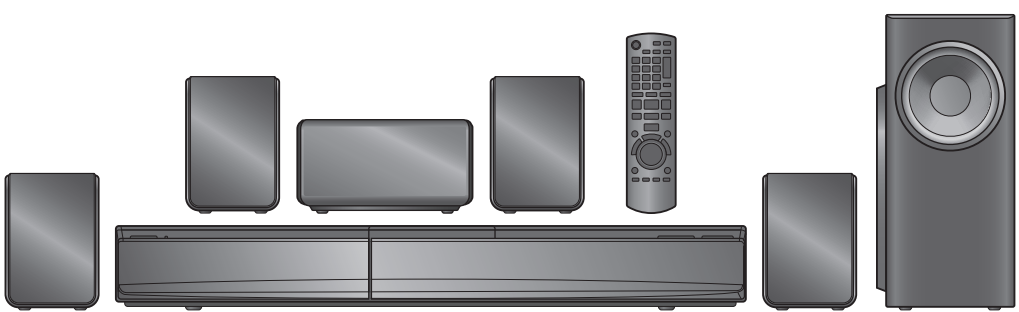# Panasonic®

Operating Instructions
DVD Home Theater Sound System

Model No. **SC-PT480**

Dear customer

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

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

The illustrations shown may differ from your unit.

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

Region	**Number**
Australia and N.Z.	4
Southeast Asia	3
India and Nigeria	5

Example: For Australia and N.Z.

| System			SC-PT480
Main unit			SA-PT480
Speaker system	Front speakers		SB-HF480
	Center speaker		SB-HC480
	Surround speakers		SB-HS480
Subwoofer			SB-HW480

- These operating instructions are applicable to model SC-PT480 for a variety of regions.
- Unless otherwise indicated, illustrations in these operating instructions are of the model for Australia and N.Z..
- Please note that the actual controls and components, menu items, etc. of your DVD Home Theater Sound System may look somewhat different from those shown in the illustrations in these Operating Instructions.
- Operations in these instructions are described mainly with the remote control, but you can perform the operations on the main unit if the controls are the same.
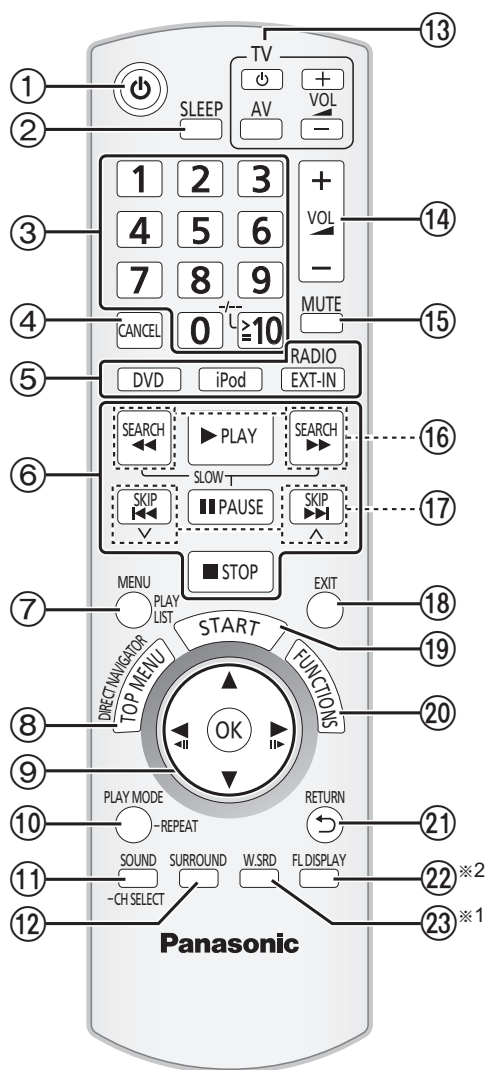
Accessories

Please check and identify the supplied accessories.

☐ **1 Remote control**
For Australia and N.Z.
(N2QAYB000515)
Except Australia and N.Z.
(N2QAYB000516)

☐ **2 Remote control batteries**

☐ **1 FM indoor antenna**

☐ **1 Video cable**

☐ **5 Speaker cables**

☐ **1 AC mains lead**

☐ **1 Sheet of speaker cable stickers**

CLASS 1
LASER PRODUCT
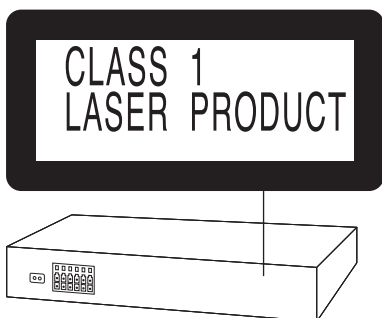
CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 +A2/ Class 1M
VARNING	- KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.
FORSIGTIG	- SYNLIG OG USYNLIG LASERSTRÅLING KLASS 1M, NÅR LÅGET ER ÅBENT. UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO!	- AVATTAESSA OLET ALTTIINA LUOKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ. LASERSÄTEILYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M. WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 1M, EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
注意	- ここを開くと可視及び不可視レーザ光が出ます。 ビームを見たり、触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。避免光束照射。 GB7241.1-2001/3B 类

RQLXS0075   (Inside of product)

① ⏻
② SLEEP
③ 1 2 3 4 5 6 7 8 9 0 ≥10 -/--
④ CANCEL
⑤ DVD / iPod / RADIO EXT-IN
⑥ SEARCH◄◄ / ►PLAY / SEARCH►►
   SLOW▔
   SKIP I◄◄ ∨ / ‖PAUSE / SKIP ►►I ∧
   ■STOP
⑦ MENU PLAY LIST
⑧ DIRECT NAVIGATOR TOP MENU
⑨ ▲ ◄ OK ► ▼ ◄‖ ‖►
⑩ PLAY MODE -REPEAT
⑪ SOUND -CH SELECT
⑫ SURROUND
⑬ TV ⏻ AV VOL + −
⑭ VOL + −
⑮ MUTE
⑯ (SEARCH)
⑰ (SKIP)
⑱ EXIT
⑲ START
⑳ FUNCTIONS
㉑ RETURN
㉒ FL DISPLAY ※2
㉓ W.SRD ※1

Panasonic

※1 **Except Australia and N.Z.**
MIC VOL −W.SRD

※2 **Except Australia and N.Z.**
ECHO −FL DISPLAY

❶ ⏻/I
❷
❸ iPod
❹ VOLUME − +
❺ OPEN/CLOSE ▲

Panasonic

Except Australia and N.Z.
1-MIC-2 ❻

❼ �⟋
❽
❾
❿ ■
⓫ SELECTOR
⓬ ►

Pull open
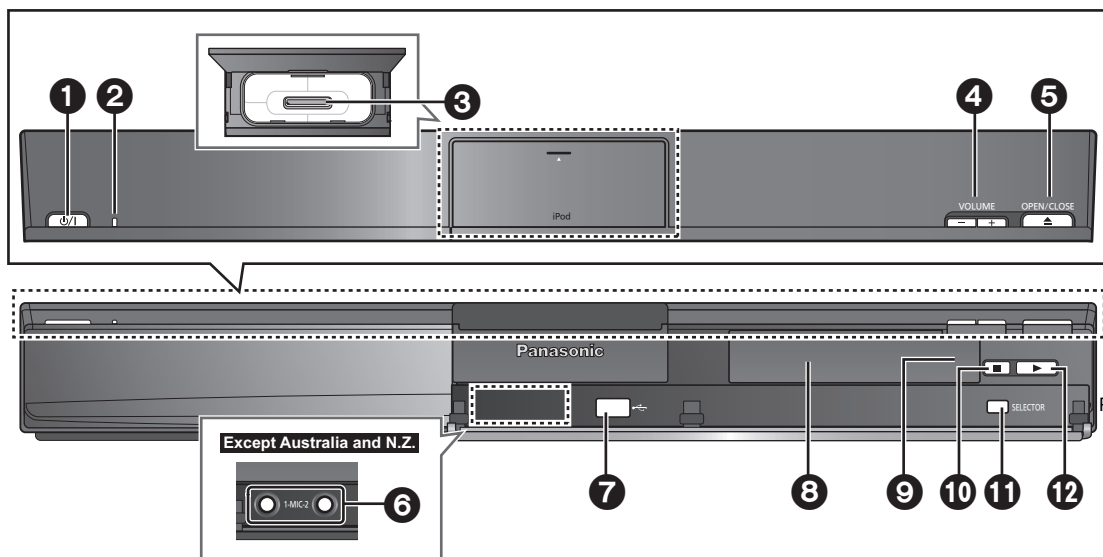
Note
The circled numbers indicated in the operating instructions (e.g. Press [⏻]①.) correspond to the circled numbers in the above.

Control reference guide

Remote control

① Turn the main unit on/off (⇨ 8)
② **Set the Sleep timer**
Press [SLEEP].
SLEEP 30 → SLEEP 60 → SLEEP 90 → SLEEP120
↑⎯⎯⎯⎯⎯⎯ OFF (Cancel) ←⎯⎯⎯⎯⎯⎯⎯┘
● To confirm the remaining time, press the button again.
③ Select channels and title numbers etc. / Enter numbers (⇨ 8, 11)
④ Cancel (⇨ 11)
⑤ **Source select**
[DVD]: Select disc as the source (⇨ 11)
[iPod]: Select iPod/iPhone as the source (⇨ 16)
[RADIO, EXT-IN]: Select the FM tuner or the external audio source.
(⇨ 8, 9)

FM →AUX →ARC →D-IN →USB
↑⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯┘

⑥ Basic operations for play (⇨ 11)
⑦ Show a disc menu or play list (⇨ 11, 12)
⑧ Show a disc top menu or program list (⇨ 11, 12)
⑨ Select or confirm menu items / Frame-by-frame (⇨ 11)
⑩ Select the play mode / Set the repeat mode (⇨ 11)
⑪ Select sound mode / Select speaker channel (⇨ 10)
⑫ Select surround sound effects (⇨ 10)
⑬ **TV operations**
Aim the remote control at the Panasonic TV and press the button.
[⏻]: Turn the TV on/off
[AV]: Change the TV's video input mode
[+, VOL, −]: Adjust the TV volume
This may not work properly with some models.
⑭ Adjust the volume of the main unit
⑮ **Mute the sound**
● "MUTE" flashes on the main 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.
⑯ Select radio stations manually (⇨ 9)
⑰ Select preset radio stations (⇨ 8)
⑱ Exit the display
⑲ Show START menu (⇨ 9)
⑳ Show on-screen menu (⇨ 12)
㉑ Return to previous screen (⇨ 11)
㉒ For Australia and N.Z.
Switch information on the main unit's display (⇨ 11)
Except Australia and N.Z.
Switch information on the main unit's display / Adjust the echo level
(⇨ 11, 15)
㉓ For Australia and N.Z.
Turn Whisper-mode Surround on/off (⇨ 10)
Except Australia and N.Z.
Turn Whisper-mode Surround on/off / Adjust the microphone volume
(⇨ 10, 15)

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".

The main unit and remote control must be set to the same mode.
1 Press [RADIO, EXT-IN]⑤ to select "AUX".
2 Press and hold [►]⑫ on the main unit and [2] on the remote control until the main unit's display shows "REMOTE 2".
3 Press and hold [OK]⑨ and [2] on the remote control for at least 2 seconds.
To change the mode back to "REMOTE 1", repeat the steps above by replacing [2] with [1].

