Panasonic®

Owner's Manual
<Operations>
Blu-ray Disc™ Home Theater Sound System

Model No. SC-BTT885
SC-BTT505

Unless otherwise indicated, illustrations in these operating instructions are of SC-BTT885.

Firmware updates

Panasonic is constantly improving the unit's firmware to ensure that our customers are enjoying the latest technology.
Panasonic recommends updating your firmware as soon as you are notified.
For details, refer to "Firmware updates" (⇨ 15) or
http://panasonic.jp/support/global/cs/ (This site is in English only.)

Thank you for purchasing this product.
Please read these instructions carefully before using this product, and save this manual for future use.

Please also read through the "Owner's Manual <Setup>".

GN   GA

VQT5K30

Precautions

WARNING

Unit

To reduce the risk of fire, electric shock or product damage,
- Do not expose this unit to rain, moisture, dripping or splashing.
- Do not place objects filled with liquids, such as vases, on this unit.
- Use only the recommended accessories.
- Do not remove covers.
- Do not repair this unit by yourself. Refer servicing to qualified service personnel.
- Do not let metal objects fall inside this unit.
- Do not place heavy items on this unit.

AC mains lead

To reduce the risk of fire, electric shock or product damage,
- Ensure that the power supply voltage corresponds to the voltage printed on this unit.
- Insert the mains plug fully into the socket outlet.
- Do not pull, bend, or place heavy items on the lead.
- Do not handle the plug with wet hands.
- Hold onto the mains plug body when disconnecting the plug.
- Do not use a damaged mains plug or socket outlet.

The mains plug is the disconnecting device.
Install this unit so that the mains plug can be unplugged from the socket outlet immediately.

Speaker

To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.

Small object

- Keep the screws out of reach of children to prevent swallowing.

CAUTION

Unit

- This unit 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 place sources of naked flames, such as lighted candles, on this unit.
- This unit may receive radio interference caused by mobile telephones during use. If such interference occurs, please increase separation between this unit and the mobile telephone.
- For Australia and New Zealand
  This unit is intended for use in moderate climates.
- For South East Asia
  This unit is intended for use in tropical climates.

Placement

Place this unit on an even surface.

To reduce the risk of fire, electric shock or product damage,
- Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure this unit is well ventilated.
- Do not obstruct this unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.
- Do not expose this unit to direct sunlight, high temperatures, high humidity, and excessive vibration.

Speaker

- **Use only supplied speakers**
  The main unit and supplied speakers are to be used only as indicated in these operating instructions. 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.
- Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.
- Hold the speaker firmly to avoid injury by dropping the speaker when carrying.
- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Do not touch the front area of the speakers. Hold by the sides.
- Place speakers on flat, secure surfaces.
- To avoid injury by falling or dropping the speaker, place the speaker cables with care not to stumble or hook.
- Do not stand on the speaker. Be cautious when children are near.

Batteries

Mishandling of batteries can cause electrolyte leakage and may cause a fire.
- Danger of explosion if battery is incorrectly replaced. Replace only with the type recommended by the manufacturer.
- When disposing of the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.
- Do not mix old and new batteries or different types at the same time.
- Do not heat or expose to flame.
- Do not leave the battery(ies) in a car exposed to direct sunlight for a long period of time with doors and windows closed.
- Do not take apart or short circuit.
- Do not recharge alkaline or manganese batteries.
- Do not use batteries if the covering has been peeled off.

Remove batteries if you do not intend to use the remote control for a long period of time. Store in a cool, dark place.

Wireless LAN connection

The following limits are in place regarding the usage of this unit. You must be aware of these limits before using this unit. Panasonic will in no way be responsible for any incidental damage which may arise due to a failure to obey these limits, or to any condition of use or disuse of this unit.

- **Data transmitted and received over radio waves may be intercepted and monitored.**
- **This unit contains delicate electronic components.**
  Please use this unit in the manner in which it was intended and follow the following points:
  – Do not expose this unit to high temperatures or direct sunlight.
  – Do not bend, or subject this unit to strong impacts.
  – Keep this unit away from moisture.
  – Do not disassemble or alter this unit in any way.

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. (⇨ 37, "To return all settings to the factory preset.")

- The operation history may be recorded in the memory of this unit.

Information on Disposal in other Countries outside the European Union

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

Restriction on use of unauthorized copied content

This unit adopts the following technology for copyright protection.

Cinavia Notice
This product uses Cinavia technology to limit the use of unauthorized copies of some commercially-produced film and videos and their soundtracks. When a prohibited use of an unauthorized copy is detected, a message will be displayed and playback or copying will be interrupted.
More information about Cinavia technology is provided at the Cinavia Online Consumer Information Center at http://www.cinavia.com. To request additional information about Cinavia by mail, send a postcard with your mailing address to:
Cinavia Consumer Information Center, P.O. Box 86851, San Diego, CA, 92138, USA.

Table of contents

Package contents and accessories

Check the package contents and supplied accessories before using this unit.

Package contents

BTT885
Main unit
(SA-BTT885)

FRONT
(SB-HFS5810)

SURROUND
(SB-HFS5810)

(Speakers)

(Stands)

(Bases)

(Bottom covers)

(Screws)

CENTER
(SB-HC5810)

SUBWOOFER
(SB-HW8010)

Wireless system
(SH-FX82)

(Speaker cables)
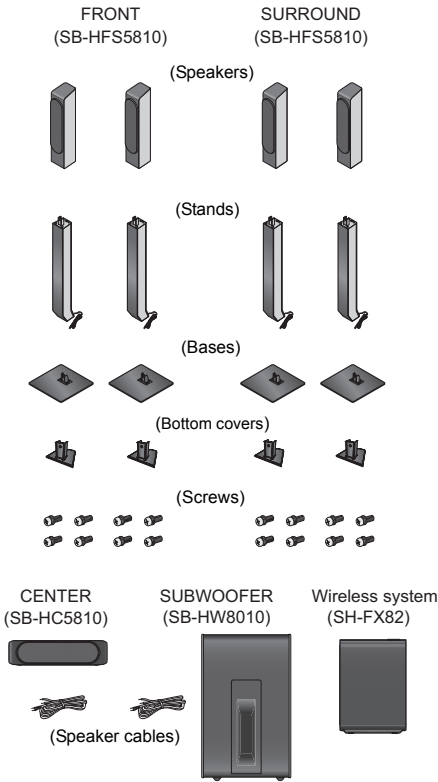
BTT505
Main unit
(SA-BTT505)

FRONT
(SB-HFS5310)

SURROUND
(SB-HFS5310)

(Speakers)

(Stands)

(Bases)

(Bottom covers)

(Screws)

(Speaker cables)

CENTER
(SB-HC5810)

SUBWOOFER
(SB-HW8010)

(Speaker cables)
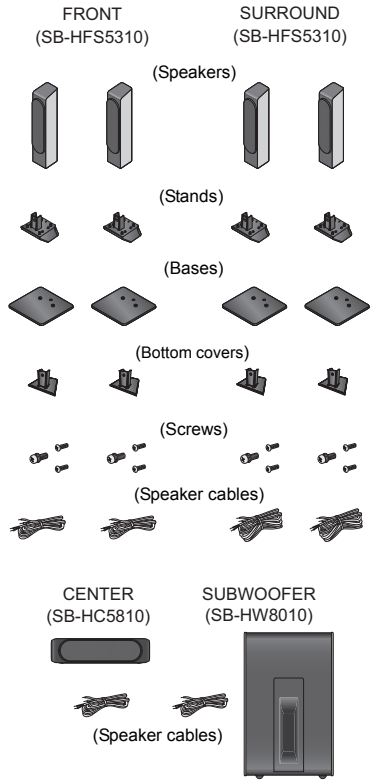
Accessories

☐ **1 Remote control**
(N2QAYB000971)

☐ **2 Batteries for remote control**

☐ **2 AC mains leads**

See page 11 for more information.

☐ **1 HDMI cable**

☐ **1 FM indoor antenna**

☐ **2 Sheets of speaker cable sticker**

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● Product numbers provided in these operating instructions are correct as of March 2014. 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.

■ This unit's lens

Lens cleaner: RP-CL720AE
● This lens cleaner may not be for sale depending on the region.
● This lens cleaner is sold as specific for DIGA, but can be used on this unit as well.

■ Clean discs

DO **DO NOT**

Wipe with a damp cloth and then wipe dry with a dry cloth.

■ Disc handling precautions

● Handle discs by the edges to avoid inadvertent scratches or fingerprints on the disc.
● Do not attach labels or stickers to discs.
● Do not use disc cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
● 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.

Playable media

Device	Media markings	Device types	Contents format
BD	*Blu-ray Disc*	**BD-Video**	**Video**
		BD-RE	**Video, JPEG, MPO**
		BD-R	**Video, MKV, RMVB*, Xvid**
DVD	*DVD VIDEO*	**DVD-Video**	**Video**
	DVD R4.7	**DVD-R**	**Video, AVCHD, MKV, RMVB*, Xvid, JPEG, MPO, AAC, FLAC, MP3, WAV, WMA**
	DVD R DL	**DVD-R DL**	
	DVD RW	**DVD-RW**	**Video, AVCHD**
	—	**+R/+RW/+R DL**	
CD	*COMPACT DISC DIGITAL AUDIO*	**Music CD**	**Music [CD-DA]**
	—	**CD-R CD-RW**	**MKV, RMVB*, Xvid, JPEG, MPO, AAC, FLAC, MP3, Music [CD-DA], WAV, WMA**
USB	—	**USB devices (up to 2 TB)**	**MKV, MP4, MPEG2, RMVB*, Xvid, JPEG, MPO, AAC, FLAC, MP3, WAV, WMA**

* For South East Asia

● See pages 8 and 44 for more information on the types of content that can be played.

■ Types of discs that cannot be played by this unit

Any other disc that is not specifically supported or previously described.

- DVD-RAM
- Super Audio CD
- Photo CD
- DVD-Audio
- Video CD and Super Video CD
- HD DVD

■ Region management information

The unit can playback BD-Video/DVD-Video discs of the following regions codes, including "**ALL**":

Example: BD-Video   DVD-Video

For South East Asia

For Australia and New Zealand

■ Finalize

Any DVD-R/RW/R DL, +R/+RW/+R DL and CD-R/RW that are recorded by a recorder need to be finalized by the recorder to play on this unit. Please refer to the recorder's instructions.

■ BD-Video

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.

■ 3D

- 3D videos and 3D still pictures can be played back when this unit is connected to a 3D compatible TV using a High Speed HDMI Cable.
- 2D video can be enjoyed as 3D virtually. (⇨ 29)

■ Music CD

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

■ USB device

- This unit does not guarantee connection with all USB devices.
- This unit does not support USB device charging.
- FAT16, FAT32, and NTFS file systems are supported.
- This unit supports USB2.0 High Speed.
- This unit supports an HDD formatted in FAT32 and NTFS. If the HDD is not recognized, the power to the HDD may not be supplied. Supply power from an external source.

