HR407M-P_BGBRLLK_ENG 8/9/04 4:49 AM Page 1

ENGLISH

LG
Life's Good

HR400





As an ENERGY STAR® Partner, LG has determined that this product or product models meet the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a U.S. registered mark.

P/NO : MFL46897360

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.

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT
CLASSE 1 PRODUIT LASER

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 should be never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should 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. Should the unit require maintenance, contact an authorized service centre.
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. Visible laser radiation when open. DO NOT STARE INTO BEAM.

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

CAUTION concerning the Power Cord
Most appliances recommend they be placed upon a dedicated circuit;
That is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain. 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 appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized service centre. 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 appliance. To disconnect power from the mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

This product is manufactured to comply with EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC.

European representative:
LG Electronics Service Europe B.V.
Veluwezoom 15, 1327 AE Almere, The Netherlands
(Tel : +31-036-547-8940)

POWER: This unit operates on a mains supply of 200-240V~, 50/60Hz.

WIRING: This unit is supplied with a BSI 1363 approved 13 amp mains plug, fused at 5 amp. When replacing the fuse always use a 5 amp BS 1362, BSI or ASTA approved type. Never use this plug with the fuse cover omitted. To obtain a replacement fuse cover contact your dealer. If the type of plug supplied is not suitable for the mains sockets in your home, then the plug should be removed and a suitable type fitted. Please refer to the wiring instructions below:

WARNING: A mains plug removed from the mains lead of this unit must be destroyed. A mains plug with bared wires is hazardous if inserted in a mains socket. Do not connect either wire to the earth pin, marked with the letter E or with the earth symbol ⏚ or coloured green or green and yellow.
If any other plug is fitted, use a 5 amp fuse, either in the plug, or at the distribution board.
IMPORTANT: The wires in this mains lead are coloured in accordance with the following codes:

- BLUE: NEUTRAL, BROWN: LIVE - As the colours of the wires in the mains lead of this unit may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Notes on Copyrights

- Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the area in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rights owner.
- This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only, unless otherwise authorized by Macrovision corporation. Reverse engineering or disassembly is prohibited.
- CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 625 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS MODEL 625p UNIT, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.
- Because AACS (Advanced Access Content System) is approved as content protection system for BD 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 contents. 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 BD format, which imposes certain restrictions including playback restrictions for BD-ROM Mark and/or BD+ protected contents. To obtain additional information on AACS, BD-ROM Mark, BD+, or this product, please contact an authorized Customer Service Centre.
- 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 Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. 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.

Software Update
(Disc playback and network features only)

The software of the player can be updated by connecting it to the Internet using the LAN cable. We recommend to update the player using the latest software to enhance the products operation and/or add new features (see page 58).

Open source software notice

This product includes

- Freetype library : copyright © 2003 The FreeType Project (www.freetype.org).
- Zlib compression library developed by Jean-loup Gailly and Mark Adler. Copyright (C) 1995-2005 Jean-loup Gailly and Mark Adler
- Doubly Linked List licensed by Artistic license. You can download this software from http://freshmeat.net/projects/linklist/

To use BD-Live functionality

You must attach a USB Flash Drive using the USB port (see page 24).



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 have 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.

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Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license under U.S. Patent #: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and DTS-HD Advanced Digital Out are trademarks of DTS, Inc. © 1996-2008 DTS, Inc. All Rights Reserved.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.

"BD-LIVE" logo is trademark of Blu-ray Disc Association.

"DVD Logo" is trademark of DVD Format/Logo Licensing Corporation.

"x.v.Color" is trademark.

"Blu-ray Disc" is trademark.

"BONUSVIEW" is trademark of Blu-ray Disc Association.

This product is licensed under the AVC patent portfolio license and VC-1 patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard and VC-1 Standard ("AVC/VC-1 Video") and/or (ii) decode AVC/VC-1 Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC/VC-1 Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com.

"AVCHD" and the "AVCHD" logo are trademarks of Panasonic Corporation and Sony Corporation.

YouTube is a trademark of Google Inc.

Contents

Introduction 6-9
Remote control 10-11
Front panel 12
Rear panel 13
Connections to your TV 14-18
Connecting to an Amplifier 18-19
The unit's Audio Output Specifications 19-20
Resolution Setting 20-21
Internet connection 22-23
Network update notification 23
Using a USB Flash Drive 24
Auto Channel setting 25-26
Using the HDD Home Menu 26
Adjust the Channel Setup settings 27-30
Using the digital EPG 30-31
Recording 32-33
Editing a title 34-35
Displaying HDD Information 36-37
Playing a HDD 38
Using the DISC Home Menu 38
Adjust the Disc Setup settings 39-44
Play a disc 45-47
Displaying disc Information 48
Enjoying BD-LIVE™ 49-50
Playing a movie 50-51
Listening to a music 52-53
Viewing a photo 53-54
Playing YouTube videos 55-57
Software update 58
Code numbers of controllable TVs 59-61
Language Codes 62
Area Codes 62
Troubleshooting 63-65
Specifications 66
Network Service
(Disc playback and network features only) 67
Open source software notice 68

Before connecting, operating or adjusting this product,
please read this instruction booklet carefully and completely.

Introduction

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference.
This manual provides information on the operation and maintenance of your player. Should the unit require service, contact an authorized service location.

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.

Symbols Used in this Manual

Note:
Indicates special notes and operating features.

Tip:
Indicates tips and hints for making the task easier.

A section whose title has one of the following symbols are applicable only to the disc represented by the symbol.

ALL	All discs listed below
HDD	Titles recorded on the HDD
BD	BD-ROM disc
DVD	DVD-Video, DVD±R/RW in Video mode or VR mode and finalized
AVCHD	DVD±R/RW in AVCHD format
DivX	DivX files
ACD	Audio CDs
MP3	MP3 files
WMA	WMA files

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.

Keeping the exterior surfaces clean
Use the supplied cloth for cleaning the surfaces of the player.

- 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.

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.

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 centre.

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

Playable Discs

Blu-ray Disc
- Discs such as movies that can be purchased or rented
- BD-R/RE discs that contain audio titles, DivX, MP3, WMA, or Photo files.

DVD-VIDEO (8 cm / 12 cm disc)
Discs such as movies that can be purchased or rented

DVD-R (8 cm / 12 cm disc)
- Video mode and finalized only
- Supports the dual layer disc also
- AVCHD format
- DVD-R discs that contain audio titles, DivX, MP3, WMA, or Photo files.

DVD-RW (8 cm / 12 cm disc)
- VR mode, Video mode and finalized only
- AVCHD format
- DVD-RW discs that contain audio titles, DivX, MP3, WMA, or Photo files.

DVD+R (8 cm / 12 cm disc)
- Finalized disc only
- Supports the dual layer disc also
- AVCHD format
- DVD+R discs that contain audio titles, DivX, MP3, WMA, or Photo files.

DVD+RW (8 cm / 12 cm disc)
- Video mode and finalized only
- AVCHD format
- DVD+RW discs that contain audio titles, DivX, MP3, WMA, or Photo files.

Audio CD (8 cm / 12 cm disc)
Audio CDs or CD-Rs/CD-RWs in audio CD format that can be purchased

CD-R/CD-RW (8 cm / 12 cm disc)
CD-R/CD-RW discs that contain audio titles, DivX, MP3, WMA, or Photo files.

Notes on discs

- 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.
- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heart-shaped or octagonal). Doing so may result in malfunctions.
- Depending on the recording software & the finalization, some recorded discs (CD-R/RW or DVD±R/RW) may not be playable.
- DVD-R/RW, DVD+R/RW and CD-R/RW discs recorded using a personal computer or a DVD or CD Unit may not play if the disc is damaged or dirty, or if there is dirt or condensation on the Unit'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 unit 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 (see above) to ensure compatible playback.
- Customers should note that permission is required in order to download MP3 / WMA files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

BD-ROM Disc Features

BD-ROM Discs can store 25 GB (single layer) or 50 GB (dual layer) on a single sided disc - about 5 to 10 times the capacity of a DVD.
BD-ROM Discs also support the highest quality HD video available in the industry (up to 1920 x 1080) - Large capacity means no compromise on video quality. Furthermore, a BD-ROM disc has the same familiar size and look as DVD.

- The following BD-ROM disc features are disc dependent and will vary.
- Appearance and navigation of features will also vary from disc to disc.
- Not all discs will have the features described below.
- BD-ROM, Hybrid disc have both BD-ROM and DVD (or CD) layers on one side. On such discs, BD-ROM layer will be only played back in this player.

Video highlights
The BD-ROM format for movie distribution supports three highly advanced video codecs, including MPEG-2, MPEG4 AVC (H.264), and SMPTE VC1. HD video resolutions are also available:

- 1920 x 1080 HD
- 1280 x 720 HD

Graphic planes
Two individual, full HD resolution (1920x1080) graphic planes (layers) are available, on top of the HD video layer. One plane is assigned to video-related, frame accurate graphics (like subtitles), and the other plane is assigned to interactive graphic elements, such as buttons or menus.
For both planes, various wipes, fades and scroll effects may be available.

For High-Definition Playback
To view high-definition contents from BD-ROM discs, an HDTV is required. Some discs may require HDMI OUT for viewing of high-definition contents. Ability to view high-definition contents in BD-ROM discs may be limited depending on the resolution of your TV.

Menu sounds
When you highlight or select a menu option, sounds can be heard such as button clicks or a voice-over explaining the highlighted menu choice.

Multi-page/PopUp Menus
With DVD-Video, playback is interrupted each time a new menu screen is accessed. Due to BD-ROM disc's ability to preload data from the disc without interrupting playback, a menu can consist of several pages.
You can browse through the menu pages or select different menu paths, while the audio and video remain playing in the background.

Interactivity
Certain BD-ROM Discs may contain animated menus and/or trivia games.

User Browsable Slideshows
With BD-ROM Discs, you can browse through various still pictures while the audio remains playing.

Subtitles
Depending on what is contained on the BD-ROM disc, you may be able to select different font styles, sizes and colours for some subtitles. Subtitles may also be animated, scrolled or faded in and out.

BD-J Interactive Capability
The BD-ROM format supports Java for interactive functions. "BD-J" offers content providers almost unlimited functionality when creating interactive BD-ROM titles.

BD-ROM Disc Compatibility
This player supports BD-ROM Profile 2.

- Discs supporting BD-Live (BD-ROM version 2 Profile 2) that allows interactive functions to be used when this unit is connected to the Internet in addition to the BONUSVIEW function.
- Discs supporting BONUSVIEW (BD-ROM version 2 Profile 1 version 1.1/Final Standard Profile) that allows Virtual packages or Picture-in-Picture functions to be used.

Regional Code

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

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.
- Some AVCHD discs use the “x.v.Colour” format.
- This player can playback AVCHD discs using “x.v.Colour” format.
- Some AVCHD format discs may not play, depending on the recording condition.
- AVCHD format discs need to be finalized.
- “x.v.Colour” offers a wider colour range than normal DVD camcorder discs.

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 Centre.
- 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 7.1 channels if you use HDMI connection for the audio output of the unit.
- You can use a USB Flash Drive that is used to store some disc related information, including downloaded on-line content. The disc you are using will control how long this information is retained.

Certain System Requirements

For high definition video playback:

- High definition display that has COMPONENT or HDMI input jacks.
- 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).
- For up-conversion of standard definition DVD, a HDMI or HDCP capable DVI input on your display device is required for copy protected content.

For Dolby® Digital Plus, Dolby TrueHD and DTS-HD multi-channel audio playback:

- An amplifier/receiver with a built-in (Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS or DTS-HD) decoder.
- Main, center, surround speakers and subwoofer as necessary for chosen format.

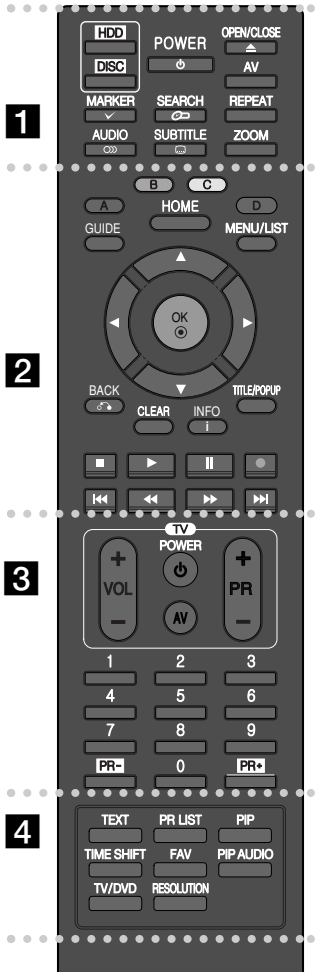
Important Notice for TV colour system

The colour system of this player differs according to currently playing discs or video contents (YouTube, etc.).
For example, when the player plays back the disc recorded in the NTSC colour system, the image is outputted as a NTSC signal.
Only the multi system colour TV can receive all signals outputted from the player.

Notes:

- 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 and video contents (Youtube,etc.) recorded in NTSC colour system are well displayed on your TV, these may not be recorded correctly on your recorder.

Remote control



HDD: Selects the unit's mode to HDD.

DISC: Selects the unit's mode to DISC.

POWER: Switches the unit ON or OFF.

OPEN/CLOSE (⏏): Opens and closes the disc tray.

AV: Changes the input source (Tuner, AV1-3).

MARKER (✓): Marks any point during playback.

SEARCH ( ): Displays or exits the search menu.

REPEAT: Repeats a desired section or sequence.

AUDIO ( ): Selects an audio language or audio channel.

SUBTITLE ( ): Selects a subtitle language.

ZOOM: Displays or exits the [ZOOM] menu.

Coloured (A, B, C, D) / buttons: Use to navigate BD-ROM menus. They are also used for [MOVIE], [PHOTO] and [MUSIC] menu or use when an EPG screen is displayed or when tuned to a teletext program of a digital broadcast. The function of each button will be described on-screen, and changes depending on the screen being displayed.

GUIDE: Displays the EPG menu.

HOME: Accesses or removes the HOME menu.

MENU/LIST: Accesses menu on a DVD disc. Switches between Title List-Playlist menu.

◄ / ► / ▲ / ▼ (left/right/up/down):
Used to navigate on-screen displays.

OK ( ): Acknowledges menu selection or displays the program list.

BACK ( ): Exits the menu or resumes playback.
The resume play function may work depending on the B D-ROM disc.

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

INFO (i): Displays or exits On-Screen Display.

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

■ (STOP): Stops playback.

► (PLAY): Starts playback.

❚❚ (PAUSE): Pauses playback.

REC(●): Starts recording. Press repeatedly to set the recording time.

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

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

TV Control Buttons: You can control the sound level, input source, and power switch of your TV (see page 11).

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

PR - / PR+: Scans up or down through memorized channels.

TEXT: Switches between teletext mode and normal TV viewing.

PR LIST: Displays the channel list.

PIP*: Switches on/off Secondary Video (Picture-in-picture) (BD-ROM only).

TIME SHIFT: Activates pause live TV/playback (timeshift) for a live TV program (only working in HDD mode).

FAV: Displays the favorite program list.

PIP AUDIO*: Switch on/off Secondary Audio (BD-ROM only).

TV/DVD: Press to switch between 'TV mode', in which you get the picture and sound from the TV's tuner, and 'DISC mode', in which you get picture and sound from this unit.

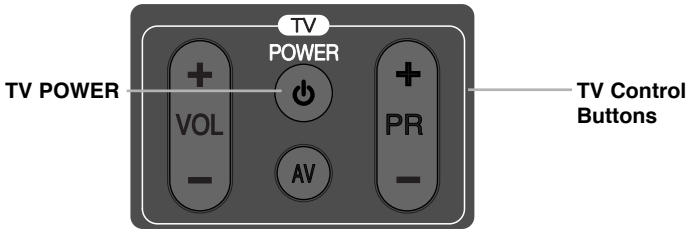
RESOLUTION: Sets the output resolution for HDMI and COMPONENT VIDEO OUT jacks.

* Depending on the disc type or the pre-recorded contents of the BD-ROM disc, different functions may be executed or there may be no response when pressing some buttons (depending on media used).

Controlling a TV with the Supplied Remote Control

You can control the volume, input source, and power state of your 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	Switch the TV's input source between the TV and other input sources.
PR +/–	Scan up or down through memorized channels.
VOL +/–	Adjust the volume of the TV.

Note:

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

To programme the remote to control the TV using the manufacturer code

If your TV is listed in the table on the next page, set the appropriate manufacturer code.

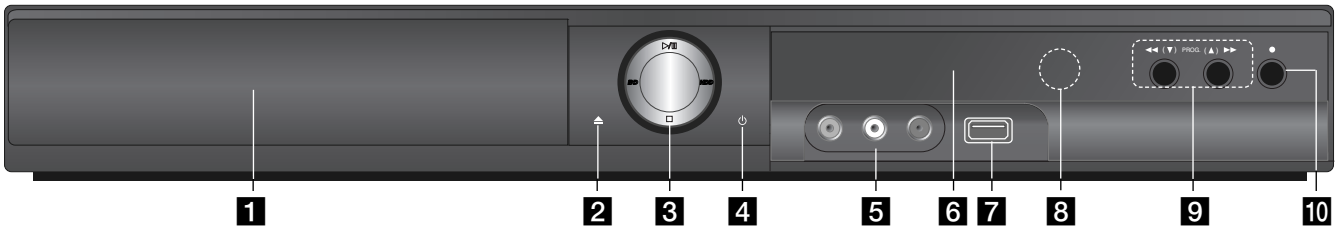
1 While holding down TV POWER button, press the number buttons to select the manufacturer code for your TV (see page 59-61).
- If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

2 Release TV POWER button.

Notes:

- Depending on your TV, some or all buttons may not function on the TV, even after entering the correct manufacturer code.
- If you enter a new code number, the code number previously entered will be erased.
- 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.

