



Operating Instructions

Blu-ray Disc™ Player

Model No. DMP-BD79



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" (⇒ 13) 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.

Model number suffix "EB" denotes UK model.

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.

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.
- This unit is intended for use in moderate 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 place the unit on amplifiers/receivers or equipment that may become hot. The heat can damage the unit.
 - Do not expose this unit to direct sunlight, high temperatures, high humidity, and excessive vibration.

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 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.

Caution for AC Mains Lead

(For the AC mains plug of three pins)

For your safety, please read the following text carefully.

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

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

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

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

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

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

Before use

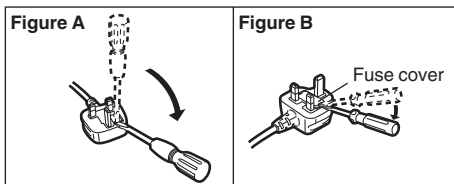
Remove the connector cover.

How to replace the fuse

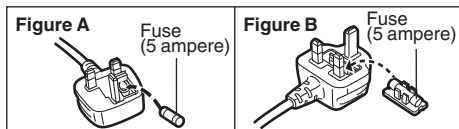
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



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



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.

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. (⇒ 32, "To return all settings to the factory preset.")

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

Information for Users on Collection and Disposal of Old Equipment and used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

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

[Information on Disposal in other Countries outside the European Union]

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

Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.



Cd

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Accessories

Check the supplied accessories before using this unit.

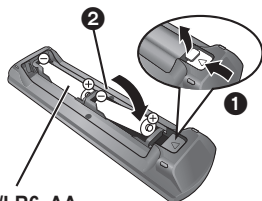
- 1 **Remote control**
(N2QAYB000870)
- 2 **Batteries for remote control**
 - 1 **AC mains lead**
(K2CT2YY00098)



- Product numbers provided in these operating instructions correct as of January 2013. These may be subject to change.
- Do not use AC mains lead with other equipment.

■ Using the remote control

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



R6/LR6, AA
(Alkaline or manganese batteries)

Point it at the remote control signal sensor on this unit. (⇒ 8)

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 available for sale in all countries, e.g. not available in Germany, please consult your Panasonic dealer for advice.
- 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.

■ 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		BD-Video	Video
		BD-RE	Video, JPEG
		BD-R	Video, MKV
DVD		DVD-Video	Video
		DVD-R	Video, AVCHD, MKV, JPEG, AAC, FLAC, MP3, WAV, WMA
		DVD-R DL	
		DVD-RW	Video, AVCHD
	—	+R/+RW/+R DL	
CD		Music CD	Music [CD-DA]
	—	CD-R CD-RW	MKV, JPEG, AAC, FLAC, MP3, Music [CD-DA], WAV, WMA
USB	—	USB devices (up to 2 TB)	MKV, MP4, MPEG2, JPEG, AAC, FLAC, MP3, WAV, WMA

- See pages 7 and 35 for more information on the types of content that can be played.

■ 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

BD-Video

This unit can play BD-Video discs supporting the region code "B".

Example:



DVD-Video

This unit can play DVD-Video discs supporting the region number "2" or "ALL".

Example:



■ Finalize

DVD-R/RW/R DL, +R/+RW/+R DL and CD-R/RW recorded by a recorder needs 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.
- If "Dolby D/Dolby D +/Dolby TrueHD" is set to "PCM", the maximum possible number of Dolby® sound is 2ch PCM. (⇒ 26)

■ Music CD

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

■ USB device

- This unit does not guarantee connection with all USB devices.
- This unit does not support USB device charging.
- FAT12, FAT16, FAT32, and NTFS file systems are supported.
- This unit supports USB2.0 High Speed.
- This unit can support an HDD formatted to FAT32 and NTFS.
Some types of HDD may require the use of its external power supply unit.

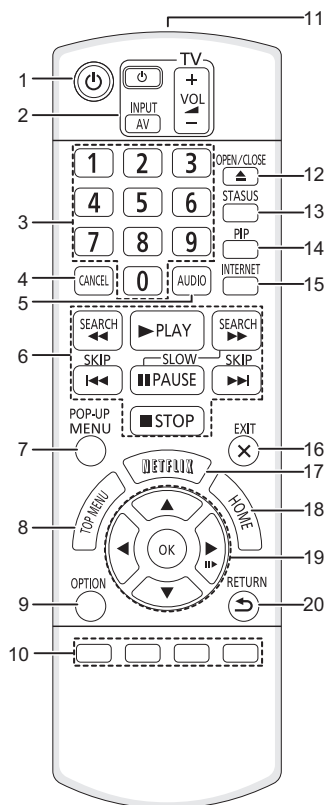
■ BD-RE, BD-R

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

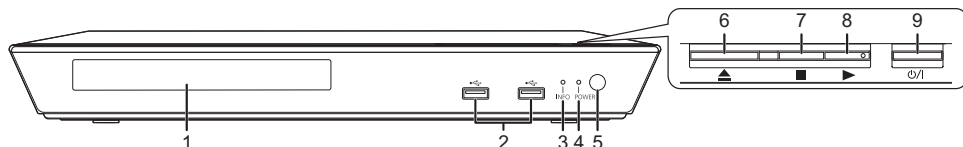


- It may not be possible to play the above media in some cases due to the type of media, the condition of the recording, the recording method, and how the files were created.
- The producers of the disc can control how discs are played, so you may not always be able to control play as described in these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