■ BD-RE, BD-R

Discs recorded in DR mode using Panasonic Blu-ray Disc recorders may not play back the audio etc., correctly.

- 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.

Control reference guide

Remote control

■ Using the remote control

Insert the batteries to the terminal so that it ($+$ and $-$) matches those in the remote control.

R6/LR6, AA
(Alkaline or manganese batteries)

Point it at the remote control signal sensor on this unit. ($\Rightarrow$ 10)

1 Turn the unit on and off
2 Select title numbers, etc./Enter numbers or characters
3 Cancel
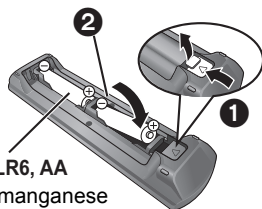4 Select Bluetooth®/Enable pairing ($\Rightarrow$ 21)
5 Select an audio or video source
6 Basic playback control buttons ($\Rightarrow$ 18)
7 Select preset radio stations ($\Rightarrow$ 24)
8 Show the status messages ($\Rightarrow$ 18)
9 Show the Home Screen of the Network Service ($\Rightarrow$ 25)
10 [▲, ▼, ◄, ►] : Move the highlight for selection
[OK] : Confirm the selection
(❙❙►) : Frame-by-frame ($\Rightarrow$ 18)
11 Show Option menu ($\Rightarrow$ 27)
12 Coloured buttons (red, green, yellow, blue)
Used for various purposes depending on the display
13 Set the sound effects ($\Rightarrow$ 29)
14 Set the sleep timer
① Press [SLEEP].
② While "SLEEP ✳✳" is displayed on the unit's display, press [SLEEP] several times to select the time (in minutes).
● Timer selection is up to 120 minutes.
● Select "OFF" on the unit's display to disable the function.
● To confirm the remaining time
Press the button again.
15 TV operation buttons
[⏻ TV]: Turn the TV on and off
[AV, INPUT]: Switch the input select
[$+ -$ VOL] : Adjust the volume
16 Adjust the volume of the main unit
17 Change audio ($\Rightarrow$ 18)
18 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.
19 Switch Secondary Video on/off (Picture-in-picture) ($\Rightarrow$ 28)
20 Select radio stations manually ($\Rightarrow$ 24)
21 Exit the Menu screen
22 Show HOME menu ($\Rightarrow$ 16)
23 Show Pop-up Menu/Top Menu ($\Rightarrow$ 18)
24 Return to previous screen
25 Show Miracast™ screen ($\Rightarrow$ 26)
26 Show Setup menu ($\Rightarrow$ 30)

Main unit (Front)

1 Disc tray
2 USB port (⇨ 15, 20)
3 Remote control signal sensor
   Distance: Within approx. 7 m.
   Angle: Approx. 20° up and down, 30° left and right
4 Display
5 Stop (⇨ 18)
6 Start play (⇨ 18)

7 Open or close the disc tray (⇨ 15)
8 Adjust the volume of the main unit
9 **Standby/on switch (⏻/I)** (⇨ 14)
   Touch 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.
10 NFC touch area (⇨ 22)

Main unit (Rear)

e.g., **BTT885**

1 AC IN terminal
2 Speaker terminals
3 Cooling fan
4 LAN port (⇨ 13)
5 USB port (⇨ 15)

6 DIGITAL AUDIO IN terminal
7 HDMI1 IN terminal (⇨ 12)
8 HDMI2 IN terminal (⇨ 12)
9 HDMI AV OUT (ARC) terminal
10 AUX terminal
11 FM radio antenna terminal

BTT885 Wireless system

Top   **Rear**

1 Wireless link indicator
   Green lights: Wireless link is activated.
          blinks (slow): Searching mode
          blinks (fast): Pairing mode
   Red   lights: Sleeping mode
2 Enable pairing
3 Speaker terminals
4 AC IN terminal

Setting up the system

Follow the "Owner's Manual <Setup>" to set up the system first.

Precautions

■ Speakers
- Keep your speakers at least 10 mm away from the system to avoid noise generated by resonance.
- For optional wall mount, refer to page 35.

Centre speaker
- Put it 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.

Surround speakers
- Place the speakers at the same height or higher than ear level.
- BTT505 You can enjoy surround speaker sound wirelessly. Use the optional Panasonic wireless system (SH-FX82).

BTT885 **Wireless system**
- To avoid interference, separate the wireless system from the other electronic devices that use the same radio frequency (2.4 GHz band).
- Place the wireless system within approximately 10 m from the main unit.
- 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 in a metal cabinet or bookshelf.

■ HDMI
- If you use an optional HDMI cable, use the ARC* compatible High Speed HDMI cables. Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable. When outputting 1080p or 24p (4K) signal, please use HDMI cables 5.0 meters or less.

* ARC is an abbreviation of Audio Return Channel, also known as HDMI ARC. This feature allows a home theatre system to receive and play audio from the TV through a single HDMI cable without additional wiring.

■ DIGITAL AUDIO IN
- The dual audio cannot be changed. Change the setting on the connected device.

■ FM antenna
- Use an FM outdoor antenna if radio reception is poor.

■ AC mains lead

> **For South East Asia**
> Use the AC mains lead that matches the socket for the area you live in.

- The wireless system (BTT885) and this unit consume a small amount of AC power (⇨ 42, 43) even when turned off in standby mode. For the purpose of energy conservation, the unit should be disconnected if you will not be using it for extended period of time.

Other device connection

■ When the connecting devices have an HDMI terminal

e.g.,

Set Top Box, etc.

Video game, etc.

HDMI cable*

HDMI cable*

* Extra HDMI cables in addition to the supplied one are required.
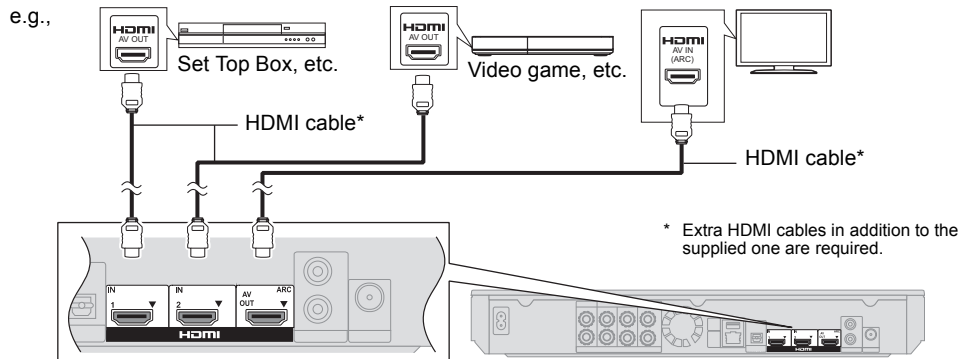
- When connecting to a device that outputs 4K signals, connect an HDMI cable to the HDMI1 IN terminal of the unit.
- **HDMI standby pass-through**
  Even if this system is in standby mode, the audio and/or video signal from the device connected to the HDMI1 IN or HDMI2 IN terminal will be sent to the TV connected to the HDMI AV OUT terminal (the sound will not be output from this system).
  Even while the unit is in the standby mode, you can change the input signal HDMI1 IN or HDMI2 IN by pressing [SELECTOR] on the remote control.

■ When the connecting devices do not have an HDMI terminal

e.g.,

Set Top Box, etc.

Optical digital audio cable (not supplied)
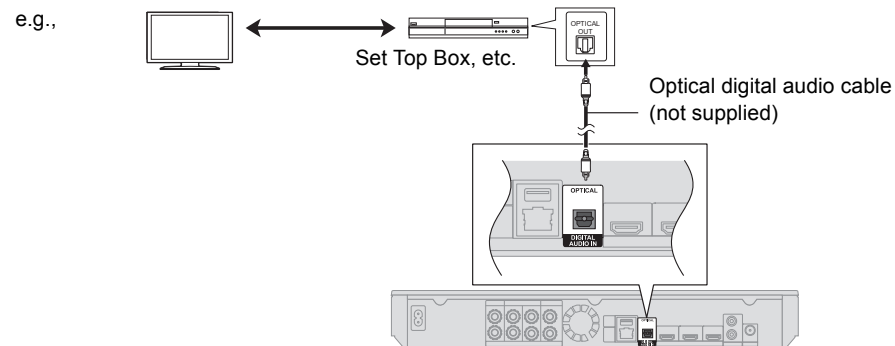
Connecting to the network

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

- Firmware can be updated (⇨ 15)
- You can enjoy BD-Live (⇨ 19)
- You can enjoy Network Service (⇨ 25)
- You can access other devices (Home Network) (⇨ 26)

- This unit supports Wi-Fi Direct™ and can make a wireless connection to wireless devices without router. You can use this function when enjoying Home Network feature, etc. Internet access is not available while connected via Wi-Fi Direct™. (⇨ 26, 32)

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

Wireless LAN connection

This unit has built in Wi-Fi® and can be connected to a wireless router.

Wireless router, etc.

Internet
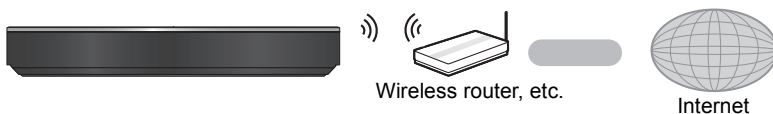
- For up-to-date compatibility information on your wireless router, refer to http://panasonic.jp/support/global/cs/ (This site is in English only.)
- The unit is not compatible with public wireless LAN services provided in airports, stations, cafes, etc.
- See page 3 for the precautions of wireless LAN connection.

LAN cable connection

LAN Cable (not supplied)

LAN
100BASE-T/
100BASE-TX

Broadband router, etc.

Internet
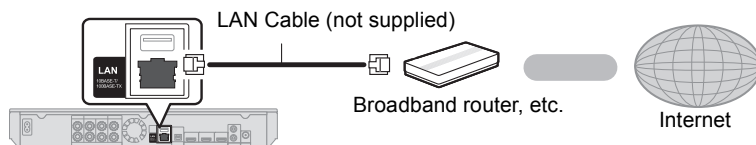
- Use category 5 or above straight LAN cables (STP) when connecting to peripheral devices.
- Inserting any cable other than a LAN cable in the LAN port can damage the unit.

Settings

The following settings can be performed anytime in the Setup menu. (⇨ 32, 33)

Easy Settings

After connecting your new home theatre for the first time and pressing [⏻], the basic settings screen will appear.

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

1 Press [⏻].

Setup screen appears.

2 Follow the on-screen instructions to continue with the settings.

BTT885

● To use the wireless system, pairing is required.
Follow the on-screen instructions to pair the unit with the wireless system.

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BTT885
● The wireless link indicator of the wireless system lights green when the unit and the wireless system are connected wirelessly.

Easy Network Setting

After completing "Easy Settings", you can perform "Easy Network Setting".

Select "Wired" or "Wireless" and press [OK].

Easy Network Setting
Select a connection mode.
Wired
Wireless
OK
RETURN

Follow the on-screen instructions to establish your connection settings.

