simply press [ONE TOUCH PLAY].

1. The DVD recorder goes on.

- The DVD recorder starts playing a disc that is in.
- The DVD recorder plays back a recorded TV program (the last recorded program) when a disc is not in.

2. The TV goes on and the TV input changes.

3. This unit goes on and the selector changes to "DVR", and Multi-channel playback starts.

When adjusting the volume: Press [+ VOLUME -].

You can also adjust the volume on your TV (VIERA)'s remote control.

(A message informing the action appears on your TV while you adjust the volume.)

- Press [SKIP] and start playing a DVD disc or a recorded TV program again when playback does not start from the beginning.

Note

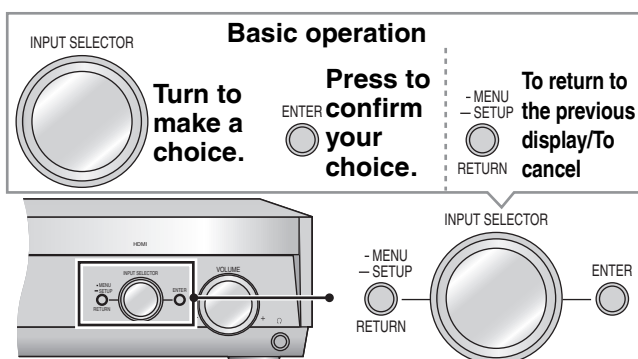
- This unit automatically goes off when you switch your TV (VIERA) off. (This operation is unavailable when you set the input source as TUNER or CD on this unit.)
- Audio output automatically moves to speakers on your TV (VIERA) when you turn the unit off. Audio output moves from speakers on the TV (VIERA) to speakers connected to the unit when you turn the unit on.
- This unit goes from off to on and speakers connected to the unit start producing sounds when you make settings for Home theater on your TV (VIERA).

To play back TV sounds on multi-channels

You must make digital audio (OPTICAL) output connections (⇒ page 9) for doing this.

The input source for the unit changes to "TV" when you select a TV channel or operate the TV in other ways (⇒ page 20).

Setting the unit against HDAVI Control operations



1 Press and hold [-MENU, -SETUP, RETURN] for approximately 2 seconds.

2 **HDMI** Select and confirm the setting.

3 **CTRL ON** Select and confirm the setting.

4 **CTRL OFF** Select and confirm the setting.

OFF: Setting for canceling linked operations

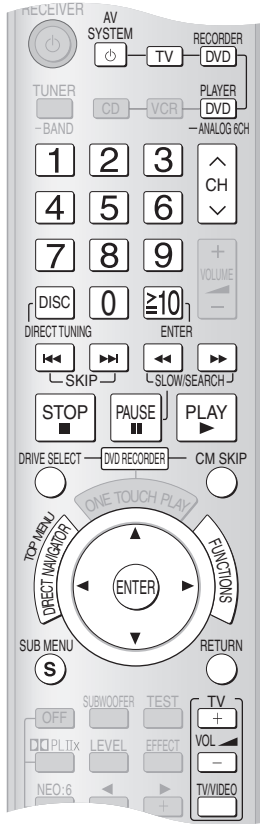
ON: Setting for activating linked operations (Factory setting)

5 Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

Remote controlling a TV or DVD recorder etc.

Besides this unit, you can operate a Panasonic TV, DVD recorder, DVD player, VCR or CD player (excluding certain models) using the supplied remote control. See respective equipment's operating instructions for detailed operations. You may need to enter a code to operate some equipment (→ page 23).

Direct the remote control to the equipment you wish to operate.



Remote controlling a DVD recorder

To switch the unit's input to "DVR"/To switch the remote control to the DVD recorder operation mode	<p>Do not forget to do this before operating a DVD recorder.</p>
To turn the DVD recorder on or off	
To skip a track or chapter	
To look for a scene you wish to watch	
To play a program at a slow speed	
To start playback	
To show the direct navigator (or the top menu)	
To show a sub menu	
To show the functional selection screen (While stopped)	
To return to the previous screen	
To select an item	<p>Take this step after pressing the [DIRECT NAVIGATOR, TOP MENU], [S, SUB MENU], or [FUNCTIONS].</p>
To execute the selected item	
To select a track or chapter directly	<p>• Some of the models require you to press [ENTER] for execution after pressing number buttons.</p>
To pause	
To move forward and backward frame by frame	
To skip a minute forward	
To switch DVD recorder drives (including the hard disk drive, disc drive, and the SD drive etc.)	
To select a channel	<p>(When you make a selection in rising or falling order)</p> <p>(When you select a channel directly)</p>
To stop playback	

Remote controlling a TV

To switch the unit's input to "TV"/To switch the remote control to the TV operation mode	<p>Do not forget to do this before operating a TV.</p>
To turn the TV on or off	
To change the TV/video input mode on the TV	
To adjust the TV volume	
To select a channel	<p>(When you make a selection in rising or falling order)</p> <p>(When you select a channel directly)</p>

Remote controlling a DVD player

When using a Panasonic DVD recorder

Change the unit's remote control code to match the remote control code of the DVD recorder.

Preparation

Confirm the DVD recorder's remote control code number according to its operating instructions.

- 1 Press [DVD RECORDER].
- 2 Press and hold [ENTER] together with [1], [2], or [3] for 2 seconds or longer.








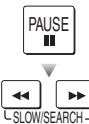

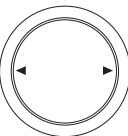






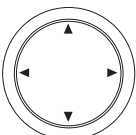
- [Mode 1], [Mode 2], or [Mode 3] is set on the remote control according to the pressed button.
- The factory setting is [Mode 1].

When DVD drives do not switch

The condition may mean the DVD recorder does not recognize the signal this unit's remote control transmits. Switch the drives again after changing the signal in the following procedure.

- 1 Press [DVD RECORDER].
- 2 While pressing [ENTER], press and hold [8] for approximately 2 seconds.

To return:
In step 2 above, while pressing [ENTER], press and hold [9] for approximately 2 seconds.

To switch the unit's input to "DVD"/To switch the remote control to the DVD player operation mode	 <p>PLAYER DVD —ANALOG 6CH</p> <p>Do not forget to do this before operating a DVD player.</p>	To execute the selected item	
To turn the DVD player on or off		To specify a disc (5-disc changer only)	 <p>DIRECT TUNING</p> <p>1 2 3 4 5</p>
To skip a track or chapter		To select a track or chapter directly	<p>1 2 3 4 5 6 7 8 9 0 ± 10 ENTER</p> <ul style="list-style-type: none"> • Some of the models require you to press [ENTER] for execution after pressing number buttons.
To look for a scene you wish to watch		To pause	
To play a program at a slow speed		To move forward and backward frame by frame	 <p>PAUSE</p> 
To start playback		To stop playback	
To show the direct navigator (or the top menu)		<p>○○○ Note ○○○</p> <p>[FUNCTIONS] activates display functions on some of the Panasonic DVD players.</p>	
To show a sub menu			
To show the functional selection screen (While stopped)			
To return to the previous screen			
To select an item	<p>Take this step after pressing the [DIRECT NAVIGATOR, TOP MENU], [S, SUB MENU], or [FUNCTIONS].</p> 		

Remote controlling a TV or DVD recorder etc.

