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.

Model number suffix “EB” denotes UK model.
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.

CAUTION!
• DO NOT INSTALL OR PLACE THIS UNIT IN A
BOOKCASE, BUILT-IN CABINET OR IN ANOTHER
CONFINED SPACE. ENSURE THE UNIT IS WELL
VENTILATED. TO PREVENT RISK OF ELECTRIC
SHOCK OR FIRE HAZARD DUE TO OVERHEATING,
ENSURE THAT CURTAINS AND ANY OTHER
MATERIALS DO NOT OBSTRUCT THE VENTILATION
VENTS.
• DO NOT OBSTRUCT THE UNIT'S VENTILATION
OPENINGS WITH NEWSPAPERS, TABLECLOTHS,
CURTAINS, AND SIMILAR ITEMS.
• DO NOT PLACE SOURCES OF NAKED FLAMES,
SUCH AS LIGHTED CANDLES, ON THE UNIT.
• DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY
FRIENDLY MANNER.

WARNING:
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR
PRODUCT DAMAGE,
• DO NOT EXPOSE THIS APPARATUS TO RAIN,
MOISTURE, DRIPPING OR SPLASHING AND THAT
NO OBJECTS FILLED WITH LIQUIDS, SUCH AS
VASES, SHALL BE PLACED ON THE APPARATUS.
• 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.

THIS UNIT IS INTENDED FOR USE IN MODERATE
CLIMATES.

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

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

Do not touch the speaker terminals while the set is
operating.
Malfunction may occur due to static electricity.

BTT755 for Australia and New Zealand
For wireless system
Product Identification Marking is located on the bottom of
the wireless system.

CLASS 1 LASER PRODUCT

(Side of product)
Caution for AC Mains Lead

(For the United Kingdom and Republic of Ireland)
For your safety, please read the following text carefully.
This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark or the BSI mark on the body of the fuse.
If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

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

Before use
Remove the connector cover.

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

1. Open the fuse cover with a screwdriver.
2. Replace the fuse and close or attach the fuse cover.
Safety precautions

Placement
Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit’s service life. Do not place heavy items on the unit.

Voltage
Do not use high voltage power sources. This can overload the unit and cause a fire. Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection
Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.
Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock. Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter
Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.
Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.
Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service
Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service centre. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.
Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

Information for Users on Collection and Disposal of Old Equipment and used Batteries
These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.
For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.
By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.
For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]
These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.
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Getting started

Indicates features applicable to:

- **BTT755**: SC-BTT755 only
- **BTT350**: SC-BTT350 only

Some accessories and external devices mentioned in these operating instructions that are not supplied with this product may not be on sale in certain regions.

System | SC-BTT755 | SC-BTT350
--- | --- | ---
Main unit | | |
Speaker system | | |
Front speakers | SB-HF730 | SB-HF230
Centre speaker | SB-HC730 | SB-HC480
Surround speakers | SB-HS735 | SB-HS230
Subwoofer | SB-HW330 | SB-HW480

For Australia and New Zealand
Wireless system (with a digital transmitter)
SH-FX71 —

Accessory

Check the supplied accessories before using this unit. For accessories of speakers, refer to page 12.

**BTT755**

- 1 Remote control (N2QAKB000090)
- 2 Batteries for remote control
- 1 Sheet of speaker cable sticker
- 1 Video cable (K2KA2BA00001)
- 1 FM indoor antenna (RSA00002)
- 1 Antenna plug adaptor (K1YZ02000013)
  For the United Kingdom and Republic of Ireland
- AC mains lead
  1 For the United Kingdom and Republic of Ireland (K2CZ3YY00005)
  2 For Australia and New Zealand (K2CJ2DA00010) (RFAX1023) with a ferrite core

**BTT350**

- 1 Remote control (N2QAKB000090)
- 2 Batteries for remote control
- 1 Sheet of speaker cable sticker
- 1 Video cable (K2KA2BA00001)
- 1 FM indoor antenna (RSA00002)
- 1 Antenna plug adaptor (K1YZ02000013)
  For the United Kingdom and Republic of Ireland
- AC mains lead
  1 For the United Kingdom and Republic of Ireland (K2CZ3YY00005)
  1 For Australia and New Zealand (K2CJ2DA00010)

Product numbers correct as of June 2010. These may be subject to change.
Do not use AC mains lead with other equipment.
Unit and media care

- **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.
- **Clean the lens with the lens cleaner**
  - Lens cleaner: RP-CL720E
    - This lens cleaner may not be available for sale in all countries, e.g. not available in Germany, please consult your Panasonic dealer for advice.
    - This lens cleaner is primarily for use on Panasonic DVD recorders (DIGA), but it is also suitable for use on this unit.
- **Clean discs**
  - **DO**
    - Wipe with a damp cloth and then wipe dry.
  - **DO NOT**
    - Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
    - Do not attach labels or stickers to discs.
    - 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.
- **Disc and card handling precautions**
  - Handle discs by the edges to avoid inadvertent scratches or fingerprints on the disc.
  - 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 take apart or short circuit.
  - Do not attempt to recharge alkaline or manganese batteries.
  - Do not use batteries if the covering has been peeled off.
  - Remove batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

- **To dispose or transfer this unit**
  - The unit may keep the user settings information in the unit. If you discard this unit either by disposal or transfer, then follow the procedure to return all the settings to the factory presets to delete the user settings. (☞ 45, “To return all settings to the factory preset.”)
  - The operation history may be recorded in the memory of this unit.

Using the remote control

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

Point it at remote control signal sensor on this unit. (☞ 9)

**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.
Control reference guide

Remote control

1. Turn the unit on and off (∨ 21)
2. Display the Home screen of VIERA CAST (∨ 36)
3. Select title numbers, etc./Enter numbers or characters (∨ 36)
   [CANCEL]: Cancel
4. Basic playback control buttons (∨ 27)
5. Select preset radio stations (∨ 32)
6. Show status messages (∨ 27)
7. Show Top Menu/DIRECT NAVIGATOR (∨ 27)
8. [▲, ▼, ◄, ►]: Menu selection
   [OK]: Selection
   [◄, ►]: Select preset radio station (∨ 32)
   [◄◄, ►►], [◄◄◄, ►►►]: Frame-by-frame (∨ 27)
9. Show OPTION menu (∨ 28)
10. Coloured buttons (red, green yellow, blue)
    These buttons are used when:
    ● Operating a BD-Video disc that includes Java™ applications (BD-J).
    ● Displaying “Title View” and “Album View” screens. (∨ 30)
    ● Operating contents of VIERA CAST (∨ 36)
11. Set the sound mode (∨ 26)/Select speaker channel (∨ 26)
12. Select surround sound effects (∨ 26)
13. TV operation buttons
    You can operate the TV through the unit’s remote control.
    [O]: Turn the television on and off
    [AV]: Switch the input select
    [◄ – VOL]: Adjust the volume
14. Adjust the volume of the main unit
15. Mute the sound
    ● “MUTE” flashes on the unit’s display, while the function is on.
    ● To cancel, press the button again or adjust the volume.
    ● Muting is cancelled if the unit is turned off.
16. Switch on/off Secondary Video (Picture-in-picture) (∨ 28)
17. Select the source
    [BD/SD]: Select disc drive or SD card drive (∨ 25)
    [iPod]: Select iPod/iPhone as the source (∨ 25, 35)
    [RADIO/EXT-IN]: Select FM tuner, USB or external audio as the source (∨ 25, 31, 32)
18. Select radio stations manually (∨ 31)
19. Exit the menu screen
20. Show START menu (∨ 25)
21. Show Pop-up menu (∨ 27)
22. Return to previous screen
23. Select audio (∨ 27)
24. Show Playback menu (∨ 36)/Set the sleep timer
   ① Press and hold [–SLEEP].
   ② While “SLEEP ××” is displayed, press [–SLEEP] several times to select the time (in minutes).
   ● Timer selection is up to 120 minutes.
   ● Select “OFF” when cancelling the setting.
   ● To confirm the remaining time
     Press and hold the button again.
### Getting started

1. **Standby/on switch (Í/I)** (⇒ 21)
   - Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

2. **Power indicator**
   - The indicator lights when this unit is turned on.

3. **Connect iPod/iPhone (⇒ 34)**

4. **Adjust the volume of the main unit**

5. **Open or close the disc tray (⇒ 24)**

6. **Disc tray**

7. **SD card slot (⇒ 24)**

8. **USB port (⇒ 24)**

9. **Display (FL display)**
   -  “SRD” (SURROUND) lights when sound is output to the surround speakers.

10. **Remote control signal sensor**
    - Distance: within approx. 7 m.
    - Angle: Approx. 20° up and down, 30° left and right

11. **Select the source (⇒ 25)**

12. **Stop (⇒ 27)**

13. **Start play (⇒ 27)**

### If the front cover comes off

1. Hold rear side of main unit by one hand and match up left or right side protruding hook on the cover first with the corresponding slot on the unit.

2. Push the hook firmly towards the unit until it clicks into place. Then push the succeeding hooks one by one until all have clicked into place.

3. Check that the cover now moves correctly.
   - If it does not, remove it and repeat the above procedure.

### Main unit (Rear)

1. **AC IN terminal (⇒ 20)**

2. **Speaker terminals (⇒ 15)**

3. **Cooling fan**

4. **HDMI AV OUT terminal (⇒ 17)**

5. **LAN port (⇒ 19)**

6. **USB port for optional wireless adaptor (⇒ 19)**

7. **AJX terminal (⇒ 16)**

8. **VIDEO OUT terminal (⇒ 16)**

9. **FM radio antenna terminal (⇒ 18)**

10. **DIGITAL AUDIO IN terminal (⇒ 16, 17)**

11. **Digital transmitter dock (⇒ 14, 18)**
## Playable discs/Cards/USB devices

<table>
<thead>
<tr>
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<th>Logo examples</th>
<th>Type detail</th>
<th>Playable contents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD</td>
<td><img src="BD-Video.png" alt="Logo Example" /></td>
<td>BD-Video</td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BD-RE</td>
<td>Video, JPEG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BD-R</td>
<td>Video, DivX®</td>
</tr>
<tr>
<td>DVD</td>
<td><img src="DVD-Video.png" alt="Logo Example" /></td>
<td>DVD-Video</td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td><img src="DVD-RAM.png" alt="Logo Example" /></td>
<td>DVD-RAM</td>
<td>Video, AVCHD, JPEG</td>
</tr>
<tr>
<td></td>
<td><img src="DVD-R.png" alt="Logo Example" /></td>
<td>DVD-R</td>
<td>Video, AVCHD, DivX®, MP3, JPEG</td>
</tr>
<tr>
<td></td>
<td>![Logo Example](DVD-R DL.png)</td>
<td>DVD-R DL</td>
<td>AVCHD, JPEG</td>
</tr>
<tr>
<td></td>
<td><img src="DVD-RW.png" alt="Logo Example" /></td>
<td>DVD-RW</td>
<td>Video, AVCHD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+R/+RW/+R DL</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>![Logo Example](Music CD.png)</td>
<td>Music CD</td>
<td>Music [CD-DA]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD-R</td>
<td>DivX®, Music [CD-DA], MP3, JPEG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD-RW</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>![Logo Example](SD Memory Card.png)</td>
<td>SD Memory Card (8 MB to 2 GB), SDHC Memory Card (4 GB to 32 GB), SDXC Memory Card (48 GB, 64 GB) (Compatible with both mini and micro types) (as of December 2009)</td>
<td>MPEG2, AVCHD, JPEG</td>
</tr>
<tr>
<td>USB</td>
<td>![Logo Example](USB device.png)</td>
<td>USB device (up to 128 GB)</td>
<td>DivX®, MP3, JPEG</td>
</tr>
</tbody>
</table>

* See page 11, 49–50 for more information on the types of content that can be played.
Discs that cannot be played in this unit

* Any other disc that is not specifically supported or previously described.
  * 2.6 GB and 5.2 GB DVD-RAM
  * DVD-RAM that cannot be removed from cartridge
  * Super Audio CD
  * Photo CD
  * DVD-Audio
  * Video CD and Super Video CD
  * WMA discs
  * HD DVD

Music CD

* Operation and sound quality of CDs that do not conform to CD-DA specifications (copy control CDs, etc.) cannot be guaranteed.

SD card

* miniSD Cards, microSD Cards, microSDHC Cards and microSDXC Cards can be used, but must be used with an adaptor card. These are usually supplied with such cards, or otherwise customer provided.
* Keep the Memory Card out of reach of children to prevent swallowing.
* To protect the card’s contents, move the record prevention tab (on the SD card) to “LOCK”.
* This unit is compatible with SD Memory Cards that meet SD Card Specifications FAT12 and FAT16 formats, as well as SDHC Memory Cards in FAT32 format (Does not support long file name.) and SDXC Memory Cards in exFAT.
* If the SD card is used with incompatible computers or devices, recorded contents may be erased due to the card being formatted etc.
* Useable memory may be slightly less than the card capacity.

USB device

* This unit does not guarantee connection with all USB devices.
* This unit does not support USB device charging.
* FAT12, FAT16 and FAT32 file systems are supported.
* This unit supports USB 2.0 High Speed.

Finalize

* DVD-R/RW/R DL, +R/+RW/+R DL and CD-R/RW recorded by a recorder, etc. needs to be finalized by the recorder to play on this unit. Please refer to the recorder’s instructions.

BD-Video

* 3D videos can be played back when this unit is connected to a 3D compatible TV using a High Speed HDMI Cable.
* This unit supports high bit rate audio (Dolby Digital Plus, Dolby TrueHD, DTS-HD High Resolution Audio and DTS-HD Master Audio) adopted in BD-Video. In order to enjoy these audio formats, refer to page 40.

* It may not be possible to play the above media in some cases due to the type of media, the condition of the recording, the recording method and how the files were created.
* The producers of the disc can control how discs are played. So you may not always be able to control play as described in these operating instructions. Read the disc’s instructions carefully.
STEP 1: Preparing the speakers

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.
- Do not touch the front netted area of the speakers. Hold by the sides.

Assembling the speakers

Caution
- Do not stand on the base. Be cautious when children are near.
- When carrying speakers, hold the stand and base parts.

