This 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 product.

**CAUTION**

This product is a Class 1 laser product. To ensure continued safety, do not remove any covers or attempt to disassemble the cabinet. Refer servicing to qualified personnel.

**WARNING**

To prevent the risk of fire or electric shock hazard, do not expose this product to rain or moisture. Do not place near objects with liquid, such as a vase.

**WARNING**

Slots and openings in the cabinet are for ventilation purposes and to protect the equipment from heating. Do not cover or block the openings with items such as a newspaper, table-cloths or curtains.

**CAUTION**

The use of optical instruments with this product may increase eye hazard.
FCC Statement

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 when the product is operated in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product 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 product and receiver.
- Connect the product 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 Warning

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in this manual. Alterations or modifications carried out without appropriate authorization may invalidate the user’s right to operate this equipment.

Important Safety Instructions

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.

Notes About the Discs

- Do not touch the playback side of the disc. Hold the disc by its edge.
- Never stick any paper or tape on the disc.
- After playing, store the disc in its case.
- Do not expose the disc to direct sunlight or sources of heat and never leave it in a parked car as the temperature may rise considerably inside the car.
- Clean the disc with a cleaning cloth.
- Wipe the disc from the center out.

- Do not use strong solvents such as benzene, thinner, alcohol, commercially available cleaners, or anti-static spray intended for vinyl LPs.
Preface

Precautions

Safety

• To prevent fire or electric shock hazard, do not place objects filled with liquids, such as vases, on the device.

• Should liquids spill or solid objects fall into the cabinet, have the device checked by qualified personnel.

Operation

• Before moving the player, remove any discs inside the device. Otherwise, the disc may be damaged.

• If the device is moved from a cold to a warm location, moisture may form inside the device. Should this happen, do not operate the device and leave it for 2 to 3 hours until the moisture evaporates.

Power

• The device still consumes power when connected to a wall outlet even if the power has been turned off. To completely cut off the power, unplug the power cord from the wall outlet.

• If the device will not be used for long periods of time, disconnect the power cord from the wall outlet.

• When disconnecting the power cord, grasp the plug head, never pull the cord.

Placement

• Place the device in a well-ventilated location to prevent the device from overheating.

• Do not place the device on a soft surface such as a rug.

• Do not cover the slots and openings in the cabinet which are provided for ventilation.

• Do not place the device near heat sources.

• Do not place the device near liquids.

• Do not place heavy objects on the device.

• Install the device where the power cord can be easily connected and disconnected from the wall outlet.

• Keep the device or the discs away from equipment with magnets, such as a microwave open.

About this Manual

The following icons that appear below a section title indicate the applicable discs or file types.

• Applies to Blu-ray, DVD, AVCHD, VCD, and CD discs.

• Applies to data discs or USB drives that contains video, music, or photo files.
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Chapter 1

Before You Start

Please read through this Operating Manual to operate your device properly and keep it in a safe place for future reference.

This chapter will introduce the features, supported types of discs and files, and the panel and remote control descriptions.

What’s in the Box?

Check to ensure that the following items come with your package.

☐ Blu-ray Player

☐ Power cable x 1

☐ Audio-Video cable x 1 (red/white/yellow)

☐ Remote control x 1

☐ HDMI cable x 1

☐ AAA batteries x 2

☐ Operating manual x 1

☐ Warranty card x 1

☐ Declaration of Conformity card x 1
Playabe Discs and Files

Playabe Discs

Your Blu-ray player supports playback of the following discs:

- Blu-ray Disc
- DVD-VIDEO
- DVD-R
- DVD-RW
- DVD+R
- DVD+RW
- Audio CD
- CD-R
- CD-RW
- CD-DA / CD-DTS
- VCD / SVCD

“Blu-ray Disc” and its logo are trademarks.

“DVD Video”, “DVD-R”, “DVD+R”, “DVD-RW”, “DVD+RW” and their logos are trademarks of DVD Format/Logo Licensing Corporation.

“CD” and its logo are trademarks.

Playing Blu-ray Discs

Features

- Supports Blu-ray profile 1.0, 1.1, and 2.0.
- Access to BD-Live which allows interactive functions when your Blu-ray player is connected to the Internet.

“BD-Live” and its logo are trademarks of Blu-ray Disc Association.

Playable Blu-ray Formats

- Blu-ray movies/Blu-ray Disc Read Only (BD-ROM)
- Blu-ray Disc Recordable (BD-R)
- Blu-ray Disc Rewriteable (BD-RE)

Playing DVD Discs

- DVD-Video can be played.
- DVD-Video View
- DVD-R/-RW/+R/+RW disc recorded in DVD-Video format can be played
- DVD-R/-RW/+R/+RW disc recorded in DVD-Video and Video Recording (VR) format can be played.
- DVD disc recorded in AVCHD format can be played, including discs in x.v.Color format.

“Blu-ray Disc” and its logo are trademarks.

“DVD Video”, “DVD-R”, “DVD+R”, “DVD-RW”, “DVD+RW” and their logos are trademarks of DVD Format/Logo Licensing Corporation.

“CD” and its logo are trademarks.
Before You Start

**Playable Files**

Your Blu-ray player supports playback of files recorded on DVD and CD discs, and USB drives with the following formats:

<table>
<thead>
<tr>
<th>Video compression format</th>
<th>• MPEG</th>
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<tr>
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<td>• MPEG-2</td>
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<td>• *.DAT</td>
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<td>• *.VOB</td>
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<td>• *.ASF</td>
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<tr>
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<td>• PNG</td>
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<td>• GIF</td>
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<th>Music file format</th>
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<td>• *WAV</td>
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<td></td>
<td>• *CD Digital Audio</td>
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<td></td>
<td>• *Dolby Digital</td>
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<td></td>
<td>• *DTS 2.0+Digital out</td>
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**Notes:**

- A DVD disc will not play if it has not been finalized correctly.
- Some DVD and CD discs may not play on this Blu-ray player due to recording quality or the physical condition of the disc.
- Dual Layer DVD discs can be played.

“AVCHD” and its logo are trademarks of Matsushita Electric Industrial Co., Ltd and Sony Corporation.

“x.v.Color” is a trademark of Sony Corporation.