Control reference guide



- 1 Turn the unit on and off
- 2 TV operation buttons
You can operate the Panasonic TV using the unit's remote control. Some buttons may not work depending on the TV.
[TV] : Turn the TV on and off
[AV] : Change input
[+ - VOL] : Adjust the volume
- 3 Select title numbers, etc./Enter numbers
- 4 Cancel
- 5 Select audio (⇒ 17)
- 6 Basic playback control buttons (⇒ 17)
- 7 Show Pop-up menu (⇒ 18)
- 8 Show Top menu (⇒ 18)
- 9 Show Option menu (⇒ 23)
- 10 Coloured buttons (red, green, yellow, blue)
Used for various purposes depending on the display
- 11 Transmit the remote control signal
- 12 Open or close the disc tray (⇒ 14)
- 13 Show status messages (⇒ 18)
- 14 Switch Secondary Video on/off (Picture-in-picture) (⇒ 23)
- 15 Show the Home screen of Network Service (⇒ 19)
- 16 Exit the menu screen
- 17 Show Netflix screen (⇒ 19)
- 18 Show HOME menu (⇒ 15)
- 19 [▲, ▼, ◀, ▶] : Move the highlight for selection
[OK] : Confirm the selection
[II▶] : Frame-by-frame (⇒ 17)
- 20 Return to previous screen



- 1 Disc tray (⇒ 14)
- 2 USB ports (⇒ 14)
- 3 INFO LED (⇒ 30, "LED indicators")
Displays the various states of this unit.
- 4 POWER LED
Blinks when the power is turned on.
Wait for the LED to turn solid green before using this unit.
- 5 Remote control signal sensor
Distance: Within approx. 7 m
Angle: Approx. 20° up and down, 30° left and right
- 6 Open or close the disc tray (⇒ 14)
- 7 Stop (⇒ 17)
- 8 Start play (⇒ 17)
- 9 **Standby/on switch** (⏻/⏻) (⇒ 11)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

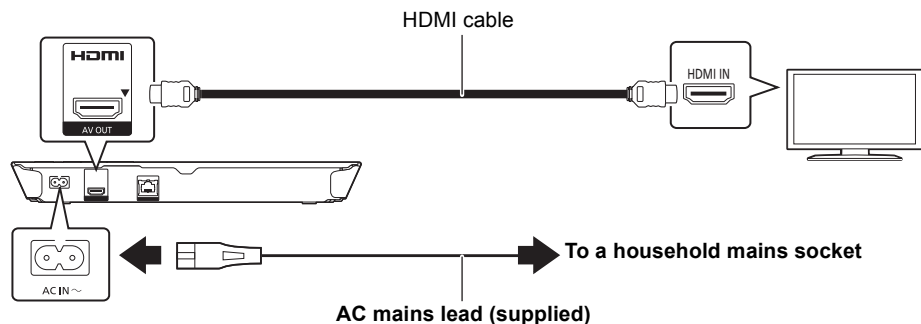
Rear panel terminals (⇒ 9–10)

Connecting to a TV

Connect the AC mains lead after making all connections.

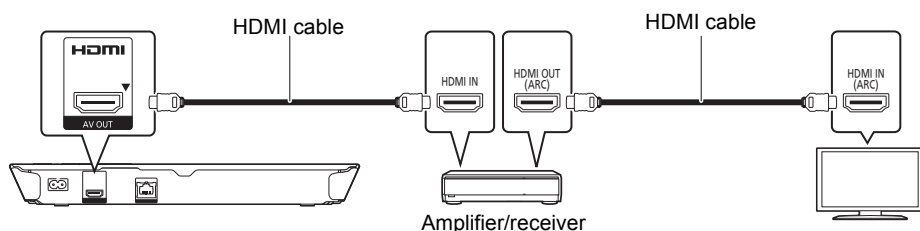
- Before making any connections, we recommend that you temporarily disconnect all the units from AC power.
- Use the High Speed HDMI cables. Non-HDMI-compliant cables cannot be utilized.
It is recommended that you use Panasonic's HDMI cable. When outputting 1080p signal, please use HDMI cables 5.0 meters or less.

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 2 BEFORE CONNECTION.



- This unit consumes a small amount of AC power (⇒ 35) even when turned off. For the purpose of power conservation, the unit can be disconnected if you will not be using it for extended period of time.

Connecting to an amplifier/receiver



- Set "Digital Audio Output" (⇒ 26).
- When using the TV or amplifier/receiver that does not have the indication of "(ARC)" (non-ARC-compatible) on the HDMI terminal, the amplifier/receiver and TV must also be connected using an optical digital cable in order to enjoy the TV's sound through the amplifier/receiver.