Preparation
- To prevent damage or scratches, lay down a soft cloth and perform assembly on it.
- For wall mount, refer to page 44.
- Keep the screws out of reach of children to prevent swallowing.

1. Pull the cable straight along the line and slide into the groove.
   - Back of the base
   - Screw A
   - Tighten securely.

2. Insert the wire fully:
   - +: White
   - -: Blue line
   - Push!
   - Press into the groove.
   - Screw B
   - Leave about 80 mm
   - Tighten securely.

BTT755
- 2 Front speakers
- 2 Surround speakers
- 4 Bases (RYK1610-K1)
- 8 Screws A (XTN5+10FFJK)
- 4 Stands (with cables)
  (RYK1609A-K: RED)
  (RYK1609-K: WHITE)
  (RYK1609C-K: GREY)
  (RYK1609B-K: BLUE)
- 1 Speaker cable (REEX1154-1: GREEN)
- 4 Screws B (XYN5+J18FJK)
- 5 Speaker cables
  (REEX1152A-1: RED)
  (REEX1153A-1: WHITE)
  (REEX1154-1: GREEN)
  (REEX1155-1: GREY)
  (REEX1156-1: BLUE)
Preparing cables and making connection

1 Use of the speaker cable stickers is convenient when making cable connections.
   e.g. Front speaker (L)

2 Connecting the speaker cables. Insert the wire fully, taking care not to insert beyond the wire insulation.
   e.g. Surround speaker

<table>
<thead>
<tr>
<th>Speaker cable sticker</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 FRONT (L)</td>
<td>WHITE</td>
</tr>
<tr>
<td>2 FRONT (R)</td>
<td>RED</td>
</tr>
<tr>
<td>3 SURROUND (L)</td>
<td>BLUE</td>
</tr>
<tr>
<td>4 SURROUND (R)</td>
<td>GREY</td>
</tr>
<tr>
<td>5 CENTRE</td>
<td>GREEN</td>
</tr>
<tr>
<td>6 SUBWOOFER</td>
<td>PURPLE</td>
</tr>
</tbody>
</table>

Be sure to match the number on each sticker with the connector colour.

- Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.
- Don’t use a front speaker as a surround speaker or vice versa. Verify the type of speaker with the label on the rear of the speaker before connecting the appropriate cable.
- To avoid injury by falling or dropping the speaker, place the speaker cables with care not to stumble or hook. Do not hold the speaker in one hand to avoid injury by dropping the speaker when carrying.

Preventing the speakers from falling

- Consult a qualified housing contractor concerning the appropriate procedure when attaching to a concrete wall or a surface that may not have strong enough support. Improper attachment may result in damage to the wall or speakers.
- Use a string of less than \( \theta 2.0 \text{ mm} \), which is capable of supporting over 10 kg.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| A | String (not supplied)
|   | Thread from the wall to the speaker and tie tightly.
| B | Rear of the speaker
| C | Screw eye (not supplied)
| D | Wall
| E | Approx. 150 mm

String (not supplied)
Thread from the wall to the speaker and tie tightly.
Rear of the speaker
Screw eye (not supplied)
Wall
Approx. 150 mm
STEP 2: Positioning

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

Setup example
Place the front, centre, surround speakers at approximately the same distance from the seating position. The angles in the diagram are approximate.

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

A Centre speaker
- Put on a rack or shelf not to interfere with the TV’s various sensors (ambient light, etc.). Vibration caused by the speaker can disrupt the picture if it is placed directly on the TV.

B Front speakers
C Subwoofer
D Surround speakers
- Place the speakers at the same height or higher than ear level.

E Wireless system
- Place the wireless system within approximately 10 m from the main unit, and in a horizontal position with the top panel faced upward.
- To allow for proper ventilation and to maintain good airflow around the wireless system, position it with at least 5 cm of space on all sides.
- Do not use the wireless system or the digital transmitter in a metal cabinet or bookshelf.

Exceptions for Australia and New Zealand
- You can enjoy surround speaker sound wirelessly when you use the optional Panasonic wireless accessory (SH-FX71).
  For more details, refer to the operating instructions for the optional wireless system.

- 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.
  - Positioning speakers in front
    It is possible to locate all the speakers in front of the listening position. However, the optimal surround sound effect may not be obtainable.
    - 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 44.

If irregular colouring occurs on your TV, turn the TV off for about 30 minutes.
If it persists, move the speakers further away from the TV.

Wireless system
To avoid interference, maintain the following distances between the wireless system and other electronic devices that use the same radio frequency (2.4 GHz band).

- Wireless LAN: approx. 2 m
- Cordless phone and other electronic devices: approx. 2 m

The wireless system will automatically seek a clear channel if any of these other devices interfere with its communication. When this happens, the wireless link indicator ("W") flashes on the main unit, and there is a brief interruption in audio coming from the surround speakers.

This is the normal operation of the product working to assure the best possible performance of your home theatre system.

If the interference persists, try moving the other devices to another location outside the range of the wireless system or move the wireless system nearer to the main unit.

Upgrade your system to 7.1-channel system
The main unit is designed to enjoy the 7.1ch surround sound. By connecting 2 units of the Panasonic wireless system SH-FX71 with 4 speakers, more theatre-like effect can be available.

Necessary equipment:
- 1 optional wireless system (SH-FX71)
- 2 additional speakers
  [Impedance: 3Ω to 6Ω, Speaker input power: 100 W (Min)]

Exceptions for Australia and New Zealand
- 2 optional wireless systems (SH-FX71)
- 2 additional speakers
  [Impedance: 3Ω to 6Ω, Speaker input power: 100 W (Min)]

For more details, refer to the operating instructions for the optional wireless system.
STEP 3: Connections

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

### Speaker cable connection

Connect to the terminals of the same colour.

**BTT755 for Australia and New Zealand**

- **6** PURPLE Subwoofer
- **5** GREEN Centre speaker
- **2** RED Front speaker (Rch)
- **1** WHITE Front speaker (Lch)

**Wireless system**

- **3** BLUE Surround speaker (Lch)
- **4** GREY Surround speaker (Rch)

Do not connect the surround speaker cables to the main unit when using the wireless system.

**Main unit**

**Surround selector**

The surround selector switch must be set in the centre position.

**Except BTT755 for Australia and New Zealand**

- **6** PURPLE Subwoofer
- **5** GREEN Centre speaker
- **2** RED Front speaker (Rch)
- **1** WHITE Front speaker (Lch)
- **4** GREY Surround speaker (Rch)
- **3** BLUE Surround speaker (Lch)

When using the optional wireless system, do not attempt to connect any extra surround or surround back speakers to the main unit.

**Main unit**
## Connection to a TV

- The basic connection is shown in the included Easy Setting Guide, however, there are more connection examples to optimize your system setting.
- This system supports the PCM and the Dolby Digital bitstream input audio. However, for example the system does not support the DTS bitstream input audio.

- Do not make the video connections through the VCR. Due to copyright protection, the picture may not be displayed properly.
- Turn off all equipment before connection.

### OPTICAL IN
- After making the digital audio connection, make settings to suit the type of audio from your digital equipment (⇒ 32).

### HDMI
- The HDMI connection supports VIERA Link “HDAVI Control” (⇒ 33) when used with a compatible Panasonic TV.

---

### Basic connection

To enjoy TV audio from this home theatre system’s speakers

1. Connect the TV and the main unit with the Audio cable (not supplied).
2. Select “AUX” as a source (⇒ 25).

- **A** Audio cable (not supplied)
- **B** Video cable (supplied)

---

### Connection for the better audio

To enjoy TV audio from this home theatre system’s speakers

1. Connect the TV and the main unit with the Optical digital audio cable (not supplied).
2. Select “DIGITAL IN” or “D-IN” as a source (⇒ 25).

- **A** Video cable (supplied)
- **B** Optical digital audio cable (not supplied)

---

For the United Kingdom and Republic of Ireland

If the TV does not have a VIDEO IN terminal, connect using a Scart adaptor (Scart—VIDEO IN).

- **A** Scart adaptor (not supplied)
- **B** Video cable (supplied)
Getting started

It is possible to playback 3D videos by connecting this unit with a 3D compatible TV.

ARC (Audio Return Channel)
(Available when using an ARC compatible TV)
With this function it is possible to receive the digital audio signal from the TV without connecting any other audio cables. Be sure to connect to the TV’s ARC compatible terminal.
- Select “ARC” as the audio input source (➔ 25).
- Refer to the operating instructions of the TV for the settings to output digital audio.

Connection for the best picture and audio

To enjoy TV audio from this home theatre system’s speakers
1 Connect the TV and the main unit with the Optical digital audio cable (not supplied).
2 Select “DIGITAL IN” or “D-IN” as a source (➔ 25).

ARC (Audio Return Channel)
(Available when using an ARC compatible TV)
With this function it is possible to receive the digital audio signal from the TV without connecting any other audio cables. Be sure to connect to the TV’s ARC compatible terminal.
- Select “ARC” as the audio input source (➔ 25).
- Refer to the operating instructions of the TV for the settings to output digital audio.

Connection with Set Top Box, etc.

Refer to the operating instructions of the respective devices for the optimal connections.

To enjoy TV audio from this home theatre system’s speakers
1 Connect the STB and the main unit with the Optical digital audio cable (not supplied).
2 Select “DIGITAL IN” or “D-IN” as a source (➔ 25).

Optical digital audio cable (not supplied)
Set Top Box (Cable/Satellite), etc.
Radio antenna connection

Using an indoor antenna

![Diagram of an indoor antenna setup]

- **A** FM indoor antenna (supplied)
- **B** Adhesive tape
  Affix this end of the antenna where reception is best.

Using an outdoor antenna

Use outdoor antenna if FM radio reception is poor.

![Diagram of an outdoor antenna setup]

- **A** FM outdoor antenna [Using a TV antenna (not supplied)]
  The antenna should be installed by a competent technician.
- **B** 75 Ω coaxial cable (not supplied)
- **C** Antenna plug adaptor (United Kingdom and Republic of Ireland only)
  - Keep the adaptor out of reach of children to prevent swallowing.

Digital transmitter connection

**BTT755 for Australia and New Zealand**

Do not insert or remove while the home theatre unit is on.

![Diagram of digital transmitter connection]

**DO**
Insert fully until you hear a click.

**DO NOT**
Make sure that the digital transmitter is fully inserted.

If the digital transmitter is not fully inserted, the sound may not be available from the surround speakers.
Connection to a broadband network

The following services can be used when this unit is connected to broadband.

- Firmware can be updated (⇒ 23)
- You can enjoy the BD-Live (⇒ 28)
- You can enjoy the VIERA CAST (⇒ 36)
- DLNA feature (⇒ 38)

For details about connection method, refer to the instructions supplied with the connected equipment.

Using LAN (ethernet) cable

- LAN Cable [Straight]
  (not supplied)
- Broadband router, etc.
- Internet
  - Use shielded LAN cables when connecting to peripheral devices.
  - Inserting any cable other than a LAN cable in the LAN terminal can damage the unit.

Using Wireless LAN Adaptor DY-WL10 (optional)

- Wireless LAN Adaptor
- Wireless router (Access point), etc.
- Internet
  - Only the Wireless LAN Adaptor DY-WL10 (optional) can be used.
  - Read the operating instructions for the Wireless LAN Adaptor DY-WL10 (optional) thoroughly when using it.
  - For up to date compatibility information on your Wireless router (Access Point) refer to http://panasonic.jp/support/global/cs/ (This site is in English only.)
  - The unit is not compatible with public wireless LAN services (Hotspot etc.) provided in airports, stations, cafes etc.
STEP 4: AC mains lead connection

For the United Kingdom and Republic of Ireland only
BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE CONNECTION.

- Connect only after all other connections are complete.
- The main unit consumes a small amount of AC power, even when it is turned off (When the "Quick Start" setting is "Off": approx. 0.2 W, BTT755 for Australia and New Zealand: approx. 0.3 W). In the interest of power conservation, if you will not be using this unit for a long time, unplug it from the household mains socket.

STEP 5: Preparing the wireless system

Unit on/off button [_PANEL, I, [I] ]
- I: The wireless system is on.
- [I]: The wireless system is off.

WIRELESS LINK indicator
Red: The wireless system is on and the wireless link is deactivated.
Green: The wireless system is on and the wireless link is activated.
("[W]" is also displayed on the main unit’s display.)
STEP 6: Easy setup

The Easy setup assists you to make necessary settings.
Follow the on-screen prompts to make basic settings for the system.

1. Press [ ].
2. Follow the on-screen instructions and make the settings with [↑, ↓, ←, →] and press [OK].
   - Language
     Select the language used on menu screen.
   - TV Aspect
     Select the aspect to suit your TV and preference.
   - Wireless System
     If a digital transmitter is inserted, it is required to specify the current settings.
   - Speakers position
     Specify the positioning of the surround speakers.
   - Speaker check
     Check if the connection to each speaker is valid.
   - Speaker Output
     Make surround sound setting for speaker output.
   - TV Audio
     Select the audio input connection from your TV, [item with “(TV)”].
   - Quick Start
     Speed of startup from standby mode is increased.

3. Press [OK] several times to finish the “Easy setup”.

After completing “Easy setup”, you can perform “Network Easy Setting”.

- You can perform this setup anytime by selecting “Easy setup” in the Setup menu. (p. 42)
- Language and TV Aspect settings are automatically retrieved if this unit is connected to a Panasonic TV (VIERA) supporting HDAVI Control 2 or later via an HDMI cable.
Network Easy Setting

Select “Wired” or “Wireless” and press [OK].

“Wired” connection

Follow the on-screen instructions to make your connection settings.
• When you experience problems (right)

“Wireless” connection

If you select “Wireless” and “Wireless LAN Adaptor is not connected.” is displayed, check that the Wireless LAN Adaptor is fully inserted. Alternatively, disconnect and reconnect it. If there is still no change in the display, consult your dealer for advice.

Select “WPS (PUSH button)” or “Search for access point” and then follow the on-screen instructions and make the settings.