Direct the remote control to the equipment you wish to operate.



Remote controlling a VCR

To switch the unit's input to "VCR"/To switch the remote control to the VCR operation mode	VCR Do not forget to do this before operating a VCR.
To turn the VCR on or off	AV SYSTEM
To start playback	PLAY
To fast forward/rewind a tape	 SLOW/SEARCH
To pause	PAUSE
To select a channel	(When you make a selection in rising or falling order) CH (When you select a channel directly) 1 2 3 4 5 6 7 8 9 0 ≥ 10 ENTER
To stop playback	STOP

Remote controlling a CD player

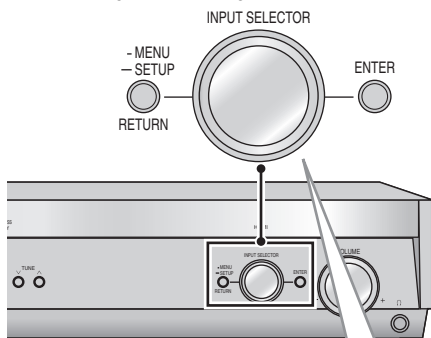
To switch the unit's input to "CD"/To switch the remote control to the CD player operation mode	CD Do not forget to do this before operating a CD player.
To turn the CD player on or off	AV SYSTEM
To start playback	PLAY
To skip a track	 SKIP
To look for a section you wish to listen to	 SLOW/SEARCH
To pause	PAUSE
To specify a disc (3-or 5-disc changer)	DISC DIRECT TUNING 1 2 3 4 5
To start play from a specified disc [MEGA CD changer] (holds more than 50 discs)	DISC DIRECT TUNING 1 2 3 4 5 6 7 8 9 0 PLAY
To select a track directly	1 2 3 4 5 6 7 8 9 0 ≥ 10 ENTER
To stop playback	STOP

Changing remote control codes

Two or more Panasonic audio equipment may start functioning when you use the unit's remote control for operating the equipment.

Switch the unit's remote control code to "**REMOTE 2**" in such cases.

Use the same code for setting the unit and its remote control through the following steps.



Basic operation

Turn to make a choice.

Press to confirm your choice.

To return to the previous display/ To cancel

Operation on the main unit

1 Enter the setup.

Press and hold for approximately 2 seconds.

2 Select and confirm the setting.



3 Select and confirm the setting.



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

Operation on the remote control

5 Press

6 Press and

simultaneously and hold them in the position for approximately 2 seconds.

When you return the remote control code to "1"

- Operation on the main unit: select "1" in step 3.
- Operation on the remote control: press [ENTER] and [1] simultaneously and hold them in the position for approximately 2 seconds or longer in step 6.

Enter a code to operate some equipment

This remote control can operate Panasonic and Technics audio-visual equipment that has remote control sensors. You may need to change the remote control code.

It can also operate some other brands of televisions, video cassette recorders, and DVD players. Check the table for the brand and enter the code as follows.

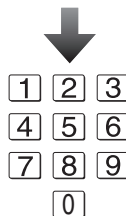
Changing the codes

TV **VCR** **DVD player**
 -ANALOG 6CH

Press and hold the button corresponding to the equipment.



Enter the first digit.



Enter the second digit.

The remote control outputs the on/off signal.

If the code is correct, the equipment turns on or off.

If it doesn't, try entering another code.

- Note that this remote control cannot operate some equipment and that it may not be able to perform some operations.
- Re-enter the codes after you change the batteries.

Code table

	TV	VCR	DVD player
Panasonic	01/02/26	01/02/09/33	01/40
Denon	-	-	01/17
Ferguson	-	-	02
Fisher	14	13/14/15/18/34	-
Funai	-	08/30	-
G.E.	02/03/07/09	02/03/11	-
GoldStar	07/15	27	-
Go-Video	-	-	12
Hitachi	05/07	09/10/11	11
JVC	12	19/25/31/38/39/40	09
Kenwood	-	-	15
LXI	03/06/07/10/14/15	10/13/14/15/18/27/30	-
Magnavox	06/07/11/15/22	02/09/12	-
Mitsubishi	07/15/16/21	21/22/28/29	06
NEC	07/15	19/25/31/38	-
Nordmende	-	-	02
Philco	06/07	02/09/12/30	-
Philips	06	02/09/12	04/16
Pioneer	02/10/19	09	03
Polkaudio	-	-	16
Quasar	02	01/02/09/33	-
Raite	-	-	13
RCA	03/07/09/13/23/24/25	02/03/04/09/10/11/12/23/24/26	02
Saba	-	-	02
Sampo	-	-	14
Samsung	-	-	10
Sanyo	14	14/18/34	-
Sharp	08/21	16/17	08
Shintom	-	32	-
Sony	04	05/06/07/35/36/37	05
Sylvania	06/07/15	02/09/12/30	-
Symphonic	17	30	-
Technics	-	-	01
Thomson	-	-	02
Toshiba	10/21	23/24	04
Yamaha	-	-	01
Zenith	18/20	20	07/12

Listening to sounds with surround effects

You can add surround effects or play stereo sources on multi channels.



Dolby Pro Logic IIx

- **Dolby Pro Logic IIx** offers you multi-channel playback of stereo sources.
- The technology enables you to play 5.1-channel Dolby Digital and DTS sources on 7.1 channels (when two surround back speakers are connected to the unit) and on 6.1 channels (when only one surround back speaker is connected).
- The technology makes surround back channels available for the playback of Dolby Digital Surround EX sources.

Press and select one of the following modes. To cancel

Press

 (Movie)	This mode produces good effects when you play movie and other program materials recorded in the Dolby Surround format. Sounds assigned to surround back channels become stereo in playback when you connect two surround back speakers to the unit. Dolby Pro Logic IIx is in this mode at the time of purchase.
 (Music)	Use this mode when playing music.
 (Dolby Digital EX)	This mode produces good effects when you play movies recorded in the Dolby Digital Surround EX format. This mode is effective on multi-channel sources only. Sounds assigned to surround back channels become monaural in playback when you connect two surround back speakers to the unit. • The sign “ DD DIGITAL EX ” or “ DD EX ” replaces “ DD PL IIx ” on the display when you connect one surround back speaker only.
 (Game)	You can play games with dynamic sounds in this mode. This mode is effective on 2-channel stereo sources. This mode is unavailable when surround and surround back speakers are unconnected (⇒ pages 11 and 14) or when you set them as absent in “Setting speakers and their sizes” (⇒ page 31).

