

The illustration shows SC-PT560.

# Panasonic®

## Operating Instructions

### DVD Home Theater Sound System

Model No. **SC-PT560**  
**SC-PT860**



QUICK START GUIDE ↑ P6-13

The illustrations shown may differ from your unit.

#### Region number

The player plays DVD-Video marked with labels containing the region number "2" or "ALL".

#### Example:



## 28 VIERA Link compatible

Enjoy high-quality picture and linked operations with your VIERA TV.

## 31

## Sound enhancement options

Surround Enhancer, Dolby Pro Logic II, and more.

## 35

## iPod connectivity

Enjoy iPod music through the speakers, view iPod photos or videos on the TV.

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.

## Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

Operations in these instructions are described mainly with the remote control, but you can perform the operations on this unit if the controls are the same.

### CAUTION!

**THIS PRODUCT UTILIZES A LASER.**  
**USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**  
**DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.**

### WARNING:

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

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

### 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.**

Indicates features applicable to:

**PT560** : SC-PT560 only

**PT860** : SC-PT860 only

System	SC-PT560	SC-PT860
<b>This unit</b>	SA-PT560	SA-PT860
<b>Front speakers</b>	SB-HF560	SB-HF560
<b>Center speaker</b>	SB-HC560	SB-HC560
<b>Surround speakers</b>	SB-HS560	SB-HS860
<b>Subwoofer</b>	SB-HW560	SB-HW860

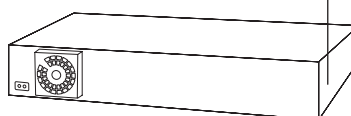
This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

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

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

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

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.



(Side of product)

<b>CAUTION</b>	• LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class
<b>CAUTION</b>	• CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. (ECC00025-1 +A2) Class 1M	
<b>WARNING</b>	• KLASSE 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DESSA DELAR ÖPPNAS. BETRÄKTA EJ STRÅLEN DIREKT MED OPTISKA INSTRUMENT.	
<b>FORSIGTIG</b>	• SYNLIG OG OSYNLIG LASERSTRÅLING KLASSE 1M. NÅR LÅGET ER ÅBENT, UNDGÅ AT SE UDSE PÅ MED OPTISKE INSTRUMENTER.	
<b>VARO!</b>	• AVATTIESSA OLET ALTIMA LUOKAN 1M NÄRVÄÄ JA NÄKYMÄTÖNÄ. LASERSÄTELYÄ. ÄLÄ KATSO OPTISELLA LAITTEILLA SUORAAN SÄTEESEEN.	
<b>VORSICHT</b>	• SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M, WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.	
<b>ATTENTION</b>	• RAYONNEMENT LASER VISIBLE ET INVISIBLE. CLASSE 1M. EN CAS D'OUVERTURE, NE PAS REGARDER DIRECTEMENT À L'ŒIL DES INSTRUMENTS D'OPTIQUE.	
注意	— ここを覗くと可視及び不可視レーザー光が出ます。 ビームを直視し、離れたりしないでください。	
注意	— 打开时有可见及不可见激光辐射。避免直视眼睛。	GB7243.1-2001/EN 60825-1 ROLSK0075

(Inside of product)

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## Reference

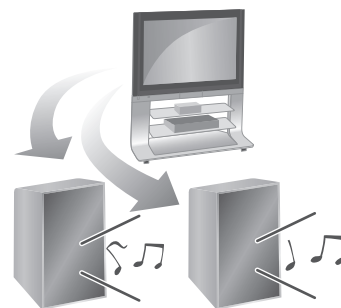
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## Surround Sound 31



## TV Audio 34





Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts.

(Product numbers correct as of October 2007. These may be subject to change.)

☐ **1 Remote control**

**PT560** (N2QAYB000207)

**PT860** (N2QAYB000215)

☐ **2 Remote control batteries**

(R6CPTT/2ST)

☐ **1 FM indoor antenna**

(RSA0007-M)

☐ **1 Antenna plug adaptor**

(K1YZ02000013)

☐ **1 AC mains lead**

(K2CT3CA00004)

☐ **Speaker cables**

1xshort cable (REEX0858)

(for center speaker)

**PT560**

1xlong cable (REEX0868E)

1xlong cable (REEX0860E)

(for surround speakers)

☐ **2 Stands** [RYPX0281-KL (white)]

[RYPX0281-KR (red)]

**PT860**

**2 Stands** [RYPX0283-KL (blue)]

[RYPX0283-KR (grey)]

☐ **PT560 2 Bases** (RPYX0196-1K)

**PT860 4 Bases** (RPYX0196-1K)

☐ **PT560 8 Screws** (XTN5+10FFJK)

**PT860 16 Screws** (XTN5+10FFJK)

☐ **PT860 1 Auto speaker setup**

**microphone** (LOCBAB000125)

☐ **1 Sheet of speaker cable**

**stickers** (RQCA0968)

## Sales and Support Information

### Customer Care Centre

●For customers within the UK: 0844 844 3852

●For customers within the Republic of Ireland:  
01 289 8333

●Visit our website for product information

●E-mail: [customer.care@panasonic.co.uk](mailto: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 9:00am-5:30pm, Friday 9:30am-5:30pm (Excluding public holidays).

●Or go on line through our Internet Accessory ordering application at [www.panasonic.co.uk](http://www.panasonic.co.uk).

●Most major credit and debit cards accepted.

●All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.

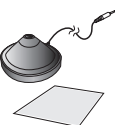
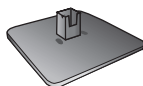
●It couldn't be simpler!

●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](http://www.panasonic.co.uk/guarantee).





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  $\perp$  OR COLOURED GREEN OR GREEN/YELLOW.**

**THIS PLUG IS NOT WATERPROOF—KEEP DRY.**

### Before use

Remove the connector cover.

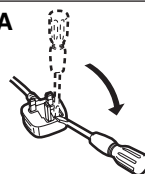
### How to replace the fuse

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.

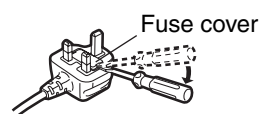
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

**Figure A**



**Figure B**



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

**Figure A**



**Figure B**



## Decoder

A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

## Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be 5.1-channel sound.

## DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

## Dynamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

## Film and video

DVD-Videos are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.

**Film:** Recorded at 25 frames per second (PAL discs) or 24 frames per second (NTSC discs). (NTSC discs recorded at 30 frames per second as well). Generally appropriate for motion picture films.

**Video:** Recorded at 25 frames/50 fields per second (PAL discs) or 30 frames/60 fields per second (NTSC discs). Generally appropriate for TV drama programs or animation.

## Frame still and field still

Frames are the still pictures that go together to make a moving picture. There are about 30 frames shown each second.

One frame is made up of two fields. A regular TV shows these fields one after the other to create frames.

A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high.

A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

## HDMI (High-Definition Multimedia Interface)

HDMI is a next-generation digital interface for consumer electronic products. Unlike conventional connections, it transmits uncompressed digital video and audio signals on a single cable. This unit supports high-definition video output (720p, 1080i, 1080p) from the HDMI AV OUT terminal. To enjoy high-definition video, a high-definition compatible TV is required.

## I/P/B

MPEG 2, the video compression standard adopted for use with

DVD-Video, codes frames using these 3 picture types.

**I:** Intra coded picture

This picture has the best quality and is the best to use when adjusting the picture.

**P:** Predictive coded picture

This picture is calculated based on past I- or P-pictures.

**B:** Bidirectionally-predictive coded picture

This picture is calculated by comparing past and future I- and P-pictures so it has the lowest volume of information

## JPEG (Joint Photographic Experts Group)

This is a system used for compressing/decoding colour still pictures. The benefit of JPEG is less deterioration in picture quality considering the degree of compression.

## Linear PCM (pulse code modulation)

These are uncompressed digital signals, similar to those found on CDs.

## MP3 (MPEG Audio Layer 3)

An audio compression method that compresses audio to approximately one tenth of its size without any considerable loss of audio quality.

## Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus.

## Progressive/Interlaced

The PAL video signal standard has 576 interlaced (i) scan lines, whereas progressive scanning, called 576p, uses twice the number of scan lines. For the NTSC standard, these are called 480i and 480p respectively. Using progressive output, you can enjoy the high-resolution video recorded on media such as DVD-Video.

Your TV must be compatible to enjoy progressive video.

## Sampling frequency

Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding). Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

# step 1

## Assembling the speakers

**PT560** Front speakers

**PT860** Front speakers and surround speakers

### Preparation

- To prevent damage or scratches, lay down a soft cloth and perform assembly on it.
- For assembly, use a Phillips-head screwdriver.
- For optional wall mount, refer to page 8.

Make sure you have all the indicated components before starting assembly, setup, and connection.

**PT560** 2 Front speakers

**PT560** 2 Stands (with cable)

**PT560** 2 Bases

**PT560** 8 screws

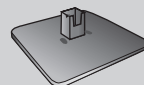
**PT860** 2 Front speakers and  
2 Surround speakers

**PT860** 4 Stands

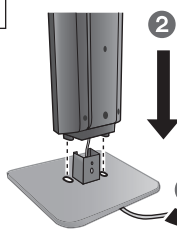
**PT860** 4 Bases

**PT860** 16 screws

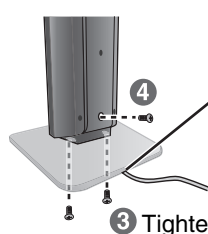
- 2x stands with short cable:  
For front speakers
- 2x stands with long cable:  
For surround speakers



1



2



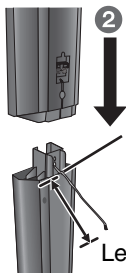
3

Tighten securely.



5 Slide into the groove.

2



1 Position the cable between the ridges.  
Leave about 90 mm



4 Insert the wire fully.  
+: White  
-: Blue  
**Push!**

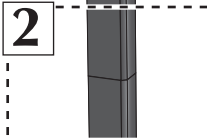
5

Press into the groove.

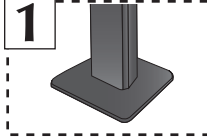
3

Tighten securely.

2



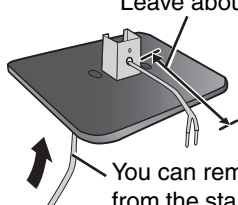
1



### Speaker assembly option

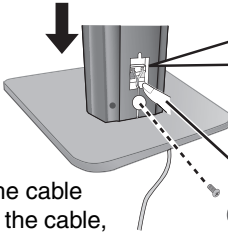
Thread the speaker cable through the base.

Leave about 100 mm



You can remove and use the cable from the stand. To reattach the cable, refer to page 8.

Attach the speaker.



2 Insert the wire fully.  
+: White  
-: Blue  
**Push!**

3

Press into the groove.

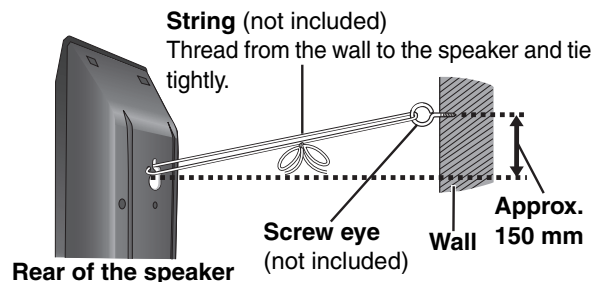
1

Tighten securely.



### Preventing the speakers from falling

- You will need to obtain the appropriate screw eyes to match the walls or pillars to which they are going to be fastened.
- Consult a qualified housing contractor concerning the appropriate procedure when attaching to a concrete wall or a surface that may not have strong enough support. Improper attachment may result in damage to the wall or speakers.





## step 2

## Positioning

How you set up your speakers can affect the bass and the sound field. Note the following points:

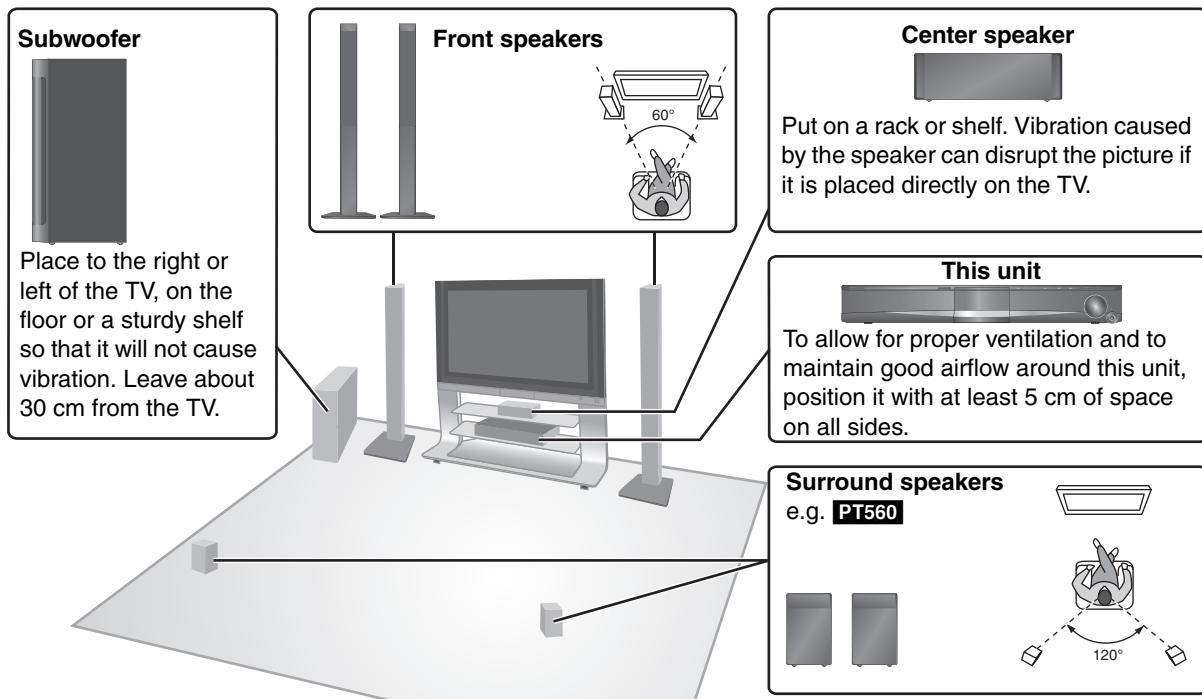
- Place speakers on flat secure bases.
- Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtains.

### Note

Keep your speakers at least 10 mm away from the system for proper ventilation.

### Setup example

Place the front, center, and surround speakers at approximately the same distance from the seating position. Using "Auto speaker setup" (→33) is a convenient way to get the ideal surround sound from your speakers when you are unable to place them. The angles in the diagram are approximate.



### Notes on speaker use

#### ● Use only supplied speakers

Using other speakers can damage the unit, and sound quality will be negatively affected.

- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.

- Reduce the volume in the following cases to avoid damage:

- When playing distorted sound.
- When the speakers are reverberating due to a record player, noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
- When adjusting the sound quality.
- When turning the unit on or off.

#### If irregular colouring occurs on your TV

The center speaker is designed to be used close to a TV, but the picture may be affected with some TVs and setup combinations.

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

The demagnetising function of the TV should correct the problem. If it persists, move the speakers further away from the TV.

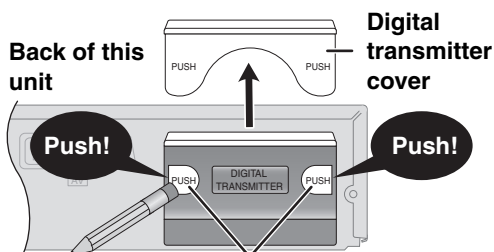


### Set your surround free!

#### Optional Panasonic wireless accessory (example: SH-FX67)

You can enjoy surround speaker sound wirelessly when you use the optional Panasonic wireless accessory (example: SH-FX67).

For details, please refer to the operating instructions for the optional Panasonic wireless accessory.



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




- Remove the digital transmitter cover before installing any optional Panasonic wireless accessory.
- Replace the cover when the digital transmitter is not in use.

(Continued on next page)

### Caution

- This unit and the supplied speakers are to be used only as indicated in this setup. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.
- Do not attempt to attach these speakers to walls using methods other than those described in this manual.

