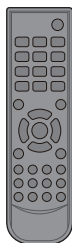


# Panasonic®

## Owner's Manual Blu-ray Disc™ Player

Model No. DMP-BD90



### 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" (⇒ 11) 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.

If you have any questions, visit :  
<http://shop.panasonic.com/support>

Register online at <http://shop.panasonic.com/support> (U.S. customers only)

# IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



## FCC Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to peripheral devices.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Supplier's Declaration of Conformity

Trade Name: Panasonic

Model No.: DMP-BD90

Responsible Party: Panasonic Corporation of North America

Two Riverfront Plaza, Newark,

NJ 07102-5490

Support Contact: <http://shop.panasonic.com/support>

Conforms to UL STD 62368-1.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# 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 the recommended accessories.
  - Do not remove covers.
  - Do not repair this unit by yourself. Refer servicing to qualified service personnel.

### AC adaptor

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

### Small object

- Keep the batteries 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.
- Some portions of this unit may become hot during use. When moving or cleaning this unit, disconnect the AC adaptor and wait for 3 minutes or longer.

### Placement

- 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.

### 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.

### Avoid the use in the following conditions

- High or low extreme temperatures during use, storage or transportation.
- Replacement of a battery with an incorrect type.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Extremely high temperature and/or extremely low air pressure that can result in an explosion or the leakage of flammable liquid or gas.

### AC adaptor

This AC adaptor operates on AC between 110 V and 240 V.

But

- In the U.S.A. and Canada, the AC adaptor must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.

## 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. (⇒ 22, "To return all settings to the factory preset.")

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

|  |
|--|
| CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN,<br>DO NOT STARE INTO BEAM. FIA 21CFRCLASS II (a)            |
| CAUTION - CLASS 2 VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN,<br>DO NOT STARE INTO THE BEAM. IEC60825-1:CLASS 2   |
| ATTENTION - RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 2,<br>EN CAS D'OUVERTURE, NE PAS REGARDER DANS LE FAISCEAU. |
| FORSIGTIG - SYNLIG OG USYNLIG LASERSTRÅLING KLASSE 2, NÅR LÅGET ER<br>ÅBENT. UNDGÅ AT SE LIGE IND I STRÅLEN.           |
| VARO - AVATTAESSA OLET ALTIIN LUKOKAN 2 NÄKYYVÄÄ JA NÄKYMÄTÖNTÄ<br>LASERSÄTEILYÄ. ÄLÄ TUJUUTA SÄTEESEEN.               |
| VARNING - KLASS 2 SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR<br>ÖPPNAD. STIRRA EJ IN I STRÅLEN.                |
| VORSICHT - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 2,<br>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。  |
| 注意 - ここを覗くとクラス2の可視及び不可視レーザー放射が出る<br>ビームをのぞき込まないこと VQL2P54  |

(Inside of product )

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## Accessories

Check the supplied accessories before using this unit.

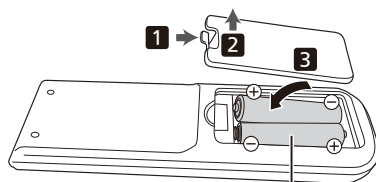
- 1 **Remote control**  
(N2QAYA000217)
- 2 **Batteries for remote control**
- 1 **AC adaptor**  
(TXH0018AA)



- Product numbers are provided in this Owner's Manual correct as of January 2022. These may be subject to change.
- Do not use AC adaptor with other equipment.
- Do not use any other AC adaptors except the supplied one.

### ■ Using the remote control

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



R03/LR03, AAA

(Alkaline or manganese batteries)

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

## Unit and media care

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

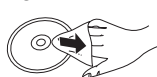
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, carefully read the instructions that came with the cloth.

### ■ This unit's lens

Use the lens cleaner (not supplied) to clean the unit's lens.

### ■ 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     |    | BD-Video                    | Video  |
|        |   | BD-RE                       | Video, JPEG, AAC, ALAC, DSD, FLAC, MP3, WAV, WMA             |
|        |   | BD-R                        | Video, MKV, AAC, ALAC, DSD, FLAC, MP3, WAV, WMA              |
| DVD    |    | DVD-Video                   | Video  |
|        |    | DVD-R                       | Video, AVCHD, MKV, JPEG, AAC, ALAC, DSD, FLAC, MP3, WAV, WMA |
|        |    | DVD-R DL                    |  |
|        |    | DVD-RW                      | Video, AVCHD   |
|        | —   | +R/+RW/+R DL                |  |
| CD     |  | Music CD                    | Music [CD-DA]  |
|        | —   | CD-R<br>CD-RW               | MKV, JPEG, AAC, ALAC, FLAC, MP3, Music [CD-DA], WAV, WMA     |
| USB    | —   | USB devices<br>(up to 4 TB) | MKV, MP4, MPEG2, JPEG, AAC, ALAC, DSD, FLAC, MP3, WAV, WMA   |

- See pages 7 and 26 for more information on the types of content that can be played.