Connecting to the network

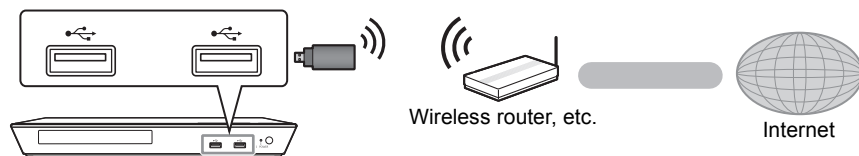
The following services can be used when this unit is connected to broadband.

- Firmware can be updated (⇒ 13)
- You can enjoy BD-Live (⇒ 18)
- You can enjoy Network Service (⇒ 19)
- You can access other devices (Home Network) (⇒ 20)

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

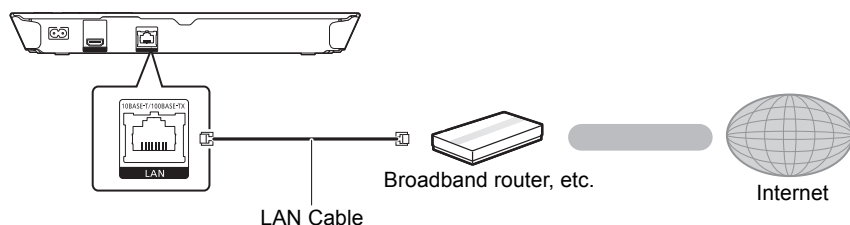
Wireless LAN connection

For wireless capability, connect the Wireless LAN Adaptor DY-WL5 (optional). **Only DY-WL5 can be used.** Read the operating instructions for DY-WL5 thoroughly when using it.



- 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 (Hotspot etc.) provided in airports, stations, cafes, etc.

LAN cable connection



- 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

Easy Settings

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

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

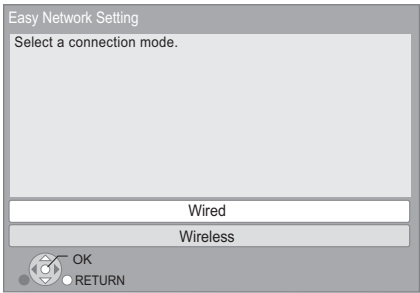
- 1 Press [⏻].
Setup screen appears.
- 2 Follow the on-screen instructions to continue with the settings.

- You can perform this setup anytime by selecting "Easy Settings" in the Setup menu. (⇒ 28)

Easy Network Setting

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

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



■ "Wired" connection

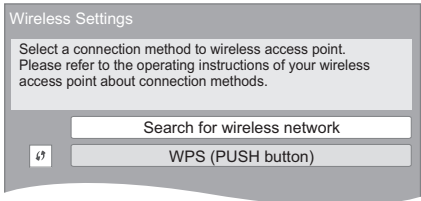
Follow the on-screen instructions to establish your connection settings.

■ "Wireless" connection

Before beginning wireless connection setup

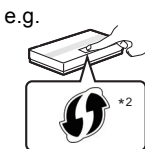
- Obtain your network name (SSID*1).
- If your wireless connection is encrypted, please be sure that you know your encryption key.
- If "Wireless LAN Adaptor is not connected." is displayed, check that the Wireless LAN Adaptor is fully inserted. Alternatively, disconnect and reconnect it. If there is still no change in the display, consult your dealer for advice.

Select "Search for wireless network" or "WPS (PUSH button)" and press [OK], then follow the on-screen instructions to continue with the settings.



WPS (PUSH button):

If your wireless router supports WPS (PUSH button), you can easily perform the settings by pressing WPS button on it.



WPS (Wi-Fi Protected Setup™)

is a standard that facilitates settings relating to the connection and security of wireless LAN devices.

- ① Press WPS button or corresponding button of the wireless router until the lamp starts flashing.
 - For details, refer to the operating instruction of the wireless router.
- ② Press [OK].

Search for wireless network:

- When you select "Search for wireless network", the available wireless networks will be displayed. Select your network name and press [OK].
 - If your network name is not displayed, search again by pressing the red button on the remote control.
 - Stealth SSID will not be displayed when you select "Search for wireless network". Enter manually by using "Manual setting".
Press [HOME]
 - ⇒ press [OK] to select "Setup"
 - ⇒ select "Player 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.



- Refer to the operating instructions of the hub or router.
- You can perform this setup anytime by selecting "Easy Network Setting" in the Setup menu. (⇒ 27)
- You can redo these settings individually using "Network Settings". (⇒ 27)
- Do not use this unit to connect to any wireless network for which you do not have usage rights.
During automatic searches in a wireless network environment, wireless networks (SSID) for which you do not have usage rights may be displayed; however, using these networks may be regarded as illegal access.
- After performing network settings on this unit, the settings (encryption level, etc.) of the wireless router might change. When you have trouble getting online on your PC, perform the network settings on your PC in accordance with the settings of the wireless router.
- Please be aware that connecting to a network without encryption may result in the content of the communication being illegitimately viewed by a third party, or the leaking of data such as personal or secret information.