### Caution

- Do not touch the front netted area of the speakers. Hold by the sides.  
e.g. Center speaker  
**DO NOT**  **DO** 
- Do not stand on the base.  
e.g. Front speaker  
Be cautious when children are near.  
**DO NOT** 

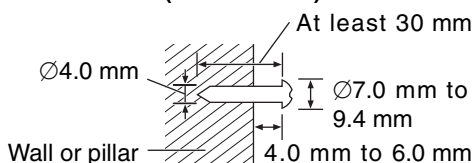
## Speaker installation options

### ■ Attaching to a wall

You can attach all of the speakers (except subwoofer) to a wall.

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

#### ① Drive a screw (not included) into the wall.

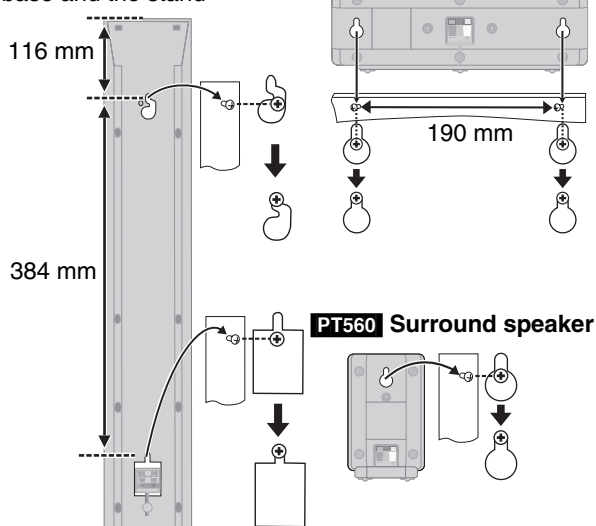


#### ② Fit the speaker securely onto the screw(s) with the hole(s).

#### PT560 Front speaker

#### PT860 Front and surround speakers

Attach to a wall without the base and the stand



e.g.

**DO NOT** 

In this position, the speaker will likely fall if moved to the left or right.

**DO** 

Move the speaker so that the screw is in this position.

### ■ Fitting speaker stands (not included)

#### PT560 Center and surround speakers only

#### PT860 Center speaker only

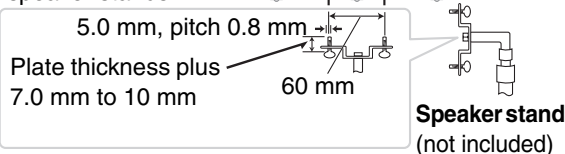
Ensure the stands meet these conditions before purchasing them.  
Note the diameter and length of the screws and the distance between screws as shown in the diagram.

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

e.g. Center speaker

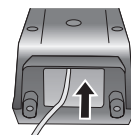
#### Metal screw holes

For attaching to speaker stands



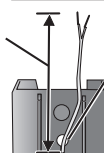
### ■ Reattaching the speaker cable

Insert the cable from the bottom.



Leave about 80 mm

Pull out the cable through the hole.

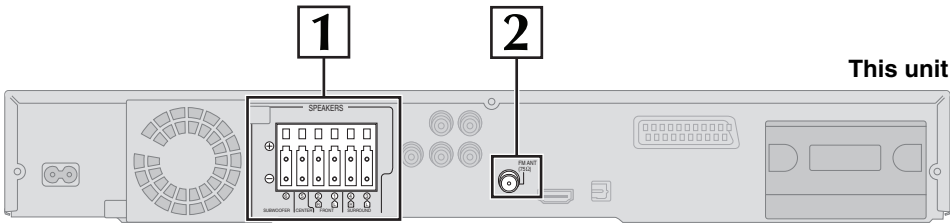




# step 3

## Cable connections

Turn off all equipment before connection and read the appropriate operating instructions.  
**Do not connect the AC mains lead until all other connections are complete.**



### 1 Speaker connections

**Connecting the speakers to this unit:**  
 Connect to terminals of the same colour.

Speaker	Terminal/connector colour
① FRONT (L)	White
② FRONT (R)	Red
③ SURROUND (L)	Blue
④ SURROUND (R)	Grey
⑤ CENTER	Green
⑥ SUBWOOFER	Purple

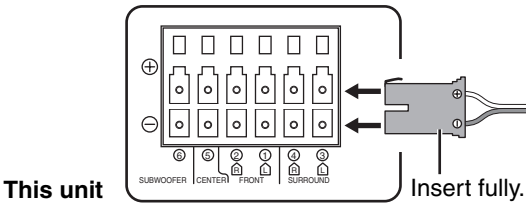
Insert the wire fully.  
 +: White  
 -: Blue

**Push!**

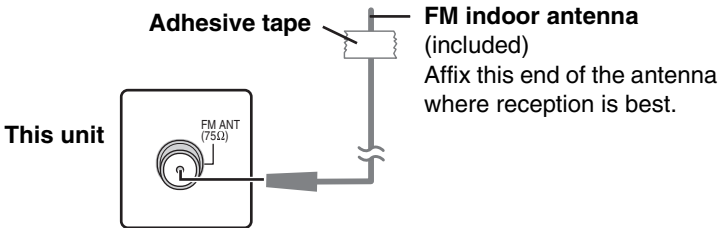
• Be careful not to cross (short circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.

**DO NOT**

e.g. **PT560 Surround speaker (L)**

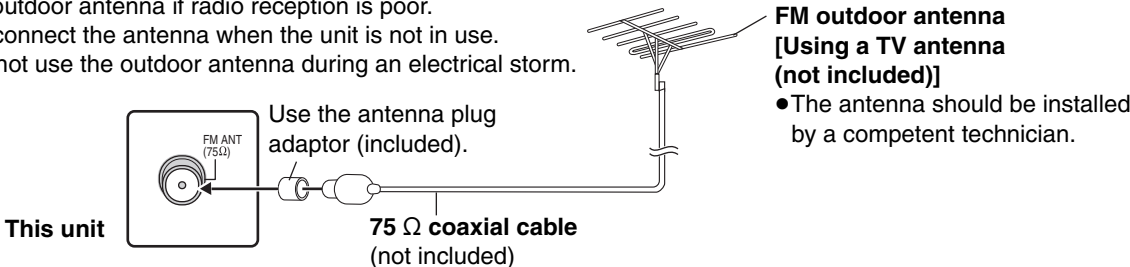


### 2 Radio antenna connections



#### Using an FM outdoor antenna (optional)

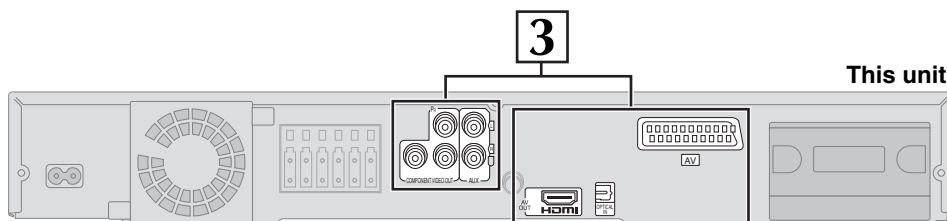
- Use outdoor antenna if radio reception is poor.
- Disconnect the antenna when the unit is not in use.
  - Do not use the outdoor antenna during an electrical storm.



(Continued on next page)

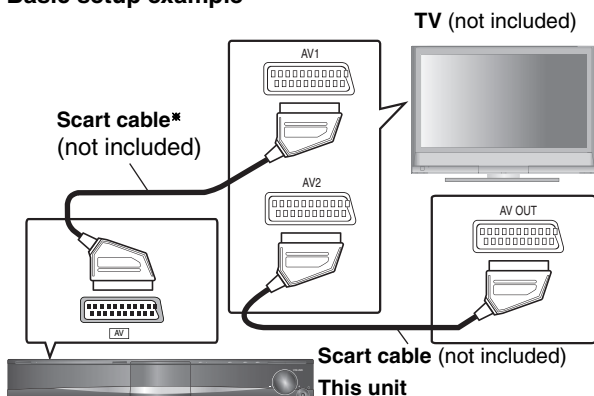
# step 3

## Cable connections



### 3 Audio and video connections

#### Basic setup example



\* This connection will also enable you to play TV audio through your home theater system (→34, Enjoying TV audio). Select the appropriate audio out (e.g. Monitor) on the TV.

- When both the HDMI cable and scart cable are connected, there will be no RGB output from the SCART (AV) terminal.




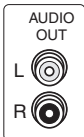
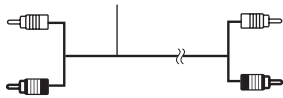

Set top box or video cassette recorder (not included)

#### Other video connections for improved picture quality

TV terminal	Cable required (not included)	This unit terminal	Features
	<b>HDMI cable</b>  <b>Note</b> <ul style="list-style-type: none"> <li>● Non-HDMI-compliant cables cannot be utilized.</li> <li>● 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.</li> </ul>	<b>HDMI</b> 	<p>This connection provides the best picture quality.</p> <ul style="list-style-type: none"> <li>● Set "VIDEO PRIORITY" to "ON" (→26, "HDMI" menu).</li> <li>● Set "VIDEO FORMAT" in Menu 4 (HDMI) (→22).</li> </ul> <p><b>VIERA Link "HDAVI Control"</b>            If your Panasonic TV is VIERA Link compatible, you can operate it synchronising with home theater operations or vice versa (→28, Using the VIERA Link "HDAVI Control™").</p> <ul style="list-style-type: none"> <li>● Make the extra audio connection (→11) when you use VIERA Link "HDAVI Control" function.</li> </ul>
 Panasonic televisions with 576/50i-50p, 480/60i-60p input terminals are progressive compatible. Consult the manufacturer if you have another brand of television.	<b>Video cables</b> 	<b>COMPONENT VIDEO OUT</b>  <ul style="list-style-type: none"> <li>● Connect to terminals of the same colour.</li> </ul>	<p>This connection provides a much purer picture than the SCART (AV) terminal.</p> <ul style="list-style-type: none"> <li>● When making this connection, select "VIDEO/Y PbPr" or "S-VIDEO/Y PbPr" in "VIDEO OUT — SCART" in "VIDEO" menu. If "RGB 1/NO OUTPUT" or "RGB 2/NO OUTPUT" is selected, no signal is output from the component video terminals. (→24)</li> </ul> <p><b>To enjoy progressive video</b></p> <ul style="list-style-type: none"> <li>● Connect to a progressive output compatible television.               <ul style="list-style-type: none"> <li>– Set "VIDEO OUT (I/P)" in "VIDEO" menu to "PROGRESSIVE" and then follow the instructions on the menu screen (→24, "VIDEO" menu).</li> </ul> </li> </ul>

#### Note

- Do not make the video connections through the video cassette recorder.  
 Due to copy guard protection, the picture may not be displayed properly.
- Only one video connection is required. Choose one of the video connections above depending on your TV.

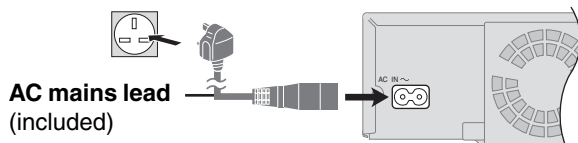
TV or external equipment terminal	Cable required (not included)	This unit terminal	Features
 OPTICAL OUT	<b>Optical digital audio cable</b>  •Do not bend sharply when connecting.	<b>OPTICAL IN</b>  OPTICAL IN	This unit can decode the surround signals received through the set top box, digital broadcasting or satellite broadcasts. Refer to your equipment's operating instructions for details. Only Dolby Digital and PCM can be played with this connection. •After making this connection, make settings and select sound effects to suit the type of audio from your digital equipment (→34).
 AUDIO OUT L R	<b>Audio cable</b> 	<b>AUX</b>  AUX	This connection enables you to play audio from your TV, set top box or video cassette recorder through your home theater system (→34, Enjoying TV audio).

## step 4

### AC mains lead connection

To household mains socket

This unit



**BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 4 BEFORE CONNECTION.**

### Conserving power

This unit consumes a small amount of power, even when it is in standby mode (approx. 0.4 W). To save power when the unit is not to be used for a long time, unplug it from the household AC mains socket. You will need to reset some memory items after plugging in this unit.

#### Note

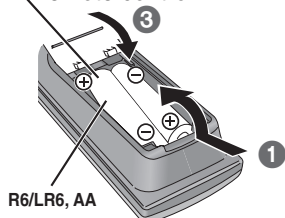
The included AC mains lead is for use with this unit only. Do not use it with other equipment. Also, do not use cords for other equipment with this unit.

## step 5

### Preparing the remote control

#### Batteries

Insert so the poles (+ and -) match those in the remote control.



R6/LR6, AA

#### CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not use rechargeable type batteries.
- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

#### Do not:

- mix old and new batteries.
  - use different types at the same time.
  - take apart or short circuit.
  - attempt to recharge alkaline or manganese batteries.
  - use batteries if the covering has been peeled off.
- Mishandling of batteries can cause electrolyte leakage which can severely damage the remote control.

Remove the batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

#### Use

Aim at the remote control signal sensor (→15), avoiding obstacles, at a maximum range of 7 m directly in front of the unit.

# step 6

## Performing QUICK SETUP

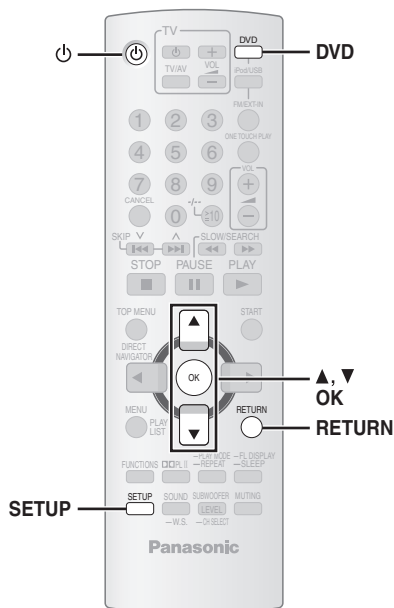
The QUICK SETUP screen assists you to make necessary settings.



### Preparation

Turn on your TV and select the appropriate video input mode (e.g. VIDEO 1, AV 1, HDMI, etc.).

- To change your TV's video input mode, refer to its operating instructions.
- This remote control can perform some basic TV operations (→14).



1		Turn on the unit.
2		Select "DVD/CD".
3		Show the setup menu.
4		Select "OTHERS".
5		Select "QUICK SETUP".
6		Select "SET".
7		Select "YES".
8		Follow the messages and make the settings.
		<ul style="list-style-type: none"> <li>• MENU LANGUAGE</li> <li>• TV TYPE</li> <li>• TV ASPECT</li> <li>• VIDEO OUT — SCART</li> </ul> <p>To return to the previous screen, press [RETURN].</p>
9		Finish QUICK SETUP.
10		Exit.

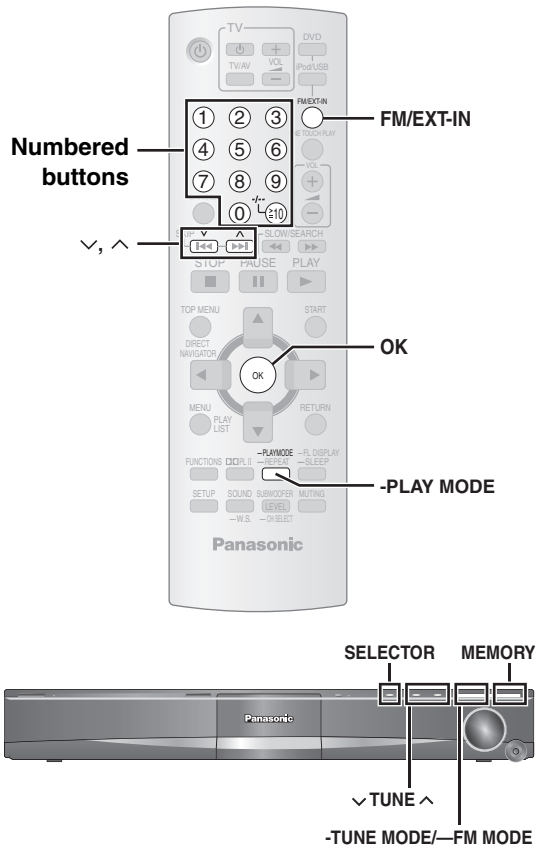
### Details of settings

<b>LANGUAGE</b> Choose the language for the on-screen messages.	<ul style="list-style-type: none"> <li>• <b>ENGLISH</b></li> <li>• FRANÇAIS</li> <li>• ESPAÑOL</li> <li>• DEUTSCH</li> <li>• ITALIANO</li> <li>• SVENSKA</li> <li>• NEDERLANDS</li> <li>• POLSKI</li> </ul>
<b>TV TYPE</b> Select to suit the type of TV.	<ul style="list-style-type: none"> <li>• <b>STANDARD</b></li> <li>• CRT</li> <li>• LCD</li> <li>• PROJECTION</li> <li>• PLASMA</li> </ul>
<b>TV ASPECT</b> Choose the setting to suit your TV and preference.	<ul style="list-style-type: none"> <li>• <b>4:3PAN&amp;SCAN</b></li> <li>• 4:3LETTERBOX</li> <li>• 4:3ZOOM</li> <li>• 16:9NORMAL</li> <li>• 16:9SHRINK</li> <li>• 16:9ZOOM</li> </ul>
<b>VIDEO OUT — SCART</b> Choose the video signal format to be output from the SCART (AV) terminal. (→24)	<ul style="list-style-type: none"> <li>• VIDEO/YPbPr</li> <li>• S-VIDEO/YPbPr</li> <li>• RGB 1/NO OUTPUT</li> <li>• <b>RGB 2/NO OUTPUT</b></li> </ul>

• Boxed items are the factory settings in the above table.

