LG
Life's Good

OWNER'S MANUAL

# 3D Blu-ray™ / DVD Home Cinema System

Please read this manual carefully before operating your set and retain it for future reference.

LHB655NW (LHB655NW, S63T2-S, S63S2-C, S63T1-W, W4-2)

www.lg.com

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# Safety Information

**CAUTION**
**RISK OF ELECTRIC SHOCK DO NOT OPEN**

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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.

**WARNING:** TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**WARNING:** Do not install this equipment in a confined space such as a book case or similar unit.

**NOTICE:** For safety marking information including product identification and supply ratings, please refer to the main label on the bottom or the other surface of the product.

**CAUTION:** The apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed on the apparatus.

**CAUTION:** Do not use high voltage products around this product. (ex. Electrical swatter) This product may malfunction due to electrical shock.

**CAUTION:** No naked flame sources, such as lighted candles, should be placed on the apparatus.

**CAUTION:** Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over heating. The openings shall never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product shall not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instruction has been adhered to.

**CAUTION:** This product employs a Laser System. To ensure proper use of this product, please read this owner's manual carefully and retain it for future reference. Shall the unit require maintenance, contact an authorized service center.
Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.
To prevent direct exposure to laser beam, do not try to open the enclosure.

### CAUTION concerning the Power Cord

The Power Plug is the disconnecting device. In case of an emergency, the Power Plug must remain readily accessible.

Check the specification page of this owner's manual to be certain of the current requirements. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your device, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the device, and have the cord replaced with an exact replacement part by an authorized service center. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the device.

This device is equipped with a portable battery or accumulator.

**How to Safely remove the batteries or the battery pack from the equipment:** To Remove the old batteries or battery pack, follow the assembly steps in reverse order. To prevent contamination of the environment and bring on possible threat to human and/or animal health, the old batteries or the battery pack must be put in an appropriate container at designated collection points. Do not dispose of batteries or battery pack together with other waste. It is recommended that you use local, free reimbursement systems batteries or battery packs, (may not be available in your area). The batteries or the battery pack should not be exposed to excessive heat such as sunshine, fire or the like.

## Notes on copyrights

- Because AACS (Advanced Access Content System) is approved as content protection system for Blu-ray Disc format, similar to use of CSS (Content Scramble System) for DVD format, certain restrictions are imposed on playback, analog signal output, etc., of AACS protected content. The operation of this product and restrictions on this product may vary depending on your time of purchase as those restrictions may be adopted and/or changed by AACS after the production of this product.
- Furthermore, BD-ROM Mark and BD+ are additionally used as content protection systems for Blu-ray Disc format, which imposes certain restrictions including playback restrictions for BD-ROM Mark and/or BD+ protected content. To obtain additional information on AACS, BD-ROM Mark, BD+, or this product, please contact an authorized Customer Service Center.
- Many BD-ROM/DVD discs are encoded with copy protection. Because of this, you should only connect your player directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected discs.
- This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Rovi Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Rovi Corporation. Reverse engineering or disassembly is prohibited.
- Under the U.S. Copyright laws and Copyright laws of other countries, unauthorized recording, use, display, distribution, or revision of television programs, videotapes, BD-ROM discs, DVDs, CDs and other materials may subject you to civil and/or criminal liability.

## Important Notice for TV colour system

The colour system of this player differs according to currently playing discs.

For example, when the player plays the disc recorded in the NTSC colour system, the image is output as an NTSC signal.

Only the multi system colour TV can receive all signals output from the player.

- If you have a PAL colour system TV, you will see just distorted images when using discs or video contents recorded in NTSC.
- The multi system colour TV changes the colour system automatically according to input signals. In case that the colour system is not changed automatically, turn it off and then on to see normal images on screen.
- Even if the disc recorded in NTSC colour system are well displayed on your TV, these may not be recorded correctly on your recorder.

**Caution**

- Watching a 3D content for a long period time may cause dizziness or tiredness.
- It is not recommended to watch a movie in 3D mode for infirm, child and pregnant woman.
- If you are experiencing headache, tiredness or dizziness while viewing content in 3D, it is strongly recommended to stop the playback and rest until you feel normal.

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Some of the content in this manual may differ from your player depending on the software of the player or your service provider.

# Introduction

## Playable discs and symbols used in this manual

| Media/Term | Logo | Symbol | Description |
|---|---|---|---|
| Blu-ray | | BD | • Discs such as movies that can be purchased or rented.<br>• "Blu-ray 3D" discs and "Blu-ray 3D ONLY" discs.<br>• BD-R/RE discs that are recorded in BDAV format. |
| | | MOVIE<br>MUSIC<br>PHOTO | • BD-R/RE discs that contain Video, Audio or Photo files.<br>• ISO 9660+JOLIET, UDF and UDF Bridge format |
| DVD-ROM<br>DVD-R<br>DVD-RW<br>DVD+R<br>DVD+RW<br>(8 cm, 12 cm) | | DVD | • Discs such as movies that can be purchased or rented.<br>• Video mode and finalized only<br>• Supports the dual layer disc also |
| | | AVCHD | Finalized AVCHD format |
| | | MOVIE<br>MUSIC<br>PHOTO | • DVD±R/RW discs that contain Video, Audio or Photo files.<br>• ISO 9660+JOLIET, UDF and UDF Bridge format |
| DVD-RW (VR)<br>(8 cm, 12 cm) | | DVD | VR mode and finalized only |
| Audio CD<br>(8 cm, 12 cm) | | ACD | Audio CD |
| CD-R/RW<br>(8 cm, 12 cm) | | MOVIE<br>MUSIC<br>PHOTO | • CD-R/RW discs that contain Video, Audio or Photo files.<br>• ISO 9660+JOLIET, UDF and UDF Bridge format |
| Note | – | | Indicates special notes and operating features. |
| Caution | – | | Indicates cautions for preventing possible damages from abuse. |

**Note**

- Depending on the conditions of the recording equipment or the CD-R/RW (or DVD±R/RW) disc itself, some CD-R/RW (or DVD±R/RW) discs cannot be played on the unit.
- Depending on the recording software & the finalization, some recorded discs (CD-R/RW, DVD±R/RW, BD-R/RE) may not be playable.
- BD-R/RE, DVD±R/RW and CD-R/RW discs recorded using a personal computer or a DVD or CD Recorder may not play if the disc is damaged or dirty, or if there is dirt or condensation on the player's lens.
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- This player requires discs and recordings to meet certain technical standards in order to achieve optimal playback quality.
- Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files) and these require certain pre-existing conditions to ensure compatible playback.
- Customers should note that permission is required in order to download MP3 / WMA files and audio from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.
- You have to set the disc format option to [Mastered] in order to make the discs compatible with the LG players when formatting rewritable discs. When setting the option to Live System, you cannot use it on LG player. (Mastered/Live File System : Disc format system for windows Vista)

## About the "⊘" symbol display

"⊘" may appear on your TV display during operation and indicates that the function explained in this owner's manual is not available on that specific media.

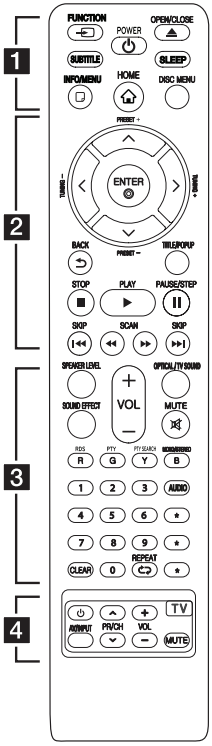
## Regional code

This unit has a regional code printed on the unit. This unit can play only BD-ROM or DVD discs labeled same as the unit or "ALL".

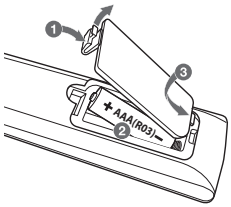
## System Select

You must select the appropriate system mode for your TV system. Open the disc tray using the ⏏ (OPEN/CLOSE) button and then, press and hold ⏸ (PAUSE) for more than five seconds to be able to select a system (PAL, NTSC, AUTO)

# Remote Control




## Replacement of battery




Remove the battery cover on the rear of the Remote Control, and insert R03 (size AAA) battery with ⊕ and ⊖ matched correctly.

### 1

**FUNCTION:** Changes input mode.

**SUBTITLE:** Selects a subtitle language.

**(POWER):** Switches the player ON or OFF.

**(OPEN/CLOSE):** Ejects a disc.

**SLEEP:** Sets a certain period of time after which the unit will switch to off.

**INFO/MENU ( ):** Displays or exits On-Screen Display.

**HOME ( ):** Displays or exits the [Home Menu].

**DISC MENU:** Accesses menu on a disc.

### 2

**Direction buttons (∧ / ∨ / < / >):** Selects an option in the menu.

**PRESET +/-:** Selects programme of Radio.

**TUNING +/-:** Tunes in the desired radio station.

**ENTER ( ):** Acknowledges menu selection.

**BACK ( ):** Exits the menu or returns to the previous screen.

**TITLE/POPUP:** Displays the DVD title menu or BD-ROM's pop-up menu, if available.

■ **(STOP):** Stops playback.

► **(PLAY):** Starts playback.

❚❚ **(PAUSE/STEP):** Pauses playback.

**I◄◄ / ►►I (SKIP):** Goes to the next or previous chapter / track / file.

**◄◄ / ►► (SCAN):** Searches backward or forward.

### 3

**SPEAKER LEVEL:** Sets the sound level of desired speaker.

**SOUND EFFECT:** Selects a sound effect mode.

**VOL +/-:** Adjusts speaker volume.

**OPTICAL/ TV SOUND :** Changes input mode to optical directly.

**MUTE:** Mute the unit.

**Colored (R, G, Y, B) buttons:**
- Use to navigate BD-ROM menus. They are also used as shortcut buttons for specific menus.
- B button: Selects mono/ stereo in FM mode.

**RDS:** Radio Data System.

**PTY:** Views the programme type of the RDS.

**PTY SEARCH:** Searches programme type.

**0-9 numerical buttons:** Selects numbered options in a menu.

**CLEAR:** Removes a mark on the search menu or a number when setting the password.

**REPEAT ( ):** Repeats a desired section or sequence.

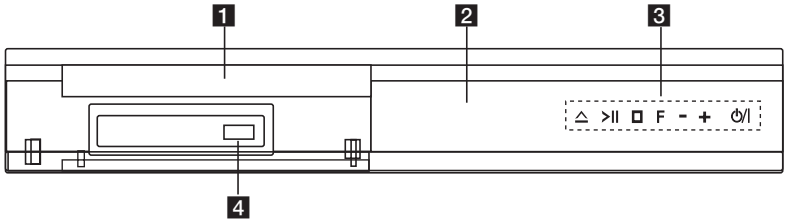
**AUDIO:** Selects an audio language or audio channel.

**★ :** Marked button is not available.

### 4

**TV Control Buttons:** See page 58.

# Front Panel



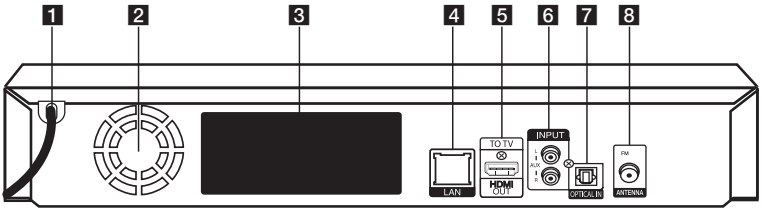

1 **Disc Tray**

2 **Display Window**

3 **Operation buttons**
**⏏ (Open / Close)**
**>II (Play / Pause)**
**□ (Stop)**
**F (Function)**
Changes the input source or function.
**-/+ (Volume)**
**⏻ / I (Power)**

4 **USB Port**

# Rear Panel




1 **AC power cord**

2 **Cooling Fan**

3 **Speakers connectors**

4 **LAN port**

5 **HDMI OUT TO TV**

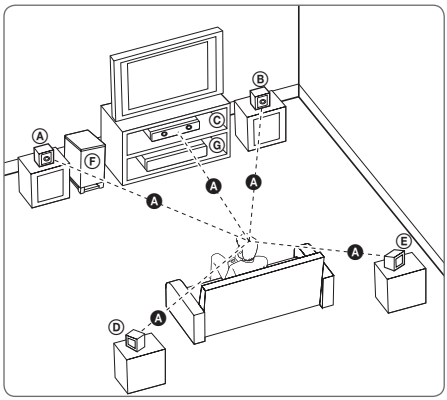
6 **AUX (L/R) INPUT**

7 **OPTICAL IN**

8 **Antenna Connector**

# Positioning the System

The following illustration shows an example of positioning the system. Note that the illustrations in these instructions differ from the actual unit for explanation purposes.
For the best possible surround sound, all the speakers other than the subwoofer should be placed at the same distance from the listening position (Ⓐ).




**Ⓐ Front left speaker (L)/**
**Ⓑ Front right speaker (R):**
Place the front speakers to the sides of the monitor or screen and as flush with the screen surface as possible.

**Ⓒ Center:**
Place the Center above or below the monitor or screen.

**Ⓓ Surround left speaker (L)/**
**Ⓔ Surround right speaker (R):**
Place these speakers behind your listening position, facing slightly inwards.

**Ⓕ Subwoofer:**
The position of the subwoofer is not so critical, because low bass sounds are not highly directional. But it is better to place the subwoofer near the front speakers. Turn it slightly toward the center of the room to reduce the wall reflections.

**Ⓖ Unit**

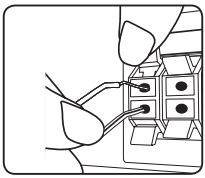
**⚠ Caution**

- Be careful to make sure children not to put their hands or any objects into the *speaker duct.
  *Speaker duct: A hole for plentiful bass sound on speaker cabinet (enclosure).
- Place the Center at a safe distance from the child's reach.
  Otherwise it may result in the speaker falling down and causing personal injury and/or property damage.
- The speakers contain magnetic parts, so colour irregularity may occur on the CRT TV screen or PC monitor screen. Please use the speakers away from the TV screen or PC monitor screen.
- Before using the subwoofer, remove the protective vinyl.
- Be careful not to make scratches on the surface of the Unit /Sub-Woofer when installing or moving them

# Speaker Connection

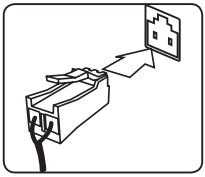
## Attaching the speakers to the player

1. Connect the wires to the unit.
   Match each wire's colored band (or marking) to the same colored (or marked) connection terminal on the rear of the unit. To connect the cable to the unit, press each plastic finger pad to open the connection terminal. Insert the wire and release the finger pad.