Main unit

❶ **Standby/on switch (⏻/I)**
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.
❷ Power indicator
The indicator lights when this unit is turned on.
❸ Connect iPod/iPhone (⇨ 16)
❹ Adjust the volume of the main unit
❺ Open/Close the disc tray (⇨ 11)
❻ Except Australia and N.Z.
Connect microphones (⇨ 15)
❼ Connect USB device (⇨ 17)
❽ Display
"SRD" lights when sound is output to the surround speakers. (⇨ 10)
❾ Remote control signal sensor
❿ Stop playing
⓫ Select the source
DVD/CD →USB →FM →AUX →ARC →D-IN →IPOD
↑⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯┘

⓬ Play disc

TABLE OF CONTENTS

Quick Start Guide

Enjoying sound effects from all speakers

Language code list

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

step 1 | 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.
- For optional wall mount, refer to page 21.

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

Setup example ("**Surround layout (Recommended)**": Standard surround placement)
Place the front, center, and surround speakers at approximately the same distance from the seating position. The angles in the diagram are approximate.
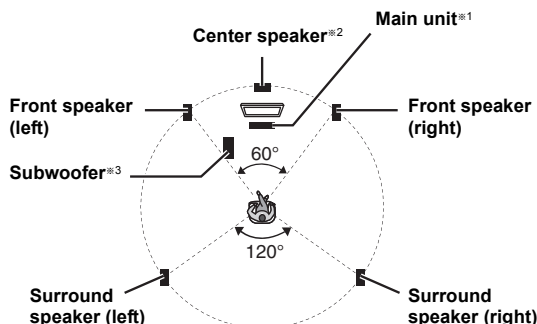
- ※1 Position with at least 5 cm of space on all sides for proper ventilation.
- ※2 Put on a rack or shelf. Vibration caused by the speaker can disrupt the picture if it is placed directly on the TV.
- ※3 Place to the right or left of the TV, on the floor or a sturdy shelf so that it will not cause vibration. Leave about 30 cm from the TV.

Depending on the room layout, you may like to use all the speakers at the front ("Front layout (Alternative)") (⇨ 8, EASY SETUP settings).

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, a microphone, 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.

Caution
- **The main unit and 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.

---

step 2 | 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 completed.

1 Speaker connections

Pay attention to the type of speaker and the connector colour when you place the speakers.

Main unit (rear)
Connect to the terminals of the same colour.
Use of the speaker cable stickers is convenient when making cable connections.

Speakers (rear)
Insert the wire fully, taking care not to insert beyond the wire insulation.
+: White
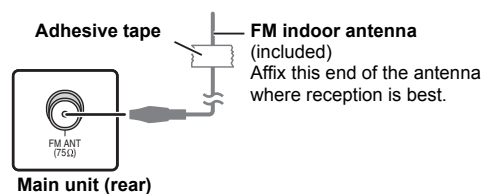−: Blue line

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

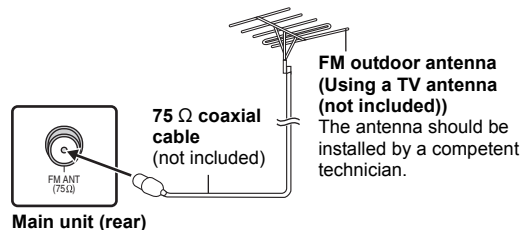### 2 Radio antenna connections

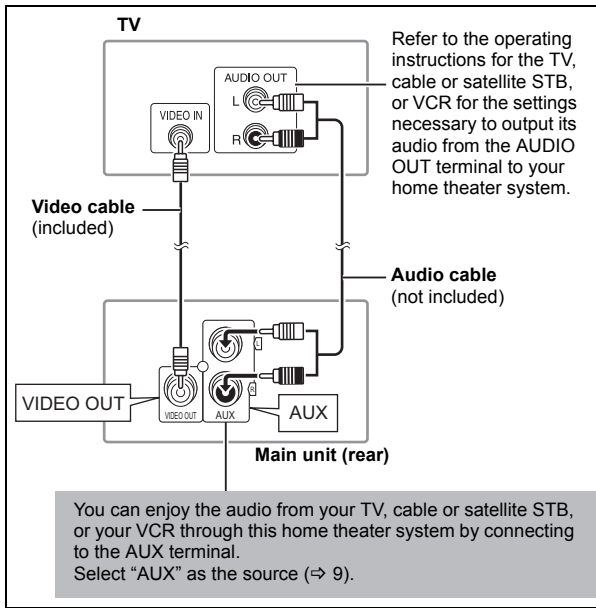**Using an indoor antenna**

Using an outdoor antenna

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.

3 Audio and video connections

Basic setup example

TV

AUDIO OUT
L
R

VIDEO IN

Refer to the operating instructions for the TV, cable or satellite STB, or VCR for the settings necessary to output its audio from the AUDIO OUT terminal to your home theater system.

Video cable (included)

Audio cable (not included)

VIDEO OUT

VIDEO OUT   AUX   AUX

Main unit (rear)

You can enjoy the audio from your TV, cable or satellite STB, or your VCR through this home theater system by connecting to the AUX terminal.
Select "AUX" as the source (⇨ 9).

Other video connection

> **HDMI AV OUT**

This connection provides the best picture quality.

Connect the HDMI cable (not included) from the HDMI AV OUT terminal on the main unit to the HDMI AV IN terminal on your TV.

● If your TV is not ARC compatible, make the extra audio connection.
● Set "VIDEO PRIORITY" to "ON" (⇨ 18, HDMI menu).
● Set "VIDEO FORMAT" in Menu 5 (HDMI) (⇨ 13).

VIERA Link "HDAVI Control"

If your Panasonic TV is VIERA Link compatible, you can operate your TV synchronising with home theater operations or vice versa (⇨ 14, Using the VIERA Link "HDAVI Control™").

ARC (Audio Return Channel)[1, 2]

If the TV is ARC compatible, audio from the TV can be sent to this unit via the HDMI cable without the need to make an extra audio connection.
● Refer to the operating instructions of the TV for details.

> [!Note]
> ● Please use High Speed HDMI Cables that have the HDMI logo (as shown on the cover).
> ● Non-HDMI-compliant cables cannot be utilised.
> ● It is recommended that you use Panasonic's HDMI cable.
>   Recommended part number:
>   RP-CDHS15 (1.5 m),RP-CDHS30 (3.0 m), RP-CDHS50 (5.0 m), etc.

Do not make the video connections through the VCR.
Due to copy guard protection, the picture may not be displayed properly.

Other audio connection

> **DIGITAL AUDIO IN OPTICAL**

When the optical digital audio cable[1, 2] is connected, this unit can decode Dolby Digital audio.

Connect the optical cable (not included) from the DIGITAL AUDIO IN OPTICAL terminal on the main unit to the OPTICAL OUT terminal on your TV.

> [!Note]
> After connecting with the optical digital audio cable or HDMI[1, 2] cable, make settings to suit the type of audio from your digital equipment (⇨ 9).

※1 Refer to the operating instructions of the respective devices for the settings necessary to output the audio.
※2 Only Dolby Digital and PCM can be played with this connection.

Set Top Box (cable/satellite/Blu-ray Disc Player, etc) connection

Use this connection when you want to output the original surround audio from your STB, etc. to this unit.
Connect the optical digital audio cable (not included) from the DIGITAL AUDIO IN OPTICAL terminal on the main unit to the OPTICAL OUT terminal on your STB.
● If the DIGITAL AUDIO IN OPTICAL terminal is already in use for the TV audio, reconnect the TV audio to the AUX terminal using an audio cable.

> [!Note]
> If you have various sound sources (such as Blu-ray player, DVD recorder, VCR, etc.), connect them to the available inputs on the TV and the TV output should then be connected to the AUX, HDMI AV OUT or DIGITAL AUDIO IN OPTICAL terminal of the main unit.

---

step 3 │ AC mains lead connection

> **Except Australia and N.Z.**
> **Before connecting the AC mains lead**
> # Set the voltage.

110~127V   220~240V

VOLT ADJ
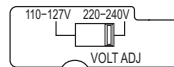
Use a flat-head screwdriver to move the voltage selector to the appropriate position for the area in which this system is used.

AC IN~

Main unit (rear)

To household mains socket
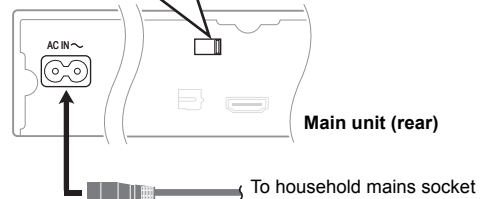
Conserving power
The main unit consumes a small amount of power, even when it is in standby mode (approx. 0.38 W). To save power when the unit is not to be used for a long time, unplug it from the household mains socket. You will need to reset some memory items after plugging in the main unit.

> [!Note]
> The included AC mains lead is for use with the main unit only.
> Do not use it with other equipment. Also, do not use cords for other equipment with the main unit.

Batteries

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

1 Press in and lift up.
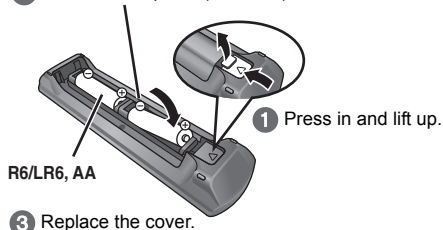
R6/LR6, AA

3 Replace the cover.

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

- Use alkaline or manganese 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 of batteries 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 ($\Rightarrow$ 4), avoiding obstacles.
Distance: Within approx. 7 m
Angle: Within approx. 20° up and down, approx. 30° to the left and right

step 5 | **EASY SETUP**

The EASY SETUP screen assists you in making necessary settings.

Preparation
Turn on your TV and select the appropriate video input mode (e.g. VIDEO 1, AV 1, HDMI, etc.) to suit the connection to this unit.
- To change your TV's video input mode, refer to its operating instructions.
- This remote control can perform some basic TV operations ($\Rightarrow$ 4).

1 Press [⏻]① to turn on the unit.
- When the EASY SETUP screen appears automatically, skip steps 2 to 7.

2 Press [DVD]⑤ to select "DVD/CD".

3 Press [START]⑲ to show the START menu.

4 Press [▲, ▼]⑨ to select "Setup" and press [OK]⑨.

Menu

```
MAIN
 DISC
 VIDEO
 AUDIO
 DISPLAY
 HDMI
 OTHERS
          SET
          RETURN
```
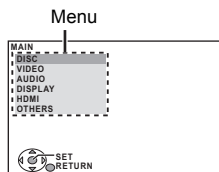
5 Press [▲, ▼]⑨ to select "OTHERS" and press [OK]⑨.