Front panel



1 Disc Tray
Insert a disc here.

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

3 ▶/❚❚ (PLAY / PAUSE)
Starts playback.
Pause playback or recording temporarily, press again to exit pause mode.

BD: Selects the unit's mode to DISC

HDD: Selects the unit's mode to HDD

■ (STOP)
Stops playback.

4 ⏻ (POWER) Button
Switches the unit ON or OFF.

5 AV IN 3 (VIDEO IN/AUDIO IN (Left/Right))
Connect the audio/video output of an external source (Audio system, TV/ Monitor, VCR, Camcorder, etc.).

6 Display window
Shows the current status of the unit.

T/S: Indicates the timeshift mode.

REC: The unit is recording.

HDD: The unit is in HDD mode.

DVD: The unit is in DVD mode.

◷ : Indicates when the unit is in timer recording or a timer recording is programmed.

-8:88:88 : Indicates clock, total playing time, elapsed time, title number, chapter/track number, channel, etc.

7 USB Port
Connect a USB Flash Drive.

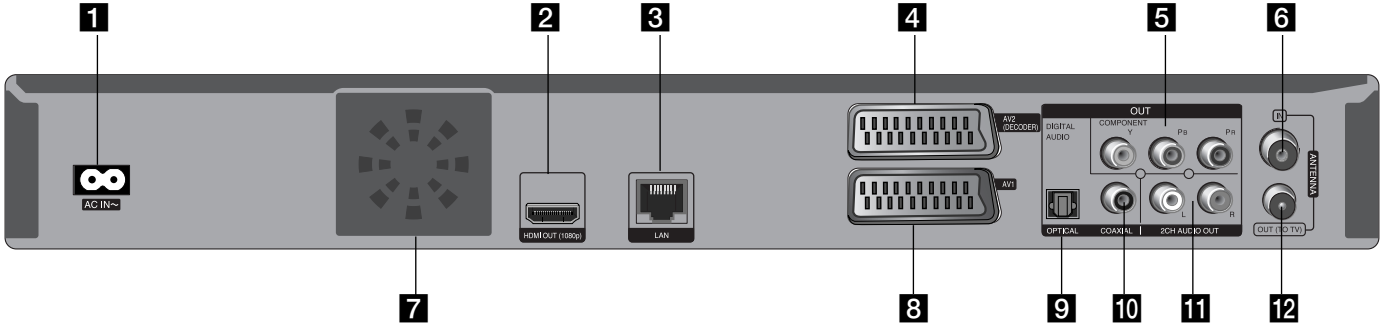
8 Remote Sensor
Point the remote control here.

9 ◀◀ / ▶▶ (SCAN)
Searches backward or forward.

PROG. (▼ / ▲)
Scans down or up through memorized channels.

10 ● (REC)
Starts recording.
Press repeatedly to set the recording time

Rear panel



1 **AC IN connector**
Connect the supplied power cord.

2 **HDMI OUT (1080p)**
Connect to TV with HDMI inputs. (Interface for digital audio and video)

3 **LAN port**
Connect a network with an always-on broadband connection.

4 **AV2 (DECODER) (SCART JACK)**
Connect the audio/video output of an external source (Pay-TV decoder, Set Top Box, VCR, etc.).

5 **COMPONENT VIDEO OUT (Y PB PR)**
Connect to a TV with Y Pb Pr inputs.

6 **ANTENNA IN**
Connect the aerial to this terminal.

7 **Cooling fan**

8 **AV 1 (SCART JACK)**
Connect to a TV with SCART jack.

9 **DIGITAL AUDIO OUT (OPTICAL)**
Connect to digital (optical) audio equipment.

10 **DIGITAL AUDIO OUT (COAXIAL)**
Connect to digital (coaxial) audio equipment.

11 **2CH AUDIO OUT (Left/Right)**
Connect to a TV with 2 channel audio inputs.

12 **ANTENNA OUT (TO TV)**
Passes the signal from the ANTENNA IN jack to your TV/monitor

Connections to Your TV

Make one of the following connections, depending on the capabilities of your existing equipment.

Tip:

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the player. Use only one of the connections described below.
- Please refer to the manuals of your TV, Stereo System or other devices as necessary to make the best connections.

Cautions:

- Make sure the player is connected directly to the TV. Tune the TV to the correct video input channel.
- Do not connect the player's AUDIO OUT jack to the phono in jack (record player) of your audio system.
- Do not connect your player via your VCR. The image could be distorted by the copy protection system.

Antenna connection

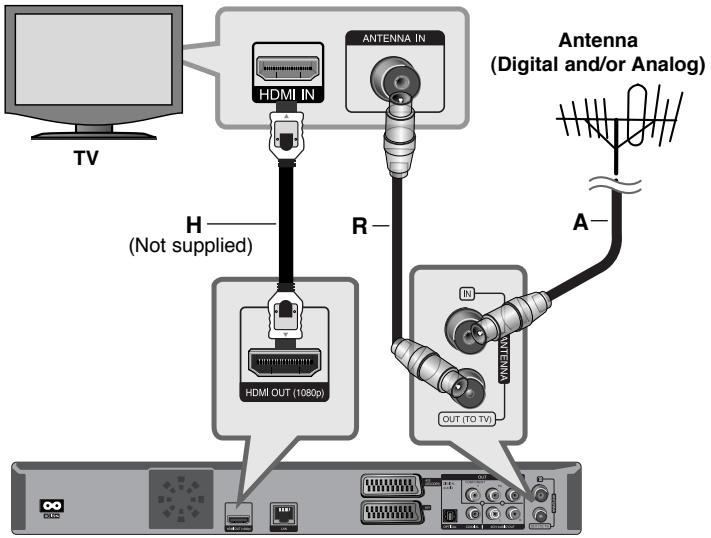
Connect the Terrestrial TV antenna **(A)** to the ANTENNA IN jack on the unit. If you want to use an indoor antenna, use one with a signal amplifier rated at 5V, 100mA and set [Antenna Feed 5V] to [ON] in the setup menu (See page 28).

Antenna connection to your TV

Connect one end of the RF cable **(R)** to ANTENNA OUT(TO TV) jack on the unit and other end to ANTENNA IN jack on your TV. Passes the signal from the ANTENNA IN jack to your TV/monitor.

HDMI Connection

If you have a HDMI TV or monitor, you can connect it to this unit using a HDMI cable **(H)**. 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).



Rear of this unit

Notes:

- You must select a HDMI audio output and a maximum sampling frequency that your TV accepts using [HDMI] and [Sampling Freq.] options on the [Setup] menu (see page 41).
- If a connected HDMI device does not accept the audio output of the unit, the HDMI device's audio sound may be distorted or may not output.

Tips:

- When you use HDMI connection, you can change the resolution for the HDMI output. (Refer to "Resolution Setting" on page 20-21.)
- Select the type of video output from the HDMI OUT jack using [HDMI Color Setting] option on the [Setup] menu (see page 39-40).

Cautions:

- 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 is noise or lines on the screen, please check the HDMI cable (length is generally limited to 4.5m).

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 720x576p, 1280x720p, 1920x1080i or 1920x1080p 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.
  - This player does not playback and TV screen is changed to black screen.

General about connection

Picture and sound

Digital TV is a transmission technology that replaces the traditional analogue technique.

This means that several TV channels, radio channels and other digital services can be transmitted on the same space as just one channel took up before. As a consumer you get access to many more channels and services than before at the same time as they are received with perfect picture and audio quality.

Coverage

Before buying this product it is anticipated that you have made sure that there are digital transmissions covering your region.

Antenna / Signal source

Depending on the reception your unit may be connected to a simple indoor antenna or to an existing outdoor antenna system. If you live in a flat you should make sure that the digital terrestrial signals are distributed to your wall antenna outlet. If you have your own antenna system you must make sure that it is equipped with antennas, filter and/or amplifier that can handle those frequencies that the digital channels are transmitted on.

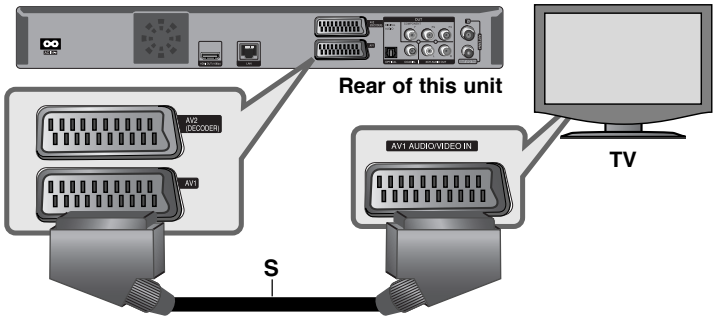
Cable-TV

Please observe that this unit is not designed for the reception of regular digital cable-TV signals (QAM-signal). Despite this, operators of smaller cable networks may have chosen to distribute the digital terrestrial signals (COFDM-signal) in the network. In this case this unit may well be used.

Check with your landlord if you are insecure about what type of TV-signal that is provided in the wall antenna outlet.

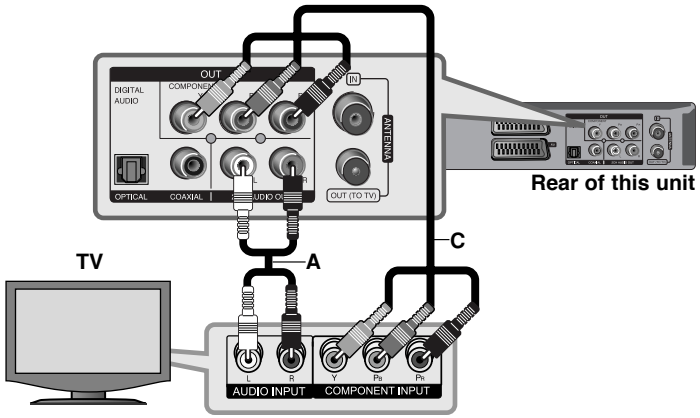
SCART connection

Connect one end of the scart cable into the AV1 SCART jack **(S)** on the unit and other end to the corresponding in jack on your TV. You can get Audio and Video signals together with this connection.



Component Video Connection

Connect the COMPONENT VIDEO OUT jacks **(C)** on the player to the corresponding input jacks on the TV using Y P_B P_R cables.
Connect the left and right AUDIO OUT jacks **(A)** of the player to the audio left and right IN jacks on the TV using the audio cables.

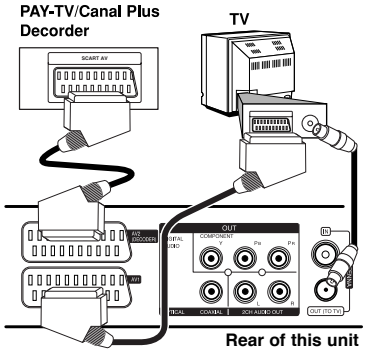


Tip:

When you use COMPONENT VIDEO OUT connection, you can change the resolution for the output. (Refer to “Resolution setting” on page 20-21.)

Connecting a PAY-TV/Canal Plus Decoder

You can watch or record PAY-TV/Canal Plus programmes if you connect a decoder (not supplied) to the unit. Disconnect the unit's mains lead from the mains when connecting the decoder. You do not need to turn on the unit to view the signals from the connected tuner on your TV.

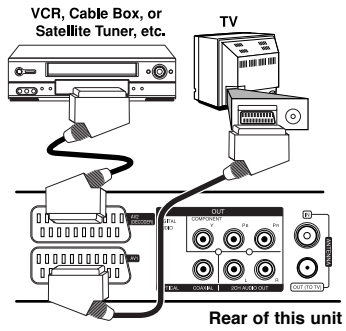


To watch or record PAY-TV/Canal Plus programmes, set [AV2 Connection] option to [Decoder] (see page 28) and set the program's [CANAL] option to [On] on the Setup menu (page 25).

If you disconnect the unit's mains lead, you will not be able to view the signals from the connected decoder.

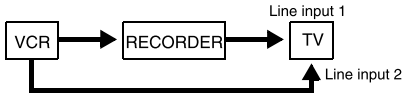
Connecting to the AV2 DECODER jack

Connect a VCR or similar recording device to the AV2 DECODER jack of this unit. You do not need to turn on the unit to view the signals from the connected tuner on your TV.



To watch or record the source from AV2 DECODER jack, set [AV2 Connection] option to [Others] (see page 28) and set [AV2 Recording] option to [Auto], [CVBS], [RGB] or [S-Video] as required (see page 29).

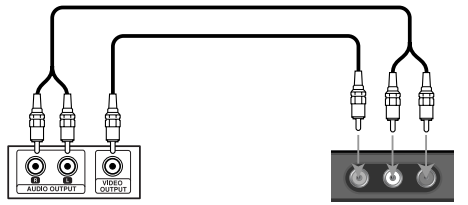
- Pictures containing copy protection signals that prohibit any copying cannot be recorded.
- If you pass the unit signals via the VCR, you may not receive a clear image on your TV screen.
  Be sure to connect your VCR to the unit and your TV in the order shown below. To watch video tapes, watch the tapes through a second line input on your TV.



- When you record to a VCR from this unit, do not switch the input source to TV by pressing the TV/DVD button on the remote.
- If you are using a B Sky B tuner, be sure to connect the tuner's VCR SCART jack to the AV2 DECODER jack.
- If you disconnect the unit's mains lead, you will not be able to view the signals from the connected VCR or tuner.

Connecting to the AV IN 3 Jacks

Connect the input jacks (AV IN 3) on the unit to the audio/video out jacks on your accessory component using audio/video cables.



Connecting to an Amplifier

Make one of the following connections, depending on the capabilities of your existing equipment.

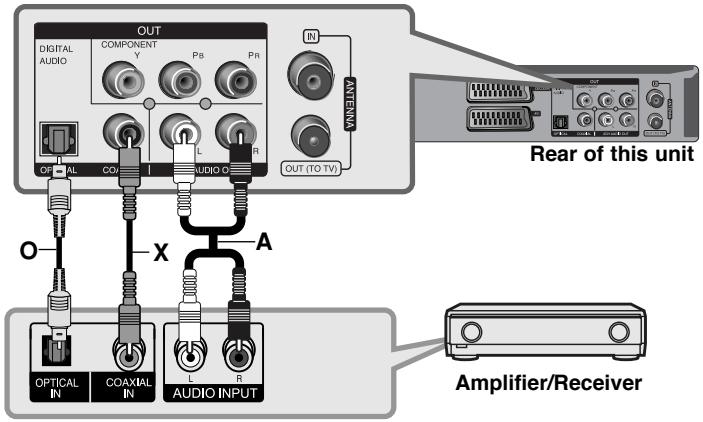
Note:
Since many factors affect the type of audio output, see “The unit’s Audio Output Specifications” on page 19 for details.

Connecting to an Amplifier via 2 Channel Audio Output

Connect the Left and Right 2CH AUDIO OUT jacks **(A)** on the player to the audio left and right in jacks on your amplifier, receiver, or stereo system, using audio cables.

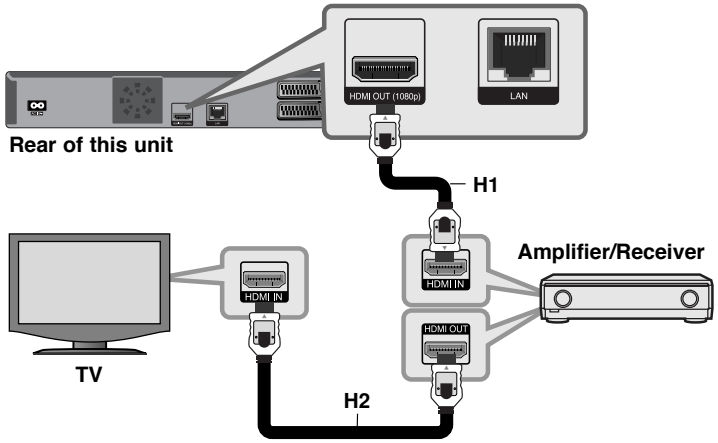
Connecting to an Amplifier via Digital Audio Output (Optical or Coaxial)

Connect the player’s DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack to the corresponding in jack (OPTICAL **O** or COAXIAL **X**) on your amplifier. Use an optional digital
(optical **O** or coaxial **X**) audio cable. You will need to activate the unit’s digital output. (See “[AUDIO] Menu” on page 41.)



Connecting to an Amplifier via HDMI Output

Connect the unit HDMI OUT jack to the corresponding in jack on your amplifier. Use a HDMI cable **(H1)**. You will need to activate the player’s digital output. (See “[AUDIO] Menu” on page 41.)



Digital Multi-channel sound
A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video Receiver that supports one or more of the audio formats supported by your player. Check the receiver manual and the logos on the front of the receiver. (PCM Stereo, PCM Multi-Ch, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS and/or DTS-HD)

Tip:
Connect the amplifier’s HDMI output jack to HDMI input jack on your TV using a HDMI cable **(H2)** if your amplifier has HDMI output jack.

