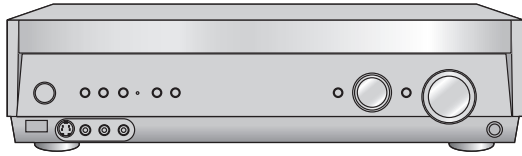
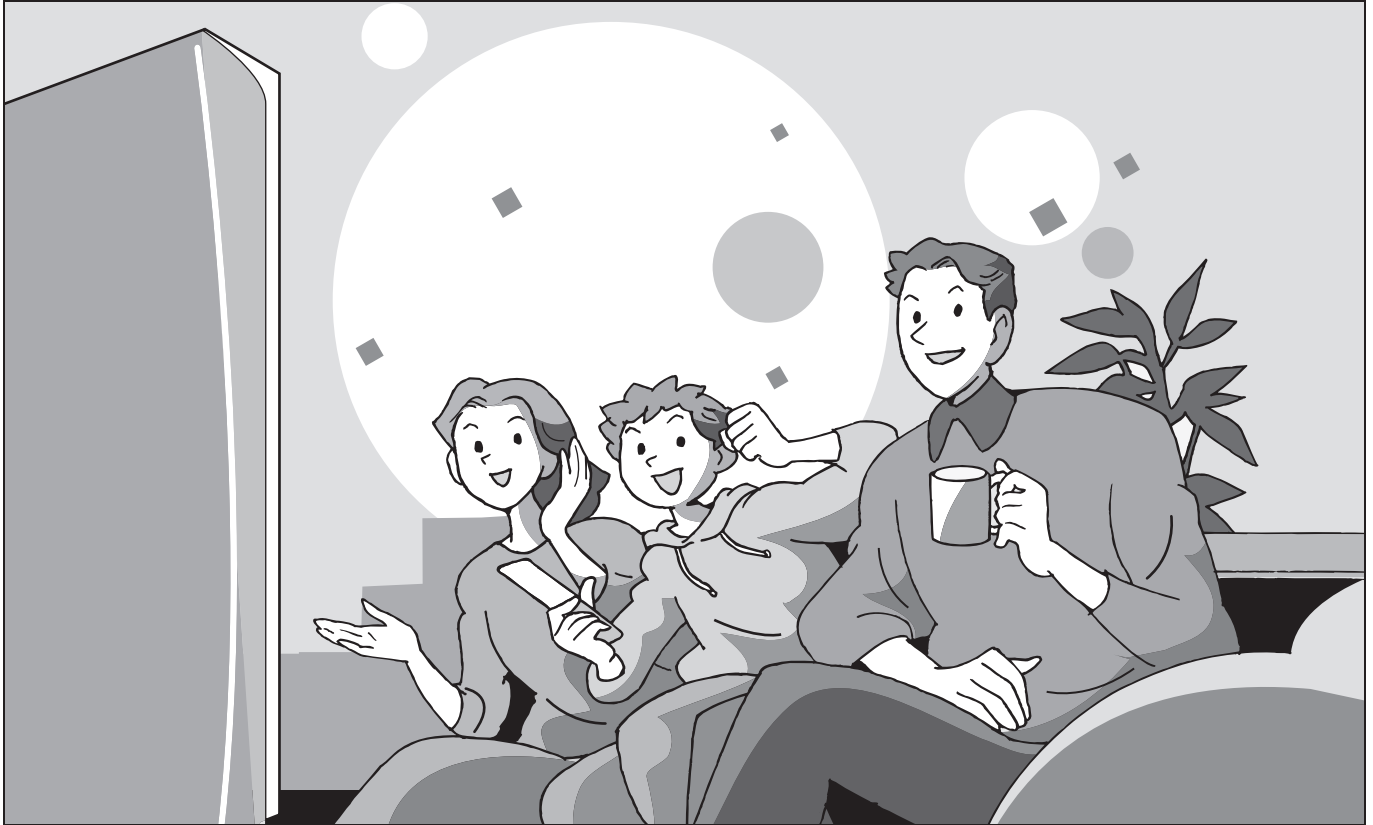


Panasonic[®]



Operating Instructions *AV Control Receiver*

Model No. **SA-XR57**



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.

Note:

"EB" on the packaging indicates the United Kingdom.

HDMI[™]
HIGH-DEFINITION MULTIMEDIA INTERFACE

Caution for AC Mains Lead

(For United Kingdom)
("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF-KEEP DRY.

Before use

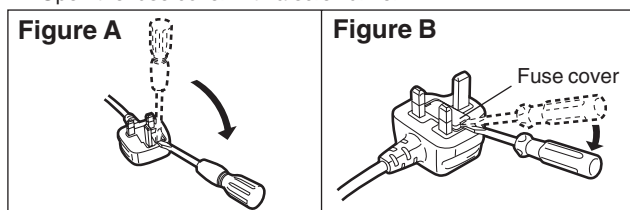
Remove the connector cover.

How to replace the fuse

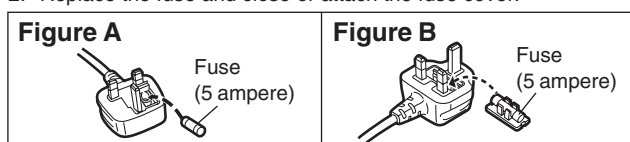
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.

Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these operating instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

CAUTION!

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

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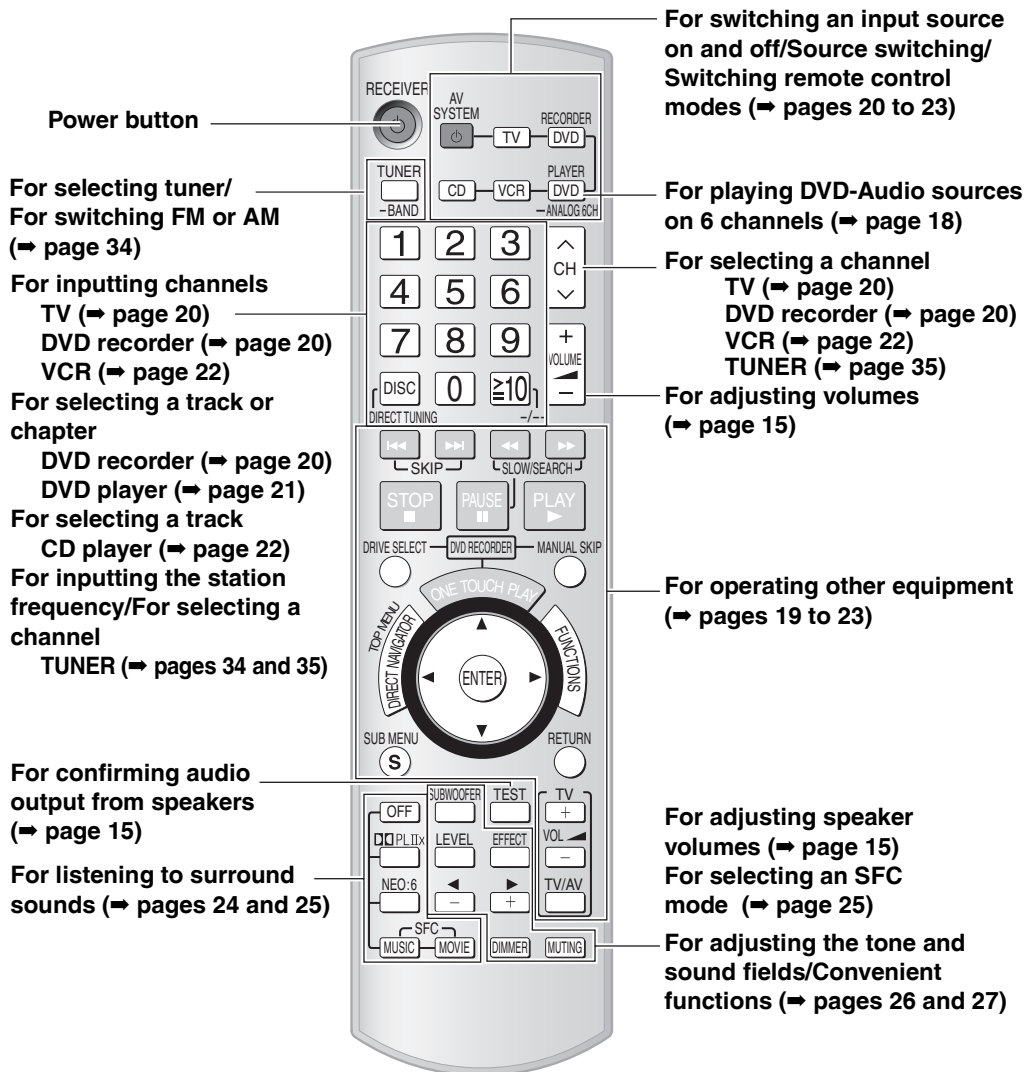
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"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

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

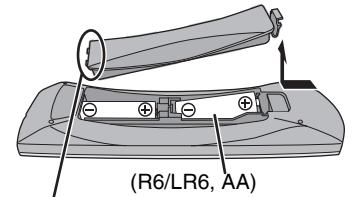
Control guide

Remote control



Batteries

Open by pressing a lid edge.

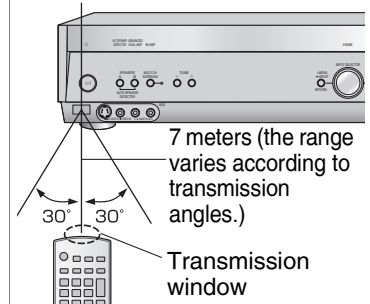


Place this side in before the other side when you close.

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

Use

Remote control signal sensor



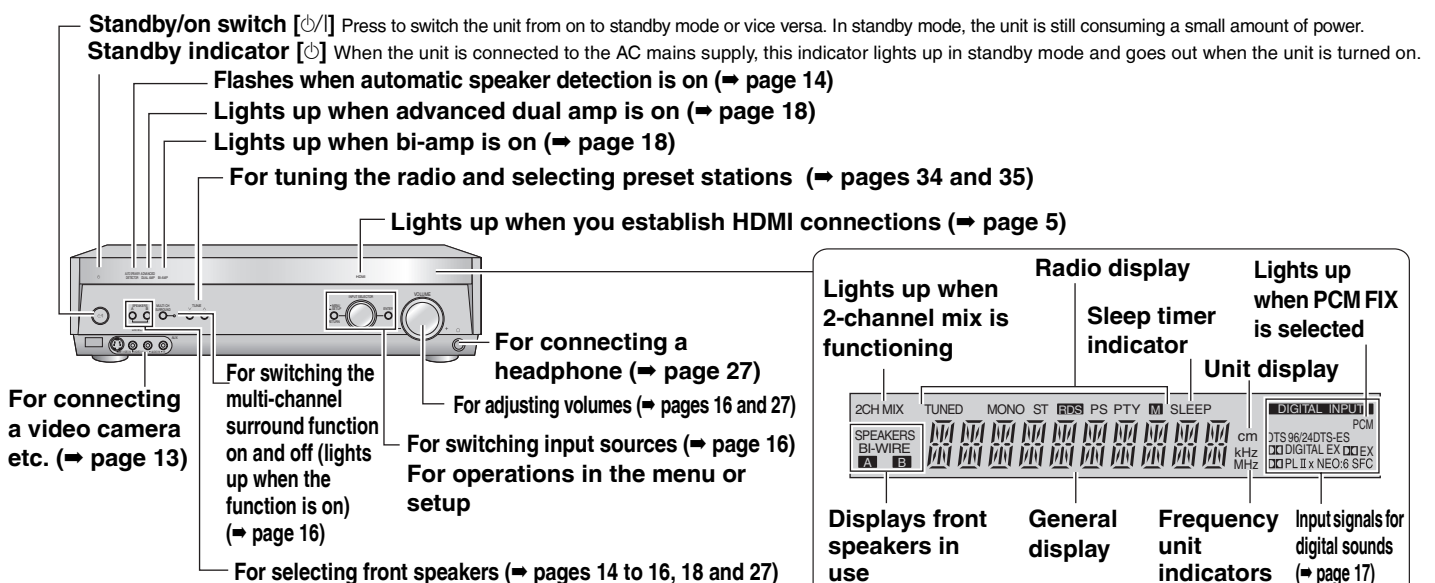
Caution

- 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 colours of glass cabinet doors.

Unit and its display



Home Theater connections

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.