WPS (PUSH button):

If your Wireless router (Access point) supports WPS (PUSH button), you can easily perform the settings by pressing WPS button on it.
WPS (Wi-Fi Protected Setup) is a standard that facilitates settings relating to the connection and security of wireless LAN devices.

1 Press WPS button or corresponding button of Wireless router (Access point) until the lamp starts flashing.
   • For details, refer to the operating instruction of Wireless router (Access point).
2 Press [OK].

Search for access point:

Available Wireless routers (Access points) are searched and listed. You can select the one to use from the list.

1 Press [ A, Y] to select SSID*2 of Wireless router (Access point) you want to connect with. Then press [OPTION] to show information of the selected router, make a note of the authentication and encryption type.
2 Press [RETURN] and then press [OK].

Press [RETURN] and then press [OK].

Then select an item on the following screen which corresponds to the authentication type noted down in step 1 (right).

Follow the on-screen instructions to make the settings.
• Input your encryption key code in “Encryption Key” supplied with your Wireless router (Access point).

*1 Wi-Fi Protected Setup-compatible Wireless router (Access point) may have the mark.

*2 An SSID (Service Set Identification) is a name used by wireless LAN to identify a particular network. Transmission is possible if the SSID matches for both devices.

When you experience problems with settings

Access Point Connection Setting

Select a connection method for access to Wireless LAN.
Please refer to the operating instructions of the access point about connection methods.

WPS (PUSH button)
Search for access point

Display | Check the following
---|---
A conflict with other devices occurred. | Please wait a few moments, and then try again.
A time out error occurred. | • Setting of the Wireless router (Access point) for MAC Address etc.
 | • The signal may be weak. Using the USB extension cable supplied with the Wireless LAN Adaptor, adjust the position of the Wireless LAN Adaptor.
An authentication error or a time out error occurred. | • The SSID and the encryption key of the Wireless router (Access point).
 | • Please wait a few moments, and then try again.
A device error occurred. | • Connection of Wireless LAN Adaptor
If there is no improvement in symptom, consult your dealer.
### Network Easy Setting (Connection Test)

<table>
<thead>
<tr>
<th>Display</th>
<th>Check the following</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LAN cable connection or Connection to access point</td>
<td>Connection of the LAN cables (19)</td>
</tr>
<tr>
<td>2. IP address setting</td>
<td></td>
</tr>
<tr>
<td>3. Connection to gateway</td>
<td></td>
</tr>
<tr>
<td>1. LAN cable connection or Connection to access point</td>
<td>Connection and settings of the hub and router and settings of IP Address / DNS Settings (42)</td>
</tr>
<tr>
<td>2. IP address setting</td>
<td>Home network available</td>
</tr>
<tr>
<td>3. Connection to gateway</td>
<td></td>
</tr>
</tbody>
</table>

### Network Easy Setting (Internet Connection Test)

<table>
<thead>
<tr>
<th>Display</th>
<th>Check the following</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot find the server. (B019)</td>
<td>&quot;Primary DNS&quot; and &quot;Secondary DNS&quot; settings of IP Address / DNS Settings (42)</td>
</tr>
<tr>
<td>Failed to connect to the server. (B020)</td>
<td>The server may be busy or the service may have been suspended. Please wait a few moments, and then try again. Settings of &quot;Proxy Server Settings&quot; (42) and the router</td>
</tr>
</tbody>
</table>

### Firmware updating

Occasionally, Panasonic may release updated firmware for this unit that may add or improve the way a feature operates. These updates are available free of charge.

This unit is capable of checking the firmware automatically when connected to the Internet via a broadband connection. When a new firmware version is available, the following screen is displayed.

To update the firmware


If downloading on this unit fails or this unit is not connected to the Internet, then you can download the latest firmware from the following website and burn it to a CD-R to update the firmware:

http://panasonic.jp/support/global/cs/(This site is in English only.)

To show the firmware version on this unit. (42, "System Information")

DO NOT DISCONNECT the unit from the AC power or perform any operation while the update takes place. After the firmware is installed, "FINISH" will be displayed on the unit’s display. Unit will restart and the following screen will be displayed.

The firmware has been updated.
Current Installed Version:x.xx

Please update firmware in Setup.

Press [OK] ➔ select "General" ➔ [OK] ➔ select "Update Now"

The latest firmware is available.
Press [OK].

If no new firmware is available, "The latest firmware is available. Please update firmware in Setup." is displayed.
STEP 7: Reprogramming the remote control

When other Panasonic products respond to this remote control
Change “Remote Control” (➔ 42) on the main unit and the remote control (the two must match) if you place other Panasonic products close together and it responds to this remote control.

To change the code on the main unit.
1. While stopped, press [START].
2. Press [▲, ▼] to select “To Others” and press [OK].
3. Press [▲, ▼] to select “Setup” and press [OK].
4. Press [▲, ▼] to select “General” and press [OK].
5. Press [▲, ▼] to select “Remote Control” and press [OK].
6. Press [▲, ▼] to select the code (1 or 2) and press [OK].

To change the code on the remote control.
1. While pressing [OK] Press and hold the number button (1 or 2), which has the same number you selected in the step 6 for more than 5 seconds.
2. Press [OK].

Inserting or removing media

• When inserting a media item, ensure that it is facing the right way up.
• While the reading indicator is displayed, do not turn off the unit or remove the media. Such action may result in loss of the media's contents.
• When removing the SD card, press on the centre of the card and pull it straight out.

■ To switch sources
Press [BD/SD] or [EXT-IN] to select “BD/DVD”, “SD” or “USB”.
• If media is inserted while the unit is stopped, the source switches automatically depending on the inserted media.
START menu

Major functions of this unit can be operated from the START menu.

1 Press [START].
2 Press [▲, ▼] to select the item and press [OK].
e.g., BD-Video

To Others

- Playlists: You can play playlists created on DVD-VR.
- Setup: (⇒ 39)
- Card Management: (⇒ 28)

To exit the screen
Press [START].

■ Selecting the source by the remote control

<table>
<thead>
<tr>
<th>Button</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD/SD</td>
<td>BD/DVD or SD card (SD) (⇒ 27)</td>
</tr>
<tr>
<td>iPod</td>
<td>iPod (IPOD) (⇒ 34)</td>
</tr>
<tr>
<td>RADIO</td>
<td>FM Radio (FM) (⇒ 31)</td>
</tr>
<tr>
<td>EXT-IN</td>
<td>USB device (USB) (⇒ 27)</td>
</tr>
</tbody>
</table>

- To enjoy sound from the TV (⇒ 32) AUX*: When using an Audio cable ARC*: When using an HDMI cable (Available when using an ARC compatible TV) DIGITAL IN*: When using an Optical digital audio cable To enjoy sound from other devices (⇒ 32) DIGITAL IN*: When using an Optical digital audio cable *1 "(TV)" is displayed next to items set for TV AUDIO input. *2 "(CABLE/SATELLITE)" is displayed next to DIGITAL IN when set for CABLE/SATELLITE AUDIO input.

- Items to be displayed may vary with the media.
- When the selector is switched, it may take time to playback the selected video and/or audio.
Enjoying sound effects from all speakers

Enjoying surround sound effects

1. Press [SURROUND] several times to select the effect.

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

   **MULTI-CHANNEL**
   You can enjoy sound from the front speakers, as well as the surround even when playing a 2-channel sound or non-surround sound.

   **MANUAL**
   - The selected effect will only be displayed on the main unit.

2. While “MANUAL” is displayed, press [◄, ▶] and select the desired effect.

   **DOLBY PRO LOGIC II MOVIE**
   Suitable for movie software, or the one recorded in Dolby Surround.
   (except DivX)

   **DOLBY PRO LOGIC II MUSIC**
   Adds 5.1-channel effects to stereo sources.
   (except DivX)

   **7.1CH VIRTUAL SURROUND**
   You can enjoy 6.1/7.1-channel surround-like effect using 5.1-channel speakers.

   **SUPER SURROUND**
   You can enjoy sound from all speakers with stereo sources.

   **2CH STEREO**
   You can play any source in stereo. Sound will be output to the front speakers and the subwoofer only.

### Adjusting speaker level during play

1. Press and hold [– CH SELECT] to activate the speaker setting mode.

2. Press [– CH SELECT] several times to select the speaker.
   Each time you press the button:
   
   L R → C → RS → RB* → LB* → LS → SW

   * When the optional surround back speakers are connected.
   L R: Front speaker
   (left and right: only the balance is adjustable.)
   • Press [◄, ▶] to adjust the balance of the front speakers.
   C: Centre speaker
   RS: Surround speaker (right)
   RB*: Surround back speaker (right)
   LB*: Surround back speaker (left)
   LS: Surround speaker (left)
   SW: Subwoofer

   • The channels not included in the playing audio will not be displayed (subwoofer is displayed even if it is not included).

3. Press [▲] (increase) or [▼] (decrease) to adjust the speaker level for each speaker.
   -6 dB to +6 dB

### Changing the sound modes

1. Press [SOUND] several times to select the mode.
   - The selected mode will only be displayed on the main unit.

2. While the selected mode is displayed
   Press [◄, ▶] and select the desired setting.

   **EQUALIZER**
   You can select sound quality settings.
   FLAT
   Cancel (no effect is added).
   HEAVY
   Adds punch to rock.
   CLEAR
   Clarifies higher sounds.
   SOFT
   For background music.

   **SUBWOOFER LEVEL**
   You can adjust the amount of base.
   1 (Weakest effect) to 4 (Strongest effect)
   • The setting you make is retained, and recalled every time you play the same type of source.

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

   **CENTER FOCUS**
   (Effective when playing audio containing centre channel sound.)
   You can make the sound of the centre speaker seem like it is coming from within the TV.

   **WHISPER-MODE SURROUND**
   You can enhance the surround effect for low volume sound. (Convenient for late night viewing.)

---

- The sound effects/modes may not be available or have no effect with some sources.
- You may experience a reduction in sound quality when these sound effects/modes are used with some sources. If this occurs, turn the sound effects/modes off.
Playing video contents

Preparation
Turn on the television and select the appropriate video input on the television.

1 Press [ ] to turn on the unit.
2 Insert the media.
   - If the menu is displayed, press [A, V, ◄, ►] to select the item and press [OK].
   - When a message screen is displayed while playing back 3D compatible video software, play back in accordance with the instructions.
   - If play does not start, press [► PLAY].

■ To show menus
You can display Top Menu, DIRECT NAVIGATOR or Pop-up Menu.
Press [TOP MENU/DIRECT NAVIGATOR] or [POP-UP MENU].
   - Press [A, V, ◄, ►] to select the item and press [OK].
   - Pop-up menu also appears by pressing [OPTION] and selecting “Pop-up Menu”.

■ To show the status messages
While playing, press [STATUS].
The status messages give you information about what is currently being played. Each time you press [STATUS], the information displayed will change.

  e.g. BD-Video

<table>
<thead>
<tr>
<th>T: Title, C: Chapter, PL: Playlist</th>
<th>Elapsed time in the title</th>
<th>Current position</th>
<th>Total time</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 C1 0:05.14</td>
<td>0:20.52</td>
<td>BD-Video PLAY</td>
<td></td>
</tr>
</tbody>
</table>

- Signal from PAL discs is output as PAL. Signal from NTSC discs is output as “NTSC” or “PAL60”. You can select “NTSC” or “PAL60” in “NTSC Contents Output” for NTSC discs. (⇒ 40)
- DISCS CONTINUE TO ROTATE WHILE MENUS ARE DISPLAYED. Press [STOP] when you have finished playback to protect the unit’s motor, your television screen and so on.
- Depending on media and contents, the display may change or may not appear.
- DivX: Successive play is not possible.
- When a menu is displayed at the time a 1080/60p (1920×1080/60 progressive) video recorded by a Panasonic digital high-definition video camera is played back, select “Play Video (AVCHD)”. It is not possible to playback AVCHD and MPEG2 video which have been dragged and dropped, copied and pasted to the media.

Other operations during play
These functions may not work depending on the media and contents.

Stop
Press [STOP].
The stopped position is memorised.
Resume play function
Press [► PLAY] to restart from this position.
   - The position is cleared if the tray is opened or you press [STOP] several times to display “STOP” on the unit’s display.
   - On BD-Video discs including BD-J (⇒ 52), the resume play function does not work.

Pause
Press [PAUSE].
Press [PAUSE] again or [► PLAY] to restart play.

Search/Slow-motion
Search
While playing, press [SEARCH◄◄] or [SEARCH►►].
   - Music and MP3: The speed is fixed to a single step.
Slow-motion
While paused, press [SEARCH◄◄] or [SEARCH►►].
   - BD-Video and AVCHD: Forward direction [SEARCH►►] only.
   - The speed increases up to 5 steps.
   - Press [► PLAY] to revert to normal playback speed.

Skip
While playing or paused, press [SKIP◄◄] or [SKIP►►].
Skip to the title, chapter or track you want to play.
   - Each press increases the number of skips.
   - DivX: Backward direction [SKIP◄◄] only.

Frame-by-frame
While paused, press [◄◄] (◄◄) or [►►] (►►).
   - Press and hold to change in succession forward or backward.
   - Press [► PLAY] to revert to normal playback speed.
   - BD-Video and AVCHD: Forward direction [►►] (►►) only.

Changing audio
Press [AUDIO].
You can change the audio channel number or soundtrack language (⇒ 50), etc.
Useful functions

1 Press [OPTION].
2 Select an item and press [OK].

While DIRECT NAVIGATOR screen is displayed

<table>
<thead>
<tr>
<th>Properties</th>
<th>To display the titles properties (recording date, etc.).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter View</td>
<td>To select the chapter.</td>
</tr>
<tr>
<td>To Picture</td>
<td>Playing still pictures (⇨ 30).</td>
</tr>
<tr>
<td>Folder</td>
<td>To switch to another folder.</td>
</tr>
<tr>
<td>View Titles</td>
<td>To select the title.</td>
</tr>
</tbody>
</table>

While playing

| Screen Aspect       | When black bars are shown at the top and bottom or left and right sides of the screen, you can enlarge the image to fill the screen. |
| Top Menu            | To display Top Menu.                                    |
| Pop-up Menu         | To display Pop-up Menu.                                 |
| Menu                | To display Menu.                                        |

- Depending on the played contents if you perform “Screen Aspect”, there may be no effect.
- When “TV Aspect” (⇨ 41) is set to “4:3” or “4:3 Letterbox”, the “Zoom” effect in “Screen Aspect” is disabled.