NEO:6

- **NEO:6** offers you multi-channel playback of 2-channel stereo sources.
- The technology enables you to play 5.1-channel Dolby Digital and DTS sources on 6.1 channels.

Press and select one of the following modes. To cancel

Press

 (Cinema)	Use this mode when playing movies.
 (Music)	Use this mode when playing music. The “ CINEMA ” mode is available for 2-channel Dolby Digital and DTS sources containing surround data. The “ MUSIC ” mode is available for the same sources containing no surround data.

Note

The subwoofer goes silent when you use NEO:6 on 2-channel stereo sources as long as all speakers have been set as “**LARGE**” in “Setting speakers and their sizes” (⇒ page 31).

Note

- Surround effects may be unavailable depending on sources.
- These settings remain effective after the unit goes off.

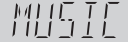
SFC (Sound Field Control)

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

Use this mode when playing music.

Press  and select one of the following modes.

 To cancel


(Music)


You can also select each of the following modes by

Press 


pressing , and   in succession.


(Live)

Imparts the reflection and spread of a large concert hall.


(Pop/Rock)


Best suited for dynamic sound such as pop and rock music.


(Vocal)

Best suited to enhance vocals.


(Jazz)

Recreates natural sound ambience and direction.


(Dance)


Enjoy a dance hall like audio effect.



(Party)

This mode gives you a stereo impression wherever your listening position may be. Music played in the mode sounds like background music at parties.

Use this mode when playing movies.

Press  and select one of the following modes.

 To cancel


(Movie)


You can also select each of the following modes by

Press 

pressing , and   in succession.


(Drama)


Best suited for dialogues in drama movies.


(Action)


Best suited for action movies with impact.


(Sports)

Enjoy a feeling like being at a live sporting event.


(Musical)

Enjoy a feeling like being at a live musical performance.


(Game)

Enjoy games with greater audio impact.

○ ○ **Note** ○ ○

- The SFC function is off when the center speaker and surround speakers are not connected.
- In the “**PARTY**” mode, when only one surround back speaker is connected and the center speaker is unused, the surround back speaker goes silent. The center speaker goes silent when you connect no surround back speaker to the unit.
- Depending on the combination of input source and SFC mode, sound may be distorted. In such cases, lower the effect level in “Adjusting the effect level” (➔ page 26) or select another mode through procedures instructed above.

Sound effect under remote control

See pages 24 and 25 for information about each mode.



Adjusting Dolby Pro Logic IIx "MUSIC" mode further

You can use the following modes when the input source is 2-channel stereo.

DIMEN 0 You can make up for differences in the output level of the front and surround speakers.

(Dimension Control)

Press **EFFECT**, select "**DIMEN**" and press **-** **+** for adjustment.

Adjustment range: **-3** (Greater weight on surround speakers) to **+3** (Greater weight on front speakers)

Factory setting: **0**

C-WIDTH 3 In this mode, you can play music more naturally by adjusting sounds assigned to front and center speakers as a whole.

(Center Width Control)

Press **EFFECT**, select "**C-WIDTH**" and press **-** **+** for adjustment.

Adjustment range: **0** (Center becomes clearer) to **7** (Center becomes wider)

Factory setting: **3**

PANORAMA Sound is spread out more so you feel like you are surrounded by music.

(Panorama)

Press **EFFECT**, select "**PANORAMA**", and press **-** **+** for selecting "**ON**" or "**OFF**".

Factory setting: **OFF**

Adjusting NEO: 6's "MUSIC" mode further

C-IMAGE 2 In this mode, you can play music more naturally by adjusting sounds assigned to front and center speakers as a whole.

(Center Image Control)

Press **EFFECT**, select "**C-IMAGE**", and press **-** **+** for adjustment.

Adjustment range: **0** (Center becomes clearer) to **5** (Center becomes wider)

Factory setting: **2**

Adjusting SFC (Sound Field Control) further

Adjusting the output level

Press **LEVEL**, select a speaker, and press **-** **+** for adjustment.

C (Center), **RS** (Surround right), **SBR** (Surround back right), **SBL** (Surround back left) (**SB** when only one surround back speaker is connected), **LS** (Surround left)

Adjustment range: **-10 dB** to **+10 dB** Factory setting: **0 dB**

SUBW (Subwoofer)

Adjustment range: **---** (off), **MIN** (minimum) **1** to **19**, **MAX** (maximum)

Factory setting: **10**

○○○ **Note** ○○○

- You cannot adjust the output levels of speakers other than the subwoofer in the "**PARTY**" mode (⇒ page 25).
- You cannot adjust speakers not connected (⇒ pages 11 and 14) and others set as absent in "Setting speakers and their sizes" (⇒ page 31).

Adjusting the effect level

Press **EFFECT**, and press **-** **+** for adjustment.

Adjustment range: **EFFECT 1** (minimum) to **EFFECT 10** (maximum)

Factory setting: **EFFECT 5**

○○○ **Note** ○○○

You cannot adjust the effect level in the "**PARTY**" mode (⇒ page 25).

○○○ **Note** ○○○

These settings remain effective after the unit goes off.

Convenient functions under remote control



Adjusting the subwoofer level

You can adjust the output level while playing sources. You can adjust the level according to your preference by thickening or thinning the ultra bass, for example.

Press **SUBWOOFER** and make a selection.



Adjustment range:
--- (off), **MIN** (minimum), **5**, **10**, **15**, **MAX** (maximum)

- Factory setting: **SUBW 10**
- Select “---” to stop output.

Note

- Sound can be distorted if you raise the volume while the subwoofer level is high. Reduce the subwoofer level if this occurs.
- Adjust the output level by taking steps described in “Adjusting the output level” (→ page 26) when you wish to make detailed settings.

Silencing speakers temporarily

Press **MUTING**

- “**MUTING IS ON**” scrolls on the display while the volume is muted.
- Press the button again to cancel the operation.



Note

Muting is canceled when the unit is turned off.

Dimming the display light (Dimmer)

Press **DIMMER**

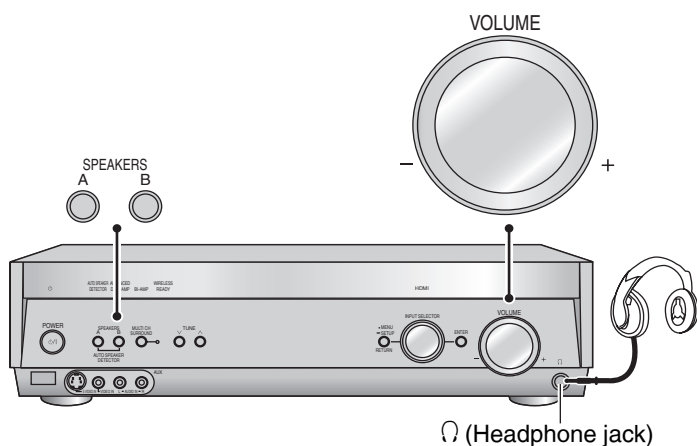
- Press the button to dim the display.
- Press the button again to cancel the operation.