## ■ Types of discs that cannot be played in 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
- 4K Video content is not supported

## ■ Region management information

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

Example:    BD-Video    DVD-Video



- The unit cannot playback discs in PAL format.

## ■ 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 owner's manuals.

## ■ 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 "DD/DD +/DTHD" is set to "PCM" and "DTS Neo:6" is set to "Off", the maximum possible number of Dolby® sound is 2ch PCM. (⇒ 19)

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

## ■ USB device

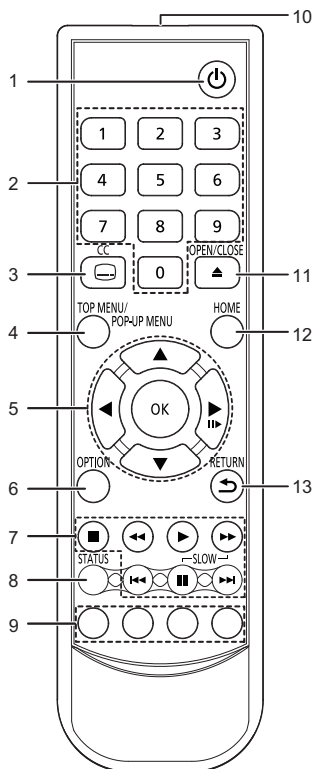
- This unit does not guarantee connection with all USB devices.
- This unit does not support USB device charging.
- FAT12, FAT16, FAT32, and NTFS file systems are supported.
- This unit supports USB2.0 High Speed.
- This unit supports an HDD formatted in FAT32 and NTFS. If the HDD is not recognized, the power to the HDD may not be supplied. Supply power from an external source.
- 4K Video content is not supported.



- 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 this Owner's Manual. Read the disc's instructions carefully.

# Control reference guide

## ■ Remote control



- 1 Turn the unit on and off
- 2 Select title numbers, etc./Enter numbers
- 3 Show Closed Caption setup screen
- 4 Show Top menu/Pop-up menu (⇒ 14)
- 5 [▲, ▼, ◀, ▶]: Move the highlight for selection  
[OK]: Confirm the selection  
(▣▶): Frame-by-frame (⇒ 14)
- 6 Show Option menu (⇒ 16)
- 7 Basic playback control buttons (⇒ 14)
- 8 Show the status messages (⇒ 15)
- 9 Colored buttons (red, green, yellow, blue)  
Used for various purposes depending on the screen
- 10 Transmit the remote control signal
- 11 Open or close the disc tray (⇒ 9)
- 12 Show HOME menu (⇒ 13)
- 13 Return to previous screen

### ■ Available keys for HDMI CEC (⇒ 16)

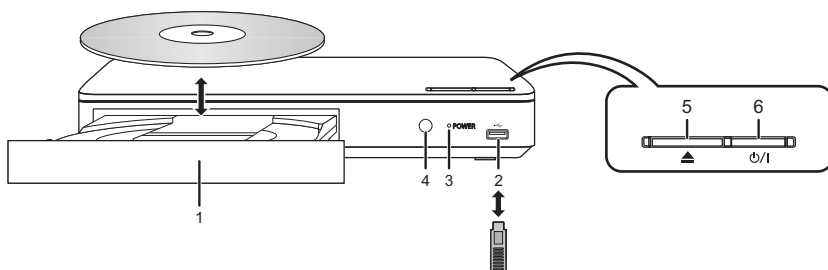
- 2 Number keys
- 5 [▲, ▼, ◀, ▶]/[OK] button
- 6 Option button
- 7 Basic playback control buttons
- 9 Colored buttons (red, green, yellow, blue)
- 13 Return button



- When other Panasonic devices respond to this remote control, change the remote control code of other Panasonic devices to other than code 1.