Audio Formats

Your Blu-ray player supports the following audio formats:

- Dolby Digital
- Dolby Digital Plus
- Dolby True HD
- DTS 2.0 + Digital Out
- Dolby Digital Sound
- MPEG
- MPEG-2
- Linear PCM

For Dolby Digital Plus, Dolby True HD, and DTS-HD, it is recommended to connect the Blu-ray player to an amplifier or receiver to enjoy the surround sound quality.

Manufactured under license from Dolby Laboratories.

“Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license under U.S. Patent #’s: 4,631,603; 4,819,098; 4,907,093; 5,315,448; and 6,516,132 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos and Symbol are trademarks of DTS, Inc. © 1996-2007 DTS, Inc. All Rights Reserved.
Player Overview

Front Panel

1 POWER ON/OFF button
Press to switch the Blu-ray player on or off.

2 OPEN/CLOSE button
Press to open or close the disc tray.

3 Front Panel DISPLAY
Shows the current status information.

4 PLAY button
Press to start playback.

5 USB port
Use to connect a USB drive to play music, photo or video files. It can also be used for BD-Live storage.

6 LED indicator
Indicates Blu-ray player status.
Lights red when the Blu-ray player is turned off.

7 Disc tray
Holds the disc for playback.

8 PAUSE button
Press to pause playback.

Note:
The device still consumes power even when the Blu-ray player has been switched off. To completely turn off power, unplug the power cable from the outlet.
Front Panel Display
The front panel display shows the operation status of the Blu-ray player or the elapsed time of the discs being played.

Displays playback elapsed time.

Rear Panel

1 **AC IN** Terminal
   Connects to the power cable.

2 **COMPONENT Video**
   Connects to a TV, amplifier or receiver using a component video cable.

3 **DIGITAL AUDIO OUT (COAXIAL)**
   Connects to an amplifier or receiver using a coaxial audio cable.

4 **HDMI OUT**
   Connects to a HDMI-compatible TV, amplifier or receiver.

5 **LAN Port**
   Connects to a network using an Ethernet RJ-45 cable.

6 **COMPOSITE Video**
   Connects to a TV, amplifier or receiver using a composite video cable.

7 **DIGITAL AUDIO OUT (OPTICAL)**
   Connects to an amplifier or receiver using an optical audio cable.
Remote Control

1) **POWER ON/OFF**
   Switches the Blu-ray player on or off.

2) **OPEN/CLOSE**
   Opens or closes the disc tray.

3) **MENU**
   Displays the disc menu.

4) **HOME**
   Displays the home menu.

5) **Arrows (▲▼◄►)**
   Select items, change settings or move the cursor.

6) **PREVIOUS**
   Goes to the previous chapter, title, track, or file.

7) **REVERSE**
   During playback, starts reverse scanning.

8) **STOP**
   Stops playback.

9) **SLOW Rewind**
   Rewinds playback in slow motion.

10) **BACK (RETURN)**
    Goes back to the previous screen.

11) **REPEAT**
    Repeats playback.

12) **A-B Repeat**
    Repeats playback from A to B.

13) **AUDIO**
Displays the current audio stream.

14 **BONUS VIEW**
   For BONUSVIEW functions.

15 **PROGRAM**
   Displays the program list.

16 **BOOKMARK**
   Bookmarks a point during playback.

17 **NUMBERS**

18 **POP-UP MENU**
   Displays Blu-ray or DVD disc menu.

19 **RED / BLUE / YELLOW / GREEN**
   Navigates Blu-ray menus. They are also used for the Photo and Music menus.

20 **MEDIA CENTER**
   Browse and play media files on a data disc, USB drive, or playlist.

21 **NEXT**
   Goes to the next chapter, title, track, or file.

22 **FORWARD**
   During playback, starts forward scanning.

23 **PLAY / PAUSE**
   Starts / pauses playback.

24 **OSC**
   Displays OSC (on-screen controls) menu.

25 **SLOW Forward**
   Forward playback in slow motion.

26 **INFO**
   Displays disc/file information.

27 **CLEAR**
   Clears the numeric input.

28 **GOTO**
   Goes to the entered chapter, title or track.

29 **SUBTITLE**
   Displays the current subtitle.

30 **ANGLE**
   Displays the current camera angle.

31 **ZOOM**
   Enlarges or reduces image size.

32 **DIGEST**
   Displays photos as thumbnails.
Installing the Remote Control Batteries

1. Slightly push then slide to remove the battery cover.

2. Insert two AAA batteries by matching the + and - ends of the batteries with the markings inside the battery compartment.

3. Replace the battery cover.

Notes:
- Do not mix old and new batteries or mix different types of batteries.
- Do not leave the remote control in an extremely hot or humid place.
- Do not expose the remote control to direct sunlight.
- If the remote control will not be used for long periods of time, remove the batteries.

Remote Control Signal

The remote control has an operating range of approximately 7.5 m., and works best when pointed directly at the unit horizontally at an angle up to 30° from the sensor window of your Blu-ray player.
How to Set up Your Blu-ray Player

You can set up your Blu-ray player in 5 easy steps:

Step 1: Connecting to a TV
Step 2: Connecting an Amplifier
Step 3: Connecting to the Internet
Step 4: Connecting the Power Cable
Step 5: Run the Easy Setup Wizard

**WARNING**
Before you begin making any connections, ensure that the Blu-ray player is turned off, and that the power cable is disconnected from the main outlet.

**TIP**
It is recommended to connect the VIDEO OUT jack of your Blu-ray player directly to the VIDEO IN jack of the TV. Connecting a TV via VCR may cause viewing problems when playing copy-protected discs.
Connecting to a TV

Depending on the capabilities of the TV, you can connect your Blu-ray player to the TV in various ways: HDMI, component, or composite video connections.

Connecting Using a HDMI Cable

HDMI cables can transmit high quality video and audio at the same time. Normally, when you connect your TV using an HDMI cable, you do not need a separate analog audio connection.

Connect the HDMI OUT jack on the Blu-ray player to the HDMI IN jack on the TV.

Notes on HDCP:

- The HDMI cable is the preferred connection that we suggest.

CAUTION

- Hold the plug when connecting and disconnecting the cable.
- Do not force the plug into the HDMI jack. Match the connector’s shape correctly. Make sure the connector is not upside down.
- Do not place any load on the cable.