# step 7

## Presetting the radio stations



### Confirming the preset channels

<b>1</b>	<b>Select "FM".</b> ● This unit: Press [SELECTOR].
<b>2</b>	<b>Select the channel.</b> ● To select a 2-digit number e.g. 12: [≥10] → [1] → [2]  Alternatively, press [v, ^]. ● This unit: Press [-TUNE MODE] to select "PRESET" on the display, and then press [v TUNE ^] to select the channel. When a stereo FM broadcast is being received, "ST" lights in the display. 

● The FM setting is also shown on the TV display.

### Presetting stations automatically

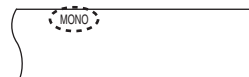
Up to 30 stations can be set.

<b>1</b>	<b>Select "FM".</b> ● This unit: Press [SELECTOR].
<b>2</b> <p>(press and hold)</p>	Release the button when "FM AUTO" is displayed.  ● This unit: Press and hold [MEMORY]. The tuner tunes to the lowest frequency and starts to preset all the stations it can receive into the channels in ascending order.

- "SET OK" is displayed when the stations are set, and the radio tunes to the last preset station.
- "ERROR" is displayed when automatic presetting is unsuccessful. Preset the stations manually (→30).

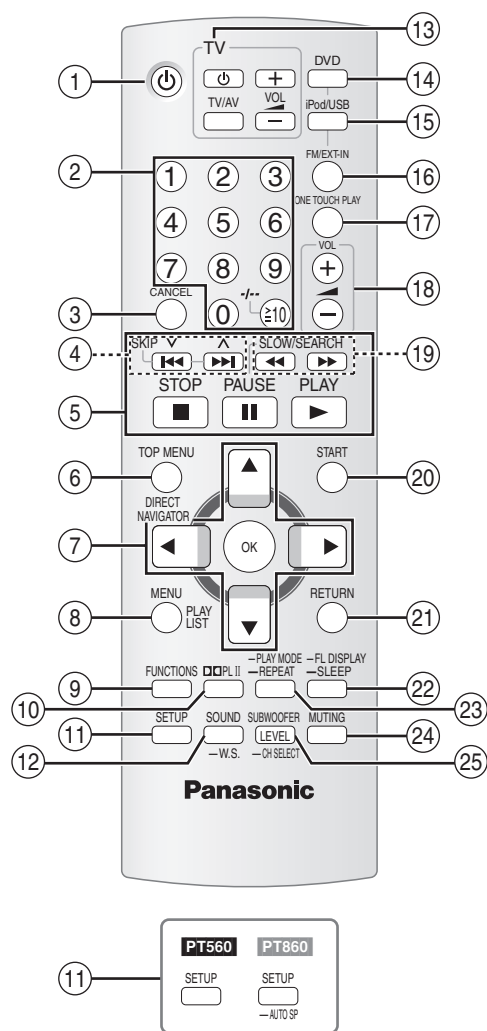
### ■ If noise is excessive

Press and hold [-PLAY MODE] (this unit: [-FM MODE]) to display "MONO".



Press and hold the button again to cancel the mode.

- The mode is also cancelled when you change the frequency.



## Avoiding interference with other Panasonic equipment

Other Panasonic audio/video equipment may start functioning when you operate the unit using the supplied remote control.

You can operate this unit in another mode by setting the remote control operating mode to "REMOTE 2".

### This unit and remote control must be set to the same mode.

- 1 Press and hold [▶▶/▶▶] on this unit and [2] on the remote control until this unit's display shows "REMOTE 2".
  - 2 Press and hold [OK] and [2] on the remote control for at least 2 seconds.
- To change the mode back to "REMOTE 1", repeat both steps above by replacing [2] with [1].

- ① Turn this unit on/off (→12)
- ② Select channels and title numbers etc. / Enter numbers (→13, 17)
- ③ Cancel (→18)
- ④ Select preset radio stations (→13)
- ⑤ Basic operations for play (→16, 17)
- ⑥ Show a disc top menu or program list (→17, 19)
- ⑦ Select or confirm menu items / Frame-by-frame (→17)
- ⑧ Show a disc menu or play list (→17, 19)
- ⑨ Show on-screen menu / Display RDS text data (→20, 30)
- ⑩ Turn Dolby Pro Logic II on/off (→31)
- ⑪ **PT560** Show setup menu (→12)  
**PT860** Show setup menu (→12) / Auto speaker setup (→33)
- ⑫ Select sound effect to set / Turn Whisper-mode Surround on/off (→31)
- ⑬ **TV operations**  
Aim the remote control at the Panasonic TV and press the button.  
[⏻]: Turn the TV on/off  
[TV/AV]: Change the TV's video input mode  
[+, -]: Adjust the TV volume  
This may not work properly with some models.

- ⑭ Select disc as the source (→12)
- ⑮ Select USB or iPod as the source (→34, 35)
- ⑯ Select FM tuner or external audio as the source (→13, 34)  
FM→AV→AUX→D-IN
- ⑰ Start up and play a disc automatically (→17, 28)
- ⑱ Adjust the volume of this unit
- ⑲ Select radio stations manually (→30)
- ⑳ Show START menu (→15)
- ㉑ Return to previous screen (→17)
- ㉒ Switch information on this unit's display (→17)

or

### Set the Sleep timer

Press and hold [—SLEEP].

While the time is shown on this unit's display, press [—SLEEP] repeatedly.

SLEEP 30→SLEEP 60→SLEEP 90→SLEEP 120  
↑ OFF (Cancel) ↓

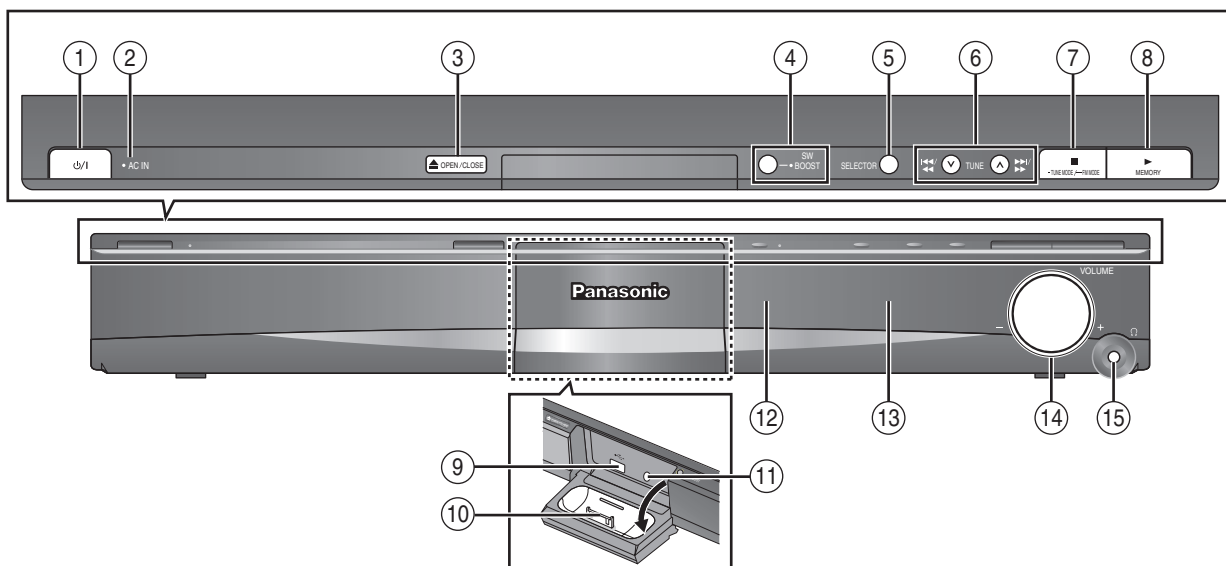
- To confirm the remaining time on the unit's display, press the button again.

- ㉓ Select the play mode / Set the repeat mode (→18)
- ㉔ **Mute the sound**

- "MUTING" flashes on this unit's display while the function is on.
- To cancel, press the button again or adjust the volume.
- Muting is cancelled when you switch the unit to standby.

- ㉕ Adjust the subwoofer level or select speaker channel (→32)





- ① **Standby/on switch [⏻/⏻]**  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power. (→16)
- ② This indicator lights when the unit is connected to the AC mains supply.
- ③ Open/Close the disc tray (→16)
- ④ Turn Subwoofer Boost on/off (→32)
- ⑤ Select the source  
DVD/CD→USB→FM→AV→AUX→D-IN→IPOD
- ⑥ Skip or slow-search play / Select the radio stations (→13, 16)
- ⑦ Stop playing / Select the tuning mode / Adjust the FM reception condition (→13, 16)
- ⑧ Play discs / Memorize the receiving radio stations (→16, 30)
- ⑨ Connect USB device (→34)
- ⑩ Connect iPod (→35)
- ⑪ **PT860** Connect Auto speaker setup microphone (→33)
- ⑫ Remote control signal sensor
- ⑬ Display
- ⑭ Adjust the volume of this unit
- ⑮ **Connect headphones (not included)**  
Headphone plug type: Ø3.5 mm stereo mini plug
  - Reduce the volume before connecting.
  - Audio is automatically switched to 2-channel stereo.
  - To prevent hearing damage, avoid listening for prolonged periods of time.
 Excessive sound pressure from earphones and headphones can cause hearing loss.

## Utilising the START menu

You can select sound effects, desired source, or access playback/menus by using the START menu.

- 1 **Show the START menu.**  
e.g.
- 2 **Select an item.**  
● To exit press [START].

### When "Input Selection" is selected

You can select a desired source from the menu.

- DVD/CD (→12), FM (→13), AV (→34), AUX\* (→34), DIGITAL IN\* (→34), USB (→34), iPod (→35)

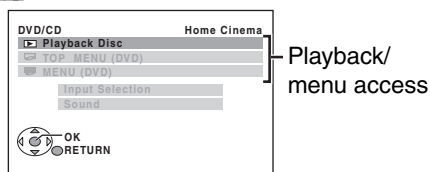
\* "(TV)" will appear beside "AUX" or "DIGITAL IN", indicating the TV audio setting for VIERA Link "HDAVI Control" (→28).

### When "SOUND" is selected

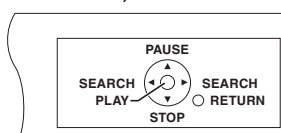
You can set the Equalizer (→31) from the menu.

Press [▲, ▼], then press [OK] to make the settings.

When a disc is loaded or an USB device is connected, you can also access playback or menus from the START menu.  
e.g. **DVD-V**



When the on-screen control panel appears  
e.g. **DVD-V** (when "Playback Disc" is selected from the START menu)




You can operate the playback with the indicated controls.

# Basic play

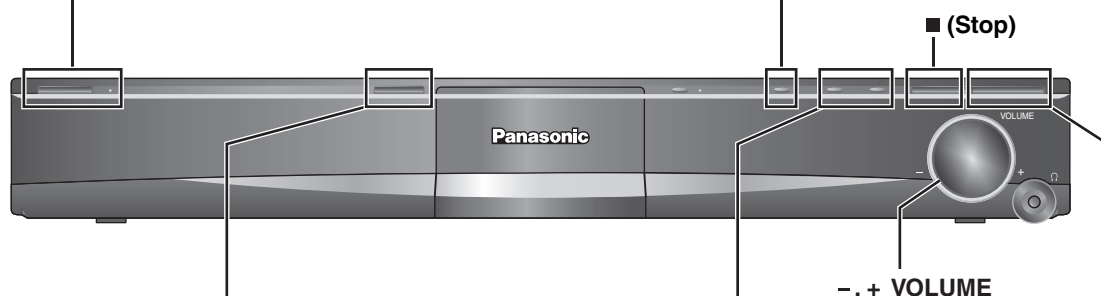
## Preparation

To display the picture, turn on your TV and select its video input mode (e.g. VIDEO 1, AV 1, HDMI, etc.) to suit the connections to this unit.

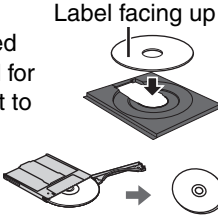
## Using this unit




- 1**   
Turn on the unit.


- 2** SELECTOR   
Select "DVD/CD".



- 3**   
Open the disc tray.

- 4** Load the disc.
- Load double-sided discs so the label for the side you want to play is facing up.
  - For DVD-RAM, remove the disc from its cartridge before use.
- Label facing up
- 

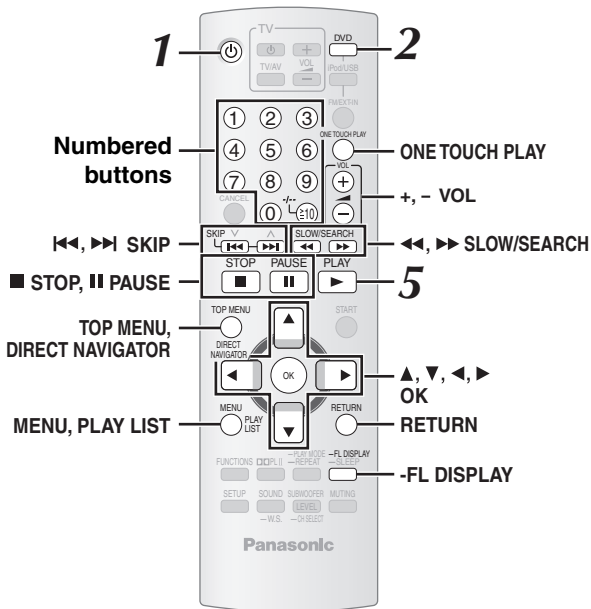
-   TUNE 
- Press to skip.  
Press and hold to  
–search during play  
–start slow-motion play during pause
- Press [▶] (Play) to start normal play.

- 5**   
Start play.
- Turn [–, + VOLUME] to adjust the volume.
  - You can enjoy surround sound when you press [DOLBY PLII] on the remote control to turn on Dolby Pro Logic II (→31).

### Note

- **DISC CONTINUES TO ROTATE WHILE MENUS ARE DISPLAYED.** To preserve the unit's motor and your TV screen, press [■] (Stop) when you are finished with the menus.
- Total title number may not be displayed properly on +R/+RW.

## Using the remote control



### One touch play



This unit automatically turns on and starts playing the disc in the tray.

### Stop



The position is memorised while "RESUME STOP" is on the screen.

- Press [▶ PLAY] to resume.
- Press [■ STOP] again to clear the position.

### Pause

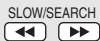


- Press [▶ PLAY] to restart play.

### Skip



### Search (during play)



- Up to 5 steps.
- Press [▶ PLAY] to start normal play.

### Slow-motion (during pause)

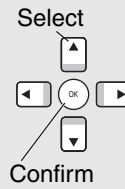


- [VCD] Slow-motion: forward direction only.

### Frame-by-frame (during pause)

- [DVD-VR] [DVD-V] [VCD] Forward direction only.