Enjoying BD-Live or BONUSVIEW in BD-Video

What is BONUSVIEW?
BONUSVIEW allows you to enjoy functions such as picture-in-picture or secondary audio etc.

What is BD-Live?
In addition to the BONUSVIEW function, BD-Live allows you to enjoy more functions such as subtitles, exclusive images and online games by connecting this unit to the Internet.

- The usable functions and the operating method may vary with each disc, please refer to the instructions on the disc and/or visit their website.

Playing picture-in-picture

To turn on/off secondary video
Press [PIP].

1 Connect to the network. (⇨ 19)
2 Insert an SD card (with 1 GB or more free space). SD card is used as the local storage (⇨ 52).
3 Insert the disc.

Deleting data/formatting SD cards
There are various functions in BD-Video that you can enjoy by copying data to the SD card (Local Storage). If you no longer need data recorded on the SD card, you can delete data with the following operation.

1 Insert an SD card.
2 Press [START].
3 Press [▲, ▼] to select “To Others” and press [OK].
5 Press [▲, ▼] to select “BD-Video Data Erase” or “Format SD Card” and press [OK].
6 Press [◄, ▶] to select “Yes” and press [OK].
7 Press [◄, ▶] to select “Start” and press [OK].

To use the above functions, it is recommended that you format the card on this unit. If the SD card you use is formatted, all data on the card will be erased. It cannot be recovered.

- BD-Live Internet Access may need to be changed for certain discs (⇨ 40).
- When discs supporting BD-Live are played back, the player or disc IDs may be sent to the content provider via the Internet.
Regarding DivX

ABOUT DIVX PLUSSTM HD:
DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified® device that plays DivX video, including DivX Plus™ HD video (H.264/.MKV) up to 1080p and premium content. 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.

• Video images of the DivX VOD contents stored on USB device can be output only through the HDMI output terminal.

Display the unit’s registration code.
(⇒ 42, “DivX Registration” in “General”)

• 10 alphanumeric characters
• After playing DivX VOD content for the 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.
(⇒ 42, “DivX Registration” in “General”)

Regarding DivX VOD 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.

Displaying subtitle text
You can display subtitle text on the DivX video disc on this unit. This function has no relation to the subtitles specified in DivX standard specifications and has no clear standard. The operation might be different or it may not operate properly depending on the way the file was made or the state of this unit (playing, stopped, etc.).

Set “Subtitle” in “Disc” (⇒ 36)

• DivX video files that do not display “Text” do not contain subtitle text.
• If the subtitles text is not displayed correctly, try changing the language settings. (⇒ 40)
• You may not display subtitle text depending on a file.

Enjoying Blu-ray 3DTM video

BD
You can enjoy powerful videos with realistic sensations of the Blu-ray 3DTM compatible video software by connecting this unit with a High Speed HDMI Cable to a 3D compatible TV.

When playing back a disc that has recorded titles with a 2 screen structure (Side by side) etc. which can be enjoyed in 3D, it will playback in accordance with the 3D settings on the TV, regardless of the settings mentioned to the table below.

• Screen displays, such as Playback menu, will not display correctly.

Preparation
Connect 3D compatible TV to an HDMI AV OUT terminal of this unit using a High Speed HDMI Cable, and select HDMI video input mode on the TV. (⇒ 16, 17)

• Perform the necessary preparations for the TV.

Method of playback is the same as normal disc playback. (⇒ 27)
• Playback following the instructions displayed on the screen.

3D settings

Perform the following settings as necessary.

<table>
<thead>
<tr>
<th>Playbacks</th>
<th>It is also possible to playback 3D discs in 2D (conventional video). (⇒ 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playback method for 3D disc</td>
<td>If you cannot play back in 3D, change the settings as required by the connected TV format. (⇒ 41)</td>
</tr>
<tr>
<td>3D Type</td>
<td>Change the settings for 3D on the TV also when “Side by side” is selected.</td>
</tr>
<tr>
<td>3D Playbacks Message</td>
<td>Hide the 3D viewing warning screen. (⇒ 39)</td>
</tr>
<tr>
<td>Graphic Display Level</td>
<td>Adjust the pop-up position for the playback menu or message screen etc. (⇒ 37)</td>
</tr>
</tbody>
</table>

• Please refrain from viewing 3D images if you do not feel well or are experiencing visual fatigue.

In the event that you experience dizziness, nausea, or other discomfort while viewing 3D images, discontinue use and rest your eyes.

• Depending on the connected TV, the video being played back might switch to 2D video due to changes in resolution etc. Check the 3D setting on the TV.

• 3D video might not output the way it is set in “HDMI Video Format” or “24p Output” (⇒ 41).
Playing still pictures

1 Insert a disc, SD card or USB device.
   If the menu is displayed, press [△, ▽] to select the item and press [OK].
2 BD-RE, DVD-RAM
   Press [△, ▽, ◀, ▶] to select the album and press [OK].
3 Press [△, ▽, ◀, ▶] to select the still picture and press [OK].

<table>
<thead>
<tr>
<th>Useful functions</th>
</tr>
</thead>
</table>

1 Press [OPTION].
2 Select an item, then press [OK].

While “Album View” or “Picture View” screen is displayed

<table>
<thead>
<tr>
<th>Start Slideshow Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Interval</td>
<td>Change the display interval.</td>
</tr>
<tr>
<td>Transition Effect</td>
<td>Set display method.</td>
</tr>
<tr>
<td>Repeat Play</td>
<td>Repeat slideshow.</td>
</tr>
<tr>
<td>Soundtrack</td>
<td>Music files on an iPod/iPhone or a music CD or USB device can be played back as background music during the slideshow.</td>
</tr>
<tr>
<td>Soundtrack Folder</td>
<td>A folder to play back can be selected when a USB device with recorded MP3 is connected to this unit. Press [△, ▽, ◀, ▶] to select “Set” and press [OK].</td>
</tr>
</tbody>
</table>

Select Folder
- To switch to another higher folder: Only if there is a multiple number of higher folders recognizable.
- Folder To select the still pictures in another folder.
- To Video Playing video contents (⇒ 27).
- To album view To display album view.

While playing (except for slideshow)

<table>
<thead>
<tr>
<th>Rotate RIGHT</th>
<th>Rotate the still picture.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotate LEFT</td>
<td>Reduce the still picture.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zoom out</th>
<th>This function is only available for small-sized still pictures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom in</td>
<td>Cancel “Zoom out”.</td>
</tr>
</tbody>
</table>

Depending on the media and contents, displayed items are different.
- When a still picture with large number of pixels is played, the display interval may become longer. Even if the setting is changed, the display interval may not become shorter.
- When a music CD, a USB device with MP3 recorded and an iPod/iPhone are inserted/connected to this unit, iPod/iPhone has a priority to be played back as background music.
Playing music

(DVD, CD, USB)

(DVD-R/-R DL, music CD, CD-R/RW, USB device)

1 Insert a disc or USB device.
If the menu is displayed, press [▲, ▼] to select the item and press [OK].

2 Press [▲, ▼] to select the track and press [OK].

Playing a track in another folder

1 While the “Music list” is displayed Press [OPTION].
2 Press [▲, ▼] to select “Select Folder” and press [OK].

“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.

Preparation
Select a radio broadcast.

1 Press [RADIO] to select “FM”.
2 Press [STATUS] to select the position to start the auto preset search.

LOWEST:
To begin auto preset with the lowest frequency (FM87.50).
CURRENT:
To begin auto preset with the current frequency.*
* To change the frequency, refer to “Presetting stations manually”.

3 Press and hold [OK].
Release the button when “AUTO” is displayed.
The tuner starts to preset all the stations it can receive into the channels in ascending order.

Listening to the Radio

Presetting stations automatically

Up to 30 stations can be set.

1 Press [RADIO] to select “FM”.
2 Press [STATUS] to select the position to start the auto preset search.

LOWEST:
To begin auto preset with the lowest frequency (FM87.50).
CURRENT:
To begin auto preset with the current frequency.*
* To change the frequency, refer to “Presetting stations manually”.

3 Press and hold [OK].
Release the button when “AUTO” is displayed.
The tuner starts to preset all the stations it can receive into the channels in ascending order.

Presetting stations manually

Preparation
Select a radio broadcast.

1 Press [RADIO] to select “FM”.
2 Press [SEARCH 6] or [SEARCH 5] to select the frequency.

To start automatic tuning, press and hold [SEARCH 6], [SEARCH 5] until the frequency starts scrolling. Tuning stops when a station is found.

1 While listening to the radio broadcast Press [OK].
2 While “P” is flashing on the display Press the number buttons to select a channel.

To select a 1-digit number e.g., 1: [1] ⇒ [OK].
To select a 2-digit number e.g., 12: [1] ⇒ [2]

A station previously stored is overwritten when another station is stored in the same channel preset.
Listening/confirmin the preset channels

1. Press [RADIO] to select “FM”.
2. Press the number buttons to select the channel.
   To select a 1-digit number e.g., 1: [1] → [OK].
   To select a 2-digit number e.g., 12: [1] → [2].
   Alternatively, press [↑, ↓] or [◄, ►].

RDS broadcasting

For the United Kingdom and Republic of Ireland

If the station you are listening to is transmitting RDS signals, “RDS” will light up on the display.
While listening to the radio broadcast
Press [DISPLAY] to display the text data.

PS: Programme service
PTY: Programme type
OFF: Frequency display

<table>
<thead>
<tr>
<th>PTY displays</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEWS</td>
</tr>
<tr>
<td>AFFAIRS</td>
</tr>
<tr>
<td>INFO</td>
</tr>
<tr>
<td>SPORT</td>
</tr>
<tr>
<td>EDUCATE</td>
</tr>
<tr>
<td>DRAMA</td>
</tr>
<tr>
<td>CULTURE</td>
</tr>
<tr>
<td>SCIENCE</td>
</tr>
</tbody>
</table>

* M.O.R. M=Middle of the road music

Enjoying TV with unit’s speakers

Preparation
Turn on your TV and select the appropriate audio input mode [AUX, ARC, D-IN] to suit the connections to this unit. (☞ 25)

Surround sound effects

You can enhance stereo sources with surround sound effect.

1. Press [SURROUND] several times to select the effect.
2. While “MANUAL” is displayed on the unit’s display
   Press [◄, ►] and select the desired effect.

Surround modes to enjoy TV audio or stereo sources from all speakers:
- DOLBY PRO LOGIC II MOVIE
- DOLBY PRO LOGIC II MUSIC
- SUPER SURROUND

For more detailed information on this operation, please refer to the “Enjoying surround sound effects” section on page 26.

Sound modes

You can adjust the mode depending on the source or situation.

1. Press [SOUND] several times to select the mode.
2. While the selected mode is displayed on the unit’s display
   Press [◄, ►] and select the desired setting.

For more detailed information on this operation, please refer to the “Changing the sound modes” section on page 26.

Selecting the type of audio from the DIGITAL AUDIO IN terminal

1. Press [EXT-IN] several times to select “D-IN” (DIGITAL IN).
2. Press [AUDIO] several times to select the type.
   M1
   M2
   M1+M2 (stereo audio)
   (Only works with Dolby Dual Mono)
   • “M1” or “M2” is not available if “On” is selected in “Digital Audio Input”. (☞ 40)
   • Audio that is input through the DIGITAL AUDIO IN or AUX terminals are not output from the HDMI AV OUT terminal.
Linked operations with the TV

(VIERA Link “HDAVI Control™”)

What is 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 an HDMI cable. See the operating instructions for connected equipment for operational details.

Preparation
1. Set “VIERA Link” to “On” (∗41). (The default setting is “On”.)
2. Set the “HDAVI Control” operations on the connected equipment (e.g., TV).
3. Turn on all “HDAVI Control” compatible equipment and select this unit’s input channel on the connected TV so that the “HDAVI Control” function works properly. Also when the connection or settings are changed, repeat this procedure.

Setting the audio link

Setting the audio link with the TV
With the remote control:
- Select the actual TV audio connection on the main unit.
  1. Press [START] and press [▲, ▼] to select “To Others” and press [OK].
  2. Press [▲, ▼] to select “Setup” and press [OK].
  3. Press [▲, ▼] to select “TV / Device Connection” and press [OK].
  4. Press [▲, ▼] to select “TV Audio Input”.
  5. Press [▲, ▼, △, ◆] to switch “AUX”, “ARC” or “DIGITAL IN”.
- Select “AUX” or “ARC” (∗1) in “TV Audio Input” when the DIGITAL AUDIO IN terminal is used for the STB connection.

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

Setting the audio link with the STB
With the remote control:
- Select the STB input channel on the TV.
  1. Press [EXT-IN] to select “D-IN”.
  2. Press [STATUS] to select “CABLE/SATELLITE AUDIO ON”.
- If the input channel of the STB on the TV is changed or if you want to change the device allocated for the linked operations, select “CABLE/SATELLITE AUDIO OFF” in step 2 above and then repeat steps 1 to 2.

One touch play
You can turn on this unit and the TV, and start play with a single press of a button.
While the unit and the TV are in standby mode:
Press [► PLAY].

Speaker Selection
You can select whether audio is output from the unit’s speakers or the TV speakers by using the TV menu settings.

Home Cinema
This unit’s speakers are active.
- When this unit is in standby mode, changing the TV speakers to this unit’s speakers in the TV’s menu will automatically turn the unit on and select, “AUX” (∗2), “ARC” (∗2) or “D-IN” (DIGITAL IN) (∗2) as the source.
- You can control the volume setting using the volume or mute button on the TV’s remote control.
- 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”.
- Audio output is 2-channel audio.