Note

Refer to page 29 for adjusting the brightness of the display.

Convenient functions under remote control/Using headphones

Using headphones



1 Press [SPEAKERS A] and [SPEAKERS B] to switch all speakers off.

2 Lower the volume by turning [VOLUME, -, +] and connect headphones to the unit.

Plug type: ø 6.3 mm (1/4") stereo standard plug

3 Adjust the volume by turning [VOLUME, -, +].

Note

- Avoid listening for prolonged periods of time to prevent hearing damage.
- Playback channels become two when you switch all speakers off. The 2-channel mix (2CH MIX) function activates automatically when you play a multi-channel source. (Excluding DVD-Audio sources that do not allow down-mixing)
- The “DVD ANALOG 6CH” function (→ page 18) goes off and front two channels make audio output when you play sources through analog 6-channel connections (→ page 8).

Operations

Sound effect under remote control

Sound effect/Convenient functions



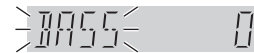
Basic operation

1 Entering the menu

Press  **RETURN**

• The display shows the menu for the operation.

Example: "Adjusting the bass"



2 Selecting an item for setting

Turn  to select an item.

Press  for confirming the choice.



3 Making a setting

Turn  to make a setting.

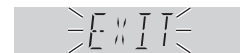
Press  for confirming the choice.



4 Finishing the setting procedure

Press  several times to select "EXIT".

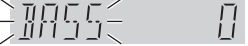

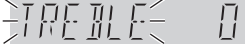





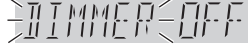



Press  for confirming the choice.



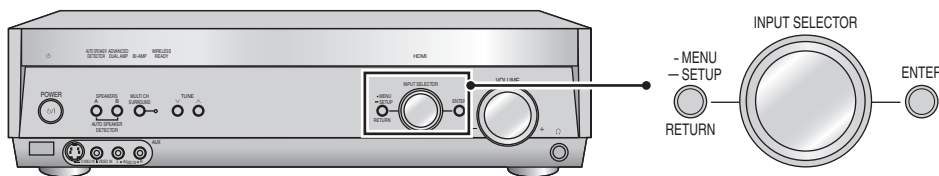
- The display returns to the original one.
- You can also select "EXIT" by turning [INPUT SELECTOR].

 To return to the previous display/To cancel

Press  **RETURN**

<p>Adjusting the bass</p> <ul style="list-style-type: none"> You can adjust the bass through this operation. 	<p>1 Select and confirm the choice.</p>  <p>2 Make adjustment and confirm the choice.</p>  <p>Adjustment range: -10 dB to +10 dB Factory setting: 0 dB</p>
<p>Adjusting the treble</p> <ul style="list-style-type: none"> You can adjust the treble through this operation. 	<p>1 Select and confirm the choice.</p>  <p>2 Make adjustment and confirm the choice.</p>  <p>Adjustment range: -10 dB to +10 dB Factory setting: 0 dB</p>
<p>Adjusting the volume balance</p> <ul style="list-style-type: none"> You can adjust the balance of the front speakers. 	<p>1 Select and confirm the choice.</p>  <p>2 Make adjustment and confirm the choice.</p>  <p>The bar shows the standard balance.</p> <p>Note</p> <p>You cannot adjust volume balance when you use SFC's "PARTY" mode (→ page 25).</p> <p>L : Front left R : Front right</p>
<p>Changing the audio output (Dual program)</p> <ul style="list-style-type: none"> The unit allows you to switch dual audio signals in Dolby Digital and DTS formats. 	<p>The sign "DUAL PRG" appears on the display when the unit receives a dual audio signal.</p> <p>1 Select and confirm the choice.</p>  <p>2 Select audio and confirm the choice.</p>  <p>MAIN : Main audio output (Factory setting) SAP : Sub channel audio output M+S : Main and sub channel audio output</p>
<p>Adjusting the brightness of the display</p> <ul style="list-style-type: none"> Dim the display for better viewing in a darkened room. 	<p>1 Select and confirm the choice.</p>  <p>2 Select a setting and confirm the choice.</p>  <ul style="list-style-type: none"> Select "OFF" to cancel. <p>Adjustment range: DIMMER 1 (bright) to DIMMER 3 (dim) Factory setting: OFF</p>
<p>Sleep timer</p> <ul style="list-style-type: none"> The sleep timer can turn the unit off after a set time. 	<p>1 Select and confirm the choice.</p>  <p>2 Select the time and confirm the choice.</p>  <p>Times available for setting: 30, 60, 90, 120 (minutes) Factory setting: OFF</p> <ul style="list-style-type: none"> When this is set, "SLEEP" appears on the display. To check the setting: After setting the time, you can check the remaining time using step 1. To change a setting: Repeat the procedure from the beginning. <p>Note</p> <p>It does not control any other components.</p>

Setting the receiver



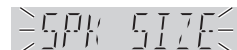
Basic operation

1

Entering the setup

Press and hold  for approximately 2 seconds.

- The display shows factory settings.
Example: "Setting speakers and their sizes"



2

Selecting an item for setting

Turn  to select an item.

Press  for confirming the choice.

- You must repeat these steps several times depending on settings.



3

Making a setting

Turn  to make a setting.

Press  for confirming the choice.




4

Finishing the setting procedure

Press  several times to select "EXIT".

Press  for confirming the choice.

- The display returns to the original one.
- You can also select "EXIT" by turning [INPUT SELECTOR].



 To return to the previous display/To cancel

Press  

Setting speakers and their sizes

- You can set connected speakers and their sizes manually.
- Frequencies available for playback vary according to speakers. Size setting is necessary for reproducing sources, particularly their bass section, completely.

1 Select and confirm the choice.

SPK SIZE

2 Select a speaker for setting and confirm the choice.

SUBW YES

3 Change a setting and confirm the choice.

SUBW YES

When you set the front speakers (LR) as "LARGE"

- The subwoofer also makes audio output in the bass range when you perform stereo playback of analog and PCM sources.
- The subwoofer sends out only the LFE (low frequency effect channel) signal contained in 2-channel Dolby Digital or DTS sources when you play them in stereo.

SUBW : Subwoofer

LR : Front speakers

C : Center speaker

S : Surround speakers

SB : Surround back speakers

SUBW (Subwoofer)

NO : Unconnected **YES** : Connected

LR (Front), **C** (Center), **S** (Surround)

NONE : For speakers you haven't connected (center or surround).