## ■ Front



- |  |  |
|--|--|
| <p>1 Disc tray (⇒ 12)</p> <p>2 USB port ( DC 5 V 500 mA) (⇒ 12)<br/>This port supports USB 2.0 High Speed.</p> <p>3 POWER LED<br/>The LED lights when the unit is turned on, and flashes when error occurs. (⇒ 25)</p> <p>4 Remote control signal sensor<br/>Distance: Within approx. 7 m (23 feet)<br/>Angle: Approx. 20° up and down, 30° left and right</p> | <p>5 Open or close the disc tray (⇒ 12)</p> <p>6 <b>Standby/on switch</b> (⏻/⏻) (⇒ 11)<br/>Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit still consumes a small amount of power.</p> |
|--|--|

Rear panel terminals (⇒ 10)

### 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.

- When inserting a media item, ensure that it is facing the correct way, which is the right side facing 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.

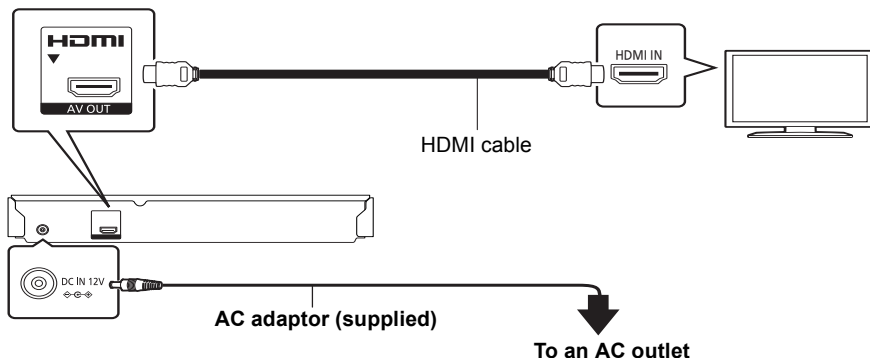
The symbols on this product (including the accessories) represent the following.

|   |   |
|---|---|
| ~ | AC  |
| ≡ | DC  |
| □ | Class II equipment (The construction of the product is double-insulated.) |

## Connecting to a TV

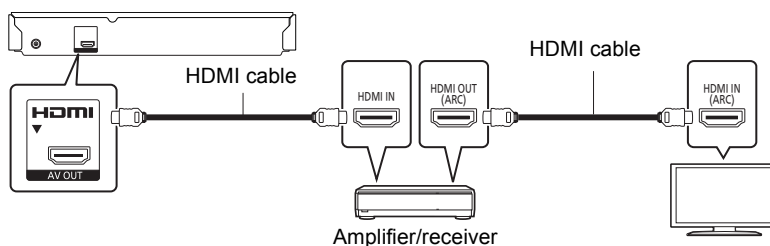
Connect the power supply cord after making all connections.

- Before making any connections, we recommend that you temporarily disconnect all the units from AC power outlet.



- 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, please use HDMI cables 5.0 meters (16.4 ft.) or less.
- This unit consumes a small amount of AC power (⇒ 26) 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.

## Connecting to an amplifier/receiver



- Set "Digital Audio Output" (⇒ 19).
- 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.

# Settings

The following settings can be performed anytime in the Setup menu (⇒ 20, 21).

## 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.

## Firmware updates

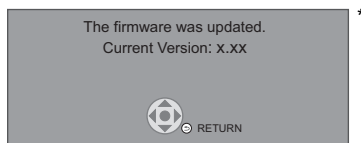
Occasionally, Panasonic may release updated firmware for this unit that may add or improve the way a feature operates. These updates are available free of charge.

You can download the latest firmware from the following website and store it to a USB device to update the firmware.

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

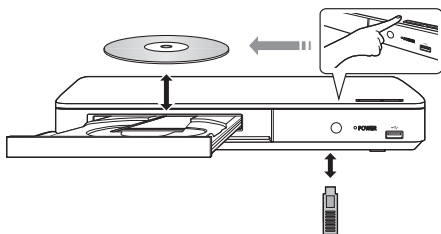
You cannot operate the unit until the update is complete. Don't remove the AC adaptor during the update. Removing the AC adaptor while the update is in progress may damage the unit. After the firmware is installed, unit will restart and the following screen will be displayed.

e.g.,



- To show the firmware version on this unit.  
(⇒ 21, "Firmware Version Information")
  - Downloading will require several minutes. It may take longer or may not work properly depending on the connection environment.
- \* "X.XX" represents the firmware version number.

## Inserting or removing media



### Notes

- When inserting a media item, ensure that it is facing the correct way, which is the right side facing 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.

### 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

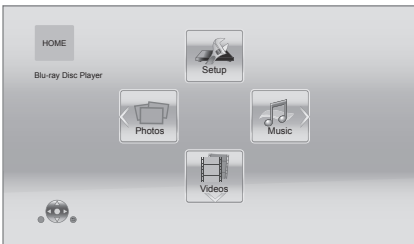
Turn on the TV and select the appropriate video input.