### On-screen item select



### Enter number



**DVD-VR** **DVD-V** **VCD** **CD**

e.g. To select 12:  
[≥10] → [1] → [2]

**VCD** with playback control  
Press [■ STOP] to cancel the PBC function, and then press the numbered buttons.

### Disc menu



**DVD-V**  
Shows a disc top menu.

**DVD-VR**  
Press the button to show the programs (→19).



**DVD-V**  
Shows a disc menu.

**DVD-VR**  
Press the button to show a play list (→19).



**VCD** with playback control  
Shows a disc menu.

### Return to previous screen



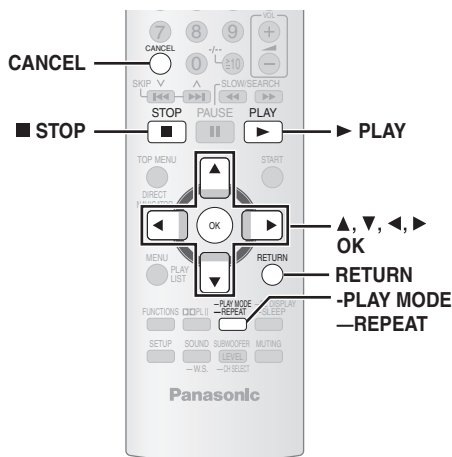
### This unit display



**DVD-VR** **DVD-V** **WMA** **MP3**

Time display  
↗ Information display  
(e.g. **DVD-VR** Program number)

**JPEG**  
SLIDE ↔ Contents number



## Repeat play

This works only when the elapsed play time can be displayed. It also works with all JPEG content.

### 1 During play

Show the repeat mode.



### 2 While the repeat mode is displayed

Select an item to be repeated.

e.g. DVD-V  
 TITLE → CHAP. → OFF

- To cancel, select "OFF".

Items shown differ depending on the type of disc and playback mode.

## Program and Random play

DVD-V VCD CD WMA MP3 JPEG

### Preparation

#### While stopped



#### Select the play mode.

Program and random playback screens appear sequentially.

Program → Random  
 ↑ Exit program and random screens ↓

- **[DVD-VR]** Select "DATA" in "DVD-VR/DATA" (→26, "OTHERS" menu) to play WMA, MP3 or JPEG contents.
- For a disc with both WMA/MP3 and JPEG contents, select either music or picture contents.  
 WMA/MP3: Select "MUSIC PROGRAM" or "MUSIC RANDOM".  
 JPEG: Select "PICTURE PROGRAM" or "PICTURE RANDOM"
- **[DVD-V]** Some items cannot be played even if you have programmed them.

## Program play (up to 30 items)

1



Select an item.

e.g. DVD-V

DVD-V PROGRAM	
SELECT TITLE	TITLE CHAP.
TITLE 1	1
TITLE 2	2
TITLE 3	3
TITLE 4	4
	5
	6
	7
	8
	9
	10

- Repeat this step to program other items.
- To return to the previous menu, press [RETURN].

2



Start play.

### To select all the items

Press [▲, ▼] to select "ALL" and press [OK].

### To clear the selected program

- 1 Press [▶] and then press [▲, ▼] to select the program.
- 2 Press [CANCEL].

### To clear the whole program

Press [▶] several times to select "CLEAR ALL", and then press [OK].

The whole program is also cleared when the disc tray is opened, the unit is turned off or another source is selected.

## Random play

1



(Only when the disc has groups or multiple titles.)

Select a group or title.

e.g. DVD-V

DVD-V RANDOM	
SELECT TITLE	
TITLE 1	
* TITLE 2	
TITLE 3	

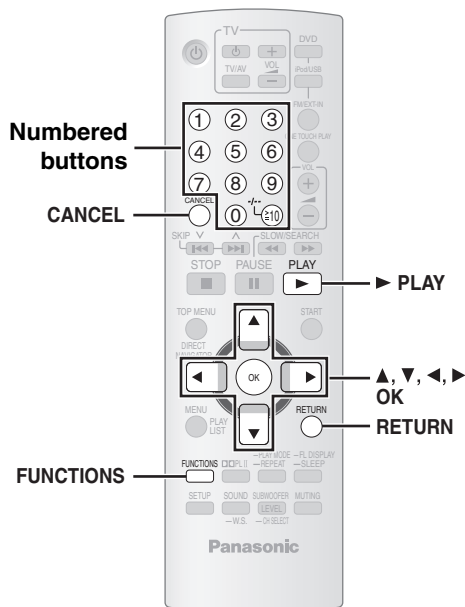
- "\*" represents selected. To deselect, press [OK] again.


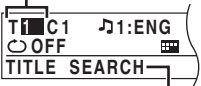

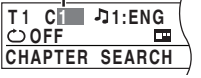


2



Start play.





<p><b>1</b></p> 	<p><b>Show the on-screen menu.</b> Each time you press the button:</p> <p><b>Menu 1 (Disc/Play)</b> <b>Menu 2 (Video)</b> <b>Menu 3 (Audio)</b> <b>Menu 4 (HDMI)</b> <b>Exit</b></p> <p>e.g. Menu 1 (Disc/Play)</p> <p><b>DVD-V</b></p> <p>Current item</p>  <p>Item name</p>
<p><b>2</b></p> 	<p><b>Select the item.</b> e.g. Menu 1 (Disc/Play)</p> <p><b>DVD-V</b></p> <p>Current setting</p> 
<p><b>3</b></p> 	<p><b>Make the settings.</b></p>
<p><b>4</b></p> 	<p><b>Exit.</b></p>

Items shown differ depending on the type of disc.

## Menu 1 (Disc/Play)

TRACK SEARCH  
TITLE SEARCH  
CONTENT SEARCH  
CHAPTER SEARCH  
PG SEARCH  
PL SEARCH

To start from a specific item

- **VCD** This does not work when using playback control.  
e.g. **DVD-V** : T2 C5

To select numbers for data disc  
e.g. 123:

[≥10] → [1] → [2] → [3] → [OK]

**DVD-V** (with multiple soundtracks)

To select audio soundtrack

**DVD-VR** **VCD**

To select "L", "R", "L+R" or "L R"

**DVD-V** (Karaoke disc)

To select "ON" or "OFF" for vocals

To select "OFF", "V1", "V2" or

"V1+V2" for vocal selections

Actual operations depend on the disc.  
Read the disc's instructions for details.



### Signal type/data

LPCM/PPCM/D/DTS/MP3/

MPEG: Signal type

kHz (Sampling frequency)/bit/ch

(Number of channels)

e.g. 3/2 .1ch

.1: Low frequency effect  
(not displayed if there is no signal)

0: No surround

1: Mono surround







2: Stereo surround (left/right)

1: Center





2: Front left+Front right

3: Front left+Front right+Center





	<b>PLAY SPEED</b> <b>DVD-VR</b> <b>DVD-V</b> <b>To change play speed</b> –from “×0.6” to “×1.4” (in 0.1-unit steps) ●Press [▶ PLAY] to return to normal play. ●After you change the speed –Dolby Pro Logic II has no effect. –Audio output switches to 2-channel stereo. –Sampling frequency of 96 kHz is converted to 48 kHz. ●This function may not work depending on the disc's recording.
	<b>REPEAT MODE</b> (→18, Repeat play) <b>A-B Repeat</b> (To repeat a specified section) Except <b>JPEG</b> <b>DVD-VR</b> (Still picture part) <b>VCD</b> (SVCD) Press [OK] at the starting and ending points. ●Select “OFF” to cancel.
	<b>SUBTITLE</b> <b>DVD-V</b> (with multiple subtitles) <b>VCD</b> (SVCD only) <b>To select subtitle language</b> ●On +R/+RW, a subtitle number may be shown for subtitles that are not displayed. <b>DVD-VR</b> (with subtitle on/off information) <b>To select “ON” or “OFF”</b> ●This may not work depending on the disc.
	<b>ANGLE</b> <b>DVD-V</b> (with multiple angles) <b>To select a video angle</b>
	<b>DATE DISPLAY</b> <b>JPEG</b> <b>To select “ON” or “OFF” for picture's date display</b>
	<b>ROTATION</b> <b>To rotate a picture</b> (during pause) <b>JPEG</b> : 0 ↔ 90 ↔ 180 ↔ 270

## ■ Menu 2 (Video)





	<b>PICTURE MODE</b> <b>NORMAL</b> <b>CINEMA1:</b> Mellows images and enhances detail in dark scenes. <b>CINEMA2:</b> Sharpens images and enhances detail in dark scenes. <b>DYNAMIC:</b> Enhances the contrast for powerful images. <b>ANIMATION:</b> Suitable for animation.
	<b>ZOOM</b> <b>To select zoom sizes</b> <b>NORMAL, AUTO, ×2, ×4</b>
	<b>TRANSFER MODE</b> If you have chosen “480p”/“576p”/“720p”/“1080p” (progressive), “1080i” (interlace) [“VIDEO FORMAT” in Menu 4 (HDMI)] or “PROGRESSIVE” under “VIDEO OUT (I/P)” (→24, “VIDEO” menu), select the method of conversion for progressive output to suit the type of material. ●The setting will return to “AUTO” or “AUTO1” when the disc tray is opened, the unit is turned off or another source is selected. When playing PAL discs <b>AUTO:</b> Automatically detects the film and video content, and appropriately converts it. <b>VIDEO:</b> Select when using “AUTO”, and the content is distorted. <b>FILM:</b> Select this if the edges of the film content appear jagged or rough when “AUTO” is selected. However, if the video content is distorted as shown in the illustration to the right, then select “AUTO”.  When playing NTSC discs <b>AUTO1:</b> Automatically detects the film and video content, and appropriately converts it. <b>AUTO2:</b> In addition to “AUTO1”, automatically detects film contents with different frame rates and appropriately converts it. <b>VIDEO:</b> Select when using “AUTO1” and “AUTO2”, and the content is distorted.

(Continued on next page)

## Menu 3 (Audio)

 <b>DIALOGUE ENHANCER</b>	<b>To make the dialogue in movies easier to hear</b> <b>DVD-V</b> (Dolby Digital, DTS, MPEG, 3-channel or higher, with the dialogue recorded in the center channel) <b>OFF, ON</b>
 <b>Dolby PL II</b>	<b>OFF, MOVIE, MUSIC</b> (→31, Using Dolby Pro Logic II)

## Menu 4 (HDMI)

 <b>HDMI STATUS</b>	To show HDMI information. (→Right, Confirming HDMI information)
 <b>HD ENHANCER</b>	This works when the HDMI connection is being used with "VIDEO PRIORITY" (→26, "HDMI" menu) set to "ON". <b>To sharpen the "720p", "1080i" and "1080p" picture quality</b> <b>OFF, 1 (weakest) to 3 (strongest)</b>
 <b>VIDEO FORMAT</b>	This works when the HDMI connection is being used with "VIDEO PRIORITY" (→26, "HDMI" menu) set to "ON". <b>To select suitable picture quality with your TV</b> (Video recordings will be converted to, and output as, high-definition video.) * <b>480p/576p/720p/1080p</b> (progressive) * <b>480i/576i/1080i</b> (interlaced) ● If the picture is distorted, press and hold [CANCEL] until the picture is displayed correctly. (The output will return to "480p/576p".)  * The numbers displayed depend on the disc being played. One of the above numbers is displayed.
 <b>COLOUR SPACE</b>	This works when the HDMI connection is being used with "VIDEO PRIORITY" (→26, "HDMI" menu) set to "ON". <b>To select suitable picture colour with your TV</b> <b>YCbCr (4:2:2), YCbCr (4:4:4), RGB</b> ● If the setting above is not compatible with your TV, it will not be displayed.

## Confirming HDMI information

e.g.

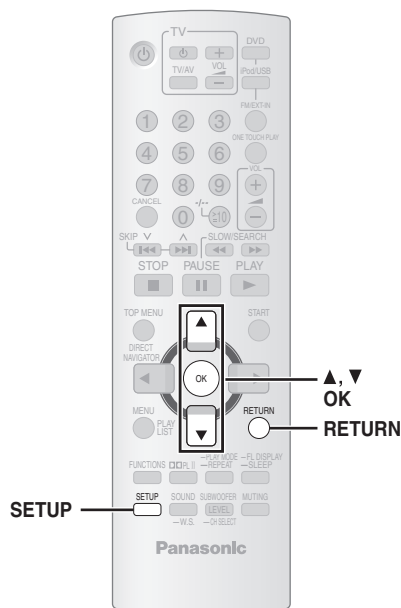
HDMI — INFORMATION	
①	CONNECTED STATE      CONNECTED
②	AUDIO STREAM          PCM
③	MAX CHANNEL          2ch
④	VIDEO FORMAT          720p
⑤	COLOUR SPACE          YCbCr 4:4:4

- ① Connection status
- ② Shows the output signal type.
- ③ Shows the number of audio channels.
- ④ (→Left, VIDEO FORMAT)
- ⑤ (→Left, COLOUR SPACE)

### Note

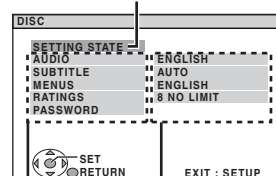
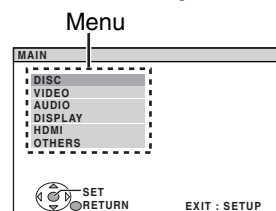
When "OFF" is selected in "AUDIO OUT" (→26, "HDMI" menu), "—" will be displayed in "AUDIO STREAM".

# Changing the player settings



- The settings remain intact even if you switch the unit to standby.
- Boxed items are the factory settings in the following table.

1		<b>Show the setup menu.</b>
2		<b>Select the menu.</b> Display the current setting of the items below
3		<b>Select the item.</b>
4		<b>Make the settings.</b>
5		<b>Exit.</b>



Item      Setting  
 • To return to the previous screen, press [RETURN].

**QUICK SETUP enables successive settings of the items in the shaded area.**

## ■ “DISC” menu

<b>AUDIO</b> Choose the audio language.	<div> <div> <b>ENGLISH</b> </div> <div> FRENCH </div> <div> SPANISH </div> <div> GERMAN </div> <div> ITALIAN </div> <div> SWEDISH </div> </div> <div> DUTCH </div> <div> POLISH </div> <div> ORIGINAL *1 </div> <div> OTHER --- *2 </div>
<b>SUBTITLE</b> Choose the subtitle language.	<div> <div> <b>AUTO</b> *3 </div> <div> ENGLISH </div> <div> FRENCH </div> <div> SPANISH </div> <div> GERMAN </div> <div> ITALIAN </div> </div> <div> SWEDISH </div> <div> DUTCH </div> <div> POLISH </div> <div> OTHER --- *2 </div>
<b>MENUS</b> Choose the language for disc menus. Changing the menu language in QUICK SETUP also changes this setting.	<div> <div> <b>ENGLISH</b> </div> <div> FRENCH </div> <div> SPANISH </div> <div> GERMAN </div> <div> ITALIAN </div> <div> SWEDISH </div> </div> <div> DUTCH </div> <div> POLISH </div> <div> OTHER --- *2 </div>
<b>RATINGS</b> Set a rating level to limit DVD-Video play.	Setting ratings (When level 8 is selected) • 0 LOCK ALL: To prevent play of discs without rating levels. • 1 to 7      • <b>8 NO LIMIT</b> When you select your ratings level, a password screen is shown. Follow the on-screen instructions. <b>Do not forget your password.</b> A message screen will be shown if a DVD-Video disc exceeding the rating level is inserted in the unit. Follow the on-screen instructions.

\*1 The original language designated on the disc is selected.

\*2 Input the appropriate code from the language code list (→27).

\*3 If the language selected for “AUDIO” is not available, subtitles appear in that language (if available on the disc).

(Continued on next page)

**QUICK SETUP** enables successive settings of the items in the shaded area.

## ■ “DISC” menu (continued)

### PASSWORD

Change the password for “RATINGS”.

#### ● **SETTING**

To change ratings (When level 0 to 7 is selected)

● **CHANGE**: Follow the on-screen instructions.

## ■ “VIDEO” menu

### TV ASPECT

Choose the setting to suit your TV and preference.

● **4:3PAN&SCAN**: Regular aspect TV (4:3)  
The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc).



● **4:3LETTERBOX**: Regular aspect TV (4:3)  
Widescreen picture is shown in the letterbox style.