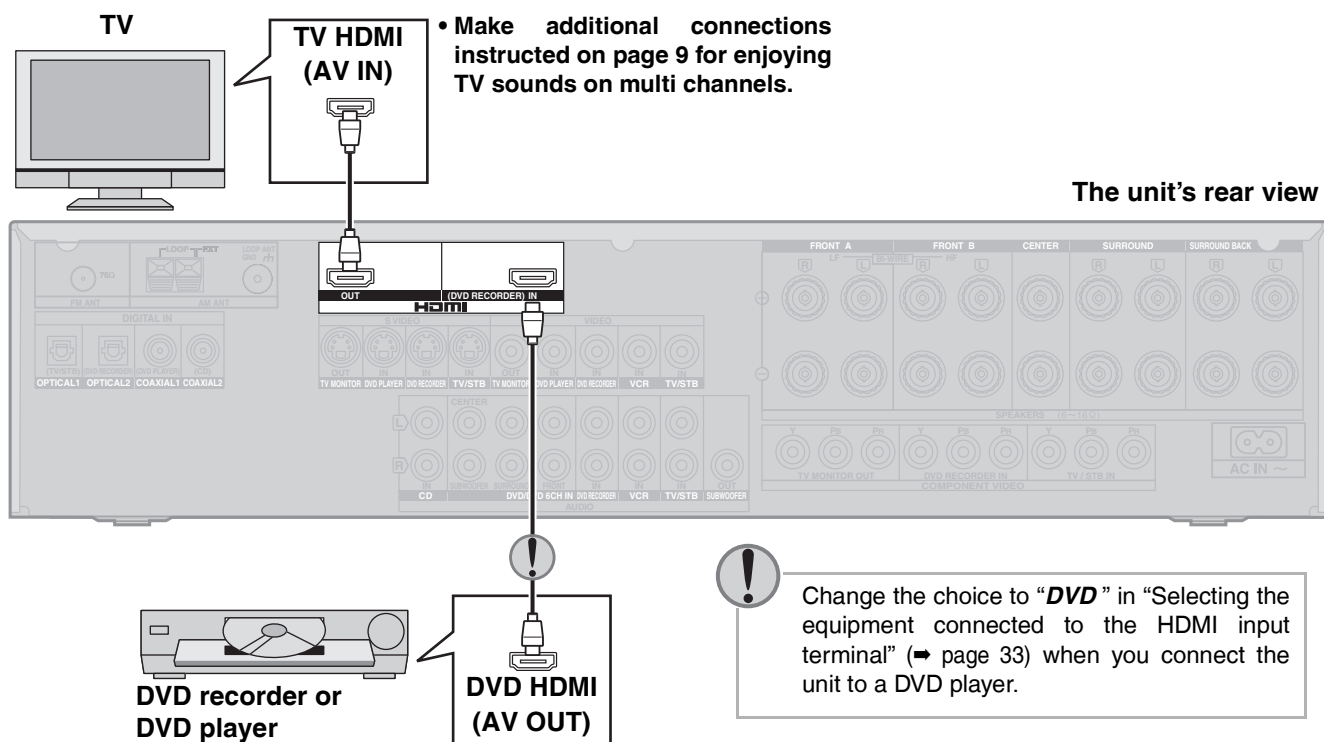
Connection cable (All cables are sold separately)

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.]

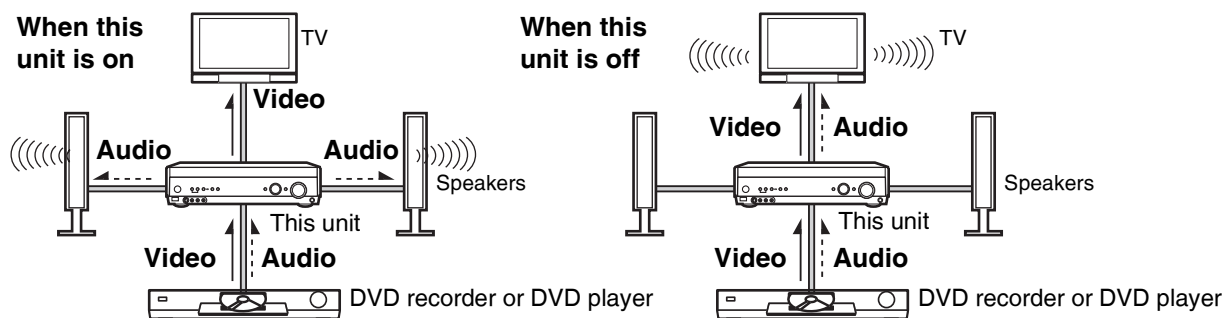


We advise you to use a cable that is 5 meters long or shorter for HDMI connections in order to stabilize operations and prevent deterioration in picture quality.



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 analogue sounds using DVD-Audio discs (DVD analogue 6-channel connections)" (⇒ page 8) and perform DVD analogue 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 colours than the S video terminal.

Video cable	
S-VIDEO connection cable 	Video connection cable 
Audio cable	
Optical fiber cable 	Coaxial cable 

How to connect the optical fiber cable

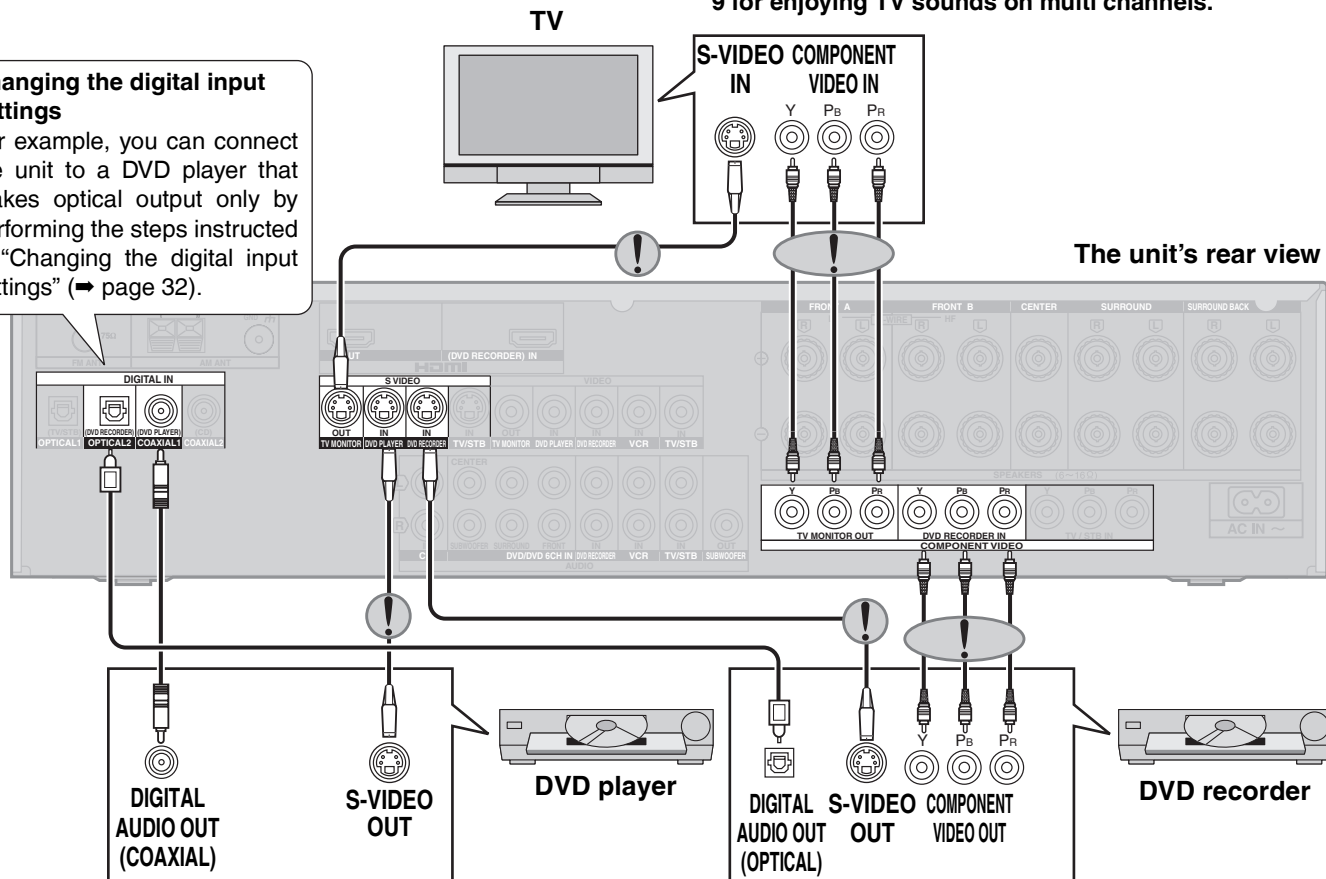
Insert the cable after making sure shapes match.

- Do not sharply bend the optical fiber cable.

- Make additional connections instructed on page 9 for enjoying TV sounds on multi channels.

Changing the digital input settings

For example, you can connect the unit to a DVD player that makes optical output only by performing the steps instructed in "Changing the digital input settings" (→ page 32).



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 (colour-difference video terminal) outputs red (P_R), blue (P_B), and luminance (Y) signals separately. The terminals reproduces colours with greater accuracy for this reason.

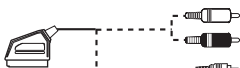
Note

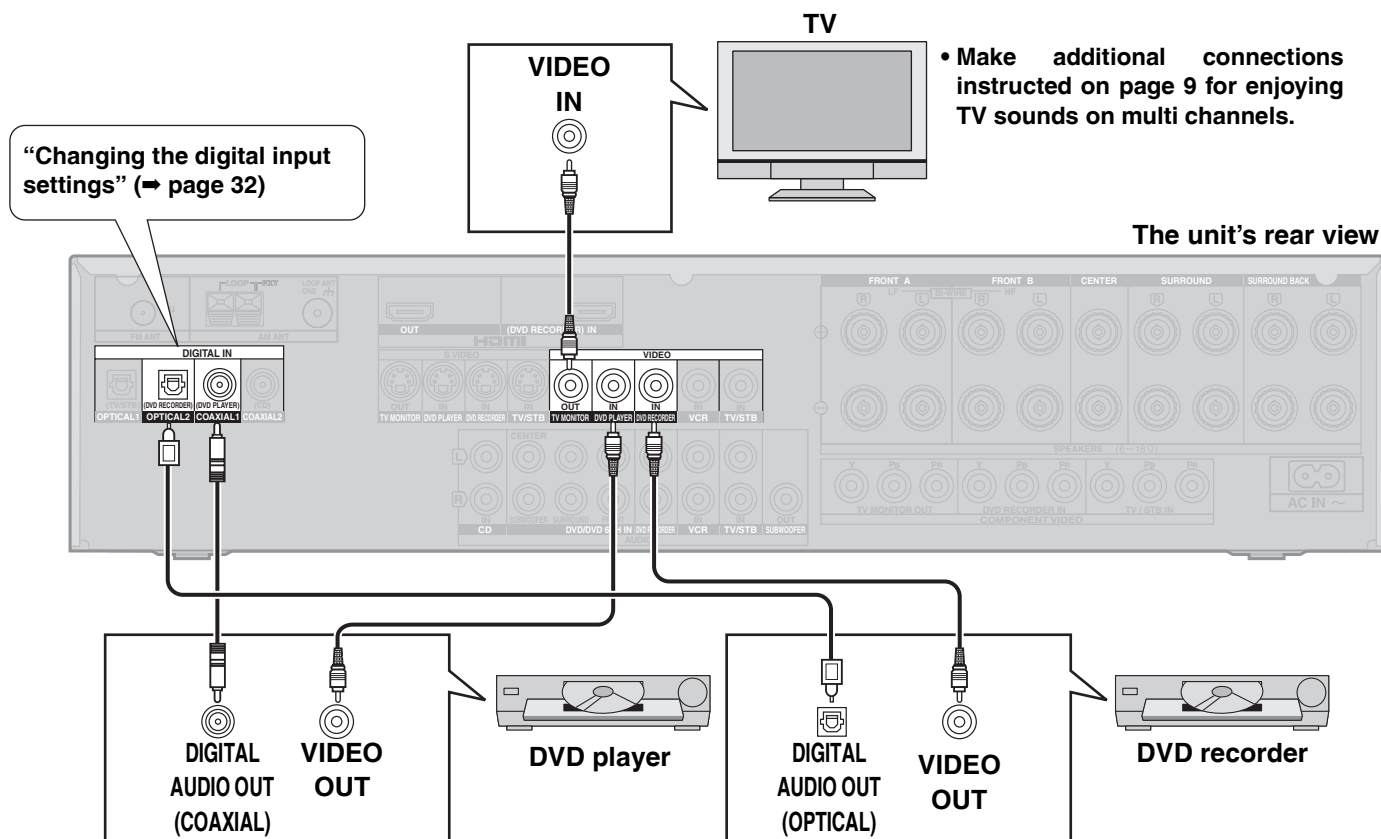
See page 13 for connecting the unit to a cable box or satellite receiver.