TIP

If you wish to enjoy digital audio sound, connect your player to an amplifier or receiver using a coaxial or an optical cable. See ‘Connecting an Amplifier’ (p. 20) for more information.

Notes on HDCP:

- Your Blu-ray player supports High-bandwidth Digital Content Protection (HDCP) technology. To play back HDCP-compliant discs, your TV must also support the HDCP copyright protection system.
- If your TV does not support HDCP, the picture will not be displayed properly.

HDMI This Blu-ray player incorporates High Definition Multimedia Interface (HDMI) technology. “HDMI”, “High Definition Multimedia Interface”, and their logo are registered trademarks of HDMI Licensing LLC.
Connecting Using a Component Video Cable

Use a component video cable (green, blue, red) to connect the COMPONENT OUT jack on the Blu-ray player to the COMPONENT IN jack on the TV.

Notes on using a component connection:
- The 1080P resolution is not supported via component connection

Connecting Using a Composite Video Cable

Use a composite video cable to connect the COMPOSITE OUT jack on the Blu-ray player to the COMPOSITE IN jack on the TV.

Notes on using a composite connection:
- This connection does not allow HD video and is not the preferred connection.
Connecting an Amplifier

Connecting Using an Analog Audio Cable

Use a composite AV cable or a composite audio cable (red/white) to connect the AUDIO OUT jack on the Blu-ray player to the AUDIO IN jack on the TV, amplifier or receiver.
Connecting Using a Digital Audio Cable

If you want to enjoy Dolby Digital, or DTS audio on your amplifier or receiver, use either a coaxial or optical audio cable.

Using a Coaxial Cable

Use a coaxial cable to connect the COAXIAL DIGITAL OUT jack on your Blu-ray player to the COAXIAL DIGITAL INPUT on the amplifier or receiver.

Using an Optical Cable

Use an optical cable to connect the OPTICAL DIGITAL OUT jack on your Blu-ray player to the OPTICAL DIGITAL INPUT on the amplifier or receiver.
Connecting to the Internet

Your Blu-ray player can connect to a local area network (LAN) via the LAN port on the rear panel. By connecting to the Internet, your Blu-ray player can use a Blu-ray disc that supports the BD-Live function. See "Using BD-Live™ (p. 33)."

Use an Ethernet RJ-45 cable to connect the LAN port on the Blu-ray player to the LAN port on your modem or router.

After connecting, configure your Blu-ray player for network communication in the Network menu. See ‘Network’ (p. 47) for further details.

**Note:**
Depending on the internet service provider (ISP), the number of devices that can receive Internet connection may be limited. If your ISP limits subscription to one device, your Blu-ray player may not be allowed to connect when a PC is connected. Disconnect the PC first.
Connecting the Power Cable

After all the required connections are completed, connect the power cable to the AC IN terminal of your Blu-ray player. Then plug the power cable of your Blu-ray player into the main outlet.

Turning the Power On

After completing all the required connections, you are now ready to start using your Blu-ray player.

1 Turn on the TV first.

2 Press \( \mathcal{O} \) on the front panel of the Blu-ray player or on the remote control to turn on your Blu-ray player.

The LED indicator turns off and the front panel displays:

3 Select the input signal source of your TV so that the signal from the Blu-ray player appears on the TV screen.
Easy Setup Wizard

When turning on the Blu-ray player for the first time, the Easy Setup Wizard is displayed on screen. Follow the wizard to configure the basic settings of your Blu-ray player.

1. Press OK to continue.

2. Press ▲▼ then OK to select the on-screen display (OSD) language.

3. Press ▲▼ then OK to select the resolution.

4. Press ▲▼ then OK to select the aspect ratio.

5. Press OK to complete setup.
Chapter 3

Playback

This chapter describes the main operations of your Blu-ray player, such as:

- Playing a Disc
- Playing USB drive content
- Using BD-Live™
- Other Playback Functions

The procedures described are remote control based. Similar buttons can also be pressed on the front panel of your Blu-ray player.

Playing a Disc

1. Press ▲ to open the disc tray.

2. Place the disc on the disc tray with the playback side facing down.

3. Press ▲ to close the disc tray.

   The Blu-ray player will determine the type of disc inserted. It may take a short while to load the disc. The disc type is displayed on the TV screen.

4. Some discs start playing automatically, and others do not. In this case, press ▶ to start playback.
Playback Controls

Some discs start playing automatically after the Blu-ray player loads the disc. If not, use the remote control to start playback.

1 Press ▶ to start playback.
   • To pause, press ◄.
   • To stop playback, press ■.
   • To resume playback, press ▶ again.

2 When playback is finished, press ▲ to open the disc tray.

3 Remove the disc, then press ▲ to close the disc tray.

4 Press ◄ to turn off the Blu-ray player.

» Resuming playback

• Some discs do not support the resume playback function.

• When ■ is pressed, the point where it stopped is saved in the Blu-ray player’s memory. When ▶ is pressed, playback resumes from the point where it stopped. The resume settings are cleared when:
  • When the Blu-ray player’s power is turned off.
  • To cancel resume playback, press ■ twice.

WARNING

Do not leave the disc inside the Blu-ray player.

Forward or Reverse Playback

1 During playback, press ◄ or ▶ to reverse or advance playback.

2 Press the button repeatedly to switch scanning speed (2x, 4x, 8x, 16x, 32x, 64x, 128x).

Note:

You can also reverse or forward scan by holding the button down. Normal playback resumes when the button is released.

3 To resume normal playback, press ▶ again.

Some discs will automatically resume normal playback when switching to a new chapter.

Notes:

• When scanning Blu-ray, DVD, and VCD discs, no sound output is produced.

• Sound is output during CD-Audio disc scanning.
**Skipping Content**

1. Press ▶ to skip to the beginning of the next chapter/title/track.

2. Press ◀ to skip to the beginning of the current chapter/title/track.

3. Press ◀ twice to skip to the beginning of the previous chapter/title/track.

**Note:**
Some discs may not support this function.

**Step Rewind or Step Forward**

1. Press ▶ to pause playback.

2. Press ◀ or ▶ to rewind or advance the playback one step or frame at a time.

3. Press ▶ to resume playback at normal speed.

**Note:**
Some discs may not support this function.

**Slow Rewind or Slow Forward Playback**

1. During playback, press ◀ or ▶ to rewind or playback in slow motion.

2. Press the button repeatedly to switch slow motion speed (1/16, 1/8, 1/4, 1/2).

3. Press ▶ to resume playback at normal speed.

**Note:**
Some discs may not support this function.
Playing Specific Titles, Chapters, or Tracks

1 Press GOTO to jump to a specific title/chapter/track/time.

The Info bar appears on the TV screen.