   Connect the black stripe of each wire to the terminals marked -(minus) and the other end to the terminals marked + (plus).

   Connect a woofer cord to the player. When connecting a woofer cord to the player, insert the connector until it clicks.



2. In some cases, the wires need to be connected to the speakers.
   Connect the other end of each wire to the correct speaker according to the color coding or marking:

| Color | Speaker | Position |
|---|---|---|
| Green (C) | Center | Center |
| Orange | Sub woofer | Any front position |
| Red (F.R/L) | Front | Front right |
| White (F.R/L) | Front | Front left |

To connect the cable to the speakers, press each plastic finger pad to open the connection terminals on the base of each speaker. Insert the wire and release the finger pad.

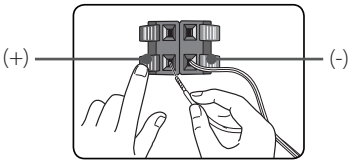
**Caution**

- Be careful to make sure children do not put their hands or any objects into the *speaker duct.
  *Speaker duct : A hole for plentiful bass sound on speaker cabinet (enclosure).
- The speakers contain magnet parts, so color irregularity may occur on the TV screen or PC monitor screen. Please use the speakers far away from either TV screen or PC monitor.

## Attaching the rear speakers to the wireless receiver

Connect the rear speakers to the wireless receiver with the speaker cords.

Make sure the wire marked black goes in to the terminal marked "–" (minus) and the other wire goes in to the terminal marked "+" (plus).




| Color | Speaker | Position |
|---|---|---|
| Grey | Rear right | Rear right |
| Blue | Rear left | Rear left |

# Wireless speakers connection

## Setting up the wireless receiver for the first time

1. Connect the power cord of the wireless receiver to the outlet.
2. When you turn on the main unit, the wireless speakers connection will be completed automatically.
   - When the connection is completed, you can see the yellow-green LED on the wireless receiver and the indicator (●) on the main unit.

### LED indicator of wireless receiver

| LED Color | Operation |
|---|---|
| Yellow-green (Blink) | The wireless receiver is trying to connect. |
| Yellow-green | The connection is completed. |
| Red | The wireless receiver is in standby mode or the connection is failed. |
| Off (No display) | The power cord of wireless receiver is disconnected. |

**Note**

- If there is a strong electromagnetic wave product nearby, interference may occur. Put the unit (wireless receiver and main unit) away from there.
- It takes a few seconds (and may take longer) for the main unit and the wireless receiver to communicate with each other.
- The available range is 20 m for wireless connection in an open place.

## Manually pairing wireless receiver

When your connection is not completed, you can see the red LED or the blinking yellow-green LED on the wireless receiver and the rear speakers are not made sound. To solve the problem, follow the below steps.

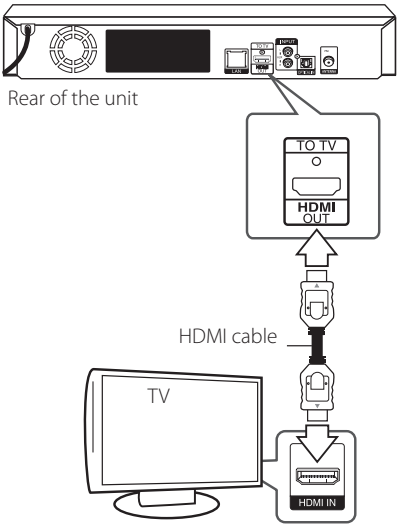
1. Adjust the volume level of the main unit to minimum.
   - "VOL MIN" appears on the display window.
2. Press and hold (MUTE) on the remote control for about 3 seconds.
   - "WL RESET" appears on the display window briefly.
3. If the LED of the wireless receiver already blinks in yellow-green continually, you can skip this step.

   Press and hold PAIRING on the rear of the wireless receiver for more than 5 seconds.
   - The LED of the wireless receiver lights up alternately in red and yellow-green.
4. Disconnect the power cord of the main unit and the wireless receiver.
5. Connect them again after the LED of the main unit and the wireless receiver are fully turned off.

   The main unit and the wireless receiver will be paired automatically when you turn on the main unit.
   - When the connection is completed, you can see the yellow-green LED on the wireless receiver and the indicator (●) on the main unit.

# Connecting to Your TV

If you have a HDMI TV or monitor, you can connect it to this player using a HDMI cable (Type A, High speed HDMI™ cable with Ethernet). Connect the HDMI jack on the player to the HDMI jack on a HDMI compatible TV or monitor.




Set the TV's source to HDMI (refer to TV's Owner's manual).

## Additional Information for HDMI

- When you connect a HDMI or DVI compatible device make sure of the following:
  - Try switching off the HDMI/DVI device and this player. Next, switch on the HDMI/DVI device and leave it for around 30 seconds, then switch on this player.
  - The connected device's video input is set correctly for this unit.
  - The connected device is compatible with 720 x 576p, 1280 x 720p, 1920 x 1080i or 1920 x 1080p video input.
- Not all HDCP-compatible HDMI or DVI devices will work with this player.
  - The picture will not be displayed properly with non-HDCP device.

**Note**

- If a connected HDMI device does not accept the audio output of the player, the HDMI device's audio sound may be distorted or may not output.
- When you use HDMI connection, you can change the resolution for the HDMI output. (Refer to "Resolution setting" on page 17 )
- Select the type of video output from the HDMI OUT jack using [HDMI Color Setting] option on the [Settings] menu (see page 27).
- Changing the resolution when the connection has already been established may result in malfunctions. To solve the problem, turn off the player and then turn it on again.
- When the HDMI connection with HDCP is not verified, TV screen is changed to black screen. In this case, check the HDMI connection, or disconnect the HDMI cable.
- If there are noises or lines on the screen, please check the HDMI cable (length is generally limited to 4.5 m(15 ft.)).

## What is SIMPLINK?

Some functions of this unit are controlled by the TV's remote control when this unit and LG TV's with SIMPLINK are connected through HDMI connection.

Controllable functions by LG TV's remote control; Play, Pause, Scan, Skip, Stop, Power Off, etc.

Refer to the TV owner's manual for the details of SIMPLINK function.

LG TV's with SIMPLINK function has the logo as shown above.

**Note**

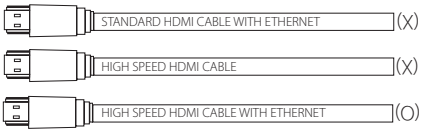
Depending on the disc type or playing status, some SIMPLINK operation may differ from your purpose or not work.

## ARC (Audio Return Channel) function

The ARC function enables an HDMI capable TV to send the audio stream to HDMI OUT of this player.

To use this function:

- Your TV must support the HDMI-CEC and ARC function and the HDMI-CEC and ARC must be set to On.
- The setting method of HDMI-CEC and ARC may differ depending on the TV. For details about ARC function, refer to your TV manual.
- You must use the HDMI cable (Type A, High Speed HDMI™ cable with Ethernet).




- You must connect with the HDMI IN that supports the ARC function using the HDMI OUT on this player.
- You can connect only one Home Theater to TV compatible with ARC.

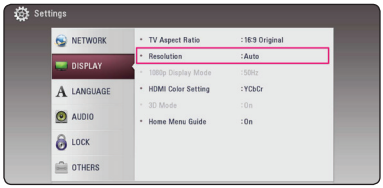
**Note**

To activate [SIMPLINK / ARC] function, set this option to [On]. (page 31)

## Resolution setting

The player provides several output resolutions for HDMI OUT jack. You can change the resolution using [Settings] menu.

1. Press HOME (⌂).
2. Use < / > to select the [Settings] and press ENTER (⊙). The [Settings] menu appears.
3. Use Λ / V to select [DISPLAY] option then press > to move to the second level.
4. Use Λ / V to select the [Resolution] option then press ENTER (⊙) to move to the third level.



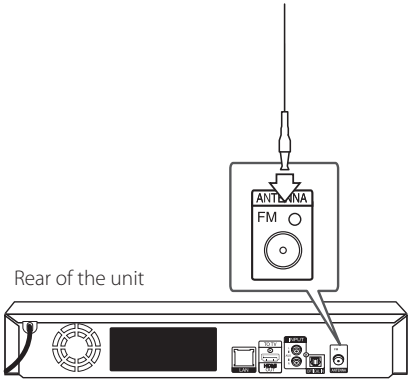

5. Use Λ / V to select the desired resolution then press ENTER (⊙) to confirm your selection.

### Note

- If your TV does not accept the resolution you have set on the player, you can set resolution to 576p as follows:
  1. Press ⏏ to open the disc tray.
  2 Press ■ (STOP) for more than 5 seconds.
- If you select a resolution manually and then connect the HDMI jack to TV and your TV does not accept it, the resolution setting is set to [Auto].
- If you select a resolution that your TV does not accept, the warning message will appear. After resolution change, if you cannot see the screen, please wait 20 seconds and the resolution will automatically revert back to the previous resolution.
- The 1080p video output frame rate may be automatically set to either 24 Hz or 50 Hz depending both on the capability and preference of the connected TV and based on the native video frame rate of the content on the BD-ROM disc.

# Antenna Connection

Connect the supplied antenna for listening to the radio.




**Note**

Be sure to fully extend the FM wire antenna.

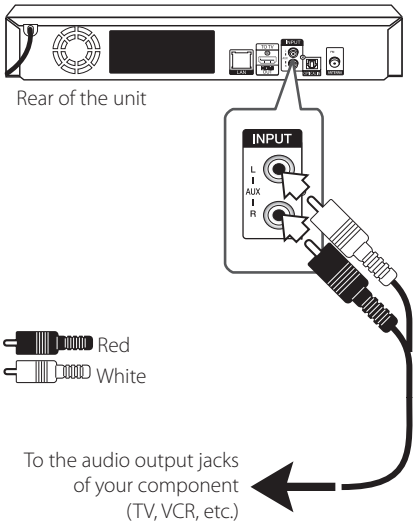
# Connections with External Device

## AUX connection

You can enjoy the sound from an external component through the speakers of this system.

Connect the analog audio output jacks of your component into the AUX L/R (INPUT) on this unit. And then select the [AUX] option by pressing FUNCTION.

You can also use the F (Function) button on the front panel to select the input mode.

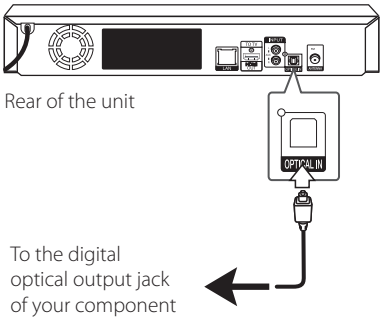


## OPTICAL IN connection

You can enjoy the sound from your component with a digital optical connection through the speakers of this system.

Connect the optical output jack of your component into the OPTICAL IN jack on the unit. And then select the [OPTICAL] option by pressing FUNCTION. Or press OPTICAL / TV SOUND to select directly.

You can also use the F (Function) button on the front panel to select the input mode.



# Connecting to Your Home Network

This player can be connected to a local area network (LAN) via the LAN port on the rear panel. By connecting the unit to a broadband home network, you have access to services such as software updates, BD-Live interactivity and online content services.

## Wired network connection

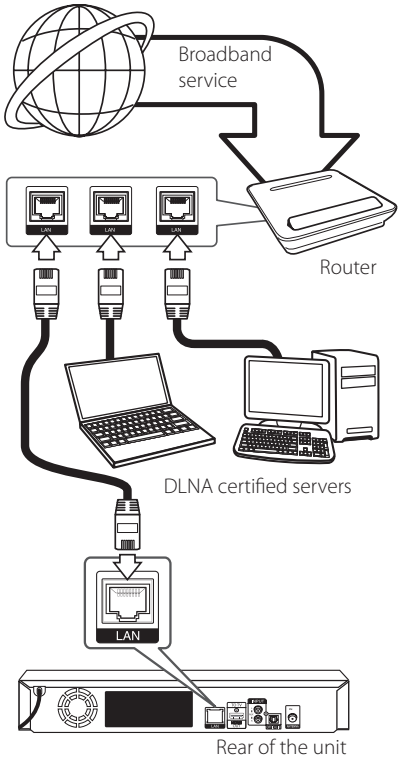
Using a wired network provides the best performance, because the attached devices connect directly to the network and are not subject to radio frequency interference.

Please refer to the documentation for your network device for further instructions.

Connect the player's LAN port to the corresponding port on your Modem or Router using a commercially available LAN or Ethernet cable.

**Note**

- When plugging or unplugging the LAN cable, hold the plug portion of the cable. When unplugging, do not pull on the LAN cable but unplug while pressing down on the lock.
- Do not connect a modular phone cable to the LAN port.
- Since there are various connection configurations, please follow the specifications of your telecommunication carrier or internet service provider.
- If you want to access content from DLNA-compatible digital media servers, this player must be connected to the same local area network with them via a router.
- To set your PC as a DLNA-compatible digital media server, install the SmartShare PC Software on your PC. (page 37)



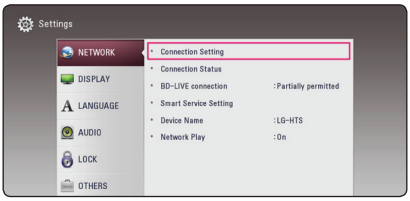
## Wired network setup

If there is a DHCP server on the local area network (LAN) via wired connection, this player will automatically be allocated an IP address. After making the physical connection, a small number of home networks may require the player's network setting to be adjusted. Adjust the [NETWORK] setting as follow.

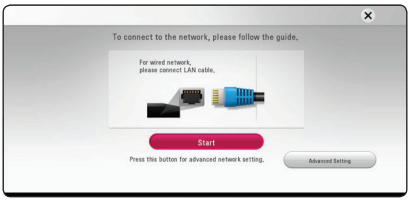
**Preparation**

Before setting the wired network, you need to connect the broadband internet to your home network.