Notes:

- You must select a digital audio output and a maximum sampling frequency that your Amplifier (or AV receiver) accepts using [SPDIF], [HDMI] and [Sampling Freq.] options on the [Setup] menu (see page 41).
- With digital audio connection (SPDIF or HDMI), Disc Menu button sounds of BD-ROM may not be heard if the [SPDIF] or [HDMI] option is set to [Primary Pass-Thru] or [DTS Re-encode].
- 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.
- To see the audio format of the current disc in the on-screen display, press AUDIO.

The unit's Audio Output Specifications

Jack/Setting / Source	Analog Output Stereo	SPDIF (DIGITAL AUDIO OUT)		
		PCM Stereo	DTS Re-encode *3	Primary Pass-Thru *1
Dolby Digital	PCM 2ch	PCM 2ch	DTS	Dolby Digital
Dolby Digital Plus	PCM 2ch	PCM 2ch	DTS	Dolby Digital
Dolby TrueHD	PCM 2ch	PCM 2ch	DTS	Dolby Digital
DTS	PCM 2ch	PCM 2ch	DTS	DTS
DTS-HD	PCM 2ch	PCM 2ch	DTS	DTS
Linear PCM 2ch	PCM 2ch	PCM 2ch	DTS	PCM 2ch
Linear PCM 5.1ch	PCM 2ch	PCM 2ch	DTS	PCM 2ch
Linear PCM 7.1ch	PCM 2ch	PCM 2ch	DTS	PCM 2ch

Jack/Setting / Source	HDMI OUT			
	PCM Stereo	PCM Multi-Ch	DTS Re-encode *3	Primary Pass-Thru *1, *2
Dolby Digital	PCM 2ch	PCM 5.1ch	DTS	Dolby Digital
Dolby Digital Plus	PCM 2ch	PCM 7.1ch	DTS	Dolby Digital Plus
Dolby TrueHD	PCM 2ch	PCM 7.1ch	DTS	Dolby TrueHD
DTS	PCM 2ch	PCM 5.1ch	DTS	DTS
DTS-HD	PCM 2ch	PCM 5.1ch	DTS	DTS-HD
Linear PCM 2ch	PCM 2ch	PCM 2ch	DTS	PCM 2ch
Linear PCM 5.1ch	PCM 2ch	PCM 5.1ch	DTS	PCM 5.1ch
Linear PCM 7.1ch	PCM 2ch	PCM 7.1ch	DTS	PCM 7.1ch

Notes:

*1 The secondary and interactive audio may not be included in the output bitstream if [SPDIF] or [HDMI] option is set to [Primary Pass-Thru]. (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 [HDMI] option is set to [Primary Pass-Thru].

*3 If the [HDMI] or [SPDIF] option is set to [DTS re-encode], the audio output is limited to 48 kHz and 5.1 Ch.

• The audio is outputted as PCM 48 kHz/16 bit for MP3/WMA file and PCM 44.1kHz/16 bit for Audio CD while playback.

Resolution Setting

The player provides several output resolutions for HDMI OUT and COMPONENT VIDEO OUT jacks.
You can change the resolution using [Setup] menu or pressing the RESOLUTION button in stop mode.

Note:

Since several factors affect the resolution of video output, see “Video output according to the Resolution setting” on next page.

How to change the resolution using RESOLUTION button

Press RESOLUTION repeatedly in stop mode to change the resolution.
The display window will show you the current resolution.

How to change the resolution using the [Setup] menu

1 Press DISC.
2 Press HOME and the [Home Menu] appears.
3 Select the [Setup] and press OK (⊙). The [Setup] menu appears.
4 Use ▲ / ▼ to select [DISPLAY] option then press ► to move to the second level.
5 Use ▲ / ▼ to select the [Resolution] option then press ► to move to the third level.
6 Use ▲ / ▼ to select the desired resolution then press OK (⊙) to confirm your selection.

Note:

If you select a resolution that your HDMI TV does not accept or select the 1080p resolution with COMPONENT VIDEO OUT connection, the warning message will appear and then ask you to keep the selected resolution setting.
If you do not respond to the question for 10 seconds, the resolution will automatically revert back to the previous resolution.

Available resolution according to the resolution setting

• When the non-copy protected media is playing back

SCART Output / Resolution Setting	HDMI OUT	COMPONENT VIDEO OUT
576i	576i	576i
576p	576p	576p
720p	720p	720p
1080i	1080i	1080i
1080p / 24Hz	1080p / 24Hz	1080p /50Hz *1, *2
1080p / 50Hz	1080p / 50Hz	1080p / 50Hz *2

• When the copy protected media is playing back

SCART Output / Resolution Setting	HDMI OUT	COMPONENT VIDEO OUT
576i	576i	576i
576p	576p	576p
720p	720p	576p
1080i	1080i	576p
1080p / 24Hz	1080p / 24Hz	576p *1
1080p / 50Hz	1080p / 50Hz	576p

Notes:

- Depending on your display, some of the resolution settings may result in the picture disappearing or an abnormal picture appearing. In this case, press HOME then RESOLUTION repeatedly until the picture re-appear.
- This player supports simultaneous output of all video out jacks. The resolution of the HDMI output will not be the same as the resolution output on the component video output.

*1 When the 1080p/24Hz video source is outputted via HDMI connection, the SCART OUT and COMPONENT VIDEO OUT will not output any video signal.

*2 Even if the resolution is set to 1080p, non-copy protected BDs and DVDs playback are outputted at 1080i resolution.

HDMI OUT connection

- 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].
- The 1080p video output frame rate may be automatically set to either 24Hz or 50Hz 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.

COMPONENT VIDEO OUT connection

- For the 720p, 1080i, 1080p resolution setting with protected media, real output resolution of COMPONENT VIDEO OUT will be outputted at 576p resolution.
- BD or DVD video stream could prevent up-scaling on analog output.

SCART OUT connection

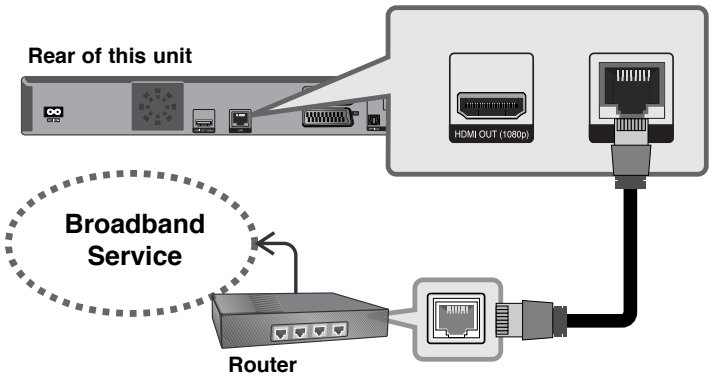
The resolution of the SCART OUT jack is always outputted at 576i resolution.

Internet connection

This player can be connected to a local area network (LAN) via the LAN port on the rear panel.
After making the physical connection the player needs to be set up for network communication. This is done from the [Setup] menu — see "[NETWORK] Menu" on page 43 for detailed instructions.

Connect the player's LAN port to the corresponding port on your Modem or Router using a LAN cable.
Use a commercially available straight LAN cable (Category 5/CAT5 or better with RJ45 connector).

By connecting the unit to broadband Internet, you can use software update, BD-Live features and YouTube features.



Cautions:

- 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.

Notes:

- 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.
- Our company is not responsible for any trouble in your internet connection.
- 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 contents may require a higher bandwidth connection.
- Even if the player is properly connected and configured, some internet contents 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 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.

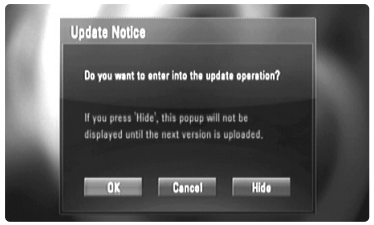
- A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your ISP, you may not be able to use the internet connection feature contained in this player or you may be limited to the number of devices 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.)
- The use of a “Router” may not be allowed or its usage may be limited depending on the policies and restrictions of your ISP. For details, contact your ISP directly.
- Your ISP may protect this player from being connected to network when confirming MAC ADDRESS. In that case, contact your ISP to request to initialize MAC ADDRESS.

Network update notification

If there is a new software is uploaded in the update server, this player let you know that there is a new software update available through via network connection as shown below.

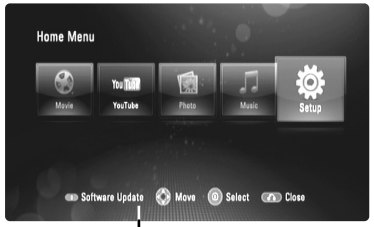
Option 1:

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 OK (⊙).
   [OK] - Starts the software update. (See page 67 for more detail)
   [Cancel] - Exits the update menu.
   [Hide] - Exits the update menu and it does not appear until next software is uploaded in the update server.



Option 2:

If the software update is available from the update server, the “Software Update” icon appears at the bottom of the Home menu. Press blue colored button to start the update procedure. (see page 58 for more detail)



Software Update

Using a USB Flash Drive

This unit can play the movie, music and photo files contained on the USB Flash Drive.	ON REMOTE
1 Inserts a USB Flash Drive to the USB port:	–
2 Displays the [Home Menu]:	–
3 Selects a main option: [Music], [Photo] or [Movie] option	**◄ ►, OK (⊙)**
4 Selects the [USB] option:	**◄ ►**
5 Displays corresponding menu list: [MOVIE], [MUSIC] or [PHOTO] menu appears. Details for the menu are on pages 50-54.	**OK (⊙)**

Tip:

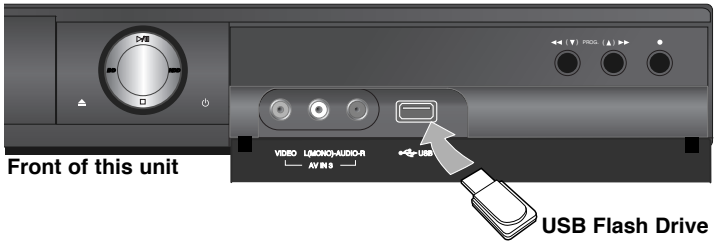
If you select the [Movie], [Photo] or [Music] option when a USB Flash Drive is connected and a disc is inserted simultaneously, the menu for selecting a media will appear. Select a media then press OK (⊙).



Insert/Remove a USB Flash Drive

Inserting a USB Flash Drive – Insert straight-in until it fits into place.

Removing a USB Flash Drive – Withdraw the USB Flash Drive carefully.



Front of this unit

USB Flash Drive

Notes:

- This unit supports only USB Flash Drive with FAT16 or FAT32 format.
- The USB Flash Drive can be used for the local storage for enjoying BD-Live discs with Internet
- Do not extract the USB Flash Drive during operation (play, etc.).
- A USB Flash Drive which requires additional program installation when you have connected it to a computer is not supported.
- USB Flash Drive: USB Flash Drive that support USB1.1 and USB2.0.
- Movie Files (DivX), Music files (MP3/WMA) and photo files (JPEG/PNG) can be played. For details of operations on each file, refer to relevant pages.
- Regular back up is recommended to prevent data loss.
- If you use a USB extension cable or USB HUB, the USB Flash Drive may not be recognized.
- Some USB Flash Drives may not work with this unit.
- Digital camera and mobile phone are not supported.
- USB Port of the unit cannot be connected to PC. The unit cannot be used as a storage device.

Auto Channel setting

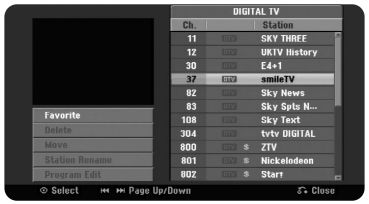
	ON REMOTE
1 Selects the HDD mode:	HDD
2 Displays the Home Menu:	HOME
3 Selects the [Channel Setup] option:	◀ ▶, OK (⊙)
4 Selects the [Auto Programming] option:	▶
5 Move to third level:	▶
6 Choose a country you are using the unit:	▲▼
7 Choose a broadcasting type: Digital, Analog or All	▶▲▼
8 Selects the [Start] and starts channel scan:	▶, OK (⊙)

Auto Channel setting - more you can do

Adjust the programmed channels

Press HOME, then use ◀ ▶ to select [Channel Setup] option. Press OK (⊙) and the Setup menu appears on the screen. Use ▶ ▼ to select the [Program Edit] on the second level options then press ▶ to move to the third level. Press OK (⊙) while [Edit] option is selected. The channel editing screen appears on the screen.

Select which channel you would like to edit and press OK (⊙). An option menu on the left side of the screen will be highlighted.



[Favorite]: Set the program to favorite channel.
[Delete] (Analog channel only): Delete the selected channel from programmed channel list.
[Move] (Analog channel only): Change the order of the channels and which numerical button they correspond to.
[Station Rename] (Analog channel only): Change the station name. The display for entering characters appears.
To enter characters see page 35. Names can be up to 5 characters long.
[Program Edit]: (Analog channel only): Change the settings of a channel manually.

Editing a channel (Analog channel only)

You can change the settings of programmed channel by selecting [Program Edit] option on the left side of the channel editing screen.



[PR]: Indicates the selected channel position.
[Seek]: Searches for a channel automatically. Searching stops when the unit tunes in a channel.
[Ch.]: Changes the channel number.
[MFT]: Fine tunes the channel to obtain a clearer picture.
[CANAL]: Sets the channels for the decoder. You need this setting to watch or record PAY-TV/Canal plus programs.
[NICAM]: Sets the channels for the NICAM broadcast.
[OK]: Confirm the settings and return to the channel list menu.

Switching the program list on the channel editing screen

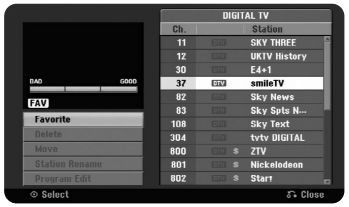
You can switch the program list on the channel editing screen.



Press ▲▼ to move the highlight position to top of the program list. Press ◄► to select [DIGITAL TV], [ANALOG TV] or [RADIO] then press ▲▼ to select a program on the list.

Setting a favorite program

You can set a program to favorite channel.



Press ▲▼ to select a program on the program list then press OK (⊙) to highlight the option menu on the left side of the screen. Press ▲▼ to select [Favorite] option then press OK (⊙). The program is set to the favorite program and [FAV] appears on the TV screen.

Setting the AV1 Decoder

Sets the AV1 scart jack for inputting encoded video signals. This option sets the unit to output the encoded signal from AV1 scart jack to AV2 (DECODER) scart jack for decoding. The decoded signal is then input back through the AV2 (DECODER) jack so you can record or watch PAY-TV/Canal Plus programs.

Press AV once while the channel editing screen appears. The [Decoder On/Off] option on the option menu. Press OK (⊙) to turn on the option and press OK (⊙) again to turn off. The [Canal+] appears on the screen when this option is turned on.

Selecting an operating mode

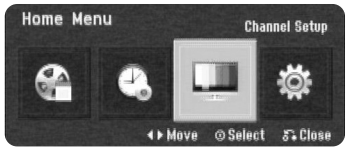
You must select one of the operating modes before operating.
Press HDD or DISC to select the mode between HDD and Disc.

Disc: You should select the Disc mode before using playback functions or disc setup setting.

HDD: You should select the HDD mode before recording, watching TV channel or using TV setup setting.

Using the HDD Home Menu

	ON REMOTE
1 Selects the HDD mode:	HDD
2 Displays the HOME menu:	HOME
3 Selects a main option:	◄►
4 Execute the selected option:	OK (⊙)
5 Exit the HOME menu:	HOME



Using the HDD Home Menu - more you can do

Title List

Displays the [Title List] menu, which shows recorded titles on HDD. (page 34)

Timer Record List

Displays [Timer Record] menu. (page 32)

Channel Setup

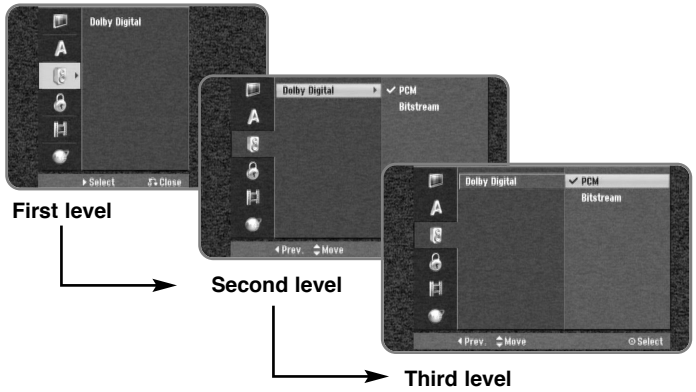
Displays [Channel Setup] menu. (page 27)

Setup (Disc mode)

Displays [Setup] option in the Disc Setup Menu. (page 39)

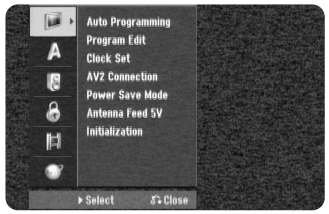
Adjust the Channel setup settings

	ON REMOTE
1 Displays the HOME menu:	HOME
2 Selects the [Channel Setup] option:	◄ ►, OK (⊙)
3 Selects the setup option:	►
4 Selects a desired option on the first level:	▲▼
5 Move to second level:	►
6 Selects a desired option on the second level:	▲▼
7 Move to third level:	►
8 Adjust or confirm the setting:	▲▼, OK (⊙)
9 Go back to the previous level:	◄



Adjust the Channel setup settings - more you can do

Adjust the general settings



Auto Programming – This option automatically scans and sets the available channels. Password is needed to access this option, if [Lock System] option is set to [On]. (page 29)

[All, Digital or Analog]: Select a broadcasting type which you want to scan automatically.
[Start]: Start the channel scanning.