SMALL : For speakers that cannot adequately reproduce the bass range. This setting is sufficient for most speakers if you are using a subwoofer.

LARGE : For speakers that can sufficiently reproduce the bass range down to 20 Hz.

SB (Surround back)

NONE : For speakers you haven't connected.

1-SPK : If you connect one surround back speaker.

2-SPK : If you connect two surround back speakers.

Factory settings:

LR (Front), **C** (Center), **S** (Surround) **SMALL**

SUBW (Subwoofer) **YES**

SB (Surround back) **2-SPK**

Note

- You can set the lowpass filter frequency according to frequencies available for playback when speakers are set as "**SMALL**". (The factory setting is 100 Hz.) (⇒ below)
- The following are set automatically.
When you set "**LR**" to "**SMALL**", "**SUBW**" is set to "**YES**".
When you set "**SUBW**" to "**NO**", "**LR**" is set to "**LARGE**".
- The "**SB**" (Surround back speakers) size becomes the "**S**" (Surround speakers) size because the unit does not offer "**SB**" size setting.

Setting distances

- By setting the distance between the speaker's position (except the subwoofer) and the listener's seating position, the sound delay time is automatically adjusted so that sound reaches the listener at the same time.

1 Select and confirm the choice.

DISTANCE

2 Select a speaker for setting and confirm the choice.

LR 10'

3 Select a distance and confirm the choice.

LR 10'

LR : Front

C : Center

S : Surround

SB : Surround back

Adjustment range: **3** to **30** ft (feet)

Factory settings:

LR (Front), **C** (Center) **10** ft (feet)

S (Surround),

SB (Surround back) **5** ft (feet)

Setting bi-wiring connections

- Select this when you connect bi-wire compatible front speakers. (⇒ page 11)

1 Select and confirm the choice.

LR BI-WIRE

2 Select and confirm the choice.

YES

YES : When speakers designed for bi-wiring are connected

NO : When speakers designed for bi-wiring are not connected

Factory setting: **NO**

Setting the lowpass filter

- If the speaker sizes (⇒ above) are set to "**SMALL**", make this setting.
- The unit cannot reproduce the entire bass range when speakers are set as "**SMALL**". You can arrange the unit to provide missing bass sounds through the subwoofer by setting the lowpass filter frequency according to frequencies available for playback.

1 Select and confirm the choice.

FILTER FREQ

2 Select the lowpass filter frequency and confirm the choice.

100

Note

The setting made through these steps applies to all speakers set as "**SMALL**".

80 : The subwoofer produces sounds in the lower register at 80 Hz and frequencies below.

100 : The subwoofer produces sounds in the lower register at 100 Hz and frequencies below.

150 : The subwoofer produces sounds in the lower register at 150 Hz and frequencies below.

200 : The subwoofer produces sounds in the lower register at 200 Hz and frequencies below.

Factory setting: **100**

Setting the receiver



See page 30 for receiver operations.

Changing the digital input settings

- Change these settings to suit the connections you have made to the optical (OPT) and coaxial (COAX) digital input terminals. (→ pages 6, 7, 9 and 13)
- You can only allocate one piece of equipment per terminal. (Example) "OPT 1" becomes the only digital terminal you can use for connecting the DVD player to the unit when you change the DVD setting to the terminal.

1 Select and confirm the choice.



2 Select the equipment connected to the digital input terminal and confirm the choice.



3 Change the digital input setting and confirm the choice.



Repeat steps 2 and 3 to change settings.

TV: TV
DVR: DVD recorder
DVD: DVD player
CD: CD player

Factory setting:
TV: **OPT1** (OPTICAL 1)
DVR: **OPT2** (OPTICAL 2)
DVD: **COAX1** (COAXIAL 1)
CD: **COAX2** (COAXIAL 2)

Setting input signals

- This unit automatically detects whether input is digital or analog, but you can fix the input mode.
- Select "AUTO" when it is not necessary to fix the signal.

1 Select and confirm the choice.



2 Select the equipment connected to the digital input terminal and confirm the choice.



3 Select the method for identifying input signals and confirm the choice.



Repeat steps 2 and 3 to change settings.

Note regarding PCM FIX mode

- In rare cases, the unit may have trouble recognizing the digital signals on discs.
- With the PCM signals on CDs, this may cause the beginning of a track to be cut off. Engage the PCM FIX mode if this occurs.
- This setting is not necessary when playback is normal.
- When PCM FIX mode is on, the unit cannot process other signals. This may cause noise to be output. Select another mode in this case.

TV: TV
DVR: DVD recorder
DVD: DVD player
CD: CD player

AUTO: Automatic identification of digital and analog signals (HDMI takes priority when the input signal is digital.)

ANALOG: Fixes the input signal to analog and plays.

DIG: Fixes the input signal to digital and plays.

PCMFIX: Fixes the input signal to PCM and plays.

Factory setting:
TV, DVR, DVD, CD: **AUTO**

Note

- The sign "DIGITAL INPUT" appears constantly on the display when you fix the input signal as digital.
- The sign "PCM" appears on the display when you set the input signal as "PCMFIX".
- When an input position is set to PCM FIX, and the input signals are not from a PCM source, "PCM FIX" flashes on the display.

Making bi-amp settings

- Bi-amp settings appear on the display and become selectable only when you make bi-wiring settings for the front speakers (→ page 31).
- You can adjust HF (high frequency) and LF (low frequency) output balance of the bi-wired speakers.
- You can reduce the delay time due to the difference in size of the HF and LF units.

Adjusting the balance

1 Select and confirm the choice.



2 Select and confirm the choice.



3 Make adjustment and confirm the choice.

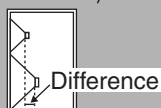


The bar shows the standard balance.

LF: Low frequency
HF: High frequency

Correcting the HF and LF difference

Speaker
(Side view of a speaker in cross section)



1 Select and confirm the choice.



2 Select and confirm the choice.












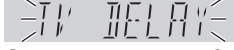

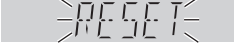



3 Make adjustment and confirm the choice.



Adjustment range: **0.0** to **12.0** in (inch)
• You can select differences at 0.5 inch intervals.
Factory setting: **0.0** in (inch)

See page 30 for receiver operations.