6 Press [▲, ▼]⑨ to select "EASY SETUP" and press [OK]⑨.

7 Press [OK]⑨ to select "SET".

8 Press [▲, ▼]⑨ to select "Yes" and press [OK]⑨.

9 Follow the messages and make the settings with [▲, ▼, ◄, ►]⑨ and [OK]⑨.
($\Rightarrow$ below, EASY SETUP settings)

10 Press [OK]⑨ to finish EASY SETUP.

EASY SETUP settings

- **Language**
  Select the language used on menu screen.
- **TV aspect**
  Select the aspect to suit your TV.
- **Speaker layout**
  Select "Surround layout (Recommended)" mode or "Front layout (Alternative)" mode according to your speaker layout ($\Rightarrow$ 6, Positioning).
- **Speaker check**
  Listen to speaker output to confirm speaker connections.
- **Speaker output**
  Make surround sound setting for speaker output.
- **TV audio**
  Select the audio input connection from your TV.
  For AUX connection ($\Rightarrow$ 7): Select "AUX".
  For HDMI connection ($\Rightarrow$ 7): Select "ARC".
  For DIGITAL AUDIO IN OPTICAL connection ($\Rightarrow$ 7): Select "DIGITAL IN".
  This will be the TV audio setting for VIERA Link "HDAVI Control". ($\Rightarrow$ 14)

Note
- If this unit is connected to a "HDAVI Control 3 or later" compatible TV via HDMI cable, the menu language and TV aspect information will be retrieved via VIERA Link.
- If this unit is connected to a "HDAVI Control 2" compatible TV via HDMI cable, the menu language information will be retrieved via VIERA Link.
- Settings in the EASY SETUP can also be changed in the player settings (e.g. language, TV aspect, TV audio ($\Rightarrow$ 17)).

Listening to the radio

Presetting stations automatically

Up to 30 stations can be set.

1 Press [RADIO, EXT-IN]⑤ to select "FM".

2 Press [MENU]⑦.
Each time you press the button:
LOWEST (factory preset)**:**
To begin auto preset with the lowest frequency.
CURRENT:
To begin auto preset with the current frequency.※

※ To change the frequency, refer to "Manual tuning" ($\Rightarrow$ below).

3 Press and hold [OK]⑨.
Release the button when "FM AUTO" is displayed.
The tuner 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 ($\Rightarrow$ below).

Listening/confirming the preset channels

1 Press [RADIO, EXT-IN]⑤ to select "FM".

2 Press the numbered buttons to select a channel.
- To select a 2-digit number
  e.g. 12: [≧10]③ $\Rightarrow$ [1] $\Rightarrow$ [2]

  Alternatively, press [∨, ∧]⑰.

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

If noise is excessive

Press and hold [PLAY MODE]⑩ to display "MONO".
To cancel the mode, press and hold the button again until "AUTO ST" is displayed.
- The mode is also cancelled when you change the frequency.

Manual tuning

1 **Press [RADIO, EXT-IN]⑤ to select "FM".**

2 **Press [SEARCH◄◄, SEARCH►►]⑯ to select the frequency.**
- To start automatic tuning, press and hold [SEARCH◄◄, SEARCH►►]⑯ until the frequency starts scrolling. Tuning stops when a station is found.

Presetting stations manually

Up to 30 stations can be set.
1 While listening to the radio broadcast
Press [OK]⑨.
2 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]③ ⇨ [1] ⇨ [2]

  Alternatively, press [∨, ∧]⑰, and then press [OK]⑨.

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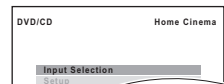
Using the START menu

You can select desired source, change the settings, access playback/menus, etc. by using the START menu.

1 **Press [START]⑲ to show the START menu.**
- When using VIERA Link "HDAVI Control", the TV also turns on when the START menu is displayed.

  e.g.

2 **Press [▲, ▼]⑨ to select an item and press [OK]⑨.**
- To exit, press [START]⑲.

3 **Press [▲, ▼]⑨ to make the setting and press [OK]⑨.**

When "Input Selection" is selected
You can select a desired source from the menu.
- DVD/CD (⇨ 11), FM RADIO (⇨ 8), AUX※1 (⇨ below),
  ARC※1 (⇨ below), DIGITAL IN※1, 2 (⇨ below), USB (⇨ 17), iPod (⇨ 16)
※1 "(TV)" will appear beside "AUX", "ARC" or "DIGITAL IN", indicating the TV audio setting for VIERA Link "HDAVI Control" (⇨ 14).
※2 "(STB)" will appear beside "DIGITAL IN", indicating the STB audio setting for VIERA Link "HDAVI Control" (⇨ 14).
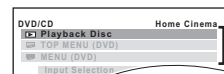
When "Setup" is selected
You can change the settings for this unit. (⇨ 17)

Other selectable items
The items that are displayed will vary depending on the media and source.

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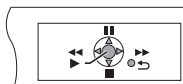e.g. **DVD-V**

—Playback/menu access

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.

Selecting the source by the remote control

Press	To select
[DVD]⑤	DVD/CD
[iPod]⑤	IPOD (⇨ **16**)
[RADIO, EXT-IN]⑤	Each time you press the button: **FM:** (⇨ 8) **AUX:** For audio input through the AUX terminal. **ARC:** For audio input through the HDMI AV OUT terminal. **D-IN:** For audio input through the DIGITAL AUDIO IN OPTICAL terminal. (⇨ right) **USB:** (⇨ 17)

Confirm the audio connection to the AUX, HDMI AV OUT or DIGITAL AUDIO IN OPTICAL terminal on the main unit when you select the corresponding sources (⇨ 7). Reduce the volume on the TV to its minimum, and then adjust the volume of the main unit.

Listening to the TV or other device's audio from this unit's speakers

Preparation
- Make sure that there is an audio connection between this unit and the TV or other device. (⇨ 7)
- Turn on the TV or/and other device.

Press [RADIO, EXT-IN]⑤ to choose the source that is used to connect this unit to the TV or other device.

- To change the surround sound effects and sound mode, refer to "Enjoying sound effects from all speakers" (⇨ 10)
- If your Panasonic TV is VIERA Link compatible, refer to "Using the VIERA Link "HDAVI Control™"" (⇨ 14) for other related functions.

Making settings for digital audio input

Select to suit the type of audio from the DIGITAL AUDIO IN OPTICAL and HDMI AV OUT terminal on the main unit.
Setting must be made for the "D-IN" and "ARC" selector.
- Underlined items are the factory presets.

Available settings	
Mode	**Setting**
DUAL:	(Only works with Dolby Dual Mono) – **MAIN+SAP** (stereo audio) – **MAIN** – **SAP** "**SAP**" = Secondary Audio Program - Set PCM FIX mode to "OFF" to listen to the "MAIN" or "SAP" audio.
DRC: **(Dynamic Range Compression)**	– **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) – **OFF** The full dynamic range of the signal is reproduced.
PCM FIX:	– **ON** Select when receiving only PCM signals. – **OFF** Select when receiving Dolby Digital and PCM signals. - When receiving true 5.1-channel surround sound, select "OFF".
STB※3**:** **(CABLE/SAT AUDIO)**	– **SET** Select when setting the main unit to switch to "D-IN" when the input channel of an HDMI connected STB is selected on the TV (⇨ 14, Setting the STB audio for VIERA Link "HDAVI Control"). – **OFF** Select to cancel this setting.

1 **Press [RADIO, EXT-IN]⑤ several times to select "D-IN" or "ARC".**

2 **Press [PLAY MODE]⑩ and then [▲, ▼]⑨ to select the mode.**

3 **While the selected mode is displayed**
Press [◄, ►]⑨ and select the desired setting.

※3 Only when "D-IN" is selected.
Be sure to select the device's (STB, etc.) input channel on the TV when making the setting.
The device must be connected to the Panasonic TV via an HDMI cable and to this unit with an optical digital audio cable.
- This function will not operate if "DIGITAL IN" is selected in "TV AUDIO" (⇨ 18).

Enjoying sound effects from all speakers

- The following sound effects may not be available or may have no effect with some sources.
- 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.

Note

When changing the surround sound effect, Whisper-mode Surround or the sound modes, the setting is displayed on the TV screen if "DVD/CD" or "USB" is the selected source during video playback.

Enjoying surround sound effects

Press [SURROUND]⑫.

Each time you press the button:

STANDARD:
Sound is output as it was recorded/encoded. Speaker output varies depending on the source.

MULTI-CH:
You can enjoy sound from the front speakers, as well as the surround speakers even when playing a 2-channel sound.

MANUAL: (⇨ below)

While "MANUAL" is displayed, press [◄, ►]⑨ to select other surround modes.

Each time you press [◄, ►]⑨:

DOLBY PLII MOVIE
Suitable for movies, or videos recorded in Dolby Surround. (except DivX)

DOLBY PLII MUSIC
Adds 5.1-channel effects to stereo sources. (except DivX)

S.SRD
You can enjoy sound from all speakers with stereo sources.

STEREO
Sound will only be output to the front speakers and the subwoofer from any source.

Recommended modes to enjoy TV audio or stereo sources from all speakers:

- DOLBY PLII MOVIE   - DOLBY PLII MUSIC   - S.SRD

"SRD" lights in the main unit's display when there is output from the surround speakers.

When the signal is DTS or Dolby Digital, "/DTS" or "/DOLBY DIGITAL" will also be displayed respectively.

Selecting sound mode

1 Press [SOUND]⑪ to select a sound mode.

Each time you press the button:
EQ: Equaliser
SUBW LVL: Subwoofer Level
H.BASS: Harmonic Bass
C.FOCUS: Center Focus

2 While the selected mode is displayed, press [◄, ►]⑨ to make the settings.

Refer to the following for setting details of each sound effect.

EQ (Equaliser)
You can select sound quality settings.
Each time you press [◄, ►]⑨:
FLAT: Cancel (no effect is added).
HEAVY: Adds punch to rock.
CLEAR: Clarifies higher sounds.
SOFT: For background music.

SUBW LVL (Subwoofer level)
You can adjust the amount of bass. The unit automatically selects the most suitable setting according to the type of playback source.
LEVEL 1 ⟷ LEVEL 2 ⟷ LEVEL 3 ⟷ LEVEL 4

- The setting you make is retained and recalled every time you play the same type of source.

H.BASS (Harmonic Bass)
You can enhance low-frequency sound so that heavy bass sound can be heard clearly, even if the acoustics of your room are not optimal.
ON ⟷ OFF

- The setting you make is retained, and recalled every time you play from the same type of source.

C.FOCUS (Center Focus)
(Effective when playing audio containing the center channel sound or when DOLBY PLII (⇨ left) is selected.)
You can make the sound of the center speaker seem like it is coming from within the TV.
ON⟷OFF

Whisper-mode Surround

You can enhance the audio effect for low volume sound. (Convenient for late night viewing.)

For Australia and N.Z.
Press [W.SRD]㉓.

Each time you press the button:

Except Australia and N.Z.
Press and hold [–W.SRD]㉓.

Each time you press and hold the button:
ON ⟷ OFF

Adjusting the speaker output level manually

Preparation
- To display the picture, turn on the TV and select the appropriate video input mode.
- Press [+, VOL, −]⑭ to adjust the volume to normal listening level.
- Press [DVD]⑤ to select "DVD/CD".
- Select "TEST TONE" from "SPEAKER SETTINGS" in AUDIO menu (⇨ 18).

1 Press [OK]⑨ to enter test tone mode.

e.g.

```
AUDIO-SPEAKER SETTINGS-TEST TONE
SPEAKER              TRIM LEVEL
LEFT                      –
CENTER                    –
RIGHT                    0dB
```

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

2 Press [OK]⑨ then [▲, ▼]⑨ to adjust the speaker level for each speaker. (CENTER, SURROUND RIGHT, SURROUND LEFT)

−6 dB to +6 dB (Factory preset: 0 dB)

Adjusting the speaker level during playback

(Effective when playing audio containing surround channel sound or when "SRD" lights on the main unit's display)

1 Press and hold [–CH SELECT]⑪ to select the speaker.

While the speaker channel is displayed, press [–CH SELECT]⑪.