■ About the wireless connection

Before beginning wireless connection setup
● Obtain your network name (SSID*).
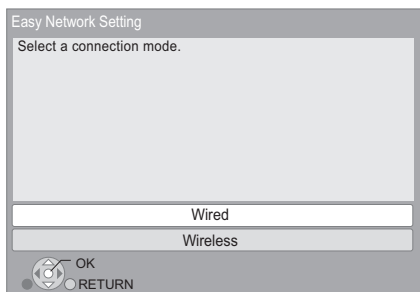● If your wireless connection is encrypted, please be sure that you know your encryption key.

If your SSID is not displayed;
● Search again by pressing the red button on the remote control.
● Stealth SSIDs will not be displayed; in this case, enter manually by using "Manual setting".
While displaying the HOME menu, press [SETTINGS]
⇨ select "Network" and press [OK]
⇨ select "Network Settings" and press [OK]
⇨ select "Wireless Settings" and press [OK]
⇨ select "Connection Setting" and press [OK]
⇨ select "Manual setting" and press [OK]

If your wireless network is encrypted;
Encryption Key input screen will be displayed.
Input the encryption key of your network.

If your wireless router supports WPS (Wi-Fi Protected Setup™);
You can easily set up a connection by pressing the green button on the remote control.

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● Refer to the operating instructions of the hub or router.
● Do not use this unit to connect to any wireless network for which you do not have usage rights.
Using these networks may be regarded as illegal access.
● If you have trouble getting online on your PC after performing network settings on this unit, perform the network settings on your PC.
● Please be aware that connecting to a network without encryption may result in the leaking of data such as personal or secret information.
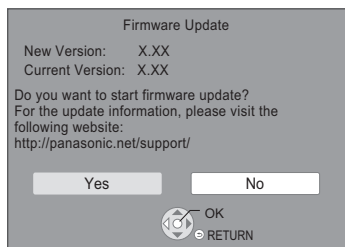
* SSID:
An SSID (Service Set IDentification) is a name used by wireless LAN to identify a particular network. Transmission is possible if the SSID matches for both devices.

Firmware updates

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 message is displayed.

```
                    Firmware Update
New Version:     X.XX
Current Version:  X.XX
Do you want to start firmware update?
For the update information, please visit the
following website:
http://panasonic.net/support/

       Yes                    No

                              OK
                              RETURN
```

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

```
          The firmware was updated.
          Current Version: x.xx

                            RETURN
```

- 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. (⇨ 35, "Firmware Version Information")
- Downloading will require several minutes. It may take longer or may not work properly depending on the connection environment.
- If you do not want to check for the latest firmware version, set "Automatic Update Check" to "Off". (⇨ 35)

Inserting or removing media

* (For details ⇨ 20)
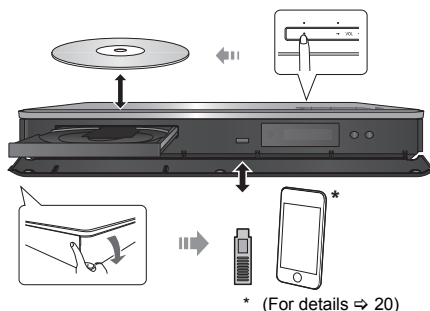
- When inserting a media item, ensure that it is facing the correct way, which is the right side facing up.
- Use the front USB port when you connect an iPod/iPhone.

Enjoying TV with the speakers of the system

Press [SELECTOR] several times to select the appropriate external input mode. (⇨ 16)
- Reduce the volume on the TV to its minimum, and then adjust the volume of the main unit.

HOME menu

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

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

1 Press [⏻] to turn on the unit.

- After network service introduction banner is shown, the HOME menu is displayed.
  - When connected to the network, the banner content may be changed.
  - You can disable the "Start-up Banner" (⇨ 34).
- If the HOME menu is not displayed, press [HOME].
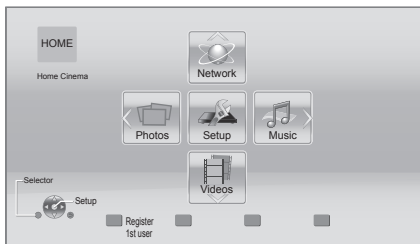
2 Press [OK] or [▲, ▼, ◄, ►] to select the item.

- If there are any other items, repeat this step.

Network

Network Service	Displays the Home Screen of Network Service. (⇨ 25)
Home Network	**DLNA Client** (⇨ 26)
	Miracast (⇨ 26)
	Media Renderer (⇨ 27)

Videos/Photos/Music

Disc	Play back the contents. (⇨ 18, 20)
USB	• When multiple contents are recorded, select the types of contents or the title.
iPod*	* This is displayed only when "Music" is selected.

Setup

Settings	(⇨ 30)
USB Management	(⇨ 19)
Wallpaper	Changes the background of HOME menu.

To show the HOME menu
Press [HOME].

■ Input selection

1 While displaying the HOME menu, press [OPTION].

2 Select the source and press [OK].

- When you want to output audio of an external device from this unit, select the terminal connected to the device.

Bluetooth	(⇨ 21)
FM Radio	(⇨ 24)
AUX	AUX terminal
ARC	HDMI AV OUT (ARC) terminal
DIGITAL IN	DIGITAL AUDIO IN terminal
HDMI IN1 HDMI IN2	HDMI1 IN and/or HDMI2 IN terminal (⇨ 12)

- Items to be displayed may vary with the media.
- When the selector is switched, it may take time to play back the selected video and/or audio.
- Where necessary, set "Mixed Data Disc Option" when using a disc with both data files (MP3, JPEG, MKV, etc.) and Video (BDAV and AVCHD). (⇨ 34)
- To save on electricity, this unit is turned off automatically if there is no button operation for about 20 minutes when not playing back (such as when paused or displaying the menu, displaying still pictures, etc.).

Multi User Mode

Multi User Mode allows individuals to customize settings and switch to their saved settings easily. Up to four people can use the unit with their own settings.

The following settings can be personalized:
● The user icon
● The wallpaper of HOME menu
● The specific settings (⇨ 27, 30)
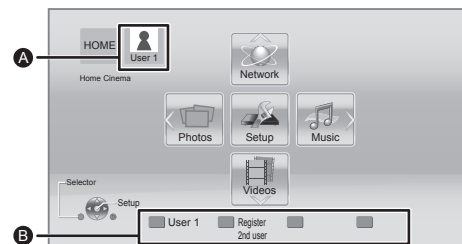
Ⓐ The user name and icon currently selected
Ⓑ Personalize a new user and switch between users with coloured buttons.

Personalizing a new user

1 Press [HOME].

2 Press the coloured button that indicates new user personalization.

3 Select an item and change the settings according to the indications.
The following items can be set.

Input Nickname	Personalize a user name.
Select Icon	Personalize a user icon. **Select from Illustrations** The image can be selected from prepared illustrations. **Create from Photos** You can select a photo in recording media as an icon. (⇨ 28, "Icon Registration")
Select Wallpaper	Personalize a background of the HOME menu. ● In addition to the default wallpapers, you can select a photo in recording media as a wallpaper. (⇨ 28, "Wallpaper")

4 Select "Confirm" and press [OK].

To change the personalized user information
Select "Edit User Information" from Setup menu. (⇨ 34)

Switching the user information

Press the coloured buttons in the HOME menu to switch to the user information corresponding to the button.

Playback

1 Insert the media.

Playback starts depending on the media.

2 Select the item to play and press [OK].

Repeat this step if necessary.

📖
- DISCS CONTINUE TO ROTATE WHILE MENUS ARE DISPLAYED. Press [■STOP] when you have finished playback to protect the unit's motor, your TV screen and so on.
- When the following conditions are met, a still picture will be played back in 4K. The resolution of the still picture will be changed automatically.
  – The unit is connected to a 4K compatible TV
  – "HDMI Video Format" is set to "Automatic" (⇨ 30)
  – The still picture is being played back in 2D
- It is not possible to play back AVCHD and MPEG2 videos which have been dragged and dropped or copied and pasted to the media.

Operations during playback

The following functions may not work depending on the media and contents.

Stop

Press [■STOP].
The stopping point is memorized.

Resume play function
Press [►PLAY] to restart from this point.
- The point is cleared if the media is removed.
- **On BD-Video discs including BD-J, 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►►].
Slow motion
While paused, press [SEARCH►►].

The speed increases up to 5 steps.
- Music and MP3, etc.: The speed is fixed to a single step.
- Press [►PLAY] to revert to normal playback speed.

Skip

While playing or paused, press [❙◄◄] or [►►❙].
Skip to the title, chapter or track.

Frame-by-frame

While paused, press [►] (❙❙►).
- Press and hold to fast forward.
- Press [►PLAY] to revert to normal playback speed.

Changing audio

Press [AUDIO].
You can change the audio channel number or soundtrack language, etc.

Show top menu/pop-up menu

Press [POP-UP MENU/TOP MENU].
Select the item and press [OK].

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 display information may change or disappear from the screen.
- Depending on media and contents, the display may change or not appear.

e.g., BD-Video

Ⓐ T: Title, C: Chapter, PL: Playlist
Ⓑ Elapsed time in the title
Ⓒ Current position
Ⓓ Total time

e.g., JPEG

Enjoying 3D video and photos

Preparation
Connect this unit to a 3D compatible TV.
● Perform the necessary preparations for the TV.
● Play back following the instructions displayed on the screen.
● 3D Settings (⇨ 29, 31)

> ● 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.
> ● 3D video might not output the way it is set in "HDMI Video Format" and "24p(4K)/24p Output" (⇨ 30).
> ● When playing back 3D photos from "Photos" screen, select from the "3D" list. (Still pictures in "2D" are played back in 2D.) If "2D" and "3D" indications are not displayed, press the red button on the remote control to switch the view of playback contents.

Enjoying BD-Live

With "BD-Live" discs, you can enjoy bonus contents that use Internet access.
For this BD-Live function, connection of a USB device is necessary along with Internet connection.

1 Perform network connection and settings. (⇨ 13, 14)

2 Connect a USB device with 1 GB or more free space.
   ● The USB device is used as the local storage.

3 Insert the disc.

■ Deleting data on the USB device

Select "USB Management" in the HOME menu (⇨ 16), then select "BD-Video Data Erase" and press [OK].

> ● 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.
> ● "BD-Live Internet Access" may need to be changed for certain discs (⇨ 33).

Slideshow

Play a slideshow of photos and adjust various settings during the playback.

1 Insert the media.

2 Select "Photos".

3 Select an item and press the green button.
   The following items can be set.

Start Slideshow	Start the slideshow. You can display still pictures in the selected folder one by one at a constant interval.
Interval	Change the display interval.
Transition Effect	Select the effect when sliding pictures.
Repeat Play	Set whether to repeat the slideshow.

> ● Still pictures displayed as " ⊠ " cannot be played back with this unit.