Program Edit– This option allows you to add channels and edit preset channels. Password is needed to access this option, if [Lock System] option is set to [On]. (page 29)

[Add Channel]: Select the broadcasting type between [Digital] and [Analog] and then press ▲▼ to select the channel and press OK (⊙) to add the selected channel.
[Edit]: Displays the screen which show preset channel list and channel editing options. (page 25)

Clock Set– The clock must be set in order to use [Timer record].

[Auto]: Set the channel that broadcasts a clock signal and the clock will be set automatically. If the clock that has automatically set is different with your local clock, you can add more time using [Time Offset] option. (For example, when summer time is started in local area.) Press ► to select [Time Offset] option. Press ▲▼ to select a value then press OK (⊙) (0, 30, 60, 90, 120). Select “0” if the clock that has automatically set is identified with your local clock.
[Manual]: If there is no channel that broadcasts a clock signal in your area, you can set the time and date manually.

AV2 Connection – You can connect a decoder or the other device to the AV2(DECODER) jack on the rear panel.

[Decoder]: Select this when you connect a PAY-TV or Canal Plus decoder to the AV2(DECODER) jack on the unit.
[Others]: Select this when you connect a VCR or similar recording device to the AV2(DECODER) jack on the unit.

Power Save mode – Selects whether this unit is in power save mode when the power is turned off. This option is not available when a timer recording is set.

[ON]*1: The front panel display is off and only signals arriving at the antenna input are passed through when the unit is turned off.
[OFF]: Turns off the [Power Save Mode].

*1 If you turns off the unit while receiving encoded signals, the power save mode does not work

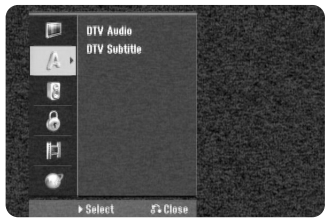
Antenna Feed 5V – If you are using an indoor antenna, use one with a signal amplifier rated at DC 5V, 100mA and set this option to [ON].

[ON]: Power is supplied to the connected antenna.
[OFF]: The unit does not supply power to the connected antenna.

Initialization – You can reset the unit to its original factory settings and format the HDD.

[Factory Set]: You can reset the unit to all its factory settings. Some options cannot be reset (Rating, Password, and Area Code). The auto setup menu appears on the screen after the factory settings.
[HDD format]: Everything recorded on the HDD will be erased.

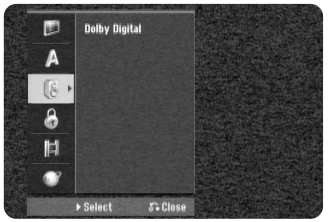
Adjust the language settings



DTV Audio – Digital channels sometimes provide multiple audio tracks, often in a different language. You can set a default audio language with this setting.
If provided by the broadcaster, you can also select a different audio language while viewing TV by pressing AUDIO repeatedly.

DTV Subtitle – Digital channels sometimes provide subtitle, often in a different language. You can set a default subtitle language with this setting, if DTV subtitle is provided by the broadcaster. Press SUBTITLE repeatedly to select a subtitle language while viewing digital TV viewing.

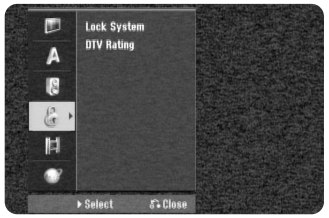
Adjust the audio settings



Dolby Digital – Selects the type of digital audio signal when using the DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack.

[Bitstream] – Select this when you connect this unit's DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack to an audio component with a built-in Dolby Digital, DTS or MPEG decoder.
[PCM] (for Dolby Digital / MPEG) – Select this when you connect this unit's DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack to an audio component without a built-in Dolby Digital or MPEG decoder.

Adjust the lock settings



To access the Lock System or DTV Rating, you must enter the 4-digit password. If a password is not set on this unit, you must set the password in the Disc Setup settings (page 42).
If not, Lock System and DTV Rating are not activated.
If you do not remember your password, refer to the "If you forget your password" on page 42.

Lock System – Allows you to set up specific programs and ratings through blocking schemes. Also allows you to activate or disable all of the lock schemes previously set up. A password is required to gain access to the lock menu options. When the Lock System is set to [OFF], the [DTV Rating] is not effective.

DTV Rating – You can set the rating to block out all the programs with rating above a specified level.

[No Control]: You can view all programs.

[04 Years] – [18 Years]: Rating [04 Years] has the most restrictions and [18 Years] is the least restrictive.

[Lock All]: All programs are locked. To view a program, you must input the 4-digit password you have created.

Adjust the recording settings



Rec Mode Set – Select the picture quality for recording from XP, SP, LP, EP or MLP. See recording time of each mode on page 63.

[XP]: Highest picture quality.
[SP]: Standard picture quality.
[LP]: Slightly lower picture quality than [SP] mode.
[EP]: Low picture quality.
[MLP]: The longest recording time with the lowest picture quality.

Rec Aspect – This option sets the recording aspect ratio to suit the material you are recording on HDD.

TV Rec Audio – Select an audio channel to record when recording a bilingual program.

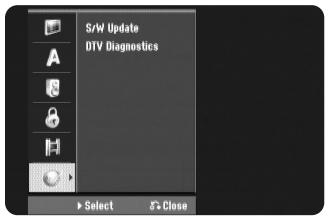
[Main+Sub]: Main language and sub language
[Main]: Main language only
[Sub]: Sub language only

AV2 Recording – Selects a method of inputting video signals for the AV2(DECODER) jack. The picture will not be clear if this setting does not match the type of the video input signal.

[Auto]: The video input signal will automatically follow the video signal received.
[CVBS]: Inputs CVBS(composite) video signals.
[RGB]: Inputs RGB signals.
[S-VIDEO]: Inputs S-Video signals.

Time Shift – Set this option to [ON] make this unit to use the Time Shift function automatically without pressing TIME SHIFT button. The timeshift will start in 5-10 seconds after TV tuner mode is started.

Adjust the network settings



S/W Update (Recording and TV tuner features only) – Your unit is able to keep the built-in digital tuner up to date with the latest software. You can either check for updates manually, or have the unit do it automatically at regular interval.
While the unit is in updating, there may have a disruption in reception for a few hours. The reception should return to normal after the update is complete.
This unit must be plugged into AC power to receive updates. **Do not unplug your unit while an update is in progress.** The update is not available during recording, Timeshift, viewing teletext or EPG menu.

[Standby mode] Updates the software when this unit is turned off. The check mark appears when this option is selected.
[Start] Updates the software immediately.

DTV Diagnostics – To assist in locating any problems you may experience, the unit includes DTV diagnostics options. This option gathers information about DTV signals to troubleshoot DTV-related problems.
Highlight the [Start] option then press OK (⊙) to show diagnostic information.
To show details about multiplexer, use ▲ /▼ to highlight a multiplexer then press OK (⊙).

Using the digital EPG

	ON REMOTE
1 Selects the HDD mode:	HDD
2 Displays the EPG menu:	GUIDE
3 Selects s a TV program:	▲▼
4 Displays the next/previous menu list:	I◄◄ ►►I
5 Shows the selected program currently on air:	OK (⊙)
6 Exit the EPG menu:	GUIDE or BACK

Using the digital EPG - more you can do

About the digital EPG

The digital EPG shows a table of scheduled digital TV programs and detailed information about individual program. The digital EPG screen consist of program information, channel list and general program list.
Note that the unit's clock must be set to the correct time and date to ensure all relevant EPG information is displayed.

Displaying the detailed Information window

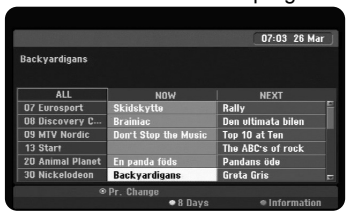
You can view detailed information for the highlighted program. Press blue color button to display detailed information window. To exit the detail information window, press blue color button again.



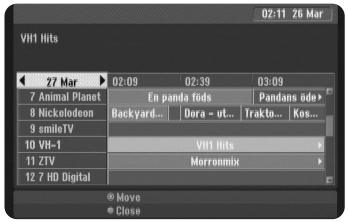
Switching the EPG menu

The EPG screen provides two search menus.
Press yellow color button when the EPG menu is displayed.

- Now/Next: The screen shows now and next programs.



- 8 Days: The screen shows programs within 8 days. When the EPG menu with 8 days is displayed, you can also change the date of the EPG menu by pressing the green color button then use ◄ / ► to select a date.



You can set a timer record using EPG menu with 8 days. Select a program then press red color button. The red timer icon will be displayed and the program will be memorized by the unit.

[Simple Recording]: Records only the selected program.
[Recording series]: Records the programs in series.
[Recording separated program]: Records the subsequent parts of a program which are separated.
[Recording recommended program]: Records the program if recommended by broadcaster as a link for the current series.

Select an option then press OK (⊙). The timer icon will be displayed and the program will be memorized by the recorder. You can check the programming on the Timer Record List menu (see page. 32). To cancel the timer recording, select the program then press the red coloured button. Select the option again then press OK (⊙). The timer icon disappears.

Viewing a digital text service

Many digital TV channels broadcast information via their text service. This digital service includes high quality digital text and graphics along with advanced navigation options. Additionally, this recorder has access to dedicated text channels transmitted by the broadcasters. The appearance, content and navigation methods of all digital text services are decided by the broadcaster.
Press TEXT to bring up the text menu for the current channel. Use ▲ ▼ to navigate through the menu. Use OK (⊙) to select an item. Additionally you now have the four coloured buttons (Red, Green, Yellow and Blue) to navigate through the content of the page. The use of these coloured buttons will be displayed on the screen. Press TEXT or BACK (↶) to leave the digital text service.

What is FREEVIEW+?

FREEVIEW+™ gives you over 40 FREEVIEW™ channels that you can pause, record and rewind with no monthly subscription.

Check coverage in your area.
Text your postcode, followed by your house number or name to 83331*.
Or visit **www.freeview.co.uk**

*e.g. NW9 6NY 1 (Costs no more than a normal text.)

The FREEVIEW service is subject to coverage.
An aerial upgrade may be required. The FREEVIEW and FREEVIEW+ words and logos are trade marks of DTV Services LTD. DTV Services Ltd 2002, 2008.

Recording

Follow the instruction below to record a TV channel or other source. The recording continues until the media is full, you stop the recording or the progress of recording is more than 12 hours.	ON REMOTE
1 Selects the HDD mode:	**HDD**
2 Selects a recording mode: You can select a recording mode on the HDD Setup settings menu. (XP, SP, LP, EP or MLP)	**HOME, ▲▼◀▶, OK (⊙)**
3 Selects a channel or source you want to record:	**PR- / PR +, AV**
4 Starts recording:	**REC (●)**
5 Stops recording:	**STOP (■)**

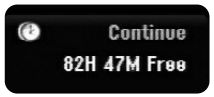
Recording - more you can do

Changing TV audio channel

Before recording, you can change the TV audio channel for stereo and bilingual broadcast. Press AUDIO repeatedly to change the audio channel. The current audio channel is displayed on-screen. Set the [TV Rec Audio] option in the SETUP menu when recoding a bilingual broadcast.

Instant timer recording

Instant timer recording allow you to make a recording of preset length easily.



When the REC (●) is first pressed, recording starts. Press REC (●) repeatedly to select a certain amount of time. Each press of REC (●) to displays the increased recording time on-screen. You can set the instant timer recording up to 240 minutes on HDD.

Note:

The unit will automatically power off when the Instant Timer Recording ends in HDD mode.

Setting a timer record

This unit can be programmed to record up to 16 timer recordings within a month. The clock must be set correctly before setting a timer.



Press HOME and select Home Menu option. Press ◀ ▶ to select the [Timer Record List] and press OK (⊙) to display [Timer record List] menu. Use ▲▼ to select [New] and press OK (⊙) to display [Timer Record] menu. Adjust the each field as described below using **▲▼◀▶.**

[CH]: Choose a memorized program number, or one of the external inputs from which to record. (You cannot select DV input and radio channel.)
[Date]: Choose a date up to 1 month in advance.
[Start Time]: Set the start time.
[End Time]: Set the end time.
[Repeat]: Choose a desired repeat (Once, Daily (Mon-Fri), or Weekly). Recordings from EPG menu will always be set to [Once].

Press REC (●) repeatedly to set the recording mode (XP, SP, LP, EP or MLP) then press OK (⊙) to set a timer recording. The “Rec OK” on the [Check] field on the [Timer Record List] menu indicates the timer recording is programmed correctly.



Canceling a timer recording

You can cancel a timer record before the timer recording actually starts. Select a timer recording that you want to cancel on the [Timer Record List] menu and press CLEAR.

Timer Recording Troubleshooting

Even though the timer is set, the unit will not record when:

- There is no free space on the HDD.
- A non-recordable is not free space on the HDD.
- The unit is under operating (recording, deleting etc.).
- There are already 255 titles recorded on the HDD.

You cannot enter a timer program when:

- A recording is already underway.
- The time you're trying to set has already passed.
- There are already 16 timer programs set.

If two or more timer programs overlap:

- The earlier program takes priority.
- When the earlier program finishes, the later program starts.
- If two programs are set to start at exactly the same time, the program entered first takes priority.

Time Slip

You can watch the title that you are currently recording to HDD with this function. After the recording is progressed over 15 seconds, press PLAY (▶) to playback the title that you are currently recoding. If you stop playback the title, returns to the current recording position.
If you want to stop recording without stopping the current playback, press and hold STOP (■) more than two seconds.

Recording From an external inputs

You can record from an external component, such as a camcorder or VCR, connected to any of the unit external inputs.
Each press of the AV changes the input source as described below. Make sure that the component you want to record from is connected properly to the unit before recording an external source.

- Tuner: Built-in tuner
- AV1: AV1 scart jack mounted on back panel
- AV2: AV2 DECODER scart jack mounted on back panel
- AV3: AV IN 3 (VIDEO, AUDIO (L/R)) mounted on the front panel

Using time shift function

This feature allows you to pause or rewind live TV, so you do not miss a thing if you were interrupted.
Press TIME SHIFT then press PAUSE (❚❚) while watching live broadcast before answering the phone. The timeshift function will record the broadcast of later viewing. Before using this function, make sure that the unit is in HDD mode.

If no button is pressed for 6 hours, the timeshift will stop automatically. You can use trick play functions (slow, scan, etc.) during timeshift. Refer to playback operation on page 41-43.

Stop timeshift by pressing STOP (■) and confirm by pressing OK (⊙).
You will returned to watch a broadcast in real time.

Jump to start or end during timeshift

Press OK (⊙) to show progress bar during timeshift. Press ◀ to jump to the beginning and ▶ to jump to the end of the timeshift.

Clip recording

If you want to record a timeshifted program as a title, press REC (●) at the starting point and ending point you want to record. The timeshift progress bar indicates a clip that you select with red bar. You can make more clips by repeating this instruction. The clips will be recorded when you exit the timeshift function.

Using time shift function automatically

If the [Time Shift] option in the Channel Setup menu is set to [ON], timeshift starts automatically without pressing TIME SHIFT button in HDD mode.
If you want to quit the timeshift function, set the [Time Shift] function to [OFF].

Editing a title

Using the Title list menu,you can edit video contents.	ON REMOTE
1 **Selects the HDD mode**	**HDD**
2 **Displays a [Title List] menu:**	**MENU/LIST**
3 **Selects a title you want to edit:**	**▲▼◄►**
4 **Displays an editing menu:** The options are differ depending on the media type.	**OK (⊙)**
5 **Selects a menu option:**	**▲▼◄►, OK (⊙)**
6 **Exit the [Title List] menu:**	**BACK**

Editing a title - more you can do

About title list menu

Press MENU/LIST to display the Title List menu. Playback should be stopped when you do this. You can also access it using HOME menu, select [Title List] option and press OK (⊙).



1 Current media
2 Indicates the record mode, free space, and elapsed time progress bar.
3 Menu options: To display menu option, select a title or chapter then press OK (⊙).
4 Currently selected title.
5 Thumbnail
6 Shows the title name, recorded date, and recording length.

Adding chapter markers HDD

You can create chapters within a title by inserting chapter marks at the desired point. Press MARKER at the desired point while playback.
A chapter marker icon appears on the screen.

Combining chapters HDD

Use this function to merge the selected chapter with adjacent chapter. Select a chapter and press OK (⊙). Select [Combine] option to view combine indicator between chapter thumbnails. Press OK (⊙) to combine indicated two chapters.

This function is not available in conditions as listed below.

- There is only one chapter within the title.
- The first chapter is selected.