L → C → R → RS → LS → SW

- SW (Subwoofer) is displayed even if the source does not include a subwoofer channel.

2 While "L" or "R" is selected.
Press [◄, ►]⑨ to adjust the front speaker balance.

3 While "C", "RS", "LS" or "SW" is selected.
Press [▲]⑨ (increase) or [▼]⑨ (decrease) to adjust the speaker level for each speaker.

Basic play

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

1 Press [⏻]① to turn on the unit.

2 Press [DVD]⑤ to select "DVD/CD".

3 Press [⏏ OPEN/CLOSE]❺ to 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.

Label facing up

5 Press [▶ PLAY]⑥ to start play.
- Press [+, VOL, −]⑭ to adjust the volume.

Note
- **DISCS CONTINUE TO ROTATE WHILE MENUS ARE DISPLAYED.**
  Press [■ STOP]⑥ when you finish to preserve the unit's motor and your TV screen.
- Total title number may not be displayed properly on +R/+RW.

Basic controls

One touch play (remote control only): [▶ PLAY]⑥
(during standby mode)
The main unit automatically turns on and starts playing the disc in the tray.

Stop: [■ STOP]⑥
The position is memorised while "RESUME STOP" is on the screen.
- Press [▶ PLAY]⑥ to resume.
- Press [■ STOP]⑥ again to clear the position.

Pause: [❙❙ PAUSE]⑥
- Press [▶ PLAY]⑥ to restart play.

Skip: [SKIP |◀◀, SKIP ▶▶|]⑥

Search: [SEARCH◀◀, SEARCH▶▶]⑥ (during play)
Slow-motion: [SEARCH◀◀, SEARCH▶▶]⑥ (during pause)
- Up to 5 steps.
- Press [▶ PLAY]⑥ to start normal play.
- VCD Slow-motion: Forward direction only.
- MPEG4 DivX Slow-motion: Does not work.

Frame-by-frame: [◀❙❙, ❙❙▶]⑨ (during pause)
DVD-VR DVD-V VCD

- DVD-VR VCD Forward direction only.

On-screen item select: [▲, ▼, ◀, ▶, OK]⑨
[▲, ▼, ◀, ▶]⑨: Select
[OK]⑨: Confirm

Enter number: Numbered buttons
DVD-VR DVD-V VCD CD
e.g. To select 12: [≧10]③ ⇨ [1] ⇨ [2]
VCD with playback control
Press [■ STOP]⑥ to cancel the PBC function, and then press the numbered buttons.

DVD-V **Show a disc top menu:** [TOP MENU]⑧

DVD-V **Show a disc menu:** [MENU]⑦

Return to previous screen: [RETURN]㉑
VCD (with playback control) **Show a disc menu:** [RETURN]㉑

Main unit display:
For Australia and N.Z. [FL DISPLAY]㉒
Except Australia and N.Z. [−FL DISPLAY]㉒ (press and hold)
DVD-VR DVD-V WMA MP3 MPEG4 DivX
Time display ⟷ Information display (e.g. DVD-VR Program number)
JPEG
SLIDE⟷Contents number

Other modes of play

Repeat play

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

During play, press and hold [–REPEAT]⑩, to show the repeat mode.

While the repeat mode is displayed, press [–REPEAT]⑩ to select the 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 MPEG4 DivX

Preparation

While stopped, press [PLAY MODE]⑩ to select the play mode.
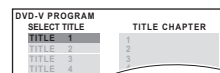Program and random playback screens appear sequentially.

Program ⟶ Random
⤷ Exit program and random screens ↩

- DVD-VR Select "DATA" in "DVD-VR/DATA" (⇨ 19, OTHERS menu) to play MP3, JPEG, MPEG4 or DivX contents.
- If "PLAYBACK MENU" screen appears, select "AUDIO/PICTURE" or "VIDEO" (⇨ 12, Using PLAYBACK MENU), then proceed with the above.
- 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 Press [▲, ▼]⑨ to select an item and press [OK]⑨.
e.g. DVD-V

```
DVD-V PROGRAM
SELECT TITLE        TITLE CHAPTER
TITLE  1            1
TITLE  2            2
TITLE  3            3
TITLE  4
```

- Repeat this step to program other items.
- To return to the previous menu, press [RETURN]㉑.

2 Press [▶ PLAY]⑥ to start play.

To select all the items
Press [▲, ▼]⑨ to select "ALL" and press [OK]⑨.
To clear the selected program
1 Press [▶]⑨ and then press [▲, ▼]⑨ to select the program.
2 Press [CANCEL]④.
To clear the whole program
Press [▶]⑨ several times to select "CLEAR ALL", and then press [OK]⑨.
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.)
Press [▲, ▼]⑨ to select a group or title and press [OK]⑨.
e.g. DVD-V

```
DVD-V RANDOM
SELECT TITLE
         TITLE  1
    ★    TITLE  2
         TITLE  3
```

- "★" represents selected. To deselect, press [OK]⑨ again.

2 Press [▶ PLAY]⑥ to start play.
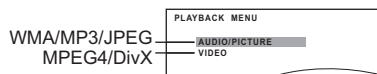
Using navigation menus

Playing data discs
`WMA` `MP3` `JPEG` `MPEG4` `DivX`

`DVD-VR` Select "DATA" in "DVD-VR/DATA" (⇨ 19, OTHERS menu) to play MP3, JPEG, MPEG4 or DivX contents.

Using PLAYBACK MENU

"PLAYBACK MENU" screen appears when the disc contains both video (MPEG4/DivX) and other format (WMA/MP3/JPEG).

```
                        PLAYBACK MENU
WMA/MP3/JPEG ————————— AUDIO/PICTURE
MPEG4/DivX ——————————— VIDEO
```

Press [▲, ▼]⑨ to select "AUDIO/PICTURE" or "VIDEO" and press [OK]⑨.

● To start play, press [► PLAY]⑥.
● To select an item to play, refer "Playing from the selected item" (⇨ below).

Playing from the selected item

You can select to play from your desired item while the "DATA-DISC" screen is displayed.
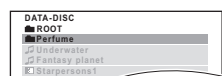e.g.

Group (Folder)**:** 📁

Content (File)**:**

🎵 : WMA/MP3

🖼 : JPEG

🎬 : MPEG4/DivX

```
DATA-DISC
📁 ROOT
📁 Perfume
  🎵 Underwater
  🎵 Fantasy planet
  🖼 Starpersons1
```

● To display/exit the screen, press [MENU]⑦.

Press [▲, ▼]⑨ to select an item and press [OK]⑨.

● Press [◄, ►]⑨ to skip page by page.
● To return to 1 level up from the current folder, press [RETURN]㉑.
● Maximum: 28 characters for file/folder name.

Play starts from the selected content.

■ `JPEG` *Selecting the picture in Thumbnail menu*

1 While picture is displayed, press [TOP MENU]⑧ to show the thumbnail menu.

e.g.
Group name   Group and content number

```
◄ JPEG images ► G 1/   1:C  3/  9
[🖼] [🖼] [🖼]
```
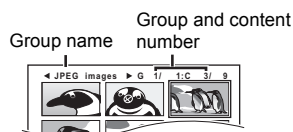
2 Press [▲, ▼, ◄, ►]⑨ to select a picture and press [OK]⑨.

● Press [SKIP ◄◄, SKIP ►►]⑥ to skip page by page.

To go to other group
1 Press [▲]⑨ to select the group name.
2 Press [◄, ►]⑨ to select the group and press [OK]⑨.

Playing DVD-R/-RW (DVD-VR) discs
`DVD-VR`

● Titles appear only if the titles are recorded on the disc.
● You cannot edit programs, play lists and disc titles.

Playing the programs

1 While stopped, press [DIRECT NAVIGATOR]⑧.

e.g.
PG	DATE	LENGTH	TITLE
1	10/11 02:15	0:16:02	LIVE CONCERT
2	12/05 01:30	0:38:25	AUTO ACTION

2 Press [▲, ▼]⑨ to select the program and press [OK]⑨.
● Press [◄, ►]⑨ to skip page by page.

Playing a play list

This works only when the disc contains a play list.

1 While stopped, press [PLAY LIST]⑦.
e.g.

PL	DATE	LENGTH	TITLE
1	11/11 00:01	0:00:10	CITY PENGUIN
2	12/01 01:20	0:01:20	FOOTBALL

2 Press [▲, ▼]⑨ to select the play list and press [OK]⑨.
● Press [◄, ►]⑨ to skip page by page.

Using on-screen menus

1 Press [FUNCTIONS]⑳ to show the on-screen menu.
Each time you press the button:

Menu 1 (Disc/Play)
Menu 2 (Video)
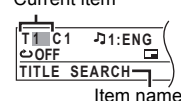**Menu 3 (Audio)**
`Except Australia and N.Z.` **Menu 4 (Karaoke)**
Menu 5 (HDMI)
Exit

e.g. Menu 1 (Disc/Play) `DVD-V`
Current item

```
T1  C1   🎵1:ENG
↺OFF            ▭
TITLE SEARCH
```
Item name

2 Press [▲, ▼, ◄, ►]⑨ to select the item and press [OK]⑨.

e.g. Menu 1 (Disc/Play) `DVD-V`
Current setting

```
T1  C1   🎵1:ENG
↺OFF            ▭
CHAPTER SEARCH
```
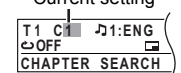
3 Press [▲, ▼]⑨ to make the settings and press [OK]⑨.

Items shown differ depending on the type of disc.