- 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)

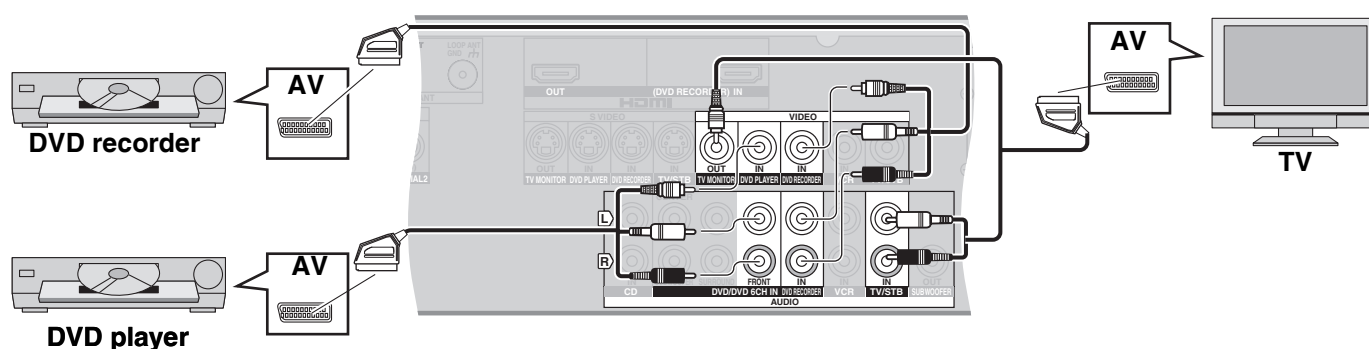
Video cable		Scart cable
Video connection cable 		21-pin scart cable  Use when connecting equipment with a 21-pin scart terminal.
Audio cable		
Optical fiber cable  How to connect the optical fiber cable  Insert the cable after making sure shapes match. • Do not sharply bend the optical fiber cable.	Coaxial cable 	



○○○ **Note** ○○○

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

Connection with 21-pin scart cable (For continental Europe and the United Kingdom)



Home Theater connections

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

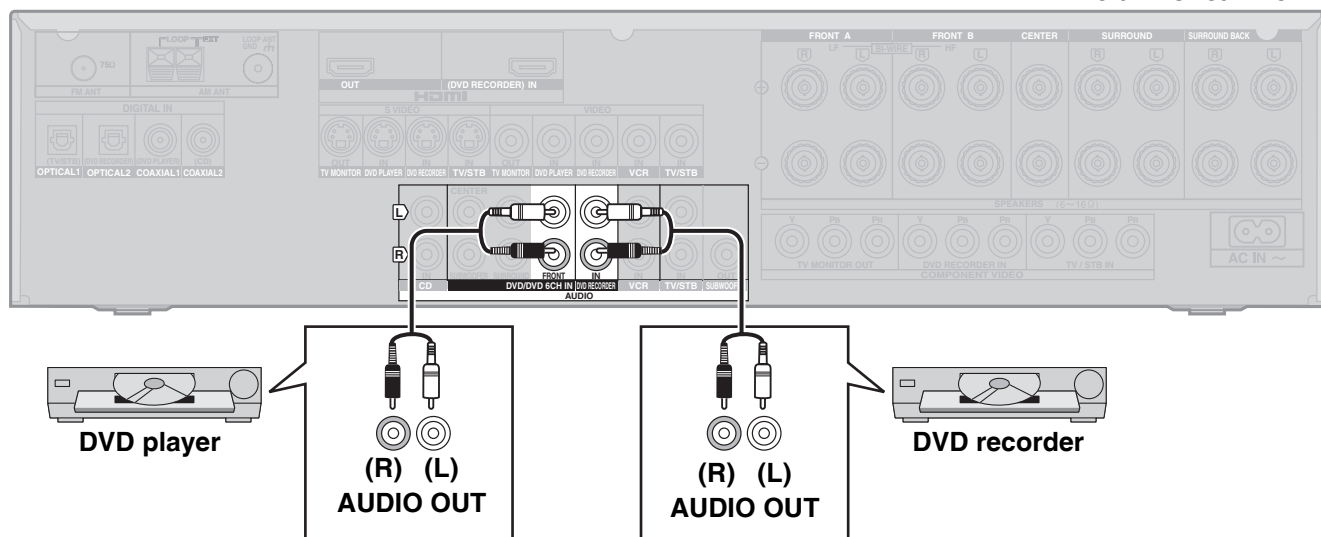
Connection cable (All cables are sold separately)

Video cable	
Video connection cable	
	
Audio cable	
Stereo phono cable	Optical fiber cable
	
	How to connect the optical fiber cable Insert the cable after making sure shapes match. Do not sharply bend the optical fiber cable.

To enjoy analogue sounds

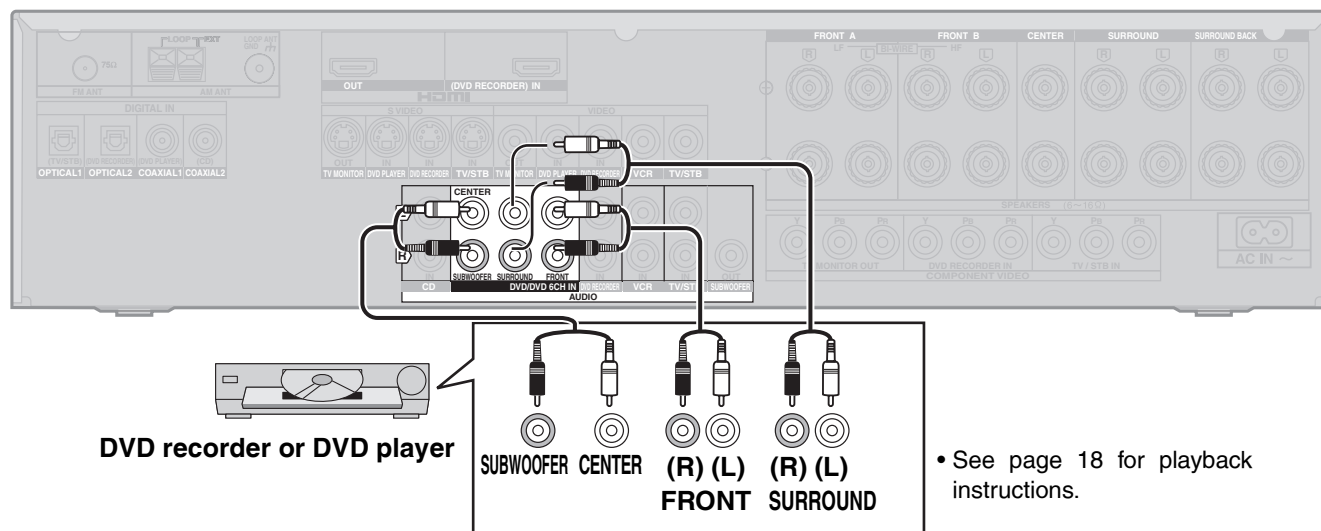
Make analogue connections according to your equipment and preference. See pages 6 and 7 for video connections.

The unit's rear view



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

The unit's rear view



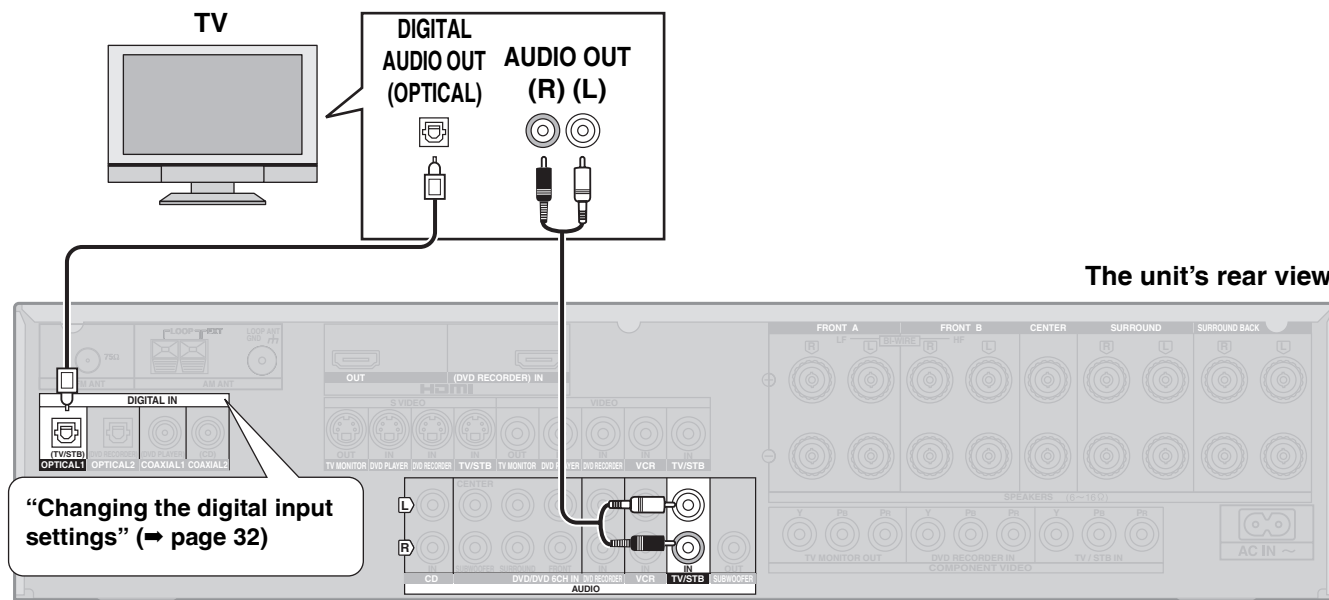
• See page 18 for playback instructions.

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

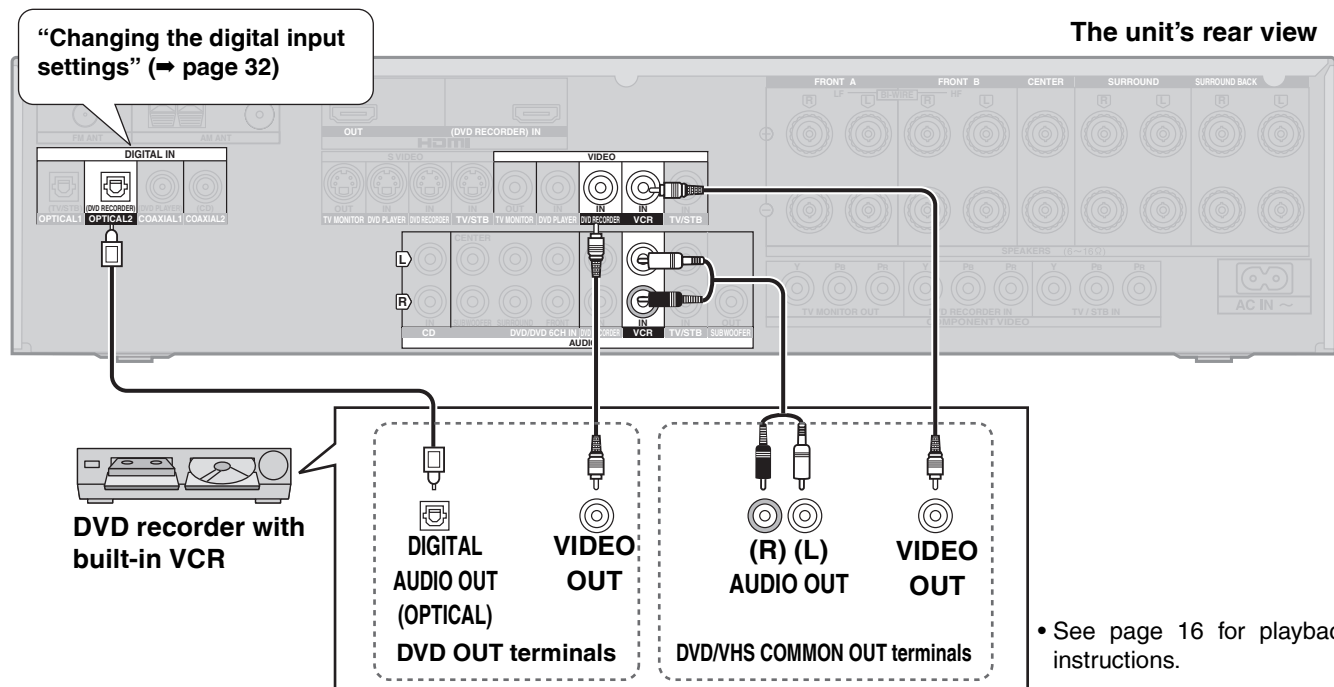
To enjoy TV sounds on multi channels

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 analogue 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



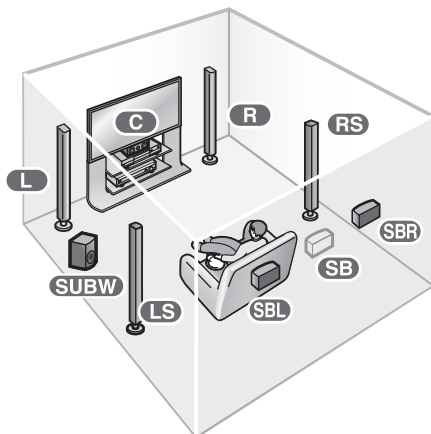
- See page 16 for playback instructions.