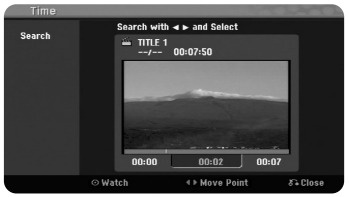
Chapter search HDD

You can select the start of a title by searching a chapter. Select a title that you want to search and press OK (⊙). Select [Chapter] in the [Search] option from the menu on the left of the screen, and press OK (⊙) to display the [Chapter List] menu.

Use ▲▼◄► to find the chapter you want to start playback, and press PLAY (►) to start playback.

Time search HDD

You can select the start of a title by searching through the time duration. Select a title that you want to search and press OK (⊙). Select [Time] in the [Search] option from the menu on the left of the screen and press OK (⊙) to display the [Search] menu.



Use ◄ ► to find the time you want to start. Each press of ◄ ► to move 1 minute and press and hold ◄ ► to move 5 minutes. Press OK (⊙) to watch a title from a selected time.

Sorting the titles HDD

Press OK (⊙) to bring up the option menu. Select [Sort] option and press OK (⊙) to view the further options. Here you can choose to sort titles according to [Date] (when they were recorded), [Title] (alphabetical order) or by [Category] (sort by genre).

Combining titles HDD

Use this function to merge the selected title with another title. Select a title and press OK (⊙). Select [Combine] in the [Edit] option then press OK (⊙). Select a title you want to combine with current title and press OK (⊙) to confirm.

Dividing a title HDD

Use this function to split a title up into two titles. Select a title that you want to divide and press OK (⊙). Select [Divide] in the [Edit] option from the menu on the left of the screen and press OK (⊙) to display the [Divide] menu. Find the point you want to divide a title using PLAY (▶), SCAN (◀◀ / ▶▶), PAUSE (❚❚) buttons and press OK (⊙) while [Divide] option is selected. The playback screen shows the divided point. Select [Done] option and press OK (⊙) to divide. You cannot select dividing point less than 3 seconds.

Deleting a part HDD

You can delete a part which you do not want in the title.

Select a title that you want to delete part and press OK (⊙). Select [Delete Part] in the [Edit] option from the menu on the left of the screen and press OK (⊙) to display the [Delete part] menu. You can find the point using PLAY (▶), SCAN (◀◀ / ▶▶), PAUSE (❚❚) buttons.

[Start Point]: Select starting point of a part that you want to delete then press OK (⊙).
[End Point]: Select ending point of a part that you want to delete then press OK (⊙).
[Next Part]: Press OK (⊙) to delete the additional part.
[Cancel]: Press OK (⊙) to cancel the selected part.
[Done]: Press OK (⊙) to delete the selected part.

Naming a title HDD

When a title is recorded by this unit, the title name will be named by a number or a program title. You can change a title name by using this function.



Select a title that you want to change a name and press OK (⊙). Select [Rename] or [Title Name] option from the menu on the left of the screen and press OK (⊙) to display the keyboard menu. Use ▲▼◀▶ to select a character then press OK (⊙) to confirm your selection on the keyboard menu.

[OK]: Finish the naming.
[Cancel]: Cancels all entered characters.
[Space]: Inserts a space at the cursor position.
[Delete]: Deletes the previous character at the cursor position.

You can use remote control buttons for entering a name

PLAY (▶): Inserts a space at the cursor position.
PAUSE (❚❚): Deletes the after character at the cursor position.
STOP (■), CLEAR: Deletes the previous character at the cursor position.
I◀◀ / ▶▶I: Moves cursor to left or right.
MENU/LIST, INFO (i): Changes the character set on the keyboard menu.
Numbers (0-9): Enters the corresponding character at the cursor position.

You can apply a genre for a selected title on HDD. When a character is highlighted on the keyboard menu, keep pressing ◀ until the curser jumps across to the Genre field. Choose desired genre and press OK (⊙) to select it.
The chosen genre name will appear at the lower right corner of the title thumbnail.

Displaying HDD information

	ON REMOTE
1 Starts playback:	PLAY (▶)
2 Displays current status of playback:	INFO (i)
3 Displays the playback menu:	INFO (i)
4 Selects an item:	▲▼
5 Adjust the playback menu settings:	◄►
6 Exit the disc playback menu:	INFO (i)

Displaying HDD Information - more you can do

Adjusting playback menu item

You can select an item by pressing ▲▼ and change or select the setting by pressing ◄►.



1 Current title/Total number of titles
2 Current chapter / total number of chapters
3 Elapsed playing time
4 Selected audio language or audio channel
5 Selected subtitle

Moving to another title HDD

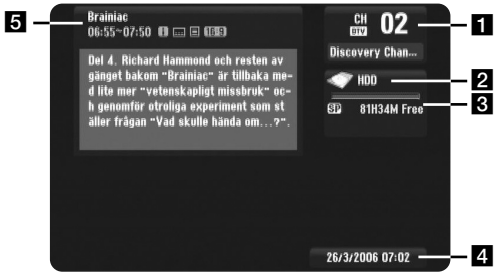
When HDD has more than one title, you can move to another title.
Press INFO (i) twice during playback then use ▲ / ▼ to select the title icon. Then, press the appropriate numbered button (0-9) or ◄ / ► to select a title number.

Starting playback from selected time HDD

Press INFO (i) twice during playback. The time search box shows the elapsed playing time. Select the time search box 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" and press OK (⊙).
If you enter the wrong numbers, press ◄ / ► to move the under bar (_) to the wrong number. Then enter the correct numbers.

Displaying information while watching TV

During viewing the TV, Press INFO (i) to display the information displayed on-screen.



1 Indicates channel number, station name, and audio signal (Stereo, Bilingual, Mono) received by the tuner.
(The audio signal indication is available only for the analog channels.)

2 Indicates media name.

3 Indicates the record mode, free space, and elapsed time progress bar.

4 Indicates current date and time.

5 Indicates program title, start time, end time, etc.

(Extended Text Message Icon): Indicates that there is an Extended Text Message available to provide detailed descriptions of the program (see page 30).

(DTV Subtitle Icon): Indicates that the current program contains the subtitle.

16:9 (TV Aspect): Indicates that the current channel is wide or 4:3 picture format.

(Teletext Icon): Indicates that there is a Teletext available (see page 31).

Changing TV program

Use PR- / PR+ on the remote control to change the programs in memory or use numbered (0-9) buttons to select a program directly.

Changing TV program with program list

You can display TV program list using the OK (⊙) button and switch into other TV program on the channel list.

While watching a program, press PR LIST to display the TV program list.
Select your desired channel using the ▲ / ▼ and press OK (⊙) to change the TV program.

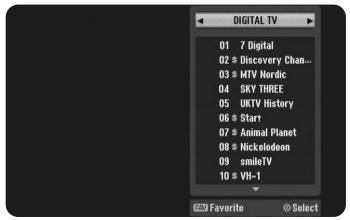
Switching the program list

You can switch the program list to DIGITAL TV, ANALOG TV or RADIO.

Press ▲ to move the highlight position to top of the program list.
Press ◄ ► to select a [DIGITAL TV], [ANALOG TV] or [RADIO]. Selected program list appears.

Displaying the favorite program list

You can display favorite channel list that organized by your private taste. To set a favorite program, use [Program Edit] option in the Setup menu. (page 25.)



Press FAV button while watching a TV. The favorite options appears.
Press ▲ ▼ to select a desired program then press OK (⊙) to watch the selected program.

Playing a HDD

	ON REMOTE
1 Selects the HDD mode:	HDD
2 Displays the [Title List] menu:	MENU/LIST
3 Selects a title you want to edit:	▲▼◄►
4 Displays an editing menu: The options are differ depending on the media type.	OK (⊙)
5 Starts playback:	PLAY (►)
6 Stops playback:	STOP (■)

Playing a HDD - more you can do

Skip to the next/previous chapter/track HDD

Press SKIP (►►I) to move to the next chapter.
Press SKIP (I◄◄) to return to the beginning of the current chapter.
Press SKIP (I◄◄) twice briefly to step back to the previous chapter.

Pause a playback

Press PAUSE (❚❚) to pause playback. Press PLAY (►) to continue playback.

Frame-by-Frame playback HDD

Press PAUSE (❚❚) repeatedly to play Frame-by-Frame playback.
You can advance or back up the picture frame-by-frame by pressing ◄ / ► repeatedly during PAUSE mode.

Fast forward or fast reverse HDD

Press ◄◄ or ►► to play fast forward or fast reverse during playback.
You can change the various playback speed by pressing ◄◄ or ►► repeatedly.
Press PLAY (►) to continue play at normal speed.

Hearing a different audio HDD

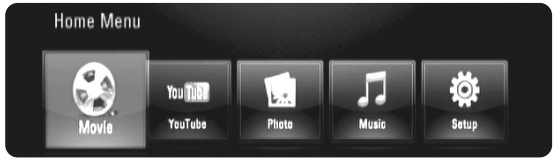
Press AUDIO then press ◄ or ► repeatedly to hear a different audio language, audio track or encoding method.

Slow down the playing speed HDD

While playback is paused, press ◄◄ or ►► to slow down forward or reverse playback. You can change the various playback speed by pressing ◄◄ or ►► repeatedly. Press PLAY (►) to continue play at normal speed.

Using the Disc Home Menu

	ON REMOTE
1 Displays the [Home Menu]:	DISC
2 Selects an option:	◄►
3 Displays the selected option menu:	OK (⊙)
4 Exit the [Home Menu]:	HOME



[Movie] – Start video media's playback or displays the [MOVIE] menu.

[YouTube] – Watch YouTube videos streamed from the Youtube server via the internet to your TV. (page 55-57)

[Photo] – Displays [PHOTO] menu. (page 53-54)

[Music] – Displays [MUSIC]menu. (page 52-53)

[Setup] – Displays the [Setup] menu. (page 39-44)

Tips:

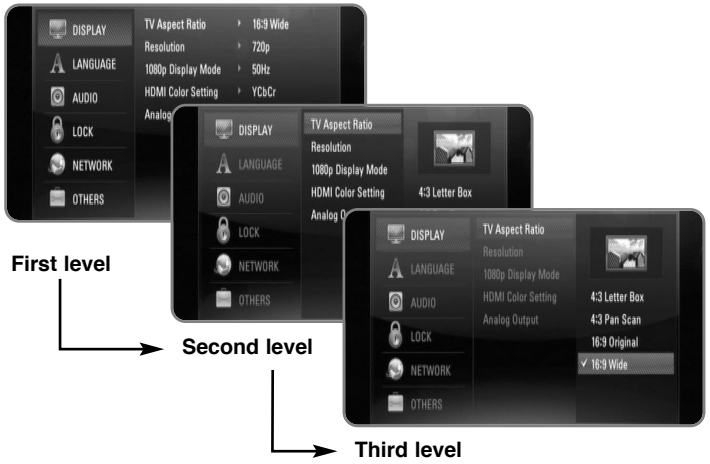
- If you select the [Movie], [Photo] or [Music] option when a USB Flash Drive is connected or a disc is inserted simultaneously, the menu for selecting a media will activate. Select the media then press ENTER.
- If "Software Update" appears on the [Home Menu], it means there is a software update available via network. To update the unit, press blue button. For details, see page 58.

Note:

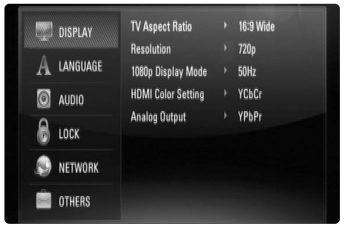
The unit will be in stop mode then the [Home Menu] will appear if you press HOME during playback.

Adjust the Disc Setup settings

	ON REMOTE
1 Displays the [Home Menu]:	DISC
2 Selects the [Setup] option:	◀ ▶, OK (⊙)
3 Selects a desired option on the first level:	▲▼
4 Move to second level:	▶
5 Selects a desired option on the second level:	▲▼
6 Move to third level:	▶
7 Adjust or confirm the setting:	▲▼, OK (⊙)
8 Go back to the previous level:	◀
9 Exit the [Setup] menu:	HOME



[DISPLAY] Menu



TV Aspect Ratio

[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 Wide] – 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.

Resolution

Sets the output resolution of the Component and HDMI video signal. Refer to “Resolution Setting” on page 20-21 for details about the resolution.

[Auto] – If the HDMI OUT jack is connected for TVs providing display information (EDID), automatically selects the resolution best suited to the connected TV. If the COMPONENT VIDEO OUT is only connected, this changes the resolution to 1080i as default resolution.

[1080p] – Outputs 1080 lines of progressive video.

[1080i] – Outputs 1080 lines of interlaced video.

[720p] – Outputs 720 lines of progressive video.

[576p] – Outputs 576 lines progressive video.

[576i] – Outputs 576 lines of interlaced video.

1080p Display Mode

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

Notes:

- When you select [24Hz], you may experience some picture disturbance when the video switches video and film material. In this case, select [50Hz].
- Even when [1080p Display Mode] is set to [24Hz], if your TV is not compatible with 1080/24p, the actual frame frequency of the video output will be 50Hz or 60Hz to match the video source format.
- When the 1080p/24Hz video source is outputted via HDMI connection, the SCART OUT and COMPONENT VIDEO OUT will not output any video signal.

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 RGB display device.

Note:

When you connect the HDMI OUT jack to DVI display device, the [HDMI Color Setting] will automatically switch to [RGB].

Analog Output

Select an option according to the TV connection type.

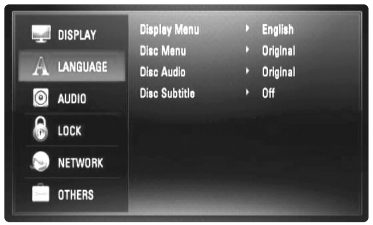
[YPbPr] – When your TV is connected to the COMPONENT OUT jacks on the unit.

[RGB] – When your TV is connected to the SCART OUT (RGB signal) jack on the unit.

Notes:

- HDMI cable is connected, the menu screen is disabled.
- When Analog output is set to RGB, press RESOLUTION to change the set to YPbPr.

[LANGUAGE] Menu



Display Menu

Select a language for the [Setup] 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 OK (⊙) to select another language. Use number buttons then OK (⊙) to enter the corresponding 4-digit number according to the language code list on page 62.

[Off] (for Disc Subtitle) – Turn off Subtitle.

Note:

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

[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 "The unit's Audio Output Specifications" on page 19-20 for details.



HDMI / SPDIF (Digital Audio Output)

Select the output sound format when a device equipped with a HDMI or Digital Audio input jack is connected to the HDMI OUT or DIGITAL AUDIO OUT (OPTICAL or COAXIAL) jack on this player.

[PCM Stereo] – Select if you connect this unit's HDMI OUT or DIGITAL AUDIO OUT jack to a device with two-channel digital stereo decoder.

[PCM Multi-Ch] (HDMI only) – Select if you connect this unit's HDMI OUT jack to a device with multi-channel digital decoder.

[DTS Re-Encode] – Select if you connect this unit's HDMI OUT or DIGITAL AUDIO OUT jack to a device with DTS decoder.

[Primary Pass-Thru] – Select if you connect this unit's DIGITAL AUDIO OUT (OPTICAL or COAXIAL) and HDMI OUT jack to a device with LPCM, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS and DTS-HD decoder.

Note:

When [HDMI] option is set to [PCM Multi-Ch], the audio may output as PCM Stereo if the PCM Multi-Ch information is not detected from HDMI device with EDID.

Sampling Freq. (Only for SPDIF audio)

[192KHz] – Select this if your A/V Receiver or Amplifier is capable of handling 192 KHz signals.

[96KHz] – Select this if your A/V Receiver or Amplifier is NOT capable of handling 192 KHz signals. When this choice is made, this unit automatically converts any 192 KHz signals to 96 KHz so your system can decode them.

[48KHz] – Select this if your A/V Receiver or Amplifier is NOT capable of handling 192 KHz and 96 KHz signal. When this choice is made, this unit automatically converts any 192 KHz and 96 KHz signals to 48 KHz so your system can decode them.

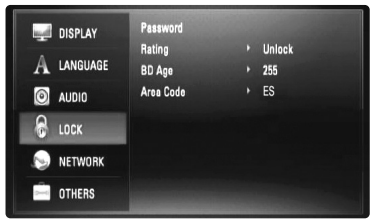
Check the documentation for your A/V Receiver or Amplifier to verify its capabilities.

DRC (Dynamic Range Control)

When a disc encoded in Dolby Digital or Dolby Digital Plus is playing back, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). This allows you to listen to a movie at a lower volume without losing clarity of sound. Set DRC to [On] for this effect.

[LOCK] Menu (Parental Control)

The [LOCK] settings affect only BD 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 and press OK (⊙). Enter it again and press OK (⊙) to verify.

Password

You can create, change or delete the password.

[New] – Enter a 4-digit password and press OK (⊙). Enter it again and press OK (⊙) to create a new password.
[Change] – Enter the current password and press OK (⊙). Enter a 4-digit password and press OK (⊙). Enter it again and press OK (⊙) to create a new password.
[Delete] – Enter the 4-digit password and press OK (⊙) to delete the password.

Tip:

If you make a mistake before pressing OK (⊙), press ◀ to delete a number one by one.

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 Select [LOCK] option in the [Setup] menu.
3 Use Number buttons to enter “210499”. The password is cleared.

Rating

Blocks playback of rated disc 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.