Playback

Using the iPod/iPhone

Compatible iPod/iPhone (as of March 2014)

- Update your iPod/iPhone with the latest software before using this unit.
- Compatibility depends on the software version of your iPod/iPhone.
- iPod/iPhone compatibility assures music playback and battery charge functions of this unit as a home theatre system.

iPhone 5s / iPhone 5c / iPhone 5 / iPhone 4S / iPhone 4 / iPhone 3GS / iPhone 3G

iPod touch: 1st, 2nd, 3rd, 4th and 5th generation

iPod nano: 2nd, 3rd, 4th, 5th, 6th and 7th generation

- In some locations, reception status of an iPhone may be poor when it is loaded on this unit.
- When the iPhone receives a call while connected to this unit, playback of the iPhone may stop.
  To prioritize the operation with the iPhone connected to this unit, make the setting so that the iPhone does not receive calls.
- Avoid using Wi-Fi mode on your iPhone in the following case.
  – When the network functions on this unit are in use wirelessly.
  – When the surround speakers on this unit are in use wirelessly.

About recharging the battery
- iPod/iPhone will start recharging when this unit is on.
- iPod/iPhone will not be recharged after the battery charge completion.

iPod/iPhone Connection

Preparation
- Turn the main unit off or reduce the volume of the main unit to its minimum.

Connect the iPod/iPhone.
To purchase a dedicated USB cable, consult your iPod/iPhone dealer.

e.g.,   iPod/iPhone (not supplied)

Dedicated USB cable
(not supplied)
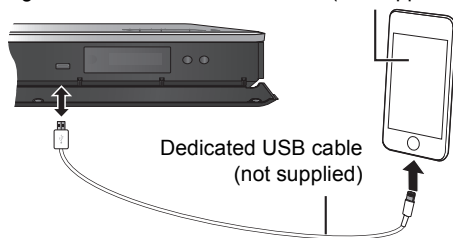
iPod/iPhone Playback

1 Press [HOME].

2 Select "Music".

3 Select "iPod".

4 Play a music on your iPod/iPhone.

- Surround sound effect and sound mode are available.

Enjoying Bluetooth®

Panasonic bears no responsibility for data and/or information that is compromised during a wireless transmission.

■ Restrictions of use

● All devices must conform to standards set by Bluetooth SIG, Inc.
● Usage with all Bluetooth® devices is not guaranteed.
● Depending on the specifications and settings of a device, it can fail to connect or some operations can be different.
● This system supports Bluetooth® security features. But depending on the operating environment and/or settings, this security is possibly not sufficient. Transmit data wirelessly to this system with caution.
● This system cannot transmit data to a Bluetooth® device.
● The environment, obstacles, and interference may shorten the communication range or cause incorrect operation, such as audio interruptions.
● Do not use this system near an equipment or in an environment that is sensitive to radio frequency interference (example: airports, hospitals, laboratories, etc).

Bluetooth® operations

By using the Bluetooth® connection, you can listen to the sound from the Bluetooth® device wirelessly.
Refer to the operating instructions of the Bluetooth® device for details.
● If you intend to use an NFC (Near Field Communication)-compatible Bluetooth® device, proceed to "One-Touch Connection (Connecting by NFC)".

1 **Turn on the Bluetooth® feature of the device.**

2 **Press [ ].**
   ● If "Panasonic BTT" is displayed on the Bluetooth® menu of the device, go to step 4.

3 **Press and hold [−PAIRING].**
   ● "PAIRING" will be displayed on the unit's display and the unit will enter pairing standby mode.
   ● If another Bluetooth® device is already connected, the connection will be terminated automatically.

4 **Select "Panasonic BTT" from the Bluetooth® menu of the device.**
   ● If another Bluetooth® device is already connected, disconnect it.
   ● "CONNECTED" will be displayed on the unit's display and the connection will be established.

5 **Start play on the Bluetooth® device.**

● If prompted for the passkey, input "0000".
● You can register up to 8 devices with this system. If a 9th device is paired, one of the other registered devices will be replaced.
● This system can only be connected to one device at a time.
● When "Bluetooth" is selected as the source, this system will automatically try and connect to the last connected Bluetooth® device. If the connection attempt fails, try to establish a connection again.
● If you switch the source, the Bluetooth® device will be disconnected.
● If the image and sound are out of sync during playback, restart the playback application you are using. If the problem persists, connect the Bluetooth® device and this unit with an audio cable.

● "Bluetooth Standby Mode" (⇨ 34)
● "Transmission Speed" (⇨ 34)

Playback

One-Touch Connection (Connecting by NFC)

For NFC-compatible Android™ devices only (Android™ version 4.1 or higher)
Simply by touching an NFC-compatible Bluetooth® device on the unit, you can complete all preparations, from registering a Bluetooth® device to establishing a connection.

1 **Turn on the NFC feature of the device.**

2 **Touch and hold your device on the NFC touch area of this unit. (⇨ 10)**
- If the unit is in standby, it will turn on, and "NFC" will be displayed on the unit's display. Keep the device in contact with the unit.
- When the Bluetooth® device is paired and connected, "CONNECTED" is displayed on the unit's display. Once the registration and connection of the Bluetooth® device is complete, move the device away from the unit.
- If "CONNECTED" is not displayed, change the touching position.

3 **Start play on the Bluetooth® device.**

📖
- When the connection is established, the playback may start automatically depending on the type of device being used.
- The One-Touch Connection may not work properly depending on the type of device being used.

"HDMI CEC"

This unit supports "HDMI CEC" (Consumer Electronics Control) function.
See the operating instructions for connected equipment for operational details.

Preparation
Set "HDMI CEC" to "On" (⇨ 34).
(The default setting is "On".)

Power on link

When the unit starts playback, the TV will automatically turn on and the screen of the unit will be displayed.
● This function does not work when the iPod/iPhone selector is chosen. (⇨ 20)

Power Off Link

All connected "HDMI CEC" equipment automatically turns off when you switch the TV off.

Playing music continuously even after turning off the TV

Select "Video" in "Power Off Link" (⇨ 34)

📖

● The operation cannot be guaranteed on all HDMI CEC equipment.

Enjoying TV with unit's speakers

You can select whether audio is output from the unit's speakers or the TV speakers by using the TV menu settings. Switch the audio output setting of the TV to this unit's speakers.

Select the TV audio

When the TV is turned on, this unit will also automatically turn on.

e.g.,

Optical digital audio cable (not supplied)
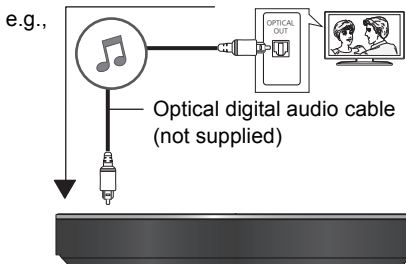
① While displaying the HOME menu, press [SETTINGS].
② Press [▲, ▼] to select "Sound" and press [OK].
③ Press [▲, ▼] to select "TV Audio Input" and press [OK].
④ Press [▲, ▼] to switch "AUX", "ARC" or "DIGITAL IN" and press [OK].
 ● Select an audio input terminal connected to the unit.

Listening to the Radio

You can preset up to 30 channels.
Preparation
Press [SELECTOR] several times to select "FM".

Presetting stations automatically

1 **Press and hold [STATUS] to select "LOWEST" or "CURRENT".**

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 "Manual tuning and presetting".

2 **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 a preset channel

Press the number buttons to select the channel.

e.g., 1: [1] ⇨ [OK].
　　　12: [1] ⇨ [2].
Alternatively, press [∧, ∨] or [▲, ▼].

■ Manual tuning and presetting

Select a radio broadcast.
① Press [SEARCH◄◄] or [SEARCH►►] to select the frequency.
● To start automatic tuning, press and hold [SEARCH◄◄], [SEARCH►►] until the frequency starts scrolling. Tuning stops when a station is found.

To preset the channel
② While listening to the radio broadcast
Press [OK].
③ While "P" is flashing on the display
Press the number buttons to select the channel.

Enjoying Network Service

Network Service allows you to access some specific websites supported by Panasonic.

> **Network Service provides a variety of selected Internet services such as the following.**
> ● Online movie rental service
> ● Video browsing service
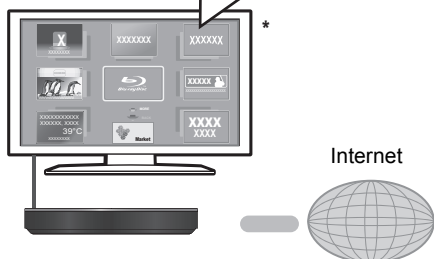
Internet

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

Preparation
● Network connection (⇨ 13)
● Network settings (⇨ 14)

1 Press [INTERNET].

2 Select the item and press [OK].

To exit from Network Service
Press [HOME].

📖
● When playing content in the media, Network Service cannot be accessed by pressing [INTERNET].
● In the following cases, settings are possible using the Setup menu items.
  – When restricting the use of Network Service (⇨ 33, "Network Service Lock")
  – When correcting the displayed time (⇨ 33, "Time Zone", "Summer Time")
  – When using another device such as a smartphone in combination with the unit by using a certain application on the device (⇨ 33, "Remote Device Operation")
● When using Network Service, you cannot switch the source by pressing [SELECTOR] or [🚫] of the remote control or use One-Touch Connection with NFC.
● When using a slow Internet connection, the video may not be displayed correctly. A high speed Internet service with a speed of at least 6 Mbps is recommended.
● Be sure to update the firmware as soon as a firmware update notice is displayed on the screen. If the firmware is not updated, you may not be able to use Network Service function properly. (⇨ 15)
● Network Service Home Screen is subject to change without notice.
● The services through Network Service are operated by their respective service providers, and service may be discontinued either temporarily or permanently without notice. Therefore, Panasonic will make no warranty for the content or the continuity of the services.
● Some features of websites or content of the service may not be available.
● Some content may be inappropriate for viewers.
● Some content may only be available for specific countries and may be presented in specific languages.

Home Network feature

Before using the following features, be sure to configure the connected equipment on your Home Network.

Using Miracast™

You can enjoy the content you are viewing on a Miracast-compatible smartphone, etc. on the big screen of your TV.

● Compatible with Android™ device, ver. 4.2 and above and Miracast certified.
For information on whether the smartphone, etc. supports Miracast, contact the manufacturer of the device.

| Home theatre | Miracast compatible device |
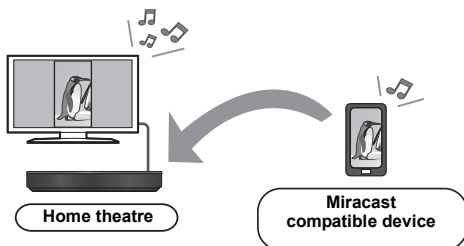
1   Press [MIRACAST].

2   Operate the Miracast compatible device.

● On the device, enable Miracast and select this unit as the device to be connected. For details, refer to the instructions supplied with the device.

To exit from Miracast
Press [HOME].

Playing back contents on the DLNA server

You can share photos, videos and music stored in the DLNA Certified media server [PC with Windows 7 installed, smartphone, recorder (DIGA), etc.] connected to your home network.