1. Select [Connection Setting] option in the [Settings] menu then press ENTER (⊙).




2. Read the preparations for the network settings and then press ENTER (⊙) while [Start] is highlighted.

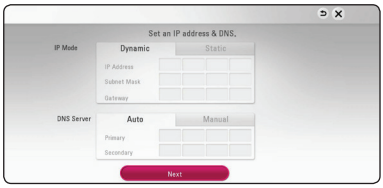



Network will automatically be connected to the unit.

### Advanced Setting

If you want to set the network settings manually, use Λ / V to select [Advanced Setting] on the [Network Setting] menu and press ENTER (⊙).

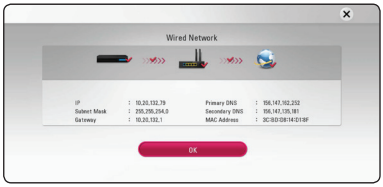
1. Use Λ / V / < / > to select the IP mode between [Dynamic] and [Static].
   Normally, select [Dynamic] to allocate an IP address automatically.




**Note**

If there is no DHCP server on the network and you want to set the IP address manually, select [Static] then set [IP Address], [Subnet Mask], [Gateway] and [DNS Server] using Λ / V / < / > and numerical buttons. If you make a mistake while entering a number, press CLEAR to clear the highlighted part.

2. Select [Next] and press ENTER (⊙) to apply network settings.




Network connection status is displayed on the screen.

3. Press ENTER (⊙) while [OK] is highlighted to finish the wired network settings.

## Notes on network connection

- Many network connection problems during set up can often be fixed by re-setting the router or modem. After connecting the player to the home network, quickly power off and/or disconnect the power cable of the home network router or cable modem. Then power on and/or connect the power cable again.
- Depending on the internet service provider (ISP), the number of devices that can receive internet service may be limited by the applicable terms of service. For details, contact your ISP.
- Our company is not responsible for any malfunction of the player and/or the internet connection feature due to communication errors/malfunctions associated with your broadband internet connection, or other connected equipment.
- The features of BD-ROM discs made available through the Internet Connection feature are not created or provided by our company, and our company is not responsible for their functionality or continued availability. Some disc related material available by the Internet Connection may not be compatible with this player. If you have questions about such content, please contact the producer of the disc.
- Some internet content may require a higher bandwidth connection.
- Even if the player is properly connected and configured, some internet content may not operate properly because of internet congestion, the quality or bandwidth of your internet service, or problems at the provider of the content.
- Some internet connection operations may not be possible due to certain restrictions set by the Internet service provider (ISP) supplying your broadband Internet connection.
- Any fees charged by an ISP including, without limitation, connection charges are your responsibility.
- A 10 Base-T or 100 Base-TX LAN port is required for wired connection to this player. If your internet service does not allow for such a connection, you will not be able to connect the player.
- You must use a Router to use xDSL service.
- A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your ISP, you may not be able to use the internet connection feature contained in this player or you may be limited to the number of devices you can connect at the same time. (If your ISP limits subscription to one device, this player may not be allowed to connect when a PC is already connected.)

# Initial Setup

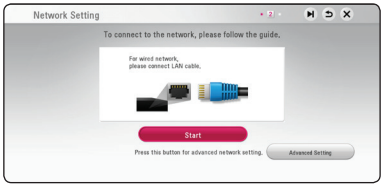
When you turn on the unit for the first time, the initial setup wizard appears on the screen. Set the display language and network settings on the initial setup wizard.

1. Press ⏻ (POWER).

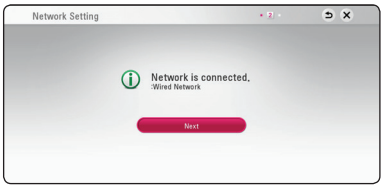
   The initial setup wizard appears on the screen.

2. Use ∧ / ∨ / < / > to select a display language and press ENTER (⦿).

3. After checking the Terms of Service, select [Agree] to use the Premium Service and SW Updates.
   Read and prepare the preparations for the network settings and then press ENTER (⦿) while [Start] is highlighted.




   If wired network is connected, the network connection setting will automatically be finished.



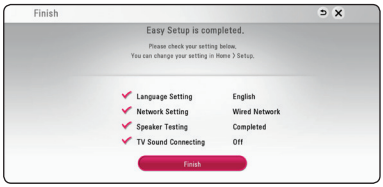

4. Select [Next] and press ENTER (⦿).
5. Press ENTER (⦿) to verify the test tone signals of the speakers.

   After verifying the test tone signals, press ENTER (⦿) while [Stop] is highlighted.
   Select [Next] and press ENTER (⦿).

6. You can listen to TV sound through HTS Speaker automatically when TV is turned on.

   Press ∧ to move and press < / > to select [On] or [Off]. Select [Next] and press ENTER (⦿).

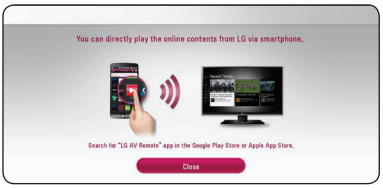
7. Check all the settings that you have set in the previous steps.




   Press ENTER (⦿) while [Finish] is highlighted to finish the initial setup settings. If there is any settings to be changed, use ∧ / ∨ / < / > to select ⮌ and press ENTER (⦿).

8. Displays private sound mode guide. Press ENTER (⦿).

9. Displays the guide to enjoy online contents using LG AV Remote. Press ENTER (⊙).

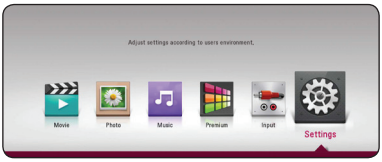



# Settings

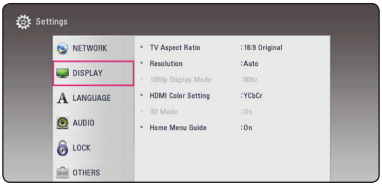
## Adjust the setup settings

You can change the settings of the player in the [Settings] menu.

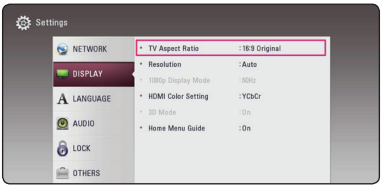
1. Press HOME (⌂).



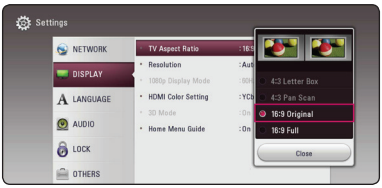

2. Use < / > to select the [Settings] and press ENTER (⊙). The [Settings] menu appears.




3. Use Λ / V to select the first setup option, and press > to move to the second level.




4. Use Λ / V to select a second setup option, and press ENTER (⊙) to move to the third level.




5. Use Λ / V to select a desired setting, and press ENTER (⊙) to confirm your selection.

# [NETWORK] menu

The [NETWORK] settings are needed to use the software update, BD-Live and online content services.

## Connection Setting

If your home network environment is ready to connect, the unit needs to be set up via wired connection for network communication. (See "Connecting to Your Home Network" on page 20.)

## Connection Status

If you want to check the network status on this player, select the [Connection Status] options and press ENTER (⊙) to check whether a connection to the network and the internet have been established.

## BD-LIVE connection

You can restrict Internet access when BD-Live functions are used.

**[Permitted]**

Internet access is permitted for all BD-Live content.

**[Partially permitted]**

Internet access is permitted only for BD-Live content which have content owner certificates. Internet access and AACS Online functions are prohibited for all BD-Live content without a certificate.

**[Prohibited]**

Internet access is prohibited for all BD-Live content.

## Smart Service Setting

**[Country Setting]**

Select your area for displaying proper online content service.

**[Initialize]**

Depending on the region, [Initialize] function may not be available.

## Device Name

You can make a network name using virtual keyboard. This player will be recognized by the name you are entering on your home network.

## Network Play

This function allows you to control the playback of media streamed from DLNA media server by a DLNA certified smartphone. Most DLNA certified smartphone has a function to control the playback media on your home network. Set this option to [On] for allowing your smartphone to control this unit. Refer to instructions of your DLNA certified smartphone or the application for more detailed information.

**Note**

- This unit and the DLNA Certified Smartphone must be connected to the same network.
- To use the [Network Play] function using a DLNA certified smartphone, press HOME (⌂) to display the home menu before connecting to this unit.
- While controlling the unit using the [Network Play] function, the remote control may not work.
- Available file formats described on page 61 are not always supported on [Network Play] function.

# [DISPLAY] menu

## TV Aspect Ratio

Select a TV aspect ratio option according to your TV type.

**[4:3 Letter Box]**

Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.

**[4:3 Pan Scan]**

Select when a standard 4:3 TV is connected. Displays pictures cropped to fill your TV screen. Both sides of the picture are cut off.

**[16:9 Original]**

Select when a 16:9 wide TV is connected. The 4:3 picture is displayed with an original 4:3 aspect ratio, with black bars appearing at the left and right sides.

**[16:9 Full]**

Select when a 16:9 wide TV is connected. The 4:3 picture is adjusted horizontally (in a linear proportion) to fill the entire screen.

**Note**

You cannot select [4:3 Letter Box] and [4:3 Pan Scan] option when the resolution is set to higher than 720p.

## Resolution

Sets the output resolution of the HDMI video signal. Refer to page 17 for details about the resolution setting.

**[Auto]**

If the HDMI OUT jack is connected to TVs providing display information (EDID), automatically selects the resolution best suited to the connected TV.

**[576p]**

Outputs 576 lines of progressive video.

**[720p]**

Outputs 720 lines of progressive video.

**[1080i]**

Outputs 1080 lines of interlaced video.

**[1080p]**

Outputs 1080 lines of progressive video.

## 1080p Display Mode

When the resolution is set to 1080p, select [24 Hz] for smooth presentation of film material (1080p/24 Hz) with a HDMI-equipped display compatible with 1080p/24 Hz input.

**Note**

- When you select [24 Hz], you may experience some picture disturbance when the video switches video and film material. In this case, select [50 Hz].
- Even when [1080p Display Mode] is set to [24 Hz], if your TV is not compatible with 1080p/24 Hz, the actual frame frequency of the video output will be 50 Hz to match the video source format.

### HDMI Color Setting

Select the type of output from the HDMI OUT jack. For this setting, please refer to the manuals of your display device.

**[YCbCr]**

Select when connecting to a HDMI display device.

**[RGB]**

Select when connecting to a DVI display device.

### 3D Mode

Select the type of output mode for Blu-ray 3D disc playback. (This function is activated only when 3D TV is connected.)

**[On]**

Blu-ray 3D disc playback will output as 3D mode.

**[Off]**

Blu-ray 3D disc playback will output as 2D mode like a normal BD-ROM disc playback.

### Home Menu Guide

This function allows you to display or delete the guide bubble on the [HOME] menu. Set this option to [On] for displaying guide.

## [LANGUAGE] menu

### Display Menu

Select a language for the [Settings] menu and on-screen display.

### Disc Menu / Disc Audio / Disc Subtitle

Select the language you prefer for the audio track (disc audio), subtitles, and the disc menu.

**[Original]**

Refers to the original language in which the disc was recorded.

**[Other]**

Press ENTER (⊙) to select another language. Use number buttons then press ENTER (⊙) to enter the corresponding 4-digit number according to the language code list on page 66.

**[Off] (Disc Subtitle only)**

Turn off Subtitle.

**Note**

Depending on the disc, your language setting may not work.

# [AUDIO] menu

Each disc has a variety of audio output options. Set the player's Audio options according to the type of audio system you use.

**Note**

Since many factors affect the type of audio output, see "Audio Output Specifications" on page 64 for details.

## Digital Output

**[Auto]**

Select if you connect this unit's HDMI OUT jack to a device with LPCM, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS, DTS-HD decoder or digital decoder.

**[PCM]**

Select if you connect this unit's HDMI OUT jack to a device with digital decoder.

**[DTS Re-Encode]**

Select if you connect this unit's HDMI OUT jack to a device with DTS decoder.

**Note**

- When [Digital Output] option is set to [Auto], the audio may output as bitstream. If the bitstream information is not detected from HDMI device with EDID, the audio may output as PCM.
- If the [Digital Output] option is set to [DTS Re-Encode], the DTS Re-Encode audio is outputted for BD-ROM discs with secondary audio and the original audio is outputted for the other discs (like [Auto]).
- This setting is not available on the input signal from an external device.

## DRC (Dynamic Range Control)

This function allows you to listen to a movie at a lower volume without losing clarity of sound.

**[Auto]**

The dynamic range of the Dolby TrueHD audio output is specified by itself.
And the dynamic range of the Dolby Digital and Dolby Digital Plus are operated as same as the [On] mode.

**[On]**

Compress the dynamic range of the Dolby Digital, Dolby Digital Plus or Dolby TrueHD audio output.

**[Off]**

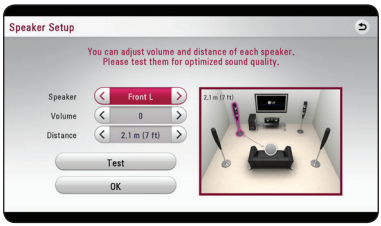
Turns off this function.

**Note**

The DRC setting can be changed only when a disc is not inserted or the unit is in complete stop mode.

## Speaker Setup

To obtain the best possible sound, use the speaker setup display to specify the volume of the speakers you have connected and their distance from your listening position. Use the test to adjust the volume of the speakers to the same level.




**[Speaker]**

Select a speaker that you want to adjust.

**[Volume]**

Adjust the output level of each speaker.

**[Distance]**

Adjust the distance between each speaker and the listening position.

**[Test/ Stop test tone]**

The speakers will emit a test tone.

**[OK]**

Confirms the setting.

## HD AV Sync

Sometimes Digital TV encounters a delay between picture and sound. If this happens you can compensate by setting a delay on the sound so that it effectively 'waits' for the picture to arrive: this is called HD AV Sync. Use < > to scroll up and down through the delay amount, which you can set at anything between 0 and 300 ms.

# [LOCK] menu

The [LOCK] settings affect only Blu-ray Disc and DVD playback.