*1 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.

*2 The wireless router compatible with Wi-Fi Protected Setup™ may have the mark.

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.

New firmware is available.
Please update firmware in Setup.

To update the firmware

Press [HOME]

⇒ **press [OK] to select “Setup”**

⇒ **select “Player Settings”**

⇒ **select “System” and press [OK]**

⇒ **select “Firmware Update” and press [OK]**

⇒ **select “Update Now” and press [OK]**

DO NOT DISCONNECT the unit from the AC power or perform any operation while the update takes place.

After the firmware is installed, INFO LED and POWER LED flash 3 times (⇒ 8, “Control reference guide”), and “FIN” will be displayed on the screen. Unit will restart and the following screen will be displayed.

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

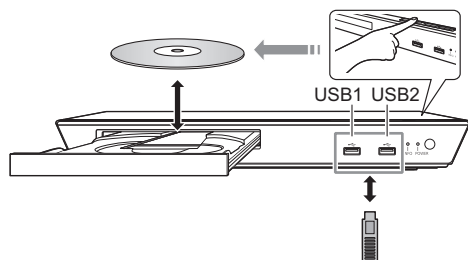


- If downloading on this unit fails or this unit is not connected to the Internet, then you can download the latest firmware from the following website and burn it to a CD-R to update the firmware.
<http://panasonic.jp/support/global/cs/>
(This site is in English only.)
To show the firmware version on this unit. (⇒ 29, “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”. (⇒ 29)

Reprogramming the remote control

If you have more than one Panasonic player/recorder and the remote control operates both products at once, you will need to change the remote control code to prevent this occurrence. (⇒ 29, “Remote Control”)

Inserting or removing media



Notes

- When inserting a media item, ensure that it is facing the right way up.
- If you connect a Panasonic product with a USB connection cable, the setup screen may be displayed on the connected equipment. For details, refer to the instructions for the connected equipment.
- When you connect a USB HDD, use the right USB port (USB2).

CAUTION

Do not place objects in front of the unit. The disc tray may collide with objects when it is opened, and this may cause malfunction.

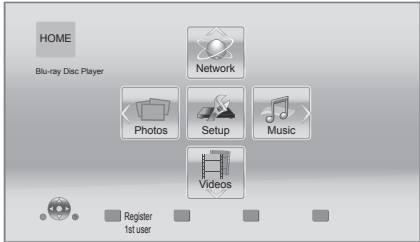
HOME menu

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

Preparation

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

- 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” (⇒ 29).
- 2 Press [OK] or [▲, ▼, ◀, ▶] to select the item.
- If there are any other items, repeat this step.



Videos/Photos/Music

Disc	Play back the contents. (⇒ 17) When multiple contents are recorded, select the types of contents or the title.
USB	“USB1” indicates the left USB port, while “USB2” indicates the right one. (⇒ 14)

Network

Network Service	Displays the Home screen of Network Service. (⇒ 19)
Home Network	DLNA Client (⇒ 20)
	Media Renderer (⇒ 21)

Setup

Player Settings	(⇒ 25)
USB Management	(⇒ 18)
Wallpaper	Changes the background of HOME menu.

To show the HOME menu

Press [HOME].



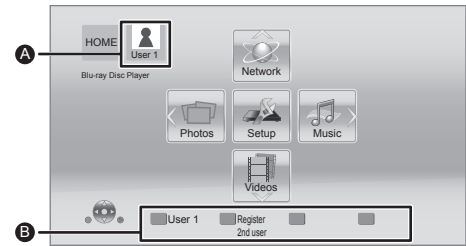
- Items to be displayed may vary with the media.
- Where necessary, set “Mixed Data Disc Option” when using a disc with both data files (MP3, JPEG, MKV, etc.) and Video (BD-RE and AVCHD). (⇒ 29)

Multi User Mode

Multi User Mode allows individuals to customize settings and switch to their saved settings easily. Up to 4 people can use the unit with their own settings.

The following settings can be personalized:

- The user icon
- The wallpaper of HOME menu
- The audio and picture settings (⇒ 23, 25)



- A The user name and icon currently selected
- B 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. (⇒ 23, "Icon Registration")
Select Wallpaper	Personalize a background of the HOME menu. • In addition to default wallpapers, you can select a photo in recording media as a wallpaper. (⇒ 23, "Wallpaper")

- 4 Select "Confirm" and press [OK].

To change the personalized user information
Select "Edit User Information" from Setup menu.
(⇒ 29)

Switching the user

Press the coloured buttons in the HOME menu to switch to the user 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 procedure 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.
- MKV: Successive play is not possible.
- It is not possible to play back AVCHD and MPEG2 videos which have been dragged and dropped or copied and pasted to the media.
- To save on electricity, this unit is turned off automatically if there is no button operation for about 30 minutes when not playing back (such as when paused or displaying the menu, displaying still pictures, etc.).