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**)

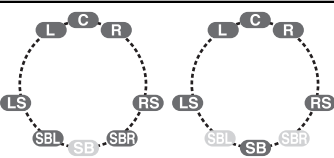
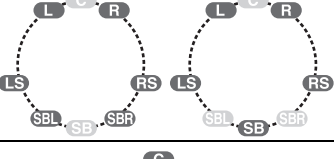
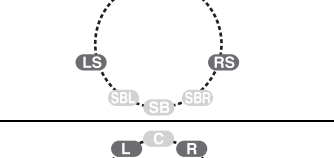
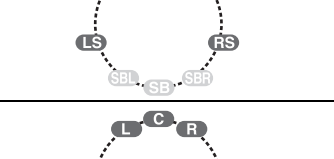
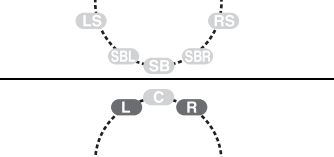
Place on the side of or slightly behind the seating area, about one meter higher than ear level.

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

Place behind the seating area, about one meter higher than ear level.

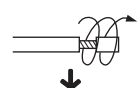
Subwoofer (**SUBW**)

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)	 - 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)	 - 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)	 - 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)	 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)	 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)	 - 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

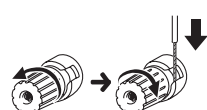
1



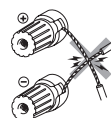
Remove the vinyl covering the tips of speaker cords by twisting it off.

2

Speaker terminals



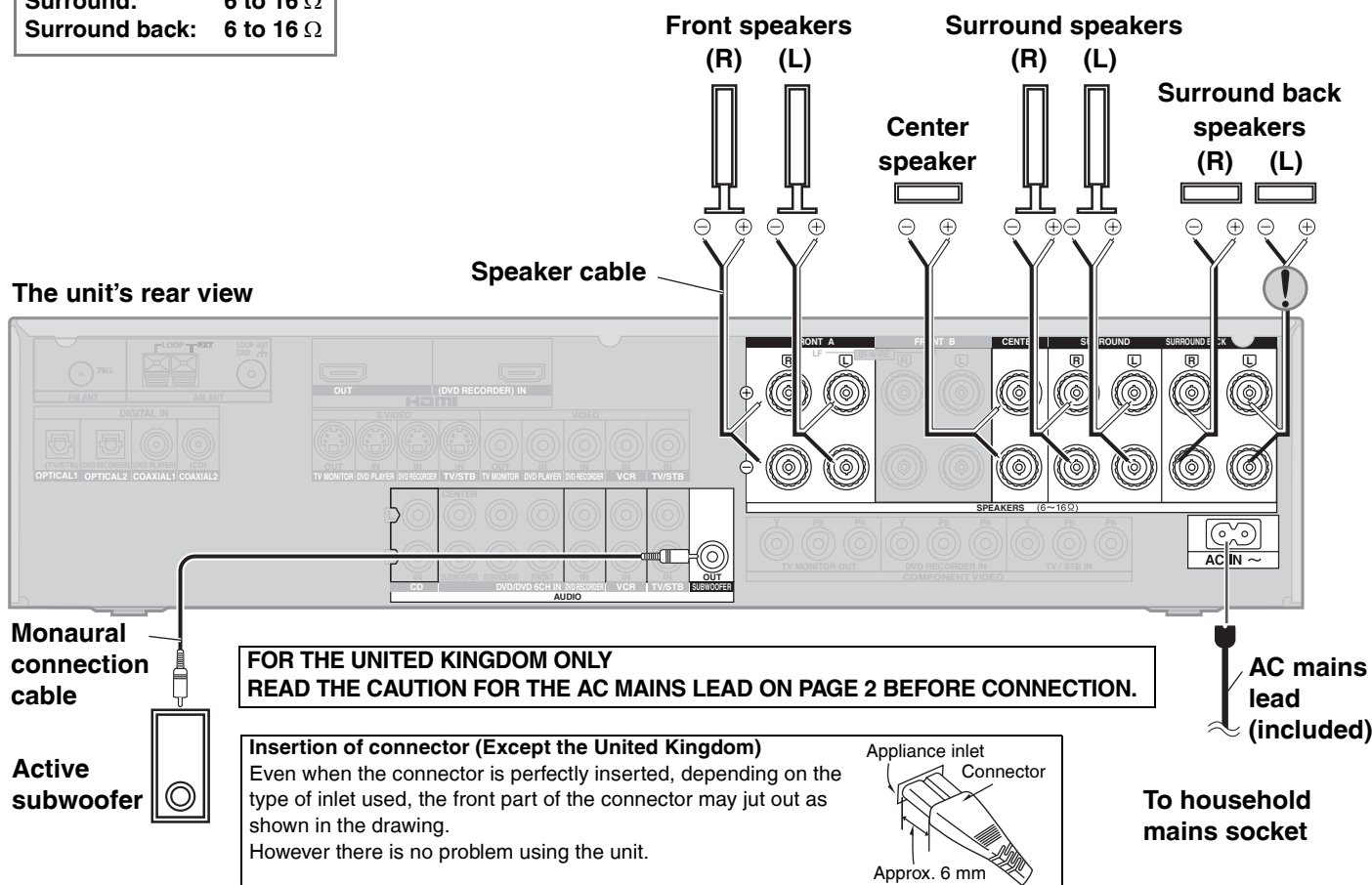
- Connect speaker cords properly to terminals after making sure left and right, and "⊕" and "⊖". Improper connections may cause the unit to develop problems.
- Do not short-circuit speaker cords. The action may damage circuits.



- 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 16 Ω
Center: 6 to 16 Ω
Surround: 6 to 16 Ω
Surround back: 6 to 16 Ω

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



Connect AC mains lead after all other cables and cords are connected.

- The included AC mains lead is for use with this unit only. Do not use it with other equipment.
- Do not use an AC mains lead from other equipment.
- 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.

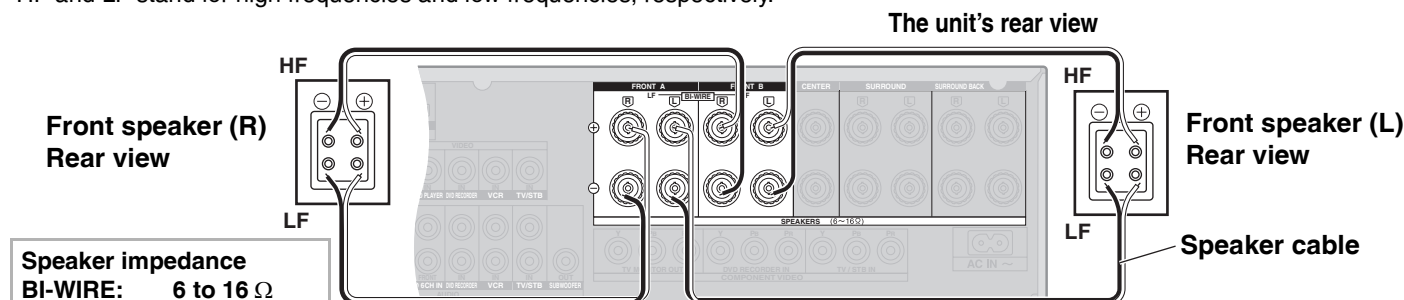
Note

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 analogue audio and 2-channel PCM signals (⇒ page 18).
- HF and LF stand for high frequencies and low frequencies, respectively.



Note

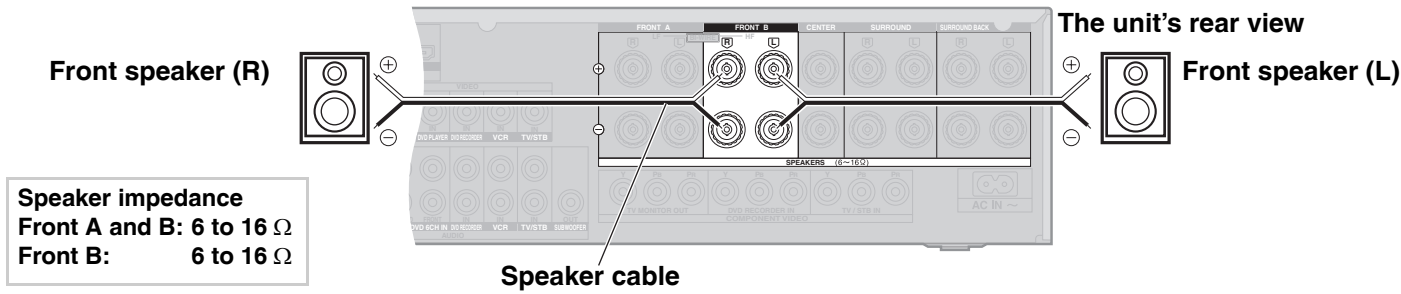
- Make sure to connect speakers' HF terminals with the unit's FRONT B terminals, and speakers' LF terminals with the unit's FRONT A terminals. "Correcting the HF and LF difference" (⇒ page 32) becomes unavailable when you make reverse connections.
- Make sure to select "YES" in "Setting bi-wiring connections" (⇒ 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

Connecting speakers

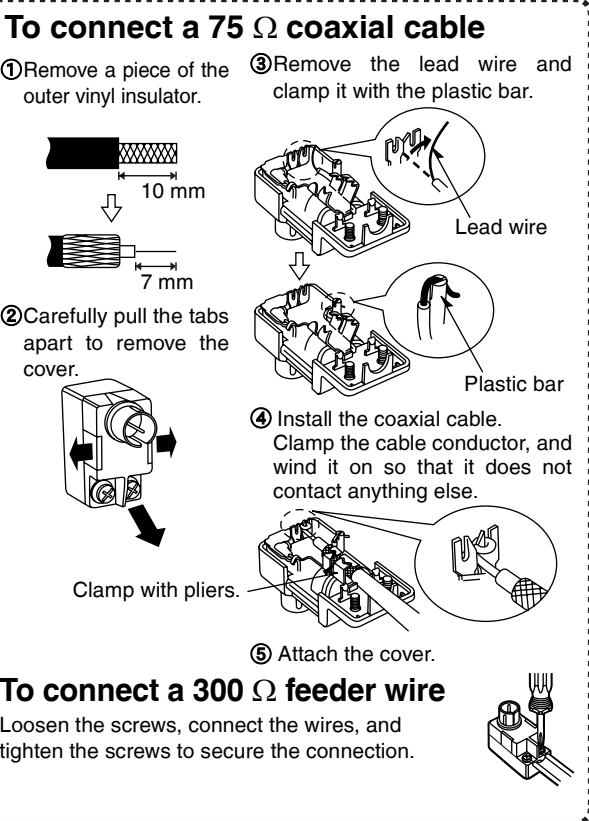
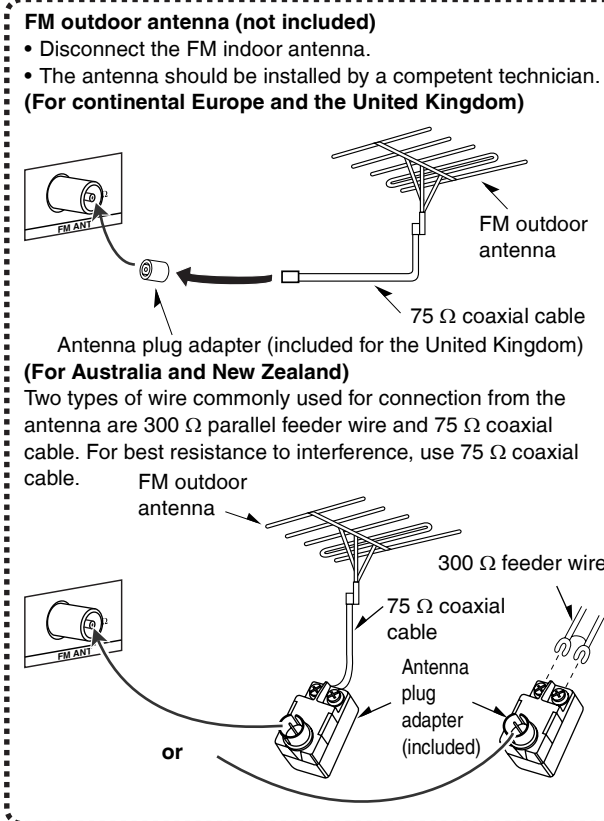
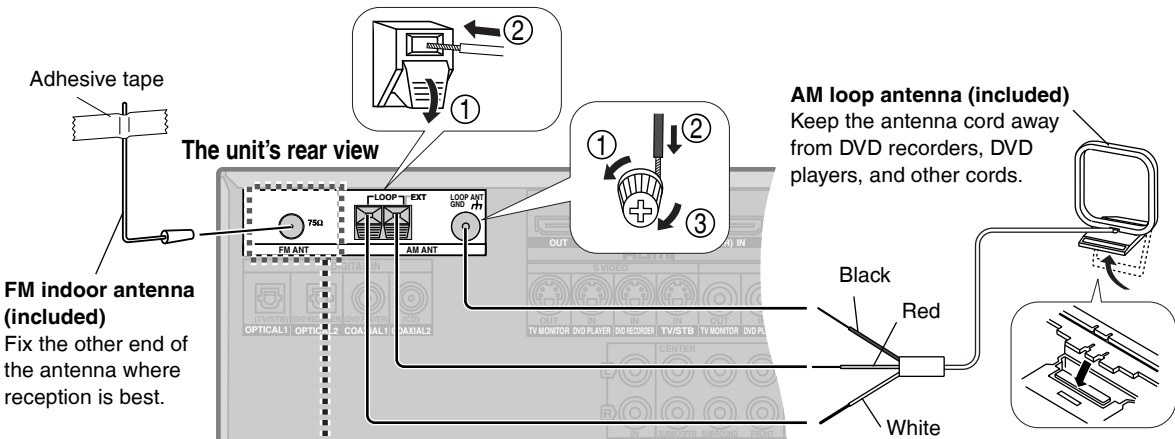
Connecting a second pair of front speakers

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).