Menu 1 (Disc/Play)

TRACK SEARCH, TITLE SEARCH, CONTENT SEARCH, CHAPTER SEARCH, PG SEARCH (Program Search), PL SEARCH (Playlist 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]③ ⇨ [1] ⇨ [2] ⇨ [3] ⇨ [OK]⑨

🎵 AUDIO

`DVD-V` `DivX` (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
```

● `DivX` It may take some time for play to start if you change the audio on a DivX video disc.

▶▶▶▶ PLAY SPEED

DVD-VR DVD-V
To change play speed
– from "×0.6" to "×1.4" (in 0.1-unit steps)
● Press [▶ PLAY]⑥ 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.

↻ REPEAT MODE

(⇨ 11, Repeat play)
A-B Repeat (To repeat a specified section)
Except JPEG MPEG4 DivX DVD-VR (Still picture part) VCD (SVCD)
Press [OK]⑨ at the starting and ending points.
● Select "OFF" to cancel.

▦ SUBTITLE

DVD-V DivX (with multiple subtitles) VCD (SVCD only)
To select subtitle language
● On +R/+RW, a subtitle number may be shown for subtitles that are
not displayed.

DVD-VR (with subtitle on/off information)
To select "ON" or "OFF"
● This may not work depending on the disc.

🎥 ANGLE

DVD-V (with multiple angles)
To select a video angle

JPG DATE DATE DISPLAY

JPEG **To select "ON" or "OFF" for picture's date display**

➡ ROTATION

JPEG **To rotate a picture** (during pause)

0⟷90⟷180⟷270

Menu 2 (Video)

▭ PICTURE MODE

NORMAL
CINEMA1:   Mellows images and enhances detail in dark scenes.
CINEMA2:   Sharpens images and enhances detail in dark scenes.
DYNAMIC: Enhances the contrast for powerful images.
ANIMATION: Suitable for animation.

🔍 ZOOM

To select zoom sizes
NORMAL, AUTO (DVD-VR DVD-V VCD MPEG4 DivX **), ×2, ×4**
● JPEG : during pause

▱ TRANSFER MODE

If you have chosen "480p"/"576p"/"720p"/"1080p" or "1080i" ("VIDEO
FORMAT" in Menu 5 (HDMI)), 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

AUTO: Automatically detects the film and video content, and
appropriately converts it.
VIDEO: Select when using "AUTO", and the content is distorted.
FILM: 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

AUTO1:   Automatically detects the film and video content, and
appropriately converts it.
AUTO2:   In addition to "AUTO1", automatically detects film
contents with different frame rates and appropriately
converts it.
VIDEO: Select if the video content is distorted when using
"AUTO1" or "AUTO2".

⇆ SOURCE SELECT DivX

When you select "AUTO" the constructing method of the DivX contents
is automatically distinguished and output. If the picture is distorted,
select "INTERLACE" or "PROGRESSIVE" depending on which
constructing method was used when the contents were recorded to disc.
AUTO, INTERLACE, PROGRESSIVE

Menu 3 (Audio)

🔊 DIALOGUE ENHANCER

To make the dialogue in movies easier to hear
DVD-V (Dolby Digital, DTS, 3-channel or higher, with the dialogue
recorded in the center channel)
DivX (Dolby Digital, 3-channel or higher, with the dialogue recorded in
the center channel)
OFF, ON

Menu 4 (Karaoke) (Except Australia and N.Z.)

🎤 KARAOKE MODE

To select "ON" or "OFF" for Karaoke mode
(⇨ 15, Enjoying Karaoke (Except Australia and N.Z.))
● When you select "ON", "PLAY SPEED" (⇨ left) and the surround
sound effects (⇨ 10) do not work.

Menu 5 (HDMI)

HDMI HDMI STATUS

To show 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.
  (When "OFF" is selected in "AUDIO OUT" (⇨ 18, HDMI menu),
  "– – –" will be displayed.)
③ Shows the number of audio channels.
④ (⇨ below, VIDEO FORMAT)
⑤ (⇨ below, COLOUR SPACE)

📺 HD ENHANCER

This works when the HDMI connection is being used with "VIDEO
PRIORITY" (⇨ 18, HDMI menu) set to "ON".
To sharpen the "720p", "1080i" and "1080p" picture quality
OFF, 1 (weakest) to 3 (strongest)

▭ VIDEO FORMAT

This works when the HDMI connection is being used with "VIDEO
PRIORITY" (⇨ 18, HDMI menu) set to "ON".
To select suitable picture quality with your TV
(Video recordings will be converted to, and output as, high-definition
video.)

※ **480p/576p/720p/1080p** (progressive)
※ **480i/576i/1080i** (interlaced)
● If the picture is distorted, press and hold [CANCEL]④ 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.

RQTX1127

⊡ COLOUR SPACE

This works when the HDMI connection is being used with "VIDEO PRIORITY" (⇨ 18, HDMI menu) set to "ON".

To select suitable picture colour with your TV
YCbCr 4:2:2
YCbCr 4:4:4
RGB

- An "∗" mark will appear if compatible with your TV.
- If the picture colour is distorted, press and hold [CANCEL]④ until the picture colour is displayed correctly.

Using the VIERA Link "HDAVI Control™"

What is VIERA Link "HDAVI Control"

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.
- This unit supports "HDAVI Control 5" function.
  "HDAVI Control 5" is the newest standard (current as of December, 2009) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.
- Please refer to individual manuals for other manufacturers' equipment supporting VIERA Link function.

The TV with "HDAVI Control 2 or later" function enables the following operation: Easy control only with VIERA remote control (for "HDAVI Control 2 or later") (⇨ right).

Preparation
- Confirm that the HDMI connection has been made (⇨ 7).
- Set "VIERA Link" to "ON" (⇨ 18, 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 "AUX", "ARC" or "D-IN" to work with the linked operations.
Refer to TV audio setting in EASY SETUP (⇨ 8) or "TV AUDIO" in HDMI menu (⇨ 18).
Confirm the audio connection to the AUX terminal (for "AUX"), HDMI AV OUT terminal (for "ARC") or DIGITAL AUDIO IN OPTICAL terminal (for "D-IN") (⇨ 7).

Setting the STB audio for VIERA Link "HDAVI Control"
Select "D-IN" to work with the linked operations.
Refer to STB setting in "Making settings for digital audio input" (⇨ 9).
Confirm the audio connection to the DIGITAL AUDIO IN OPTICAL terminal (for "D-IN") (⇨ 7).

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

∗1	"AUX", "ARC" or "D-IN" (DIGITAL IN) works depending on the TV audio setting (⇨ above, Setting the TV audio for VIERA Link "HDAVI Control").
∗2	"D-IN" (DIGITAL IN) works depending on the STB audio setting (⇨ above, Setting the STB audio for VIERA Link "HDAVI Control").

What you can do with "HDAVI Control"

Auto lip sync

(Available when using VIERA Link "HDAVI Control" with "HDAVI Control 3 or later" compatible TV)
This function automatically provides synchronised audio and video output. (This works only when the source is "DVD/CD", "USB", "AUX"∗1, "ARC"∗1 or "D-IN"∗1, 2.)
- When using "DVD/CD" or "USB" as the source, set "TIME DELAY" in VIDEO menu to "0 ms/AUTO" (⇨ 17).

One touch play

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

(Remote control only)
During standby mode, press [▶ PLAY]⑥ to start disc playback.
This unit's speakers will be automatically activated (⇨ right).

Note
Playback may not be immediately displayed on the TV. If you miss the beginning portion of playback, press [SKIP |◀◀]⑥ or [SEARCH◀◀]⑥ to go back to where playback started.

Auto input switching (Power on link)

When the following operations are performed, the TV will automatically switch the input channel and display the corresponding action. Additionally when the TV is off, the TV will automatically turn on.
– When play starts on the unit
– When an action that uses the display screen is performed (e.g., START menu)
- When you switch the TV input to TV tuner mode or the STB input channel, this unit will automatically switch to "AUX"∗1, "ARC"∗1 or "D-IN"∗1, 2. (For "IPOD" mode, this works only in iPod/iPhone music mode, or when iPod/iPhone is not connected.)
- When you start disc play, the TV will automatically switch its input mode for this unit.

Power off link

All connected equipment compatible with "HDAVI Control", including this unit, automatically turn off when you switch the TV off.
To continue audio playback even when the TV is turned off, select "VIDEO" (⇨ 18, "POWER OFF LINK" in HDMI menu).

Note
When you press [⏻]①, only this unit turns off. Other connected equipment compatible with VIERA Link "HDAVI Control" stays on.
For details, refer also to the operating instructions for your TV.

Speaker Selection

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 for your TV.

Home Cinema
This unit's speakers are active.
- When you turn on this unit, this unit's speakers will be automatically activated.
- 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"∗1, "ARC"∗1 or "D-IN"∗1, 2 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 the main unit's display.)
- To cancel muting, you can also use this unit's remote control (⇨ 4).
- 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"∗1, "ARC"∗1 or "D-IN"∗1, 2 is selected as the source on this unit.
- Audio output is 2-channel audio.

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

Easy control only with VIERA remote control (for "HDAVI Control 2 or later")

You can control the playback menus of this unit with the TV's remote control.

1 Select this unit's operation menu by using the TV menu settings. (For details, refer to the operating instructions for your TV.) The START menu will be shown. e.g. DVD-V

```
DVD/CD            Home Cinema
▷ Playback Disc                    Playback/menu access
⊡ TOP MENU (DVD)
▥ MENU (DVD)
    Input Selection
```

- ≥ 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, the TV's remote control 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 (⇨ 9).
When the on-screen control panel appears
e.g. DVD-V (when "Playback Disc" is selected from the START menu.)
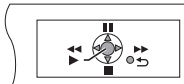
You can operate the playback with the indicated controls.
- ≥ The on-screen control panel can also be shown by using a button on the TV's remote control (e.g. [OPTION]).
  – This works only during "DVD/CD" or "USB" playback and resume modes or, while iPod music playback screen is displayed on the TV.

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.

Enjoying Karaoke (Except Australia and N.Z.)

Note
Before connecting/disconnecting the microphone(s), reduce the volume of the main unit to its minimum.

Preparation
Select "DVD/CD" or "USB" in accordance with the source.

1 **Connect the microphone(s) (not included) to the microphone jack(s)❻.**
  Plug type: ⌀6.3 mm monaural standard plug
2 **Start playback and adjust the volume of the main unit.**
  ≥ 5.1-channel sound will be down-mixed to 2-channel.
3 **Press [MIC VOL]㉓ then [▲, ▼]⑨ to adjust the microphone volume and start singing.**
  MIC VOL1 (lowest) to MIC VOL4 (highest).

- ≥ If a strange noise (howling) is emitted during use, move the microphone away from the speakers, or lower the microphone volume.
- ≥ When you are not using the microphone, disconnect it from the microphone jack, and lower the microphone volume to "MIC VOL1".
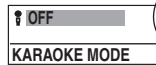
Adding echo effect

Press [ECHO]㉒.
ECHO 1⟶ECHO 2⟶ECHO 3⟶ECHO 4
  ↑———— ECHO OFF←————┘

The effect increases with the level.
- ≥ To cancel, select "ECHO OFF".

Using Karaoke mode

1 **Press [FUNCTIONS]⑳ to select the Karaoke mode on-screen menu. (⇨ 13, Menu 4 (Karaoke))**
  e.g.