To access the any features in [LOCK] settings, you must enter the 4-digit security code you have created.
If you have not entered a password yet, you are prompted to do so. Enter a 4-digit password twice, and press ENTER (⊙) to create a new password.

## Password

You can create or change the password.

**[None]**

Enter a 4-digit password twice, and press ENTER (⊙) to create a new password.

**[Change]**

Enter the current password and press ENTER (⊙). Enter a 4-digit password twice, and press ENTER (⊙) to create a new password.

### If you forget your password

If you forget your password, you can clear it using the following steps:

1. Remove any disc that might be in the player.
2. Highlight [Password] option in the [Settings] menu.
3. Use Number buttons to enter "210499". The password is cleared.

**Note**

If you make a mistake before pressing ENTER (⊙), press CLEAR. Then input the correct password.

### DVD Rating

Blocks playback of rated DVD based on their content. (Not all discs are rated.)

**[Rating 1-8]**

Rating one (1) has the most restrictions and rating eight (8) is the least restrictive.

**[Unlock]**

If you select [Unlock], parental control is not active and the disc plays in full.

### Blu-ray Disc Rating

Set an age limit of BD-ROM play. Use number buttons to input an age limit for BD-ROM viewing.

**[255]**

All BD-ROM can be played.

**[0-254]**

Prohibits play of BD-ROM with corresponding ratings recorded on them.

**Note**

The [Blu-ray Disc Rating] will be applied only for the Blu-ray disc that containing the Advanced Rating Control.

### Area Code

Enter the code of the area whose standards were used to rate the DVD video disc, based on the list on page 65.

## [OTHERS] menu

### Quick Start

This player can stay in standby mode with low power consumption, so that the player can instantly boot without delay when you turn on this unit. Set this option to [On] for activating [Quick Start] function.

**Note**

- If [Quick Start] option is set to [On] and an AC power is accidently re-connected to the player by power failure etc., the player automatically boots itself to be the standby status. Before operating the player, wait for a while until the player is in standby status.
- When [Quick Start] is set to [On], power consumption will be higher than when [Quick Start] is set to [Off].

### Auto Power Off

The screen saver appears when you leave the player in Stop mode for about 5 minutes. If you set this option to [On], the unit automatically turns off within 15 minutes since the Screen Saver is displayed. Set this option to [Off] to leave the screen saver until the unit is operated by the user.

**Note**

When you set [Auto Power Off] function in setting menu on, this unit will be off itself to save electronic consumption in the case main unit is not connected to external device and is not used for 20 minutes.

So does this unit after six hours since Main unit has been connected to other device using analog input.

**How to disconnect the wireless network connection or the wireless device**

Turn off the unit.

## TV Sound Connecting

You can listen to TV sound through this unit's speaker automatically when TV is turned on.

Press Λ to move and press < / > to select [On] or [Off]. Select [Next] and press ENTER (⊙).

**Note**

When [TV Sound Connecting] and [Quick Start] functions are on and this unit is turned off, if a previously paired **Bluetooth** device tries to pair with this unit, this unit turns on automatically.

## Initialize

**[Factory Set]**

You can reset the player to its original factory settings.

**[Blu-ray Storage Clear]**

Initializes the BD-Live content from the connected USB storage.

**Note**

If you reset the player to its original factory settings using [Factory Set] option, you have to set all the activation for the online services and network settings again.

## Software

**[Information]**

Displays the current software version.

**[OSS Notice]**

LGE Open Source Software Notice is displayed.

**[Update]**

You can update the software by connecting the unit directly to the software update server (page 59).

## SIMPLINK/ARC

- The SIMPLINK function allows you to control this unit with LG TV's remote control.
- The ARC function enables an HDMI capable TV to send the audio stream to HDMI OUT of this player.

Set this option to [On] for activating [SIMPLINK/ARC] function. (page 16)

## Daylight Saving Time

When you use the BBC App, this function sets the time ahead one hour for daylight saving time (GMT+1).

**[On]**

Sets the time ahead one hour.

**[Off]**

Turns off this function.

## Terms of Service

Privacy Policy for Blu-ray Disc™ Player is displayed. To use the Premium Service and SW Updates, select [Agree].

# Sound Effect

You can select a suitable sound mode. Press SOUND EFFECT repeatedly until the desired mode appears on the front panel display or the TV screen. The displayed items for the equalizer maybe different depending on sound sources and effects.

**[Standard]:** You can enjoy optimized sound.

**[Music]:** You can enjoy comfortable and natural sound.

**[Cinema]:** You can enjoy more immersive and cinematic surround sound.

**[Flat]:** Provides balanced sound.

**[Boost]:** Boosts the mid-range for sound reinforcement.

**[Treble / Bass]:** Reinforces the treble and bass.

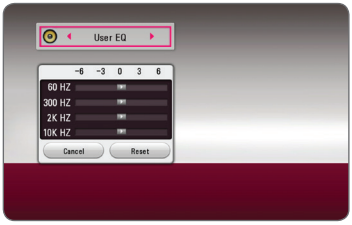
**[Football]:** You can enjoy a feeling of presence in the stadium when watching the football match broadcast.

**[Bass Blast]:** Reinforce the bass sound effect from front left and right speaker and subwoofer.

**[Power Front] :** You can enjoy the harmonious sound. This mode is suited for all the speakers were placed in a row.



## Setting the [User EQ]



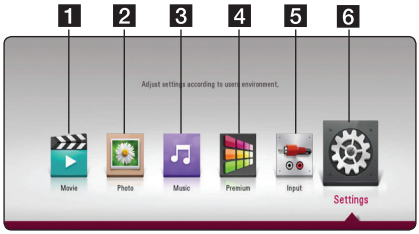

1. Use ∧ / ∨ to select the desired frequency.
2. Use < / > to select the desired level.

Select [Cancel] option then press ENTER (⊙) to cancel the setting.
Select [Reset] option then press ENTER (⊙) to reset the all adjustments.

# Home Menu Display

## Using [HOME] menu

The home menu appears when you press HOME (⌂). Use Λ / V / < / > to select a category and press ENTER (⊙).




| | |
|---|---|
| 1 | **[Movie] -** Plays video content. |
| 2 | **[Photo] -** Plays photo content. |
| 3 | **[Music] -** Plays audio content. |
| 4 | **[Premium] -** Displays the Premium home screen. (page 53) |
| 5 | **[Input] -** Changes input mode. |
| 6 | **[Settings] -** Adjusts the system settings. |

# Playing the Linked Devices

## Playing a disc

BD DVD AVCHD ACD

1. Press ⏏ (OPEN/CLOSE), and place a disc on the disc tray.
2. Press ⏏ (OPEN/CLOSE) to close the disc tray.

   For the most Audio CD, BD-ROM and DVD-ROM discs, playback starts automatically.
3. Press HOME (⌂).
4. Select [Movie] or [Music], and select disc icon.

**Note**

- Playback functions described in this manual are not always available in every files and media. Some functions can be restricted depending on many factors.
- Depending on the BD-ROM titles, an USB device connection may be needed for the proper playback.
- Unfinalized DVD-VR format discs may not be played in this player.
- Some DVD-VR discs are made with CPRM data by DVD RECORDER. This unit cannot support these kinds of discs.

## Playing Blu-ray 3D disc

BD

This player can play the Blu-ray 3D disc which contains separate views for the left and right eyes.

**Preparation**

In order to playback Blu-ray 3D title in stereoscopic 3D mode, you need to:

- Check your TV is 3D capable and has HDMI input(s).
- Wear 3D glasses to enjoy the 3D experience if it is necessary.
- Check whether the BD-ROM title is the Blu-ray 3D disc or not.
- Connect an HDMI cable (Type A, High Speed HDMI™ Cable) between the player's HDMI output and TV's HDMI input.

1. Press HOME (⌂), and set the [3D Mode] option on the [Settings] menu to [On] (page 27).
2. Press ⏏ (OPEN/CLOSE), and place a disc on the disc tray.
3. Press ⏏ (OPEN/CLOSE) to close the disc tray.

   The playback starts automatically.
4. Refer to the owner's manual of your 3D-ready TV for the further instruction.

   You may need to adjust the display settings and focus on your TV's setting for the improved 3D effect.

**Caution**

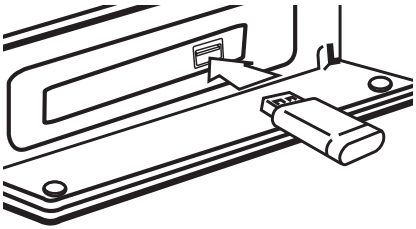
- Watching a 3D content for a long period time may cause dizziness or tiredness.
- It is not recommended to watch a video in 3D mode for infirm, child and pregnant woman.
- If you are experiencing headache, tiredness or dizziness while viewing content in 3D, it is strongly recommended to stop the playback and rest until you feel normal.

## Playing a file on disc/USB device

**MOVIE MUSIC PHOTO**

This player can play video, audio and photo files contained in the disc or USB device.

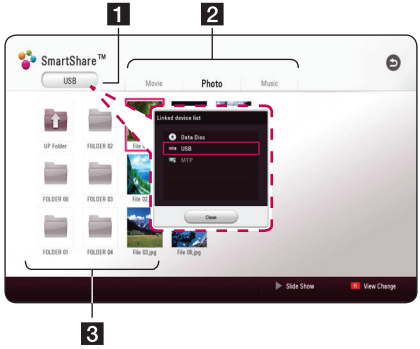
1. Insert a data disc on the tray or connect an USB device.



When you connect the USB device on the HOME menu, the player plays an audio file contained in the USB storage device automatically. If the USB storage device is containing various types of files, a menu for the file type selection will appear.

File loading may takes few minutes depending on the number of content stored in the USB storage device. Press ENTER (⊙) while [Cancel] is selected to stop loading.

2. Press HOME (⌂).
3. Select [Movie], [Photo] or [Music] using <, >, and press ∨.
4. Select Disc or USB and press ENTER (⊙).




| | |
|---|---|
| 1 | Displays all linked device. |
| 2 | Displays video, photo or audio content. |
| 3 | Displays the file or folder on linked device. |

5. Select a file using ∧ / ∨ / < / >, and press ▶(PLAY) or ENTER (⊙) to play the file.

### Notes on USB device

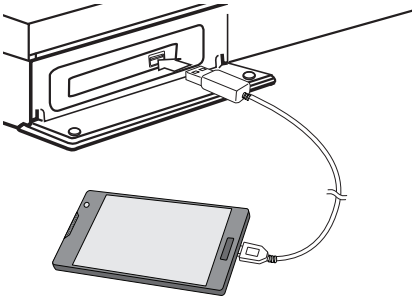
- This player supports USB flash drive/external HDD formatted in FAT32 and NTFS when accessing files (music, photo, movie). However, for BD-Live, use the USB flash drive / external HDD formatted in FAT32.
- This unit can support up to 4 partitions of the USB device.
- Do not extract the USB device during operation (play, etc.).
- An USB device which requires additional program installation when you have connected it to a computer, is not supported.
- USB device: USB device that supports USB1.1 and USB2.0.
- Video, audio and photo files can be played. For details of playing each file type, refer to the relevant pages.
- Regular back up is recommended to prevent data loss.
- If you use an USB extension cable, USB HUB or USB Multi-reader, the USB device may not be recognized.
- Some USB device may not work with this unit.
- Some digital cameras and mobile phones are not supported.
- USB Port of the unit cannot be connected to PC. The unit cannot be used as a storage device.

## Playing a file on android device

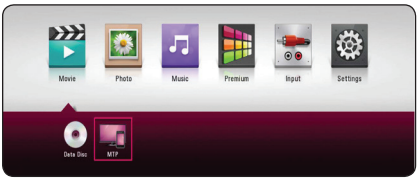
**MOVIE** **MUSIC** **PHOTO**

This player can play video, audio and photo files contained in the Android device.

1. Connect the android device to the unit with USB cable. Make sure that MTP is activated on Android device.

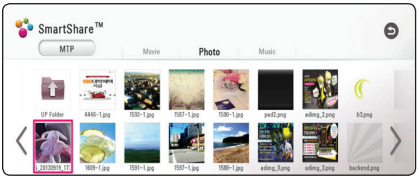


2. Press HOME (⌂).
3. Select [Movie], [Photo] or [Music] using </>, and press ∨.
4. Select [MTP] using </> and press ENTER (⊙).




File loading may take few minutes depending on the number of content stored in the Android device.

5. Select a file using ∧/∨/</>, and press ▶(PLAY) or ENTER (⊙) to play the file.




### Notes on Connecting android device

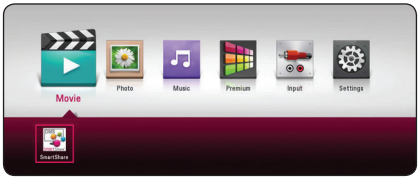
- This unit can support only MTP (Media Transfer Protocol) Android (4.0 or later is recommended) devices.
- Do not extract the Android device during operation (play, etc.).
- Video, audio and photo files can be played. For details of playing each file type, refer to the relevant pages.
- Regular back up is recommended to prevent data loss.
- If you use an USB extension cable, USB HUB or USB Multi-reader, the Android device may not be recognized.
- Some Android devices may not work with this unit.
- When you use MTP, playing some music, photo, movie, or subtitle files may not work depending on the Android device.

## Playing a file on a network server

MOVIE MUSIC PHOTO

This player can play video, audio and photo files located in a DLNA-compatible digital media server through your home network.

1. Check the network connection and settings (page 20).
2. Press HOME (⌂).
3. Select [Movie], [Photo] or [Music] using </>, and press V.




4. Select DLNA media server in the category using </> and press ENTER (⊙).

5. Select a file using ∧/V/</>, and press ▶(PLAY) or ENTER (⊙) to play the file.

**Note**

- The file requirements are described on page 61.
- Thumbnails of files with unsupported format will be displayed, but cannot be played on this unit.
- The subtitle file name and video file name have to be the same and located at the same folder.
- The playback and operating quality may be affected by your home network condition.
- You may experience connection problems depending on your server's environment.
- To set your PC as a DLNA-compatible digital media server, install the SmartShare PC Software on your PC. (page 37)

# Using Home Network Server for PC

Before connecting to PC to play a file, SmartShare PC software should be installed on your PC.