### 1 Press [⏻] to turn on the unit.

- It may take some time until the HOME menu is displayed.

### 2 Press [▲, ▼, ◀, ▶] to select the item.

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



## Videos/Photos/Music

|             |   |
|-------------|---|
| <b>Disc</b> | Play back the contents. (⇒ 14)  |
| <b>USB</b>  | <ul style="list-style-type: none"> <li>• When multiple contents are recorded, select the types of contents or the title.</li> </ul> |

## Setup

|                        |                                      |
|------------------------|--------------------------------------|
| <b>Player Settings</b> | (⇒ 18)                               |
| <b>Wallpaper</b>       | Changes the background of HOME menu. |

## To show the HOME menu

Press [HOME].



- Items to be displayed may vary with the media.

# 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 [■] when you have finished playback to protect the unit's motor, your TV screen and so on.
- 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 [■].

The stopping point is memorized.

### Resume play function

Press [▶] 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 [⏸].

- Press [⏸] again or [▶] to restart play.

## Search/Slow motion

### Search

While playing, press [◀◀] or [▶▶].

### Slow motion

While paused, press [▶▶].

- MKV, MP4 and MPEG2: Not effective.

The speed increases up to 5 steps.

- Music, MP3, etc.: The speed is fixed to a single step.
- Press [▶] 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 [▶] to revert to normal playback speed.
- MKV, MP4 and MPEG2: Not effective.

## Show top menu/pop-up menu

Press [POP-UP MENU/TOP MENU].

- Select the item and press [OK].

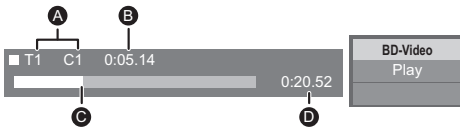
## Show the status messages

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



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

e.g., JPEG

|              |            |        |
|--------------|------------|--------|
|              |            | 1 / 26 |
| Date         | 11/12/2007 |        |
| Size         | 500 X 375  |        |
| Manufacturer |            |        |
| Equipment    |            |        |

## 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.

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



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

## “HDMI CEC”

This unit supports “HDMI CEC” (Consumer Electronics Control) function.  
You can use this function by connecting the equipment that supports “HDMI CEC”. See the owner’s manuals for connected equipment for operational details.

### Preparation

- ① Set “HDMI CEC” to “On” (⇒ 21). (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 the unit starts playback, the TV will automatically switch the input channel and the screen of the 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.

## Easy control only with TV remote control

By using the TV remote control, you can perform the same operations as you use the remote control of this unit. (⇒ 8)



- This unit supports the “HDMI CEC” (Consumer Electronics Control) function. However, operation cannot be guaranteed on all HDMI CEC devices.

## Option menu

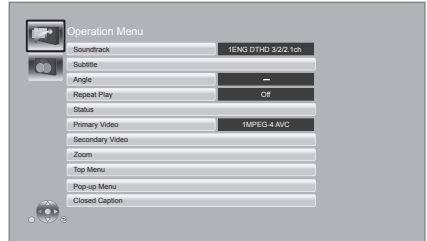
A variety of playback operations and settings can be performed from this menu.

Available options differ depending on the playing contents and the condition of the unit.

### 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: (⇒ 27)

## 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.



**■ Shuffle**

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. (⇒ 13)

---

**■ Video**

The recording method of original video appears.

---

**■ Primary Video**

The recording method of original primary video appears.

---

**■ Secondary Video**

|                   |   |
|-------------------|---|
| <b>Video</b>      | Select on/off for images. The recording method of original video appears. <ul style="list-style-type: none"> <li>• During search/slow motion, only the primary video is displayed.</li> </ul> |
| <b>Soundtrack</b> | 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.

---

**■ Closed Caption (⇒ 20)**

You can only set “Manual setting” and “CC Reset” in the Setup menu.

---

**Video 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.

- When the content is distorted, change the settings from “Auto” to “Video”.
- 

**■ 24p**

Movies and other material recorded on DVD-Video at 24p are output at 24p.

- Only when you have selected “On” in “24p Output” (⇒ 18).
- 

**■ Reset to Default Video Settings**

Return video settings to the factory defaults.

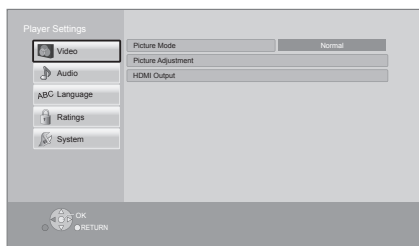
---

## 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.

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



- 4 Select an item and change the settings.