```
♪ OFF
KARAOKE MODE
```

2 **Press [OK]⑨ to enter Karaoke mode.**

3 **Press [▲, ▼]⑨ to select "ON" and press [OK]⑨ .**

4 **Press [▲, ▼, ◄, ►]⑨ to select an item and press [OK]⑨.**

5 **Press [▲, ▼]⑨ to make the settings and press [OK]⑨.**
  ≥ To exit the screen, press [RETURN]㉑.

- ≥ Karaoke mode will automatically turn off when you turn this unit off, open the disc tray or select another source.

Items shown differ depending on the type of disc.

♪ KEY CONTROL

Except MPEG4 DivX
To change the key of a song
♭6 (lowest) to ♯6 (highest)
OFF: Normal

VOCAL CANCEL

Except MPEG4 DivX
To reduce the vocal level (when using stereo source not formatted for Karaoke)

ON: Reduces vocal level
OFF: Cancel
- ≥ This may not work depending on the type of song.

AUDIO CHANGE

To change the audio mode (when using Karaoke formatted disc)
DVD-V
Solo disc
  OFF: Vocals off
  ON: Vocals on

Duet disc
  OFF: Vocals off
  V1+V2: Vocal 1 and 2
  V1: Vocal 1
  V2: Vocal 2

DVD-V VCD
- **L R**: Left channel sound is heard from the left speaker and right channel sound is heard from the right speaker (Accompaniment and vocals)
- **L:** Only left channel sound (Accompaniment only)
- **R:** Only right channel sound (Vocals only)
- **L+R**: Left and right channel sounds are mixed and heard from both speakers

"L" and "R" may be reversed on some discs.

Operating other devices

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

Using the iPod/iPhone

You can enjoy iPod/iPhone music through this unit's speakers or view iPod/iPhone videos/photos on the TV.

Preparation
- To view photos/videos from the iPod/iPhone
  – Ensure the video connection to the VIDEO OUT terminal on this unit (⇒ 7).
  – Operate the iPod/iPhone menu to make the appropriate photo/video output settings for your TV. (Refer to operating instructions for your iPod/iPhone.)
- To display the picture, turn on the TV and select the appropriate video input mode.
- Before connecting/disconnecting the iPod/iPhone, turn the main unit off or reduce the volume of the main unit to its minimum.

1 Push △ to open the Dock for iPod/iPhone lid.

2 Connect the iPod/iPhone (not included) firmly.
- Attach the dock adapter which should be supplied with your iPod/iPhone to the dock for the stable use of the iPod/iPhone.
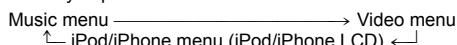 If you need an adapter, consult your iPod/iPhone dealer.

e.g.
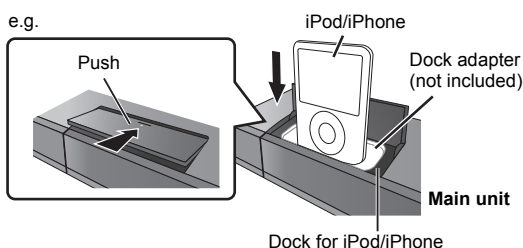
3 Press [iPod]⑤ to select "IPOD".
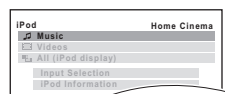The iPod/iPhone automatically switches to this unit's display mode.
e.g.

4 Press [FUNCTIONS]⑳ to select the menu.
Each time you press the button:

Music menu ⟶ Video menu
⌐ iPod/iPhone menu (iPod/iPhone LCD) ⟵⌐

When using the START menu in "IPOD" mode
e.g.

Music: Shows the music menu.
**Videos:** Shows the video menu.
All (iPod display): Switches to iPod/iPhone menu.
iPod Information: Display iPod/iPhone details.
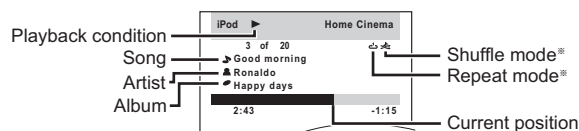
Enjoying music/videos

1 Press [FUNCTIONS]⑳ to select music or video menu on the TV.

2 Press [▲, ▼]⑨ to select an item and press [OK]⑨.
- Press [◄, ►]⑨ to skip page by page.
- To return to the previous screen, press [RETURN]㉑.

Play starts from the selected song or video.
e.g. music playback screen

Playback condition
Song
Artist
Album
Shuffle mode※
Repeat mode※
Current position

※ These icons will only appear for music mode.

⚡ : Song shuffle　　　　🔁 : Repeat 1 song
⚡ : Album shuffle　　　　🔁 : Repeat all

Basic controls (For music and videos only)

Button	Function
[► PLAY]⑥	Play
[■ STOP]⑥, [❚❚ PAUSE]⑥	Pause
[SKIP |◄◄, SKIP ►►|]⑥	Skip
(press and hold) [SKIP |◄◄, SKIP ►►|]⑥	Search

Other methods of playback
Shuffle mode (For music playback only)
Press [PLAY MODE]⑩ several times.
SONGS, ALBUMS, OFF

Repeat mode
Press and hold [–REPEAT]⑩ and then press the button several times within a few seconds.
During the music/video playback: ONE, ALL, OFF

Note
- Music playback modes set on the iPod/iPhone will be maintained when connected to the main unit. Changes made while the iPod/iPhone is connected to the main unit will be kept on the iPod/iPhone after disconnecting it.
- If the video menu is accessed, the video shuffle playback mode on the iPod/iPhone is set to off when the iPod/iPhone is disconnected from the unit.

Enjoying photos

1 Press [FUNCTIONS]⑳ to select the iPod/iPhone menu.

2 Play a slideshow on your iPod/iPhone.
You can use the remote control to operate the iPod/iPhone menu.
[▲, ▼]⑨: To navigate menu items.
[OK]⑨: To go to the next menu.
[RETURN]㉑: To return to the previous menu.

The remote control operation may vary between iPod/iPhone models.

While an iPod/iPhone is connected
Do not push or pull your iPod/iPhone back and forth with great force.

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

Compatible iPod/iPhone (as of December 2009)
- iPhone 3GS (16GB, 32GB)
- iPhone 3G (8GB, 16GB)
- iPhone (4GB, 8GB, 16GB)
- iPod nano 5th generation (video camera) (8GB, 16GB)
- iPod touch 2nd generation (8GB, 16GB, 32GB, 64GB)
- iPod classic (120GB, 160GB (2009))
- iPod nano 4th generation (video) (8GB, 16GB)
- iPod classic (160GB (2007))
- iPod touch 1st generation (8GB, 16GB, 32GB)
- iPod nano 3rd generation (video) (4GB, 8GB)
- iPod classic (80GB)
- 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/iPhone.

To use the iPod touch/iPhone features
1. Press the Home button on the iPod touch/iPhone.
2. Select the iPod touch/iPhone features on the touch screen to operate.

Playing from an USB device

You can connect and play tracks or files from USB mass storage class devices (⇨ 24, USB Port).
Devices which are defined as USB mass storage class:
– USB devices that support bulk only transfer.

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.

1 Connect the USB device (not included) to the USB port (•⟵•⟶• ❼).

2 Press [RADIO, EXT-IN]⑤ to select "USB".
The menu screen appears.
e.g.

```
USB
 ROOT
 Songs
 Concert_01
 Concert_02
 Southern AI
```
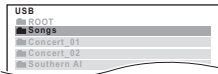
● If "PLAYBACK MENU" screen appears, select "AUDIO/PICTURE" or "VIDEO" by pressing [▲, ▼]⑨ and then [OK]⑨.
● To display/exit the screen, press [MENU]⑦.

3 Press [▲, ▼]⑨ to select an item and press [OK]⑨.
● Press [◄, ►]⑨ to skip page by page.
● To return to 1 level up from the current folder, press [RETURN]㉑.

Play starts from the selected content.

● For other operating functions, they are similar to those described in "Playing Discs" (⇨ 11 to 14).

Note
● Maximum: 255 folders (excluding Root folder), 4000 files, 28 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.

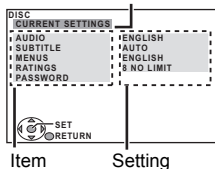# Changing the player settings

1 Press [DVD]⑤ to select "DVD/CD".

2 Press [START]⑲ to show the START menu.

3 Press [▲, ▼]⑨ to select "Setup" and press [OK]⑨.

Menu

```
MAIN
DISC
VIDEO
AUDIO
DISPLAY
HDMI
OTHERS

    SET
    RETURN
```
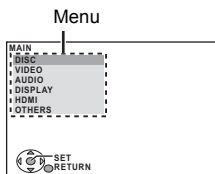
4 Press [▲, ▼]⑨ to select the menu and press [OK]⑨.

Display the current setting of the items below

```
DISC
 CURRENT SETTINGS
 AUDIO        ENGLISH
 SUBTITLE     AUTO
 MENUS        ENGLISH
 RATINGS      8 NO LIMIT
 PASSWORD