## About SmartShare PC Software

SmartShare PC Software is for sharing video, audio and photo files stored on your computer to this unit as a digital media server.

## Downloading SmartShare PC Software

**Note**

If the SmartShare PC Software disc is supplied, you can install SmartShare PC Software on your PC by the disc.

1. Start up your computer, visit http://www.lg.com. If necessary, select your region.
2. Click support tab.
3. Fill your model name on the cover of owner's manual in search bar.
4. Find and download the "SmartShare PC Software" file.

## Installing SmartShare PC Software

1. Before installation, close all running programs including firewall and Anti-Virus programs.
2. Unzip and double-click "Setup.exe" to install SmartShare PC Software. The installation is prepared and the installation wizard appears.
3. Follow the directions of the installation wizard displayed on the screen.
4. Click the [Exit] button to complete the installation.

**Note**

- SmartShare PC software is not supported with Mac OS.
- The SmartShare PC software is a customized software edition only for sharing files and folders to this player.
- This manual explains operations with the English version of SmartShare PC software as examples. Follow the explanation referring to the actual operations of your language version.

## Sharing files and folders

On your computer, you must share the folder containing video, audio and/or photo content to play them on this player.

This part explains the procedure for selecting the shared folders on your computer.

1. Double-click the "SmartShare" icon.
2. Click [Movie], [Photo] or [Music] icon on the center, and then click [Settings] on the top right corner of the SmartShare PC software. The [Settings] menu appears on the screen.
3. Click [My Shared Contents] tab, and then click icon. The [Add/Remove Shared Folders] menu appears on the screen.
4. Click the folder containing the files you want to share and then click the [OK]. The checked folder is added to the [My Shared Contents] and then click the [OK] at the bottom of the [Settings] menu.
5. Make sure that the SmartShare service turns on at the [Service] tab.

**Note**

- If the shared folders or files are not displayed on the player, click the [My Shared Contents] on the [Settings] menu, and then click icon.
- For more information, click [HELP] on the [Settings] menu.

## System requirements

### Minimum System

- CPU : Intel® 2.0 GHz or AMD Sempron™ 2000+ processors
- Memory : 1 GB of free RAM
- Graphics card : 64 MB video memory, minimum resolution of 1024 x 768 pixels, and 16 bit color settings
- Free Disk Space : 200 MB
- Windows® XP (Service Pack 2 or higher), Windows Vista®, Windows® 7 or higher
- Windows® Media Player® 11.0 or higher
- Network environment: 100 Mb Ethernet

### Recommended System

- CPU : Intel® Core™ Duo or AMD Athlon™ 64X2, 1.7 GHz or better
- Memory : 2 GB of free RAM
- Graphics card : 128 MB video memory, minimum resolution of 1024 x 768 pixels, and 16 bit color settings
- Free Disk Space : 200 MB
- Windows® XP (Service Pack 2 or higher), Windows Vista®, Windows® 7 or higher
- Windows® Media Player® 11.0 or higher
- Network environment: 100 Mb Ethernet

# General Playback

## Basic operations for video and audio content

### To stop playback

Press ■ (STOP) during playback.

### To pause playback

Press ❚❚ (PAUSE) during playback.
Press ▶ (PLAY) to resume playback.

### To play frame-by-frame (Video)

Press ❚❚ (PAUSE) during video playback.
Press ❚❚ (PAUSE) repeatedly to play Frame-by-Frame playback.

### To scan forward or backward

Press ◀◀ or ▶▶ to play fast forward or fast reverse during playback.

You can change the various playback speeds by pressing ◀◀ or ▶▶ repeatedly.

### To slow down the playing speed (Video)

While the playback is paused, press ▶▶ (❙▶) repeatedly to play various speeds of slow motion.

### To skip to the next/previous chapter/track/file

During playback, press ⏮ or ⏭ to go to the next chapter/track/file or to return to the beginning of the current chapter/track/file.

Press ⏮ twice briefly to step back to the previous chapter/track/file.

In the file list menu of a server, there may have many types of content in a folder together. In this case, press ⏮ or ⏭ to go to the previous or next content with same type.

## Basic operations for photo content

### To play a slide show

Press ▶ (PLAY) to start slide show.

### To stop a slide show

Press ■ (STOP) while slide show.

### To pause a slide show

Press ❚❚ (PAUSE) while slide show.
Press ▶ (PLAY) to re-start the slide show.

### To skip to the next/previous photo

While viewing a photo in full screen, press < or > to go to the previous or next photo.

## Using the disc menu

BD DVD AVCHD

### To display the disc menu

The menu screen may be displayed first after loading a disc which contains a menu. If you want to display the disc menu during playback, press DISC MENU.

Use Λ / V / < / > buttons to navigate through menu items.

### To display the Pop-up menu

Some BD-ROM discs contain Pop-up menu that appears during playback.

Press TITLE/POPUP during playback, and use Λ / V / < / > buttons to navigate through menu items.

## Resume playback

BD DVD AVCHD MOVIE ACD MUSIC

The unit records the point where you pressed the ■ (STOP) depending on the disc.
If "II■ (Resume Stop)" appears on the screen briefly, press ▶ (PLAY) to resume playback (from the scene point).
If you press ■ (STOP) twice or unload the disc, "■(Complete Stop)" appears on the screen. The unit will clear the stopped point.

**Note**

- The resume point may be cleared when a button is pressed (for example; ⏻ (POWER), ⏏ (OPEN/CLOSE), etc).
- On BD-ROM discs with BD-J, the resume playback function does not work.
- If you press ■ (STOP) once during BD-ROM interactive title playback, the unit will be in Complete Stop mode.

## Last scene memory

BD DVD

This unit memorizes the last scene from the last disc that is viewed. The last scene remains in memory even if you remove the disc from the unit or switch off the unit. If you load a disc that has the scene memorized, the scene is automatically recalled.

**Note**

- Last Scene Memory function for a previous disc is erased once a different disc is played.
- This function may not work depending on the disc.
- On BD-ROM discs with BD-J, the last scene memory function does not work.
- This unit does not memorize settings of a disc if you switch off the unit before commencing to play it.

# On-Screen Display

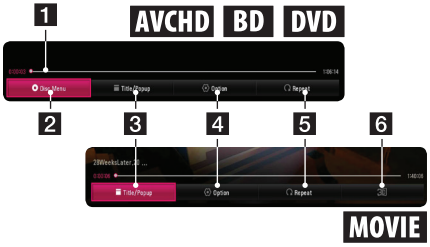
You can display and adjust various information and settings about the content.

## To control video playback

BD DVD AVCHD MOVIE

You can control playback and set options while watching videos.

During playback, press INFO/MENU (▢).

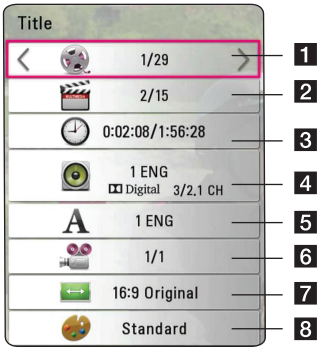



| | |
|---|---|
| 1 | **Progress bar -** Displays the current position and total playing time. |
| 2 | **[Disc Menu] -** Accesses menu on a disc. |
| 3 | **[Title/Popup] -** Displays the DVD title menu or BD-ROM's pop-up menu, if available. |
| 4 | **[Option] -** Displays playback information. |
| 5 | **[Repeat] -** Repeats a desired section or sequence. (page 43) |
| 6 | **[3D] -** Adjusts the 3D setting. (page 47) |

### Displaying content information on-screen

BD DVD AVCHD MOVIE

1. During playback, press INFO/MENU (▢).
2. Select an [Option] using </>, and press ENTER (⊙).




| | |
|---|---|
| 1 | **Title** – Current title number/total number of titles |
| 2 | **Chapter** – Current chapter number/total number of chapters |
| 3 | **Time** – Elapsed playing time/total playback time |
| 4 | **Audio** – Selected audio language or channel |
| 5 | **Subtitle** – Selected subtitle. |
| 6 | **Angle** – Selected angle/total number of angles |
| 7 | **TV Aspect Ratio** – Selected TV aspect ratio |
| 8 | **Picture Mode** – Selected picture mode |

**Note**

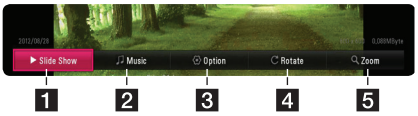
- If no button is pressed for a few seconds, the on-screen display disappears.
- A title number cannot be selected on some discs.
- Available items may differ depending on discs or titles.
- If an interactive Blu-ray Disc is playing back, some setting information is displayed on the screen but prohibited to be changed.

## To control photo view

Controls playback and sets options while viewing pictures in full screen.

You can control playback and set options while viewing pictures in full screen.

While viewing pictures, press INFO/MENU (▢).




**1** **[Slideshow] -** Starts or pause slide show.

**2** **[Music] -** Select the background music for the slide show (page 47).

**3** **[Option] -** Displays slide show options.

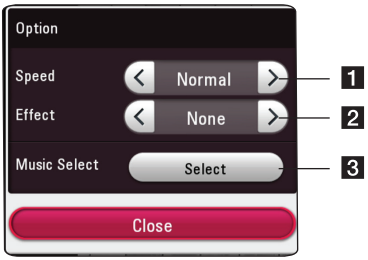
**4** **[Rotate] -** Rotates the photo clockwise.

**5** **[Zoom] -** Displays the [Zoom] menu.

### Setting the slide show option

You can use various options during viewing a photo in full screen.

1. While viewing pictures, press INFO/MENU (▢).
2. Select an [Option] using </>, and press ENTER (⊙).




**1** **[Speed] -** Use </> to select a delaying speed between photos in a slide show.

**2** **[Effect] -** Use </> to select a transition effect between photos in a slide show.

**3** **[Music Select] –** Select the background music for the slide show (page 47).

# Advanced Playback

## Repeat playback

BD DVD AVCHD ACD MUSIC MOVIE

**Blu-ray Disc / DVD / Video files**

During playback, press REPEAT (↻) to select a desired repeat mode.

**A-B** – Selected portion will be repeated continually.

**Chapter** – The current chapter will be played back repeatedly. (BD / DVD only)

**Title** – The current title will be played back repeatedly.

**All** – All the titles or files will be played back repeatedly. (Movie file only)

**Off** – Returns to normal playback.

To return to normal playback, press CLEAR.

**Audio CDs/Audio files**

During playback, press REPEAT (↻) repeatedly to select a desired repeat mode.

A-B – Selected portion will be repeated continually. (Audio CD only)

1 **Track**– The current track or file will be played back repeatedly.

A **All** – All the tracks or files will be played back repeatedly.

A ⤮ **All** – All the tracks or files will be played back repeatedly in random order.

⤮ – The tracks or files will be played back in random order.

To return to normal playback, press CLEAR.

**Note**

This function may not work on some disc or title.

## Repeating a specific portion

BD DVD AVCHD MOVIE

This player can repeat a portion you have selected.

1. During playback, press REPEAT (↻).
2. Select [A-B] and press ENTER (⊙).
3. Press ENTER (⊙) at the beginning of the portion you wish to repeat.
4. Press ENTER (⊙) at the end of the portion. Your selected portion will be repeated continually.
5. To return to normal playback, press CLEAR.

**Note**

- You cannot select a portion less than 3 seconds.
- This function may not work on some disc or title.

## Playing from selected time

BD DVD AVCHD MOVIE

1. During playback, press INFO/MENU (▭).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Select the [Time] option and then input the required start time in hours, minutes, and seconds from left to right.

   For example, to find a scene at 2 hours, 10 minutes, and 20 seconds, enter "21020".

   Press </> to skip the playback 60 seconds forward or backward.
4. Press ENTER (⊙) to start playback from selected time.

**Note**

- This function may not work on some disc or titles.
- This function may not work depending on the file type and ability of the DLNA-compatible digital media server.

## Selecting a subtitle language

BD DVD AVCHD MOVIE

1. During playback, press INFO/MENU (☐).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Subtitle] option.
4. Use </> to select desired subtitle language.
   By pressing ENTER (⊙), you can set various subtitle options.
5. Press BACK (⮌) to exit the On-Screen display.

**Note**

- Some discs allow you to change subtitle selections only via the disc menu. If this is the case, press TITLE/POPUP or DISC MENU button and choose the appropriate subtitle from the selections on the disc menu.
- You can select the [Subtitle] option on the On-Screen display directly by pressing SUBTITLE button.

## Hearing a different audio

BD DVD AVCHD MOVIE

1. During playback, press INFO/MENU (☐).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Audio] option.
4. Use </> to select desired audio language, audio track or audio channel.

5. Press BACK (⮌) to exit the On-Screen display.

**Note**

- Some discs allow you to change audio selections only via the disc menu. In this case, press TITLE/POPUP or DISC MENU button and choose the appropriate audio from the selections on the disc menu.
- Immediately after you have switched sound, there may be a temporary discrepancy between the display and actual sound.
- On BD-ROM disc, the multi audio format (5.1CH or 7.1CH) is displayed with [MultiCH] in the on-screen display.

## Watching from a different angle

BD DVD

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback.

1. During playback, press INFO/MENU (☐).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Angle] option.
4. Use </> to select desired angle.
5. Press BACK (⮌) to exit the On-Screen display.

## Changing the TV Aspect Ratio

BD AVCHD MOVIE

You can change the TV aspect ratio setting during playback.

1. During playback, press INFO/MENU (☐).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [TV Aspect Ratio] option.
4. Use </> to select desired option.
5. Press BACK (⮌) to exit the On-Screen display.

**Note**

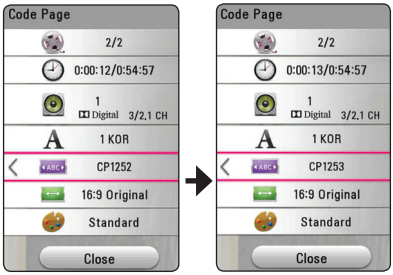
Even if you change the value of the [TV Aspect Ratio] option in On-Screen display, the [TV Aspect Ratio] option in the [Settings] menu is not changed.

## Changing Subtitle Code Page

MOVIE

If the subtitle is displayed in broken letter, you can change the subtitle code page to view the subtitle file properly.