Automatic input switching (Power on link)
When the following operations are performed, the television will automatically switch the input channel and display the corresponding action. When the television is off, the television will automatically turn on.
- When play starts on the unit
- When an action that uses the display screen is performed (e.g., DIRECT NAVIGATOR screen)

For the United Kingdom and Republic of Ireland
- BD-Video, DVD-Video:
  When playback stops, the TV will automatically return to TV tuner mode.
- When you switch the TV input to TV tuner mode, this unit will automatically switch to “AUX” (∗2), “ARC” (∗2) or “D-IN” (DIGITAL IN) (∗2).
- This function does not work when the iPod/iPhone selector is chosen. (∗35)

1. The selection works only when using an ARC compatible TV.
2. “AUX”, “ARC” or “D-IN” works depending on the setting in “Setting the audio link”.

* 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 which 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.
Automatic lip-sync function (for HDAVI Control 3 or later)

Delay between audio and video is automatically adjusted, enabling you to enjoy smooth audio for the picture. (Audio Delay)

- This function works only when "BD/DVD", "SD", "USB", "AUX”, “ARC”1, “*2 or “D-IN” (DIGITAL IN) is selected as the source on this unit.

1 The selection works only when using an ARC compatible TV.
2 “AUX”, “ARC” or “D-IN” works depending on the setting in “Setting the audio link”.

Power Off Link

All connected equipment compatible with "HDAVI Control", including this unit, automatically turns off when you switch the television off.

Playing music continuously even after turning off the TV
(When the unit is connected to a Panasonic TV (VIERA) that supports HDAVI Control 2 or later.)
Select “Video” in “Power Off Link” (41)

Easy control only with VIERA remote control

Only TV supports “HDAVI Control 2" or later
By using the TV remote control, you can play discs using the "Control Panel" and display the Top Menu or Pop-up Menu, etc.

- This works only during “BD/DVD”, “SD” or “USB” playback and resume modes.

Using the iPod/iPhone

Preparation
- Before connecting/disconnecting the iPod/iPhone, turn the main unit off or reduce the volume of the main unit to its minimum.
- Make sure that the video cable connection is made to view photos/videos from the iPod/iPhone.

1 Push △ to open the iPod/iPhone lid.
2 Connect the iPod/iPhone (not supplied) firmly.

Dock adapter (not supplied)
- Attach the dock adapter until firmly fitting into the dock. The adapter should be supplied with your iPod/iPhone for the stable use.
- If you need an adapter, consult your iPod/iPhone dealer.

Dock for iPod/iPhone

Compatible iPod/iPhone (as of June 2010)
- Compatibility depends on the software version of your iPod/iPhone.

<table>
<thead>
<tr>
<th>Name</th>
<th>Memory size</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPod touch 3rd generation</td>
<td>32 GB, 64 GB</td>
</tr>
<tr>
<td>iPod nano 5th generation (video camera)</td>
<td>8 GB, 16 GB</td>
</tr>
<tr>
<td>iPod touch 2nd generation</td>
<td>8 GB, 16 GB, 32 GB</td>
</tr>
<tr>
<td>iPod classic</td>
<td>120 GB, 160 GB (2009)</td>
</tr>
<tr>
<td>iPod nano 4th generation (video)</td>
<td>8 GB, 16 GB</td>
</tr>
<tr>
<td>iPod classic</td>
<td>160 GB (2007)</td>
</tr>
<tr>
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</tr>
<tr>
<td>iPod nano 3rd generation (video)</td>
<td>8 GB, 8 GB</td>
</tr>
<tr>
<td>iPod classic</td>
<td>8 GB</td>
</tr>
<tr>
<td>iPod nano 2nd generation (aluminum)</td>
<td>2 GB, 4 GB, 8 GB</td>
</tr>
<tr>
<td>iPod 5th generation (video)</td>
<td>80 GB, 80 GB</td>
</tr>
<tr>
<td>iPod 5th generation (video)</td>
<td>80 GB</td>
</tr>
<tr>
<td>iPod nano 1st generation</td>
<td>1 GB, 2 GB, 4 GB</td>
</tr>
<tr>
<td>iPod 4th generation (colour display)</td>
<td>80 GB, 60 GB</td>
</tr>
<tr>
<td>iPod 4th generation (colour display)</td>
<td>20 GB, 30 GB</td>
</tr>
<tr>
<td>iPod 4th generation</td>
<td>80 GB</td>
</tr>
<tr>
<td>iPod 4th generation</td>
<td>20 GB</td>
</tr>
<tr>
<td>iPod mini</td>
<td>4 GB, 6 GB</td>
</tr>
<tr>
<td>iPhone 3GS</td>
<td>16 GB, 32 GB</td>
</tr>
<tr>
<td>iPhone 3G</td>
<td>8 GB, 16 GB</td>
</tr>
<tr>
<td>iPhone</td>
<td>8 GB, 8 GB, 16 GB</td>
</tr>
</tbody>
</table>

Other devices

Using the iPod/iPhone

Preparation
- Before connecting/disconnecting the iPod/iPhone, turn the main unit off or reduce the volume of the main unit to its minimum.
- Make sure that the video cable connection is made to view photos/videos from the iPod/iPhone.

1 Push △ to open the iPod/iPhone lid.
2 Connect the iPod/iPhone (not supplied) firmly.

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- Attach the dock adapter until firmly fitting into the dock. The adapter should be supplied with your iPod/iPhone for the stable use.
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<td>8 GB, 16 GB</td>
</tr>
<tr>
<td>iPhone</td>
<td>8 GB, 8 GB, 16 GB</td>
</tr>
</tbody>
</table>
### iPod/iPhone Playback

#### Preparation
- Make sure that the "IPOD" source is selected. Press [iPod] to select the source.
- To view photos/videos from the iPod/iPhone: Operate the iPod/iPhone menu to make the appropriate photo/video output settings for your TV.
- To display the picture, turn on the TV and select the appropriate video input mode.

#### Enjoy music/video

1. Press [iPod] to select “IPOD”.
2. Press [STATUS] several times to select the music menu or videos menu.
3. Press [▲, ▼] to select an item and press [OK].
   - Repeat this step until the selected title starts playback.
   - Press [◄, ►] to display the previous or next page.

   *e.g.*, music playback screen

To exit, press [TOP MENU/DIRECT NAVIGATOR].

#### Enjoy photos

1. Press [iPod] to select “IPOD”.
2. Press [STATUS] several times to select “ALL” on the unit’s display.
3. Switch the TV input to video in.
4. Play a slideshow on your iPod/iPhone.

The picture will be displayed on your TV.

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.

You can use the remote control to operate the iPod/iPhone menu.

The operation may vary among iPod/iPhone models.

- [▲, ▼]: To navigate menu items
- [OK]: To go to the next menu.
- [RETURN]: To return to the previous menu.

### Other methods of playback

1. Press [START].
2. Press [▲, ▼] to select “Menu” and then press [OK].
3. Press [▲, ▼] to select “Play Mode” and then press [OK].
4. Press [▲, ▼] to select an item and press [OK].

   - **Shuffle** (For music playback only.)
   - **Songs**: Play all songs on iPod/iPhone in random order.
   - **Albums**: Play all songs on an album in random order.

   - **Repeat**
   - **One**: Play a single song/video repeatedly.
   - **All**: Play all songs/videos from selected items (e.g., Playlists, Albums, etc.) repeatedly.

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

   - The setting of the playback mode will be kept until changes are made on the same iPod/iPhone.
   - This function does not work when "Use iPod display (All)" is selected.

### Basic controls

(For music and video playback only)

<table>
<thead>
<tr>
<th>Buttons</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>[► PLAY]</td>
<td>Play</td>
</tr>
<tr>
<td>[■ STOP]</td>
<td>Pause</td>
</tr>
<tr>
<td>[II PAUSE]</td>
<td></td>
</tr>
<tr>
<td>[SKIP[►◄, SKIP[►►]]</td>
<td>Skip</td>
</tr>
<tr>
<td>(Press and hold)</td>
<td></td>
</tr>
<tr>
<td>[SEARCH◄◄, SEARCH►►]</td>
<td>Search</td>
</tr>
</tbody>
</table>

- Surround sound effect and sound mode are available (☞ 26).
Enjoying VIERA CAST

You can access a selection of Internet services from the Home screen with VIERA CAST, for example YouTube, Picasa Web Albums. (Current as of June 2010)

Preparation
● Network connection (⇨ 19)
● Network setting (⇨ 22)

1 Press [VIERA CAST].
Message is displayed. Please read these instructions carefully and then press [OK].

2 Press [►, ▼, ▲, ◄] to select the item and press [OK].
Operable buttons:
[►, ▼, ▲, ◄], [OK], [RETURN], coloured buttons, number buttons

VIERA CAST Home screen;

Images are for illustration purposes, contents may change without notice.

To return to VIERA CAST Home screen
Press [VIERA CAST].

To exit from VIERA CAST
Press [EXIT], [START] or [TOP MENU/DIRECT NAVIGATOR].
● When the Blu-ray disc logo is selected on the Home screen, the playback source will be changed and go back to the source previously selected.

Depending on the condition of the unit (playing, stopped, etc.) and media contents, there may be some items that you cannot select or change. Regarding Language, Audio attribute and Video attribute:
(⇨ 50)

Disc

<table>
<thead>
<tr>
<th>Signal Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Video</td>
</tr>
<tr>
<td>The recording method of original video appears.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soundtrack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Video</td>
</tr>
<tr>
<td>Select the type of audio or language.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select on/off of images. The recording method of original video appears.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soundtrack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select on/off of audio and the language.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtitle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show or change the soundtrack.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select the number of the angle.</td>
</tr>
</tbody>
</table>

Some items may be changed only on the disc specific menu.
(⇨ 27)
**Play**

**Repeat Play**  
(Only when the elapsed time is being displayed on the unit’s display.)
Select the item which you want to repeat. The items displayed differ depending on the type of media.
Select “Off” to cancel.

**Random**
Select whether or not to play random.

**Graphic Display Level**  
(Only when “Full HD” is selected in “3D Type” (41).)
Pop-up position for the play back menu or message screen etc. can be adjusted during 3D playback.

**Picture**

**Mode**
Select the picture quality mode during play.

**Detail Clarity**
The picture is sharp and detailed.

**Progressive**
Select the method of conversion for progressive output to suit the type of material being played.
● If the video is disrupted when “Auto” is selected, select either “Video” or “Film” depending on the material to be played back.

**24p**
Movies and other material recorded on DVD-Video at 24p are output at 24p.
● Only when you have selected “On” in “24p Output” (41) and play discs recorded at a rate of 60 fields per second.

**Sound**

**Sound Effects*1, *2**  
(Discs recorded at 48 kHz or less)
This feature gives you brighter sound by increasing the high frequency portion of the audio.

<table>
<thead>
<tr>
<th>Re-master 1</th>
<th>Re-master 2</th>
<th>Re-master 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop and rock</td>
<td>Jazz</td>
<td>Classical</td>
</tr>
</tbody>
</table>

**Dialog Enhancer**
The volume of the centre channel is raised to make dialog easier to hear.

**High Clarity Sound**
When connected to TV via the HDMI AV OUT terminal for outputting image, it produces clearer sound.
● Only when you have selected “Enable” in “High Clarity Sound” (40)

*1 When audio is output from the HDMI AV OUT terminal this function is effective only when “Dolby D/Dolby D +/Dolby TrueHD” or “DTS/DTS-HD” is set to “PCM”. (40)

*2 This function has no effect when the type of audio is Dolby Pro Logic II.
**DLNA feature**

You can enjoy music, video and pictures contents saved on a DLNA Certified media server (such as a PC with Windows 7 installed etc.) connected to the home network with this unit. You also can enjoy viewing them with Panasonic DLNA compatible recorders (DIGA).

- The countries where DIGA is available are limited. Refer to following site for availability.
- For the operation of equipment connected to the network, refer to their respective operating instructions.
- Not compatible with certain audio, video and image files.

**Preparation**

1. Perform network connection (⇒ 19) and network setting (⇒ 22) of this unit.
2. Perform Home Network settings of the PC or DIGA.

When connected to a PC with Windows 7 installed
- Add the contents and folder to the libraries of PC.
- Playlist of Windows Media® Player can play back only the contents that are stored in the libraries.

Regarding setting method of Windows 7, refer to its instructions or help.

When connected to a Panasonic DLNA compatible recorder (DIGA)

When a message requesting operation of the equipment to be registered is displayed, perform the operations in steps 1-4 of “Enjoy contents on the equipment connected to this unit via the network” (⇒ right).

---

**Enjoy contents on the equipment connected to this unit via the network**

1. Press [START].
2. Press [▲, ▼] to select “Network” and press [OK].
   - A list of equipment connected via the network is displayed.
   - This list can be updated by pressing the red button on the remote control.

   e.g.

4. Press [▲, ▼] to select the equipment to playback the contents, and press [OK].
5. Press [▲, ▼, ◀, ▶] to select the item to playback (folder), and press [OK].
   - Menu structure will be different depending on the equipment connected to this unit. Select the contents by repeating the operation.
   - Control Panel is displayed once the playback starts. Operation can be performed with [▲, ▼, ◀, ▶], [OK] and [EXIT].

   e.g.

   Control Panel

   e.g.

   - Press [OK] if the Control Panel is not displayed.
   - Press [RETURN] to hide the Control Panel.

- Depending on the equipment, playback of pictures may not be possible.
- Items displayed in grey on the display cannot be played back by this unit.
- This unit cannot be played back via connected equipment.
- Depending on the performance of the connected PC, video frames may be dropped during playback, or video may not playback at all.

---

A. Broadband router, Wireless router (Access point), etc.
B. LAN Cable (Straight)
C. Internet
D. DLNA Certified media server
Useful functions for when playing back pictures

The following operations are possible when playing back pictures from connected equipment.