    SET
    RETURN
```
Item   Setting

5 Press [▲, ▼]⑨ to select the item and press [OK]⑨.

6 Press [▲, ▼]⑨ to make the settings and press [OK]⑨.

● To return to the previous screen, press [RETURN]㉑.
● To exit the screen, press [START]⑲.
● The settings remain intact even if you switch the unit to standby.
● Underlined items are the factory settings in the following menus.

DISC menu

AUDIO
Choose the audio language.
For Australia and N.Z.
● ENGLISH ● FRENCH ● SPANISH ● GERMAN
● ITALIAN ● SWEDISH ● DUTCH ● POLISH
● ORIGINAL※1 ● OTHER – – – –※2
Except Australia and N.Z.
● ENGLISH ● CHINESE TRAD.
● ORIGINAL※1 ● OTHER – – – –※2

SUBTITLE
Choose the subtitle language.
For Australia and N.Z.
● AUTO※3 ● ENGLISH ● FRENCH ● SPANISH
● GERMAN ● ITALIAN ● SWEDISH ● DUTCH
● POLISH ● OTHER – – – –※2
Except Australia and N.Z.
● AUTO※3 ● ENGLISH ● CHINESE TRAD.
● OTHER – – – –※2

MENUS
Choose the language for disc menus.
For Australia and N.Z.
● ENGLISH ● FRENCH ● SPANISH ● GERMAN
● ITALIAN ● SWEDISH ● DUTCH ● POLISH
● OTHER – – – –※2
Except Australia and N.Z.
● ENGLISH ● CHINESE TRAD.
● OTHER – – – –※2

※1 The original language designated on the disc is selected.
※2 Input the appropriate code from the language code list (⇨ 5).
※3 If the language selected for "AUDIO" is not available, subtitles appear in that language (if available on the disc).

RATINGS
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
● 8 NO LIMIT
When you select your ratings level, a password screen is shown.
Follow the on-screen instructions.
Do not forget your password.
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.

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.
● 16:9: Widescreen TV (16:9)
● 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.

TIME DELAY
When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.
● 0 ms/AUTO ● 20 ms ● 40 ms ● 60 ms
● 80 ms ● 100 ms

When using VIERA Link "HDAVI Control" with "HDAVI Control 3 or later" compatible TV (⇨ 14), select "0 ms/AUTO".
Audio and video will automatically be set in sync.

NTSC DISC OUT
Choose PAL 60 or NTSC output when playing NTSC discs (⇨ 20, Video systems).

- NTSC: When connected to an NTSC TV.
- PAL60: When connected to a PAL TV.

For Southeast Asia: "NTSC" is the factory preset.

STILL MODE
Specify the type of picture shown when paused.

- AUTO
- FIELD: The picture is not blurred, but picture quality is lower.
- FRAME: Overall quality is high, but the picture may appear blurred.

AUDIO menu
Select to suit the type of equipment you connected to the HDMI AV OUT terminal.
Select "BITSTREAM" when the equipment can decode the bitstream (digital form of 5.1-channel data). Otherwise, select "PCM".
(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.)

DOLBY DIGITAL※
- BITSTREAM
- PCM

DTS※
- BITSTREAM
- PCM

For Australia, N.Z., India and Nigeria
MPEG※
- BITSTREAM
- PCM

※ 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.

DYNAMIC RANGE
- ON: Adjusts for clarity even when the volume is low. Convenient for late night viewing. (Only works with Dolby Digital)
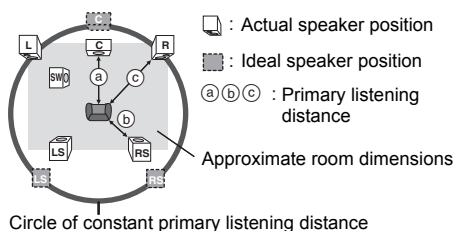- OFF

SPEAKER SETTINGS
Select the delay time of the speakers.
(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.

☐ : Actual speaker position

▦ : Ideal speaker position

ⓐⓑⓒ : Primary listening distance

Approximate room dimensions

Circle of constant primary listening distance

If either distance ⓐ or ⓑ is less than ⓒ, find the difference in the table and change to the recommended setting.

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

- SETTINGS:
  - C DELAY (Center Delay):
    0ms, 1ms, 2ms, 3ms, 4ms, 5ms
    Select the delay time for your center speaker.
  - LS/RS DELAY (Left Surround/Right Surround Delay):
    0ms, 5ms, 10ms, 15ms
    Select the delay time for your surround speakers.

- TEST TONE: SETTING
  This item is only displayed when "DVD/CD" is selected.
  Use the test tone for speaker level adjustments (⇨ 10, Adjusting the speaker output level manually).

DISPLAY menu

LANGUAGE
Choose the language for the on-screen messages.
For Australia and N.Z.
- ENGLISH
- FRANÇAIS
- ESPAÑOL
- DEUTSCH
- ITALIANO
- SVENSKA
- NEDERLANDS
- POLSKI

Except Australia and N.Z.
- ENGLISH
- 繁體中文

HDMI menu

VIDEO PRIORITY
- ON: When using the HDMI AV OUT terminal for video output. The resolution of the video output from the HDMI AV OUT terminal is optimised according to the capability of the connected equipment (e.g. TV).
- OFF: When not using the HDMI AV OUT terminal for video output.

AUDIO OUT
- ON: 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 the main unit.)
- OFF: When audio output is not from the HDMI AV OUT terminal. (The audio is output using the settings of the main unit.)

RGB RANGE
This works only when "COLOUR SPACE" in Menu 5 (HDMI) is set to RGB (⇨ 13).
- STANDARD
- ENHANCED: When the black and white images are not distinct.

VIERA Link
- ON: The VIERA Link "HDAVI Control" function is available (⇨ 14).
- OFF

POWER OFF LINK
Select the desired power off link setting of this unit for VIERA Link operation (⇨ 14). (This works depending on the settings of the connected VIERA Link "HDAVI Control" compatible equipment.)
- VIDEO/AUDIO: When the TV is turned off, this unit will turn off automatically.
- VIDEO: When the TV is turned off, this unit will turn off except during the following conditions:
  - audio playback (CD MP3 WMA)
  - iPod/iPhone mode
  - radio mode
  - "AUX", "ARC" or "D-IN" mode (non-selected TV audio setting for VIERA Link)

TV AUDIO
Select the TV audio input to work with the VIERA Link operations (⇨ 14).
- AUX
- ARC
- DIGITAL IN

RQTX1127

OTHERS menu

REGISTRATION DivX

Display the unit's registration code.
● SHOW CODE
  You need this registration code to purchase and play DivX Video-on-Demand (VOD) content (⇨ right).
  This setting is only displayed until a DivX VOD content is played or after this unit is deregistered.

DEREGISTRATION DivX

Display the unit's deregistration code.
● SET
  You need this deregistration code to cancel this unit's registration (⇨ right).
  This setting is only displayed after playing DivX VOD content for the first time.

SLIDE SHOW TIME

Set the speed of the slideshow.
Factory preset: 3 SEC
● 1 SEC to 15 SEC (in 1-unit steps)
● 15 SEC to 60 SEC (in 5-unit steps)
● 60 SEC to 180 SEC (in 30-unit steps)

FL DIMMER

Change the brightness of the unit's display.
● BRIGHT
● DIM: The display is dimmed.
● AUTO: The display is dimmed, but brightens when you perform some operations.

EASY SETUP

● SET (⇨ 8)

DVD-VR/DATA

Select to play only DVD-VR or DATA format.
● DVD-VR: To play the video programs on DVD-R/-RW.
● DATA: To play the data files on DVD-R/-RW.

SCREEN DIMMER

This is to prevent burn marks on the TV screen.
● OFF
● WAIT 5 MIN: If there is no operation for 5 minutes, the picture turns grey. The TV screen will resume when you perform some operations. (This does not work during video and picture playback.)

DEFAULTS

This returns all values in the MAIN menu to the default settings.
● RESET
  The password screen is shown if "RATINGS" (⇨ 17) is set. Please enter the same password, then turn the unit off and on again.

DivX information

ABOUT DIVX VIDEO:

DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.
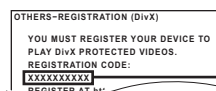
ABOUT DIVX VIDEO-ON-DEMAND:

This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content.
To generate the registration code, locate the DivX VOD section in the device setup menu.
Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

Display the unit's registration code

(⇨ left, "REGISTRATION" in OTHERS menu)

```
OTHERS–REGISTRATION (DivX)