1. During playback, press INFO/MENU (▢).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Code Page] option.
4. Use </> to select desired code option.




5. Press BACK (⮌) to exit the On-Screen display.

## Changing the Picture Mode

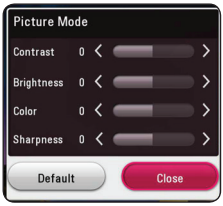
BD DVD AVCHD MOVIE

You can change the [Picture mode] option during playback.

1. During playback, press INFO/MENU (▢).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Picture Mode] option.
4. Use </> to select desired option.
5. Press BACK (⮌) to exit the On-Screen display.

### Setting the [User setting] option

1. During playback, press INFO/MENU (▢).
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select the [Picture Mode] option.
4. Use </> to select the [User setting] option, and press ENTER (⊙).




5. Use ∧ / ∨ / < / > to adjust the [Picture Mode] options.

   Select [Default] option then press ENTER (⊙) to reset the all video adjustments.
6. Use ∧ / ∨ / < / > to select the [Close] option, and press ENTER (⊙) to finish setting.

## Viewing content information

**MOVIE**

The player can display the content information.

1. Select a file using Λ / V / < / >.
2. Press INFO/MENU (☐).

   The file information appears on the screen.

During video playback, you can display the file information by pressing TITLE/POPUP.

**Note**

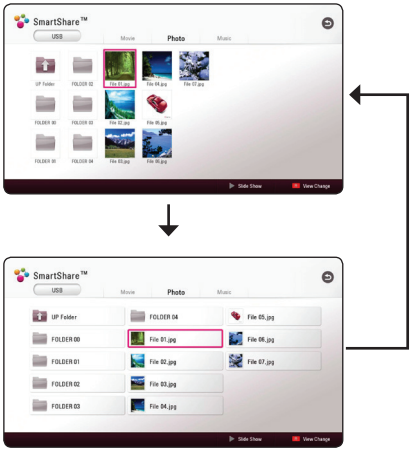
The information displayed on the screen may not correct comparing actual content information.

## Changing content list view

**MOVIE MUSIC PHOTO**

In the [Movie], [Photo] or [Music] menu, you can change the content list view.

Press red (R) colored button repeatedly.

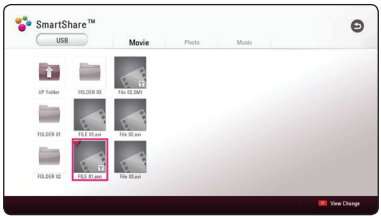



## Selecting a subtitle file

**MOVIE**

If the subtitle file name is different from the video file name, you need to select the subtitle file on the [Movie] menu before playing the movie.

1. Use Λ / V / < / > to select the subtitle file you wish to play in the [Movie] menu.
2. Press ENTER (⊙).




Press ENTER (⊙) again to deselect the subtitle file. Selected subtitle file will be displayed when you play the video file.

**Note**

- If you press ■ (STOP) during playback, the subtitle selection is cancelled.
- This function is not available for playing a file on a server via home network.

## Listening to music during slide show

**PHOTO**

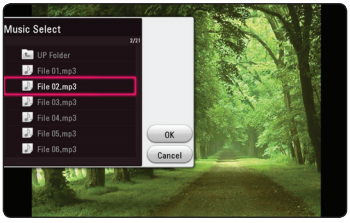
You can display photo files while listening to audio files.

1. While viewing a photo in full screen, press INFO/MENU (☐) to display the option menu.
2. Select an [Option] using </>, and press ENTER (⊙).
3. Use ∧ / ∨ to select [Music Select] option, and press ENTER (⊙) to display the [Music Select] menu.
4. Use ∧ / ∨ to select a device, and press ENTER (⊙).

   Available device may differ depending on the location of the current photo file.

| Photo location | Available Device |
|---|---|
| Disc, USB | Disc, USB |
| MTP | MTP |
| Media server | Media server |

5. Use ∧ / ∨ to select a file or a folder you wish to play.




   Select ⮌ and press ENTER (⊙) to display the upper directory.

**Note**

When selecting an audio file from a server, folder selection is not available. Only file selection is available.

6. Use > to select [OK], and press ENTER (⊙) to complete music selection.

## Playing file encoded in 3D

**MOVIE**

This function allows you to play 3D content in case of file encoded in 3D.

1. During playback, press INFO/MENU (☐).
2. Select [3D] using </>, and press ENTER (⊙).
3. Select suitable mode (side by side, top and bottom) which is same way as file encoded in 3D by using ∧ / ∨ / < / >.

**Note**

If the subtitle is displayed abnormally, set the TV's 3D option to off and the unit's 3D option to on.

# Advanced Features

## Enjoying BD-Live™

BD

BD-ROM supporting BD-Live that has a network extension function allows you to enjoy more functions such as downloading new movie trailers by connecting this unit to the internet.

1. Check the network connection and settings (page 20).
2. Insert an USB storage device to the USB port on the front panel.

   An USB storage device is needed to download bonus content.
3. Press HOME (⌂), and set the [BD-LIVE connection] option on the [Settings] menu (page 25).

   Depending on a disc, the BD-Live function may not be operated if [BD-LIVE connection] option is set to [Partially Permitted].
4. Insert a BD-ROM with BD-Live.

   The operations may differ depending on the disc. Refer to the manual supplied with the disc.

**Caution**

Do not extract the connected USB device while content is being downloaded or a Blu-ray disc is still in the disc tray. Doing so may damage the connected USB device and BD-Live features may not operate properly with the damaged USB device anymore. If the connected USB device seems damaged from such an action, you can format the connected USB device from the PC and reuse it with this player.

**Note**

- Some BD-Live content may be restrictively accessed in some territories by content provider's own decision.
- It may take up to several minutes to load and start enjoying BD-Live content.
- For BD-Live, use the USB flash drive / external HDD formatted in FAT32 only.

## LG AV Remote

You can control this player with your iPhone or Android phone via your home network. This player and your phone must be connected to your wireless network device such as access point. Visit "Apple iTunes" or "Google Android Market (Google Play Store)" for detailed information of "LG AV Remote".

## Private Sound Mode

By downloading "LG AV Remote" application on your smart phone or tablet, you can connect your headsets, and enjoy the sound from your player on your smart devices.

This feature transmits video signal to TV through HDMI and audio signal to smart phone or tablet through Wi-Fi. For more detailed information, please refer to "LG AV Remote" application.

**Note**

- When you use the unit with MUSIC flow, private sound mode is unavailable.
- Not all modes, support sound privacy and pairing multiple devices is not available.

# Radio Operations

Be sure that the antennas are connected.
(Refer to the page 18)

## Listening to the radio

1. Press FUNCTION until TUNER (FM) appears in the display window. The last received station is tuned in.
2. Press and hold TUNING (-/+) for about two seconds until the frequency indication starts to change. Scanning stops when the unit tunes in a station. Or Press TUNING (-/+) repeatedly.
3. Adjust the volume by pressing VOL (+/-).

## Presetting the radio stations

You can preset 50 stations for FM.
Before tuning, make sure that you have turned down the volume.

1. Press FUNCTION until the TUNER (FM) appears in the display window.
2. Select the desired frequency by using TUNING (-/+).
3. Press ENTER (⦿) a preset number will flash in the display window.
4. Press PRESET (-/+) to select the preset number you want.
5. Press ENTER (⦿). The station is stored.
6. Repeat the steps 2 to 5 to store other stations.

## Deleting a saved station

1. Press PRESET (- / +) to select a preset number you want to delete.
2. Press CLEAR, the preset number will blink in the display window.
3. Press CLEAR again, to delete the selected preset number.

## Deleting all the saved stations

Press and hold CLEAR for two seconds.
"ERASE ALL" will flash up. Press CLEAR again. Then all the saved stations are deleted.

## Improving poor FM reception

Press B (blue) (MONO/STEREO) colored button on the remote control. This will change the tuner from stereo to mono and usually improve the reception.

## See information about a radio station

The FM tuner is supplied with the RDS (Radio Data System) facility. This shows information about the radio station being listened to. Press RDS repeatedly to cycle through the various data types:

| | |
|---|---|
| PS | (Programme Service Name)<br>The name of the channel will appear in the display |
| PTY | (Programme Type Recognition)<br>The programme type (e.g. Jazz or News) will appear in the display. |
| RT | (Radio Text)<br>A text message contains special information from the broadcast station. This text may scroll across the display. |
| CT | (Time controlled by the channel)<br>This shows the time and date as broadcast by the station. |

# Using BLUETOOTH® technology

## About BLUETOOTH

**Bluetooth** is wireless communication technology for short range connection.

The sound may be interrupted when there is interference by the other electronic waves which run on same frequency or if you connect **Bluetooth** devices in the other rooms nearby.

Connecting individual devices under **Bluetooth** wireless technology does not incur any charges. A mobile phone with **Bluetooth** wireless technology can be operated via the Cascade if the connection was made via **Bluetooth** wireless technology.

Available Devices : Mobile phone, MP3, Laptop, PDA etc.

## BLUETOOTH profiles

In order to use **Bluetooth** wireless technology, devices must be able to interpret certain profiles. This unit is compatible with following profile.

A2DP (Advanced Audio Distribution Profile)



# Listening to music stored on the BLUETOOTH devices

## Pairing this unit and BLUETOOTH device

Before you start the pairing procedure, make sure the **Bluetooth** feature is turned on in to your **Bluetooth** device. Refer to your **Bluetooth** device's user guide. Once a pairing operation is performed, it does not need to be performed again.

1. Select the **Bluetooth** function by using the FUNCTION.
   Appears "BT READY" in display window.
2. Operate the **Bluetooth** device and perform the pairing operation. When searching for this unit with the **Bluetooth** device, a list of the devices found may appear in the **Bluetooth** device display depending on the type of **Bluetooth** device.Your unit appears as "LG HTS (XX:XX)".
3. When this unit successfully paired with your **Bluetooth** device, **Bluetooth** LED of this unit lights up and "PAIRED" appears in the display window.

**Note**

- Depending on the **Bluetooth** device type, some device have a different pairing way.
- XX:XX means the last four digits of **Bluetooth** address. For example, if your unit has a **Bluetooth** address such as 9C:02:98:4A:**F7:08**, you will see "LG HTS (**F7:08**)" on your **Bluetooth** device.

4. Listen to music.
   To play a music stored on your **Bluetooth** device, refer to your **Bluetooth** device's user guide.

**Note**

If you change the function of the unit, the **Bluetooth** function is disconnected, operate pairing again.

**Note**

- When using **Bluetooth** technology, you have to make a connection between the unit and the **Bluetooth** device as close as possible and keep the distance.
  However it may not work well in the case below :
  - There is a obstacle between the unit and the **Bluetooth** device.
  - There is a device using same frequency with **Bluetooth** technology such as a medical equipment, a microwave or a wireless LAN device.
- You should connect your **Bluetooth** device to this unit again when you restart it.
- When you select **Bluetooth** function again after changing to other functions, **Bluetooth** connection may be disconnected. You should reconnect the **Bluetooth** device to use this function.
- The sound may be interrupted when the connection interfered by the other electronic wave.
- You cannot control the **Bluetooth** device with this unit.
- Pairing is limited one **Bluetooth** device per one unit and multi-pairing is not supported.
- Depending on the type of the device, you may not be able to use the **Bluetooth** function.
- You can enjoy wireless system using phone, MP3, Notebook, etc..
- The more distance between the unit and the **Bluetooth** device, the lower the sound quality becomes.
- **Bluetooth** connection will be disconnected when the unit is turned off or the **Bluetooth** device gets far from the unit.
- When **Bluetooth** connection is disconnected, connect the **Bluetooth** device to the unit again.
- When not connected the **Bluetooth**, "BT READY" appears on the display window.

# LG Sound Sync

Sound Sync Wireless

You can control some functions of this unit by your TV's remote control with LG Sound Sync. It is compatible with the LG TV that is supported LG Sound Sync. Make sure of the LG Sound Sync logo on your TV.

Controllable function by LG TV's remote control : Volume up/down, mute

Refer to the TV's instruction manual for the details of LG Sound Sync.

**Note**

- You can also use the remote control of this unit while using LG Sound Sync. If you use TV's remote control again, the unit synchronizes with the TV.
- When the connection fails, make sure of the condition of the TV and power.
- Make sure of the condition of this unit and the connection in the cases below when using LG Sound Sync.
  - Turn off the unit.
  - Changing the function to the others.
  - Disconnecting the wireless connection caused by interference or a distance.
- This unit cannot support LG Sound Sync (Optical) by the optical connection.

1. Turn on the unit by pressing ⏻ (Power) on the remote control.
2. Select LG TV function by using FUNCTION on the remote control or F on the unit until the function is selected.
3. Set up the sound output of TV to listen to the sound through this unit :
   TV setting menu → [Sound] → [TV Sound output] → [LG Sound Sync (Wireless)]

   "PAIRED" appears on the display window for about 3 seconds and then you can see "LG TV" on the display window if connecting normally between this unit and your TV.

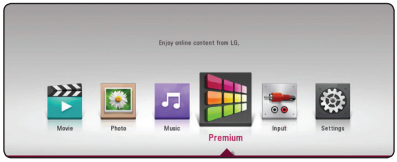
**Note**

- If you turned off the unit directly by pressing ⏻ (Power), LG Sound Sync (Wireless) will be disconnected. To use this function again, you should reconnect the TV and the unit.
- Details of TV setting menu vary depending on the models of your TV.
- The device with **Bluetooth** wireless technology will be disconnected, if Sound Sync function is selected.

# Using the Premium

You can use various content services via Internet with the Premium feature.

1. Check the network connection and settings (page 20).
2. Press HOME (⌂).
3. Select the [Premium] using </>, and press ENTER (⊙).




4. Select an online service using ∧/∨/</>, and press ENTER (⊙).

**Note**

- For detailed information of each service, contact to the content provider or visit support link of the service.
- The content of Premium services and service related information, including user interface, is subject to changes. Please refer to the web site of each service for most up-to-date information.
- For the first time to access [Premium], current country setting appears.
- If you want to change the country setting, go to [Settings] > [NETWORK] > [Smart Service Setting] > [Country Setting]. Select [Manual] and press ENTER (⊙) on [Country Setting] menu.
- When changing the sound effect, the audio output may be delayed depending on your internet environment.