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, 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 change in succession forward.
- Press [▶PLAY] to revert to normal playback speed.

Changing audio

Press [AUDIO].

You can change the audio channel number or soundtrack language, etc.

Displaying menus and playback information

Show top menu/pop-up menu

Press [TOP MENU] or [POP-UP 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 will disappear from the screen.

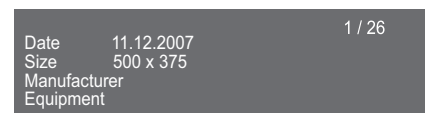
- Depending on media and contents, the display may change or may not appear.

e.g., BD-Video



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

e.g., JPEG



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.

- When USB devices are connected to both USB ports, disconnect both of them first, and then connect only the one you want to use.

1 Perform network connection and settings.
(⇒ 10, 11)

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 (⇒ 15), 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 (⇒ 28).

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.



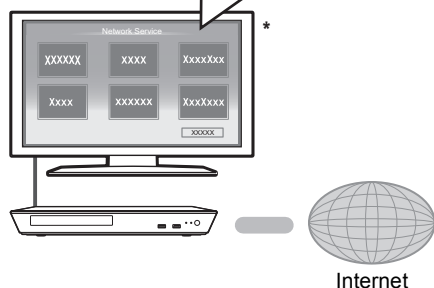
- Still pictures displayed as "⊠" cannot be played back with this unit.

Enjoying Network Service

Network Service allows you to access some specific websites supported by Panasonic, and enjoy Internet contents such as photos, videos, etc. from Network Service Home screen. This unit has no full browser function and some features of websites may not be available.

Network Service provides a variety of selected Internet services such as the following.

- Online movie rental service
- Video browsing service



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

Preparation

- Network connection (⇒ 10)
- Network setting (⇒ 11)

1 Press [INTERNET].

- Netflix can be accessed directly by pressing [NETFLIX] button.

2 Select the item and press [OK].

To exit from Network Service

Press [HOME].



- In the following cases, settings are possible using the Setup menu items.
 - When restricting the use of Network Service (⇒ 28, "Network Service Lock")
 - When correcting the displayed time (⇒ 27, "Time Zone", "Summer Time")
- If using 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 when 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. (⇒ 13)
- 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 some viewers.
- Some content may only be available for specific countries and may be presented in specific languages.

Home Network feature

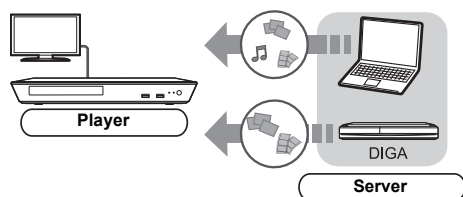
Playing back contents on the DLNA server

You can share photos, videos and music stored in the DLNA Certified media server (PC with Windows 7 installed, smartphone, etc.) connected to your home network, and enjoy the contents with this player.

You can also enjoy viewing the video and photos recorded in Panasonic DLNA compatible recorders (DIGA).

Refer to our website about the sales area, etc. (⇒ 21)

- About support format of DLNA (⇒ 36).
- Before using the DLNA feature, be sure to configure the DLNA server on your Home Network.



Preparation

- ① Perform network connection (⇒ 10) and network settings (⇒ 11) of this unit.
- ② Perform Home Network settings of the connected equipment.

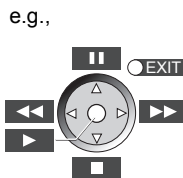
When connected to other than DIGA,

- ③ 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,

- ③ 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.
- 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.

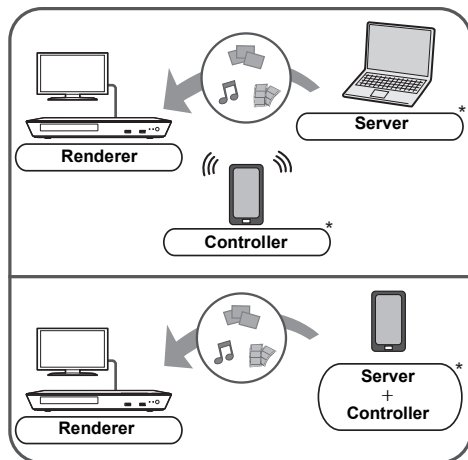


To exit from Home Network
Press [HOME].

Using the Digital Media Controller

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

Possible applications:



* DMC compatible software should be installed.

Preparation

Perform steps ① and ②. (⇒ 20)

- ③ 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.
- ④ Perform the “Remote Device Settings”. (⇒ 27)
 - You can register up to 16 devices.

- 1 Press [HOME].
- 2 Select “Network”.
- 3 Select “Home Network”.
- 4 Select “Media Renderer”.
- 5 Operate the DMC compatible devices.

To exit from Media Renderer screen

Press [HOME].



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.)

- 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.
- This unit can be played back via connected equipment only when controlled using DMC.