### While contents list is displayed

1. Press [OPTION].
2. Select an item, then press [OK].

<table>
<thead>
<tr>
<th>Start Slideshow</th>
<th>You can display still pictures one by one at a constant interval.</th>
</tr>
</thead>
</table>
| Slideshow Settings | Interval  
Change the display interval. 
Repeat Play  
Repeat slideshow. |
|                  | Press [▲, ▼, ◀, ▶] to select “Set” and press [OK]. |

### While playing

1. Press [OPTION].
   • If OPTION menu is not displayed, press [OPTION] again.
2. Select an item, then press [OK].

<table>
<thead>
<tr>
<th>Status</th>
<th>Show the picture properties (⇨ 30).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotate RIGHT</td>
<td>Rotate the still picture.</td>
</tr>
<tr>
<td>(except for slideshow)</td>
<td></td>
</tr>
<tr>
<td>Rotate LEFT</td>
<td>Rotate the still picture.</td>
</tr>
<tr>
<td>(except for slideshow)</td>
<td></td>
</tr>
</tbody>
</table>

### Setup menu

Change the unit’s settings if necessary. The settings remain intact even if you switch the unit to standby.

1. Press [START] and press [▲, ▼] to select “To Others” and press [OK].
2. Press [▲, ▼] to select “Setup” and press [OK].

3. Press [▲, ▼] to select the menu and press [OK].
4. Press [▲, ▼] to select the item and press [OK].
   • If there are any other items, repeat these steps.
5. Press [▲, ▼, ◀, ▶] to select the option and press [OK].

### About the password

The password of the following items are common. Don’t forget your password.

- “DVD-Video Ratings”
- “BD-Video Ratings”
- “Lock” (⇨ 42)

### Disc

#### DVD-Video Ratings

Set a ratings level to limit DVD-Video play.

- Follow the on-screen instructions. Enter the 4-digit password with the number buttons when the password screen is shown.

#### BD-Video Ratings

Set an age limit of BD-Video play.

- Follow the on-screen instructions. Enter the 4-digit password with the number buttons when the password screen is shown.

#### Playback method for 3D disc

Select the playback method of 3D compatible video software.

#### 3D Playback Message

Set to display or hide the 3D viewing warning screen when playing back the 3D compatible video software.
Sound

Soundtrack Preference
Choose the language for audio.

- If "Original" is selected, the original language of each disc will be selected.
- Enter a code (≥ 50) with the number buttons when you select "Other ******".

Subtitle Preference
Choose the language for the subtitle.

- If "Automatic" is selected and the language selected for "Soundtrack Preference" is not available, subtitles of that language will automatically appear if available on that disc.
- Enter a code (≥ 50) with the number buttons when you select "Other ******".

Menu Preference
Choose the language for the disc menus.

- Enter a code (≥ 50) with the number buttons when you select "Other ******".

BD-Live Internet Access (→ 28)
You can restrict Internet access when BD-Live functions are used.

- If "Limit" is selected, Internet access is permitted only for BD-Live contents which have content owner certificates.

DivX Subtitle Text
Select a suitable item according to the language used for DivX subtitles text (→ 29).

- This item is displayed only after playing back a file.

Dynamic Range Compression
You can listen at low volumes but still hear dialogue clearly.
(Dolby Digital, Dolby Digital Plus and Dolby TrueHD only)
- "Auto" is effective only when playing Dolby TrueHD.

Digital Audio Output
Press [OK] to show the following settings:

- Dolby D/Dolby D +/Dolby TrueHD
- DTS/DTS-HD
- MPEG Audio
Select the audio signal to output.

- Select "PCM" when the connected equipment cannot decode the respective audio format.
- Not making the proper settings may result in noise.

BD-Video Secondary Audio
Select whether to mix or not mix the primary audio and secondary audio (including the button click sound). (→ 28)

- If "Off" is selected, the unit outputs the primary audio only.

Digital Audio Input
Press [OK] to show the following settings:

- PCM-Fix
Select the audio signal to input.

- "On": PCM is available.
- "Off": PCM and Dolby Digital are available.
Select "On" if the sound is cut off intermittently.

Downmix
Select the downmix system to enjoy multi-channel or 2-channel sound.

- Select "Surround encoded" to enjoy the surround sound.
- There is no downmix effect on the bitstream audio signal.
- The audio will be output in "Stereo" in the following cases.
  - AVCHD playback
  - Playback of secondary audio (including the button click sound).

7.1ch Audio Reformatting
Surround sound with 6.1ch or less is automatically expanded and played back at 7.1ch.

- If "Off" is selected, sound is played over the original number of channels.
  (Note that in the case of 6.1ch audio, playback will be at 5.1ch.)
Audio reformatting is enabled in the following cases:
- When you have selected "PCM" in "Digital Audio Output".
- When the audio is Dolby Digital, Dolby Digital Plus, Dolby TrueHD or LPCM.

High Clarity Sound
When connected to TV via the HDMI AV OUT terminal for outputting image, it produces clearer sound.

- Set to "Enable" and then set "High Clarity Sound" on the Playback menu to "On". (→ 37)

Audio Delay
Mis-sync between the video and audio is corrected by delaying the audio output.

Speaker
Refer to page 43.

Picture

Still Mode
Select the type of picture shown when you pause playback.

- Automatic: Automatically selects the type of picture shown.
- Field: Select if jittering occurs when "Automatic" is selected.
- Frame: Select if small text or fine patterns cannot be seen clearly when "Automatic" is selected.

Seamless Play
The chapter segments in playlists are played seamlessly.

- Select "On" when the picture freezes for a moment at the chapters segment in playlists.

NTSC Contents Output
Select PAL60 or NTSC output when playing NTSC discs.
Display

On-Screen Messages
Choose whether to show status messages automatically.

On-Screen Language
Choose the language for menus and on-screen messages.

Screen Saver Function
This is to prevent burn-in on the screen.
When this is set to "On":
If there is no operation for 5 minutes or more, the displayed
screen switches to the other states automatically.
• While playing and pausing, etc., this function is not available.
• While playing music (CD-DA or MP3), after about 5 minutes
DIRECT NAVIGATOR screen switches to a blank screen
with "Screen Saver" message.

FL Display
Changes the brightness of the unit’s display.
• If "Automatic" is selected, the display is dimmed but
brightens when you perform some operations.

Software Licence
Information about the software used by this unit is displayed.

TV / Device Connection

3D Type
Select the format of the connected TV.
• Change the settings for 3D on the TV also when "Side by
side" is selected.

TV Aspect
Set to match the type of television connected.
When connected to a 4:3 aspect television and playing 16:9
ratio image:

4:3
The sides are cut off so
the picture fills the screen.
When playing BD-Video,
video is output as "4:3
Letterbox".

4:3 Letterbox
Black bands appear at the
top and bottom of the
picture.

When connected to a 16:9 widescreen television and playing
4:3 ratio image:

16:9
Video is displayed as a 4:3 ratio image in the
centre of the screen.

HDMI Connection
Press [OK] to show the following settings:

HDMI Video Format
The items supported by the connected devices are
indicated on the screen as "+". When any item without "+
is selected, the images may be distorted.
• If "Automatic" is selected, automatically selects the
output resolution best suited to the connected television.
• To enjoy high-definition video up-converted to 1080p,
you need to connect the unit directly to 1080p
compatible HDTV (High Definition Television). If this unit
is connected to an HDTV through other equipment, it
must also be 1080p compatible.

24p Output
When this unit is connected to a TV supporting 1080/24p
output using an HDMI cable, movies and other material
recorded at 24p are output at 24p.
• When playing DVD-Video, set to "On" and then set "24p"
in "Picture" (⇒ 37) to "On".
• When BD-Video images other than 24p are played,
images are output at 60p.

HDMI Colour Mode
This setting is for selecting colour-space conversion of the
image signal when the unit is connected using an HDMI
cable.

HDMI Audio Output
This setting selects whether or not to output audio from
HDMI.
• Audio will be output through the system's speakers when
"Off" is selected.

VIERA Link
Set to use "HDAVI Control" function when connected with
an HDMI cable to a device that supports "HDAVI Control".
• Select "Off" when you do not want to use "HDAVI
Control".

Deep Colour Output
This setting is for selecting whether to use Deep Colour
Output when a television that supports Deep Colour is
connected.

Contents Type Flag
Depending on the playback content, the TV will output
adjusting to the optimal method when a TV that supports
this function is connected.

Power Off Link
Select the desired power off link setting of this unit for
VIERA Link operation (⇒ 34). (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:
• CD or MP3 audio playback
• iPod/iPhone mode
• Radio mode
• "AUX", "ARC" or "D-IN" (DIGITAL IN) mode
(non-selected TV AUDIO setting for VIERA Link)
• "D-IN" (DIGITAL IN) mode (non-selected CABLE/
SATELLITE AUDIO setting for VIERA Link)

TV Audio Input
Select the TV audio input to work with the VIERA Link
operations.
TV System
Change the setting to match the equipment you are connecting with.
• When NTSC contents are played, they are outputted in the signal format specified in the “NTSC Contents Output”, irrespective of the settings here.

Network
Network Easy Setting (⇒ 22)
Network Settings
Perform network-related settings individually. Press [OK] to show the following settings:

LAN Connection Mode
Select connection method.

Access Point Connection Setting
This allows the Wireless router (Access point) and connection settings to be set and the current connection settings and connection state to be checked when a wireless connection is used.

Connection Setting
The Wireless router (Access point) connection wizard will be displayed.

IP Address / DNS Settings
This is for checking the state of the network connection and setting the IP address and DNS-related. Press [OK] to show the respective setting.
• “Connection Speed Setting” is enabled only when “Connection Speed Auto-Config” is turned “Off”.

Proxy Server Settings
This is for checking the state of connection with the Proxy server and performing settings. Press [OK] to show the respective setting.

Internet Content Settings (⇒ 36) (VIERA CAST)
Press [OK] to show the following settings:

Lock
You can restrict using VIERA CAST.
• Follow the on-screen instructions. Enter the 4-digit password with the number buttons when the password screen is shown.

Audio Auto Gain Control
Volume that is different depending on the contents is adjusted automatically to the standard volume while using the VIERA CAST.
• Depending on contents, this function effect will not work.
• Select “Off” when the audio is warped.

Time Zone
By selecting the time zone, it is possible to set the unit’s time to match your location.
• Some VIERA CAST contents require the time zone to be set. Set the time zone if necessary.

Summer Time
• Select “On” when using Daylight Saving time.

MAC Address
Displays the MAC address of this unit.

General
Remote Control
Change the remote control code if other Panasonic products react to this remote control.

Quick Start*
Speed of startup from standby mode is increased.
• Internal control unit will be powered when it is set to “On” so compared to when the setting is “Off” the following will occur.
  – Idle power consumption will increase. (about the power consumption ⇒ 53)
  *Depending on the power conserving setting activated on the TV, this function may have less effect when the unit is started by the power on link function. (⇒ 33)

Easy setup (⇒ 21)
You can execute basic settings to optimize your home theatre system.

Default Settings
This returns all values in the Setup menu and the Playback menu, except for “Remote Control”, “LAN Connection Mode”, “Access Point Connection Setting”, “IP Address / DNS Settings”, “Proxy Server Settings”, “Lock”, “DVD-Video Ratings” and “BD-Video Ratings” etc. to the default settings.

DivX Registration (⇒ 29)
You need this registration code to purchase and play DivX Video-on-Demand (VOD) content.

System Information
Display firmware version of this unit and wireless LAN module of optional Wireless LAN Adaptor.

Firmware Update (⇒ 23)
Press [OK] to show the following settings.

Automatic Update Check
When this equipment remains connected to the Internet, it will check for the latest firmware version when it is turned on and you can update it if necessary.

Update Now
You can update the firmware manually.
Speaker settings

Delay time

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 either distance A or B is less than C (below), find the difference in the relevant table and adjust the delay time to make up for the difference.

1. Press [3, 4, 2, 1] to select the distance box (C) and press [OK].
2. Press [3, 4] to select the setting and press [OK].

When using the 7.1ch speaker system

1. Check the distance difference of both the front speakers and the surround back speakers from the seating position.
2. Set the delay time of the surround back speakers.

Adjusting speaker level

Volume (Channel balance) (D)
(Effective when playing multi-channel audio)

1. Select “Test” and press [OK].
2. While listening to the test signal, press [A, B] to adjust the volume of each speaker.
3. Press [OK].

To finish the speaker setting, press [A, B, C, D] to select “Complete” and press [OK].
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.

- Do not attempt to attach these speakers to walls using methods other than those described in this manual.

1. Drive a screw (not supplied) into the wall.

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

To avoid speaker dropping

Consult a qualified building contractor to avoid damage to the wall or speakers.

- Use a string of less than 2.0 mm, which is capable of supporting over 10 kg.
Troubleshooting guide

Before requesting service, please perform the following steps.

Do you have the latest firmware installed?
Firmware updates may be released to correct operating irregularities that are discovered with certain movies. (⇒ 23)

Make the following checks.
If the problem remains unresolved, consult your dealer for instructions.

The following do not indicate a problem with this unit:
- Regular disc rotating sounds.
- Image disturbance during search.
- Image disturbance when replacing 3D discs.

- Unit doesn't respond to remote control or front panel buttons.
Press and hold [Ô/I] on the main unit for 5 seconds.
- If still unable to turn the unit off, disconnect the AC mains lead, wait 1 minute, then reconnect the AC mains lead.

- Cannot eject disc.
The unit may have a problem.
While the unit is off, press and hold [SKIP] on the remote control and [Ô/I] on the main unit at the same time for more than 5 seconds.

General operation

To return to the factory preset.
- Select “Yes” in “Default Settings” in the Setup menu. (⇒ 42)

To return all settings to the factory preset.
- Reset the unit as follows:
  While the unit is off, press and hold [+ VOLUME], [Ô/I] and [Ô/I] on the main unit at the same time for more than 5 seconds.

The remote control doesn't work properly.
- The remote control and main unit are using different codes.
  Change the code on the remote control. (⇒ 24)
- It may be necessary to set the code of the remote control again after changing the batteries for the remote control. (⇒ 24)

Disc cannot be played.
- The disc is dirty. (⇒ 7)
- Check the region code.

Still pictures (JPEG) do not playback normally.
- The images that were edited on the PC, such as Progressive JPEG, etc., may not playback.

The TV tuner mode is not displayed when the TV is switched on.
- This phenomenon may occur, depending on the TV setting, when “Quick Start” is set to “On”.
- Depending on the TV, this phenomenon may be prevented by reconnecting the HDMI cable to a different HDMI input terminal or by changing the HDMI auto connection setting.