● **4:3ZOOM**: Regular aspect TV (4:3)  
The picture zooms in and out.

● **16:9NORMAL**: Widescreen TV (16:9)  
Laterally stretches image.

● **16:9SHRINK**: Widescreen TV (16:9)  
Images appear at the center of the screen.

● **16:9ZOOM**: Widescreen TV (16:9)  
Expands to 4:3 aspect ratio.

### TV TYPE

Select to suit the type of TV.

#### ● **STANDARD**

● **CRT**

● **LCD**

● **PROJECTION**

● **PLASMA**

### TIME DELAY

When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.

● **0 ms**    ● 20 ms    ● 40 ms    ● 60 ms    ● 80 ms    ● 100 ms

When using VIERA Link “HDAVI Control” with “HDAVI Control 3” compatible TV (→28), select “0 ms”. Audio and video will automatically be set in sync. (This works only when “DVD/CD” or “USB” is selected as the source.)

### NTSC DISC OUT

Choose PAL 60 or NTSC output when playing NTSC discs (→36, Video systems).

● **NTSC**: When connected to an NTSC TV.

● **PAL60**: When connected to a PAL TV.

### STILL MODE

Specify the type of picture shown when paused.

#### ● **AUTO**

● **FIELD**<sup>※4</sup>: The picture is not blurred, but picture quality is lower.

● **FRAME**<sup>※4</sup>: Overall quality is high, but the picture may appear blurred.

### VIDEO OUT – SCART

Choose the video signal format to be output from the SCART (AV) terminal.

● **VIDEO/YPbPr**    ● **S-VIDEO/YPbPr**

● **RGB 1/NO OUTPUT**: (Only when connected to a RGB compatible TV)  
If you always would like to view the picture from the unit in RGB signal, select this mode. The TV screen will automatically switch to display the picture from the unit when the unit is turned on.

● **RGB 2/NO OUTPUT**: (Only when connected to a RGB compatible TV)  
When in TV tuner mode, if the selector is set to “DVD/CD”, the TV screen will automatically switch to display the picture from the unit only during disc playback (**DVD-V** **DVD-VR** **VCD**) or when viewing on-screen menu of DVD/CD.  
The TV picture will be displayed when the selector is set to “AV”. With other selectors, the picture from this unit will be displayed.

### VIDEO OUT (I/P)

Select “PROGRESSIVE” only if connecting to a progressive output compatible TV.

#### ● **INTERLACE**

● **PROGRESSIVE**: A message screen will appear. Follow the on-screen instructions.

<sup>※4</sup> Refer to “Frame still and field still” (→5, Glossary).

**QUICK SETUP** enables successive settings of the items in the shaded area.

## ■ “AUDIO” menu

<b>DOLBY DIGITAL</b> <sup>※5</sup>	<ul style="list-style-type: none"> <li>● <b>BITSTREAM</b></li> <li>● PCM</li> </ul>	Select to suit the type of equipment you connected to the HDMI AV OUT terminal.
<b>DTS</b> <sup>※5</sup>	<ul style="list-style-type: none"> <li>● <b>BITSTREAM</b></li> <li>● PCM</li> </ul>	Select “BITSTREAM” when the equipment can decode the bitstream (digital form of 5.1 channel data). Otherwise, select “PCM”.
<b>MPEG</b> <sup>※5</sup>	<ul style="list-style-type: none"> <li>● BITSTREAM</li> <li>● <b>PCM</b></li> </ul>	(If the bitstream is output to the equipment without a decoder, high levels of noise can be output and may damage your speakers and hearing.)
<b>DYNAMIC RANGE</b>	<ul style="list-style-type: none"> <li>● ON: Adjusts for clarity even when the volume is low. Convenient for late night viewing. (Only works with Dolby Digital)</li> <li>● <b>OFF</b></li> </ul>	
<b>SPEAKER SETTINGS</b> Make settings for your speakers.	<ul style="list-style-type: none"> <li>● SETTINGS:               <ul style="list-style-type: none"> <li>● C DELAY: <b>0 ms</b>, 1ms, 2ms, 3ms, 4ms, 5ms Select the delay time for your center speaker (→27, Selecting the delay time of the speakers).</li> <li>● SL/SR DELAY: <b>0 ms</b>, 5ms, 10ms, 15ms Select the delay time for your surround speakers (→27, Selecting the delay time of the speakers).</li> <li>● TEST TONE: SETTING Use the test tone for speaker level adjustments (→32, Adjusting the speaker level).</li> <li>● CENTER, SURROUND RIGHT, SURROUND LEFT: -6 dB to +6 dB (Factory preset: <b>0 dB</b>)</li> </ul> </li> </ul>	

※5 When audio is output from HDMI AV OUT terminal, and the connected equipment does not support the item selected, the actual output will depend on the performance of this connected equipment.

## ■ “DISPLAY” menu

<b>LANGUAGE</b> Choose the language for the on-screen messages.	<ul style="list-style-type: none"> <li>● <b>ENGLISH</b></li> <li>● FRANÇAIS</li> <li>● ESPAÑOL</li> <li>● DEUTSCH</li> <li>● ITALIANO</li> <li>● SVENSKA</li> <li>● NEDERLANDS</li> <li>● POLSKI</li> </ul>
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(Continued on next page)



**QUICK SETUP** enables successive settings of the items in the shaded area.

## ■ “HDMI” menu

<b>VIDEO PRIORITY</b>	<ul style="list-style-type: none"> <li>● <b>ON</b>: When using the HDMI AV OUT terminal for video output. The resolution of the video output from the HDMI AV OUT terminal is optimized according to the capability of the connected equipment (e.g. TV).</li> <li>● <b>OFF</b>: When not using the HDMI AV OUT terminal for video output. Video output will not depend on the connected equipment, but on this unit.</li> </ul>
<b>AUDIO OUT</b>	<ul style="list-style-type: none"> <li>● <b>ON</b>: When audio output is from the HDMI AV OUT terminal. (Depending on the capabilities of the connected equipment, audio output may differ from the audio settings of this unit.)</li> <li>● <b>OFF</b>: When audio output is not from the HDMI AV OUT terminal. (The audio is output using the settings of this unit.)</li> </ul>
<b>RGB RANGE</b> This works only when “COLOUR SPACE” in Menu 4 (HDMI) is set to RGB (→22).	<ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>ENHANCED</b>: When the black and white images are not distinct.</li> </ul>
<b>VIERA Link</b>	<ul style="list-style-type: none"> <li>● <b>ON</b>: The VIERA Link “HDAVI Control™” function is available (→28).</li> <li>● <b>OFF</b></li> </ul>

## ■ “OTHERS” menu

<b>JPEG TIME</b> Set the speed of the slideshow. Factory preset: <b>3 SEC</b>	<ul style="list-style-type: none"> <li>● 1 SEC to 15 SEC (in 1-unit steps)</li> <li>● 15 SEC to 60 SEC (in 5-unit steps)</li> <li>● 60 SEC to 180 SEC (in 30-unit steps)</li> </ul>
<b>FL DIMMER</b> Change the brightness of the unit's display.	<ul style="list-style-type: none"> <li>● <b>BRIGHT</b>   ● DIM</li> <li>● <b>AUTO</b>: The display is dimmed, but brightens when you perform some operations.</li> </ul>
<b>QUICK SETUP</b>	<ul style="list-style-type: none"> <li>● <b>SET</b> Follow the on-screen instructions.</li> </ul>
<b>DVD-VR/DATA</b> Select to play only DVD-VR or DATA format.	<ul style="list-style-type: none"> <li>● <b>DVD-VR</b>: To play the video programs on DVD-RAM or DVD-R/-RW.</li> <li>● <b>DATA</b>: To play the data files on DVD-RAM or DVD-R/-RW.</li> </ul>
<b>DEFAULTS</b> This returns all values in the MAIN menu to the default settings.	<ul style="list-style-type: none"> <li>● <b>RESET</b> The password screen is shown if “RATINGS” (→23) is set. Please enter the same password, then turn the unit off and on again.</li> </ul>



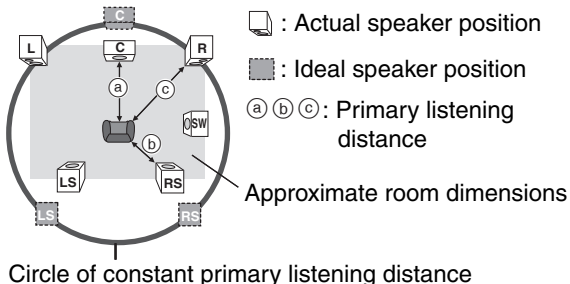
## Selecting the delay time of the speakers

### (Effective when playing 5.1-channel sound)

(Center and surround speakers only)

For optimum listening with 5.1-channel sound, all the speakers, except for the subwoofer, should be the same distance from the seating position.

If you have to place the center or surround speakers closer to the seating position, adjust the delay time to make up for the difference.



If either distance ① or ② is less than ③, find the difference in the table and change to the recommended setting.

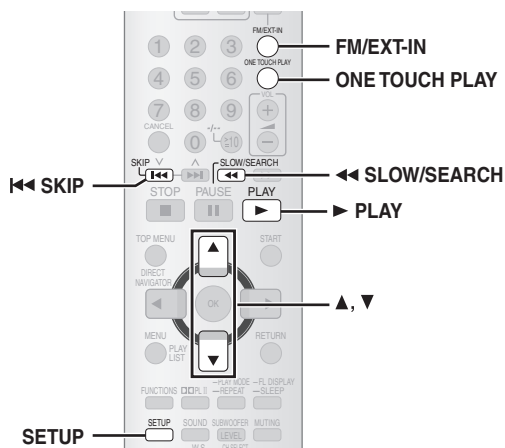
a Center speaker		b Surround speaker	
Difference (Approx.)	Setting	Difference (Approx.)	Setting
30 cm	1 ms	150 cm	5 ms
60 cm	2 ms	300 cm	10 ms
90 cm	3 ms	450 cm	15 ms
120 cm	4 ms		
150 cm	5 ms		

### To make the delay time settings

Select "C DELAY" or "SL/SR DELAY" from "SPEAKER SETTINGS" in "AUDIO" menu (→25).

## Language code list

Abkhazian: 6566	English: 6978	Kashmiri: 7583	Punjabi: 8065	Tigrinya: 8473
Afar: 6565	Esperanto: 6979	Kazakh: 7575	Quechua: 8185	Tonga: 8479
Afrikaans: 6570	Estonian: 6984	Kirghiz: 7589	Rhaeto-Romance: 8277	Turkish: 8482
Albanian: 8381	Faroese: 7079	Korean: 7579	Romanian: 8279	Turkmen: 8475
Ameharic: 6577	Fiji: 7074	Kurdish: 7585	Russian: 8285	Tw: 8487
Arabic: 6582	Finnish: 7073	Laotian: 7679	Samoan: 8377	Ukrainian: 8575
Armenian: 7289	French: 7082	Latin: 7665	Sanskrit: 8365	Urdu: 8582
Assamese: 6583	Frisian: 7089	Latvian, Lettish: 7686	Scots Gaelic: 7168	Uzbek: 8590
Aymara: 6589	Galician: 7176	Lingala: 7678	Serbian: 8382	Vietnamese: 8673
Azerbaijani: 6590	Georgian: 7565	Lithuanian: 7684	Serbo-Croatian: 8372	Volapük: 8679
Bashkir: 6665	German: 6869	Macedonian: 7775	Shona: 8378	Welsh: 6789
Basque: 6985	Greek: 6976	Malagasy: 7771	Sindhi: 8368	Wolof: 8779
Bengali, Bangla: 6678	Greenlandic: 7576	Malay: 7783	Singhalese: 8373	Xhosa: 8872
Bhutani: 6890	Guarani: 7178	Malayalam: 7776	Slovak: 8375	Yiddish: 7473
Bihari: 6672	Gujarati: 7185	Maltese: 7784	Slovenian: 8376	Yoruba: 8979
Breton: 6682	Hausa: 7265	Maori: 7773	Somali: 8379	Zulu: 9085
Bulgarian: 6671	Hebrew: 7387	Marathi: 7782	Spanish: 6983	
Burmese: 7789	Hindi: 7273	Moldavian: 7779	Sundanese: 8385	
Byelorussian: 6669	Hungarian: 7285	Mongolian: 7778	Swahili: 8387	
Cambodian: 7577	Icelandic: 7383	Nauru: 7865	Swedish: 8386	
Catalan: 6765	Indonesian: 7378	Nepali: 7869	Tagalog: 8476	
Chinese: 9072	Interlingua: 7365	Norwegian: 7879	Tajik: 8471	
Corsican: 6779	Irish: 7165	Oriya: 7982	Tamil: 8465	
Croatian: 7282	Italian: 7384	Pashto, Pushto: 8083	Tatar: 8484	
Czech: 6783	Japanese: 7465	Persian: 7065	Telugu: 8469	
Danish: 6865	Javanese: 7487	Polish: 8076	Thai: 8472	
Dutch: 7876	Kannada: 7578	Portuguese: 8084	Tibetan: 6679	



## VIERA Link “HDAVI Control”

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

- VIERA Link “HDAVI Control”, based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers’ equipment that supports HDMI CEC cannot be guaranteed (Refer to the operating instructions for your equipment).
- This unit supports “HDAVI Control 3” function. “HDAVI Control 3” is the newest standard (current as of December, 2007) for Panasonic’s HDAVI Control compatible equipment. This standard is compatible with Panasonic’s conventional HDAVI equipment. The TV with “HDAVI Control 2 (or later)” function enables the following operation: VIERA Link Control only with TV’s remote control [for “HDAVI Control 2 (or later)”] (→29).

## Preparation

- Confirm that the HDMI connection has been made (→10).
- Set “VIERA Link” to “ON” (→26, “HDMI” menu).
- To complete and activate the connection correctly, turn on all VIERA Link “HDAVI Control” compatible equipment and set the TV to the corresponding HDMI input mode for this unit.

**Setting the TV audio for VIERA Link “HDAVI Control”**  
Select between “AUX” and “D-IN” to work with the linked operations.

Confirm the audio connection to the AUX terminal (for “AUX”) or OPTICAL IN terminal (for “D-IN”) (→11).

- 1 Press [FM/EXT-IN] to select “AUX” or “D-IN”.
- 2 Press [SETUP] to select “TV AUDIO”, then press [▲] or [▼] to switch to “AUX” or “D-IN”.

Whenever the connection or settings are changed, reconfirm the points above.

\* “AUX” or “D-IN” (“DIGITAL IN”) works depending on the “TV AUDIO” setting (→ above, Setting the TV audio for VIERA Link “HDAVI Control”).

## Automatic setup

The settings for “TV ASPECT”<sup>\*1</sup> (→24, “VIDEO” menu) and “LANGUAGE”<sup>\*2</sup> (→25, “DISPLAY” menu) will automatically follow to the settings of the TV. (This may not work if the corresponding setting you have made for your TV is not available on this unit.)

<sup>\*1</sup> When using VIERA Link “HDAVI Control” with “HDAVI Control 3” compatible TV

<sup>\*2</sup> When using VIERA Link “HDAVI Control” with “HDAVI Control 2 (or later)” compatible TV

## One touch play

You can turn on this unit and the TV, and start playing the disc with a single press of a button.



### Start disc playback.

This unit’s speakers will be automatically activated (→29).

This function also works if you press [▶ PLAY] on this unit’s remote control when this unit is in standby mode.

## Note

Playback may not be immediately displayed on the TV. If you miss the beginning portion of playback, press [◀◀] or [◀◀] to go back to where playback started.

## Auto input switching

- When you switch the TV input to TV tuner mode, this unit will automatically switch to “AUX”<sup>\*</sup> or “D-IN”<sup>\*</sup>. (This does not work when this unit is in “IPOD” mode.)
- When you select “DVD/CD” as the source, the TV will automatically switch its input mode for this unit.
- [DVD-V] [VCD] When playback stops, the TV will automatically return to TV tuner mode.
- When you select “AUX”<sup>\*</sup> or “DIGITAL IN”<sup>\*</sup> from “Input Selection” in START menu (→15), the TV will automatically switch to TV tuner mode.

## Power off link

When the TV is turned off, this unit goes into standby mode automatically.