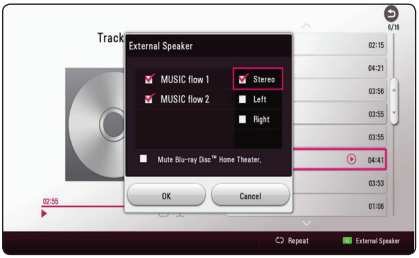
# Enjoying with LG Multi-room Audio (LG Music Flow)

ACD MUSIC

LG smart Hi-Fi audio system MUSIC flow allows you to enjoy music with the several speakers wirelessly.

Using MUSIC flow, you can enjoy audio contents being played by this unit with high quality.

1. Check the network connection and settings (page 20). The player and speakers must be connected to the same network.
2. During music playback, press green (G) colored button. Select speakers using Λ / V and ENTER (⊙). You can check multiple MUSIC flows you listen with. To change MUSIC flow's channel, press > during the checked speaker is highlighted and select the output option using Λ / V and ENTER (⊙).




   If you select [Mute Blu-ray Disc™ Home Theater], you can listen using only MUSIC flow.
3. Select [OK], and press ENTER (⊙) to complete speaker selection.

**Note**

- If you use this unit with MUSIC flow, at least one unit should be connected by LAN cable. For more detail for use with MUSIC flow, refer to the MUSIC flow's user manual.
- It is recommended to connect up to 4 speakers for smooth playback.
- Signal interference may cause the playback to stop.
- If playback doesn't work smoothly, the connection may be broken automatically.
- When you perform private sound mode, this function is unavailable.
- If your MUSIC flow is not displayed on the list, reset network setting on the setting menu.
- If you press BACK (⮌) to go back to file browser during playback with MUSIC flow, MUSIC flow stops playback.
- You cannot control the volume level of MUSIC flow speaker with this unit's volume control buttons or volume control knob.

# Troubleshooting

## General

| Symptom | Cause & Solution |
|---|---|
| The unit does not work properly. | • Turn off the power of this unit and the connected external device (TV, Woofer, DVD-player, Amplifier, etc.) and turn it on again.<br>• Disconnect the power cord of this unit and the connected external device (TV, Woofer, DVD-player, Amplifier, etc.) and then try connecting again.<br>• Previous setting may not be saved when device power is shut off. |
| The Power does not turned on. | • Plug the power cord into the wall outlet securely. |
| The unit does not start playback. | • Insert a playable disc. (Check the disc type, color system, and regional code.)<br>• Place the disc with the playback side down.<br>• Place the disc on the disc tray correctly inside the guide.<br>• Clean the disc.<br>• Cancel the Rating function or change the rating level. |
| The connected USB storage device is not recognized. | • Try using different USB cable, some USB cables may not support enough current for normal USB operation.<br>• If you use an USB extension cable or USB HUB, the USB devices may not be recognized.<br>• An USB device which requires additional program installation when you have connected it to a computer is not supported.<br>• This unit supports only USB Flash Drive and USB External HDD with FAT32 or NTFS format. |
| The angle cannot be changed. | • Multi-angles are not recorded on the DVD Video being played. |
| Cannot play video, photo or audio files. | • The files are not recorded in a format that the unit can play.<br>• The unit does not support the codec of the video file. |
| The remote control does not work properly. | • The remote control is not pointed at the remote sensor of the unit.<br>• The remote control is too far from the unit.<br>• There is an obstacle in the path of the remote control and the unit.<br>• The batteries in the remote control are exhausted. |
| The unit is plugged in, but the power will not turn on or off. | You can reset the unit as follows.<br>• Unplug the power cord, wait at least five seconds, and then plug it in again. |
| The unit is not operating normally. | |

## Network

| Symptom | Cause & Solution |
|---|---|
| BD-Live feature does not work. | • The connected USB storage may not have enough space. Connect the USB storage with at least 1GB free space.<br>• Ensure that the unit is correctly connected to the local area network and can access the internet (page 20).<br>• Your broadband speed may not fast enough to use the BD-Live features. Contact your Internet Service Provider (ISP) and increase the broadband speed is recommended.<br>• The [BD-LIVE connection] option in the [Settings] menu is set to [Prohibited]. Set the option to [Permitted]. |
| Streaming video services (such as YouTube™, etc.) are often stopped or "buffer" during playback. | • Your broadband service speed may not be fast enough to stream video services. Contact your Internet Service Provider (ISP) and increase the broadband speed is recommended. |
| Media servers are not displayed on the device list. | • The firewall or anti-virus software on your media server is running. Turn off the firewall or anti-virus software running on your media server.<br>• The player is not connected to the local area network that your media server is connected. |

## Picture

| Symptom | Cause & Solution |
|---|---|
| There is no picture. | • Select the appropriate video input mode on the TV so the picture from the unit appears on the TV screen.<br>• Connect the video connection securely.<br>• Check the [HDMI Color Setting] in the [Settings] menu is set to the appropriate item that conforms to your video connection.<br>• Your TV may not support the resolution you have set on the player. Change the resolution that your TV accepts.<br>• The player's HDMI OUT jack is connected to a DVI device that does not support copyright protection. |
| Picture noise appears | • You are playing a disc recorded in a colour system that is different from your TV.<br>• Set the resolution which your TV accepts. |
| Blu-ray 3D disc playback does not output 3D views. | • Connect the player to your TV with HDMI cable (Type A, High Speed HDMI™ Cable).<br>• Your TV may not support "HDMI 3D mandatory format".<br>• The [3D Mode] option in the [Settings] menu is set to [Off]. Set the option to [On]. |

## Sound

| Symptom | Cause & Solution |
|---|---|
| There is no sound or the sound is distorted. | • The unit is in scan, slow motion, or pause mode.<br>• The sound volume is low.<br>• Check the speaker cable connection. (page 13) |

## Customer Support

You can update the Player using the latest software to enhance the products operation and/or add new features. To obtain the latest software for this player (if updates have been made), please visit http://www.lg.com or contact LG Electronics customer care center.

## OPEN SOURCE SOFTWARE NOTICE INFORMATION

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit http://opensource.lge.com.

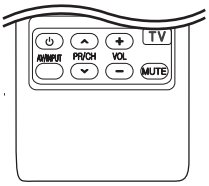
In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to opensource@lge.com.

This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

# Controlling a TV with the Supplied Remote Control

You can control your TV using the buttons below.




| By pressing | You can |
|---|---|
| ⏻ (TV POWER) | Turn the TV on or off. |
| AV/INPUT | Switch the TV's input source between the TV and other input sources. |
| PR/CH ∧ / ∨ | Scan up or down through memorized channels. |
| VOL +/– | Adjust the volume of the TV. |
| MUTE | Turn the TV's volume on or off. |

**Note**

Depending on the unit being connected, you may not be able to control your TV using some of the buttons.

## Setting up the remote to control your TV

You can operate your TV with the supplied remote control.
If your TV is listed in the table below, set the appropriate manufacturer code.

1. While holding down ⏻ (TV POWER) button, and press the manufacturer code for your TV with the numerical buttons (see the table below).

| Manufacturer | Code number |
|---|---|
| LG | 1(Default), 2 |
| Zenith | 1, 3, 4 |
| GoldStar | 1, 2 |
| Samsung | 6, 7 |
| Sony | 8, 9 |
| Hitachi | 4 |

2. Release the ⏻ (TV POWER) button to complete setting.

Depending on your TV, some or all buttons may not function on the TV, even after entering the correct manufacturer code. When you replace the batteries of the remote, the code number you have set may be reset to the default setting. Set the appropriate code number again.

# Network Software Update

## Network update notification

From time to time, performance improvements and/or additional features or services may be made available to units that are connected to a broadband home network. If there is new software available and the unit is connected to a broadband home network, the player will inform you about the update as follows.

### Option 1:

1. The update menu will appear on the screen when you turn on the player.
2. Use </> to select a desired option and then press ENTER (⊙).

| | |
|---|---|
| **[OK]** | Starts the software update. |
| **[Cancel]** | Exits the update menu and the home menu appears. |

### Option 2:

If the software update is available from the update server, the "Update" icon appears in the Home menu. Press blue (B) colored button to start the update procedure.

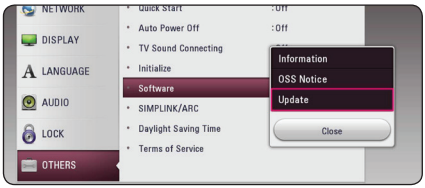
## Software update

You can update the player using the latest software to enhance the products operation and/or add new features. You can update the software by connecting the unit directly to the software update server.

**Note**

- Before updating the software in your player, remove any disc and USB Device from the player.
- Before updating the software in your player, turn the player off and then turn it back on.
- **During the software update procedure, do not turn off the player or disconnect AC power, or do not press any button.**
- If you cancel the update, turn off the power and turn it on for stable performance.
- This unit cannot be updated to previous software version.

1. Check the network connection and settings (page 20).
2. Select [Software] option in the [Settings] menu then press ENTER (⊙).
3. Select [Update] option, and press ENTER (⊙).




The player will check for the newest update.

**Note**

- Pressing ENTER (⊙) while checking for the update will end the process.
- If there is no update available, the Message, "No update is found." appears. Press ENTER (⊙) to return to the [Home Menu].

4. If newer version exists, the message "A new update was found. The update takes a few minutes. Do you want to update?" appears.
5. Select [OK] to start update. (Selecting [Cancel] will end the update.)
6. The player starts downloading the newest update from the server. (Downloading will takes several minutes depending on your home network condition)
7. To update software the next time, the software update procedure has to be started from the beginning again.

**Caution**

Do not turn off the power during the software update.

**Note**

If the software includes the driver update, disc tray may open during the process.

8. When update is completed, the power will be turned off automatically in a few seconds.
9. Turn the power back on. The system now operates with the new version.

**Note**

The Software Update function may not work properly depending on your internet environment. In this case, you can obtain the latest software from the authorized LG Electronics Service Center then update your player. Refer to "Customer Support" on page 57.

# Additional Information

## File requirement

### Video files

| File Location | File Extension | Codec Format | Audio Format | Subtitle |
|---|---|---|---|---|
| Disc, USB | ".avi", ".mpg", ".mpeg", ".mkv", ".mp4", ".asf", ".wmv", ".m4v" (DRM free), ".vob", ".3gp", ".mov", ".trp", ".m2t", ".mpe", ".m1v", ".m2v", ".wm", ".flv", ".ts", ".dat" | XVID, MPEG1 SS, H.264/ MPEG-4 AVC, MPEG2 PS, MPEG2 TS, VC-1 SM (WMV3) | Dolby Digital, DTS, MP3, WMA, AAC, AC3 | SubRip (.srt / .txt), SAMI (.smi), SubStation Alpha (.ssa/.txt), MicroDVD (.sub/.txt), VobSub (.sub), SubViewer 1.0 (.sub), SubViewer 2.0 (.sub/.txt), TMPlayer (.txt), DVD Subtitle System (.txt) |
| DLNA | ".avi", ".mpg", ".mpeg", ".mkv", ".mp4", ".asf", ".wmv", ".m4v" (DRM free), ".mov", ".mpe", ".m1v", ".m2v", ".flv", ".ts", ".dat" | XVID, MPEG1 SS, H.264/ MPEG-4 AVC, MPEG2 PS, MPEG2 TS, VC-1 SM (WMV3) | Dolby Digital, DTS, MP3, WMA, AAC, AC3 | SubRip (.srt / .txt), SAMI (.smi), SubStation Alpha (.ssa/.txt), MicroDVD (.sub/.txt), SubViewer 1.0 (.sub), SubViewer 2.0 (.sub/.txt), TMPlayer (.txt), DVD Subtitle System (.txt) |

### Audio files

| File Location | File Extension | Sampling Frequency | Bitrate | Note |
|---|---|---|---|---|
| Disc, USB | "mp3", ".wma", ".wav", ".m4a" (DRM free), ".flac", ".ogg", ".aiff" | within 32 - 48 kHz (WMA), within 16 - 48 kHz (MP3) | within 32 - 192 kbps (WMA), within 32 - 320 kbps (MP3) | Some wav files are not supported on this player. |
| DLNA | "mp3", ".wma", ".wav", ".m4a" (DRM free), ".flac", ".ogg" | within 32 - 48 kHz (WMA), within 16 - 48 kHz (MP3) | within 32 - 192 kbps (WMA), within 32 - 320 kbps (MP3) | Some wav files are not supported on this player. |

### Photo files

| File Location | File Extension | Recommended Size | Note |
|---|---|---|---|
| Disc, USB, DLNA | ".jpg", ".jpeg", ".png", ".gif", ".mpo", ".jps" | Less than 4,000 x 3,000 x 24 bit/pixel<br>Less than 3,000 x 3,000 x 32 bit/pixel | Progressive and lossless compression photo image files are not supported. |

**Note**

- The file name is limited to 180 characters.
- Maximum files/Folder: Less than 2000 (total number of files and folders)
- Depending on the size and number of the files, it may take several minutes to read the content on the media.
- File compatibility may differ depending on the server.
- Because the compatibility on DLNA server are tested on the SmartShare environment, file requirements and playback functions may differ depending on media servers.
- The file requirements on page 61 are not always compatible. There may have some restrictions by file features and media server's ability.
- Playing video subtitle files are only available on a media server created by SmartShare PC software downloaded from website.
- The files from removable media such as USB drive, DVD-drive etc. on your media server may not be shared properly.
- The total playback time of audio file indicated on the screen may not correct for VBR files.
- HD video files contained on the CD/DVD or USB 1.0/1.1 may not played properly. Blu-ray Disc or USB 2.0 are recommended to play back HD video files.
- This player supports H.264/MPEG-4 AVC profile Main, High at Level 4.1. A file with higher level may not be supported.
- This player does not support files that are recorded with GMC*[1] or Qpel*[2].