● **About support format of DLNA (⇨ 44).**

| Home theatre | Server |
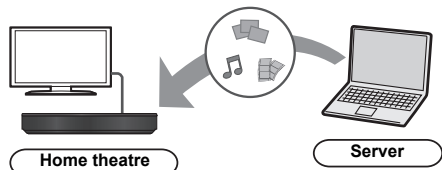
Preparation

① Perform network connection (⇨ 13) and network settings (⇨ 14) of this unit.
② Add the contents and folder to the libraries of the Windows Media® Player or the smartphone, etc.
   ● Playlist of Windows Media® Player can play back only the contents that are stored in the libraries.
● When connected to DIGA, register this unit to your DIGA.

1   Press [HOME].

2   Select "Network".

3   Select "Home Network".

4   Select "DLNA Client".

● The list can be updated by pressing the red button on the remote control.
● The connection method can be switched to Wi-Fi Direct by pressing the green button on the remote control.

5   Select the equipment and press [OK].

6   Select the item to play and press [OK].

● You may be able to use convenient functions depending on the content by pressing [OPTION].

● Control Panel is displayed once the playback starts. Press [OK] if the Control Panel is not displayed, and press [RETURN] to hide the Control Panel.

e.g.,
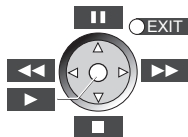
To exit from Home Network
Press [HOME].

Using the Digital Media Controller

You can use a smartphone or tablet as the Digital Media Controller (DMC) to playback contents from DLNA server on the Renderer (this unit).

Possible applications:
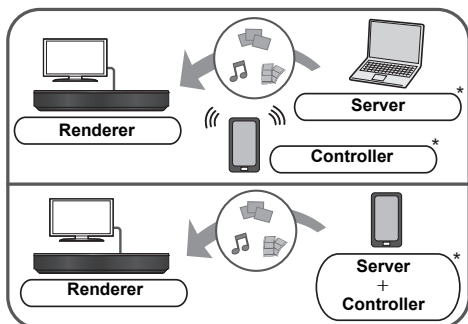
* DMC compatible software should be installed.

Preparation
Perform steps ① and ②. (⇨ 26)
③ Perform the "Remote Device Settings".
  (⇨ 33)
  ● You can register up to 16 devices.

1 Press [HOME].

2 Select "Network".

3 Select "Home Network".

4 Select "Media Renderer".

5 Select "Home Network" or "Wi-Fi Direct" and press [OK], then follow the indications on the screen.

6 Operate the DMC compatible devices.

To exit from Media Renderer screen
Press [HOME].

📖

About DLNA and Media Renderer
For more details, refer to the following website and the operating instructions for each of the equipment.
http://panasonic.jp/support/global/cs/
(This site is in English only.)

● Wi-Fi Direct connection while using Home Network feature is only temporary, and the network connection method returns to the original setting when exiting.
● Depending on the device or connection environment, the data transfer rate may decrease.
● Depending on the contents and the connected equipment, playback may not be possible.
● Items displayed in grey on the display cannot be played back by this unit.

Option menu

A variety of playback operations and settings can be performed through this menu.
Available options differ depending on the playing contents and the condition of the unit.

About Multi User Mode

👤 : Settings of the items with this indication are saved by the respective users registered in the HOME menu. (⇨ 17)

1 Press [OPTION].

  ● When playing music, select "Playback Settings" and press [OK].
  e.g., BD-Video
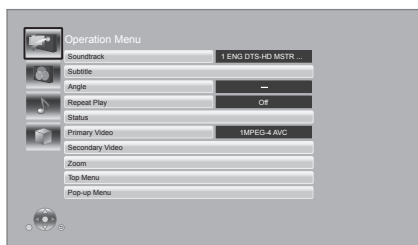
2 Select an item and change the settings.

To exit the screen
Press [OPTION].

Regarding Language: (⇨ 45)

Operation Menu

■ **Soundtrack**
Show or change the soundtrack.

■ **Audio channel**
Select the audio channel number.

■ **Subtitle**
Change the subtitle settings.

■ **Angle**
Select the number of the angle.

■ **Repeat Play**
Select the item that you want to repeat.
● You can repeat the playback of a chapter, playlist, the entire disc, etc., but the items displayed will differ depending on the type of the media.
● Select "Off" to cancel.

Advanced operations

■ **Random**
Select whether or not to play randomly.

■ **Start Slideshow**
Start the slideshow.

■ **Status**
Show the status messages.

■ **Rotate RIGHT**
■ **Rotate LEFT**
Rotate the still picture.

■ **Wallpaper**
Set the still picture to the wallpaper of HOME menu. (⇨ 16)

■ **Icon Registration**
Set the still picture as your user icon. (⇨ 17)

■ **Video**
The recording method of original video appears.

■ **Primary Video**
The recording method of original primary video appears.

■ **Secondary Video**

Video	Select on/off for images. The recording method of original video appears. ● During search/slow motion or frame-by-frame, only the primary video is displayed.
Soundtrack	Select on/off for audio and the language.

■ **Zoom**
Videos and pictures are magnified.

■ **Top Menu**
Display Top Menu.

■ **Pop-up Menu**
Display Pop-up Menu.

■ **Menu**
Display Menu.

Picture Settings

■ **Picture Mode** 👤
Select the picture quality mode during play.
● If you select "User", you can change settings in "Picture Adjustment".

■ **Picture Adjustment** 👤
Specific picture quality settings can be changed.

■ **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 "24p(4K)" or "24p" in "24p(4K)/24p Output" (⇨ 30) and play discs recorded at a rate of 60 fields per second.
● This may not work with the PAL contents.

■ **Reset to Default Picture Settings**
Return picture settings to the factory defaults.

Sound Settings

"Surround Effects" and "Sound Effects" can also be set by using the [SOUND] on the remote control.

∎ Surround Effects 🔝
Press [OK] to show the following settings:

➢ **BD/DVD (Multi-ch Source):**

3D Cinema Surround	Expand the sound field forward, backward, upward, right and leftward providing a sound with depth and force that better matches 3D images.
2ch Stereo	You can play any source in stereo. Sound will be output to the front speakers and the subwoofer only.

➢ **TV/CD (2ch Source):**

Multi Channel Out	You can enjoy sound from the front speakers, as well as the surround speakers even when playing stereo sources.
Dolby Pro Logic II Movie	Suitable for movie software, or the one recorded in Dolby Surround. (except Xvid)
Dolby Pro Logic II Music	Adds 5.1-channel effects to stereo sources. (except Xvid)

∎ Sound Effects 🔝
Press [OK] to show the following settings:

➢ **Equalizer**
You can select sound quality settings.

➢ **Subwoofer**
You can adjust the amount of bass.
Level 1 (Weakest effect) to **Level 4** (Strongest effect)
● Levels can be set by 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.

➢ **Whisper-Mode Surround**
You can enhance the surround effect for low volume sound. (Convenient for late night viewing.)

📖
● Not every effect can be set individually.
● The sound effects may not be available or have no effect with some sources.
● You may experience a reduction in sound quality when these sound effects are used with some sources. If this occurs, turn the sound effects off.

3D Settings

∎ Signal Format

Original	Keep original picture format.
Side by side	3D picture format comprising of left and right screens.
2D to 3D	Converts 2D pictures to 3D effect.

∎ Distance
Set the amount of depth perception.

∎ Graphic Display Level 🔝
3D position for the Option menu or message screen, etc. can be adjusted during 3D playback.

Advanced operations

Setup menu

Change the unit's settings if necessary. The settings remain intact even if you switch the unit to standby.
Some items are common to the Option menu. You can get the same effect with both menus.

About Multi User Mode

👤 : Settings of the items with this indication are saved by the respective users registered in the HOME menu. (⇨ 17)

1 **While displaying the HOME menu, press [SETTINGS].**
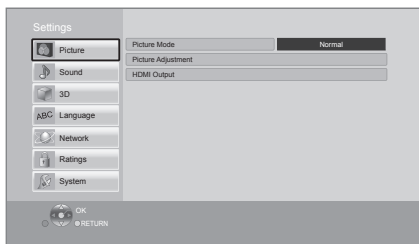
2 **Select an item and change the settings.**

To exit the screen
Press [HOME].

Picture

■ Picture Mode 👤 (⇨ 28)

■ Picture Adjustment 👤 (⇨ 28)

■ HDMI Output
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, the best suited output resolution to the connected TV is automatically selected.
● To enjoy high-definition video up-converted to 1080p, you need to connect the unit directly to 1080p compatible HDTV (High Definition TV). If this unit is connected to an HDTV through other equipment, the other equipment must also be 1080p compatible.

> **24p(4K)/24p Output**
This setting is for selecting the output method for content recorded in 24p*1, such as movies.

24p(4K)	Outputs signals by upconverting them to 4K*2.
24p	Outputs in 24p.

● Connect the compatible TV for each (4K or 1080/24p) output to the HDMI AV OUT terminal of this unit.
● "24p(4K)" works only when playing back in 2D.
● When playing DVD-Video, set this setting to "24p(4K)" or "24p", and then "24p" in "Picture Settings" (⇨ 28) to "On".
● When BD-Video/DVD-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.

> **Deep Colour Output**
This setting is for selecting whether to use Deep Colour Output when a TV 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.

> **HDMI Standby Pass-Through**
Even if this unit is in standby mode, a device connected with this unit can output videos and sound to the TV.
Moreover, you can switch the HDMI input terminal by pressing [SELECTOR] on the remote control.
● Sound will not be output from this unit's speakers.

---

*1 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.

*2 A high resolution image/display technology of approximately 4000 (width) × 2000 (height) pixels.

Sound

■ Surround Effects 🧍 (⇨ 29)

■ Sound Effects 🧍 (⇨ 29)

■ Dynamic Range Compression

You can listen at low volumes but still hear dialogue clearly.
(Dolby Digital, Dolby Digital Plus and Dolby TrueHD only)

● "Automatic" 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

Select the audio signal to output.

● Select "PCM", when the connected equipment cannot decode the respective audio format. This unit decodes the audio format and transmits to the connected equipment.
● If you do not make proper settings the audio may be static or noisy.

> #### BD-Video Secondary Audio

Select whether or not to mix the primary and secondary audio (including the button click sound).
If "Off" is selected, the unit outputs the primary audio only.

> #### HDMI Audio Output

This setting selects whether or not to output audio from HDMI.

■ TV Audio Input

Select the TV audio input to work with the HDMI CEC operations.

■ Downmix

Select the downmix system of multi-channel to 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
  – Dolby TrueHD playback
  – Playback of secondary audio (including the button click sound).

■ Audio Delay

Synchronization between picture and sound is corrected by adjusting the delay time of the audio output.

■ Speaker

Press [OK] to show the following settings:

> #### Speaker Distance

Set the distance between each speaker and the seating position.

● If you set "Test Tone" to "On", each speaker will output a test signal sound in sequence.

> #### Speaker Level

Set the volume of each speaker.

● If you set "Test Tone" to "On", each speaker will output a test signal sound in sequence.