Connecting antennas



- 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 other equipment

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

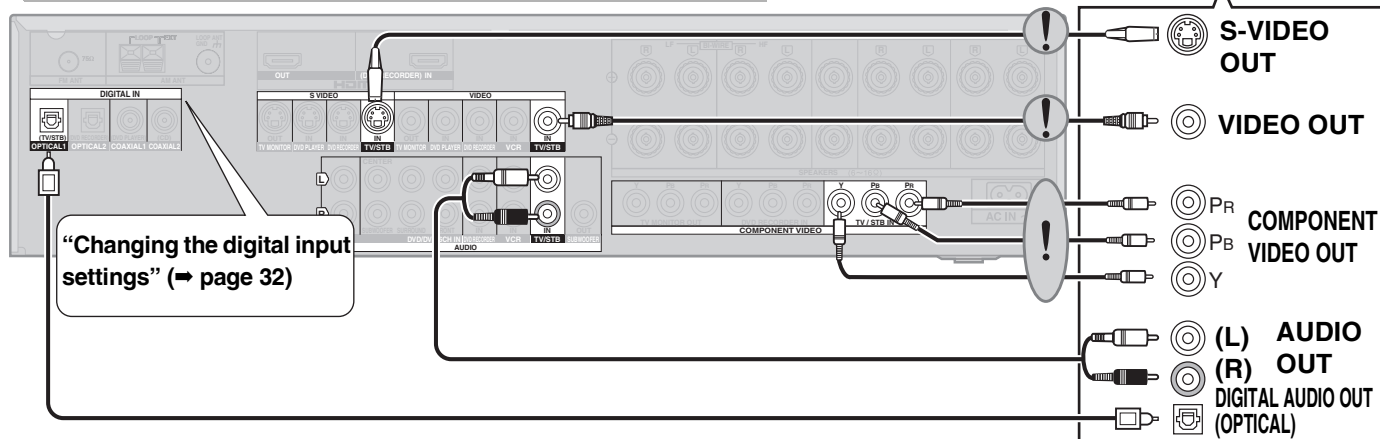
The unit makes audio output when you make either digital audio (OPTICAL) output connections or analogue audio output connections. Make connections according to your equipment and preference.



- 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.

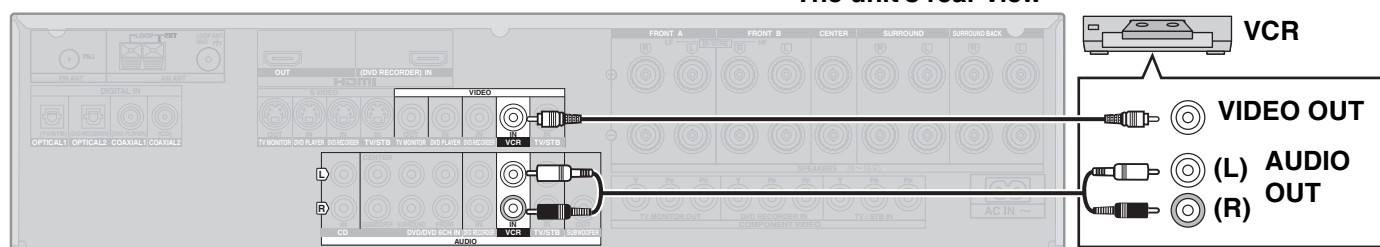
Cable box or satellite receiver etc.

The unit's rear view



Connecting the unit to a VCR

The unit's rear view

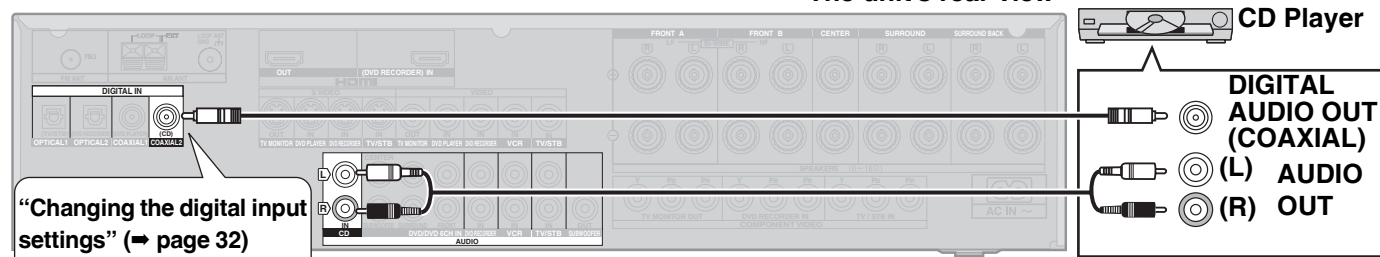


Make connections instructed in "To enjoy standard-quality pictures" (⇒ page 7) when you connect the unit to a TV or DVD recorder. The VCR makes no video output when you choose connections instructed in "To enjoy high-quality pictures" (⇒ page 6).

Connecting the unit to a CD player

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

The unit's rear view

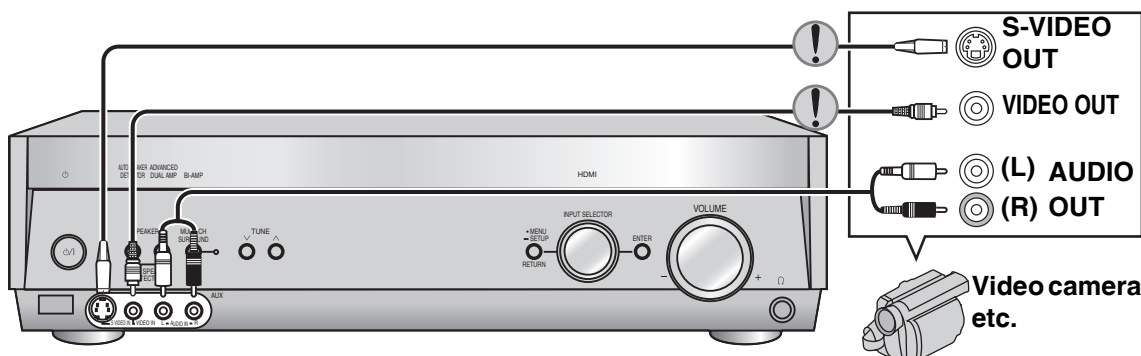


Connecting the unit to a video camera or game player etc.

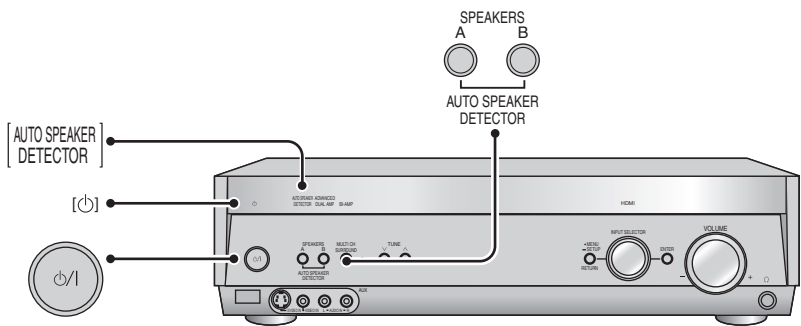
These terminals are convenient for equipment you want to connect only temporarily.



- 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.

Press



2 Check the speaker presence.

Press simultaneously.

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



LCR 5 SB W

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.)

7 SPEAKERS

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

LCR 5 SB W

The display shows connected speakers with capitals.

END

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

"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  

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



Adjustment range:
-10 dB to **+10 dB** (Factory setting: **0 dB**)
SUBW only:
MIN (minimum) ↔ **1** to **19** ↔ **MAX** (maximum)
(Factory setting: **10**)

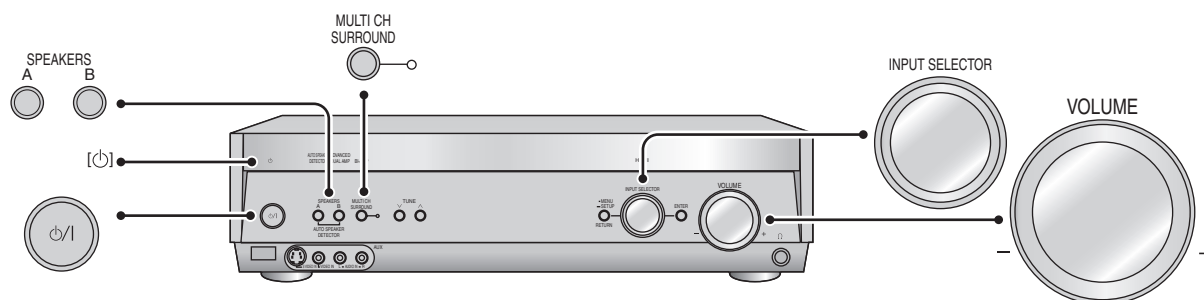
6

Stop the test signal.

Press 

• 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.

Enjoying Home Theater features



Basic playback

1

Turn the unit on.

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

Press



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 [P] to turn the unit to standby.

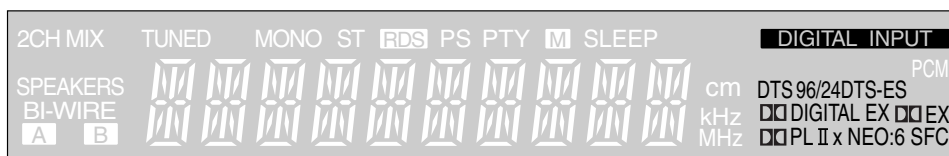
Digital signals that can be played on this unit

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.

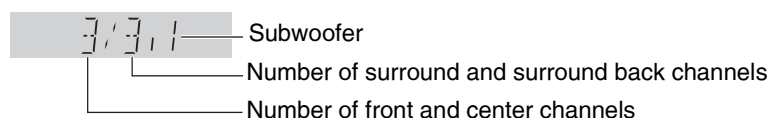
How the unit displays audio signals



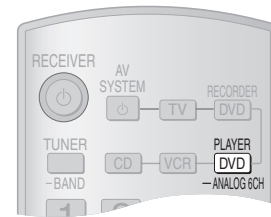
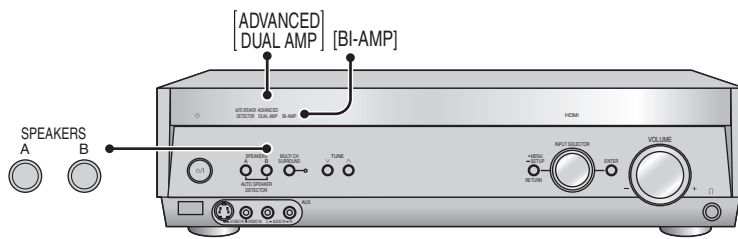
DIGITAL:	Dolby Digital decoder is being used.	PL II :	The display informs Dolby Pro Logic IIx (the Dolby Pro Logic II decoder) is used on 2-channel stereo sources when surround back speakers are absent.
DIGITAL EX:	Dolby Digital Surround EX decoder (Dolby Pro Logic IIx decoder) is being used when the input signal is Dolby Digital 5.1-channel or Dolby Digital Surround EX. (Displayed only when you connect one surround back speaker.)	DTS:	DTS decoder is being used.
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.)	DTS 96/24:	DTS 96/24 decoder is being used.
PL IIx :	Dolby Pro Logic IIx 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