BD Age

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.

Area Code

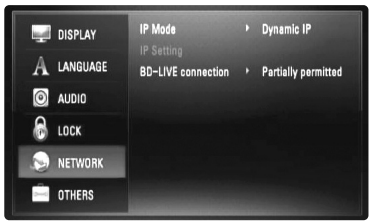
Enter the code of the area whose standards were used to rate the DVD video disc, based on the list on page 62.

[NETWORK] Menu

The [NETWORK] settings are needed to use the software update, BD Live and YouTube features.
Some BD-ROM discs may enable you to access special BD-ROM sites, if you connect the player to the Internet. For example, if a BD-ROM site includes content such as links to future movie trailers, you can watch the downloaded on-line content on the player.
You do not need to connect to a PC to use this function.

Preparations:

- This feature requires an always-on broadband internet connection. (see page 22-23.)
- A BD-ROM disc compatible with this feature is required. Not all BD-ROM discs are compatible.



IP Mode

If there is a DHCP server on the local area network (LAN), this player will automatically be allocated an IP address. If you're using a broadband router or broadband modem that has a DHCP (Dynamic Host Configuration Protocol) server function, select [Dynamic IP]. The IP address will automatically be determined.
If there is no DHCP server on the network and you want to set the IP address manually, select [Static IP] then set the [IP Address], [Subnet Mask], [Gateway] and [DNS Server] using [IP Setting] option.

How to check the network configuration

Select [IP Mode] option and check the Network status indicator shown above the menu. (The Network status indicator changes according to Network configuration.)


Able to use network


Testing Network


Unable to use network

IP Setting

This option is available only if [IP Mode] option is set to [Static IP].
Use the ▲ / ▼ / ◄ / ► buttons to select a field; use the number buttons to enter a value. Press OK (⊙) when [OK] is highlighted to finish and exit the screen.

BD-LIVE connection

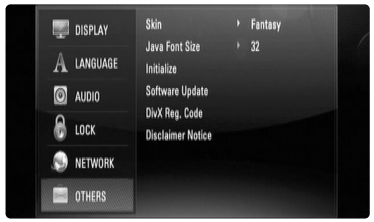
You can restrict Internet access when BD-Live functions are used.

[Permitted] – Internet access is permitted for all BD-Live contents.

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

[Prohibited] – Internet access is prohibited for all BD-Live contents.

[OTHERS] Menu



Skin

Changes the background of the initial screen.

Java Font Size BD

You can adjust the default text size displayed for the BD-J contents during BD-ROM playback.
This setting is only valid when BD-J contents do not set the size of text. Please select a font size bigger than 24 when the player is connected with a HD TV.

Initialize

You can reset the player to its original factory settings or initialize the BD storage.

[Factory Set] – If you need to, you can reset the player to all its factory settings. Some options cannot be reset. (Rating, Password and Area Code, etc.)

[BD Storage Clear] – Initializes the BD contents from the connected USB Flash Drive.

Software Update

You can update the software by connecting the unit directly to the software update server (see page 58).

DivX Registration Code

DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified or DivX Ultra Certified device that plays DivX video.
This DivX® Certified device must be registered in order to play DivX Video-on-Demand (VOD) content. First generate the DivX VOD registration code for your device and submit it during the registration process. [Important: DivX VOD content is protected by a DivX DRM (Digital Rights Management) system that restricts playback to registered DivX Certified devices. If you try to play DivX VOD content not authorized for your device, the message “Authorization Error” will be displayed and your content will not play.] Learn more at www.divx.com/vod.
Press OK (⊙) or ► when [DivX Reg. Code] is highlighted and you can view the registration code of the unit.

Note:
All the downloaded videos from DivX® VOD can only be played back on this unit.

Disclaimer Notice

Press OK (⊙) or ► to view the notice of Network Service Disclaimer on page 67.

Play a disc

	ON REMOTE
1 **Open the disc tray:**	**OPEN/CLOSE (⏏)**
2 **Inserts a disc:**	**-**
3 **Close the disc tray:**	**OPEN/CLOSE (⏏)**
4 **Adjust the disc menu settings:** A disc menu may not appear on the screen depending on the disc.	**▲▼◄►, OK (⊙)**
5 **Starts playback:**	**PLAY (►)**
6 **Stops playback:**	**STOP (■)**

Notes:

- When you turn on the player or replace a disc, the player returns to the initial default setting. Depending on the disc, a specific type of audio that the disc has is output.
- Depending on the pre-recorded contents of the BD-ROM, some functions may not be available or may be operated differently than other media.

If a disc menu screen is displayed

BD **DVD** **AVCHD** **DivX**

The menu screen may be displayed first after loading a disc which contains a menu.

Use ◄ / ► / ▲ / ▼ buttons to select the title/chapter you want to view, then press OK (⊙) to start playback.

Skip to the next/previous chapter/track/file **ALL**

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.

Resume playback **BD** **DVD** **AVCHD** **DivX**

During playback, press STOP (■) to stop playback.
The unit records the stopped point, depending on the disc. "❚❚■" appears on the screen briefly. Press PLAY (►) to resume playback (from the scene point). If you press STOP (■) again or unload the disc ("■" appears on the screen.), the unit will clear the stopped point. **(❚❚■ = Resume Stop, ■ = Complete Stop)**

Notes:

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

Pause a playback **ALL**

During playback, press PAUSE (❚❚) to pause playback. Press PLAY (►) to continue playback.

Tip: During Audio CD or MP3/WMA playback, press ❚❚ once again to resume playback.

Frame-by-Frame playback **BD** **DVD** **AVCHD** **DivX**

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

Slow down the playing speed

BD **DVD** **AVCHD** **DivX**

While the playback is paused, press SCAN (►►) repeatedly to play in slow motion (4 steps, forward only).

Fast forward or fast reverse **ALL**

Press SCAN (◄◄ or ►►) to play fast forward or fast reverse during playback. You can change the various playback speeds by pressing SCAN (◄◄ or ►►) repeatedly. Press PLAY (►) to continue play at normal speed.

Playing repeatedly ALL

During playback, press REPEAT repeatedly to select a desired repeat mode. The current title, chapter or track will be played back repeatedly. To return to normal playback, press REPEAT repeatedly to select [Off].

Note:

If you press ▶▶I once during Repeat Chapter/Track playback, the repeat playback cancels.

Repeating a specific portion (A-B)

BD DVD AVCHD DivX ACD

Press REPEAT to select [A-] at the beginning of the portion you wish to repeat and press OK (⊙) at the end of the portion. Your selected portion will be repeated continually. You cannot select a portion less than 3 seconds. To return to normal playback, press REPEAT repeatedly to select [OFF].

Enlarge the playback image DVD AVCHD DivX

During playback or pause mode, press ZOOM to display the [Zoom] menu. Use ◄ / ► to select zoom mode (16 steps). Press BACK to exit the [Zoom] menu.

To return to the normal picture size, select [Off] on the [ZOOM] menu.

Note:

This function may not work on some disc or titles.

Viewing the Title menu or Popup menu

BD DVD

Press TITLE/POPUP to displays the title menu or popup menu.

If the current DVD or BD-ROM disc has a menu, the Title menu or Popup menu appears on the screen. Depending on the disc, the menu may not be available.

Using the search menu BD DVD AVCHD DivX

During playback, press SEARCH to display the search menu.

Press ◄ / ► to skip the playback 15 seconds forward or backward.

Tip:

You can select a point that you want to skip by pressing and holding ◄ / ► button.

Marker Search BD DVD AVCHD DivX

To enter a Marker

You can start playback from up to nine memorized points. To enter a marker, press MARKER at the desired point on the disc. The Marker icon appears on the TV screen briefly. Repeat to enter up to nine markers.

To Recall or Clear a Marked Scene

Press SEARCH and the search menu appears on the screen.

Press a number button to select a marker number that you want to recall. Playback starts from the marked scene.

OR

Press ▼ to highlight a marker number. Use ◄ / ► to select a marked scene that you want to recall or clear.

Press OK (⊙) and playback starts from the marked scene. Press CLEAR and the marked scene is erased from the search menu.

Notes:

- This function may not work on some disc or titles.
- All marked points are cleared if you press STOP (■) twice (complete stop), the title is changed or if you unload the disc.
- If the total length of the title is less than 10 seconds, this function is not available.

Selecting a subtitle language

BD DVD AVCHD DivX

During playback, press SUBTITLE to switch the subtitle on or off and press SUBTITLE repeatedly to select a desired subtitle language.

OR

During playback, press INFO (i) to display the playback menu.
Use ▲ ▼ to select the [Subtitle] option then use ◄ ► to select desired subtitle language.

Note:

Some discs allow you to change subtitle selections only via the disc menu. If this is the case, press TITLE/POPUP or MENU/LIST button and choose the appropriate subtitle from the selections on the disc menu.

Hearing a different audio

BD DVD AVCHD DivX

During playback, press AUDIO repeatedly to hear a different audio language, audio track or audio channel.

OR

During playback, press INFO (i) to display the playback menu.
Use ▲ ▼ to select the [Audio] option then use ◄ ► to select desired audio language, audio track or audio channel.

Notes:

- Some discs allow you to change audio selections only via the disc menu. If this is the case, press TITLE/POPUP or MENU/LIST 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.

Using coloured (A, B, C, D) Buttons BD

These buttons are available only during BD-J contents playback. Use the appropriate buttons as indicated by the display. Depending on the disc contents, the functions of each button may differ.

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.

Notes:

- Settings are stored in memory for use any time.
- This unit does not memorize settings of a disc if you switch off the unit before commencing to play it.
- 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.

Screen Saver

The screen saver appears when you leave the player in Stop mode for about five minutes.

Displaying disc information

	ON REMOTE
1 Selects the Disc mode:	DISC
2 Play the disc loaded on the unit:	PLAY
3 Displays the playback menu:	INFO (i)
4 Selects an item:	▲▼
5 Adjust the playback menu settings:	◄►
6 Exit the disc playback menu:	INFO (i)



1 Title/Track – Current title/track number/total number of titles/tracks.
2 Chapter – Current chapter number/total number of chapters.
3 Time – Elapsed playing time.
4 Audio – Selected audio language or channel.
5 Subtitle – Selected subtitle.
6 Angle – Selected angle/total number of angles.
7 Repeat – Selected repeat mode.

Notes:

- If no button is pressed for a few seconds, the on-screen display disappears.
- A title number cannot be selected on some discs.
- An item may not be available on some discs or titles.
- If BD interactive title is playing back, some setting information is displayed on the screen but prohibited to be changed.

Moving to another title/chapter/track

BD DVD AVCHD DivX

When a disc has more than one title/chapter/track, you can move to another title/chapter/track.
Press INFO (i) during playback then use ▲ / ▼ to select the [Title/Chapter/Track] icon. Then, press the appropriate numbered button (0-9) or ◄ / ► to select a title/chapter/track number.

Playing from selected time

BD DVD AVCHD DivX

Press INFO (i) during playback. The time search box shows the elapsed playing time. 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” and press OK (⊙). If you enter the wrong numbers, press CLEAR and enter the correct numbers.

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.
During playback, press INFO (i) to display the playback menu. Use ▲ ▼ to select the [Angle] option, then use ◄ ► to select desired angle.

Changing repeat mode BD DVD AVCHD DivX

Press INFO (i) during playback. The repeat icon shows the current repeat mode. Use ◄ ► to select desired repeat mode.
If you want to repeat specific portion, use ◄ ► to select [A-] at the beginning of the portion you wish to repeat and press OK (⊙) at the end of the portion. Your selected portion will be repeated continually. You cannot select a portion less than 3 seconds.
To return to normal playback, use ◄ ► to select [OFF].

Enjoying BD-LIVE™

	ON REMOTE
1 Inserts a BD-ROM disc with BD-LIVE™ features:	**OPEN/CLOSE (⏏)**
2 Check the network connection and settings: BD-Live features need the internet connection.	**–**
3 Inserts an USB Flash Drive to the USB port: BD-Live features need an USB Flash Drive.	**–**
4 Selects a BD-LIVE™ features on the disc menu:	**▲▼◄►, OK (⊙)**

This unit allows you to enjoy functions such as picture-in-picture, secondary audio and Virtual packages, etc., with BD-Video supporting BONUSVIEW (BD-ROM version 2 Profile 1 version 1.1/ Final Standard Profile). In addition to the BONUSVIEW function, BD-Video supporting BD-Live (BD-ROM version 2 Profile 2) that has a network extension function allows you to enjoy more functions such as online games by connecting this unit to the Internet.

Enjoying BD-Live discs with Internet

This unit supports BD-Live, a new BD-Video function that allows you to use the following interactive functions when connected to the Internet. (The usable functions and the operating method may vary with each disc. For details, refer to the instructions for the disc.)

– Additional contents such as movie's trailer, subtitles and BD-J, etc. can be downloaded to the USB Flash Drive to play them.

– Special video data, etc. may be played back while they are being downloaded to a USB Flash Drive.

Preparations:

- The unit must be connected to the Internet and set up to use the BD-Live functions (see page 22 and 43).
- A USB Flash Drive is required to use this function. Connect a USB Flash Drive (see page 24).
- The free space in the USB Flash Drive must be more than 1GB.

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.

Notes:

- Some BD-Live contents may be restrictively accessed in some territories by contents provider's own decision.
- It may take up to several minutes to load and start enjoying BD-Live contents.
- Depending on a disc, the BD-Live function may not be operated if [BD-LIVE connection] option is set to [Partially Permitted]. (See page 43.)
- The connection to the Internet may take time or the Internet may not be connected depending on the connection environment. It is required that you use a broadband connection.
- Do not remove the USB Flash Drive during operation. The USB Flash Drive may be damaged. Stop playback and turn off the menu beforehand.

Tip:

Special video data, etc. may be played back while they are being downloaded to a USB Flash Drive using one function of BD-Live. The playback may be paused depending on the communication environment.
Some functions may be disabled to prevent skipping to sections that have not been downloaded, etc.

AACS Online

When discs supporting BD-Live are played back, the player or disc IDs may be sent to the content provider via the Internet.
Services and functions to be provided differ depending on the disc.

– You can be introduced to other similar movies if you record your viewing history on the server by using these IDs.

– Game score histories can be saved.

Playing secondary video (picture-in-picture) and secondary audio

Secondary video can be played from a disc compatible with the picture-in-picture function.
For the playback method, refer to the instructions for the disc.

– To turn on/off secondary video, press PIP. Secondary video is played. Press the button to turn it ON or OFF.
– To turn on/off audio with the secondary video, press PIP AUDIO. The secondary audio is played. Press the button to turn it ON or OFF.

Notes:

- Discs may not always be played back according to the settings on this unit, as certain playback formats are prioritized on certain discs.
- Only the primary video is played during search/slow-motion or frame-by-frame.
- When the secondary video is turned off, the secondary audio does not play.
- This function may not work depending on the disc.
- The secondary and interactive audio may not be included in the output bitstream if [SPDIF] or [HDMI] option is set to [Primary Pass-Thru]. (Except LPCM Codec : the output always include interactive and secondary audio.)

Playing a movie

The player can play DivX files on the disc/USB Flash Drives and video contents recorded on a DVD-RW(VR mode) discs. Before playing DivX files, read “DivX file requirement” on page 51.

	ON REMOTE
1 Inserts a disc/USB Flash Drive containing movie contents.	**–**
2 Displays the [Home Menu]:	**–**
3 Selects the [Movie] option:	**◀ ▶, OK (⊙)**
4 Selects a movie from the [MOVIE] menu:	**▲ ▼**
5 Plays the selected movie:	**PLAY (▶)**
6 Stops playback:	**STOP (■)**

Notes:

- When the USB Flash Drive is connected and a disc is inserted simultaneously, the menu for selecting a media will appear. Select a media then press OK (⊙).
- You can use various playback functions. Refer to pages 45-47.
- On the [MOVIE] menu, use red or blue button to move to the previous or next page.
- Unfinalized DVD VR format discs may not be played in this unit.
- Some DVD-VR disc are made with CPRM data by DVD RECORDER. This unit cannot support these kinds of discs.

What is CPRM?
CPRM is a copy protection system (with scramble system) only allowing the recording of ‘copy once’ broadcast programs. CPRM stands for Content Protection for Recordable Media.

Movie List menu options

Use ▲ / ▼ to select a title on the [MOVIE] menu then press OK (⊙). The menu options appear.



Example) DivX file

Use ▲ / ▼ to select an option, then press OK (⊙).

- **[Play]** Starts playback of the selected title.
- **[Resume Play]** Starts playback from where you stopped it previously.
- **[Close]** Exits menu options. Also you can disappear it by pressing BACK button.

Notice for displaying the DivX subtitle

If the subtitle does not display properly, change the language code as described below.