<p>Selecting the equipment connected to the HDMI input terminal</p> <ul style="list-style-type: none"> You set the connected equipment as a DVD recorder or DVD player through these steps. 	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p> <p>3 Select the equipment connected to the HDMI input terminal and confirm the choice. </p>	<p>DVR: When the connected equipment is a DVD recorder</p> <p>DVD: When the connected equipment is a DVD player</p> <p>Factory setting: DVR</p>
<p>Reducing standby power consumption (power saving standby mode)</p>	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p> <p>3 Select and confirm the choice. </p> <ul style="list-style-type: none"> The volume of consumed power becomes 0.25 W if you select “OFF”. The standby through function (➔ page 5) becomes unavailable when you make HDMI connections. HDAVI Control (➔ page 19) does not function when the unit is off. 	<p>OFF: When you wish to reduce standby power consumption</p> <p>ON: When standby power consumption level is normal</p> <p>Factory setting: ON</p>
<p>Setting ADVANCED DUAL AMP functions off</p>	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p>	<p>OFF: Advanced dual amp functions are off in this setting.</p> <p>AUTO: Advanced dual amp functions are on in this setting.</p> <p>Factory setting: AUTO</p>
<p>Listening comfortably at low volume</p> <ul style="list-style-type: none"> Change this setting to listen to software recorded with Dolby Digital at low volume (such as late at night) maintaining audio clarity. It reduces the peak level in loud scenes without affecting the sound field. 	<p>1 Select and confirm the choice. </p> <p>2 Select a setting and confirm the choice. </p> <p>○○○ Note ○○○</p> <p>This function does not work when disc data does not support it.</p>	<p>OFF: The software is played with the original dynamic range</p> <p>STANDARD: The level recommended by the producer of the software for household viewing</p> <p>MAX: The maximum allowable compression (recommended for night viewing)</p> <p>Factory setting: OFF</p>
<p>Switching the attenuator</p> <ul style="list-style-type: none"> Switch the attenuator on when sounds become distorted while playing an analog input source and the sign “OVERFLOW” appears on the display. 	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p> <p>To cancel, select “OFF”.</p>	<p>OFF: off ON: on</p> <p>Factory setting: OFF</p>
<p>Delaying audio output and synchronizing it with video output</p> <ul style="list-style-type: none"> Correct the time difference by delaying audio output when sounds and pictures do not match. 	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p>	<p>OFF: Normal setting</p> <p>ON: Setting for delaying audio output</p> <p>Factory setting: OFF</p>
<p>Returning settings to conditions upon factory settings (Reset function)</p> <ul style="list-style-type: none"> Re-enter settings to your liking when necessary. 	<p>1 Select and confirm the choice. </p> <p>2 Select and confirm the choice. </p> <p>To cancel, select “NO”.</p> <p>○○○ Note ○○○</p> <p>When you select “YES”, the input source becomes TUNER (Preset Channel 1). (Preset radio stations will not be erased.)</p>	<p>YES: Choice for resetting</p> <p>NO: Choice against resetting</p>

The radio



Basic operation

Turn to make a choice.

Press to confirm your choice.

To return to the previous display/To cancel

Manual tuning

On the remote control (Direct tuning)

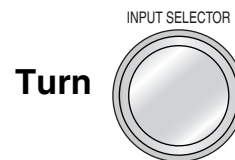
- 1 Select **"TUNER"**.
Press TUNER - BAND
- 2 Select **"FM"** or **"AM"**.
Press and hold TUNER - BAND for 2 seconds.
- 3 Press DISC DIRECT TUNING
- 4 Enter the station frequency.
Press

e.g. 107.9 MHz, Press [1] → [0] → [7] → [9]
Tuning intervals: FM - 0.1 MHz,
AM - 10 kHz

- 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.
- **"TUNED"** is displayed when a station is tuned.
- **"ST"** is displayed when a stereo FM broadcast is tuned.

On the main unit

- 1 Select **"TUNER FM"** or **"TUNER AM"**.



- 2 Tune to the station.



Tuning intervals: FM - 0.2 MHz,
AM - 10 kHz

Automatic tuning

Hold down [TUNE ∨ or ^] until the frequency begins to scroll. Tuning stops when a station is found. (Tuning may stop if there is interference.)

Note

Improving reception

DVD recorders and DVD players can interfere with radio reception. Turn the DVD recorder and the DVD player off or move it further away from the AM loop antenna if this occurs.

Preset tuning

Presetting stations

■ Auto presetting

1 Set the channel reception to FM 87.9 MHz or AM 530 kHz. (→page 34)

Preset channels that are automatically assigned by this unit are:

FM: 1 to 30

AM: 21 to 30

Preset the FM stations first. If the AM stations are preset before the FM stations, they will be erased when the FM stations are preset.

2 Enter the menu.



3 Select "TUNER" and confirm the setting.

4 Select "AUTO MEMO" and confirm the setting.

5 Select "START" and press [ENTER].

Select "CANCEL" to cancel.

- During automatic presetting, the memory indicator () 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.
- Frequencies may not be preset correctly when broadcast waves are too strong or too weak. In such cases, carry out presetting manually.

■ Manual presetting

1 Tune to the station you want to preset. (→page 34)

2 Enter the menu.



3 Select "TUNER" and confirm the setting.

4 Select "MEMORY" and confirm the setting.

5 Select a channel number and press [ENTER].

"STORED" is displayed.

- To continue presetting, press [TUNE ∨ or ∧] to tune another station from step 1.

6 Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

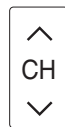
- FM stations can also be preset in the MONO mode (→ below).

- Even if the AC power supply cord is disconnected from the household AC outlet, the stations remain in the memory for approximately two weeks.

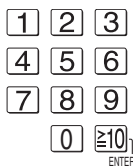
Listening to preset stations

■ On the remote control

- Select the channel.



- Press the numbered buttons to select the channel.



To select a two digit number

e.g. 21: [≥ 10, ENTER] → [2] → [1]

■ On the main unit

1 Enter the menu.



2 Select "TUNER" and confirm the setting.

3 Select "TUNE MODE" and confirm the setting.

4 Select "PRESET" and confirm the setting.

5 Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

6 Select the channel.



- Hold down the button to change channels faster.

Select "MANUAL" in step 4 when you wish to perform manual tuning (→ page 34).

Reducing excessive noise (on the main unit)

Select if noise is excessive during radio reception.

Preparation: Press [-MENU, -SETUP, RETURN] to enter the menu.

■ During FM stereo reception

You can improve FM reception by switching reception to monaural.

1 Select "TUNER" and confirm the setting.

2 Select "FM MODE" and confirm the setting.

3 Select "MONO" and confirm the setting.

- When this is set, "MONO" appears on the display.
- Select "AUTO" to cancel.

4 Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

■ During AM reception

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

1 Select "TUNER" and confirm the setting.

2 Select "BEAT PROOF" and confirm the setting.

3 Select "MODE 1" or "MODE 2" and confirm the setting.

4 Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the "Customer Services Directory" on page 38 if you reside in the U.S.A., or refer to the "Product information" on back cover if you reside in Canada.