2 To select title or chapter/track, press ▶️ then OK.
   To select time, press ▲▼. The time icon changes as follows:
   ☞ Chapter time is selected.
   ○ Title time is selected.
   🎧 Track time is selected.
   ⌚ Disc time is selected.
   To select type of time, press OK. To move between time field, press ▶️.

3 Press ▲▼ or the number buttons of the title/chapter/track/time you wish to jump to.

4 Press OK.

Playing a Specific Section Repeatedly (A-B)

1 During playback, press A-B to select the starting point (A).

2 Press A-B again to select the end point (B).

3 Press A-B again to cancel A-B Repeat.

Notes:
- Press CLEAR to delete the numbers you have entered.
- Displayed items vary depending on the inserted disc.
- Some discs may not support this function.
Playing Repeatedly

Use the repeat function to play the current title, chapter or track repeatedly.

1. During playback, press **REPEAT** repeatedly to select repeat mode option:
   - **REPEAT CHAPTER/TRACK** → **REPEAT ALL** → **REPEAT OFF**.

2. Press **REPEAT** repeatedly again to select **REPEAT OFF**.

   **Note:**
   Repeat function is cancelled when you press ■.

Switching Camera Angles

When you insert a disc that is recorded with different camera angles, use this function to switch the angle view.

During playback, press **ANGLE** repeatedly to select angle options.

   **Note:**
   Some discs may not support this function.

Switching Subtitles

During playback, press **SUBTITLE** repeatedly to select subtitle options.

   **Note:**
   Some discs may not support this function.

Switching Audio Streams

Some discs are recorded with multiple audio streams. Use this function to switch audio streams during playback.

During playback, press **AUDIO**.

   **Note:**
   Some discs may not support this function.
Displaying the Disc Information

1. During playback, press INFO.

2. The disc information is displayed on the upper left corner of the screen.

   - Play mode indicator
   - Current title or track number / Total number of titles or tracks
   - Disc type indicator
   - Time elapsed
   - Repeat A-B enabled
   - Current audio stream
   - Repeat mode indicator
   - Current chapter number / Total number of chapters
   - Subtitle

3. Press INFO again to close disc information.

Note:
Displayed items vary depending on the inserted disc.

Using On-Screen Controls (OSC)

1. During playback, press OSC.

2. The OSC menu is displayed on the left of the screen.

3. Press ▲▼ to highlight submenu. The following submenu may be available:
   - Title/Track
   - Chapter
   - Time
   - Playback mode - Select this option to choose normal, shuffle, or random play mode options. During shuffle mode, each chapter/title will be played only once. During random mode, titles/chapters are randomly cued, repetition of titles/chapters may also occur. Available options are: Random ALL, Random TT, Random CH, Shuffle ALL, Shuffle TT, Shuffle CH, and Normal.
• Audio stream
• Angle
• Subtitle
• Bitrate
• Still On/Off - Some DVD discs support freezing of video pictures as a still picture to provide better image view. Select this option to enable or disable the Still function. Availability of the Still submenu depends on the inserted disc.
• Instant Search - Advances playback 10 seconds ahead.
• Instant Replay - Rewinds playback from 10 seconds ago.

4 Press ► to enter submenu. The current option is displayed.

5 Press ▲▼ to select other options.

6 Press OK or ◄ to apply selected option.

7 Press OSC to close OSC menu.

BONUSVIEW™

Your Blu-ray player supports BONUSVIEW™. BONUSVIEW™ allows you to enjoy more functions such as picture-in-picture, secondary audio, and virtual packages, among others with a Blu-ray disc that supports BONUSVIEW™.

1 Insert the Blu-ray disc in the disc tray.

2 After the Blu-ray disc loads, press BONUSVIEW to play secondary video.

Notes:
• Some Blu-ray discs do not support BONUSVIEW features. The availability of the BONUSVIEW function of your Blu-ray player, depends on the inserted Blu-ray disc.
• When playing secondary video, some playback functions may not be available. Functions like slow motion or step forward works only during primary video playback.
Some Blu-ray discs contain additional features that are made available to players that are connected to the Internet. These additional features may include things like:

• The ability to download new movie trailers
• Additional commentaries by actors or directors
• Multiple people game and chat

You can access these features on your Blu-ray player using BD-Live™.

» Requirements

You need the following:

• Internet access
• Ethernet RJ-45 cable
• At least 1GB USB memory drive (FAT32 formatted)
• Blu-ray disc that supports BD-Live™ features

Setting Up the Player for BD-Live™

In order to access BD-Live™, do the following steps:

1 Connect your Blu-ray player to the Internet connection.
   • Connect one end of the Ethernet RJ-45 cable to the LAN port of your Blu-ray player and the other end to a router or modem. See ‘Connecting to the Internet’ (p. 22).

2 Allow BD-Live™ access in the Blu-ray player’s home menu.
   • Press HOME on the remote control to access the home menu.
   • Go to General Setting > Network. Set BD-Live™ Connection to ‘Permitted’.
   See ‘Network’ (p. 47) for details.

3 Insert a USB drive with at least 100MB free space into the USB port of your Blu-ray player.

   When a USB drive is inserted, the Blu-ray player automatically assigns it as the Blu-ray storage.

Note:

If there is not at least 100MB of free space on the USB drive, clear up some space. This can be done by connecting the USB drive to a PC and deleting files that you no longer need.
Using BD-Live™

When you insert a BD-Live™ that supports BD-Live™, access BD-Live™ in its Special Features menu.

You can download contents to your USB drive. Downloaded contents are stored under the ‘My Downloads’ folder.

**WARNING**

- Do not remove the USB drive while downloading contents or when a Blu-ray disc is still in the disc tray. The USB drive may be damaged and become unusable with BD-Live™.