> #### Wireless System Pairing

Pair the wireless system with this unit.
Follow the on-screen instructions.

3D

■ 3D BD-Video Playback

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.

■ Graphic Display Level 🧍 (⇨ 29)

Advanced operations

Language

■ Soundtrack Preference
Choose the language for audio.
- If "Original" is selected, the original language of each disc will be selected.
- Enter a code (⇨ 45) 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 (⇨ 45) when you select "Other ✳✳✳✳".

■ Menu Preference
Choose the language for the disc menus.
- Enter a code (⇨ 45) when you select "Other ✳✳✳✳".

For Australia and New Zealand
■ Subtitle Text
Select a desired item according to the language used for MKV/Xvid subtitles text.
- This item is displayed only after playing back a file.

For South East Asia
■ On-Screen Language
Choose the language for menus and on-screen messages.

Network

■ Easy Network Setting (⇨ 14)

■ Network Settings
Perform network-related settings individually.
Press [OK] to show the following settings:

➤ LAN Connection Mode
Select the LAN connection method.
- Select "Wireless Master" when you make a direct wireless connection between this unit and a Home Network device. Internet connection is not available when this item is selected.

➤ Wireless Settings
This allows the wireless router and connection settings to be set up. Current connection settings and connection state can be checked.
Press [OK] to show the following settings:

Connection Setting
The wireless router connection wizard will be displayed.

Double Speed Mode Setting (2.4GHz)
Set the connection speed for a 2.4 GHz wireless format.
- If you connect using the "Double Speed Mode (40MHz)", 2 channels use the same frequency band, and there is consequently a greater risk of reception interference. This can cause the connection speed to drop or become unstable.

➤ 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.

➤ 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.

➢**Network Service Settings (⇨ 25)**
Press [OK] to show the following settings:

Time Zone
Set the unit's time to match your location.
● Some Network Service contents require the time zone to be set. Set time zone if necessary.

Summer Time
Select "On" when using summer time.

For Australia and New Zealand
➢**Network Drive Connection**
It is possible to access the shared folder of equipment not compatible with DLNA, such as the Windows XP operating system, and play back video, still pictures, and music on this unit. For the setting and operation method of connected equipment, refer to the following website.
http://panasonic.jp/support/global/cs/
(This site is in English only.)

➢**Remote Device Settings (⇨ 25, 27)**
Press [OK] to show the following settings:

Remote Device Operation
Enable to operate the unit by DMC, etc.
● If "On" is selected, "Quick Start" will be activated.

Device Name Entry
Set the name of this unit to be displayed on the connected equipment.

Registration Type

Automatic	Allow connections to all the equipment accessing this unit.
Manual	Set the permission for individual equipment connections accessing this unit.

Remote Device List
Registering/deregistering of the displayed equipment can be performed when "Manual" in "Registration Type" is selected.

➢**BD-Live Internet Access (⇨ 19)**
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.

Ratings

The following items use the same password.
Don't forget your password.

■ **DVD-Video Ratings**
Set a rating level to limit DVD-Video play.

■ **BD-Video Ratings**
Set an age limit of BD-Video play.

■ **Network Service Lock**
You can restrict the usage of Network Service.

System

■ **Easy Settings**
You can execute basic settings.

■ **TV Settings**
Press [OK] to show the following settings:

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

4:3 Pan & Scan	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 TV and playing 4:3 ratio image:

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

➢**TV System**
Perform the setup so it matches the TV System of the connected TV.

Advanced operations

➢**Screen Saver Function**

This is to prevent image retention on the screen.

● When this is set to "On":
  If a list of playback content is displayed and there is no operation for 10 minutes or more, the screen switches to HOME menu automatically.
● While playing and pausing, etc., this function is not available.

➢**On-Screen Messages**

Choose whether to show status messages automatically.

➢**HDMI CEC**

Set to use "HDMI CEC" function when connected via HDMI cable to a device that supports "HDMI CEC".

● Select "Off" when you do not want to use "HDMI CEC".

➢**Power Off Link**

Select the desired power off link setting of this unit for "HDMI CEC" operation (⇨ 23). (This works depending on the settings of the connected "HDMI CEC" compatible equipment.)

Video/Audio
When the TV is turned off, this unit will turn off automatically.

Video
When playing back audio only content, the unit will not turn off automatically.

■ **Unit Settings**

Press [OK] to show the following settings:

➢**Mixed Data Disc Option**

Select the playback contents on discs with both data files and Video.

● If "MP3/JPEG/MKV" is selected, data file can be played back.
● If "BDAV/AVCHD" is selected, BDAV and AVCHD can be played back.

➢**Front Panel Display**

Changes the brightness of the unit's display.

● If "Automatic" is selected, the display is set to bright and only dimmed during playback.

➢**Edit User Information**

Change the user information registered in the HOME menu.

■ **Start-up Banner**

Select whether to display the banner after turning on this unit. (⇨ 16)

■ **Bluetooth Settings**

Press [OK] to show the following settings:

➢**Bluetooth Standby Mode**

The unit turns on automatically from standby mode when you connect a registered Bluetooth® device.

➢**Transmission Speed**

You can change the transmission speed to prioritize transmission quality or sound quality.

Mode 1	Emphasis on connectivity
Mode 2	Emphasis on sound quality

■ **Quick Start**

Speed of start up from standby mode is increased.

● When set to "On", the internal control unit will be powered and the idle power consumption will increase so compared to when set to "Off".

■ **Firmware Update (⇨ 15)**

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 if a firmware update is available.

■ **System Information**

Press [OK] to show the following settings:

➢**Software Licence**

Information about the software used by this unit is displayed.

➢**Firmware Version Information**

Display firmware version of this unit and wireless LAN module.

■ **Default Settings**

This returns all values in the Setup menu and the Option menu to the default settings, except for some settings of network, ratings, on-screen language*, etc.

* For South East Asia

Speaker installation option

Consult a qualified building contractor when attaching the speakers to a wall. Improper attachment may result in damage to the wall and speakers and personal injury.

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.

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

Ⓐ At least 30 mm
Ⓑ ∅ 4.0 mm
Ⓒ ∅ 7.0 mm to ∅ 9.4 mm
Ⓓ Wall or pillar
Ⓔ 5.5 mm to 7.5 mm
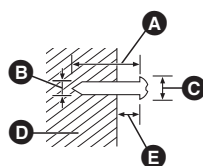
2 Fit the speaker securely onto the screw(s) with the hole(s).

e.g., Front speaker	
DO NOT	**DO**
● In this position, the speaker will likely fall if moved to the left or right.	● Move the speaker so that the screw is in this position.

Screwing positions on the wall

Use the measurements indicated below.

● Leave at least 20 mm of space above the speaker and 10 mm on each side to allow enough space for fitting the speaker.

CENTER

Ⓐ 33 mm
Ⓑ 75 mm
Ⓒ 200 mm
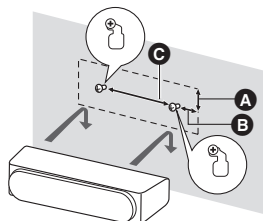
FRONT, SURROUND

Attach to a wall with the bottom cover.

● [BTT885] Before using the speaker cable, remove it from the stand by pulling it out.
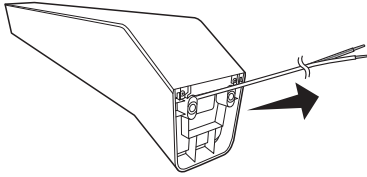
- Ⓓ 50 mm
- Ⓔ 106 mm
- Ⓕ 150 mm
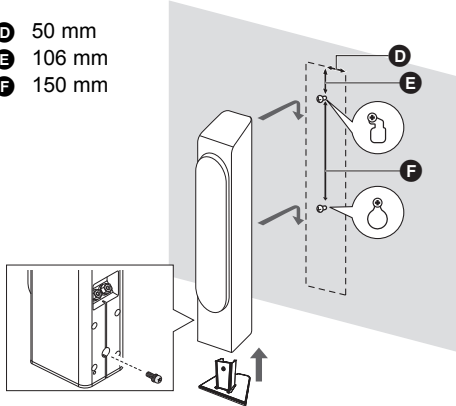
■ [BTT885]

Reattaching the speaker cable to the stand

1 Remove the front cover.
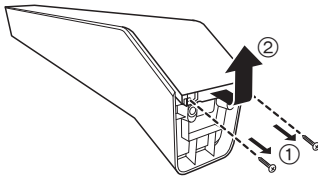
2 Thread the speaker cable through the stand, and press the cable into the grooves.

160 mm
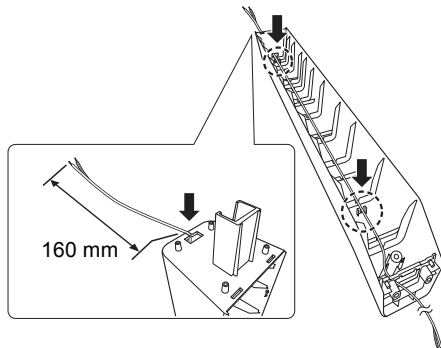
3 Perform step 1 in reverse order to attach the front cover.

To prevent tipping/falling of the speakers

Secure the speaker.

Using the tie down area on the rear of the speaker and a cord (not supplied), secure the speaker to a wall anchor (not supplied) permanently attached to the wall.

1 Thread a cord to the speaker.

● Use a cord of less than ⌀ 2.0 mm, which is capable of supporting over 10 kg.

e.g., Front speaker
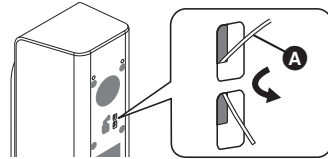
Ⓐ Cord (not supplied)

2 Thread a cord from the wall to the speaker and tie tightly.

When placed on the floor

When mounted on a wall
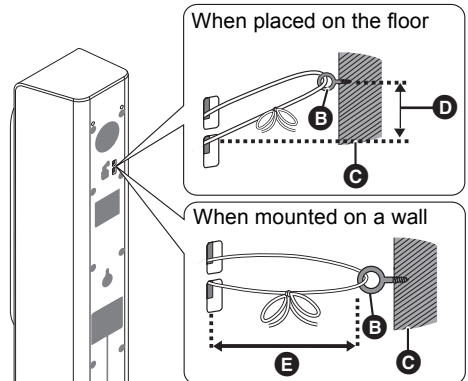
- Ⓑ Wall anchor (not supplied)
- Ⓒ Wall or pillar
- Ⓓ Approx.150 mm
- Ⓔ Approx.100 mm

Troubleshooting guide

Before requesting service, please perform the following checks.
If the problem remains unresolved, consult your dealer for instructions.

■ Unit does not respond to remote control or unit's buttons.

Disconnect the AC mains lead, wait 1 minute, then reconnect the AC mains lead.

> **Do you have the latest firmware installed?**
> Panasonic is constantly improving the unit's firmware to ensure that our customers are enjoying the latest technology. (⇨ 15)

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

■ Cannot eject disc.
① Turn the unit on.
② Press and hold [OK], the yellow button and the blue button on the remote control at the same time for more than 5 seconds.
　－"00 RET" is displayed on the unit's display.
③ Press [▶] (right) repeatedly on the remote control until "06 FTO" is displayed on the unit's display.
④ Press [OK].