  *1 GMC – Global Motion Compensation

  *2 Qpel – Quarter pixel

**Note**

- A "avi" file which is encoded "WMV 9 codec" is not supported.
- This player supports UTF-8 files even it contains Unicode subtitle content. This player can not support the pure Unicode subtitle files.
- Depending on the types of file or ways of recording, it may not play back.
- A disc which was recorded by multi-session on normal PC is not supported on this player.
- To be playback a video file, video file name and Subtitle file name must be the same.
- When you play a video file with a extension such as ".ts", ".m2ts", ".mts", ".tp", ".Trp" or ".m2t", your player may not support subtitle files.
- The total playback time of audio file indicated on the screen may not correct for VBR files.
- Video / Audio codec compatibility may differ depending on video file.

## AVCHD (Advanced Video Codec High Definition)

- This player can playback AVCHD format discs. These discs are normally recorded and used in camcorders.
- The AVCHD format is a high definition digital video camera format.
- The MPEG-4 AVC/H.264 format is capable of compressing images at higher efficiency than that of the conventional image compressing format.
- This player can playback AVCHD discs using "x.v.Color" format.
- Some AVCHD format discs may not play depending on the recording condition.
- AVCHD format discs need to be finalized.
- "x.v.Color" offers a wider color range than normal DVD camcorder discs.

## About DLNA

This Player is a DLNA Certified digital media player that can display and play video, photo and audio content from your DLNA-compatible digital media server (PC and Consumer Electronics).

The Digital Living Network Alliance (DLNA) is a cross-industry organization of consumer electronics, computing industry and mobile device companies. Digital Living provides consumers with easy sharing of digital media through your home network.

The DLNA certification logo makes it easy to find products that comply with the DLNA Interoperability Guidelines. This unit complies with DLNA Interoperability Guidelines v1.5.

When a PC running DLNA server software or other DLNA compatible device is connected to this player, some setting changes of software or other devices may be required. Please refer to the operating instructions for the software or device for more information.

## Certain system requirements

For high definition video playback:

- High definition display that has HDMI input jack.
- BD-ROM disc with high definition content.
- HDMI or HDCP capable DVI input on your display device is required for some content (as specified by disc authors).

## Compatibility notes

- Because BD-ROM is a new format, certain disc, digital connection and other compatibility issues are possible. If you experience compatibility problems, please contact an authorized Customer Service Center.
- This unit allows you to enjoy functions such as picture-in-picture, secondary audio and Virtual packages, etc., with BD-ROM supporting BONUSVIEW (BD-ROM version 2 Profile 1 version 1.1). Secondary video and audio can be played from a disc compatible with the picture-in-picture function. For the playback method, refer to the instructions in the disc.
- Viewing high-definition content and up-converting standard DVD content may require a HDMI-capable input or HDCP-capable DVI input on your display device.
- Some BD-ROM and DVD discs may restrict the use of some operation commands or features.
- Dolby TrueHD, Dolby Digital Plus and DTS-HD are supported with maximum 5.1 channels if you use HDMI connection for the audio output of the unit.
- You can use an USB device to store some disc related information, including downloaded online content. The disc you are using will control how long this information is retained.

# Audio Output Specifications

| Jack/Setting / Source | HDMI OUT | | |
|---|---|---|---|
| | PCM | DTS Re-encode *3 | Auto *1 *2 |
| Dolby Digital | PCM 5.1ch | DTS | Dolby Digital |
| Dolby Digital Plus | PCM 5.1ch | DTS | Dolby Digital Plus |
| Dolby TrueHD | PCM 5.1ch | DTS | Dolby TrueHD |
| DTS | PCM 5.1ch | DTS | DTS |
| DTS-HD | PCM 5.1ch | DTS | DTS-HD |
| Linear PCM 2ch | PCM 2ch | DTS | Linear PCM 2ch |
| Linear PCM 5.1ch | PCM 5.1ch | DTS | Linear PCM 5.1ch |
| Linear PCM 7.1ch | PCM 7.1ch | DTS | Linear PCM 7.1ch |

*1 The secondary and interactive audio may not be included in the output bitstream if [Digital Output] option is set to [Auto]. (Except LPCM Codec : the output always include interactive and secondary audio.)

*2 This player automatically selects the HDMI audio according to the decoding capability of the connected HDMI device even though [Digital Output] option is set to [Auto].

*3 If the [Digital Output] option is set to [DTS re-encode], the audio output is limited to 48 kHz and 5.1Ch. If the [Digital Output] option is set to [DTS re-encode], the DTS Re-encode audio is outputted for BD-ROM discs, and the original audio is outputted for the other discs (like [Auto]).

- The audio is outputted up to PCM 48 kHz/16 bit for MP3/WMA file and PCM 44.1kHz/16 bit for Audio CD while playback.
- With digital audio connection (HDMI OUT), Disc Menu button sounds of BD-ROM may not be heard if the [Digital Output] option is set to [Auto].
- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Multi-channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder.
- This setting is not available on the input signal from an external device.

# Area Code List

Choose an area code from this list.

| Area | Code | Area | Code | Area | Code | Area | Code |
|---|---|---|---|---|---|---|---|
| Afghanistan | AF | Fiji | FJ | Monaco | MC | Singapore | SG |
| Argentina | AR | Finland | FI | Mongolia | MN | Slovak Republic | SK |
| Australia | AU | France | FR | Morocco | MA | Slovenia | SI |
| Austria | AT | Germany | DE | Nepal | NP | South Africa | ZA |
| Belgium | BE | Great Britain | GB | Netherlands | NL | South Korea | KR |
| Bhutan | BT | Greece | GR | Antilles | AN | Spain | ES |
| Bolivia | BO | Greenland | GL | New Zealand | NZ | Sri Lanka | LK |
| Brazil | BR | Hong Kong | HK | Nigeria | NG | Sweden | SE |
| Cambodia | KH | Hungary | HU | Norway | NO | Switzerland | CH |
| Canada | CA | India | IN | Oman | OM | Taiwan | TW |
| Chile | CL | Indonesia | ID | Pakistan | PK | Thailand | TH |
| China | CN | Israel | IL | Panama | PA | Turkey | TR |
| Colombia | CO | Italy | IT | Paraguay | PY | Uganda | UG |
| Congo | CG | Jamaica | JM | Philippines | PH | Ukraine | UA |
| Costa Rica | CR | Japan | JP | Poland | PL | United States | US |
| Croatia | HR | Kenya | KE | Portugal | PT | Uruguay | UY |
| Czech Republic | CZ | Kuwait | KW | Romania | RO | Uzbekistan | UZ |
| Denmark | DK | Libya | LY | Russian Federation | RU | Vietnam | VN |
| Ecuador | EC | Luxembourg | LU | Saudi Arabia | SA | Zimbabwe | ZW |
| Egypt | EG | Malaysia | MY | Senegal | SN | | |
| El Salvador | SV | Maldives | MV | | | | |
| Ethiopia | ET | Mexico | MX | | | | |

# Language Code List

Use this list to input your desired language for the following initial settings: [Disc Audio], [Disc Subtitle] and [Disc Menu].

| Language | Code | Language | Code | Language | Code | Language | Code |
|---|---|---|---|---|---|---|---|
| Afar | 6565 | French | 7082 | Lithuanian | 7684 | Sindhi | 8368 |
| Afrikaans | 6570 | Frisian | 7089 | Macedonian | 7775 | Singhalese | 8373 |
| Albanian | 8381 | Galician | 7176 | Malagasy | 7771 | Slovak | 8375 |
| Amharic | 6577 | Georgian | 7565 | Malay | 7783 | Slovenian | 8376 |
| Arabic | 6582 | German | 6869 | Malayalam | 7776 | Spanish | 6983 |
| Armenian | 7289 | Greek | 6976 | Maori | 7773 | Sudanese | 8385 |
| Assamese | 6583 | Greenlandic | 7576 | Marathi | 7782 | Swahili | 8387 |
| Aymara | 6588 | Guarani | 7178 | Moldavian | 7779 | Swedish | 8386 |
| Azerbaijani | 6590 | Gujarati | 7185 | Mongolian | 7778 | Tagalog | 8476 |
| Bashkir | 6665 | Hausa | 7265 | Nauru | 7865 | Tajik | 8471 |
| Basque | 6985 | Hebrew | 7387 | Nepali | 7869 | Tamil | 8465 |
| Bengali; Bangla | 6678 | Hindi | 7273 | Norwegian | 7879 | Telugu | 8469 |
| Bhutani | 6890 | Hungarian | 7285 | Oriya | 7982 | Thai | 8472 |
| Bihari | 6672 | Icelandic | 7383 | Panjabi | 8065 | Tonga | 8479 |
| Breton | 6682 | Indonesian | 7378 | Pashto, Pushto | 8083 | Turkish | 8482 |
| Bulgarian | 6671 | Interlingua | 7365 | Persian | 7065 | Turkmen | 8475 |
| Burmese | 7789 | Irish | 7165 | Polish | 8076 | Twi | 8487 |
| Byelorussian | 6669 | Italian | 7384 | Portuguese | 8084 | Ukrainian | 8575 |
| Chinese | 9072 | Japanese | 7465 | Quechua | 8185 | Urdu | 8582 |
| Croatian | 7282 | Kannada | 7578 | Rhaeto-Romance | 8277 | Uzbek | 8590 |
| Czech | 6783 | Kashmiri | 7583 | Rumanian | 8279 | Vietnamese | 8673 |
| Danish | 6865 | Kazakh | 7575 | Russian | 8285 | Volapük | 8679 |
| Dutch | 7876 | Kirghiz | 7589 | Samoan | 8377 | Welsh | 6789 |
| English | 6978 | Korean | 7579 | Sanskrit | 8365 | Wolof | 8779 |
| Esperanto | 6979 | Kurdish | 7585 | Scots Gaelic | 7168 | Xhosa | 8872 |
| Estonian | 6984 | Laotian | 7679 | Serbian | 8382 | Yiddish | 7473 |
| Faroese | 7079 | Latin | 7665 | Serbo-Croatian | 8372 | Yoruba | 8979 |
| Fiji | 7074 | Latvian, Lettish | 7686 | Shona | 8378 | Zulu | 9085 |
| Finnish | 7073 | Lingala | 7678 | | | | |

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# Specifications

| General | |
|---|---|
| Power requirements | Refer to main label. |
| Power consumption | Refer to main label. |
| | Networked standby : 1.5 W (If all network ports are activated.) |
| Dimensions (W x H x D) | Approx. 360 mm x 60.5 mm x 299 mm |
| Operating temperature | 5 °C to 35 °C (41 °F to 95 °F) |
| Operating humidity | 5 % to 90 % |

| Inputs/Outputs | |
|---|---|
| HDMI OUT (video/audio) | 19 pin (Type A, HDMI™ Connector) x 1 |
| ANALOG AUDIO IN | 2.0 Vrms (1 kHz, 0 dB), 600 Ω, RCA jack (L, R) x 1 |
| DIGITAL IN (OPTICAL) | 3 V (p-p), Optical jack x 1 |

| Tuner | |
|---|---|
| FM Tuning Range | 87.5 to 108.0 MHz or 87.50 to 108.00 MHz |

| Amplifier | |
|---|---|
| Power output (3 Ω), (RMS), THD 10 % | |
| Total | 1000 W RMS |
| Front | 167 W RMS x 2 |
| Center | 167 W RMS |
| Rear | 167 W RMS x 2 |
| Sub-Woofer | 167 W RMS (Passive) |

| Wireless receiver (W4-2) | |
|---|---|
| Power requirements | Refer to main label on the wireless receiver. |
| Power consumption | Refer to main label on the wireless receiver. |
| Dimensions (W x H x D) | 60 mm X 220 mm X 175 mm |

| System | |
|---|---|
| Laser | Semiconductor laser |
| Wavelength | 405 nm / 650 nm |
| Signal system | Standard NTSC/PAL color TV system |
| Frequency response | 20 Hz to 18 kHz (48 kHz, 96 kHz, 192 kHz sampling) |
| Harmonic distortion | Less than 0.05 % |
| Dynamic range | More than 80 dB |
| LAN port | Ethernet jack x 1, 10BASE-T / 100BASE-TX |
| Bus Power Supply (USB) | 5 V ⎓ 500 mA |

| Speakers | | | |
|---|---|---|---|
| Front | | | |
| Type | 1 Way 1 speaker | Max. Input power | 334 W RMS |
| Impedance | 3 Ω | Net Dimensions (W x H x D) | 250 mm x 1150 mm x 250 mm |
| Rated Input Power | 167 W RMS | | |
| Rear | | | |
| Type | 1 Way 1 speaker | Max. Input power | 334 W RMS |
| Impedance | 3 Ω | Net Dimensions (W x H x D) | 250 mm x 1150 mm x 250 mm |
| Rated Input Power | 167 W RMS | | |
| Center | | | |
| Type | 1 Way 1 speaker | Max. Input power | 334 W RMS |
| Impedance | 3 Ω | Net Dimensions (W x H x D) | 260 mm x 92 mm x 73 mm |
| Rated Input Power | 167 W RMS | | |
| Subwoofer | | | |
| Type | 1 Way 1 speaker | Max. Input power | 334 W RMS |
| Impedance | 3 Ω | Net Dimensions (W x H x D) | 133 mm x 352 mm x 325 mm |
| Rated Input Power | 167 W RMS | | |

- Design and specifications are subject to change without notice.

# Maintenance

## Handling the unit

### When shipping the unit

Please save the original shipping carton and packing materials. If you need to ship the unit, for maximum protection, re-pack the unit as it was originally packed at the factory.

### Cleaning the unit

To clean the player, use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents such as alcohol, benzine, or thinner, as these might damage the surface of the unit.

Keeping the exterior surfaces clean

- Do not use volatile liquids such as insecticide spray near the unit.
- Wiping with strong pressure may damage the surface.
- Do not leave rubber or plastic products in contact with the unit for a long period of time.

### Maintaining the unit

The unit is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn, the picture quality could be diminished. For details, please contact your nearest authorized service center.

## Notes on discs

### Handling discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints do not get on the surface. Never stick paper or tape on the disc.

### Storing discs

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 exposed to direct sunlight.

### Cleaning discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center to out.

Do not use strong solvents such as alcohol, benzine, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

# Important Information relating to Network Services

All information, data, documents, communications, downloads, files, text, images, photographs, graphics, videos, webcasts, publications, tools, resources, software, code, programs, applets, widgets, applications, products and other content ("Content") and all services and offerings ("Services") provided or made available by or through any third party (each a "Service Provider") is the sole responsibility of the Service Provider from whom it originated.

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