**Notes:**

- BD-Live™ may take several minutes to load.
- Depending on the Blu-ray disc, the BD-Live™ function may not be accessible.
- Internet connection and speed affect access and download time.
Setting Up Data Disc and USB Drive

Many audio, video, and photo files that can be viewed on a personal computer can also be played back on the Blu-ray player. This is accomplished by first putting the audio, video, or photo files onto a data disc or a USB drive.

Setting Up Data Disc For Playback

Use a computer to set up a data disc. A data disc is a disc where files have been copied to or “burned” using a computer.

Insert the data disc into a computer and copy the desired files onto the disc. You can burn files onto any of the following discs:

- CD-R/RW
- DVD+R/+RW/Dual Layer
- DVD-R/-RW/Dual Layer
- BD-R
- BD-RE
Setting Up a USB Drive For Playback

» USB Drive Requirements

- USB drive must be formatted as “FAT32”.

Note:

- Use only a USB drive, sometimes called a thumb drive.
- Never use an MP3 player or an external hard disk drive.

Insert a USB drive into a computer and copy the desired files onto the USB drive.

Playing Files from a Data Disc

1. If turned off, press \( \text{\textup{\textgreater}} \) to turn on the Blu-ray player.
2. Press \( \text{\textup{\textless}} \) to open the disc tray.
3. Insert the data disc into the disc tray.
4. Press \( \text{\textup{\textgreater}} \) to close the disc tray.

The Blu-ray player determines whether files on the data disc contain music, videos, or photos.

If the data disc contains supported files, the Media Browser screen is displayed on screen. See "Media Center Menu" (p.36) for details.

Playing Files From a USB Drive

1. Make sure the Blu-ray is turned on.
2. Insert a USB drive into the USB port of your Blu-ray player.
3. Press Media Center to display the Media Center menu. See "Media Center Menu" (p.36) for details.

Note:

Only the files with the following extensions are supported by the Blu-ray player:

- Music files: *.WMA, *.AAC
- Picture files: *.JPG, *.JPEG, *.PNG, *.GIF
Media Center Menu

1 Press MEDIA CENTER to display the Media Center menu.

The items on the Media Center menu vary depending on the type of disc inserted, or the type of files that is contained on the disc or the USB drive.

2 Press \(\uparrow\downarrow\), then OK to select the source device or folder.

3 The Media Browser screen is displayed.

4 Press \(\uparrow\downarrow\), then OK to select the type of file to browse.

5 To return to the previous screen, press \(\leftarrow\).

Note:

Even if the inserted data disc or USB drive contains a mix of music, video, and photo files, you can only browse and playback one type of file at a time. For example, if you enter the Music folder, only music files can be browsed, added to playlist and played back. To browse photo files, go back to the Media Browser screen and select Photo.
Viewing Photos

1. From the Media Browser menu, press ▲▼ to highlight Photo.

2. Press OK. The File Selection screen is displayed.

3. Press ▲▼ to choose a subfolder or file.

4. The thumbnail and information of the highlighted photo file is displayed on the right panel of the screen.

5. To view a slide show of photos in the folder, press OK.

Using Photo On-Screen Control

1. During a slide show, press OSC. The Photo on-screen control (OSC) menu is displayed on the left side of the screen.

2. Press ▲▼ to highlight submenu. The following submenu may be available:
   - File - Press ► to enter submenu, then press ▲▼ and OK to select an option.
   - Playback mode - Press ► to enter submenu, then press ▲▼ and OK to select an option.
   - Slide show speed - Press OK repeatedly to select speed: Slow, Middle, Fast.
   - Transition - Press OK repeatedly to select transition: None, Wipe left/right, Wipe up/down, Box in/out, Bleeding, Dissolve, Interlace H/V, Split in H/V, Split out H/V.

3. Press OSC to close OSC menu.
Slide Show Functions

During a slide show, use the following buttons to perform slide show functions:

- To rotate an image, press ▲▲ ●● . Slide show is paused while rotating image.
- To continue slide show after pausing, press ▶.
- To stop slide show, press ■.
- To adjust slide show speed (Slow, Middle, Fast), press ◄►.
- To view previous/next image, press ◄ ►.
- To set repeat mode (Repeat, Repeat All, Off), press REPEAT repeatedly.
- To zoom in/out an image, press ZOOM repeatedly.
- To view thumbnails, press DIGEST. To return to slide show, press DIGEST again.

Playing Music

1. From the Media Browser menu, press ▲▼ to highlight Music.
2. Press OK. The File Selection screen is displayed.
3. Press ▲▼ to choose a subfolder or file.
4. The information of the highlighted music file is displayed on the right panel of the screen.
5. To play the music files in the folder, press OK.
Music Playback Status Screen

Once music starts playing, the Music Playback Status screen appears.

- Press INFO to view or hide the Music Playback Status screen.
- During music playback, you can continue to browse for other music files or view photos. Press MEDIA CENTER.
- Press OSC to display the music on-screen control menu. See 'Using On-Screen Controls (OSC)' (p. 30) for details.

Playing Videos

1. From the Media Browser screen, press ▲▼ to highlight Video.
2. Press OK. The File Selection screen is displayed.
3. Press ▲▼ to choose a subfolder or file.
4. Press ▶ to start playing the video file.
5. To stop playback, press ■.
Creating a Playlist

1. From the File Selection screen, press ▲▼ to highlight the file you want.

2. Press ► to select the file. A check mark before the file name is displayed.

3. Press MENU. A pop-up menu is displayed.

4. To select all files, select Select All, then press OK. All files will be checked.

5. To add selected files to playlist, press MENU.

6. Select Add to Playlist, then press OK.

Playing Files from the Playlist

1. From the Media Center menu, press ▲▼ to highlight Playlist.

2. Press OK. The File Selection screen is displayed.

3. Press ▲▼ to select the type of playlist file to browse.

4. Press OK to play playlist.

» To remove files from the playlist

1. Press ▲▼ to highlight the file to remove.

2. Press MENU to display the pop-up menu.

3. Select Remove from Playlist, then press OK to remove the highlighted file.

4. To select all files, select Select All from the pop-up menu. All files will be checked.

5. To remove selected files from the playlist, press MENU.

6. Select Remove from Playlist, then press OK.
Chapter 5
Settings and Further Adjustments

In order to configure the Blu-ray player for proper audio and video output, configure the required settings in the Home menu.