“HDMI CEC”

This unit supports “HDMI CEC” (Consumer Electronics Control) function.

See the operating instructions for connected equipment for operational details.

Preparation

- ① Set “HDMI CEC” to “On” (⇒ 29).
(The default setting is “On”.)
- ② Set the “HDMI CEC” operations on the connected equipment (e.g., TV).
- ③ Turn on all “HDMI CEC” compatible equipment and select this unit’s input channel on the connected TV so that the “HDMI CEC” function works properly.

Repeat this procedure when the connections or settings are changed.

Automatic input switching Power on link

When play starts on the unit, the TV will automatically switch the input channel and the screen of this unit will be displayed. Additionally when the TV is off, the TV will automatically turn on.

Power off link

All connected equipment compatible with “HDMI CEC”, including this unit, automatically turns off when you switch the TV off.



- Operation cannot be guaranteed on all HDMI CEC devices.

Option menu

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

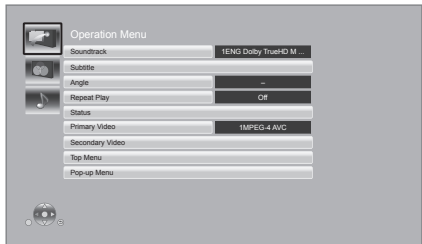
About Multi User Mode

 : Settings of the items with this indication are saved by the respective users registered in the HOME menu.
Please refer to page 16 for details about user registration and switching.

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 : (⇒ 37)

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.
 - The items displayed differ depending on the type of media.
 - Select "Off" to cancel.
- Random**
Select whether or not to play random.
- 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. (⇒ 15)
- Icon Registration**
Set the still picture as your user icon. (⇒ 16)
- 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.
- 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 "On" in "24p Output" (⇒ 25) 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 preset.

Sound Settings

■ Dialogue Enhancer

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

- This function is effective for multi-channel audio only when "Digital Audio Output" is set to "PCM" (⇒ 26).
-

Setup menu

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

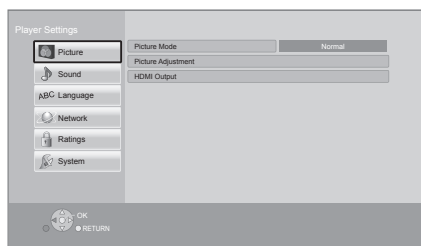
Some items in the Setup menu are common to the Option menu. You can get the same effect with both menus.

About Multi User Mode

 : Settings of the items with this indication are saved by the respective users registered in the HOME menu.

Please refer to page 16 for details about user registration and switching.

- 1 Press [HOME].
- 2 Press [OK] to select "Setup".
- 3 Select "Player Settings".



- 4 Select an item and change the settings.

To exit the screen

Press [HOME].

Picture

■ Picture Mode (⇒ 24)

■ Picture Adjustment (⇒ 24)

■ 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 Output

When this unit is connected to a TV supporting 1080/24p output, movies and other material recorded at 24p* are output at 24p.

- When playing DVD-Video, set to "On" and then set "24p" in "Picture Settings" (⇒ 24) to "On".
- When BD-Video/DVD-Video images other than 24p are played, images are output at 60p.

➤ 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.

* 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.

Sound

■ Dialogue Enhancer (⇒ 24)

■ Dynamic Range Compression

You can listen at low volumes but still hear dialog 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.
- Not making the proper settings may result in noise.

➤ 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.

■ Downmix

Select the downmix system of multi-channel to 2-channel sound.

- Select “Surround encoded”, when the connected equipment supports the virtual surround function.
- The downmix effect is not available when “Digital Audio Output” is set to “Bitstream”.
- The audio will be output in “Stereo” in the following cases:
 - AVCHD playback
 - Playback of secondary audio (including the button click sound).

■ DTS Neo:6

2ch (2.1ch) audio is expanded to 7ch (7.1ch) before it is output.

- Audio expansion is enabled when you have selected “PCM” in “Digital Audio Output”.
- This does not function on Dolby sound.

Language

■ Soundtrack Preference

Choose the language for audio.

- If “Original” is selected, the original language of each disc will be selected.
- Enter a code (⇒ 37) 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 (⇒ 37) when you select “Other * * * *”.

■ Menu Preference

Choose the language for the disc menus.

- Enter a code (⇒ 37) when you select “Other * * * *”.

■ Subtitle Text

Select a suitable item according to the language used for MKV subtitles text.

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

■ On-Screen Language

Choose the language for menus and on-screen messages.

Network

■ Easy Network Setting (⇒ 11)

■ Network Settings

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

➤ LAN Connection Mode

Select the LAN connection method.

➤ Wireless Settings

This allows the wireless router and connection settings to be set. 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 (⇒ 19)

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 the time zone if necessary.

Summer Time

Select "On" when using summer time.

➤ 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 (⇒ 21)

Press [OK] to show the following settings:

Remote Device Operation

Enable to operate by DMC.

- 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 connection 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 (⇒ 18)**

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 ratings 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.