### To exit the screen

Press [HOME].

## Video

### Picture Mode (⇒ 17)

### Picture Adjustment (⇒ 17)

### HDMI Output

Press [OK] to show the following settings:

#### ➤ HDMI Resolution

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 "Auto" 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 "Video Settings" (⇒ 17) to "On".
- When BD-Video/DVD-Video images other than 24p are played, images are output at 60p.

\* 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.

#### ➤ Deep Color Output

This setting is for selecting whether to use Deep Color Output when a TV that supports Deep Color 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.

## Audio

### ■ Dynamic Range Compression

You can listen at low volumes but still hear dialogue clearly.

(Dolby Digital, Dolby Digital Plus and Dolby TrueHD only)

- "Auto" is effective only when playing Dolby TrueHD.

### ■ Digital Audio Output

Press [OK] to show the following settings:

#### ➤ Dolby Audio (DD/DD+/DTHD)

#### ➤ 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.

### ■ 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).

- This function works when the following conditions are met:
  - Audio recorded at 96 kHz or lower is output.
  - "Digital Audio Output" is set to "PCM" when audio other than PCM is output.

### ■ Voice Guidance Setting

Voice Guidance reads aloud currently-selected items. (It is also possible to display the "Voice Guidance Setting" screen by pressing and holding the [OPTION] button for at least 5 seconds while the HOME menu is displayed.)

- Voice guidance is only available in HOME menu and Player Settings.

## Language

### ■ Audio Language

Choose the language for audio.

- If "Original" is selected, the original language of each disc will be selected.
- When the selected language is not recorded on the disc, or depending on how the navigation is created on the disc, it may playback in a different language than the selected language.
- Enter a code (⇒ 27) when you select "Other \*\*\*\*".

### ■ Subtitle Language

Choose the language for the subtitle.

- When "Auto" is selected, a subtitle for the language selected in the "Audio Language" is displayed only when the language other than the language selected in the "Audio Language" is played back.
- When the selected language is not recorded on the disc, or depending on how the navigation is created on the disc, it may playback in a different language than the selected language.
- Enter a code (⇒ 27) when you select "Other \*\*\*\*".

### ■ Menu Language

Choose the language for the disc menus.

- Enter a code (⇒ 27) when you select "Other \*\*\*\*".

### ■ Subtitle Text

Select a desired 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.

### ■ Closed Caption

Closed captioning services are dependent on contents, and the unit can display closed captions of both digital and analog types.

Press [OK] to show the following settings:

#### ➤ Closed Caption Display

Set whether or not to display closed captions.

#### ➤ Closed Caption Type

Select the closed caption type that matches the one of the content to be played back.

#### ➤ Analog CC

Select the channel of analog closed captions.

#### ➤ Digital CC

Select the channel of digital closed captions.

#### ➤ Manual setting

Set the display style of closed captions.

#### ➤ CC Reset

Restore the default "Closed Caption" settings.

## 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.

## System

### ■ Easy Settings

You can execute basic settings.



### ■ Display 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:

|                           |   |   |
|---------------------------|---|---|
| <b>4:3 Pan &amp; Scan</b> | The sides are cut off so the picture fills the screen. When playing BD-Video, video is output as "4:3 Letterbox". |  |
| <b>4:3 Letterbox</b>      | 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:

|                  |  |
|------------------|--|
| <b>16:9</b>      | Video is displayed as a 4:3 ratio image in the center of the screen. |
| <b>16:9 Full</b> | Video is displayed as a horizontally stretched 16:9 image.           |

#### ➤ 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.

#### ➤ Status 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".

### ■ 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". (Power consumption ⇒ 26)

### ■ System Information

Press [OK] to show the following settings:

#### ➤ License

Information about the software used by this unit is displayed.

#### ➤ Firmware Version Information

Display firmware version of this unit.

### ■ Restore Default Settings

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

## Troubleshooting guide

Before requesting service, please perform the following steps.

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

Disconnect AC adaptor, wait 1 minute, then reconnect AC adaptor.

#### 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. (⇒ 11)



#### Make the following checks and visit our website for more information.

<http://shop.panasonic.com/support>



#### Or visit our website to find a service center.

You can find a service center near you easily on our website.

#### Other support information:

"Limited Warranty" (⇒ 29).