- This function works only when “DVD/CD”, “USB”, “AUX”<sup>\*</sup> or “D-IN”<sup>\*</sup> is selected as the source on this unit.
- When the TV is turned on, this unit does not turn on automatically. (Power on link is not available.)

## Note

When you press [⏻], only this unit turns off. Other connected equipment compatible with VIERA Link “HDAVI Control” stays on.

## Speaker control

You can select whether audio is output from this unit's speakers or the TV speakers by using the TV menu settings. For details, refer to the operating instructions of your TV.

### Home Cinema

This unit's speakers are active.

- When this unit is in standby mode, changing the TV speakers to this unit's speakers in the TV menu will automatically turn this unit on and select "AUX"\* or "D-IN"\* as the source.
- The TV speakers are automatically muted.
- You can control the volume setting using the volume or mute button on the TV's remote control. (The volume level is displayed on this unit's FL display.)
- To cancel muting, you can also use this unit's remote control (→14).
- If you turn off this unit, TV speakers will be automatically activated.

### TV

TV speakers are active.

- The volume of this unit is set to "0".
  - This function works only when "DVD/CD", "USB", "AUX"\* or "D-IN"\* is selected as the source on this unit.
- Audio output is 2-channel audio.

When switching between this unit's speakers and TV speakers, the TV screen may be blank for several seconds.

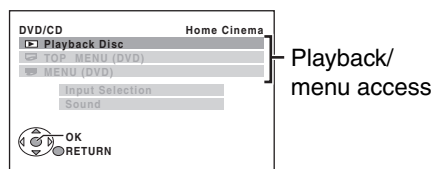
## VIERA Link Control only with TV's remote control [for "HDAVI Control 2 (or later)"]

You can control the playback menus of this unit with the TV's remote control. When operating the TV's remote control, refer to the below illustration for operation buttons.

- 1 Select this unit's operation menu by using the TV menu settings.  
(For details, refer to the operating instructions of your TV.)

The START menu will be shown.

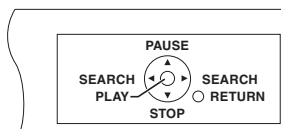
e.g. **DVD-V**



- The START menu can also be shown by using a button on the TV's remote control (e.g. [OPTION]).
  - When "DVD/CD" or "USB" is selected as the source, this works only during stop mode.
  - This does not work while iPod music playback screen is displayed on the TV.

- 2 Select the desired item on the START menu (→15).

When the on-screen control panel appears  
e.g. **DVD-V** (when "Playback Disc" is selected from the START menu)



You can operate the playback with the indicated controls.

- The on-screen control panel can also be shown by using a button on the TV's remote control (e.g. [OPTION]).
  - This works only during "DVD/CD" or "USB" playback and resume modes or, while iPod music playback screen is displayed on the TV.

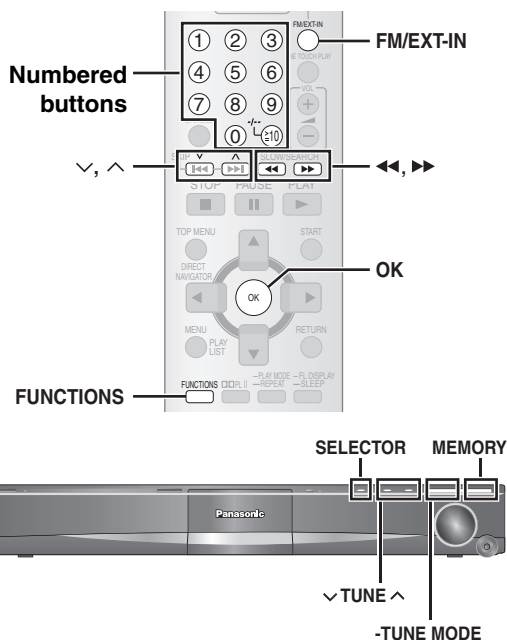
### If the TV has automatically switched to the HDMI input mode for this unit (→28, Auto input switching)

When you press [EXIT] button on the TV's remote control to exit VIERA Link Control, the TV will automatically switch to TV tuner mode. (This does not work when this unit is in "IPOD" mode or, during playback or resume mode when "DVD/CD" or "USB" is selected as the source.)

#### Note

- Depending on the menu, some button operations cannot be performed from the TV's remote control.
- You cannot input numbers with the numbered buttons on the TV's remote control ([0] to [9]). Use this unit's remote control to select the play list etc.





## RDS broadcasting

The unit can display the text data transmitted by the radio data system (RDS) available in some areas. If the station you are listening to is transmitting RDS signals, "RDS" will light up on the display.

While listening to the radio broadcast  
**Press [FUNCTIONS] to display the text data.**

Each time you press the button:

**PS:** Program service

**PTY:** Program type

**FREQ:** Frequency display

## PTY displays

NEWS	VARIED	FINANCE	COUNTRY
AFFAIRS	POP M	CHILDREN	NATIONAL
INFO	ROCK M	SOCIAL A	OLDIES
SPORT	M-O-R- M*	RELIGION	FOLK M
EDUCATE	LIGHT M	PHONE IN	DOCUMENT
DRAMA	CLASSICS	TRAVEL	TEST
CULTURE	OTHER M	LEISURE	ALARM
SCIENCE	WEATHER	JAZZ	

\*"M-O-R- M"=Middle of the road music

### Note

RDS displays may not be available if reception is poor.

For presetting stations automatically, refer to page 13.

## Manual tuning

- Select "FM".**  
 • This unit:  
 Press [SELECTOR].
- Select the frequency.**  
 • This unit:  
 Press [-TUNE MODE] to select "MANUAL" on the display, and then press [v TUNE ^] to select the frequency.  
 • To start automatic tuning, press and hold [◀▶] (this unit: [v TUNE ^]) until the frequency starts scrolling. Tuning stops when a station is found.

## ■ Presetting stations manually

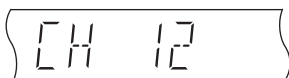
Up to 30 stations can be set.

- While listening to the radio broadcast  
**Press [OK].**
- While the frequency is flashing on the display  
**Press the numbered buttons to select a channel.**

- To select a 2-digit number

e.g.

12: [≥10] → [1] → [2]

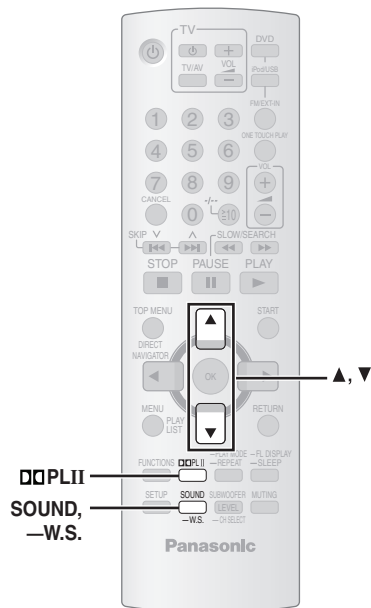


Alternatively, press [v, ^], and then press [OK].

This unit:

- While listening to the radio broadcast  
**Press [MEMORY] twice.**
- While a channel is flashing on the display  
**Press [v TUNE ^], and then press [MEMORY].**

A station previously stored is overwritten when another station is stored in the same channel preset.





## Note

- The following sound effects may not be available or have no effect with some sources, or when headphones are used (→15).
- You may experience a reduction in sound quality when these sound effects are used with some sources. If this occurs, turn the sound effects off.

## Preparation

To display the picture, turn on the TV and select the appropriate video input mode.

## Setting the sound effects

- 
**Select a sound mode.**  
 Each time you press the button:  
**EQ:** Equalizer  
**R.C. FCS:** Real Center Focus  
**SRD ENH:** Surround Enhancer
- While the selected mode is displayed**  

**Make settings.**  
 Refer to the followings for setting details of each sound effect.

## Equalizer

You can select sound quality settings.  
 Each time you press [▲, ▼]:  
**HEAVY:** Adds punch to rock.  
**CLEAR:** Clarifies higher sounds.  
**SOFT:** For background music.  
**FLAT:** Cancel (no effect is added).

## Real Center Focus

(Effective when playing audio containing center channel sound or when Dolby Pro Logic II is on.)

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

R.C.FCS ON ↔ R.C.FCS OFF

## Surround Enhancer

Automatically adjusts each speaker to enhance the surround sound effect of 5.1-channel audio. When playing two-channel audio, the audio of the L/R front speakers is also output through the rest of the speakers creating a surround sound effect.

SRD ENH ON ↔ SRD ENH OFF

## Using Dolby Pro Logic II

Dolby Pro Logic II is an advanced decoder that derives 5-channel surround from stereo sound sources, whether or not it has been specifically Dolby Surround encoded.



Each time you press the button:

**MOVIE:** Movie software

**MUSIC:** Stereo sources

**OFF:** Cancel



- “DOLBY II” lights when there is effect.
- This does not work when audio is output from HDMI AV OUT terminal.
- You can adjust the volume of the surround speakers to get the best surround effect (→32, Adjusting the speaker level).

## Using Whisper-mode Surround

You can enhance the surround effect for low volume 5.1-channel sound. (Convenient for late night viewing.)



(press and hold)



- “(( ))” lights when there is effect.

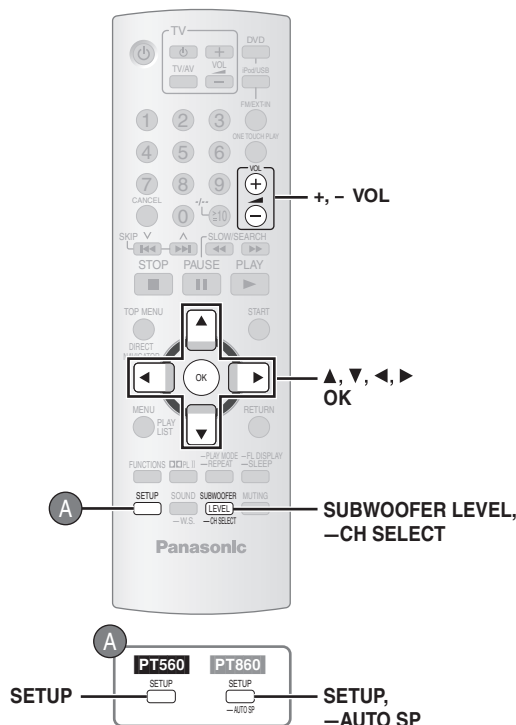
Each time you press and hold the button:

WHISPER-MODE SRD ON



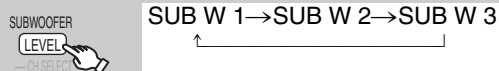
WHISPER-MODE SRD OFF

(Continued on next page)



## Adjusting the subwoofer level

You can adjust the amount of bass. The unit automatically selects the most suitable setting according to the type of playback source.

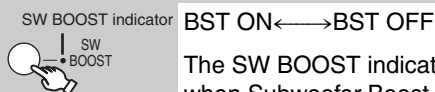


- To check the current setting, press "SUBWOOFER LEVEL".
- The setting you make is retained, and recalled every time you play the same type of source.

## Using Subwoofer Boost

### This unit only

You can enhance the subwoofer effect with strong bass.



The SW BOOST indicator lights when Subwoofer Boost is turned on.

## Adjusting the speaker level

You can adjust the surround sound levels.

### Preparation

- Press [+ , - VOL] to adjust the volume to normal listening level.
- Select "TEST TONE" from "SPEAKER SETTINGS" in "AUDIO" menu (→25).

1



Enter test tone mode.

e.g.

AUDIO - SPEAKER SETTINGS - TEST TONE	
SPEAKERS	TRIM LEVEL
LEFT	-
CENTER	0dB
RIGHT	-
SURROUND RIGHT	0dB
SURROUND LEFT	0dB
SET RETURN	
EXIT : SETUP	

Test tone will be output to each channel in the following order.  
LEFT, CENTER, RIGHT, SURROUND RIGHT, SURROUND LEFT

2



Adjust the speaker level for each speaker. (CENTER, SURROUND RIGHT, SURROUND LEFT)

-6 dB to +6 dB

- To exit the screen, press [SETUP].

### To adjust speaker level during play

(Effective when playing 5.1-channel sound or when Dolby Pro Logic II is on.)

- ① Press and hold [—CH SELECT] to select the speaker.

While the speaker channel is displayed, press [—CH SELECT].

L → C → R → RS → LS → SW

- You can adjust SW (Subwoofer) only if the disc includes a subwoofer channel and "PLII" is not lit.

- ② Press [▲] (increase) or [▼] (decrease) to adjust the speaker level for each speaker.

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

(L, R: Only the balance is adjustable.)

To adjust the balance of the front speakers, while "L" or "R" is selected, press [◀, ▶].



## Adjusting the Speaker output level automatically: Auto speaker setup

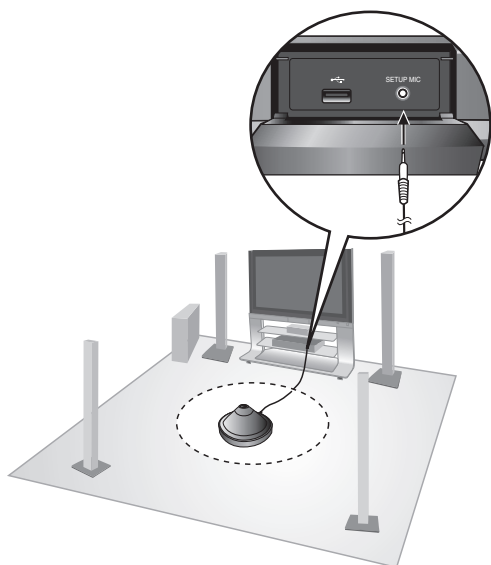
(For **PT860** only)

The speaker level settings can be optimized to accommodate your room's listening conditions so that you can enjoy the ideal surround sound experience. Using the supplied Auto speaker setup microphone, this unit adjusts the balance of the front speakers, and the volume level of the center and surround speakers automatically.

Keep as quiet as possible during the Auto speaker setup. Loud voices, air-conditioning noise, or excessive wind may lead to incorrect settings. The speakers output loud test signals during setup.

### Preparation

- Turn off the television before starting the Auto speaker setup.
- Make sure that "DVD/CD" is selected as the source and there are no disc in the tray.
- Ensure that headphones are disconnected.
- For speakers with wireless system, ensure that the speakers are linked to this unit.



### 1 While stopped Connect the Auto speaker setup microphone.

- Place the Auto speaker setup microphone at actual seating position. (At ear level when seated.)

### 2 (press and hold)

#### Start the setup

- The test signal is output from each speaker.
- "COMPLETE" is displayed when Auto speaker setup is completed.

#### To cancel the setup

- Press and hold [—AUTO SP] again. ("CANCEL" will be displayed when Auto speaker setup is canceled.)

### Note

- Audio settings will be restored to default if the Auto speaker setup is canceled.

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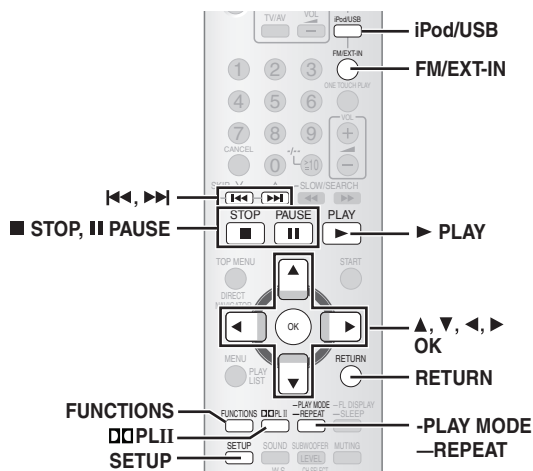
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WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

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You can play an external source through your home theater system.

## Enjoying TV audio

### Preparation

Confirm the audio connection to the SCART (AV) or AUX terminal on this unit (→10 or 11).



Select **"AV"** or **"AUX"**.

**AV:** For audio input through the SCART (AV) terminal.

**AUX:** For audio input through the AUX terminal.

- Reduce the volume on the TV to its minimum, and then adjust the volume of this unit.
- You can enjoy surround sound effect when you press [DOLBY II] to turn on Dolby Pro Logic II (→31).

## Enjoying digital audio

### Preparation

Confirm the audio connection to the OPTICAL IN terminal on this unit (→11).