The contents of the USB device cannot be read.
- If inserted during playback, the USB device may not be recognised by this unit.

You have forgotten your ratings password.
You want to cancel the ratings level.
While the disc tray is empty and “BD/DVD” is selected as a source, press and hold [SKIP] on the remote control and [Ô/I] (Play) on the unit at the same time for more than 5 seconds. The ratings level returns to the factory preset.

Power

No power.
- Insert the AC mains lead securely into a household mains socket. (⇒ 20)

The unit switches to standby mode.
- When the time set for the sleep timer has passed, the main unit will be turned off. (⇒ 8)
- One of the unit's safety devices is activated. Press [Ô/I] on the main unit to turn the unit on.

The main 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 for the TV.

Displays

The display is dim.
- Change “FL Display” in the Setup menu. (⇒ 41)

TV screen and video

The images from this unit do not appear on the TV.
- Picture is distorted.
  Jittering occurs.
  - An incorrect resolution is selected in “HDMI Video Format”. Reset the setting as follows:
    While the disc tray is empty and “BD/DVD” is selected as a source, press and hold [Ô/I] (Play) and [Ô/I] (Stop) on the main unit at the same time for more than 5 seconds to cancel the setting.
    - When Dolby Digital Plus, Dolby TrueHD, and DTS-HD audio are not output in bitstream, select “Yes” in “Default Settings” and make proper settings. (⇒ 42)
  - The unit and television are using different video systems.
    While stopped, keep pressing [Ô/I] (Stop) and [Ô/I] (OPEN/CLOSE) on the main unit for 5 or more seconds. The system switches from PAL to NTSC or vice versa.
    - The system used on the disc doesn’t match your television.
      - PAL discs cannot be correctly viewed on an NTSC television.
      - This unit can convert NTSC signals to PAL60 for viewing on a PAL television (“NTSC Contents Output” in the “Picture”).
    - When “Playback method for 3D disc” in the Setup menu is set to “3D Playback”, images may not output depending on the connection method. Remove the disc from this unit and select “2D Playback”. (⇒ 39)

When playing back a 3D disc, audio can be heard but no video image on the TV.
- Change the video input mode to the suitable HDMI video input mode on the TV.
Video is not output.
- Set the “High Clarity Sound” in the Playback menu to “Off” to use the VIDEO OUT terminal. (⇒ 37)

Video is not output in high-definition.
- Confirm that “HDMI Video Format” in the Setup menu is set properly. (⇒ 41)

3D video is not output.
- Are the settings on this unit and the TV correct? (⇒ 17)
- Is the “Playback method for 3D disc” set to “2D Playback”? (⇒ 39)
- Discs that have recorded titles with Side by side (2 screen structure) which can be enjoyed in 3D are played back in accordance with the settings of the TV.

A black band is displayed around the edge of the screen.
The aspect ratio of the screen is abnormal.
- Confirm the “TV Aspect” is set properly. (⇒ 41)
- Adjust the aspect setting on the television.
  (Adjustment using “Screen Aspect” (⇒ 28) on the unit is also possible.)

For the United Kingdom and Republic of Ireland
After choosing “Home Cinema” in “Speaker Selection” with the TV’s remote control, the TV’s input selection also changes.
- Disconnect the HDMI cable from the TV and reconnect it to a different HDMI IN terminal.

Sound

No sound.
Low volume.
Distorted sound.
Cannot hear the desired audio type.
- Check connections to speakers and other equipment. (⇒ 12, 13, 15–20)
- Ensure the speaker settings for your speakers are correct. (⇒ 43)
- To output audio from a device connected with an HDMI cable, set “HDMI Audio Output” to “On” in the Setup menu. (⇒ 41)
- When “BD-Video Secondary Audio” is set to “On”, Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio and DTS-HD High Resolution Audio are output as Dolby Digital or DTS Digital Surround.
- Re-master will not work when the bitstream signal is output from the HDMI AV OUT terminal. (⇒ 37)
- Depending on the connected equipment, the sound may be distorted if this unit is connected with an HDMI cable.
- The multi-channel audio from a device connected to the TV is not output in it’s original multi-channel form.
  - If the device has an optical audio output terminal, connect the device to this unit’s “OPTICAL” terminal. (⇒ 17, 32)

No surround sound.
- Press [SURROUND] to select a surround effect. (⇒ 26)
- BD-J755 for Australia and New Zealand
  Ensure that the surround selector switch is set in the centre position. Then, turn the wireless system off and then back on.
- (When using the 7.1ch speaker system)
  Audio is not available from the surround back speakers even though Dolby Pro Logic II turns on.

Cannot switch audio.
- When audio is output from the HDMI AV OUT terminal, set “Dolby D/Dolby D +/Dolby TrueHD”, “DTS/DTS-HD” or “MPEG Audio” to “PCM”. (⇒ 40)

No sound from the TV.
- Press [EXT-IN] to select the corresponding source. (⇒ 25)
- The ARC (Audio Return Channel) function is not available. Instead, use an optical digital audio cable or an audio cable to have the TV sound. (⇒ 16, 17)
- If the TV is not ARC compatible and only the HDMI connection is used, an extra audio connection is necessary (⇒ 16, 17).
- If there is no sound from the equipment connected to this unit’s DIGITAL AUDIO IN terminal, please make sure that the optical audio output of the equipment is set to PCM.

iPod/iPhone operation

Cannot charge or operate.
- Check that the iPod/iPhone is connected firmly. (⇒ 34)
- The battery of the iPod/iPhone is depleted. Charge the iPod/iPhone, and then operate again.

Cannot display iPod/iPhone videos/photos on the TV.
- Make sure that TV is connected to the VIDEO OUT terminal on this unit. (⇒ 16)
- Operate the iPod/iPhone menu to make the appropriate video/photo output settings for your TV. (Refer to operating instructions for your iPod/iPhone.)

The TV input channel unintentionally changes to HDMI input.
- When the main unit is connected with an “HDAVI Control” compatible TV and VIDEO IN is selected for iPod/iPhone video or photo playback, the TV input channel will automatically change to the HDMI input channel when [START] is pressed.
  - Re-select the TV’s VIDEO IN input channel.

Radio

Distorted sound or noise is heard.
- Adjust the position of the antenna.
- Use an outdoor antenna. (⇒ 18)

A beat sound is heard.
- Try to keep a certain amount of distance between the antenna and the TV.
Wireless system (SH-FX71)

No power.
• Ensure the AC mains lead of the wireless system is connected properly.

The wireless link indicator (e.g., “[W]”) is flashing.
• There is no link between the main unit and the wireless system. Turn the wireless system off and then back on. Alternatively, turn the wireless system off, disconnect the AC mains lead and then reconnect it.

The wireless link indicator (e.g., “[W]”) does not light.
• Check that the main unit is turned on, and the wireless system is turned on.
• Ensure that the digital transmitter is fully inserted into the slot of the main unit. (⇔ 18)

The wireless link indicator keeps flashing between red and green.
• There is a power supply problem. Consult the dealer.

Network

I can’t connect to the network.
• Confirm the network connection and settings. (⇔ 19, 42)
• Check the operating instructions for each device and connect accordingly.

When using Wireless LAN connection, video or audio from the DLNA Certified media server is played back intermittently, not played back or video frames are dropped during playback.
• Higher transfer rate router such as 802.11n (2.4 GHz or 5 GHz) Wireless router (Access Point) may solve the problem. If you use 802.11n (2.4 GHz or 5 GHz) Wireless router (Access Point), it is necessary to set the encryption type to “AES”.
Simultaneous use with a microwave, cordless telephone etc. at 2.4 GHz may result in connection interruptions or other problems.
• On the “Access Point Connection Setting” screen (⇔ 42), the continuous lighting of at least 4 “Reception” indicators is the target for a stable connection. If 3 or fewer indicators are lit or the connection is being interrupted, change the position or angle of your Wireless router (Access point) and see if the connection state improves. If there is no improvement, connect to a wired network and perform the “Network Easy Setting” (⇔ 22) again.

The contents of the USB device cannot be read.
• USB devices connected using USB extension cable other than the supplied with the Wireless LAN Adaptor DY-WL10 (optional) or a USB hub may not be recognised by this unit.

Other difficulties with playback

BD-Video or DVD-Video is not played.
• Ensure the disc is for the correct BD-Video region code or DVD-Video region number, and is not defective. (⇔ 11)
• You have set a ratings level to limit BD-Video or DVD-Video play. Change this setting. (⇔ 39)
• Some BD-Video can only be output with HDMI.

I can’t play back BD-Live.
• The SD card is write-protected. (⇔ 11)
• Confirm that this unit is connected to the broadband Internet. (⇔ 19)
• Confirm the “BD-Live Internet Access” settings. (⇔ 40)
• Confirm an SD Card is inserted into the SD Card slot. (⇔ 24)

Alternative soundtrack and subtitles cannot be selected.
• The languages are not recorded on the disc.
• You may not be able to use the playback menu to change the soundtrack and subtitles on some discs. Use the disc’s menus to make changes. (⇔ 27)

Angle cannot be changed.
• Angles can only be changed during scenes where different angles are recorded.
Messages
The following messages or service numbers appear on the television or unit’s display when something unusual is detected during startup and use.

On the television

Cannot play.
- You inserted an incompatible disc.

Cannot play on this unit.
- You tried to play a non-compatible image.

No disc is inserted.
- The disc may be upside down.

This operation is not available.
- Some operations are unsupported by the unit. For example:
  - BD-Video: During playback, reverse slow-motion or reverse frame-by-frame is not possible.

IP address is not set.
- The “IP Address” in “IP Address / DNS Settings” is “---. ---. ---. ---”. Set the “IP Address”, “Subnet Mask”, and “Gateway Address”. (Select the automatic address acquisition if necessary.)

(When using the optional wireless LAN adaptor: DY-WL10)
The current security setting of Wireless LAN is low. It is recommended to change the setting.
- Authentication type for the Wireless LAN is set to “Open system”, or the encryption type is set to “No encryption”. It is recommended to encrypt for safety reasons. For details, refer to the instructions of the Wireless router being used.

No Video
- Depending on the connected iPod/iPhone, video menu may not be available on the TV. Select “ALL” on the unit’s display and operate video playback from your iPod/iPhone menu. (⇒ 35)

On the unit’s display

F99
- The unit fails to operate properly. Press [I/II] on the main unit to switch the unit to standby for 3 seconds. Now press [I/II] on the main unit again to turn the unit on.

U59
- The unit is hot.
The unit switches to standby for safety reasons. Wait for about 30 minutes until the message disappears. Select a position with good ventilation when installing the unit. Do not block the ventilation hole on the rear and side of the unit.

U72
U73
- The HDMI connection acts unusually.
  - Turn the unit and TV off.
  - Disconnect the HDMI cable between the player and the TV.

HDMI ONLY
- Some BD-Video discs can only be output with HDMI.

NET
- Displays while VIERA CAST is starting up.

No PLAY
- There is a viewing restriction on a BD-Video or DVD-Video. (⇒ 39)

No READ
- The media is dirty or badly scratched. The unit cannot play.

PLEASE WAIT
- The unit is carrying out internal process. This is not a malfunction. You cannot operate the unit while “PLEASE WAIT” is displayed.

REMOVE
- The USB device is drawing too much power. Remove the USB device.

SET □ (“□” stands for a number.)
- The remote control and main unit are using different codes. Change the code on the remote control. (⇒ 24)

H□□ or F□□ (“□” stands for a number.)
- Check and connect the speaker cable connections.
- There is something unusual.
- Check the unit using the troubleshooting guide. If the service number does not disappear, do the following.
  1. Disconnect the plug from the household mains socket, wait a few seconds, then reconnect it.
  2. Press [I/II] to turn the unit on.
If the service number does not disappear despite doing the above, request service from the dealer. Inform the dealer of the service number when requesting service.

UPD□□ (“□” stands for a number.)
- The firmware is being updated.
  Please do not turn off the unit.

BTT755 for Australia and New Zealand “W” is flashing.
- There is no link between this unit and the wireless system.
  Check that the wireless system is plugged into the household mains socket and is turned on.
  - Ensure that the digital transmitter is fully inserted into the slot of this unit.
  - If the wireless system is not used, disconnect the digital transmitter from this unit.

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

START
- The system is being restarted during the firmware update.
  Please do not turn the unit off.

FINISH
- The firmware update is completed.

NOT CONDITIONAL
- The requested operation cannot be conducted.
About MP3/JPEG/DivX/AVCHD/MPEG2 files

MP3

File format: MP3

Extension: Files must have the extension "mp3" or "MP3".

Compression rate: 32 kbps to 320 kbps

Sampling rate: 44.1 kHz/48 kHz

Reference: ID3 tags: versions 1.2, 2.3, 2.4 (Only titles and the names of artists)

JPEG

File format: JPEG

Extension: Files must have the extension ".jpg" or "JPG".

Picture resolution: between 34×34 and 8192×8192 pixels (sub sampling is 4:2:2 or 4:2:0)

Reference: JPEG conforming DCF* is supported.

* Design rule for Camera File system: unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

- DVD-RAM must conform to UDF 2.0.
- BD-RE must conform to UDF 2.5.

DivX

File format: DivX

Extension*: Files must have the extension ".DIVX", ".divx", ".AVI" or ".avi"

Picture resolution: Up to 1920×1080 pixels

Video:
- DivX certified to play DivX video up to HD 1080p, including premium content.
- Number of stream: Up to 1
- Codec*: MPEG-4 SP (Simple Profile), MPEG-4 ASP (Advanced Simple Profile)
- FPS (Frame Per Second)*: Up to 60 fps

Audio:
- Number of stream: Up to 8
- Format*: MP3, MPEG, Dolby Digital
- Multi channel: Dolby Digital is possible.
- MPEG multi is 2 ch conversion.
- GMC (Global Motion Compensation) is not supported.

* The following (DivX Plus HD) is added to the above DivX specification.

Extension*: ".MKV" or ".mkv"

Video Codec: MPEG-4 AVC/H.264

- FPS (Frame Per Second): From 320×240 to 1920×1080: 30 fps
- Specifically at 1280×720: 60 fps

Audio Format: MP3, MPEG, Dolby Digital, AAC

This unit supports DivX files less than 4 GB in a USB device.