### The following do not indicate a problem with this unit:

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

### ■ Cannot eject disc.

- ① While the unit is on  
Press and hold [▲] on the main unit and the [0] on the remote control at the same time for more than 5 seconds.  
– POWER LED starts to flash, and "00 RET" is displayed on the screen.
- ② Press [▶] (right) repeatedly on the remote control until "06 FTO" is displayed on the screen.
- ③ Press [OK].

## General operation

### To return to the factory defaults.

- Select "Yes" in "Restore Default Settings" in the Setup menu. (⇒ 21)

### To return all settings to the factory preset.

- Reset the unit as follows:
  - ① While the unit is on  
Press and hold [▲] on the main unit and the [0] on the remote control at the same time for more than 5 seconds.  
– POWER LED starts to flash, and "00 RET" is displayed on the screen.
  - ② Press [▶] (right) repeatedly on the remote control until "08 FIN" is displayed on the screen.
  - ③ Press and hold [OK] for more than 5 seconds.

### The remote control does not work properly.

- Change the batteries in the remote control. (⇒ 5)

### Other Panasonic products respond to this remote control.

- Change the remote control code of other Panasonic products to other than code 1.

### 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".
- 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.

### This unit is turned off automatically.

- 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.).

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

- The ratings level returns to the factory defaults.
- ① While the unit is on  
Press and hold [▲] on the main unit and the [0] on the remote control at the same time for more than 5 seconds.
  - POWER LED starts to flash, and “00 RET” is displayed on the screen.
- ② Press [▶] (right) repeatedly on the remote control until “03 VL” is displayed on the screen.
- ③ Press [OK].

---

**The TV screen turns black.**

- In the following cases, HDMI authentication takes place and a black screen is displayed:
  - When “24p Output” is set to “On”.

---

**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.
  - If the USB HDD is not recognized, the power to the USB HDD may not be supplied. Supply power from an external source.
- 

## Picture

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

**Picture is distorted.**

- An incorrect resolution is selected in “HDMI Resolution”. Reset the setting as follows:
  - ① Turn the unit on.
  - ② Press and hold [▲] on the main unit and the [8] on the remote control at the same time for more than 5 seconds.
  - ③ Set the item again. (⇒ 18)
    - When Dolby Digital Plus, Dolby TrueHD, and DTS-HD® audio are not output properly, select “Yes” in “Restore Default Settings” (⇒ 21) and make proper settings.

---

**Video is not output in high-definition.**

- Confirm that “HDMI Resolution” in the Setup menu is set properly. (⇒ 18)
-

**No subtitles.**

- When progressive output is on, closed captions/subtitles cannot be displayed.

**The subtitles overlap closed captions recorded on discs.**

- Turn off the subtitles or the closed captions. (⇒ 16, 20)

**Closed captions are not displayed.**

- Confirm that the source content supports CC.
- Confirm the “Closed Caption Display” is set to “On”. (⇒ 17, 20)
- Change the “Closed Caption Type” setting. (⇒ 17, 20)
- Confirm the “Analog CC” or “Digital CC” is set properly (⇒ 17, 20).

**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. (⇒ 21)
- Adjust the aspect setting on the TV.

**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.

**Audio****Cannot switch audio.**

- The audio cannot switch, if “Digital Audio Output” is set to “Bitstream”. Set “Digital Audio Output” to “PCM”. (⇒ 19)

**Cannot hear the desired audio type.**

- Check the connections and the “Digital Audio Output” settings. (⇒ 10, 19)



## Messages on the screen

### Cannot play.

- You inserted an incompatible disc (Discs recorded in PAL video, etc.).

### Cannot display 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.)

## POWER LED

When the POWER LED is flashing other than during power up or down of this unit, check the message on the TV screen. If a message is not displayed on the TV screen, determine the type of the error by checking the way the POWER LED is flashing.

Symbols indicate the following states:

- ◆ Flash
- No illumination
- ..... Repetition

◆◆◆◆◆◆◆◆.....

### (Flashes)

- The copyright protected disc cannot be played back. One of the devices connected to this unit (TV, amplifier, etc.) does not support copyright protection.

◆◆◆◆—◆◆◆◆—.....

### (Flashes 3 times)

- The disc in use cannot be played back since the copyright information is invalid.