This chapter explains how to configure your Blu-ray player.

Using the Home Menu

1. Press HOME to display the Home Menu.

2. Press ▲▼ to move up and down the menu selection.

3. Press OK or ► to enter menu.

4. Press ▲▼ to move up and down the submenu.
5 Press **OK** or ► to access the next level submenu.

6 Press ▲▼ to select desired setting then press **OK** to confirm.

7 Press ◄ to return to the previous screen or menu.

8 Press **HOME** again to exit Home menu.
General Settings

System

Screen Saver
Set to ‘On’ to activate the screen saver capability of the Blu-ray player. This function causes the TV to display a moving logo after a certain period of time without pressing any buttons on the front panel or the remote control, when a setup menu or disc title menu is displayed on the screen.

Easy Setup
Use this option to activate the initial setup wizard. See ‘Easy Setup Wizard’ (p.24) for details.

Load Default
Use this option to reset the Blu-ray player to its default factory settings.

Upgrade
Use this option to select the system upgrade method. Available options are via:
- Disc
- USB Storage

Note:
Ensure that Disc Auto Playback is set to On when using upgrade via disc.

BD-Live Persistent Storage / BUDA
Use this menu option to perform the following functions:
- Select either internal memory or a USB flash drive to use as your local storage device.
- View the amount of free space left on your selected storage device.
- Delete/Re-format your selected storage space.

Note:
This persistent storage space, sometimes referred to as “BUDA”, is used as storage for functions such as downloading BD-Live content.
The Language menu allows you to configure the language that is displayed for the following:

**OSD**
Set the on-screen display (OSD) language. Available options are English, German, French, Italian, Spanish, Dutch, Portuguese, Traditional Chinese, Russian, Turkish, and Japanese.

**Menu**
Set the menu language. Available options are English, German, French, Italian, Spanish, Dutch, Portuguese, Traditional Chinese, Russian, Swedish, Finnish, Norwegian, Korean, Japanese and more.

**Audio**
Set the audio language. Available options are English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Russian, Danish, Swedish, Finnish, Norwegian, Korean, Japanese and more.

**Subtitle**
Set the subtitle language. Available options are English, German, French, Italian, Spanish, Dutch, Portuguese, Traditional Chinese, Russian, Swedish, Finnish, Norwegian, Korean, Japanese and more.

To disable subtitle, select ‘Off’.

**Notes:**
- Not all the supported languages of the Blu-ray player are available on all discs.
- Some discs may not allow the audio language to be set on the settings menu of the Blu-ray player. In this case, select the audio language from the menu of the disc.
## Playback

<table>
<thead>
<tr>
<th>System</th>
<th>Closed Caption</th>
<th>On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>PBC</td>
<td>On</td>
</tr>
</tbody>
</table>

### General Setting

- **Closed Caption**: Use this option to enable or disable closed caption function.
- **PBC**: Use this option to display or hide the playback control (PBC) menu.

Use cursor key to move focus, use "OK" key to select.
Security

The Security menu allows you to control the playback of inappropriate discs. After parental control is set and a disc with a higher rating level than the one set is inserted into the disc tray, you will be prompted to enter the password first before playing the disc.

Change Password
Set the 4-digit security password.

1 Press the number buttons to enter the current password.
2 Press OK.
3 Enter the new password, then press OK.
4 Re-enter the new password, then press OK.

Once a password has been saved, it must be entered first before you can change any item in the security menu.

Note:
The default initial password is 0000.

Parental Control
Use this option to restrict playback of discs encoded with a rating level equal to or higher than the level you set. Available settings are:
- Off
- KID SAFE
- G
- PG
- PG-13
- PGR
- R
- NC-17
- ADULT

Note:
You will be prompted to enter the password before being allowed to change this setting.

Country Code
Set the country where you are located.

Note:
You will be prompted to enter the password before being allowed to change this setting.
Network

Internet Connection
Use this option to enable or disable the Internet connection.

BD-Live Connection
Use this option to control which websites the Blu-ray player is allowed to access when connected to BD-Live content. Available settings are:

• **Permitted:** Allow the inserted Blu-ray disc to access content from all BD-Live Internet sites whose Internet address is encoded onto the disc. There is no danger of malicious code download from valid commercial Blu-ray discs, but choosing this option and downloading BD-Live content via illegally authored Blu-ray discs, or discs obtained from questionable sources, could result in malicious code being downloaded onto the Blu-ray player.

• **Partial Permitted:** Only allow the inserted Blu-ray disc to download content from a BD-Live website which has a valid online certificate. This will reduce the changes of downloading malicious content onto the Blu-ray player.

• **Prohibited:** Blocks inserted Blu-ray disc from accessing BD-Live content over the Internet.
Display Settings

TV

**TV Screen**
Select this option to set the aspect ratio of your TV. Available settings are:

- **16:9 Full**: For a disc with the aspect ratio of 4:3, the output video is stretched into 16:9 full screen.
- **16:9 Normal**: For a disc with the aspect ratio of 4:3, the output video is resized vertically to match what will be seen on the display.
- **4:3 Pan&Scan**: Display a wide picture on the entire screen and cuts off the redundant portions. Select when a standard 4:3 TV is connected. The scanning line is complete, but part of the image is clipped.
- **4:3 Letterbox**: Display a wide picture with two black borders on the top and bottom of a 4:3 screen. Select when a standard 4:3 TV is connected.

**Resolution**
Select the video resolution according to the maximum resolution of your TV. Check your TV's user manual. Available settings are:

- Auto
- 480I/576I
- 480P/576P

**TV System**
Select this option to set the TV system in your area. Available settings are:

- NTSC
- PAL
- Multi

**Note:**
TV Type must be set appropriately. Choosing the wrong type may result in a black screen.

**Color Space**
Select the color space. Available settings
are:
• RGB
• YCbCr
• YCbCr422
• Full RGB

**HDMI Deep Color**
Select this option to set HDMI deep color. Available settings are:
• 30 bits
• 36 bits
• Off

**HDMI 1080P 24Hz**
Set to ‘On’ if connected to a 1920 x 1080/24P HDMI TV.

**Video Processing**
The Video Process menu allows you to adjust basic display settings such as brightness, contrast, hue, saturation, and sharpness.