General operation

To return to the factory defaults.
➢ Select "Yes" in "Default Settings" in the Setup menu. (⇨ 35)

To return all settings to the factory preset.
➢ Reset the unit as follows:
① Turn the unit on.
② Press and hold [OK], the yellow button and the blue button on the remote control at the same time for more than 5 seconds.
　－"00 RET" is displayed on the unit's display.
③ Press [▶] (right) repeatedly on the remote control until "08 FIN" is displayed on the unit's display.
④ Press and hold [OK] for at least 5 seconds.

The remote control does not work properly.
➢ Change the batteries in the remote control. (⇨ 9)
➢ Depending on the condition of the unit, [SELECTOR] and [ ] may not respond. Display the HOME menu and try again.

The TV tuner mode is not displayed when the TV is turned on.
➢ This phenomenon may occur, depending on the TV setting, when "Quick Start" is set to "On".

You have forgotten your ratings password.
You want to cancel the ratings level.
➢ The ratings level returns to the factory defaults.
① Turn the unit on.
② Press and hold [OK], the yellow button and the blue button on the remote control at the same time for more than 5 seconds.
　－"00 RET" is displayed on the unit's display.
③ Press [▶] (right) repeatedly on the remote control until "03 VL" is displayed on the unit's display.
④ Press [OK].

The TV screen turns black.
➢ In the following cases, HDMI authentication takes place and a black screen is displayed:
　– When "24p(4K)/24p Output" is set to "24p(4K)" or "24p".
　－When the display is switched between 2D and 3D images.
　－When you quit the 4K playback of a still picture by displaying another screen, including the HOME menu.

This unit does not recognize the USB connection correctly.

➢ Disconnect and re-connect the USB cable. If it still does not recognize the connection, turn this unit off and on again.
➢ USB devices may not be recognized by this unit when connected using the following :
 −a USB hub
 −a USB extension cable
➢ If you connect USB HDD to this unit, use the USB cable that is supplied with the HDD.

The unit switches to standby mode.

➢ This unit will automatically turn to standby mode after 20 minutes if it is inactive. (⇨ 16)
➢ When the time set for the sleep timer has passed, the main unit will be turned off. (⇨ 9)
➢ One of the unit's safety devices is activated. Press [⏻/I] on the main unit to turn the unit on.

Picture

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:
① Turn the unit on.
② Press and hold [OK], the yellow button and the blue button on the remote control at the same time for more than 5 seconds.
 −"00 RET" is displayed on the unit's display.
③ Press [►] (right) repeatedly on the remote control until "04 PRG" is displayed on the unit's display.
④ Press and hold [OK] for at least 5 seconds. Set the item again. (⇨ 30)
 −When Dolby Digital Plus, Dolby TrueHD, and DTS-HD® audio are not output properly, select "Yes" in "Default Settings" (⇨ 35) and make proper settings.
➢ The unit and TV are using different video systems.
① Turn the unit on.
② Press and hold [OK], the yellow button and the blue button on the remote control at the same time for more than 5 seconds.
 −"00 RET" is displayed on the unit's display.
③ Press [►] (right) repeatedly on the remote control until "05 P/N" is displayed on the unit's display.
④ Press and hold [OK] for at least 5 seconds.

The system switches from PAL to NTSC or vice versa.
➢ PAL discs cannot be correctly viewed on an NTSC TV.
➢ When "3D BD-Video Playback" in the Setup menu is set to "Automatic", images may not be output depending on the connection method. After removing the disc from this unit, select "Set before play" in the Setup menu, and select "2D Playback" in the setup screen displayed when playing 3D discs. (⇨ 31)
➢ When outputting in 24p (4K), images may be distorted depending on the HDMI cable. Use an HDMI cable that supports 4K output.
➢ 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.

Video is not output in high-definition.

➢ Confirm that "HDMI Video Format" in the Setup menu is set properly. (⇨ 30)

3D video is not output.

➢ Connect to a full high-definition TV.
➢ Are the settings on this unit and the TV correct? (⇨ 19)
➢ 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.
➢ Check that proper HDMI video input is selected on the TV.

3D video is not output correctly as 2D.

➢ Select "Set before play" in the Setup menu, and select "2D Playback" in the setup screen displayed when playing 3D discs. (⇨ 31, "3D BD-Video Playback")
➢ Discs that have recorded titles with Side by side (2 screen structure) and that 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. (⇨ 33)
➢ Adjust the aspect setting on the TV.

Sound

No sound.
Low volume.
Distorted sound.
Cannot hear the desired audio type.

➢ Check connections to speakers and other equipment.
➢ Ensure the speaker settings for your speakers are correct. (⇨ 31)
➢ To output audio from a device connected with an HDMI cable, set "HDMI Audio Output" to "On" in the Setup menu. (⇨ 31)
➢ 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 DTS Digital Surround™.
➢ 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 DIGITAL AUDIO IN terminal. (⇨ 12)

No surround sound.

➢ Press [SOUND] to select a surround effect. (⇨ 29)

Cannot switch audio.

➢ When audio is output from the HDMI AV OUT terminal, set "Dolby D/Dolby D +/Dolby TrueHD" or "DTS/DTS-HD" to "PCM". (⇨ 31)

No sound from the TV.

➢ Press [SELECTOR] to select the corresponding source. (⇨ 15)
➢ Check whether the HDMI terminal on the TV is labelled "HDMI (ARC)". If not labelled in this way, connect using the HDMI cable in combination with an optical digital audio cable.
➢ 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.

Playback

Disc cannot be played.

➢ The disc is dirty. (⇨ 6)
➢ The disc is not finalized. (⇨ 8)
➢ Confirm the "Mixed Data Disc Option" is set properly. (⇨ 34)

Still pictures (JPEG) do not play back normally.

➢ The images that were edited on the PC, such as Progressive JPEG, etc., may not be played back.

I can't play back BD-Live.

➢ Confirm that this unit is connected to the broadband Internet. (⇨ 13)
➢ Confirm the "BD-Live Internet Access" settings. (⇨ 33)
➢ Confirm a USB device is connected to the USB port. (⇨ 15)
➢ Connect this unit to the network by a wired connection.

Alternative soundtrack and subtitles cannot be selected.

➢ The languages are not recorded on the disc.
➢ You may not be able to use the Option menu to change the soundtrack and subtitles on some discs. Use the disc's menus to make changes. (⇨ 18)

iPod/iPhone operation

Cannot charge or operate.

➢ Check that the iPod/iPhone is connected firmly. (⇨ 20)
➢ The battery of the iPod/iPhone is depleted. Charge the iPod/iPhone, and then operate again.
➢ When unexpected operation occurs while using the iPod/iPhone, connect the iPod/iPhone again or try to restart the iPod/iPhone.

Bluetooth®

Pairing cannot be done.
➢ Check the Bluetooth® device condition.

The device cannot be connected.
➢ Try pairing the device again.
➢ This system might be connected to a different device. Disconnect the other device and try pairing the device again.

The device is connected but audio cannot be heard through this system.
➢ For some built-in Bluetooth® devices, you have to set the audio output to "Panasonic BTT" manually. Read the operating instructions for the device for details.

The sound is interrupted.
➢ The communication range is 10 m. Bring the Bluetooth® device closer to the main unit.
➢ Other devices that use the 2.4 GHz frequency band (wireless router, microwaves, cordless phones, etc.) are interfering. Bring the Bluetooth® device closer to the main unit and distance it from the other devices.
➢ Select "Mode 1" for stable communication. (⇨ 34)

The One-Touch Connection (NFC feature) is not working.
➢ Turn on the NFC feature of the device.
➢ Depending on the condition of the unit, the NFC touch area may not respond. Display the HOME menu and try again.
➢ Depending on the device, the NFC feature may not function correctly. In such cases, start up the Bluetooth® feature of the device to set up a connection with it.

Radio

Distorted sound or noise is heard.
➢ Adjust the position of the antenna.

A beat sound is heard.
➢ Try to keep a certain amount of distance between the antenna and the TV.

Noise is excessive.
➢ Change the audio to be output as monaural. Press [AUDIO] to select "MONO".
  The sound becomes monaural.
  ● To cancel, press the button again or change the frequency.
In normal circumstances, select "AUTO STEREO".

Network

I can't connect to the network.
➢ Confirm the network connection and settings. (⇨ 13, 14, 32)
➢ There may be interference that prevents the unit from detecting your home network. Place the unit and the wireless router closer to each other. This unit may be able to detect your network name (⇨ 14, "SSID").
➢ Check the operating instructions for each device and connect accordingly.

When using wireless LAN connection, video from the DLNA Certified media server is 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 may solve the problem. If you use 802.11n (2.4 GHz or 5 GHz) wireless router, 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 "Wireless Settings" screen (⇨ 32), 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 and see if the connection state improves. If there is no improvement, connect to a wired network and perform the "Easy Network Setting" (⇨ 14) again.

BTT885 Wireless system

The wireless link indicator does not light.
➢ Ensure the AC mains lead is connected properly.

Pairing cannot be done.
➢ Disconnect and reconnect the AC mains lead of the main unit and the wireless system, and do pairing again. (⇨ 31, "Wireless System Pairing")

Messages on the screen

Cannot play.
➢ You inserted an incompatible disc.

Cannot play on this unit.
➢ You tried to play a non-compatible image.
➢ Re-insert the media.

No disc inserted.
➢ The disc may be upside down.

⊘ This operation is not available.
➢ Some operations are unsupported by the unit. (For example, reverse slow motion, etc.)

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.)

The wireless access point currently has a low network security setting. It is recommended to change to a higher setting.
➢ Set a stronger network security level referring to the wireless router operating instructions.

Messages on the unit's display

NET
➢ While connecting to a network.

NO PLAY
➢ There is a viewing restriction on a BD-Video or DVD-Video. (⇨ 33)
➢ 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.

U59
➢ Temperature of this unit is hot and the unit switches to standby for safety reasons. Wait for about 30 minutes until the message disappears.
Install or place this unit with good ventilation.

H□□ or F□□
(" □ " stands for a number.)
➢ Check and correct the speaker cable connections.
➢ There is something unusual.
➢ Check the unit using the troubleshooting guide. If the service number remains displayed, do the following.
  ① Disconnect the plug from the household mains socket, wait a few seconds, then reconnect it.
  ② Press [⏻/I] to turn the unit on.

If the service number remains displayed despite doing the above, request service from the dealer. Inform the dealer of the service number when requesting service.

FIN

➤ The firmware update is complete.

SET OK

➤ The stations are set, and the radio tunes to the last preset station.

ERROR

➤ Automatic presetting is unsuccessful. Preset the stations manually.

TUNED/STEREO

➤ Stereo broadcasting or stereo sound is selected.

TUNED

➤ Monaural broadcasting or monaural sound is selected.