Select **"D-IN" (Digital In)**.

## Making settings for the digital audio input

Select to suit the type of audio from the OPTICAL IN terminal on this unit.

- While in "D-IN" mode  
Press [SETUP] to select **"MAIN/SAP"**, **"DRC"** or **"PCM FIX"**.
- While the selected mode is displayed  
Press [▲, ▼] to make the setting.

**MAIN/SAP mode** (Only works with Dolby Dual Mono)

**MAIN, SAP\***, **MAIN+SAP\*** (stereo audio)

\*"SAP" = Secondary Audio Program

### Dynamic Range Compression

**DRC ON:** Adjust for clarity even when the volume is low by compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital)

### DRC OFF

### PCM FIX mode

**PCM ON:** Select when receiving only PCM signals.

**PCM OFF:** Select when receiving Dolby Digital and PCM signals.

### Note

Audio that is input through the OPTICAL IN terminal cannot be output through the HDMI terminal.

## Playing from an USB device

You can connect and play tracks or files from USB mass storage class devices.

Devices which are defined as USB mass storage class:

–USB devices that support bulk only transfer.

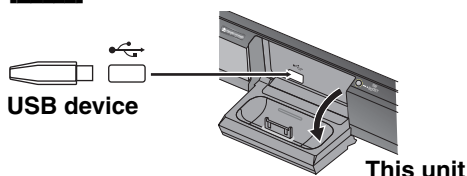
–USB devices that support USB 2.0 full speed.

### Preparation

- Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.
- It is not recommended to use a USB extension cable. The USB device connected using the cable will not be recognised by this unit.

### Connect the USB device (not included)

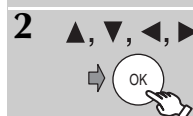
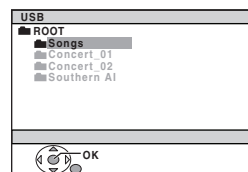
e.g. **PT560**



1

Select **"USB"**.

The menu screen appears.  
e.g.



2

Select an item.

- To return to the previous screen, press [RETURN].

Play starts from the selected content.

- You can enjoy surround sound effect when you press [DOLBY II] to turn on Dolby Pro Logic II (→31).
- For other operating functions, they are similar to those described in "Playing discs" (→16 to 27).

### Supported Formats

Still pictures	JPEG (Extension: ".jpg", ".JPG", ".jpeg", ".JPEG")
Music	MP3 (Extension: ".mp3", ".MP3") WMA (Extension: ".wma", ".WMA")

\* For Panasonic D-Snap/DIGA

### Note

- Maximum: 256 folders, 4000 files, 12 characters for file/folder name
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.
- When connecting the USB mass storage device, ensure the iPod has been disconnected.

## Using the iPod

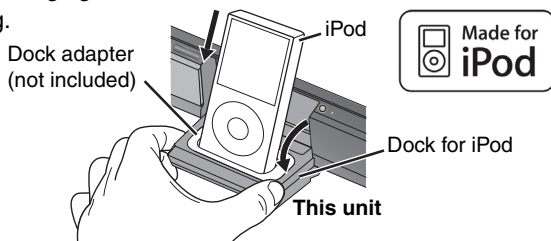
### Preparation

- To view photos/videos from the iPod
  - Ensure the video connection to the SCART (AV) terminal on this unit and select “VIDEO/YPbPr” from “VIDEO OUT — SCART” in “VIDEO” menu (→24).
  - Operate the iPod menu to make the appropriate photo/video output settings for your TV. (Refer to the operating instructions of your iPod.)
- To display the picture, turn on the TV and select the appropriate video input mode.
- Before connecting/disconnecting the iPod, turn this unit off or reduce the volume of this unit to its minimum.

### Connect the iPod (not included) firmly.

Recharging starts when the iPod is inserted.

e.g.



- Hold the dock when connecting/disconnecting the iPod.
- Attach the dock adapter which should be supplied with your iPod to the dock for the stable use of the iPod. If you need an adapter, consult your iPod dealer.

**Select “IPOD”.**

The iPod automatically switches to this unit's display mode.

Music menu appears on the TV.

e.g.

To operate through display of iPod, press [FUNCTIONS].

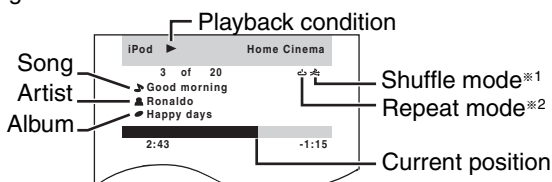
### Enjoying music

**Select an item.**

- Press [◀, ▶] to skip page by page.
- To return to the previous screen, press [RETURN].

Play starts from the selected track.

e.g.



### \*1 To select shuffle modes

Press [–PLAY MODE].

Each time you press the button:

- : Song shuffle
- : Album shuffle
- Off: Cancel

### \*2 To select repeat modes

Press and hold [–REPEAT] and then press the button repeatedly within 3 seconds.

Each time you press the button:

- : Repeat 1 track
- : Repeat all
- Off: Cancel

### Enjoying photos/videos

**1**

**Switch the iPod to its own display mode.**

Proceed operations through display of iPod.

**2**

**Play a slideshow or video on your iPod.**

The picture will be displayed on your TV.

You can also use the remote control to operate iPod menu.

[▲, ▼]: To navigate menu items

[OK]: To go to the next menu

[RETURN]: To return to the previous menu

### Basic controls (For music and videos only)

Button	Function
[▶ PLAY]	Play
[■ STOP], [   PAUSE]	Pause
[◀◀, ▶▶]	Skip
(press and hold) [◀◀, ▶▶]	Search

- You can enjoy surround sound effect when you press [DOLBY II] to turn on Dolby Pro Logic II (→31).

### When using the START menu in “IPOD” mode

Select “Music” or “Photos/Videos”.

**MUSIC:** Shows the music menu.

**PHOTOS/VIDEOS:** Switches to display of iPod.

### About recharging the battery

- iPod will start recharging regardless of whether this unit is on or off.
- “IPOD \*” will be shown on this unit's display during iPod charging in this unit standby mode.
- Check iPod to see if the battery is fully recharged.
- If you are not using iPod for an extended period of time after recharging has completed, disconnect it from this unit, as the battery will be depleted naturally. (Once fully recharged, additional recharging will not occur.)

### Note

When connecting the iPod, ensure the USB device and Auto speaker setup microphone have been disconnected.




### Compatible iPod

- iPod touch (8GB, 16GB)
- iPod nano 3rd generation (video) (4GB, 8GB)
- iPod classic (80GB, 160GB)
- iPod nano 2nd generation (aluminum) (2GB, 4GB, 8GB)
- iPod 5th generation (video) (60GB, 80GB)
- iPod 5th generation (video) (30GB)
- iPod nano 1st generation (1GB, 2GB, 4GB)
- iPod 4th generation (color display) (40GB, 60GB)
- iPod 4th generation (color display) (20GB, 30GB)
- iPod 4th generation (40GB)
- iPod 4th generation (20GB)
- iPod mini (4GB, 6GB)




Compatibility depends on the software version of your iPod.

# Discs that can be played

## Commercial discs

Disc	Logo	Indicated in these instructions by	Remarks
DVD-Video		<b>DVD-V</b>	High quality movie and music discs
Video CD		<b>VCD</b>	Music discs with video Including SVCD (Conforming to IEC62107)
CD		<b>CD</b>	Music discs

## Recorded discs (○: Playable, —: Not playable)

Disc	Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.			Finalizing <sup>※6</sup>
		DVD-VR <sup>※2</sup>	DVD-V <sup>※4</sup>	WMA	MP3	JPEG	
DVD-RAM		○	—	—	○	○	Not necessary
DVD-R/RW		○	○	—	○	○	Necessary
DVD-R DL		○ <sup>※3</sup>	○	—	—	—	Necessary
+R/+RW	—	—	(○) <sup>※5</sup>	—	—	—	Necessary
+R DL	—	—	(○) <sup>※5</sup>	—	—	—	Necessary
CD-R/RW <sup>※1</sup>	—	—	—	○	○	○	Necessary <sup>※7</sup>

● It may not be possible to play all the above-mentioned discs in some cases due to the type of disc, the condition of the recording, the recording method, or how the files were created (→37, Tips for making data discs).

※1 This unit can play CD-R/RW recorded with CD-DA or Video CD format.

※2 Discs recorded on DVD recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

※3 Discs recorded on DVD recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).

※4 Discs recorded on DVD recorders or DVD video cameras using DVD-Video Format.

※5 Recorded using a format different from DVD-Video Format, therefore some functions cannot be used.

※6 A process that allows play on compatible equipment. To play a disc that is indicated as “Necessary”, the disc must first be finalized on the device it was recorded on.

※7 Closing the session will also work.

### Note about using a DualDisc

The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

## Discs that cannot be played

Blu-ray, HD DVD, AVCHD discs, DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, DivX Video Discs and Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and “Chaoji VCD” available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

## Video systems

- This unit can play PAL and NTSC, but your TV must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC TV.

— This unit can convert NTSC signals to PAL 60 for viewing on a PAL TV (→24, “NTSC DISC OUT” in “VIDEO” menu).

## Disc handling precautions

- Do not attach labels or stickers to discs. This may cause disc warping, rendering it unusable.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, liquids which prevent static electricity, or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not use the following discs:
  - Discs with exposed adhesive from removed stickers or labels (rented discs, etc.).
  - Discs that are badly warped or cracked.
  - Irregularly shaped discs, such as heart shapes.

## ■ Tips for making data discs

Format	Disc	Extension	Reference
<b>WMA</b>	<b>CD-R/RW</b>	“.WMA” “.wma”	<ul style="list-style-type: none"> <li>• Compatible compression rate: between 48 kbps and 320 kbps</li> <li>• You cannot play WMA files that are copy-protected.</li> <li>• This unit does not support Multiple Bit Rate (MBR: an encoding process for audio content that produces an audio file encoded at several different bit rates).</li> </ul>
<b>MP3</b>	<b>DVD-RAM</b> <b>DVD-R/RW</b> <b>CD-R/RW</b>	“.MP3” “.mp3”	<ul style="list-style-type: none"> <li>• This unit does not support ID3 tags.</li> <li>• Sampling frequency and compression rate: <ul style="list-style-type: none"> <li>– DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24 kHz (8 to 160 kbps), 44.1 and 48 kHz (32 to 320 kbps)</li> <li>– CD-R/RW: 8, 11.02, 12, 16, 22.05, 24 kHz (8 to 160 kbps), 32, 44.1 and 48 kHz (32 to 320 kbps)</li> </ul> </li> </ul>
<b>JPEG</b>	<b>DVD-RAM</b> <b>DVD-R/RW</b> <b>CD-R/RW</b>	“.JPG” “.jpg” “.JPEG” “.jpeg”	<ul style="list-style-type: none"> <li>• JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. <ul style="list-style-type: none"> <li>– Files that have been altered, edited or saved with computer picture editing software may not be displayed.</li> </ul> </li> <li>• This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (e.g. TIFF), or play pictures with attached audio.</li> </ul>

- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

### DVD-RAM

- Discs must conform to UDF 2.0.

### DVD-R/RW

- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit does not support multi-session. Only the default session is played.

### CD-R/RW

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are many sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

## Maintenance

### ■ To clean discs

Wipe with a damp cloth and then wipe dry.



### ■ Clean this unit with a soft, dry cloth.

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

**Do not use commercially available lens cleaners as they may cause malfunction.** Cleaning of the lens is generally not necessary although this depends on the operating environment.

**Before moving the unit, ensure the disc tray is empty.** Failure to do so will risk severely damaging the disc and the unit.



# Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated in the chart do not solve the problem, consult your dealer for instructions.

## Power

<b>No power.</b>	● Insert the AC mains lead securely.	<b>11</b>
<b>The unit is automatically switched to standby mode.</b>	● The Sleep timer was working and had reached the set time limit.	<b>14</b>

## Unit displays

<b>The display is dark.</b>	● Select “BRIGHT” in “FL DIMMER” in the “OTHERS” menu.	<b>26</b>
<b>“NO PLAY”</b>	● You inserted a disc the unit cannot play; insert one it can. ● You inserted a blank disc. ● You inserted a disc that has not been finalized.	<b>36</b> — —
<b>“NO DISC”</b>	● You have not inserted a disc; insert one. ● You have not inserted the disc correctly; insert it correctly.	— <b>16</b>
<b>“OVER CURRENT ERROR”</b>	● The USB device is drawing too much power. Switch to DVD/CD mode, remove the USB and turn the unit off.	—
<b>“F61”</b>	● Check and correct the speaker cable connections. If this does not fix the problem, consult the dealer.	<b>9</b>
<b>“F76”</b>	● There is a power supply problem. Consult the dealer.	—
<b>“DVD U11”</b>	● Disc may be dirty. Wipe it clean.	<b>37</b>
<b>“ERROR”</b>	● Incorrect operation performed. Read the instructions and try again. ● <b>PT860</b> Ensure that necessary preparations have been made before Auto speaker setup. ● <b>PT860</b> Check and correct the speaker cable connections if you are doing Auto speaker setup. ● <b>PT860</b> The volume might be muted. Cancel muting before Auto speaker setup.	— <b>33</b> <b>9</b> <b>14</b>
<b>“DVD H□□”</b> <b>“DVD F□□□”</b> □ stands for a number.	● Trouble may have occurred. The numbers following “H” and “F” depend on the status of the unit. Turn the unit off and then back on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it. ● If the service numbers fail to clear, note the service number and contact a qualified service person.	— —
<b>“U70□”</b> □ stands for a number. The actual number following “U70” will depend on the state of this unit.	● The HDMI connection acts unusually. — The connected equipment is not HDMI-compatible. — Please use HDMI cables that have the HDMI logo (as shown on the cover). — The HDMI cable is too long. — The HDMI cable is damaged.	— — — —
<b>“REMOTE 1” or “REMOTE 2”</b>	● Match the modes on this unit and remote control. Depending on the number being displayed (“1” or “2”), press and hold [OK] and the corresponding numbered button ([1] or [2]) for at least 2 seconds.	<b>14</b>
<b>“NO MIC”</b> <b>PT860</b>	● The Auto speaker setup microphone is not inserted. Check whether the Auto speaker setup microphone is plugged in properly into the “SETUP MIC” jack.	<b>33</b>
<b>“NOISY”</b> <b>PT860</b>	● Excessive ambient noise in the room. Perform the setup again and keep quiet during the Auto speaker setup.	—





## General operation

<b>No response when any buttons are pressed.</b>	●This unit cannot play discs other than the ones listed in these operating instructions.	<b>36</b>
	●The unit may not be operating properly due to lightning, static electricity or some other external factor. Turn the unit off and then back on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it.	—
	●Condensation has formed. Wait 1 to 2 hours for it to evaporate.	—
<b>No response when remote control buttons are pressed.</b>	●Check that the batteries are installed correctly.	<b>11</b>
	●The batteries are depleted. Replace them with new ones.	<b>11</b>
	●Aim the remote control at the remote control signal sensor and operate.	<b>15</b>
<b>Other products respond to the remote control.</b>	●Change the remote control operating mode.	<b>14</b>
<b>No picture or sound.</b>	●Check the video or speaker connection.	<b>9, 10</b>
	●Check the power or input setting of the connected equipment and this unit.	—
	●Check that the disc has something recorded on it.	—
<b>You have forgotten your ratings password.</b> Reset all the settings to Factory Preset.	●While stopped and “DVD/CD” is the source, press and hold [■] (Stop) on this unit and [≥ 10] on the remote control until “INITIALIZED” disappears from the TV. Turn the unit off and on again. All settings will return to the default values. (This does not work during program and random modes, or when setup menu or START menu is displayed.)	—
<b>The VIERA Link “HDAVI Control” function does not respond.</b>	●Depending on the condition of this unit or the connected equipment, it may be necessary to repeat the same operation so that the function can work correctly.	<b>28</b>
<b>The setting you made in “TV ASPECT” (→24, “VIDEO” menu) or “LANGUAGE” (→25, “DISPLAY” menu) does not work.</b>	●The settings for “TV ASPECT” *1 and “LANGUAGE” *2 will automatically follow to the settings of the TV. Select using TV settings. *1 When using VIERA Link “HDAVI Control” with “HDAVI Control 3” compatible TV *2 When using VIERA Link “HDAVI Control” with “HDAVI Control 2 (or later)” compatible TV	—