**Video Adjust**
Select this option to adjust the video brightness, contrast, hue, and saturation.

1. Press `▲▼` to move the selection up and down.
2. Press `◄►` to adjust the selected setting.
3. Press **BACK (Return)** to exit the screen.

**Sharpness**
Select the sharpness level of the video. Available settings are:
• High
• Medium
• Low
Audio Setting

The Audio Setting menu allows you to configure the proper audio settings according to the type of audio system you use.

Audio Output

Spdif

SPDIF (Sony Philips Digital InterFace) is a digital audio format which carries digital audio signals between devices.

Select this option to set the SPDIF audio output format if your Blu-ray player is connected to an amplifier or receiver which supports Dolby Digital or DTS surround sound using a digital coaxial/optical cable. Available settings are:

- **Bitstream:** Outputs the original bitstream audio signal without processing.
- **PCM:** Audio output is converted to Linear PCM.
- **Reencode:** Select this option if the Blu-ray player is connected to a decoder.

**Note:**
To achieve the best audio quality, you must also set up the menu on the disc to set the highest quality audio track supported by the receiver or amplifier.

HDMI

Select this option to set the audio output format if your Blu-ray player is connected to an amplifier or receiver which supports Dolby Digital or DTS surround sound using an HDMI cable. Available settings are:

- **Bitstream:** Outputs the original bitstream audio signal without processing.
- **PCM:** Audio output is converted to linear PCM.
- **Reencode:** Select this option if the Blu-ray player is connected to a decoder.

**Off**

Down Sampling

Set the PCM capabilities of the connected surround receiver or amplifier. This setting is applicable when the Blu-ray player is connected to an amplifier or receiver and has no effect when connected via HDMI. Check the PCM sampling rate of
your surround receiver or amplifier to set the appropriate PCM sampling rate:

- **48K**: This is the default setting. It is best to retain this setting in the following conditions:
  - If the Blu-ray player is not connected to a surround receiver or amplifier.
  - If the Blu-ray player is connected to a surround receiver or amplifier via HDMI output.
  - If you are unsure of the surround receiver or the amplifier's PCM sampling rate.

- **96K**: Select this option if the connected amplifier or receiver is not capable of handling 192 kHz signals.

- **192K**: Select this option if the connected amplifier or receiver is capable of handling 192 kHz signals.

**Note:**

Setting an incorrect PCM sampling rate may result in unpredictable audio playback.
System Information

The System Information menu displays the software version and the MAC address of your Blu-ray player.

--- System Information ---

Software Version:   BDP V2.0
MAC: F8-FF-FF-FF-FF-FF

Use cursor key to move focus, use "OK" key to select.
Chapter 6
Troubleshooting

Use this chapter to find solutions to some questions that may arise when using your Blu-ray player.

» No power.
  • Check if the power cord is connected securely.
  • The POWER button is not pressed.

» Disc tray opens automatically.
  • The disc is scratched.
  • The disc is dirty.
  • The disc is not properly seated on the disc tray.

» Disc does not play / The front panel display shows “NO DISC”.
  • The disc is upside down. Re-insert the disc with the printed side facing up.
  • The inserted disc is not supported.
  • The region code of the disc does not match the Blu-ray player.

» No picture is displayed.
  • The audio/video cables are not properly connected.
  • The audio/video cables are damaged. Replace with new ones.
  • Check the settings in the Display Settings menu.
  • Select the appropriate video input source of your TV.
  • The video output from the Blu-ray player goes through a VCR before it gets to your TV. Connect the Blu-ray player directly to your TV.

» The picture is not displayed properly.
  • Check the settings in the Display Settings menu.
  • Check if the video input signal source of
• your TV is set appropriately.

» **There is no sound.**
  
  • The audio/video cables are not properly connected.
  • The audio/video cables are damaged. Replace with new ones.
  • The audio setting on the Blu-ray disc is not set appropriately.
  • Slow motion / step mode is on.
  • The playback is paused.
  • If connected via optical or coaxial digital cable, check if the settings in the Audio Settings menu is set appropriately.

» **The music file does not play**
  
  • The data disc is not recorded in a recognized format.
  • The audio file is not a supported format.

» **The photo file cannot be played.**
  
  • The data disc is dirty.
  • The photo files does not have the extension * .jpg / *.jpeg / *.png / *.gif.

» **The disc does not start playback from the beginning.**
  
  • Random mode is on.
  • Repeat mode is on.
  • Last memory mode is on.

» **The Blu-ray player does not start playing the disc automatically.**
  
  • Disc Auto Playback is set to ‘Off’.

» **Some functions, such as Search, Slow, Step, Repeat, Random, do not work.**
  
  • Some discs do not support these functions.

Refer to the disc’s manual.

» **The remote control does not work.**
  
  • The remote control is not pointed at the remote sensor on the Blu-ray player.
  • The remote control batteries are depleted. Try again with new batteries.
  • The remote control is too far from the Blu-ray player.

» **The angles cannot be changed.**
  
  • The inserted disc is recorded with single angle only.

» **The disc tray does not open.**
  
  • Turn the Blu-ray player off and on, the press ▲.

» **BD-Live feature does not work.**
  
  • Check if the Ethernet RJ-45 cable is properly connected.
  • Internet connection is not established.
  • The USB drive is not connected.
  • The connected USB drive is not FAT32 formatted.
  • The connected USB drive is damaged.
  • There is no Blu-ray disc inserted.
  • The inserted disc does not support BD-Live™ features.

Note:

See ‘Getting Help’ for details (p.65).
Chapter 7
Additional Information

This chapter covers the following topics:
- How to upgrade your Blu-ray player
- Supported video resolution
- Supported audio output format
- Language code table
- Region code table
- Player specifications

Upgrading Your Player

The Blu-ray player’s firmware is updated regularly. Updates are available from the manufacturer’s website.

To upgrade firmware using a USB drive

1. From your computer, connect to the Internet and visit the manufacturer’s website.
2. Insert the USB drive into the USB port on your computer.
3. Copy the firmware upgrade file to the root directory of the USB drive.
4. Remove any inserted disc or USB drive from the Blu-ray player. And turn off the Blu-ray player.
5. Insert the USB drive into the USB port on the Blu-ray player.
6. Turn on the Blu-ray player.
7. Press HOME on the remote control.
8. Use ▲▼◄► to select General Setting > System > Upgrade > USB Storage, then press OK. The firmware upgrade will begin.
9. Once completed, a message will appear on the screen.