Specifications

GENERAL

Power consumption	BTT885 Approx. 82 W BTT505 Approx. 85 W
Power consumption in standby mode	Approx. 0.5 W (When the other connected devices are turned off)
Power supply	For Australia and New Zealand AC 220 V to 240 V, 50 Hz
	For South East Asia AC 220 V to 240 V, 50 Hz/60 Hz
Dimensions (W×H×D)	430 mm × 65 mm × 326 mm
Mass	BTT885 Approx. 2.9 kg BTT505 Approx. 3.0 kg
Operating temperature range	0 °C to 40 °C
Operating humidity range	35 % to 80 % RH (no condensation)
LASER Specification	**Class 1 LASER Product** **Wave length:** 790 nm (CDs)/658 nm (DVDs)/405 nm (BDs) **Laser power:** No hazardous radiation is emitted with the safety protection

AMPLIFIER SECTION

RMS TTL POWER OUTPUT BTT885	1200 W (with Wireless System)
	1 kHz, 10 % total harmonic distortion
	FRONT: 200 W per ch (3 Ω) CENTRE: 200 W (3 Ω)
	55 Hz, 10 % total harmonic distortion
	SUBWOOFER: 200 W (3 Ω)
RMS TTL POWER OUTPUT BTT505	1200 W
	1 kHz, 10 % total harmonic distortion
	FRONT: 200 W per ch (3 Ω) CENTRE: 200 W (3 Ω) SURROUND: 200 W per ch (3 Ω)
	55 Hz, 10 % total harmonic distortion
	SUBWOOFER: 200 W (3 Ω)
Audio Input	AUX × 1
Digital Audio Input	Optical × 1
	Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz
	Audio Format: PCM, Dolby Digital, DTS®

TERMINAL SECTION

USB slot	USB2.0 2 system
Ethernet	10BASE-T/100BASE-TX 1 system
Wireless LAN	**Standard Compliance:** IEEE802.11 n/g/b/a
	Frequency range: 2.4 GHz band/5 GHz band
	Security: WPA™/WPA2™ (Encryption Type: TKIP/AES, Authentication Type: PSK), WEP (64 bit/128 bit)
Wireless speaker	Frequency range: 2.4 GHz band

SPEAKER SECTION

	Woofer CONE TYPE (cm)	Tweeter Dome type (cm)
BTT885		
Front	8 × 2	2
Centre	6.5 × 2	2
Surround	8 × 2	2
Subwoofer	20	−
BTT505		
Front	8 × 2	2
Centre	6.5 × 2	2
Surround	8 × 2	2
Subwoofer	20	−

	Dimensions (W (mm)×H (mm)×D (mm))	Mass (Approx. kg)
BTT885		
Front	270 ×1300 ×270	4.0
Centre	349 ×89 ×94	1.2
Surround	270 ×1300 ×270	4.0
Subwoofer	258 ×424 ×334	9.0
BTT505		
Front	157 ×537 ×155	1.9
Centre	349 ×89 ×94	1.2
Surround	157 ×537 ×155	1.9
Subwoofer	258 ×424 ×334	9.0

● The impedance of all the speakers is 3 Ω.

Bluetooth® SECTION

Bluetooth®	Version 3.0
	Class 2
	2.4 GHz Band FH-SS
	Supported Profile: A2DP/AVRCP
	Supported Codec: SBC/AAC/aptX® Low Latency

FM TUNER SECTION

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

VIDEO SECTION

Signal system	PAL/NTSC
HDMI AV output*	Output connector: Type A (19 pin) 1 system
HDMI AV Input*	Input connector: Type A (19 pin) 2 system

* This unit supports "HDMI CEC" function.

BTT885 WIRELESS SYSTEM

<AMPLIFIER SECTION>	
RMS TTL POWER OUTPUT	400 W
	1 kHz, 10 % total harmonic distortion
	SURROUND: 200 W per ch (3 Ω)
<RF SECTION>	
Wireless module	Frequency range: 2.4 GHz Band
<GENERAL>	
Power supply	AC 220 V to 240 V, 50 Hz
Power consumption	36 W
Power consumption in off mode	0.5 W
Dimensions (W×H×D)	123 mm×176 mm×146 mm
Mass	Approx. 0.83 kg
Operating temperature range	0 °C to 40 °C
Operating humidity range	35 % to 80 % RH (no condensation)

Specifications are subject to change without notice.

File format

File format	Extension	Reference
(For South East Asia) **RMVB**	".RM", ".rm", ".RMVB", ".rmvb"	● The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions. ● Some RMVB/MKV/Xvid files may not be played back correctly, depending on the video resolution, frame rate condition, subtitle format and so on.
MKV	".MKV", ".mkv" (For Australia and New Zealand) **Subtitles text file** ".SRT", ".srt", ".SSA", ".ssa", ".ASS", ".ass"	
Xvid	".AVI", ".avi" (For Australia and New Zealand) **Subtitles text file** ".SRT", ".srt", ".SUB", ".sub", ".TXT", ".txt"	
mp4 (H.264+AAC)	".MP4", ".mov"	Some mp4/MPEG files may not be played back correctly, depending on the video resolution, frame rate condition and so on.
MPEG (TS/PS)	".mpg", ".mpeg", ".m2ts", ".mts", ".ts"	
JPEG	".JPG", ".jpg", ".jpeg"	● MOTION JPEG and Progressive JPEG are not supported. ● You may not be able to play back the file if you have edited the folder structure or the file name on a PC or other device.
MP3	".MP3", ".mp3"	This unit supports ID3 tags, but only titles, artist names and album names can be displayed.
FLAC	".FLAC", ".flac"	Maximum sampling rate: 192 kHz/24 bit
WAV	".WAV", ".wav"	Maximum sampling rate: 192 kHz/24 bit
MPO	".MPO", ".mpo"	3D still picture
AAC	".M4A", ".m4a", ".AAC", ".aac"	This unit supports ID3 tags. Maximum sampling rate: 48 kHz/320 kbps
WMA	".WMA", ".wma"	This unit supports ID3 tags. Maximum sampling rate: 48 kHz/355 kbps

● With certain recording states and folder structures, the play order may differ or playback may not be possible.

Supported format for DLNA

● File formats that are not supported by your DLNA server cannot be played.

Video

Container	Video codec	Audio codec	Example of file extension
MKV	**H.264**	**AAC** **DTS®** **PCM** **FLAC** **Vorbis**	**.mkv**
Xvid*	**MPEG-4 Advanced Simple Profile (ASP)**		**.avi**
AVCHD	**H.264**	**Dolby Digital**	**.mts**
MP4		**AAC**	**.mp4, .mov**
PS	**MPEG2**	**Dolby Digital** **Linear PCM**	**.mpg, .mpeg**
TS	**MPEG2** **H.264**	**AAC** **Dolby Digital**	**.m2ts, .ts**

Photo

Format	Example of file extension
JPEG	**.jpg, .jpeg**

Audio

Audio codec	Example of file extension
MP3	**.mp3**
FLAC	**.flac**
AAC	**.m4a, .aac**
WMA	**.wma**
Linear PCM	**—**

* Only when the file is transcoded by DLNA server.

Display languages list

Display	Language	Display	Language	Display	Language
ENG	English	JPN	Japanese	ARA	Arabic
FRA	French	CHI	Chinese	HIN	Hindi
DEU	German	KOR	Korean	PER	Persian
ITA	Italian	MAL	Malay	IND	Indonesian
ESP	Spanish	VIE	Vietnamese	MRI	Maori
NLD	Dutch	THA	Thai	BUL	Bulgarian
SVE	Swedish	POL	Polish	RUM	Romanian
NOR	Norwegian	CES	Czech	GRE	Greek
DAN	Danish	SLK	Slovak	TUR	Turkish
POR	Portuguese	HUN	Hungarian	＊	Others
RUS	Russian	FIN	Finnish		

Language code list

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

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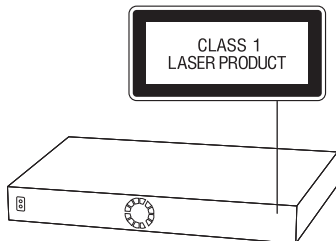The software licenses are displayed when "Software Licence" in the Setup menu is selected. (⇨ 35)

CLASS 1 LASER PRODUCT

CAUTION- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
DO NOT STARE INTO BEAM.
                    FDA21CFR / CLASS II (IIa)
CAUTION- CLASS 2 VISIBLE AND INVISIBLE LASER RADIATION
WHEN OPEN.
DO NOT STARE INTO BEAM.   IEC60825-1 / CLASS 2
ATTENTION- RAYONNEMENT LASER VISIBLE ET INVISIBLE,
CLASSE 2, EN CAS D' OUVERTURE. NE PAS REGARDER DANS LE
FAISCEAU.

(Inside of product)

Limited Warranty (ONLY FOR AUSTRALIA)

Panasonic Warranty

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product without charge for parts or labour, if in the opinion of Panasonic, the product is found to be faulty within the warranty period.

2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or it's territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.

3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.

4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:

   (a) Cabinet Part(s)
   (b) Video or Audio Tapes
   (c) SD cards or USB devices
   (d) User replaceable Batteries
   etc
   (e) DVD, Blu-ray or Recordable Discs
   (f) Video / Audio Heads from wear and tear in normal use
   (g) Information stored on Hard Disk Drive, USB stick or SD card
   (h) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s)

5. Some products may be supplied with Ethernet connection hardware. The warranty is limited on such products and will not cover

   (a) Internet and or DLNA connection / setup related problems
   (b) Access fees and or charges incurred for internet connection
   (c) The use of incompatible software or software not specifically stipulated in the product operations manual; and
   (d) Any indirect or consequential costs associated with the incorrect use or misuse of the hardware, its connection to the internet or any other device.

6. To claim warranty service, when required, you should:

   • Telephone Panasonic's Customer Care Centre on 132600 or visit our website referred to below and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
   • Send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
   • Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:
   − Plasma/LCD televisions / displays (screen size greater than 103 cm)

7. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

In addition to your rights under this warranty, Panasonic products come with consumer guarantees that cannot be excluded under the Australian Consumer Law. If there is a major failure with the product, you can reject the product and elect to have a refund or to have the product replaced or if you wish you may elect to keep the goods and be compensated for the drop in value of the goods. You are also entitled to have the product repaired or replaced if the product fails to be of acceptable quality and the failure does not amount to a major failure.

If there is a major failure in regard to the product which cannot be remedied then you must notify us within a reasonable period by contacting the Panasonic Customer Care Centre. If the failure in the product is not a major failure then Panasonic may choose to repair or replace the product and will do so in a reasonable period of time from receiving notice from you.

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the **Panasonic Australia** website **www.panasonic.com.au** or contact by phone on **132 600**
If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

ACN 001 592 187   ABN 83 001 592 187

1 Innovation Road, Macquarie Park NSW 2113

PRO-031-F11 Issue: 4.0   01-01-2011

Reference

aptX LOW LATENCY
CSR

Bluetooth®

Panasonic Corporation
Web Site: http://panasonic.net

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