# Specifications

## General

|  |   |
|--|---|
| <b>Signal system</b>                                 | NTSC  |
| <b>Operating temperature range</b>                   | +5 °C to +35 °C<br>(+41 °F to +95 °F)   |
| <b>Operating humidity range</b>                      | 10 % to 80 % RH<br>(no condensation)  |
| <b>HDMI AV output</b>                                | Output connector:<br>Type A (19 pin) 1 system   |
| <b>USB slot</b>                                      | USB2.0:1 system   |
| <b>LASER Specification</b>                           | <b>Class I LASER Product</b><br><b>Wave length:</b> 790 nm (CDs)/<br>660 nm (DVDs)/405 nm (BDs)<br><b>Laser power:</b> No hazardous<br>radiation is emitted with the<br>safety protection |
| <b>Power supply</b>                                  | <b>DC 12 V, 0.8 A (DC IN terminal)</b>  |
| <b>Power consumption</b>                             | <b>Approx. 11 W</b>   |
| <b>Power consumption in standby mode</b>             | <b>Approx. 0.5 W</b><br>(Quick Start: Off)  |
| <b>Power consumption in quick start standby mode</b> | <b>Approx. 3.5 W</b><br>(Quick Start: On)   |
| <b>Dimensions (W×H×D)</b>                            | 245 mm×38.5 mm×175 mm<br>(Approx. 9 10/16"×1 8/16"×<br>6 14/16")  |
| <b>Mass (Weight)</b>                                 | Approx. 0.8 kg (1.7 lbs)  |

- Specifications are subject to change without notice.

## File format

| File format         | Extension  | Reference  |
|---------------------|--|--|
| <b>MKV</b>          | “.MKV”, “.mkv”   | <ul style="list-style-type: none"> <li>• The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.</li> <li>• Some MKV files may not be played back correctly, depending on the video resolution, frame rate condition, subtitle format and so on.</li> </ul> |
|                     | <b>Subtitles text file</b><br>“.SRT”, “.srt”,<br>“.SSA”, “.ssa”,<br>“.ASS”, “.ass” |  |
|                     | <b>mp4 (H.264+AAC)</b><br>“.MP4”, “.mov”   |  |
| <b>MPEG (TS/PS)</b> | “.mpg”, “.mpeg”,<br>“.m2ts”, “.mts”,<br>“.ts”                                      | Some mp4/MPEG files may not be played back correctly, depending on the video resolution, frame rate condition and so on.   |
| <b>JPEG</b>         | “.JPG”, “.jpg”,<br>“.jpeg”   | <ul style="list-style-type: none"> <li>• MOTION JPEG and Progressive JPEG are not supported.</li> <li>• 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.</li> </ul>   |
| <b>MP3</b>          | “.MP3”, “.mp3”   | This unit supports ID3 tags, but only titles, artist names and album names can be displayed.   |
| <b>FLAC</b>         | “.FLAC”, “.flac”   | Maximum sampling rate:<br>192 kHz/24 bit   |
| <b>WAV</b>          | “.WAV”, “.wav”   | Maximum sampling rate:<br>192 kHz/24 bit   |
| <b>AAC</b>          | “.M4A”, “.m4a”,<br>“.AAC”, “.aac”  | This unit supports ID3 tags.<br>Maximum sampling rate:<br>48 kHz/320 kbps  |
| <b>WMA</b>          | “.WMA”, “.wma”   | This unit supports ID3 tags.<br>Maximum sampling rate:<br>48 kHz/385 kbps  |
| <b>DSD</b>          | “.DSF”, “.dsf”,<br>“.dff”, “.dff”  | 2.8 MHz (2 ch/5.1 ch)  |
| <b>ALAC</b>         | “.M4A”, “.m4a”   | Maximum sampling rate:<br>192 kHz/24 bit/2 ch  |

- 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. (⇒ 19, "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" <sup>1,2</sup>   |
| <b>Output channel<sup>3</sup></b> | Outputs using original audio <sup>1</sup> | BD-Video :<br>7.1ch PCM <sup>1</sup><br>DVD-Video :<br>5.1ch PCM |

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

<sup>2</sup> The maximum possible number of Dolby sound is 2ch PCM.

<sup>3</sup> When "DTS Neo:6" is set to "Cinema" or "Music", 2ch (2.1ch) audio can be expanded to 7ch (7.1ch) and output. (⇒ 19)

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

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\* [HOME] ⇒ "Setup" ⇒ "Player Settings" ⇒ "System" ⇒ "System Information" ⇒ "Licenses"

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# Limited Warranty

## Panasonic Products Limited Warranty

### Limited Warranty Coverage (For USA Only)

If your product does not work properly because of a defect in materials or workmanship, Panasonic Corporation of North America (referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

| Product or Part Name   | Parts   | Labor          |
|--|---------|----------------|
| Blu-ray Disc Player  | 1 Year  | 90 Days        |
| All included Accessories (Except Non-Rechargeable Batteries) | 90 Days | Not Applicable |
| Only Non-Rechargeable Batteries                              | 10 Days | Not Applicable |

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States. This warranty is extended only to the original purchaser of a new product which was not sold "as is".