➤ 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 to a device that supports “HDMI CEC”.

- Select “Off” when you do not want to use “HDMI CEC”.
-

■ 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, the video menu function (except MKV) cannot be played back.
 - If “BDAV/AVCHD” is selected, data file cannot be played back.
-

➤ 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. (⇒ 15)

■ 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”.
(About the power consumption ⇒ 35)
-

■ Remote Control

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

■ Firmware Update (⇒ 13)

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

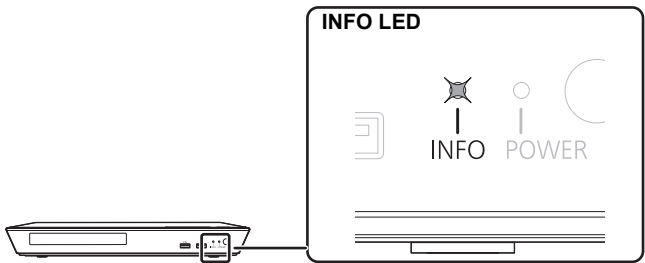
This returns all values in the Setup menu and the Option menu to the default settings, except for some settings of network, ratings, remote control code, language, etc.

LED indicators

Error states are indicated by the INFO LED.

Confirm the following items in correspondence to the state of INFO LED on the front panel of this unit.

- If the state of the INFO LED does not change after performing the operations in the table below, contact your local Panasonic dealer.



INFO LED state	Description
Flashes 6 times	The remote control and this unit are using different codes. Turn on this unit by using the standby/on switch on this unit, and check "Remote control □", which is displayed on the screen when you press a button on the remote control. Press and hold [OK] and the displayed number ("□") for more than 5 seconds.
Lights up	The USB device is drawing too much power. Please disconnect or remove the USB device from the unit. The USB device may be incompatible.
Flashes	The following conditions are possible: ● The copyright protected disc cannot be played back. One of the devices connected to this unit (TV, amplifier, etc.) does not support copyright protection. ● Temperature of this unit is hot and the unit switches to standby for safety reasons. Wait for about 30 minutes. Select a position with good ventilation when installing the unit.
Flashes 3 times	The disc in use cannot be played back since the copyright information is invalid.

Messages

Check the following when messages are displayed on the screen.

Cannot play.

- You inserted an incompatible disc.

Cannot play on this unit.

- You tried to play a non-compatible image.

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.
-

Troubleshooting guide

Before requesting service, please perform the following checks.

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

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. (⇒ 13)

The following do not indicate a problem with this unit:

- Regular disc rotating sounds.
- Image disturbance during search.

■ Unit does not respond to remote control or front panel buttons.

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

■ 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.
 - INFO LED and POWER LED start to flash, and "00RET" is displayed on the screen.
- ③ Press [▶] (right) repeatedly on the remote control until "06FTO" is displayed on the screen.
- ④ Press [OK].

General operation

To return to the factory preset.

- Select "Yes" in "Default Settings" in the Setup menu. (⇒ 29)

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.
 - INFO LED and POWER LED start to flash, and "00RET" is displayed on the screen.
 - ③ Press [▶] (right) repeatedly on the remote control until "08FIN" is displayed on the screen.
 - ④ Press and hold [OK] for more than 5 seconds.

The remote control does not work properly.

- Change the batteries in the remote control. (⇒ 5)
- The remote control and this unit are using different codes.

Turn on this unit by using the standby/on switch on this unit, and check "Remote control □", which is displayed on the screen when you press a button on the remote control.

Press and hold [OK] and the displayed number ("□") for more than 5 seconds.

The TV tuner mode is not displayed when the TV is switched on.

- This phenomenon may occur, depending on the TV setting, when "Quick Start" is set to "On".
- Depending on the TV, this phenomenon may be prevented by reconnecting the HDMI cable to a different HDMI input terminal or by changing the HDMI auto connection setting.

You have forgotten your ratings password. You want to cancel the ratings level.

- The ratings level returns to the factory preset.
 - 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.
 - INFO LED and POWER LED start to flash, and "00RET" is displayed on the screen.
 - ③ Press [▶] (right) repeatedly on the remote control until "03 VL" is displayed on the screen.
 - ④ Press [OK].

This unit does not recognize the USB connection correctly.

- Disconnect and reconnect 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 other than the supplied with the Wireless LAN Adaptor DY-WL5 (optional)
- If you connect USB HDD to this unit, use the USB cable that is supplied with the HDD.
- When you connect a USB HDD, use the right USB port (USB2). (⇒ 14)

Picture

The images from this unit do not appear on the TV.

Picture is distorted.

- 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.
 - INFO LED and POWER LED start to flash.
 - ③ Press and hold [8] and the blue button on the remote control at the same time for more than 5 seconds.