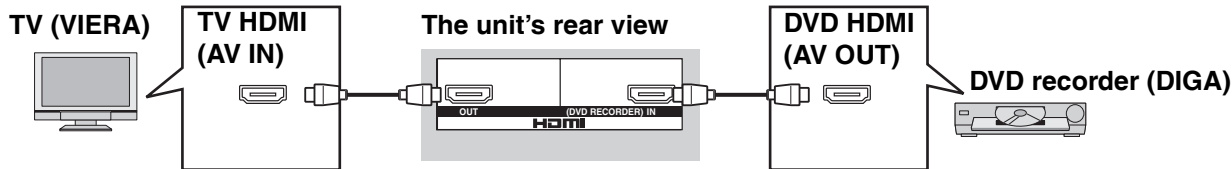
Using SPEAKERS B	Sound is output from the speakers connected to the FRONT B terminals on this unit. Press  Note • Playback is in stereo (2-channel). • When only the SPEAKERS B setting is selected and the input source is multi-channel, “2CH MIX” appears on the display. • To turn off the sound from the 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 analogue 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.)						
ADVANCED DUAL AMP function	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. Note • The [ADVANCED DUAL AMP] indicator stays on while advanced dual amp is at work. You can also set the advanced dual amp function off (→ page 33).						
Enjoying BI-AMP sounds	This function activates automatically when you play analogue 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. Preparation • 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). Note You cannot use the bi-amp function with analogue 6-channel connections for DVD-Audio sources (→ below). • The [BI-AMP] indicator stays on while bi-amp is at work. • Refer to page 32 for “Making bi-amp settings”.						
Playing DVD-Audio	<table border="1"> <tr> <td data-bbox="325 1478 555 1641"> Enjoying DVD-Audio sources through digital connections </td><td data-bbox="555 1478 1544 1641"> 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). </td></tr> <tr> <td data-bbox="325 1641 555 2045"> Playing DVD ANALOG 6CH </td><td data-bbox="555 1641 1544 2045"> Preparation • Refer to page 8 for analogue 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) Press and hold until “DVD 6CH” is displayed.  Note Speaker settings made on the unit (→ pages 14 and 31) are cancelled when you use DVD analogue 6-channel playback. Set distances from the listening-viewing position and speaker sizes on your DVD recorder and DVD player. When the unit is connected to a DVD recorder Playback is unavailable while the input source is “DVR”. Make analogue 6-channel connections and switch the mode to “DVD”. </td></tr> <tr> <td data-bbox="325 2045 555 2172"> Enjoying high quality 2-channel analogue sounds </td><td data-bbox="555 2045 1544 2172"> You can enjoy high quality stereo sound with 192 kHz 2-channel DVD-Audio. 1. Cancel the “DVD 6CH” setting. (→ above) 2. Set the input signal to “ANALOG” in “Setting input signals”. (→ page 32) </td></tr> </table>	Enjoying DVD-Audio sources through digital connections	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).	Playing DVD ANALOG 6CH	Preparation • Refer to page 8 for analogue 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) Press and hold until “DVD 6CH” is displayed.  Note Speaker settings made on the unit (→ pages 14 and 31) are cancelled when you use DVD analogue 6-channel playback. Set distances from the listening-viewing position and speaker sizes on your DVD recorder and DVD player. When the unit is connected to a DVD recorder Playback is unavailable while the input source is “DVR”. Make analogue 6-channel connections and switch the mode to “DVD”.	Enjoying high quality 2-channel analogue sounds	You can enjoy high quality stereo sound with 192 kHz 2-channel DVD-Audio. 1. Cancel the “DVD 6CH” setting. (→ above) 2. Set the input signal to “ANALOG” in “Setting input signals”. (→ page 32)
Enjoying DVD-Audio sources through digital connections	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).						
Playing DVD ANALOG 6CH	Preparation • Refer to page 8 for analogue 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) Press and hold until “DVD 6CH” is displayed.  Note Speaker settings made on the unit (→ pages 14 and 31) are cancelled when you use DVD analogue 6-channel playback. Set distances from the listening-viewing position and speaker sizes on your DVD recorder and DVD player. When the unit is connected to a DVD recorder Playback is unavailable while the input source is “DVR”. Make analogue 6-channel connections and switch the mode to “DVD”.						
Enjoying high quality 2-channel analogue sounds	You can enjoy high quality stereo sound with 192 kHz 2-channel DVD-Audio. 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)	
For the United Kingdom	TH-37/42/50PX600B, TH-37/42PX60B, TH-50PX60B, TH-37PD60B, TH-42PD60B, TX-26/32LXD600
For Republic of Ireland	TH-42/50PV600EY, TH-37/42PV60EY, TH-37/42PA60EY
For Continental Europe	TH-37/42/50PV600E, TH-37/42PV60E, TH-50PV60E, TH-37/42PA60E, TH-42PV62E, TH-42PV45E, TH-42PA45E, TH-42/50PX600E, TH-37/42PX60E, TH-50PX60E, TH-37/42PD60E, TH-42PX64E, TH-42PX63E, TH-42PX62E, TH-37PX61E, TX-26/32LX600F
For East Europe	TX-26/32LX600P
For Australia	TH-42/50PX600A, TH-50PV60A, TH-42PV60A, TH-42PA60
For New Zealand	TH-42/50PV600AZ, TH-42PA60A
DVD Recorder (DIGA)	
DMR-EZ25, DMR-EZ45V, DMR-EH65, DMR-EX75, DMR-EX85, DMR-EX95V	
For Australia and New Zealand	DMR-EH65



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].

- 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.
- The TV goes on and the TV input changes.**
- 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 theatre 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

Basic operation

Turn to make a choice.

Press to confirm your choice.

To return to the previous display/To cancel

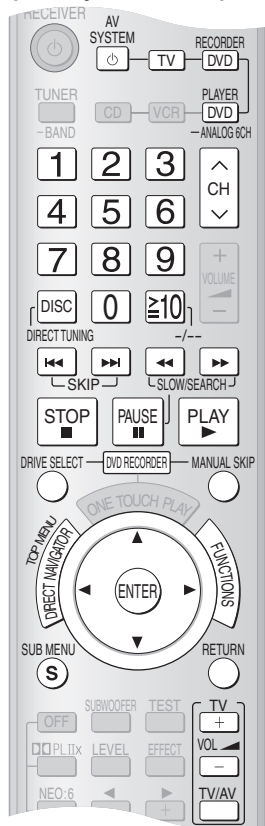
- Press and hold [-MENU, -SETUP, RETURN] for approximately 2 seconds.
- Select and confirm the setting.
- Select and confirm the setting.
- Select and confirm the setting.
- Press [-MENU, -SETUP, RETURN] 2 times to select "EXIT" and press [ENTER].

OFF: Setting for cancelling linked operations
ON: Setting for activating linked operations (Factory setting)

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



Do not forget to do this before operating a DVD recorder.

To turn the DVD recorder on or off



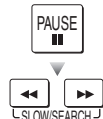
To skip a track or chapter



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)

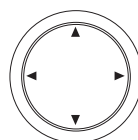


To return to the previous screen



To select an item

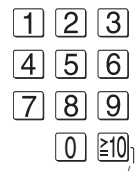
Take this step after pressing the [DIRECT NAVIGATOR, TOP MENU], [S, SUB MENU], or [FUNCTIONS].



To execute the selected item



To select a track or chapter directly

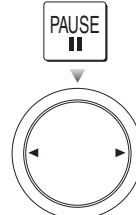


• Some of the models require you to press [ENTER] for execution after pressing number buttons.

To pause



To move forward and backward frame by frame



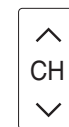
To skip 30 seconds forward



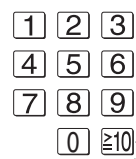
To switch DVD recorder drives (including the hard disk drive, disc drive, and the SD drive etc.)



To select a channel



(When you select a channel directly)



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



Do not forget to do this before operating a TV.

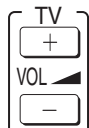
To turn the TV on or off



To change the TV/video input mode on the TV

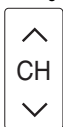


To adjust the TV volume

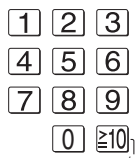


To select a channel

(When you make a selection in rising or falling order)



(When you select a channel directly)



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



Do not forget to do this before operating a DVD player.

To turn the DVD player on or off



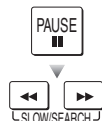
To skip a track or chapter



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)

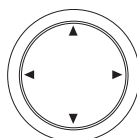


To return to the previous screen



To select an item

Take this step after pressing the [DIRECT NAVIGATOR, TOP MENU], [S, SUB MENU], or [FUNCTIONS].



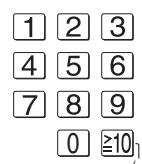
To execute the selected item



To specify a disc (5-disc changer only)



To select a track or chapter directly

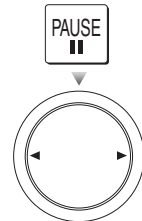


- Some of the models require you to press [ENTER] for execution after pressing number buttons.

To pause



To move forward and backward frame by frame



To stop playback



Note
[FUNCTIONS] activates display functions on some of the Panasonic DVD players.

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
To stop playback	STOP

Remote controlling a CD player

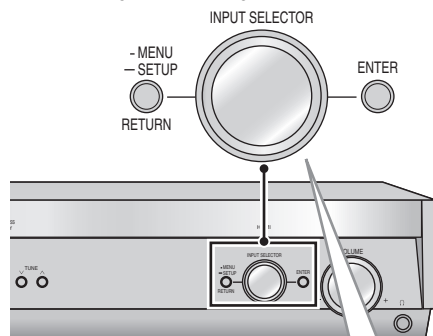
To switch the unit's input to "CD"/To switch the remote control to the CD player operation mode	CD Do not forget to do this before operating a CD player.
To turn the CD player on or off	AV SYSTEM
To start playback	PLAY
To skip a track	SKIP
To look for a section you wish to listen to	SLOW/SEARCH
To pause	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
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.

REMOTE 1

3 Select and confirm the setting.

REMOTE 2

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

TV VCR DVD

—ANALOG 6CH

Press and hold the button corresponding to the equipment.

1 2 3
4 5 6
7 8 9
0

Enter the first digit.

1 2 3
4 5 6
7 8 9
0

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	01/29/30/31	01/29/30	01
AKAI	07/11/28/36/37	06/08/16/17/19/37	—
ALBA	05/11/12	02/06/23	—
BAIRD	—	08/10/37	—
BAUR	32	—	—
BLAUPUNKT	28/36	01/26/29/30/33	—
BRANDT	26/41	—	—
BUSH	02/05/10/11/12/32/38	02/09/23	—
DAEWOO	11/12/32	15	—
DENON	—	—	01/17
DUAL	32	—	—
FERGUSON	11/12	31	02
FINLUX	11/12/22/23/24/25/40	—	—
FISHER	37	05/07/10/11/12	—
FUNAI	02/38	—	—
GOLDSTAR	11/12	—	—
GOLDSTAR/LG	—	03/04/36/37	—
GOODMANS	11/12/25/32	02/03/18/23/27/33	—
GO-VIDEO	—	—	12
GRUNDIG	28/36	02/23/26/28/32/33	—
HCM	—	02/23	—
HITACHI	01/09/26/41	13/14	11
ICE	21/39	—	—
INNO HIT	34	—	—
ITT	—	08/10/11/37	—
ITT/NOKIA	05/07/37	18/27/37	—
JVC	18	20/21	09
KENDO	40	08/09/37	—
KENWOOD	—	—	15
LOEWE	14/33	03/32	—
LOEWE OPTA	32	—	—
LUXOR	37	08/10/11/17/19/37	—
MATSUI	02/05/06/07/10/11/12/25/37/38	03/05/09	—
METZ	—	01	—
MITSUBISHI	14/19/28/36	17/19/21/32	06
NEC	—	04/21/36/37	—
NOKIA	05/07/37	08/10/11/18/22/27/37	—
NORDMENDE	26/41	20/21	02
OCEANIC	27/35	—	—
OKANO	—	06	—
ORION	02/03/05/10/11/12/38	05/09	—
PHILIPS	11/12/13/15	22/32/33/34/35	04/16
PHONOLA	11/12	32	—
PIONEER	—	—	03
POLKAUDIO	—	—	16
RADIOLA	11/12	—	—
RAITE	—	—	13
RCA	—	—	02
RFT	—	33	—
ROADSTAR	39	02/03/18/23/27	—
SABA	26/41	21	02
SALORA	07/37	08/11/17/19/37	—
SAMPO	—	—	14
SAMSUNG	11/12/15/21/25/34/39	15/16/18/27	10
SANYO	07/17/25/37	07/10/11	—
SCHAUB LORENZ	—	10	—
SCHNEIDER	11/12	02/03/18/23/27/32	—
SEG	39/40	02/18/23/27	—
SELECO	11/24	—	—
SHARP	17/20	22	08
SIEMENS	11/12/17/28/36	03/10/11/32	—
SINUDYNE	02/05/11/12/22/24/38/40	—	—
SONY	16	24/25/26	05
TECHNICS	—	—	01
THOMSON	05/26/41	21	02
THORN	06/08/11/12/14/16/25/32	10	—
TOSHIBA	03/04/06/08	15/17/19/32	04
UNIVERSUM	39	03/08/32/37	—
WHITE WESTIN HOUSE	11/12/22/40	—	—
YAMAHA	—	—	01
ZENITH	—	—	07/12

Listening to sounds with surround effects

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



Note

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

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.

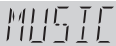
Press  and select one of the following modes.