## Disc operation

<b>It takes time before play starts.</b>	●Play may take time to begin when an MP3 track has still picture data. Even after the track starts, the correct play time will not be displayed. This is normal. <b>[MP3]</b>	—
<b>A menu screen appears during skip or search.</b> <b>[VCD]</b>	●This is normal for Video CDs.	—
<b>Playback control menu does not appear.</b> <b>[VCD]</b> with playback control	●Press [■ STOP] twice and then press [▶ PLAY].	—
<b>Program and Random play do not work.</b> <b>[DVD-V]</b>	●These functions do not work with some DVD-Videos.	—
<b>Play does not start.</b>	●This unit may not play WMA that contains still picture data.	—
	●If a disc contains CD-DA and other formats, proper playback may not be possible.	—
<b>No subtitles.</b>	●Display the subtitles. (“SUBTITLE” in Menu 1)	<b>21</b>
<b>Point B is automatically set.</b>	●The end of an item becomes point B when it is reached.	—
<b>The Setup menu cannot be accessed.</b>	●Select “DVD/CD” as the source.	—
	●Cancel Program and Random play.	<b>18</b>

(Continued on next page)





## Sound

<b>Sound is distorted.</b>	<ul style="list-style-type: none"> <li>Noise may occur when playing WMA.</li> <li>When using the HDMI output, audio may not be output from other terminals.</li> </ul>	— —
<b>Effects do not work.</b>	<ul style="list-style-type: none"> <li>Some audio effects do not work or have less effect with some discs.</li> </ul>	—
<b>Humming is heard during play.</b>	<ul style="list-style-type: none"> <li>An AC mains lead or fluorescent light is near this unit. Keep other appliances and cables away from this unit.</li> </ul>	—
<b>No sound.</b>	<ul style="list-style-type: none"> <li>There may be a slight pause in sound when you change the play speed.</li> <li>Audio may not be heard when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.</li> <li>When using the HDMI connection, ensure that "AUDIO OUT" in the "HDMI" menu is set to "ON".</li> </ul>	— — 26
<b>No sound from the TV.</b>	<ul style="list-style-type: none"> <li>Confirm the audio connection. Press [FM/EXT-IN] to select the corresponding source.</li> </ul>	10, 34
<b>No surround sound.</b>	<ul style="list-style-type: none"> <li>Press [DOLBY] to turn on Dolby Pro Logic II or turn on Surround Enhancer.</li> </ul>	31

## Picture

<b>The picture on the TV is not displayed correctly or disappears.</b>	<ul style="list-style-type: none"> <li>The unit and TV are using different video systems. Use a multi-system or PAL TV.</li> <li>The system used on the disc does not match your TV. <ul style="list-style-type: none"> <li>PAL discs cannot be correctly viewed on an NTSC TV.</li> <li>This unit can convert NTSC signals to PAL 60 for viewing on a PAL TV ("NTSC DISC OUT" in "VIDEO" menu).</li> </ul> </li> <li>Ensure that the unit is connected directly to the TV, and is not connected through a video cassette recorder.</li> <li>Mobile telephone chargers can cause some disturbance.</li> <li>If you are using an indoor TV antenna, change to an outdoor antenna.</li> <li>The TV antenna wire is too close to the unit. Move it away from the unit.</li> <li>Picture may not be seen when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.</li> <li>When using the COMPONENT VIDEO OUT terminal, ensure that progressive output is not selected when the connected television is not progressive compatible. Press and hold [CANCEL] until "PRG" disappears from this unit display and the picture is displayed correctly.</li> <li>When using the HDMI AV OUT terminal, ensure that video output unacceptable with the connected TV is not selected. Press and hold [CANCEL] until the picture is displayed correctly. (The output will return to "480p" or "576p".)</li> <li>When the HDMI cable is connected, there will be no RGB output from the SCART (AV) terminal. If the SCART (AV) terminal is to be used, remove the HDMI cable and turn this unit on/off again.</li> </ul>	— — 24 10 — — — 24 22 —
<b>Picture size does not fit the screen</b>	<ul style="list-style-type: none"> <li>Change "TV ASPECT" in the "VIDEO" menu.</li> <li>Use the TV to change the aspect.</li> <li>Change the zoom setting. ("ZOOM" in Menu 2)</li> </ul>	24 — 21
<b>Menu is not displayed correctly.</b>	<ul style="list-style-type: none"> <li>Restore the zoom ratio to "NORMAL". ("ZOOM" in Menu 2)</li> </ul>	21
<b>Auto zoom function does not work well.</b>	<ul style="list-style-type: none"> <li>Turn off TV's zoom function.</li> <li>Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.</li> </ul>	— —
<b>When playing PAL disc, picture distorted.</b>	<ul style="list-style-type: none"> <li>Set "TRANSFER MODE" in Menu 2 to "AUTO".</li> </ul>	21



## iPod operation

<b>Cannot charge or operate.</b>	<ul style="list-style-type: none"> <li>● Check that the iPod is connected firmly.</li> <li>● The battery of the iPod is depleted. Charge the iPod, and then operate again.</li> </ul>	35 —
<b>Cannot display iPod photos/videos on the TV</b>	<ul style="list-style-type: none"> <li>● Ensure the video connection to the SCART (AV) terminal on this unit and select "VIDEO/YPbPr" from "VIDEO OUT - SCART" in "VIDEO" menu.</li> <li>● Operate the iPod menu to make the appropriate photo/video output settings for your TV. (Refer to the operating instructions of your iPod.)</li> </ul>	24 —

## HDMI or progressive video

<b>There is ghosting when HDMI or progressive output is on.</b>	<ul style="list-style-type: none"> <li>● This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlaced output. When using the HDMI AV OUT terminal, set "VIDEO FORMAT" in Menu 4 to "480i" or "576i". Or, disable the HDMI AV OUT connection and use other video connections.</li> <li>● When using the COMPONENT VIDEO OUT terminal, set "VIDEO OUT (I/P)" in "VIDEO" menu to "INTERLACE". (Alternatively, press and hold [CANCEL] until "PRG" disappears from this unit display.)</li> </ul>	22 24
<b>Pictures not in progressive output.</b>	<ul style="list-style-type: none"> <li>● Select "PROGRESSIVE" in "VIDEO OUT (I/P)" in "VIDEO" menu.</li> <li>● The unit's SCART (AV) terminal outputs an interlaced signal even if "PRG" is displayed.</li> </ul>	24 —

## Radio

<b>Distorted sound or noise is heard. "ST" flickers or does not light.</b>	<ul style="list-style-type: none"> <li>● Adjust the position of the FM antenna.</li> <li>● Use an outdoor antenna.</li> </ul>	— 9
<b>A beat sound is heard.</b>	<ul style="list-style-type: none"> <li>● Turn the TV off or move it away from the unit.</li> </ul>	—

## USB

<b>The USB drive or its contents cannot be read.</b>	<ul style="list-style-type: none"> <li>● The USB drive format or its contents is/are not compatible with the system.</li> <li>● The USB host function of this product may not work with some USB devices.</li> <li>● USB devices with storage capacity of more than 32 GB may not work in some instances.</li> </ul>	34 — —
<b>Slow operation of the USB device.</b>	<ul style="list-style-type: none"> <li>● Large file size or high memory USB device takes longer time to read and display on the TV.</li> </ul>	—

## TV displays

<b>"⊙"</b>	<ul style="list-style-type: none"> <li>● The operation is prohibited by the unit or disc.</li> </ul>	—
<b>"THIS DISC MAY NOT BE PLAYED IN YOUR REGION"</b>	<ul style="list-style-type: none"> <li>● Only DVD-Video discs that include or have the same region number as the one on the rear panel of this unit can be played.</li> </ul>	Cover page



## AMPLIFIER SECTION

### RMS Output Power: Dolby Digital Mode

Front Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Surround Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Center Ch	250 W per channel (6 Ω), 1 kHz, 10 % THD
Subwoofer Ch	250 W per channel (6 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power	1000 W

### DIN Output Power: Dolby Digital Mode

Front Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch	145 W per channel (6 Ω), 1 kHz, 1 % THD
Subwoofer Ch	145 W per channel (6 Ω), 100 Hz, 1 % THD
Total DIN Dolby Digital mode power	590 W

## FM TUNER, TERMINALS SECTION

**Preset Memory** FM 30 stations

### Frequency Modulation (FM)

Frequency range	87.50 MHz to 108.00 MHz (50-kHz step)
Antenna terminals	75 Ω (unbalanced)

### Digital audio input

Optical digital input	Optical terminal
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz

### Phone jack

Terminal	Stereo, 3.5 mm jack
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### USB Port

USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3) WMA (*.wma) JPEG (*.jpg) (*.jpeg)
USB device file system	FAT12, FAT16, FAT32
USB Port power	Max. 500 mA

## DISC SECTION

### Discs played (8 cm or 12 cm)

- (1) DVD (DVD-Video)
- (2) DVD-RAM (DVD-VR, MP3<sup>\*2, 5</sup>, JPEG<sup>\*4, 5</sup>)
- (3) DVD-R (DVD-Video, DVD-VR, MP3<sup>\*2, 5</sup>, JPEG<sup>\*4, 5</sup>)
- (4) DVD-R DL (DVD-Video, DVD-VR)
- (5) DVD-RW (DVD-Video, DVD-VR, MP3<sup>\*2, 5</sup>, JPEG<sup>\*4, 5</sup>)
- (6) +R/+RW (Video)
- (7) +R DL (Video)
- (8) CD, CD-R/RW [CD-DA, Video CD, SVCD<sup>\*1</sup>, MP3<sup>\*2, 5</sup>, WMA<sup>\*3, 5</sup>, JPEG<sup>\*4, 5</sup>]

<sup>\*1</sup> Conforming to IEC62107

<sup>\*2</sup> MPEG-1 Layer 3, MPEG-2 Layer 3

<sup>\*3</sup> Windows Media Audio Ver.9.0 L3

Not compatible with Multiple Bit Rate (MBR)

<sup>\*4</sup> Exif Ver 2.1 JPEG Baseline files

Picture resolution: between 160×120 and 6144×4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and narrow pictures may not be displayed.

<sup>\*5</sup> The total combined maximum number of recognizable audio and picture contents and groups: 4000 audio and picture contents and 400 groups.

### Pick up

Wavelength (DVD/CD)	655/785 nm
Laser power (DVD/CD)	CLASS 1/CLASS 1M

### Audio output (Disc)

Number of channels	5.1 ch (FL, FR, C, SL, SR, SW)
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## VIDEO SECTION

**Video system** PAL625/50, PAL525/60, NTSC

### Composite video output

Output level	1 Vp-p (75 Ω)
Terminal	Scart jack (1 system)

### S-video output

Y output level	1 Vp-p (75 Ω)
C output level	PAL; 0.3 Vp-p (75 Ω) NTSC; 0.286 Vp-p (75 Ω)
Terminal	Scart jack (1 system)

### Component video output

Y output level	1 Vp-p (75 Ω)
P <sub>B</sub> output level	0.7 Vp-p (75 Ω)
P <sub>R</sub> output level	0.7 Vp-p (75 Ω)
Terminal	Pin jack (Y: green, P <sub>B</sub> : blue, P <sub>R</sub> : red) (1 system)

### RGB video output

R output level	0.7 Vp-p (75 Ω)
G output level	0.7 Vp-p (75 Ω)
B output level	0.7 Vp-p (75 Ω)
Terminal	Scart jack (1 system)

### HDMI AV output

Terminal	19-pin type A connector
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### HDAVI Control

This unit supports "HDAVI Control 3" function.



## SPEAKER SECTION

### Front speakers SB-HF560

<b>Type</b>	1 way, 1 speaker system (Bass reflex)
<b>Speaker unit(s)</b>	Impedance 3 Ω
Full range	6.5 cm Cone type
<b>Input power (IEC)</b>	125 W* <sup>6</sup> (Max)
<b>Output sound pressure</b>	80 dB/W (1.0 m)
<b>Frequency range</b>	76 Hz to 25 kHz (−16 dB)
	89 Hz to 22 kHz (−10 dB)
<b>Dimensions (W×H×D)</b>	252 mm×1123 mm×235 mm
<b>Mass</b>	3.7 kg

### Surround speakers SB-HS560

<b>Type</b>	1 way, 1 speaker system (Bass reflex)
<b>Speaker unit(s)</b>	Impedance 3 Ω
Full range	6.5 cm Cone type
<b>Input power (IEC)</b>	125 W* <sup>6</sup> (Max)
<b>Output sound pressure</b>	80 dB/W (1.0 m)
<b>Frequency range</b>	95 Hz to 25 kHz (−16 dB)
	120 Hz to 22 kHz (−10 dB)
<b>Dimensions (W×H×D)</b>	92 mm×142 mm×95 mm
<b>Mass</b>	0.6 kg

### Surround speakers SB-HS860

<b>Type</b>	1 way, 1 speaker system (Bass reflex)
<b>Speaker unit(s)</b>	Impedance 3 Ω
Full range	6.5 cm Cone type
<b>Input power (IEC)</b>	125 W* <sup>6</sup> (Max)
<b>Output sound pressure</b>	80 dB/W (1.0 m)
<b>Frequency range</b>	76 Hz to 25 kHz (−16 dB)
	89 Hz to 22 kHz (−10 dB)
<b>Dimensions (W×H×D)</b>	252 mm×1123 mm×235 mm
<b>Mass</b>	3.7 kg

### Center speaker SB-HC560

<b>Type</b>	2 way, 2 speaker system (Bass reflex)
<b>Speaker unit(s)</b>	Impedance 6 Ω
1. Full range	6.5 cm Cone type
2. Full range	6.5 cm Cone type
<b>Input power (IEC)</b>	250 W* <sup>6</sup> (Max)
<b>Output sound pressure</b>	82 dB/W (1.0 m)
Cross over frequency	5 kHz
<b>Frequency range</b>	80 Hz to 25 kHz (−16 dB)
	96 Hz to 22 kHz (−10 dB)
<b>Dimensions (W×H×D)</b>	270 mm×94 mm×95 mm
<b>Mass</b>	1.3 kg

### Subwoofer SB-HW560

<b>Type</b>	1 way, 1 speaker system (Kelton type)
<b>Speaker unit(s)</b>	Impedance 6 Ω
1. Woofer	16 cm Cone type
2. Passive Radiator	25 cm
<b>Input power (IEC)</b>	250 W (Max)
<b>Output sound pressure</b>	78 dB/W (1.0 m)
<b>Frequency range</b>	35 Hz to 200 Hz (−16 dB)
	40 Hz to 198 Hz (−10 dB)
<b>Dimensions (W×H×D)</b>	181 mm×361 mm×315 mm
<b>Mass</b>	4.7 kg

### Subwoofer SB-HW860

<b>Type</b>	1 way, 1 speaker system (Kelton type)
<b>Speaker unit(s)</b>	Impedance 6 Ω
1. Woofer	16 cm Cone type
2. Passive Radiator	25 cm
<b>Input power (IEC)</b>	250 W (Max)
<b>Output sound pressure</b>	78 dB/W (1.0 m)
<b>Frequency range</b>	35 Hz to 200 Hz (−16 dB)
	40 Hz to 198 Hz (−10 dB)
<b>Dimensions (W×H×D)</b>	181 mm×361 mm×315 mm
<b>Mass</b>	4.7 kg

## GENERAL

<b>Power supply</b>	AC 230 V to 240 V, 50 Hz
<b>Power consumption</b>	This unit 135 W
<b>Dimensions (W×H×D)</b>	430 mm×63 mm×327 mm
<b>Mass</b>	This unit 3.4 kg
<b>Operating temperature range</b>	0 °C to +40 °C
<b>Operating humidity range</b>	35 % to 80 % RH (no condensation)

<b>Power consumption in standby mode</b>	approx. 0.4 W
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\*<sup>6</sup> Rating with Low-cut filter equipped amplifier

### Note

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



# 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 places 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 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.

## 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.

**Matsushita Electric Industrial Co., Ltd.**

**Web Site:** <http://panasonic.net>

Pursuant to at the directive 2004/108/EC, article 9 (2)

Panasonic Testing Centre

Panasonic Marketing Europe GmbH

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