Set the item again. (⇒ 25)

 - When Dolby Digital Plus, Dolby TrueHD, and DTS-HD audio are not output properly, select "Yes" in "Default Settings" and make proper settings. (⇒ 29)
- 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.
 - INFO LED and POWER LED start to flash, and "00RET" is displayed on the screen.
 - ③ Press [▶] (right) repeatedly on the remote control until "05P/N" is displayed on the screen.
 - ④ Press and hold [OK] for more than 5 seconds.

The system switches from PAL to NTSC or vice versa.
- The system used on the disc doesn't match your TV.
 - PAL discs cannot be correctly viewed on an NTSC TV.

Video is not output in high-definition.

- Confirm that "HDMI Video Format" in the Setup menu is set properly. (⇒ 25)

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. (⇒ 28)
- Adjust the aspect setting on the TV.

Audio

Cannot hear the desired audio type.

- Check the connections and the "Digital Audio Output" settings. (⇒ 9, 26)

Playback

Disc cannot be played.

- The disc is dirty. (⇒ 5)
- The disc is not finalized. (⇒ 7)

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. (⇒ 10)
- Confirm the "BD-Live Internet Access" settings. (⇒ 28)
- Confirm a USB device is connected to the USB port. (⇒ 14)

Network

I can't connect to the network.

- Confirm the network connection and settings.
(⇒ 10, 11, 27)
- There may be obstacles that prevent the unit from detecting your home network. Bring the unit and the wireless router closer to each other. This unit may be able to detect your network name (⇒ 12, "SSID").
- Check the operating instructions for each device and connect accordingly.

Cannot play current title.

- Confirm the network connection and settings.
(⇒ 10, 11, 27)

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) wireless router may solve the problem. If you use 802.11n (2.4 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 (⇒ 27), 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" (⇒ 11) again.
-

Specifications

General

Signal system	PAL/NTSC
Operating temperature range	+5 °C to +35 °C
Operating humidity range	10 % to 80 % RH (no condensation)
HDMI AV output	Output connector: Type A (19 pin) 1 system
USB slot	USB2.0 2 system
Ethernet	10BASE-T/100BASE-TX 1 system
LASER Specification	Class 1 LASER Product Wave length: 785 nm (CDs)/ 660 nm (DVDs)/405 nm (BDs) Laser power: No hazardous radiation is emitted with the safety protection
Power supply	AC 220 V to 240 V, 50 Hz
Power consumption	Approx. 14 W
Power consumption in standby mode	Approx. 0.5 W
Power consumption in quick start standby mode	Approx. 4.0 W
Dimensions (W×H×D) including the projecting parts	330 mm×38 mm×181 mm
Mass	Approx. 1.0 kg

- Specifications are subject to change without notice.

File format

File format	Extension	Reference
MP3	“.MP3”, “.mp3”	This unit supports ID3 tags, but only titles, artist names and album names can be displayed.
JPEG	“.JPG”, “.jpg”	• 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.
MKV	“.MKV”, “.mkv”	• 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 MKV files may not play back, depending on the video resolution and frame rate condition.
	Subtitles text file “.SRT”, “.srt”, “.SSA”, “.ssa”, “.ASS”, “.ass”	
FLAC	“.FLAC”, “.flac”	Maximum sampling rate: 192 kHz/24 bit
WAV	“.WAV”, “.wav”	Maximum sampling rate: 192 kHz/24 bit
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.

Audio information

The audio output differs depending on the settings on the unit. (⇒ 26, "Digital Audio Output")

- The number of channels listed is the maximum possible number of output channels when connected to amplifier/receiver compatible with the respective audio format.

	"Digital Audio Output"	
	"Bitstream"	"PCM" ¹ 2/3
Output channel	Outputs using original audio ¹	BD-Video : 7.1ch PCM ¹ DVD-Video : 5.1ch PCM

¹ When "BD-Video Secondary Audio" is set to "On", the audio will be output as Dolby Digital, DTS Digital Surround or 5.1ch PCM.

² The maximum possible number of Dolby sound is 2ch PCM.

³ When "DTS Neo:6" is set to "Cinema" or "Music", 2ch (2.1ch) audio other than Dolby sound can be expanded to 7ch (7.1ch) and output.

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
AVCHD	H.264	Dolby Digital	.mts
MP4	H.264	AAC	.mp4
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

Audio

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

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	Samoa:	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	Twì:	8487
Faroe:	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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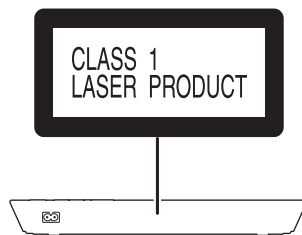
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VARO	– AVATTAESSA OLET ALTIINNA LUOKAN 2 NÄKYVÄÄ JA NÄKYMÄTÖNTÄ LASERSÄTEILYÄ. ÄLÄ TULUOTA SÄTEESEEN.
WARNING	– KLAS 2 SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN.
VORSICHT	– SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 2. WENN ABDECKUNG GEÖFFNET, NICHT IN DEN STRAHL BLICKEN.
注意	– 打开时有可见及不可见激光辐射。避免光束照射。
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(Inside of product)



(Back of product)

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