» WARNING

DO NOT TURN OFF THE POWER while upgrading is in progress!
To upgrade firmware using a data disc

1. From your computer, connect to the Internet and visit the manufacturer’s website.

2. Download the firmware upgrade file to your computer.

3. Use commercial CD/DVD recording software, such as Nero™, to convert the *.iso file to a disc image.

4. Burn the converted file onto a disc.

5. Remove any inserted disc or USB drive from the Blu-ray player. And turn off the Blu-ray player.

6. Turn the Blu-ray player back on.

7. Insert the upgrade disc. The upgrade screen may take some time to appear.

8. Follow the on-screen instructions to start the upgrade. If the disc does not automatically update, press HOME on the remote control. Use ▲▼►◄ to select General Setting > System > Upgrade > Disc, then press OK. The firmware upgrade will begin.

9. Once completed, a message will appear on the screen.

» WARNING

DO NOT TURN OFF THE POWER while upgrading is in progress!
**Video Output Resolutions**

**HDMI Video Output**

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**Note**
- Applies when video output is not connected via HDMI.
- Digital Rights Management (DRM) on commercial discs may prohibit the output of resolution higher than 480p on component outputs.

**Composite Video Output**

Composite output is always 480i (standard definition).
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## Specifications

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<td><strong>Model</strong></td>
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<td><strong>Product Dimension</strong></td>
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<td><strong>Power Consumption</strong></td>
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<td><strong>Video Outputs</strong></td>
<td>HDMI</td>
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<td>WMA, m4a, WAV, CD Digial Audio, LPCM, Dolby Digital, DTS</td>
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<td>Dolby Digital/Dolby Digital Plus, Dolby True HD, DTS 2.0 + Digital Out</td>
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<td><strong>Image Compression formats</strong></td>
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<td><strong>Blu-ray Special</strong></td>
<td>BD-Live™ 1.1/2.0</td>
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Chapter 8

Glossary

» **Aspect ratio**

The ratio of a TV screen’s width to its height. Standard TVs have an aspect ratio of 4:3, while high definition (HD) and widescreen TVs have an aspect ratio of 16:9.

» **AVCHD**

*(Advanced Video Codec High Definition)*

The AVCHD is a high definition (HD) digital video camera recorder format, recording high-definition onto certain media by using highly efficient codec technologies.

» **Component video output**

This video output terminal provides clearer pictures when connected to a TV equipped with component inputs. Component video signals consist of three signals, Y, PB and PR.

» **Composite video output**

Signals mixing the luminance signal (Y) and the color signal (C) so they can be transferred on a single cord are output from this terminal.

» **Dolby Digital**

Dolby Digital is an audio format to record the sound in up to 5.1 channels with a fraction of the amount of data as compared to linear PCM audio signals.

» **Dolby Digital Plus**

Dolby Digital Plus is an audio format for high-definition media. Built on Dolby Digital, it combines the efficiency and flexibility to provide high quality multi-channel audio. With Blu-ray, up to 7.1 channels of digital sound can be recorded.

» **Dolby TrueHD**

Dolby TrueHD is an audio format using lossless coding. With Blu-ray, up to 8 channels can be recorded at 96 kHz/24 bits, or up to 6 channels at 192 kHz/24 bits.
» **DTS 2.0 + Digital Out**

DTS 2.0 + Digital Out denotes the dual ability to pass the DTS encoded digital bitstream to an external DTS decoder for playback as well as fold down the digital surround soundtrack for playback in a 2-channel environment through analog outputs.

» **Dynamic range**

This refers to the difference between the maximum and minimum level of the sound. The dynamic range is measured in units of decibels (dB). When the dynamic range is compressed (Audio DRC), the minimum signal level is increased and the maximum signal level decreased. This way, the volume of loud sounds such as explosions is reduced, while the sounds with a low level, such as human voices, are easier to listen to.

» **HDCP**

*(High-bandwidth Digital Content Protection)*

A technology for protecting copyrights that encrypts digital video signals.

» **HDMI**

*(High-Definition Multimedia Interface)*

A digital interface standard for next-generation TVs expanding the DVI (Digital Video Interface) terminal used for computer displays. It allows transfer of non-compressed digital video and audio signals (Dolby TrueHD, Dolby Digital Plus, Dolby Digital, DTS-HD Master Audio, DTS-HD High Resolution Audio, DTS Digital Surround, MPEG-2 AAC, linear PCM, etc.) with a single connector.

» **Linear PCM**

This is referred as the audio signals that are not compressed, frequently used for DVD-Video discs containing musicals or music concerts. This can also be indicated “48 kHz/16 bit”, “96 kHz”, etc.

» **MPEG**

*(Moving Picture Experts Group)*

The name of a family of standards used to encode video and audio signals in a digital compressed format. The video encoding standards include MPEG-1 Video, MPEG-2 Video, MPEG-4 Visual, MPEG-4 AVC, etc. The audio encoding standards include MPEG-1 Audio, MPEG-2 Audio, MPEG-2 AAC, etc.
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Getting Help

Should your HP Branded Product require service within the Warranty period, please contact the original point of purchase or an authorized HP reseller in your country. If service is not available at those locations, please contact an HP Branded Product warranty agent from the support contact list provided on this document. Supported languages are: English, French, German, Italian, Portuguese and Spanish. A warranty agent will work with you to troubleshoot your issue and if necessary, issue a Return Material Authorization (RMA) number in order to replace your HP Branded Product. For warranty claims, you will be required to provide a copy of your original dated sales receipt as proof of purchase and the issued RMA number. End User customer shall be responsible for shipping charges when shipping the product to the service center. The service agent will provide you with an address and you will also be responsible for any shipping charges to the warranty service center. Once your product is received by the service center, a replacement unit will be shipped back to you within 5 business days.

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| Language | Contact/phone Support: |
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| trad.chinese@hpodd.com |
| deutsch@hpodd.com |
| hollands@hpodd.com |
| english@hpodd.com |
| espanol@hpodd.com |
| francais@hpodd.com |
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**Europe Region (EMEA)**

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