 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 “ DIGITAL EX” or “ EX” replaces “ 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.

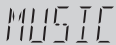
Press  and select one of the following modes.

 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).

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 analogue 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.

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

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**

(Center Width Control) In this mode, you can play music more naturally by adjusting sounds assigned to front and center speakers as a whole.

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.

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

Factory setting: **OFF**

Adjusting NEO: 6's "MUSIC" mode further

(Center Image Control) In this mode, you can play music more naturally by adjusting sounds assigned to front and center speakers as a whole.

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.

SUBW 10

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.

MUTING IS

○○○ **Note** ○○○

Muting is cancelled when the unit is turned off.

Dimming the display light (Dimmer)

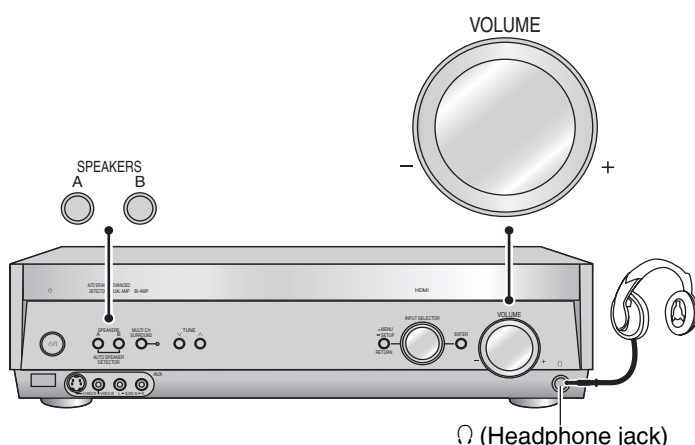
Press **DIMMER**

- 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.

Using headphones



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

SPEAKERS

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

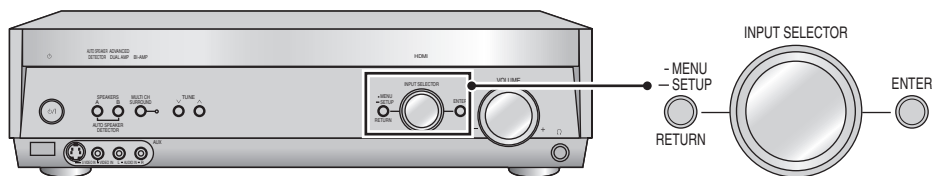
Plug type: ø 6.3 mm stereo standard plug

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 analogue 6-channel connections (➡ page 8).

Sound effect/Convenient functions



Basic operation

1 Entering the menu

Press

• 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

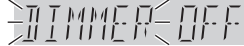
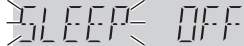
Press several times to select "EXIT".

Press for confirming the choice.

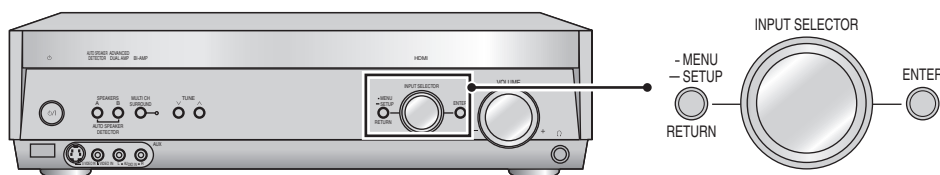
- The display returns to the original one.
- You can also select "EXIT" by turning [INPUT SELECTOR].

To return to the previous display/To cancel

Press

Adjusting the bass You can adjust the bass through this operation.	1 Select and confirm the choice.  2 Make adjustment and confirm the choice.  Adjustment range: -10 dB to +10 dB Factory setting: 0 dB
Adjusting the treble You can adjust the treble through this operation.	1 Select and confirm the choice.  2 Make adjustment and confirm the choice.  Adjustment range: -10 dB to +10 dB Factory setting: 0 dB
Adjusting the volume balance You can adjust the balance of the front speakers.	1 Select and confirm the choice.  2 Make adjustment and confirm the choice.  The bar shows the standard balance. L : Front left R : Front right ○ ○ ○ Note ○ ○ ○ You cannot adjust volume balance when you use SFC's "PARTY" mode (⇒ page 25).
Changing the audio output (Dual program) The unit allows you to switch dual audio signals in Dolby Digital and DTS formats.	The sign "DUAL PRG" appears on the display when the unit receives a dual audio signal. 1 Select and confirm the choice.  2 Select audio and confirm the choice.  MAIN : Main audio output (Factory setting) SAP : Sub channel audio output M+S : Main and sub channel audio output
Adjusting the brightness of the display Dim the display for better viewing in a darkened room.	1 Select and confirm the choice.  2 Select a setting and confirm the choice.  Adjustment range: DIMMER 1 (bright) to DIMMER 3 (dim) Factory setting: OFF • Select "OFF" to cancel.
Sleep timer The sleep timer can turn the unit off after a set time.	1 Select and confirm the choice.  2 Select the time and confirm the choice.  Times available for setting: 30, 60, 90, 120 (minutes) Factory setting: OFF • 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. ○ ○ ○ Note ○ ○ ○ It does not control any other components.

Setting the receiver



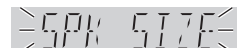
Basic operation

1

Entering the setup

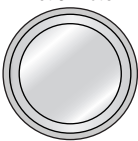
Press and hold  for approximately 2 seconds.

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



2

Selecting an item for setting

Turn  to select an item.

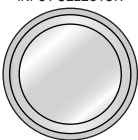
Press  for confirming the choice.

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



3

Making a setting

Turn  to make a setting.

Press  for confirming the choice.



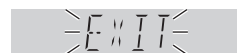
4

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 analogue 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.

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.

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

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 3.0 m

3 Select a distance and confirm the choice.

LR 3.0 m

LR : Front

C : Center

S : Surround

SB : Surround back

Adjustment range: **1.0** to **9.9** m

Factory settings:

LR (Front), **C** (Center) **3.0** m

S (Surround),

SB (Surround back) **1.5** m

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.

DIG INPUT

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

TV OPT1

3 Change the digital input setting and confirm the choice.

TV OPT1

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)

Repeat steps 2 and 3 to change settings.

Setting input signals

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

1 Select and confirm the choice.

INPUT MODE

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

TV AUTO

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

TV AUTO

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

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

ANALOG : Fixes the input signal to analogue 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

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.

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.

BI-AMP

2 Select and confirm the choice.

BALANCE

3 Make adjustment and confirm the choice.

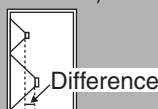
LF HF

LF : Low frequency
HF : High frequency

The bar shows the standard balance.

Correcting the HF and LF difference

Speaker
(Side view of a speaker in cross section)



1 Select and confirm the choice.

BI-AMP

2 Select and confirm the choice.

HF DELAY

3 Make adjustment and confirm the choice.

DELAY 0

Adjustment range: 0 to 30 cm
• You can select differences at 1 cm intervals.
Factory setting: 0 cm

See page 30 for receiver operations.

Selecting the equipment connected to the HDMI input terminal

- You set the connected equipment as a DVD recorder or DVD player through these steps.

1 Select and confirm the choice.

HDMI

2 Select and confirm the choice.

INPUT DVD

3 Select the equipment connected to the HDMI input terminal and confirm the choice.

INPUT DVD

DVR: When the connected equipment is a DVD recorder

DVD: When the connected equipment is a DVD player

Factory setting: **DVR**

Reducing standby power consumption (power saving standby mode)

1 Select and confirm the choice.

HDMI

2 Select and confirm the choice.

STANDBY ON

3 Select and confirm the choice.

STANDBY OFF

- The volume of consumed power becomes 0.35 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.

OFF: When you wish to reduce standby power consumption

ON: When the standby power consumption level is normal

Factory setting: **ON**

Setting ADVANCED DUAL AMP functions off

1 Select and confirm the choice.

DUAL AMP

2 Select and confirm the choice.

OFF

OFF: Advanced dual amp functions are off in this setting.

AUTO: Advanced dual amp functions are on in this setting.

Factory setting: **AUTO**

Listening comfortably at low volume

- 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.

1 Select and confirm the choice.

DRCOMP

2 Select a setting and confirm the choice.

STANDARD

○○○ Note ○○○

This function does not work when disc data does not support it.

OFF: The software is played with the original dynamic range

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

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

Factory setting: **OFF**

Switching the attenuator

- Switch the attenuator on when sounds become distorted while playing an analogue input source and the sign "**OVERFLOW**" appears on the display.

1 Select and confirm the choice.

ATTENUATOR

2 Select and confirm the choice.

ON

To cancel, select "**OFF**".

OFF: off **ON**: on

Factory setting: **OFF**

Delaying audio output and synchronizing it with video output

- Correct the time difference by delaying audio output when sounds and pictures do not match.

1 Select and confirm the choice.

TV DELAY

2 Select and confirm the choice.

ON

OFF: Normal setting

ON: Setting for delaying audio output

Factory setting: **OFF**

Returning settings to conditions upon factory settings (Reset function)

- Re-enter settings to your liking when necessary.

1 Select and confirm the choice.

RESET

2 Select and confirm the choice.

RESET YES

To cancel, select "**NO**".

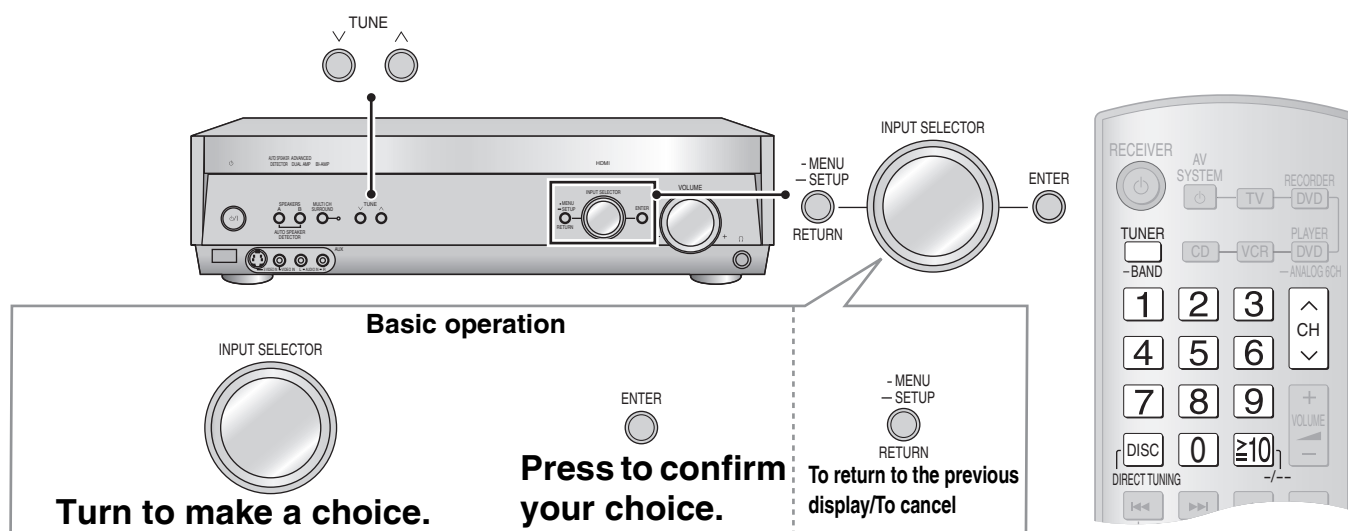
○○○ Note ○○○

When you select "**YES**", the input source becomes TUNER (Preset Channel 1). (Preset radio stations will not be erased.)

YES: Choice for resetting

NO: Choice against resetting

The radio



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

1	2	3
4	5	6
7	8	9
0		

e.g. 107.90 MHz, Press [1] → [0] → [7] → [9] → [0]

- 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"**.
Turn INPUT SELECTOR
- 2 Tune to the station.
Press TUNE

Automatic tuning

Hold down [TUNE V 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.

AM allocation

If the correct AM frequency cannot be tuned in, change the frequency step to suit your area.

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

- 1 Select **"TUNER"** and confirm the setting.
- 2 Select **"AM STEP"** and confirm the setting.
- 3 Select **"9"** or **"10"** and confirm the setting.
- 4 Press [-MENU, -SETUP, RETURN] 2 times to select **"EXIT"** and press [ENTER].

Preset tuning

Presetting stations

■ Auto presetting

- 1 Set the channel reception to FM 87.50 MHz or AM 522 kHz (9 kHz steps), AM 530 kHz (10 kHz steps). (→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].

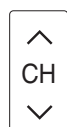
- FM stations can also be preset in the MONO mode. (→below)

- Even if the AC mains lead is disconnected from the household mains socket, the stations remain in the memory for approximately two weeks.

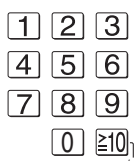
Listening to preset stations

■ 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, --] → [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.