1 Press and hold SUBTITLE for 3 seconds during playback.
The language code will appear.

2 Use ◄ / ► repeatedly to select another language code until the subtitle is displayed properly and then press OK (⊙).

DivX file requirement

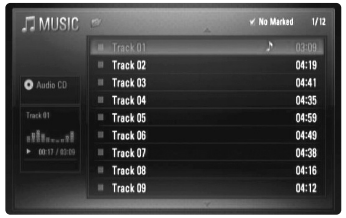
DivX file compatibility with this player is limited as follows:

- Available resolution size:
  DIVX 3.xx – DIVX 6.xx: 720 x 576 (W x H) pixels
  XVID, H.264/MPEG-4 AVC: 1920 x1080 (W x H) pixels
- The file names of DivX and subtitle are limited to 50 characters.
- DivX file extensions: “.avi”, “.divx”, “.mpg”, “.mpeg”, “.mp4”, “.mkv”
- Playable DivX subtitle: SubRip (.srt / .txt), SAMI (.smi), SubStation Alpha (.ssa/.txt), MicroDVD (.sub/.txt), SubViewer 2.0 (.sub/.txt), TMPlayer (.txt), DVD Subtitle System (.txt)
- Playable Codec format: “DIVX3.xx”, “DIVX4.xx”, “DIVX5.xx”, “XVID”, “DIVX6.xx” (Standard playback only), H.264/MPEG-4 AVC
- Only the playback function is supported with DivX 6.0 in the unit.
- Playable Audio format: “Dolby Digital”, “DTS”, “MP3”, “WMA”, “AAC”
- Sampling frequency: within 8 - 48 kHz (MP3), within 32 - 48 kHz (WMA)
- Bit rate: within 8 - 320 kbps (MP3), within 32 - 384 kbps (WMA)
- CD-R/RW, DVD±R/RW, BD-R/RE Format:
  ISO 9660+JOLIET, UDF and UDF Bridge format
- Maximum Files/Folders:
  Less than 650 (total number of files and folders)
- Not all the WMA Audio format is compatible with this unit.
- This player support H.264/MPEG-4 AVC profile Main, High at Level 4.1. For a file with higher level, the player will ask whether you want to play or not.
- Displaying subtitle file is not available for video files with “.mpg” and “.mpeg” extensions.
- HD movie files contained on the CD or USB 1.0/1.1 may not played properly. BD, DVD or USB 2.0 are recommended to play back HD movie files.

Listening to a music

The player can play Audio CDs and MP3/WMA files. Before playing MP3/WMA files, read "MP3/WMA audio file requirement" on page 53.

	ON REMOTE
1 Inserts an Audio CD or a disc/USB Flash Drive containing MP3/WMA files.	**–**
2 Displays the [Home Menu]:	**–**
3 Selects a [Music] option:	**◄ ►, OK (⊙)**
4 Selects a music from the [MUSIC] menu:	**▲▼**
5 Plays the selected music:	**PLAY (►)**
6 Stops playback:	**STOP (■)**



Example) Audio CD

Note:

When the USB Flash Drive is connected and a disc is inserted simultaneously, the menu for selecting a media will appear. Select a media then press OK (⊙).

Tips:

- To go directly to any track or file and play, enter the track/file number using the numbered buttons (0-9).
- The playback may start automatically if the Audio CD inserted.
- Select a folder then press OK (⊙) and you can view the files in the folder. If you want to move to the upper directory, use ◄ or ▲/▼ to highlight [UP Folder] and press OK (⊙).
- On the [MUSIC] menu, use red or blue button to move to the previous or next page.
- The equalizer indicator is not coupled with the music in play back.
- If there is impossible code to express in the file name, it may be displayed as illegible.

The [MUSIC] menu options

Use ▲ / ▼ to select a track or file on the [MUSIC] menu then press OK (⊙). The menu options appear.
Use ▲ / ▼ to select an option, then press OK (⊙).



- **[Play]** Starts playback the selected track or file.
- **[Select Play]** Plays back only the marked track(s) or file(s). Use MARKER for selecting the multiple files or tracks.
- **[Random]** Starts or stops random playback.
  By pressing ►►I during random playback, the unit selects another track and resumes random playback.
- **[Unmark All]** Unmarks all marked files or tracks.
- **[Close]** Exits menu options. Also you can disappear it by pressing BACK button.

Note:

You cannot use [Select Play] and [Random] functions simultaneously.

MP3/WMA audio file requirement

File extensions: ".mp3", ".wma"

Sampling frequency: within 8 - 48 kHz (MP3), within 32 - 48kHz (WMA)

Bit rate: within 8 - 320kbps (MP3), within 32 - 192kbps (WMA)

CD-R/RW, DVD±R/RW, BD-R/RE Format:
ISO 9660+JOLIET, UDF and UDF Bridge format

Maximum Files/Folders:
Less than 650 (total number of files and folders)

Notes on MP3/WMA file

- Depending on the size and number of the MP3/WMA files, it may take several minutes to read the contents of the media.
- This unit cannot support the ID3 Tag embedded in the MP3 file.
- The total playback time indicated on the screen may not correct for VBR files.

Viewing a photo

This unit can play a photo files. Before playing photo files, read "Photo file requirement" on page 54.

	ON REMOTE
1 Inserts a disc/USB Flash Drive containing photo files.	–
2 Displays the [Home Menu]:	–
3 Selects a [Photo] option:	◄ ►, OK (⊙)
4 Selects a photo from the [PHOTO] menu:	▲ ▼ ◄ ►
5 Displays the selected photo in full screen:	OK (⊙)
6 Displays the next or previous photo:	I◄◄ / ►►I
7 Return to the [PHOTO] menu screen:	STOP (■)



Note:

When the USB Flash Drive is connected and a disc is inserted simultaneously, the menu for selecting a media will appear. Select a media then press OK (⊙).

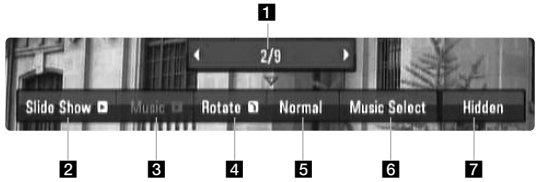
Tips:

- To go directly to a specific file, enter the file number using the numbered buttons (0-9).
- You can advance to the previous or next file by pressing I◄◄ or ►►I during viewing a photo file in full screen.
- You can start the slide show by pressing PLAY (►) while the [PHOTO] menu appears.

- Select a folder then press OK (⊙) and you can view the files in the folder. If you want to move to the upper directory, use ▲/▼/◄/► to highlight [UP Folder] and press OK (⊙).
- On the [PHOTO] menu, use red or blue button to move to the previous or next page.
- If there is impossible code to express in the file name, it may be displayed as illegible.

Options during viewing a photo file in full screen

You can use various options during viewing a picture in full screen.
Use ▲ ▼ ◄ ► to select an option and use the options as described below.



1 Use ◄ ► to advance to the previous or next file.

2 Press OK (⊙) to start or pause the slide show.

3 Press OK (⊙) to play or pause the background music. This option is available after the background music is selected using [Music Select] option.

4 Press OK (⊙) to rotate the picture clockwise.
This option is not available during slide show.

5 Press OK (⊙) to set the Slide Show speed.

6 Selects the background music.

1) Press OK (⊙) and the menu will appear.
2) Use ▲ ▼ ◄ ► to select a media or folder that there are music file(s).
3) Press OK (⊙) to confirm your selection.

7 Press OK (⊙) to exit the option menu.
To appear the menu again, press OK (⊙).

Photo file requirement

File extensions: ".jpg", ".jpeg", ".png"

Recommended size:
Less than 3,000 x 3,000 x 24 bit/pixel
Less than 3,000 x 2,250 x 32 bit/pixel

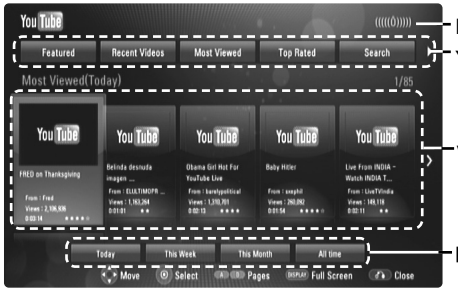
CD-R/RW, DVD±R/RW, BD-R/RE Format:
ISO 9660+JOLIET, UDF and UDF Bridge format

Maximum Files/Folders:
Less than 650 (total number of files and folders)

Notes on Photo file
- The lossless compression photo image files are not supported.
- The available size of Progressive photo is limited to 3.3M pixels.
- Depending on the size and number of the photo files, it may take several minutes to read the contents of the media.

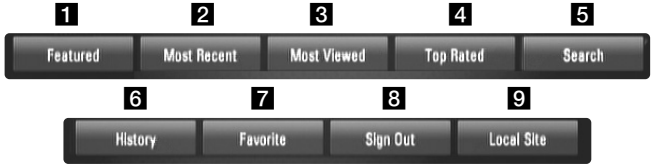
Playing YouTube videos

	ON REMOTE
1 Check the network connection and settings: See page 22 and 43.	–
2 Check the network configurations: See page 43.	–
3 Displays the [Home Menu]:	**HOME**
4 Selects the [YouTube] option:	**◄ ►, OK (⊙)**
5 Selects a desired option on the YouTube menu:	**▲ ▼ ◄ ►, OK (⊙)**
6 Selects a video you want to play:	**◄ ►**
7 Start playback the selected video:	**PLAY (►), OK (⊙) or INFO (i)**



About the YouTube menu

There are various options on the YouTube menu. Use ▲ ▼ ◄ ► to select an option and press OK (⊙) to select the options as described below.



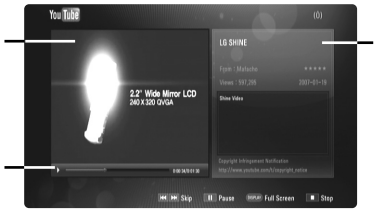
1. Featured – The featured videos list will be displayed.
2. Recent Videos – The most recently updated videos list will be displayed.
3. Most Viewed – The most viewed videos list will be displayed. The period option appears at the bottom of the screen.
4. Top Rated – The best rated videos list from YouTube server will be displayed. The period option appears at the bottom of the screen.
5. Search – The keyboard menu will be displayed. See “Searching videos” on page 57 for more detail.
6. History – The list of videos that you recently played on this unit will be displayed. Maximum of 5 videos can be displayed.
7. Favorites – This option will be appeared only when the unit is in sign-in status. Displays the videos list that is arranged in the YouTube server with your account. Some videos may not appear on the [Favorites] list, even if the videos are arranged in the server.
8. Sign in (Sign Out) – Displays the keyboard menu to sign in or returns to the sign-out status. See “Sign in with your YouTube account” on page 40 for more details.
9. Local site – Choose which country's videos you would like to view. The countries listed on the [Local Site] menu may differ from those listed on the YouTube web site.

Notes:

- The YouTube menu can display 5 videos in the videos list. Press red or blue button to display next/previous 5 videos.
- If you select the [Most Viewed] or [Top Rated] option in the YouTube menu, the period options appear at the bottom of the screen. Use ▲ ▼ ◄ ► to select a period option and press OK (⊙) to display the videos list within the selected period.
- The videos list searched from the player may different with the list searched from a web browser on PC.

About YouTube playback screen

When you press PLAY (▶) or OK (⊙) at the video you want to watch, the playback screen and content detail will appear on the screen.



while playing

And when the playback ends or stops, the stopped playback screen and related videos list appear on the screen. Use ▲ ▼ ◄ ► to select the current video or a video from the related videos list and then press PLAY (▶) or OK (⊙) to play the selected video.



while stopped

When you press INFO (i) at the video you want to watch, the playback starts in full screen.



Full Screen

Press INFO (i) to toggle between playback in full screen and playback screen with content detail.

Playing a video

While watching a video from YouTube via your player, you can control the YouTube video playback. You can use the buttons on the remote to pause and resume viewing, just like when you watch a DVD. While playing a movie, the buttons on the remote do the following:

Button(s)	Operations
PLAY (▶) or OK (⊙)	Starts playback the video with content detail.
INFO (i)	Toggle between playback in full screen and playback screen with content detail.
❚❚	To pause a video while it is playing. To resume playing a paused video, press PLAY (▶) again.
■	Stops the video and displays related videos list.
I◄◄ /►►I	Skip the playback forward or backward .
HOME	When you have finished watching videos, simply press the HOME button on the remote control to go to the [Home Menu].

Notes:

- The settings of this player do not affect the YouTube's playback quality.
- The playback of YouTube videos may be paused, stopped or buffering occurring often depending on your broadband speed.
  We recommend a minimum connection speed of 1.5 Mbps. For the best playback condition, a connection speed of 4.0 Mbps is required. Sometimes your broadband speed varies based on your ISP's network conditions. Contact your ISP if you have problems maintaining a fast connection that is reliable, or if you want to increase your connection speed. Many ISPs offer a variety of broadband speed options.

Searching videos

You can search for videos by entering search words of up to 30 characters.
Use ◄ ► to select [Search] option from the menu and press OK (⊙) to display the keyboard menu. Use ▲▼◄ ► to select a character then press OK (⊙) to confirm your selection on the keyboard menu.
To enter a letter with an accent mark, select the letter from extended character set.
Example: Select “D” and then press INFO (i) to display the extended character set. Use ◄ ► to select “D” or “Ď” and then press OK (⊙).

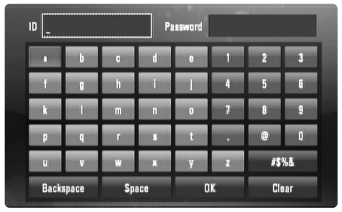


[OK]: Searching related videos of search words.
[Clear]: Clear all entered characters.
[Space]: Inserts a space at the cursor position.
[Backspace]: Deletes the previous character at the cursor position.
[ABC / abc / #$%&]: Change the keyboard menu settings to capital letter, small letters or symbols.

When you finish entering the search words, select [OK] and press OK (⊙) to display the related videos list.

Sign in with your YouTube account

To watch videos from your [Favorites] video list on the YouTube server with your account, you need to sign in with your YouTube account.
Use ◄ ► to select [Sign In] option from the menu and press OK (⊙) to display the keyboard menu. Use ▲▼◄ ► to select a character then press OK (⊙) to confirm your selection on the keyboard menu.



[OK]: Finish entering an ID or password.
[Clear]: Clear all entered characters.
[Space]: Inserts a space at the cursor position.
[Backspace]: Deletes the previous character at the cursor position.
[ABC / abc / #$%&]: Change the keyboard menu settings to capital letters, small letters or symbols.

If you want to sign out, select the [Sign Out] from the YouTube menu and press OK (⊙).

This unit can automatically store up to 5 IDs which were previously signed-in. The IDs list appears when you select the [Sign In] option.
Select a stored ID on the list and press OK (⊙) to display the keyboard menu with the selected ID is entered. You will then only need to enter the password to sign in.



[New ID]: Displays the keyboard menu for entering a new ID and password.
[X]: Delete the stored ID as shown left of the [X] symbol.

Software Update (Disc playback and network features only)

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.

Step 1: Check the Network Connection and settings

See page 22 and 43.

Step 2: Checking Network Configuration

See page 43.

Step 3: Updating Software

Cautions:

- Before updating the software in your player, remove any disc and USB Flash Drive 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. Select [Software Update] option in the [Setup] menu then press ► or OK (⊙).
2. The player will check for the newest update.

   Caution: Pressing OK (⊙) while checking for the update will end the process.

   Note: If there is no update available, the Message, “No update is found.” appears. Press OK (⊙) to return to the [Home Menu].
3. If newer version exists, the message “A new update was found. Do you want to download it?” appears.
4. Select OK to download the update. (Selecting [CANCEL] will end the update.)
5. The player starts downloading the newest update from the server. (Downloading will take about 80 seconds at the network speed of 4Mbps Speed.)
6. When downloading is completed, the message, “Download is complete. Do you want to update?” appears.
7. Select OK to start updating.
   (Selecting [CANCEL] will end the update and downloaded file will not be re-usable. 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 message, “Update is complete.” will appear, and the power will turn off automatically after 5 seconds.
9. Turn the power back on. The system now operates with the new version.
10. After completing the update process, repeat procedures 1-4 in Step 4 and check if there are no more updates available.

    Tip:
    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 Centre then update your player. Refer to “Customer Support” on page 65.