YOU MUST REGISTER YOUR DEVICE TO
PLAY DivX PROTECTED VIDEOS.
REGISTRATION CODE:
XXXXXXXXXX                      ──── 10 alphanumeric characters
REGISTER AT h···
```

● After playing DivX VOD content for first time, the registration code is not displayed.
● If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content.

Cancel the unit's registration

Select "SET" in "DEREGISTRATION" (⇨ left) and follow the on-screen instructions.
Use the deregistration code to cancel the registration in http://vod.divx.com.

Regarding DivX content that can only be played a set number of times

Some DivX VOD contents can only be played a set number of times. When you play this content, the number of times already played and initially playable number of times is displayed.

● The remaining number of plays decreases each time a programme is played. However, when playing from the point where play was previously stopped, the remaining number of plays does not decrease due to the resume play function.

Discs that can be played

Commercial discs

Type of media/ Logo	Remarks	Indicated as
DVD-Video	High quality movie and music discs	DVD-V
Video CD	Music discs with video Including SVCD (Conforming to IEC62107)	VCD
CD	Music discs	CD

Recorded discs

Type of media/ Logo	Formats	Indicated as
DVD-R/RW	● DVD-Video Format ● Version 1.1 of the DVD Video Recording Format ● MP3 format ● JPEG format ● DivX® format ● MPEG4 format	DVD-V DVD-VR MP3 JPEG DivX MPEG4
DVD-R DL	● DVD-Video Format ● Version 1.2 of the DVD Video Recording Format ● DivX® format	DVD-V DVD-VR DivX
+R/+RW/+R DL	● +VR (+R/+RW Video Recording) Format	DVD-V
CD-R/RW	● MP3 format ● JPEG format ● WMA format ● DivX® format ● MPEG4 format	MP3 JPEG WMA DivX MPEG4

● Before playback, finalise the disc on the device it was recorded on.
● 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 (⇨ right, Tips for making data discs).

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, Photo CD, 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 (⇨ 17, "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

WMA **(Extension: ".WMA", ".wma")**
Disc: CD-R/RW
● Compatible compression rate: between 48 kbps and 320 kbps
● You cannot play WMA files that are copy-protected.

MP3 **(Extension: ".MP3", ".mp3")**
Disc: DVD-R/RW, CD-R/RW
● This unit does not support ID3 tags.
● Sampling frequency and compression rate:
– DVD-R/RW: 11.02 kHz, 12 kHz, 22.05 kHz, 24 kHz (8 kbps to 160 kbps), 44.1 kHz and 48 kHz (32 kbps to 320 kbps)
– CD-R/RW: 8 kHz, 11.02 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz (8 kbps to 160 kbps), 32 kHz, 44.1 kHz and 48 kHz (32 kbps to 320 kbps)

JPEG **(Extension: ".JPG", ".jpg", ".JPEG", ".jpeg")**
Disc: DVD-R/RW, CD-R/RW
● JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed.
– Files that have been altered, edited or saved with computer picture editing software may not be displayed.
● 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.

MPEG4 **(Extension: ".ASF", ".asf")**
Disc: DVD-R/RW, CD-R/RW
● The recording date may differ from that of the actual date.

DivX **(Extension: ".DIVX", ".divx", ".AVI", ".avi")**
Disc: DVD-R/R DL/RW, CD-R/RW
● DivX files greater than 2 GB or have no index may not be played properly on this unit.
● This unit supports all resolutions up to maximum of 720×480 (NTSC)/720×576 (PAL).
● You can select up to 8 types of audio and subtitles on this unit.

● 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-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.

Speaker installation option
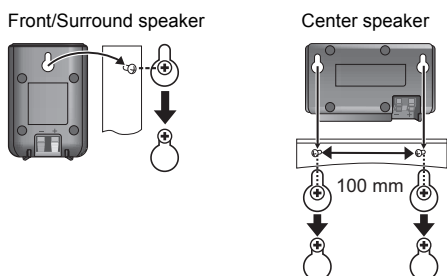
Attaching to a wall

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.

At least 30 mm

∅4.0 mm

∅7.0 mm to 9.4 mm

Wall or pillar

3 mm to 5 mm
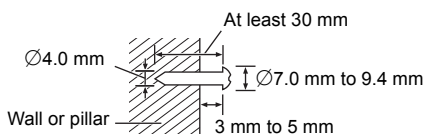
2 Fit the speaker securely onto the screw(s) with the hole(s).

Front/Surround speaker   Center speaker

100 mm

Maintenance

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.

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U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.

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Made for iPod   Works with iPhone

"Made for iPod" means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.
"Works with iPhone" means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.
Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.
iPod is a trademark of Apple Inc., registered in the U.S. and other countries.
iPhone is a trademark of Apple Inc.

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 following guide do not solve the problem, consult your dealer for instructions.

Power

No power.
Insert the AC mains lead securely. (⇨ 7)

The unit is automatically switched to standby mode.
The Sleep timer was working and had reached the set time limit. (⇨ 4)

Power of this unit is turned off when the input for the TV is changed.
This is a normal phenomenon when using VIERA Link "HDAVI Control 4 or later". For details please read the operating instructions of the TV.

Unit displays

The display is dark.
Select "BRIGHT" in "FL DIMMER" in the OTHERS menu. (⇨ 19)

"NO PLAY"
- You inserted a disc the unit cannot play; insert one it can. (⇨ 20)
- You inserted a blank disc.
- You inserted a disc that has not been finalised.

"NO DISC"
- You have not inserted a disc; insert one.
- You have not inserted the disc correctly; insert it correctly. (⇨ 11)

"OVER CURRENT ERROR"
The USB device is drawing too much power. Switch to "DVD/CD" mode, remove the USB and turn the unit off.

"IPOD OVER CURRENT ERROR"
The iPod/iPhone is drawing too much power. Remove the iPod/iPhone, and turn the unit off and on again.

Reference

RQTX1127

"F61"

Check and correct the speaker cable connections. If this does not fix the problem, consult the dealer. (⇨ 6)

"F76"

There is a power supply problem. Consult the dealer.

"DVD U11"

Disc may be dirty. Wipe it clean.

"ERROR"

Incorrect operation performed. Read the instructions and try again.

"DVD H□□"
"DVD F□□□"

□ 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.

"U70□"

□ stands for a number. (The actual number following "U70" will depend on the state of the main 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.

"REMOTE 1" or "REMOTE 2"

Match the modes on the main unit and remote control. Depending on the number being displayed ("1" or "2"), press and hold [OK]⑨ and the corresponding numbered button ([1] or [2]) for at least 2 seconds. (⇨ 4)

"LOADING"

● The iPod/iPhone is not ready. Wait for this display to disappear.
● Disconnect the iPod/iPhone, and then reconnect it firmly. (⇨ 16)

General operation

No response when any buttons are pressed.

● This unit cannot play discs other than the ones listed in these operating instructions. (⇨ 20)
● 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.

No response when remote control buttons are pressed.

● Check that the batteries are installed correctly. (⇨ 8)
● The batteries are depleted. Replace them with new ones. (⇨ 8)
● Aim the remote control at the remote control signal sensor and operate. (⇨ 4)

Other products respond to the remote control.

Change the remote control operating mode. (⇨ 4)

Cannot display the START menu.

Remove the disc and then press [START]⑲ again.

No picture or sound.

● Check the video or speaker connection. (⇨ 6, 7)
● Check the power or input setting of the connected equipment and the main unit.
● Check that the disc has something recorded on it.

You have forgotten your ratings password.

Reset all the settings to Factory Preset.
While stopped and "DVD/CD" is the source, press and hold [■]⑩ (Stop) on the main unit and [≧10]③ 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.)

Some characters are not displayed correctly.

Characters other than English alphabet and Arabic numerals may not be displayed correctly.

The VIERA Link "HDAVI Control" function does not respond.

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. (⇨ 14)

The setting you made in "TV ASPECT" (⇨ 17, VIDEO menu) or "LANGUAGE" (⇨ 18, DISPLAY menu) does not work.

The settings for "TV ASPECT"※1 and "LANGUAGE"※2 will automatically follow the information from the TV. (⇨ 8, EASY SETUP settings)
※1 When using VIERA Link "HDAVI Control" with "HDAVI Control 3 or later" compatible TV
※2 When using VIERA Link "HDAVI Control" with "HDAVI Control 2 or later" compatible TV

Disc operation

It takes time before play starts.

● 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. **MP3**
● This is normal on DivX video. **DivX**

A menu screen appears during skip or search. **VCD**

This is normal for Video CDs.

Playback control menu does not appear.

VCD with playback control

Press [■ STOP]⑥ twice and then press [▶ PLAY]⑥.

Program and Random play do not work. **DVD-V**

These functions do not work with some DVD-Videos.

Play does not start.

● This unit may not play WMA and MPEG4 that contains still picture data.
● If playing DivX VOD content, refer to the homepage where you purchased the DivX VOD content. (Example: http://vod.divx.com) **DivX**
● If a disc contains CD-DA and other formats, proper playback may not be possible.

No subtitles.

● Display the subtitles. ("SUBTITLE" in Menu 1) (⇨ 13)
● Subtitles may not be displayed depending on the disc. **DivX**

Point B is automatically set.

The end of an item becomes point B when it is reached.

The Setup menu cannot be accessed.

Select "DVD/CD" as the source.

Sound

Sound is distorted.

● Noise may occur when playing WMA.
● When using the HDMI output, audio may not be output from other terminals.

Effects do not work.

Some audio effects do not work or have less effect with some discs.

Humming is heard during※ play.

An AC mains lead or fluorescent light is near the main unit. Keep other appliances and cables away from the main unit.

No sound.

● There may be a slight pause in sound when you change the play speed.
● If the input source is bitstream, set the sound setting to PCM on the external equipment.
● Audio may not be output due to how files were created. **DivX**

No sound from the TV.

● If the TV is not ARC compatible and only the HDMI connection is used, an extra audio connection is necessary. (⇨ 7)
● Confirm the audio connection. Press [RADIO, EXT-IN]⑤ to select the corresponding source. (⇨ 7, 9)
● When using the HDMI connection, ensure that "AUDIO OUT" in the HDMI menu is set to "ON". (⇨ 18)

No sound from the surround speakers.

Press [SURROUND]⑫ to select "MULTI-CH". (⇨ 10)

Picture

The picture on the TV is not displayed correctly or disappears.
- The unit and TV are using different video systems.
  [For Southeast Asia] Use a multi-system or NTSC TV.
  [For Australia, N.Z., India and Nigeria] Use a multi-system or PAL TV.
- The system used on the disc does not match your TV.
  – 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 ("NTSC DISC OUT" in VIDEO menu). (⇨ 17)
- Ensure that the unit is connected directly to the TV, and is not connected through a VCR. (⇨ 7)
- Mobile telephone chargers can cause some disturbance.
- If you are using an indoor TV antenna, change to an outdoor antenna.
- The TV antenna wire is too close to the unit. Move it away from the unit.
- Change "SOURCE SELECT" in Menu 2. [DivX] (⇨ 13)
- Reduce the number of connected devices.
- When using the HDMI AV OUT terminal, ensure that an incompatible video output with the connected TV is not selected. Press and hold [CANCEL]④ until the picture is displayed correctly. (The output will return to "480p" or "576p".) (⇨ 13)
- Video images converted to 1920×1080 resolution may look different from the true native 1080p full-HD sources. This is not a malfunction of the main unit.

Picture size does not fit the screen.
- Change "TV ASPECT" in the VIDEO menu. (⇨ 17)
- Use the TV to change the aspect.
- Change the zoom setting. ("ZOOM" in Menu 2) (⇨ 13)

Menu is not displayed correctly.
Restore the zoom ratio to "NORMAL". ("ZOOM" in Menu 2) (⇨ 13)

Auto zoom function does not work well.
- Turn off TV's zoom function.
- Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.

When playing PAL disc, picture distorted.
Set "TRANSFER MODE" in Menu 2 to "AUTO". (⇨ 13)

iPod/iPhone operation

Cannot charge or operate.
- Check that the iPod/iPhone is connected firmly. (⇨ 16)
- The battery of the iPod/iPhone is depleted. Charge the iPod/iPhone, and then operate again.

Cannot display iPod/iPhone photos/videos on the TV.
- Ensure the video connection to the VIDEO OUT terminal on this unit (⇨ 7).
- Operate the iPod/iPhone menu to make the appropriate photo/video output settings for your TV. (Refer to operating instructions for your iPod/iPhone.)

HDMI progressive video

There is ghosting when HDMI progressive output is on.
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 5 to "480i" or "576i". Or, disable the HDMI AV OUT connection and use the other video connection. (⇨ 7, 13)

Radio

Distorted sound or noise is heard.
- Adjust the position of the FM antenna.
- Use an outdoor antenna. (⇨ 6)

A beat sound is heard.
Turn the TV off or move it away from the unit.

USB

The USB drive or its contents cannot be read.
- The USB drive format or its contents is/are not compatible with the system. (⇨ 17)
- The USB host function of this product may not work with some USB devices.
- USB devices with storage capacity of more than 32 GB may not work in some instances.

Slow operation of the USB device.
Large file size or high memory USB device takes longer time to read and display on the TV.

TV displays

"⊘"
The operation is prohibited by the unit or disc.

"THIS DISC CANNOT BE PLAYED IN YOUR REGION."
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. (⇨ Cover page)

"No Video"
Depending on the connected iPod/iPhone, video menu may not be available on the TV.
Select iPod/iPhone menu (iPod/iPhone LCD) mode (⇨ 16) and operate video playback from your iPod/iPhone menu.

Reference

Specifications

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

Except Australia and N.Z.

PMPO Output Power	7500 W

DIN Output Power: Dolby Digital Mode

Front Ch	90 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch	90 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch	115 W per channel (6 Ω), 1 kHz, 1 % THD
Subwoofer Ch	115 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

Except Australia and N.Z.

Mic jack

Sensitivity	0.7 mV, 1.2 kΩ
Terminal	Mono, 6.3 mm jack (2 systems)

USB Port

USB standard	USB 2.0 full speed
Media file format support	MP3 (∗.mp3)
	WMA (∗.wma)
	JPEG (∗.jpg, ∗.jpeg)
	DivX (∗.divx, ∗.avi)
	MPEG4 (∗.asf)
USB device file system	FAT12, FAT16, FAT32
USB Port power	Max. 500 mA
Bit rate	Up to 4 Mbps (DivX)

DISC SECTION

Discs played (8 cm or 12 cm)

(1) DVD (DVD-Video, DivX[∗5, 6])
(2) DVD-R (DVD-Video, DVD-VR, MP3[∗2, 5], JPEG[∗4, 5], MPEG4[∗5, 7], DivX[∗5, 6])
(3) DVD-R DL (DVD-Video, DVD-VR, DivX[∗5, 6])
(4) DVD-RW (DVD-Video, DVD-VR, MP3[∗2, 5], JPEG[∗4, 5], MPEG4[∗5, 7], DivX[∗5, 6])
(5) +R/+RW (Video)
(6) +R DL (Video)
(7) CD, CD-R/RW (CD-DA, Video CD, SVCD[∗1], MP3[∗2, 5], WMA[∗3, 5], JPEG[∗4, 5], MPEG4[∗5, 7], DivX[∗5, 6])

∗1 Conforming to IEC62107
∗2 MPEG-1 Layer 3, MPEG-2 Layer 3
∗3 Windows Media Audio Ver.9.0 L3
   Not compatible with Multiple Bit Rate (MBR)
∗4 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.
∗5 The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 255 groups. (Excluding Root folder)
∗6 Plays DivX® video.
∗7 MPEG4 data recorded with Panasonic SD multi cameras or DVD video recorders
   Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system

Pick up

Wavelength (DVD/CD)	655/790 nm
Laser power	CLASS 1M

Audio output (Disc)

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

VIDEO SECTION

Video system	PAL625/50, PAL525/60, NTSC

Composite video output

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

HDMI AV output

Terminal	19-pin type A connector
HDAVI Control	This unit supports "HDAVI Control 5" function.

SPEAKER SECTION

Front speakers SB-HF480

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Output sound pressure	78 dB/W (1 m)
Frequency range	105 Hz to 25 kHz (−16 dB)
	130 Hz to 22 kHz (−10 dB)
Dimensions (W×H×D)	80 mm×119 mm×68 mm
Mass	0.4 kg

Surround speakers SB-HS480

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Output sound pressure	78 dB/W (1 m)
Frequency range	105 Hz to 25 kHz (−16 dB)
	130 Hz to 22 kHz (−10 dB)
Dimensions (W×H×D)	80 mm×119 mm×68 mm
Mass	0.4 kg

Center speaker SB-HC480

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 6 Ω
Full range	6.5 cm Cone type
Output sound pressure	79 dB/W (1 m)
Frequency range	90 Hz to 25 kHz (−16 dB)
	115 Hz to 22 kHz (−10 dB)
Dimensions (W×H×D)	145 mm×85 mm×71.5 mm
Mass	0.6 kg

Subwoofer SB-HW480

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 6 Ω
Woofer	16 cm Cone type
Output sound pressure	78 dB/W (1 m)
Frequency range	40 Hz to 220 Hz (−16 dB)
	45 Hz to 180 Hz (−10 dB)
Dimensions (W×H×D)	145 mm×289.5 mm×258 mm
Mass	2.8 kg

GENERAL

Power supply	For Australia and N.Z.
	AC 220 V to 240 V, 50 Hz
	Except Australia and N.Z.
	AC 110 V to 127 V/220 V to 240 V, 50/60 Hz
Power consumption	Main unit 95 W
Dimensions (W×H×D)	430 mm×54 mm×287 mm
Mass	Main unit 2.8 kg
Operating temperature range	0 °C to +40 °C
Operating humidity range	35 % to 80 % RH (no condensation)

Power consumption in standby mode	approx. 0.38 W

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.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union

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

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.

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.**

For Australia and N.Z.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

Except Australia and N.Z.

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

Except Australia and N.Z.

CAUTION:

The AC voltage is different according to the area.
Be sure to set the proper voltage in your area before use.
(For details, please refer to page 7.)

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.**

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.

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