### Mail-In Service—Online Repair Request Online Repair Request

To submit a new repair request and for quick repair status visit our Web Site at <http://shop.panasonic.com/support>

When shipping the unit, carefully pack, include all supplied accessories listed in the Owner's Manual, and send it prepaid, adequately insured and packed well in a carton box. When shipping Lithium Ion batteries please visit our Web Site at <http://shop.panasonic.com/support> as Panasonic is committed to providing the most up to date information. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

**IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

### Limited Warranty Limits and Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God. **THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.**

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Panasonic Corporation of North America  
Consumer Affairs Department 8th Fl.  
Two Riverfront Plaza  
Newark NJ 07102-5490

**PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY. Product registration is not mandatory. Failure to complete the form does not affect the consumer's warranty rights.**

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For Product Information, Operating Assistance, Parts, Owner's Manuals, Dealer and Service info go to <http://shop.panasonic.com/support>

For the hearing or speech impaired TTY: 1-877-833-8855

As of November 2021

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER \_\_\_\_\_ DMP-BD90 \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

### User memo:

DATE OF PURCHASE \_\_\_\_\_

DEALER NAME \_\_\_\_\_

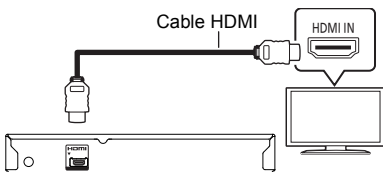
DEALER ADDRESS \_\_\_\_\_

TELEPHONE NUMBER \_\_\_\_\_

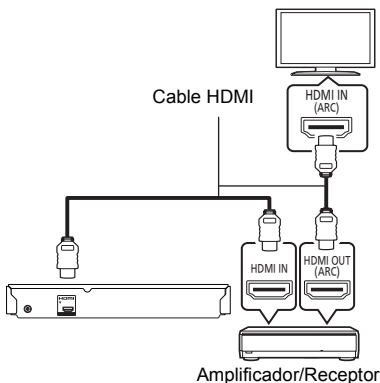
## Referencia rápida en español (Spanish Quick Reference)

### Conexiones básicas

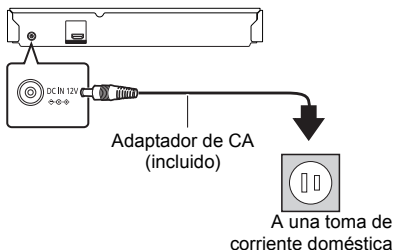
#### Conexión a un televisor compatible con HDMI



#### Conexión a un televisor compatible con HDMI y a un amplificador/receptor compatible con HDMI



#### Conecte el adaptador de CA por último



- Conéctelo cuando haya realizado el resto de conexiones.

#### Ahorro de energía

Esta unidad consume una pequeña cantidad de energía aunque esté ajustada en el modo de espera (Accionamiento rápido : Desactivado, aprox. 0,5 W). Para ahorrar energía cuando no vaya a utilizar la unidad durante mucho tiempo, desenchúfela de la toma de corriente.

### Reproducción básica

#### Preparación

Encienda el televisor y seleccione la entrada de vídeo adecuada en el televisor.

#### 1 Pulse [⏻] para encender la unidad.

Después de conectar su nuevo reproductor y pulsar el botón de encendido, aparecerá la pantalla de la configuración básica.

#### 2 Inserte el medio.

### Inicia la reproducción

Pulse [▶].

### Parada

Pulse [■].

La posición de detención se memoriza.

### Función de reanudación de la reproducción

Pulse [▶] para reiniciar la reproducción desde esta posición.

- El punto se anula si se extrae el medio.
- En los discos BD-Video incluidos los BD-J, la función de reanudación de la reproducción no funciona.

### Pausa

Pulse [⏸].

- Pulsar [⏸] otra vez o [▶] para reanudar la reproducción.

### Búsqueda/Cámara lenta

#### Búsqueda

Durante la reproducción, pulse [◀◀] o [▶▶].

#### Cámara lenta

Durante la pausa, pulse [▶▶].

La velocidad aumenta hasta 5 pasos.

- Música y MP3, etc.: La velocidad está fija en un solo paso.
- Pulse [▶] para volver a la velocidad de reproducción normal.

### Salto

Durante la reproducción o la pausa, pulse [◀◀] o [▶▶].

Salta hasta el título, capítulo o pista que desee reproducir.

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