■ Common problems		Pages
No power.	<ul style="list-style-type: none"> Ensure the AC power supply cord is connected. Turn the volume up. 	11 16
No sound. Sound is distorted.	<ul style="list-style-type: none"> Check connections to speakers and other equipment. Turn on the speakers. Select the correct source. Change DIG INPUT setting to suit the type of connection you have made. Check that the digital signals can be decoded by this unit. Turn the muting off. Turn PCM FIX off. Recording of some DVD-Audio may not be possible due to copyright protection. 	5 to 13 16 16 32 17 27 32 -
Sound stops. "OVERLOAD" appears on the display for about a second, and the unit turns off.	<ul style="list-style-type: none"> Determine and correct the cause, then turn the unit on. Causes include: <ul style="list-style-type: none"> Shorting (bare wires touching) of positive and negative speaker wires. Using speakers with an impedance lower than that rated for this unit. Straining of the speakers through excessive volume or power. Using the unit in a hot environment without proper ventilation. Consult your dealer if the problem occurs again after switching the unit on. 	10 11, 12 - -
Analog input becomes distorted and the message "OVERFLOW" appears on the display during playback.	<ul style="list-style-type: none"> Switch the attenuator on. 	33
"F76" appears on the display and the unit turns off.	<ul style="list-style-type: none"> Turn the unit off, disconnect the AC power supply cord, and consult your dealer. 	-
"F70" appears on the display.	<ul style="list-style-type: none"> Turn the unit off, disconnect the AC power supply cord, and consult your dealer. 	-
"REMOTE 2" or "REMOTE 1" appears on the display.	<ul style="list-style-type: none"> Match the codes on the main unit and the remote control. 	23
Display is dim.	<ul style="list-style-type: none"> Cancel "DIMMER". 	27, 29
Clicking sound is heard during play.	<ul style="list-style-type: none"> Depending on the input signal when playing DVD etc., the ADVANCED DUAL AMP function changes automatically. A clicking sound is heard when it changes. This does not mean a problem with the unit. You can also set the unit against automatic advanced dual amp operations. 	- 33
■ Surround effects		Pages
Sound is not heard from the center, surround or subwoofer speakers.	<ul style="list-style-type: none"> Ensure the speaker settings for your speakers are correct. Confirm Dolby Pro Logic IIx, NEO:6, or SFC settings, and select an adequate mode. Switch MULTI CH SURROUND on when you play 2-channel stereo sources. 	14, 31 24 to 26 16
Sound is not heard from the surround back speaker.	<ul style="list-style-type: none"> Ensure the speaker settings for your speakers are correct. Switch MULTI CH SURROUND on. 	14, 31 16
Cannot switch MULTI CH SURROUND on. (Dolby Pro Logic IIx, NEO:6, and SFC are unavailable.)	<ul style="list-style-type: none"> Check if the center speaker, surround speakers, and surround back speakers are connected properly. Switch SPEAKERS A on. You cannot use the MULTI CH SURROUND effect when the input source contains PCM signals with sampling frequencies of 192 kHz. Cancel DVD analog 6-channel playback. You cannot use the effect when the input source contains dual audio signals in Dolby Digital or DTS formats. 	11 16 - 18 -
There is no DTS audio output. There is audio output, but the DTS decoder indicator is not lit.	<ul style="list-style-type: none"> Set the DTS Digital Audio Output setting on the DVD player or DVD recorder to "Bitstream". 	-
Sound is distorted when using the Sound Field Control (SFC).	<ul style="list-style-type: none"> Depending on the input source, sound may be distorted if you increase the SFC effect level. If this happens, decrease the SFC effect level. 	25, 26
■ Radio		Pages
The radio cannot be tuned in or there is a lot of noise and interference.	<ul style="list-style-type: none"> Connect the appropriate antenna. (You may need an outdoor antenna or one with more elements.) Adjust the position of the FM or AM antenna. Reduce the treble. Turn off nearby televisions, video decks, DVD recorder, DVD players, and satellite receivers. Separate the antenna from other cables, cords, and appliances. 	12 12 29 - -
There is a lot of noise when listening to AM.	<ul style="list-style-type: none"> Try changing the BEAT PROOF mode. 	35
■ HDMI		Pages
When using an HDMI connection, the first few seconds of sound is cut off.	<ul style="list-style-type: none"> Should you be playing a chapter on a DVD: <ul style="list-style-type: none"> 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 "PCM FIX" as instructed in "Setting input signals" when you play 2-channel sources. 	- 32
"U 70-1-1" appears on the display.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Should anything unusual happen using an HDMI connection: Consult your dealer if the sign remains on the display after these steps. <ul style="list-style-type: none"> Turn the connected equipment off and on again. Pull out the HDMI cable then reinsert it. Reduce the amount of equipment connected in series to the HDMI terminal if exceeding 2 units. 	- 5,19 -
The unit does not work properly.	<ul style="list-style-type: none"> 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. 	5,19
HDAVI Control does not function properly.	<ul style="list-style-type: none"> 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		Pages
The remote control doesn't work.	<ul style="list-style-type: none"> Replace the batteries if they are worn. 	4
Other products respond to the remote control.	<ul style="list-style-type: none"> Change this unit's remote control code to "REMOTE 2". 	23

Help message

Message	Cause/countermeasure
1 CANCEL MUTING FUNCTION	Muting is on. Press [MUTING] on the remote control and cancel the function (⇒ page 27).
2 MUSIC MODE ONLY	The selected mode is not "MUSIC". Change the mode to "MUSIC" (⇒ page 24).
3 NO CENTER AND SURROUND SPEAKERS	Center and surround speakers are not connected, or they are set as absent. Connect the speakers (⇒ page 11) or change their setting to present (⇒ page 31).
4 NO SURROUND AND SURROUND BACK SPEAKERS	Surround and surround back speakers are not connected, or they are set as absent. Connect the speakers (⇒ page 11) or change their setting to present (⇒ page 31).
5 NO SURROUND BACK SPEAKER	Surround back speakers are not connected, or they are set as absent. Connect the speakers (⇒ page 11) or change their setting to present (⇒ page 31).

Message	Cause/countermeasure
6 NOT POSSIBLE FOR DTS-ES SOURCE	You are trying to use the effect unavailable for DTS-ES sources.
7 NOT POSSIBLE FOR DVD AUDIO SOURCE	You are trying to use the effect unavailable for DVD-Audio sources.
8 NOT POSSIBLE FOR DVD 6CH INPUT	You are trying to use the effect unavailable for DVD analog 6-channel playback.
9 NOT POSSIBLE FOR THIS INPUT SOURCE	You are trying to use the effect unavailable for the current input source.
10 PCM FIX (flashing)	The unit is in the "PCM FIX" mode. Cancel this mode (⇒ page 32).
11 SELECT SPEAKER A	SPEAKERS A is off. Press [SPEAKERS A] to turn on "SPEAKERS A" (⇒ page 16).
12 SPEAKERS ARE OFF	SPEAKERS A and SPEAKERS B are off. Select one of the speakers (⇒ page 16).