AVCHD

File format: AVCHD format (V1.0) used on High Definition Video Camera (Panasonic and some others)

Codec: MPEG-4 AVC/H.264

- Discs must conform to UDF 2.5.

MPEG2

File format: SD-Video format* used on Standard Definition Video Camera (Panasonic and some others)

Codec: MPEG2

- SD-Video Entertainment Video Profile

- With certain recording states and folder structures, the play order may differ or playback may not be possible.
- CD-R, CD-RW: ISO9660 level 1 or 2 (except for extended formats), Joliet
- This unit is compatible with multi-session.
- This unit is not compatible with packet writing.
- DVD-R, DVD-R DL (except for AVCHD): ISO9660 level 1 or 2 (except for extended formats), Joliet, UDF bridge (UDF 1.02/ISO9660)
- This unit is not compatible with multi-session.
- This unit is not compatible with packet writing.

Structure of folders that can be played in this unit

You can play files on this unit by structure of folders as shown below. However depending on the method of writing data (writing software), play may not be in the order you numbered the folders.

- Folder which can be displayed with this unit
  - * * * *: Numbers
  - * * * *: Letters
  - * * * *: from 001 to 999
  - * * * *: from 100 to 999
  - XXXXX: 5 figures
  - XXXXX: 4 figures

(Continued on next page)
Supplemental information

### Display language list

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| TrueHD/DT5/DT5-ES Mxv/ | Display |
| DTS-HD HI RES/DTS-HD MSTR/MPEG | Display |

### Language code list

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cdrequest@am-linux.jp

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Glossary

AVCHD
AVCHD is a new format (standard) for high-definition video cameras that can be used to record and play high-resolution HD images.

BD-J
Some BD-Video discs contain Java applications, and these applications are called BD-J. You can enjoy various interactive features in addition to playing normal video.

Bitstream
This is the digital form of multi-channel audio data (e.g., 5.1 channel) before it is decoded into its various channels.

Deep Colour
This unit incorporates HDMI technology that can reproduce greater colour gradation (4096 steps) when connected to a compatible TV. You can enjoy exceptionally rich, natural-looking colours, with smooth, detailed gradation and minimal colour banding. [A lower colour gradation (256 steps), without Deep Colour, will be reproduced if connected to a TV which does not support Deep Colour. The unit will automatically set appropriate output to suit the connected TV.]

DLNA (Digital Living Network Alliance)
DLNA is a standard that makes DLNA Certified digital electronics easier and more convenient to use on a home network.

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

Dolby Digital Plus
Multi-channel audio and higher audio quality is made possible using Dolby Digital Plus. BD-Video supports up to 7.1 channel output.

Dolby Pro Logic II
Dolby Pro Logic II enables you to play stereo sources on 5.1 channel.

Dolby TrueHD
Dolby TrueHD is a very high quality audio format that reproduces the studio master audio. BD-Video supports up to 7.1 channel output.

Down-mixing
This is the process of remixing the multi-channel audio found on some discs into fewer channels.

DTS (Digital Theater Systems)
This surround system is used in many movie theatres. There is good separation between the channels, so realistic sound effects are possible.

DTS-HD
DTS-HD is a high-quality, sophisticated audio format used in movie theatres. Previous DTS Digital Surround-compatible equipment can play DTS-HD as DTS Digital Surround audio. BD-Video supports up to 7.1 channel output.

DTS-HD High Resolution Audio
This is a signal format achieved by improving the previous DTS, DTS-ES and DTS 96/24 formats. It is compatible with sampling frequency 96 kHz/48 kHz. BD-Video supports up to 7.1 channel output.

DTS-HD Master Audio | Essential
This is a lossless audio format and compatible with 96 kHz/7.1 ch and 192 kHz/2 ch or less. In addition, faithful reproduction of the master audio is enabled using lossless audio encoding technology. BD-Video supports up to 7.1 channel output.

Dynamic range
Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs. Dynamic range compression means reducing the gap between the loudest and softest sounds. This means you can listen at low volumes but still hear dialogue clearly.

HDMI (High-Definition Multimedia Interface)
HDMI is a digital interface for consumer electronic products. Unlike conventional connections, it transmits uncompressed digital video and audio signals on a single cable.

Local storage
This storage area is used as a destination for sub contents for playing BD-Live on BD-Video.

LPCM (Linear PCM)
These are a kind of PCM format. These are uncompressed digital signals, similar to those found on CDs.

PCM (Pulse Code Modulation)
This is one format for converting analogue audio into digital audio, enabling you to enjoy digital audio with no hassle.

P4HD (Pixel Precision Progressive Processing for HD)
This is a processor which makes use of an exclusive Panasonic algorithm. Various processing is supported, including a high-level conversion of the TV scanning format from interface to progressive and a high-level conversion of standard resolution (480i or 576i) video signal to a 1080 High-Definition video signal. Consequently, this unit is able to provide video of optimal resolution to the connected TV.

x.v.Colour™
x.v.Colour™ is a name for devices that are compatible with the xvYCC format, an international standard for expanded colour in motion pictures, and that follow the rules for signal transmission. You can enjoy vivid colours of wider colour ranges for a more realistic picture when connected to a TV that supports the x.v.Colour™ with HDMI cable.

24p
This is a progressive image recorded at a rate of 24 frames per second (motion-picture film). Many BD-Video movie contents are recorded in 24 frames/second in accordance with the film materials.
Specifications

GENERAL

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption:</td>
<td>100 W</td>
</tr>
<tr>
<td>Power consumption in standby mode:</td>
<td>Approx. 0.2 W</td>
</tr>
<tr>
<td>Power supply:</td>
<td>AC 220 V to 240 V, 50 Hz</td>
</tr>
<tr>
<td>iPod/iPhone Connector:</td>
<td>DC OUT 5 V 500 mA MAX</td>
</tr>
<tr>
<td>WIRELESS LAN Connector:</td>
<td>DC OUT 5 V 500 mA</td>
</tr>
<tr>
<td>Dimensions (W×H×D):</td>
<td>430 mm×62 mm×287 mm</td>
</tr>
<tr>
<td>Mass:</td>
<td>Approx. 3.5 kg</td>
</tr>
<tr>
<td>(Dimensions and Weight do not include speakers)</td>
<td></td>
</tr>
<tr>
<td>Operating temperature range:</td>
<td>0 °C to 40 °C</td>
</tr>
<tr>
<td>Operating humidity range:</td>
<td>35 % to 80 % RH (no condensation)</td>
</tr>
</tbody>
</table>

AMPLIFIER SECTION

<table>
<thead>
<tr>
<th>RMS TTL POWER OUTPUT</th>
<th>1000 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kHz, 10 % total harmonic distortion</td>
<td></td>
</tr>
<tr>
<td>FRONT:</td>
<td>125 W per ch (3 Ω)</td>
</tr>
<tr>
<td>CENTRE:</td>
<td>250 W per ch (6 Ω)</td>
</tr>
<tr>
<td>SURROUND:</td>
<td>125 W per ch (3 Ω)</td>
</tr>
<tr>
<td>100 Hz, 10 % total harmonic distortion</td>
<td></td>
</tr>
<tr>
<td>SUBWOOFER:</td>
<td>250 W per ch (6 Ω)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIN TTL POWER OUTPUT</th>
<th>590 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kHz, 1.0 % total harmonic distortion</td>
<td></td>
</tr>
<tr>
<td>FRONT:</td>
<td>90 W per ch (3 Ω)</td>
</tr>
<tr>
<td>CENTRE:</td>
<td>115 W per ch (6 Ω)</td>
</tr>
<tr>
<td>SURROUND:</td>
<td>90 W per ch (3 Ω)</td>
</tr>
<tr>
<td>45 Hz to 120 Hz, 1.0 % total harmonic distortion</td>
<td></td>
</tr>
<tr>
<td>SUBWOOFER:</td>
<td>115 W per ch (6 Ω)</td>
</tr>
</tbody>
</table>

FM TUNER SECTION

| Preset memory:        | 30 stations |
| Frequency range:      | 87.50 MHz to 108.00 MHz (50 kHz step) |
| Antenna terminals:    | 75 Ω (unbalanced) |

SPEAKER SECTION

FRONT SPEAKERS

- **BTT755** SB-HF730
  - Type: 2 WAY 3 SPEAKER Bass-ref.
  - Woofers: 3.5 cm × 10 cm  
      - CONE TYPE × 2
  - Tweeter: 2.5 cm SEMI-DOME TYPE
  - Impedance: 3 Ω
  - Output sound pressure: 78 dB/W (1 m) |
  - Frequency range:  
      - 100 Hz to 30 kHz (−16 dB),
      - 130 Hz to 25 kHz (−10 dB)
  - Dimensions (W×H×D): 255 mm×1024 mm×255 mm
  - Mass: Approx. 2.3 kg

- **BTT350** SB-HF230
  - Type: 1 WAY 1 SPEAKER Bass-ref.
  - Full range: 6.5 cm CONE TYPE
  - Impedance: 3 Ω
  - 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×118.5 mm×68 mm
  - Mass: Approx. 0.4 kg

CENTRE SPEAKER

- **BTT755** SB-HC730
  - Type: 2 WAY 3 SPEAKER Bass-ref.
  - Woofers: 3.5 cm × 10 cm  
      - CONE TYPE × 2
  - Tweeter: 2.5 cm SEMI-DOME TYPE
  - Impedance: 6 Ω
  - Output sound pressure: 78 dB/W (1 m) |
  - Frequency range:  
      - 100 Hz to 30 kHz (−16 dB),
      - 130 Hz to 25 kHz (−10 dB)
  - Dimensions (W×H×D): 424 mm×59 mm×76 mm |
  - Mass: Approx. 1.06 kg

- **BTT350** SB-HC480
  - Type: 1 WAY 1 SPEAKER Bass-ref.
  - Full range: 6.5 cm CONE TYPE
  - Impedance: 6 Ω
  - 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: Approx. 0.6 kg
### SURROUND SPEAKERS

**SB-HS735**

<table>
<thead>
<tr>
<th>Type</th>
<th>2 WAY 3 SPEAKER Bass-ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woofer</td>
<td>3.5 cm × 10 cm</td>
</tr>
<tr>
<td>Tweeter</td>
<td>2.5 cm SEMI-DOME TYPE</td>
</tr>
<tr>
<td>Impedance</td>
<td>3 Ω</td>
</tr>
<tr>
<td>Output sound pressure</td>
<td>78 dB/W (1 m)</td>
</tr>
<tr>
<td>Frequency range</td>
<td>100 Hz to 30 kHz (−16 dB),</td>
</tr>
<tr>
<td></td>
<td>130 Hz to 25 kHz (−10 dB)</td>
</tr>
<tr>
<td>Dimensions (W×H×D)</td>
<td>255 mm×1024 mm×255 mm</td>
</tr>
<tr>
<td>Mass</td>
<td>Approx. 2.3 kg</td>
</tr>
</tbody>
</table>

**SB-HS230**

<table>
<thead>
<tr>
<th>Type</th>
<th>1 WAY 1 SPEAKER Bass-ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full range</td>
<td>6.5 cm CONE TYPE</td>
</tr>
<tr>
<td>Impedance</td>
<td>3 Ω</td>
</tr>
<tr>
<td>Output sound pressure</td>
<td>78 dB/W (1 m)</td>
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<tr>
<td>Frequency range</td>
<td>105 Hz to 25 kHz (−16 dB),</td>
</tr>
<tr>
<td></td>
<td>130 Hz to 22 kHz (−10 dB)</td>
</tr>
<tr>
<td>Dimensions (W×H×D)</td>
<td>80 mm×118.5 mm×68 mm</td>
</tr>
<tr>
<td>Mass</td>
<td>Approx. 0.4 kg</td>
</tr>
</tbody>
</table>

### VIDEO SECTION

<table>
<thead>
<tr>
<th>Signal system</th>
<th>PAL/NTSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video output</td>
<td>1.0 Vp-p (75 Ω)</td>
</tr>
<tr>
<td>HDMI AV output</td>
<td>1080p/1080i/720p/480p</td>
</tr>
<tr>
<td></td>
<td>Type A (19 pin)</td>
</tr>
</tbody>
</table>

### LASER Specification

Class 1 LASER Product

- Wave length: 790 nm (CDs)/655 nm (DVDs)/405 nm (BDs)
- No hazardous radiation is emitted with the safety protection

### WIRELESS SYSTEM AND DIGITAL TRANSMITTER

**BT7755 for Australia and New Zealand**

#### <AMPLIFIER SECTION>

- **RMS TTL POWER OUTPUT:** 250 W
- **DIN TTL POWER OUTPUT:** 140 W

#### <GENERAL>

- **Power supply:** AC 220 V to 240 V, 50 Hz
- **Power consumption in off mode:** Approx. 0.3 W
- **Dimensions (W×H×D):** 43.3 mm×37.3 mm×8.2 mm
- **Mass:** 165 mm×91.5 mm×164 mm

- **Digital transmitter:** Approx. 0.0095 kg
- **Wireless system:** Approx. 0.695 kg

#### USB:

- **USB port power:** DC OUT 5 V 500 mA MAX
- **USB 2.0 (Use for Wireless LAN Adaptor only):**
- **Ethernet:** 10BASE-T/100BASE-TX 1 system
- **SD card slot:** Connector: 1 system

#### Audio Input

- **AUX:** × 1

#### Digital Audio Input

- **Optical:** × 1
- **Sampling frequency:** 32 kHz, 44.1 kHz, 48 kHz
- **Audio Format:** PCM, Dolby Digital

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Specifications are subject to change without notice.
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Sales and Support Information

Customer Care Centre
- For customers within the UK: 0844 844 3852
- For customers within the Republic of Ireland: 01 289 8333
- Visit our website for product information
  www.panasonic.co.uk
- E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK
- For customers: 0844 844 3856
- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre
  Monday–Thursday 9:00 a.m.–5:30 p.m., Friday 9:30 a.m.–5:30 p.m. (Excluding public holidays)
- Or go on line through our Internet Accessory ordering application at www.pas-europe.com
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn’t be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

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