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

BRANDS	CODES
ADMIRAL	137 204
ADYSON	159 219
AKAI	009 010 108 132 133 135 139 140 156 174 175
AKURA	064 086 108 110 155 171
ALBA	009 060 064
ALLSTAR	108
AMSTRAD	006 025 157
AMWAY	108
ANITECH	010 049 108 185 219
ANTECNO	064
ARC EN CIEL	173 179 239
ASA	087 102 108 235 236
ASBERG	185
ASORA	171
ATLANTIC	089 197
AUDIOSONIC	085
AUTOVOX	159 163 197
BANK	232
BEKO	045 085 086 108 250
BESTAR	086
BLAUPUNKT	031 091 092 096 097 098 099 210 253
BONDSTEC	163
BOSCH	210
BRANDT ELECTRONIQUE	173 179 225 239
BRIONVEGA	204
BSR	144
BUSH	009 136 139 144 232
CENTURY	165 204
CGE	139 165 210
CIE	025 108 170
CLATRONIC	009 010 064 108 144 149 159 164 165 171 185
CLARIVOX	033
CONDOR	108 149 191
CONIC	219
CONTEC	171 222
CONTINENTAL EDISON	173 179 225 239
COSMOS	108
CROSLEY	165 204
CROWN	084 085 086 108 144 171 185
CS-ELECTRONICS	064
DAEWOO	051 108 120 127 170
DANSAI	010 219
DE GRAAF	108 134
DECCA	070 108 159 161 162 184 189 190 206
DECCAVIDEO	108
DUAL	233
DUMONT	204
ELBE	058 144 157 160 192 246
ELBIT	108 248
ELECTROVENDA	108
ELEKTRONIKA	108
ELIN	108
ELITE	064 149
ELMAN	144
ELTA	010 171
EMERSON	108 204
ESC	108
ETRON	133
EUROPHON	144 159
EXPERT	089
FENNER	171
FERGUSON	078 079 080 160 182 195 198 199 200 201 202
FINLANDIA	194 195
FINLUX	008 087 102 104 105 107 108 140 144 159 161 174 189 235 236
FIRST-LINE	144
FISHER	086 208 222 233
FORMENTI	108 149
FRABA	108
FRONTECH	136 171 220
FUBA	073 109
FUJITSU GENERAL	088 159 197
FUNAI	010
GALAXIS	108 185
GALERIA	171
GBC	137 144 171
GEC	011 108 129 147 159 189
GELOSO	064 137 144 164 171
GENERAL	171
GENERAL TECHNIC	171
GOLDHAND	159 171
GOLDSTAR	038 050 108 110 136 144 159 163 166 171 191 219 237
GOODMANS	009 064 108 109 110 120 159 170 171
GORENJE	086
GPM	010 064
GRANADA	027 105 108 111 121 134 140 159 162 167 187 194 195 238
GRUNDIG	091 092 093 094 095 097 098 100 101 172 232 238
HCM	010 108 159 171
HIFIVOX	173 179 239
HINARI	010 064 108 133 171
HIT	204
HITACHI	011 013 015 017 021 022 023 024 028 029 030 035 039 040 041 048 053 054 055 056 057 120 127 128 129 134 135 140 143 145 147 151 156 159 173 193 219

BRANDS	CODES
HYPER	009 159 163 171
ICE	009 010 064 108 171
IMPERIAL	043 049 108 139 144 154 165 255
INGERSOLL	171
INNO HIT	159 189 237
INTERBUY	010
INTERCORD	233
INTERFUNK	108 109 113 130 133 134 135 137 141 146 147 148 165 179 210
INTERVISION	010 086 108 132 144 166
IRRADIO	163 235 237
ITC	144 159
ITS	009 010 064 171
ITT	141 151 186
JVC	009 169
KAIDO	136
KAPSCH	089 147 148 197
KARCHER	084 108
KATHREIN	109
KAWA	009
KENDO	060 108 137 157
KENNEDY	197
KNEISSEL	108
KONKA	009
KORTING	086 204 209
KUBA	233
KUBA ELECTRONIC	233
KURA	134
LENCO	108 170
LG	001(Default) 038 050 108 110 136 144 159 163 166 171 191 219 237
LIESENKOTTER	108 210
LIFETEC	010 064 108 170
LOEWE	109 113 204 205
LOGIK	070 227
LUMA	137 197
LUXOR	102 104 132 133 134 135 138 140 143 145 153 156 174 186 237

BRANDS	CODES
M ELECTRONIC	103 104
MAGNADYNE	163 164 204
MAGNAFON	199
MAGNASONIC	108
MARANTZ	108
MARSHAL	064
MATSUI	009 016 025 060 061 062 063 070 108 131 136 152 154 159 171 172
MERRIT	132
METZ	047 092 097 098 100 101 108 204 207 254
MITSUBISHI	075 076 077 097 113 204 222 224 240
MIVAR	044 042 159 235
MNARTT	007
MTC	086 109 134
MULTITECH	136 159 171 185
MURPHY	232
NAONIS	137
NECKERMANN	037 059 060 092 098 100 101 108 109 113 115 118 119 134 135 137 143 157 159
NEI	064 108
NIKKAI	219
NIKKO	108
NOBLIKO	232 235
NOGAMATIC	173 179 239
NOKIA	014 019 032 102 103 104 108 132 133 134 135 138 140 141 145 146 147 148 156 174
NORDMENDE	129 173 179 180 181 193 195 225 226 228 239
NORMN	108
NOVA	087
OCEANIC	032 103 104 135 140 156
OKANO	108
ONWA	009 010 064
ORAVA	108

BRANDS	CODES
ORBITER	086
ORION	025 059 060 061 062 064 070 108 110 118 219
OSAKE	106
OTTO-VERSAND	002 005 009 014 059 060 081 082 083 085 092 097 098 100 101 108 109 111 113
PAEL	235
PANASONIC	002 003 005 167 168 229
PATHE CINEMA	144
PATHE MARCONI	173 179 225 239
PHILCO	090 108 139 144 148 165 204
PHILIPS	065 066 067 068 069 092 108 109 111 112 114 115 116 119 122 123 124 125 193 212 251 252
PIONEER	193
PRANDONI-PRINCE	137 235
PRIMA	219
PRO VISION	108
PROFEX	108 136 171
PROFITRONIC	108
QUELLE	002 010 014 019 025 059 060 072 084 086 087 088 092 097 098 100 101 102 175
RADIOLA	108
RADIOTONE	010 085 108 171
REDIFUSSION	187
REVOX	109
REX	088 089 137 157 158 164 197 246 247
RFT	064 085 135 204
RITAR	138
ROADSTAR	108
ROSITA	171
SABA	079 146 147 173 179 181 193 195 225 226 239
SAISHO	025 060 070 136 159

BRANDS	CODES
SAKIO	171
SALORA	019 032 103 104 132 133 134 135 137 138 140 142 143 145 150 156 174 237 241
SAMBERS	235
SAMSUNG	004 010 050 086 108 117 126 171 220 237
SANY	193
SANYO	014 018 019 020 032 034 071 086 087 189 218 221 222 223
SCHNEIDER	009 064 088 108 133 141 159 163 233
SEG	010 064 108 144 159 165 171 185 219
SEI-SINUDYNE	025 108 204 212
SELECO	088 089 137 157 197 222
SENTRA	064 133
SHARP	081 082 083 222
SHINTOM	108
SHINTOSHI	108
SHIVAKI	108
SIAREM	204
SIEMENS	092 096 097 098 100 101 108 210 218 219 221
SIESTA	085
SILVER	010 064
SINGER	108 164 204
SINUDYNE	118 131
SMARAGO	172
SOLAVOX	133
SONOLOR	140 156
SONTEC	108
SONY	072 074 211 212 213 214 215 216 217 222
SPECTRA	170
STARLITE	108 171
STARLUX	171
STERN	088 089 137 157 197
SUNSTAR	108 171

BRANDS	CODES
SUPERTECH	108 139 152 171
TADISTAR	108
TASHIKO	108 159 218
TEC	108 139 144 159 170 171
TECHLINE	185
TECHNISAT	108 165
TECNISON	108 171
TEKON	171
TELEAVIA	173 178 179 225 239
TELEFUNKEN	079 177 179 181 193 195 200 210
TELEOPTA	171
TELERNT	109
TELETECH	165 171
TELETEXT	115
TELETON	088
TELETON	089 134 159 197
TENSAI	064 108 144 149 171 191
TENSON	171
TESLA	204
THOMSON	052 078 079 134 173 178 179 181 193 195 225 239
THORN	011 014 016 018 026 028 066 072 075 087 097 102 108 116 135 141 145 146 160
THORN-FERGUSON	160 188 200 227
TOSHIBA	012 016 026 036 037 222 232
TOWADA	144 185
TRISTAR	010 064
TRIUMPH	025 219 236
UHER 089	108 109 149 185 197 233
ULTRAVOX	108 164 185 204
UNIVERSUM	174
UNIVOX	204
VESTEL	108
VIDEOSAT	165
VIDEOTON	178 193
VIDEOWAY	230
VISION	108 149

BRANDS	CODES
VOXSON	137 204
WALTHAM	178
WATSON	064 108 149 171
WEGA	208 222
WHITE WESTINGHOUSE	108 110 149
YOKO	010 064 108 136 144 159 164 170 171
ZANUSSI	137 197
ZENITH	231

Language Codes

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

Area Codes

Choose an area code from this list.

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

Troubleshooting

Symptom	Possible Cause	Correction
No power.	• The power cord is disconnected.	• Plug the power cord into the wall outlet securely.
The power is on, but the player does not work.	• No disc is inserted.	• Insert a disc. (Check the disc indicator in the display window is lit.)
No picture.	• The TV is not set to receive video signal output.	• Select the appropriate video input mode on the TV.
	• The video cable is not connected securely.	• Connect the video cable securely.
	• The selected resolution is not capable with your TV.	• Select another resolution using RESOLUTION button.
	• The channel is not found or stored.	• Check your antenna connection.
No sound.	• The equipment connected with the audio cable is not set to receive disc signal output.	• Select the correct input mode of the audio receiver so you can listen to the sound from the player.
	• The power of the equipment connected with the audio cable is turned off.	• Turn on the equipment connected with the audio cable.
	• The [AUDIO] options are set to the wrong position.	• Set the [AUDIO] options to the correct position (see page 41).
	• The player is in reverse play, fast forward, slow motion or pause mode.	• Return to the normal playback.
The player does not start playback.	• The disc is upside down.	• Insert the disc with the playback side down.
	• An unplayable disc is inserted.	• Insert a playable disc. (Check the disc type and regional code.)
	• The rating level is set.	• Change the rating level.
	• The disc was recorded on another unit and was not finalized.	• Finalize the disc on that unit.
The Remote Control does not work properly.	• The Remote Control is not pointed at the remote sensor on the player.	• Point the Remote Control at the remote sensor of the player.
	• The Remote Control is too far from the player.	• Operate the Remote Control closer to the player.
The YouTube video playback is often buffering.	• Your broadband speed is not fast enough to play YouTube videos.	• Contact your Internet Service Provider (ISP) and increase the broadband speed is recommended.

Troubleshooting

Symptom	Possible Cause	Correction
BD-Live feature does not work.	• A USB Flash Drive is not connected.	• Connect a FAT16 or FAT32 formatted USB Flash Drive to the USB port (see page 24).
	• The connected USB Flash Drive does not have enough space.	• Secure at least 1GB free space in the USB Flash Drive for using BD-Live features
	• Internet connection is not established.	• Ensure that the unit is correctly connected to the local area network and can access the internet (see page 22).
	• Your broadband speed is not fast enough to use the BD-Live features.	• Contact your Internet Service Provider (ISP) and increase the broadband speed is recommended.
	• The [BD-LIVE connection] option in the [Setup] menu is set to [Prohibited].	• Set the [BD-LIVE connection] option to [Permitted].
The YouTube ID does not stored in the IDs list auto-matically.	• The IDs list is full.	• Delete one of the stored ID and Sign-In with the ID again.
Recording	• Cannot record or does not record successfully.	• Check that the source you are trying to record in not copy protected. • The power may have failed during recording.
	• Timer record does not record successfully.	• Clock is not set to correct time. • The start time of the timer recording is past. • Two timer recordings may have overlapped, in which case only the earlier one will record completely. • When setting the recording channel, make sure you set the unit's built-in tuner, not the TV's built-in tuner.
	• Stereo Audio Record and/or Playback is not present.	• TV is not Stereo-compatible. • Broadcast program is not in stereo format. • The A/V Output jacks on the unit are not connected to TV A/V In jacks.
HDMI	• The connected HDMI device does not display any picture.	• Try disconnecting then reconnecting the HDMI cable. • Try switching the power of the HDMI device off then back on.

Troubleshooting

Symptom	Possible Cause	Correction
HDMI	• The connected HDMI device does not display any picture.	• The video input of the connected device is set correctly for this unit. • The HDMI cable you are using is fully HDMI-compliant . Using a non-standard cable may result in no picture being output. • Not all HDCP-compatible DVI devices will work with this unit.
	• The connected HDMI device does not output sounds.	• Some HDMI-compatible devices do not output sounds (check the manual that came with the connected device). • If your TV is not capable of handling 96 kHz sampling frequency, set the [Sampling Freq.] option to [48 kHz] on the setup menu. When this choice is made, this unit will automatically convert any 96 kHz signals to 48 kHz so your system can decode them. • If your TV is not equipped with Dolby Digital and MPEG decoder, set the [Dolby Digital] and [MPEG] options to [PCM] on the setup menu. • If your TV is not equipped with DTS decoder, set the [DTS] options to [OFF] on the setup menu. To enjoy DTS multi channel surround, you must connect this unit to a DTS compatible receiver via one of this unit's digital audio outputs.

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://de.lgservice.com or contact LG Electronics customer care centre.

- Design and specifications are subject to change without notice.

Resetting the unit

If you observe any of the following symptoms.

- The unit is plugged in, but the power will not turn on or off.
- The front panel display is not working.
- The unit is not operating normally.

You can reset the unit as follows.

- Press and hold the POWER button for at least five seconds. This will force the unit to power off then turn the unit back on.
- Unplug the power cord, wait at least five seconds, and then plug it in again.

Specifications

General

Power requirements:	AC 200-240 V, 50/60 Hz
Power consumption:	33W
Dimensions (W x H x D):	Approx. 430 x 54 x 310 mm without foot
Net Weight (Approx.):	4.4 kg
Operating temperature:	5 °C to 35 °C
Operating humidity:	5 % to 90 %
Television system	Analog: PAL I, B/G, I/I, SECAM D/K, K1 color system Digital: DVB-T Standard Compliant

Recording (HDD Mode)

Recording format:	PAL
Recordable media:	HDD (160GB)
Recordable time:	HDD (160GB, MPEG2 Recording): Approx. 43 hours (XP mode), 84 hours (SP mode), 164 hours (LP mode), 233 (EP mode), 477 hours (MLP mode)
Video recording format:	
Sampling frequency	27MHz
Compression format	MPEG2
Audio recording format:	
Sampling frequency	48kHz
Compression format	Dolby Digital

Inputs

ANTENNA IN:	Antenna input, 75 ohms
VIDEO IN:	1.0 Vp-p 75 ohms, sync negative, RCA jack x 1 / SCART x 2
AUDIO IN:	2.0 Vrms more than 47 kohms, RCA jack (L, R) x 1 / SCART x 2
USB IN:	4 pin (USB 1.1 standard)

Outputs

VIDEO OUT:	1.0 V (p-p), 75 Ω, sync negative, RCA jack x 1
COMPONENT VIDEO OUT:	(Y) 1.0 V (p-p), 75 Ω, sync negative, RCA jack x 1 (Pb)/(Pr) 0.7 V (p-p), 75 Ω, RCA jack x 2
HDMI OUT (video/audio):	19 pin (HDMI standard, Type A)
ANALOG AUDIO OUT:	2.0 Vrms (1 kHz, 0 dB), 600 Ω, RCA jack (L, R) x 1
DIGITAL OUT (COAXIAL):	0.5 V (p-p), 75 Ω, RCA jack x 1
DIGITAL OUT (OPTICAL):	3 V (p-p), Optical jack x 1

System

Laser:	Semiconductor laser, wavelength: 405nm / 650 nm
Disc system:	Standard PAL/NTSC colour TV system
Frequency response:	20 Hz to 20 kHz (48 kHz, 96 kHz, 192 kHz sampling)
Signal-to-noise ratio:	More than 100 dB (ANALOG OUT connectors only)
Harmonic distortion:	Less than 0.008%
Dynamic range:	More than 95 dB
LAN port:	Ethernet jack x 1, 10BASE-T/100BASE-TX

Accessories

SCART cable (1), RF cable (1), Remote control (1), Battery (2)

Network Service (Disc playback and network features only)

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HR407M-P_BGBRLLK_ENG 8/9/04 4:49 AM Page 69

Technology with the human touch

GUARANTEE

- LG Electronics U.K. Ltd. will provide the following services in order to expedite this Guarantee.

1. All faulty components which fail due to defective manufacture will be replaced free of charge for a period of 12 months from the original date of purchase.
2. The dealer (or his service agent) who sold the product will be reimbursed for any labour provided in the repair of this LG equipment, for a period of 12 months from the original date of purchase. These claims must be made in accordance with the published scale of service charges and relevant claims procedure.

PLEASE NOTE:

A. The dealer may restrict the guarantee to the original purchaser.

B. The dealer is not obliged to carry out service under guarantee if unauthorized modifications are made to the apparatus, or if non standard components are used or if the serial number of the apparatus is removed, defaced, misused, or altered.

C. Any claims made under guarantee must be directed to the dealer from whom the equipment was originally purchased. The dealer may, before carrying out service under guarantee, require a receipted account as evidence of the date of purchase.

D. We respectfully point out that your dealer is not obligated to replace batteries if they become exhausted or worn in use.

E. Aerial alignment and consumer control adjustments are not covered by this guarantee.

This guarantee does not affect your statutory rights.

- REQUIREMENTS TO MAINTAIN WARRANTY COVERAGE:

  RETAIN YOUR RECEIPT TO PROVE DATE OF PURCHASE. A COPY OF YOUR RECEIPT MUST BE SURRENDERED AT THE TIME GUARANTEE SERVICE IS PROVED.

- Product Registration Card : It is helpful to complete at least your name, address, phone, model & serial numbers and return it. This will enable LG to assist you in the future should you lose your receipt, your units be stolen, or should modifications be necessary.

- To obtain information or assistance: Call 0870 873 5454 Monday-Friday 9.00am-4.30pm

MODEL NO.*	SERIAL NO.*	DATE OF PURCHASE.*

* Please complete for your own record

In all cases of difficulty - consult your LG dealer from whom the product was purchased

LGEUK Website : www.lge.co.uk
(service website : www.lgelectronics.co.uk)