Specifications (IHF'78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output	
20 Hz-20 kHz both channels driven	100 W per channel (6 Ω)
0.09 % total harmonic distortion	
1 kHz continuous power output both channels driven	105 W per channel (6 Ω)
0.09 % total harmonic distortion	
Total harmonic distortion	
rated power at 20 Hz-20 kHz	0.09 % (6 Ω)
Power bandwidth	
both channel driven, -3 dB	4 Hz to 88 kHz (6 Ω, 0.9 %)
Power output each channel driven	
0.9 % total harmonic distortion at 1 kHz	
Front (L/R)	100 W (6 Ω)
Center	100 W (6 Ω)
Surround (L/R)	100 W (6 Ω)
Surround Back (L/R)	100 W (6 Ω)
Load impedance	
Front (L/R)	
A or B	6 to 8 Ω
A and B	6 to 8 Ω
BI-WIRE	6 to 8 Ω
Center	6 to 8 Ω
Surround (L/R)	6 to 8 Ω
Surround Back (L/R)	6 to 8 Ω
Frequency response	
CD, DVD, DVD Recorder, VCR, TV/STB, AUX	4 Hz to 88 kHz, ±3 dB
DVD 6CH	4 Hz to 44 kHz, ±3 dB
Input sensitivity	
CD, DVD/DVD 6CH, DVD Recorder, VCR, TV/STB, AUX	27 mV (200 mV, IHF '66)
Input impedance	
CD, DVD/DVD 6CH, DVD Recorder, VCR, TV/STB, AUX	22 kΩ
S/N (IHF A)	
CD, TV/STB, DVD, DVD Recorder (Digital Input)	85 dB (103 dB, IHF '66)
Tone controls	
BASS	50 Hz, +10 to -10 dB
TREBLE	20 kHz, +10 to -10 dB
Subwoofer frequency response (-6 dB)	7 Hz to 200 Hz

Digital input (Optical)	2
(Coaxial)	2
HDMI (Version 1.2a) Input	1
Output	1

■ FM TUNER SECTION

Frequency range	87.9 to 107.9 MHz
Sensitivity	11.2 dBf (2 μV, IHF '58)
50 dB quieting sensitivity	
MONO	18.3 dBf (4.5 μV, IHF '58)
STEREO	38.3 dBf (45 μV, IHF '58)
Total harmonic distortion	
MONO	0.2 %
STEREO	0.3 %

S/N	
MONO	73 dB
STEREO	67 dB
Frequency response	20 Hz to 15 kHz, +1 dB, -2 dB
Alternate channel selectivity	65 dB
Capture ratio	1.5 dB
Image rejection at 98 MHz	40 dB
Spurious response rejection at 98 MHz	75 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
10 kHz	30 dB
Antenna terminal	75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	530 to 1710 kHz
Sensitivity	20 μV, 330 μV/m
Selectivity	55 dB
IF rejection at 1000 kHz	50 dB

■ VIDEO SECTION

Output voltage at 1 V input (unbalanced)	1±0.1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω
S-Video	Input DVD, DVD Recorder, TV/STB
	Output TV MONITOR
Component Video	Input DVD Recorder, TV/STB
	Output TV MONITOR

■ GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	135 W
Dimensions (W x H x D)	430 mm x 107.5 mm x 390 mm (16-15/16" x 4-7/32" x 15-11/32")
Mass	4.7 kg (10.4 lb.)

■ DIN POWER

1 kHz, T. H. D. 1 %	2 x 100 W (6 Ω)
---------------------	-----------------

Power consumption in standby mode:	0.7 W
Power consumption in HDMI off Mode:	0.25 W

Notes:

- Specifications are subject to change without notice. Mass and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Warranty (U.S.A.)

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>
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.

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.pasc.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 Services 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

Warranty (Canada)

Panasonic Canada Inc.

PANASONIC/TECHNICS PRODUCT – LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

Technics Audio Product	One (1) year, parts and labour
Panasonic Audio & DVD Product	One (1) year, parts and labour
Accessories including rechargeable batteries	Ninety (90) days

In-home Service will be carried out only to locations accessible by roads and within 50 km of an authorized Panasonic service facility.

LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE

FOR PRODUCT OPERATION ASSISTANCE, please contact:

Our Customer Care Centre:	Telephone #:	(905) 624-5505
	1-800 #:	1-800-561-5505
	Fax #:	(905) 238-2360
	Email link:	"Contact Us" on www.panasonic.ca

FOR PRODUCT REPAIRS, please locate your nearest Authorized Servicentre at www.panasonic.ca :

Link : "Servicentres™ locator" under "Customer support"

Panasonic Factory Service:

Richmond British Columbia

Panasonic Canada Inc.
12111 Riverside Way
Richmond BC V6W 1K8
Tel: (604) 278-4211
Fax: (604) 278-5627

Mississauga Ontario

Panasonic Canada Inc.
5770 Ambler Drive
Mississauga ON L4W 2T3
Tel: (905) 624-8447
Fax: (905) 238-2418

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

Maintenance

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, carefully read the instructions that came with it.

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

Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS", "DTS-ES", "Neo:6" and "DTS 96/24" are trademarks of Digital Theater Systems, Inc.

Supplied accessories



Please check and identify the supplied accessories.

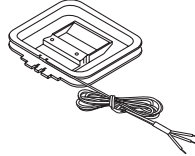
1 AC power supply cord
(K2CB2CB00018)



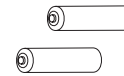
1 FM indoor antenna
(RSA0006-L)



1 AM loop antenna
(RSA0037)



2 Batteries



1 Remote control
(EUR7662Y80)



Use numbers indicated in parentheses when asking for replacement parts.
(Product numbers correct as of February 2006. These may be subject to change.)

In the U.S.A. to order accessories, refer to "Accessory Purchases" on page 38.

In Canada to order accessories, call the dealer from whom you have made your purchase.

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.

-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.

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.

Product information

For product information or assistance with product operation:
In the U.S.A., refer to "Customer Services Directory" on page 38.
In Canada, contact the Panasonic Canada Inc. Customer Care Centre at 905-624-5505, or visit the website (www.panasonic.ca), or an authorized Servicentre closest to you.

User memo:

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

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 _____ SA-XR57 _____
SERIAL NUMBER _____

Panasonic Consumer Electronics Company, Division of Panasonic Corporation of North America
One Panasonic Way Secaucus,
New Jersey 07094
<http://www.panasonic.com>

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

Panasonic Canada Inc.
5770 Ambler Drive
Mississauga, Ontario
L4W 2T3
www.panasonic.ca