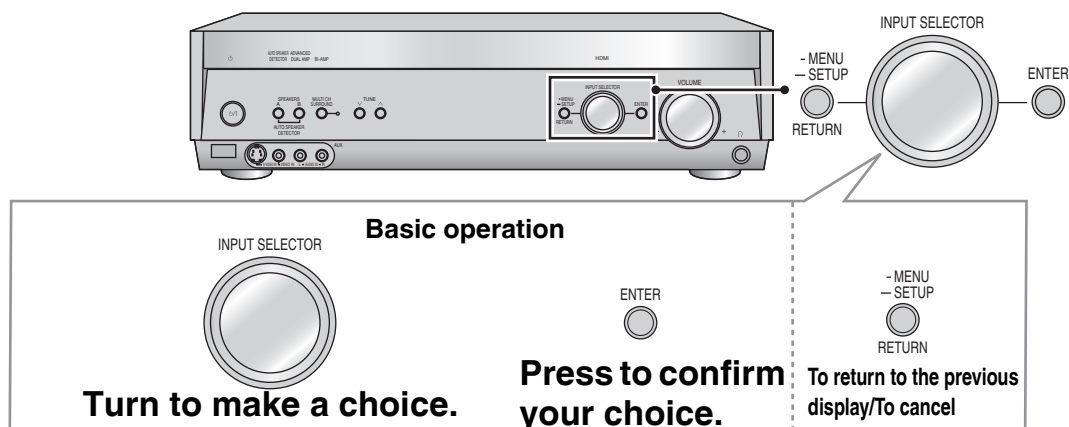
- 1 Select “**TUNER**” and confirm the setting.

- 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].

RDS broadcasts



PTY displays

NEWS	News
AFFAIRS	Current affairs
INFO	Information
SPORT	Sport
EDUCATE	Education
DRAMA	Drama
CULTURE	Culture
SCIENCE	Science
VARIED	Varied
POP M	Pop music
ROCK M	Rock music
M. O. R. M	Middle-of-the-road Music
LIGHT M	Light classical
CLASSICS	Serious classical
OTHER M	Other music
WEATHER	Weather information
FINANCE	Finance
CHILDREN	Children
SOCIAL A	Social affairs
RELIGION	Religion
PHONE IN	Phone in
TRAVEL	Travel
LEISURE	Leisure
JAZZ	Jazz music
COUNTRY	Country music
NATIONAL	National music
OLDIES	Oldies
FOLK M	Folk music
DOCUMENT	Documentary
TEST	Test broadcast
ALARM	Emergency announcement

Changing the display

This unit can display the text data transmitted by the radio data system (RDS) available in some areas.

“**RDS**” lights while RDS signals are being received.

• RDS displays may not be available if reception is poor.

- 1 Press [-MENU, -SETUP, RETURN] to enter the menu.
- 2 Select “**TUNER**” and confirm the setting.
- 3 Select “**RDS DISP**” and confirm the setting.
- 4 Select the display mode and confirm the setting.

FREQUENCY: Frequency display

PS DISP: Program service, the station name

PTY DISP: Program type

- 5 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, consult your dealer for instructions.

■ Common problems

		Pages
No power.	Ensure the AC mains lead is connected.	11
No sound.	Turn the volume up.	16
Sound is distorted.	- 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.	- Determine and correct the cause, then turn the unit on. - Causes include: - 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 – –
Analogue input becomes distorted and the message “OVERFLOW” appears on the display during playback.	Switch the attenuator on.	33
“F76” appears on the display and the unit turns off.	Turn the unit off, disconnect the AC mains lead, and consult your dealer.	–
“F70” appears on the display.	Turn the unit off, disconnect the AC mains lead, and consult your dealer.	–
“REMOTE 2” or “REMOTE 1” appears on the display.	Match the codes on the main unit and the remote control.	23
Display is dim.	Cancel “DIMMER”.	27, 29
Clicking sound is heard during play.	- 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.	- 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.	- 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.)	- 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 analogue 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.	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).	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.	- 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.	Try changing the BEAT PROOF mode.	35
The correct AM frequency cannot be tuned in.	Change the frequency step to suit your area when AM is selected.	34

■ HDMI

		Pages
When using an HDMI connection, the first few seconds of sound is cut off.	- Should you be playing a chapter on a DVD: - Change the audio output setting on the DVD player or DVD recorder from “Bitstream” to “PCM”. (6.1-channel sources will however be played as 5.1-channel.) - Select “PCM FIX” as instructed in “Setting input signals” when you play 2-channel sources.	– 32
“U 70-1-1” appears on the display.	The equipment connected by the HDMI cable is not compatible with the unit's copyright protection technology.	–
“U 70-1-2” appears on the display.	The unit has received a signal for a picture format that is incompatible with the HDMI connection. Check the settings of the connected equipment.	–
“U 70-3” appears on the display.	- Should anything unusual happen using an HDMI connection: - Consult your dealer if the sign remains on the display after these steps. - Turn the connected equipment off and on again. - Pull out the HDMI cable then reinsert it. - Reduce the amount of equipment connected in series to the HDMI terminal if exceeding 2 units.	– 5, 19 –
The unit does not work properly.	The unit does not work properly when wrong cords are in HDMI input and output terminals. Turn the unit off, unplug the AC mains lead, and make connections again.	5, 19
HDAVI Control does not function properly.	Connect the unit to your TV (VIERA) using the HDMI cable, switch the TV on, unplug the unit's AC mains lead, and insert it into a household mains socket again.	–

■ Remote control

		Pages
The remote control doesn't work.	Replace the batteries if they are worn.	4
Other products respond to the remote control.	Change this unit's remote control code to “REMOTE 2”.	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 analogue 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 (DIN 45 500)

■ AMPLIFIER SECTION

Power output (at AC 230-240 V)

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

20 Hz-20 kHz continuous power output both channel driven 2 x 80 W (6 Ω)

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 (at AC 230-240 V)

DIN 1 kHz (T.H.D. 1 %) 100 W (6 Ω)

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) 6 to 16 Ω

A or B 6 to 16 Ω

A and B 6 to 16 Ω

BI-WIRE 6 to 16 Ω

Center 6 to 16 Ω

Surround (L/R) 6 to 16 Ω

Surround Back (L/R) 6 to 16 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 and impedance

CD, DVD/DVD 6CH, DVD Recorder, VCR, TV/STB, AUX 200 mV/22 kΩ

S/N at rated power (6 Ω)

CD, TV/STB, DVD, DVD Recorder (Digital input) 90 dB (IHF, A: 103 dB)

Tone controls

BASS 50 Hz, +10 to -10 dB

TREBLE 20 kHz, +10 to -10 dB

Channel balance (250 Hz-6.3 kHz)

±1 dB

Channel separation

55 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 87.50 to 108.00 MHz

Sensitivity

S/N 30 dB 1.5 μV/75 Ω

S/N 26 dB 1.3 μV/75 Ω

S/N 20 dB 1.2 μV/75 Ω

IHF usable sensitivity (IHF '58)

1.5 μV/75 Ω

IHF 46 dB stereo quieting sensitivity

22 μV/75 Ω

Total harmonic distortion

MONO 0.2 %

STEREO 0.3 %

S/N

MONO 60 dB

STEREO 58 dB

Frequency response

20 Hz to 15 kHz, +1 dB, -2 dB

Alternate channel selectivity

±400 kHz, 65 dB

Capture ratio

1.5 dB

Image rejection at 98 MHz

40 dB

IF rejection at 98 MHz

70 dB

Spurious response rejection at 98 MHz

70 dB

AM suppression

50 dB

Stereo separation

40 dB

Carrier leak

19 kHz, -30 dB

38 kHz, -50 dB

Channel balance (250 Hz-6.3 kHz)

±1.5 dB

Limiting point

1.2 μV

Bandwidth

IF amplifier 180 kHz

FM demodulator 1000 kHz

Antenna terminal

75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range

522 to 1611 kHz (9 kHz steps)

530 to 1620 kHz (10 kHz steps)

Sensitivity

20 μV, 330 μV/m

Selectivity (at 999 kHz)

55 dB

IF rejection (at 999 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 (unbalanced)

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 230 to 240 V, 50 Hz

Power consumption

140 W

Dimensions (W x H x D)

430 mm x 107.5 mm x 390 mm

Mass

4.7 kg

Power consumption in standby mode:

0.9 W

Power consumption in HDMI off Mode:

0.35 W

Notes:

1. Specifications are subject to change without notice.

Mass and dimensions are approximate.

2. Total harmonic distortion is measured by the digital spectrum analyzer.

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.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

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.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

NORSK

ADVARSEL!

- APPARATET MÅ IKKE PLASSERES I EN BOKHYLLE, ET INNEBYGGET KABINETT ELLER ET ANNET LUKKET STED HVOR VENTILASJONSFORHOLDENE ER UTILSTREKKELIGE. SØRG FOR AT GARDINER ELLER LIGNENDE IKKE FORVERRER VENTILASJONSFORHOLDENE, SÅ RISIKO FOR ELEKTRISK SJOKK ELLER BRANN FORÅRSAKET AV OVERHETING UNNGÅS.
- APPARATETS VENTILASJONSÅPNINGER MÅ IKKE DEKKES TIL MED AVISER, BORDDUKER, GARDINER OG LIGNENDE.
- PLASSER IKKE ÅPEN ILD, SLIK SOM LEVENDE LYS, OPPÅ APPARATET.
- BRUKTE BATTERIER MÅ KASSERES UTEN FARE FOR MILJØET.

ADVARSEL:

FOR Å REDUSERE FAREN FOR BRANN, ELEKTRISK STØT ELLER SKADER PÅ PRODUKTET, MÅ DETTE APPARATET IKKE UTSETTES FOR REGN, FUKTIGHET, VANNDRÅPER ELLER VANNSPRUT. DET MÅ HELLER IKKE PLASSERES GJENSTANDER FYLT MED VANN, SLIK SOM BLOMSTERVASER, OPPÅ APPARATET.

DETTE APPARATET ER BEREGNET TIL BRUK UNDER MODERATE KLIMAFORHOLD.

Utstyret bør plasseres i nærheten av AC-stikkontakten, og støpslet må være lett tilgjengelig hvis det skulle oppstå problemer.

SUOMI

VAROITUS!

- ÄLÄ ASENNATA TAI LAITAA TÄTÄ LAITETTA KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN MUU MATERIAALI EI HUONONNA TUULETUSTA, JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTÄ JOHTUVA SÄHKÖISKU- TAI TULIPALOVAARA.
- ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA SANOMALEHDELLÄ, PÖYTÄLINALLA, VERHOLLA TAI MUULLA VASTAAVALLA ESINEELLÄ.
- ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.
- HÄVITÄ PARISTOT LUONTOA VAHINGOITTAMATTOMALLA TAVALLA.

VAROITUS:

TULIPALO-, SÄHKÖISKUVAARAN TAI TUOTETTA KOHTAAVAN MUUN VAHINGON VÄHENTÄMISEKSI EI LAITETTA SAA ALTISTAA SATEELLE, KOSTEUELLE, VESIPISAROILLE TAI ROISKEELLE, EIKÄ NESTETTÄ SISÄLTÄVIÄ ESINEITÄ, KUTEN ESIMERKIKSI MALJAKOITA, SAA ASETTAA LAITTEEN PÄÄLLE.

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI LEUDOSSA ILMASTOSSA.

Laite tulee asettaa lähelle verkkopistorasiaa ja pistokkeen täytyy olla sellaisessa asennossa, että siihen on helppo tarttua ongelman sattuessa.

Supplied accessories

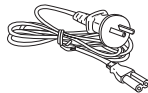


Please check and identify the supplied accessories.

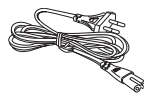
☐ 1 AC mains lead



For the United Kingdom
(K2CT3CA00004)



For Australia and New Zealand
(K2CJ2DA00010)

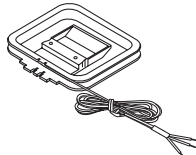


For continental Europe
(K2CQ2CA00002)

☐ 1 FM indoor antenna (RSA0007-L)



☐ 1 AM loop antenna (RSA0037)



☐ 1 Antenna plug adapter

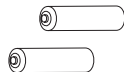


For the United Kingdom
(K1YZ02000013)



For Australia and New Zealand
(K2RC021B0004)

☐ 2 Batteries



☐ 1 Remote control (EUR7662Y90)



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

■ Sales and Support Information (For the United Kingdom and Republic of Ireland)

Customer Care Centre

- For customers within the UK: 08705 357357
- For customers within the Republic of Ireland: 01 289 8333
- Visit our website for product information
- E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday-Thursday 9:00 am-5:30 pm, Friday 9:30am-5:30pm. (Excluding public holidays)
- Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

Interested in purchasing an extended guarantee?

Please call 0870 240 6284 or visit our website

www.panasonic.co.uk/guarantee.

-If you see this symbol-

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product. Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

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.

Maintenance

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

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

Matsushita Electric Industrial Co., Ltd.
Web Site: <http://www.panasonic.co.jp/global/>



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