



OWNER'S MANUAL
Safety and Reference

LED TV*

* LG LED TV applies LCD screen with LED backlights.

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



www.lg.com
P/NO : MFL69309714 (1604-REV01)
Printed in Korea

Safety instructions

Please read these safety precautions carefully before using the product.

⚠️ WARNING



Make sure to connect Mains cable to compliant AC mains socket with Grounded earth pin. (Except for devices which are not grounded on earth.) Otherwise possibility you may be electrocuted or injured.



Insert power cable plug completely into wall socket otherwise if not secured completely into socket, fire ignition may break out.



Ensure the power cord does not come into contact with hot objects such as a heater. This may cause a fire or an electric shock hazard.



Do not place a heavy object, or the product itself, on power cables. Otherwise, this may result in fire or electric shock.



Bend antenna cable between inside and outside building to prevent rain from flowing in. This may cause water damaged inside the Product and could give an electric shock.



When mounting TV onto wall make sure to neatly install and isolate cabling from rear of TV as to not create possibility of electric shock / fire hazard.



Do not plug too many electrical devices into a single multiple electrical outlet. Otherwise, this may result in fire due to over-heating.

Do not place the TV and/or remote control in the following environments:

- A location exposed to direct sunlight
- An area with high humidity such as a bathroom
- Near any heat source such as stoves and other devices that produce heat
- Near kitchen counters or humidifiers where they can easily be exposed to steam or oil
- An area exposed to rain or wind
- Near containers of water such as vases

Otherwise, this may result in fire, electric shock, malfunction or product deformation.



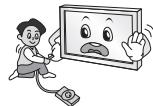
Do not place the product where it might be exposed to dust. This may cause a fire hazard.



Mains Plug is the TV connecting/disconnecting device to AC mains electric supply. This plug must remain readily attached and operable when TV is in use.



Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off. You may be electrocuted due to excess moisture.



Do not drop the product or let it fall over when connecting external devices. Otherwise, this may result in injury or damage to the product.



Keep the anti-moisture packing material or vinyl packing out of the reach of children. Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.



Do not let your children climb or cling onto the TV. Otherwise, the TV may fall over, which may cause serious injury.



Dispose of used batteries carefully to ensure that a small child does not consume them. Please seek Doctor- Medical Attention immediately if child consumes batteries.



Do not insert any metal objects/conductors (like a metal chopstick/ cutlery/screwdriver) between power cable plug and input Wall Socket while it is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal. You may be electrocuted. (Depending on model)



Do not put or store inflammable substances near the product. There is a danger of combustion/explosion or fire due to careless handling of the inflammable substances.



Do not drop metallic objects such as coins, hair pins, chopsticks or wire into the product, or inflammable objects such as paper and matches. Children must pay particular attention. Electrical shock, fire or injury can occur. If a foreign object is dropped into the product, unplug the power cord and contact the service centre.



Do not spray water on the product or scrub with an inflammable substance (thinner or benzene). Fire or electric shock accident can occur.



Do not allow any impact, shock or any objects to fall into the unit, and do not drop anything onto the screen. You may be injured or the product can be damaged.



Never touch this product or antenna during a thunder or lighting storm. You may be electrocuted.



Never touch the wall outlet when there is leakage of gas, open the windows and ventilate. It may cause a fire or a burn by a spark.



Do not disassemble, repair or modify the product at your own discretion. Fire or electric shock accident can occur. Contact the service centre for check, calibration or repair.



If any of the following occur, unplug the product immediately and contact your local service centre.

- The product has been impacted by shock
- The product has been damaged
- Foreign objects have entered the product
- The product produced smoke or a strange smell

This may result in fire or electric shock.



Unplug the TV from AC mains wall socket if you do not intend to use the TV for a long period of time. Accumulated dust can cause fire hazard and insulation deterioration can cause electric leakage/shock/fire.



Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.



Do not install this product on a wall if it could be exposed to oil or oil mist. This may damage the product and cause it to fall.



If water enters or comes into contact with TV, AC adapter or power cord please disconnect the power cord and contact service centre immediately. Otherwise, this may result in electric shock or fire.



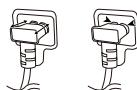
Only use an authorized AC adapter and power cord approved by LG Electronics. Otherwise, this may result in fire, electric shock, malfunction or product deformation.



Never Disassemble the AC adapter or power cord. This may result in fire or electric shock.



Be careful in handling the adapter to prevent any external shocks to it. An external shock may cause damage to the adapter.



Make sure the power cord is connected securely to the power plug on the TV. (Depending on model)

 **CAUTION**



Install the product where no radio wave occurs.



There should be enough distance between an outside antenna and power lines to keep the former from touching the latter even when the antenna falls. This may cause an electric shock.



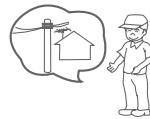
Do not install the product on places such as unstable shelves or inclined surfaces. Also avoid places where there is vibration or where the product cannot be fully supported. Otherwise, the product may fall or flip over, which may cause injury or damage to the product.



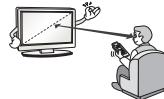
If you install the TV on a stand, you need to take actions to prevent the product from overturning. Otherwise, the product may fall over, which may cause injury.

If you intend to mount the product to a wall, attach VESA standard mounting interface (optional parts) to the back of the product. When you install the set to use the wall mounting bracket (optional parts), fix it carefully so as not to drop.

Only use the attachments / accessories specified by the manufacturer.



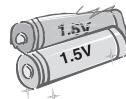
When installing the antenna, consult with a qualified service technician. If not installed by a qualified technician, this may create a fire hazard or an electric shock hazard.



We recommend that you maintain a distance of at least 2 to 7 times the diagonal screen size when watching TV. If you watch TV for a long period of time, this may cause blurred vision.



Only use the specified type of battery. This could cause damage to the remote control.



Do not mix new batteries with old batteries. This may cause the batteries to overheat and leak.

Batteries should not be exposed to excessive heat. For example, keep away from direct Sunlight, open fireplace and electric heaters.

Do not place non-rechargeable batteries in charging device.



Make sure there are no objects between the remote control and its sensor.



Signal from Remote Control can be interrupted due to external/internal lighting eg Sunlight, fluorescent lighting. If this occurs turn off lighting or darken viewing area.



When connecting external devices such as video game consoles, make sure the connecting cables are long enough. Otherwise, the product may fall over, which may cause injury or damage the product.



Do not turn the product On/Off by plugging-in or unplugging the power plug to the wall outlet. (Do not use the power plug for switch.) It may cause mechanical failure or could give an electric shock.



Please follow the installation instructions below to prevent the product from overheating.

- The distance between the product and the wall should be more than 10 cm.
- Do not install the product in a place with no ventilation (e.g., on a bookshelf or in a cupboard).
- Do not install the product on a carpet or cushion.
- Make sure the air vent is not blocked by a tablecloth or curtain.

Otherwise, this may result in fire.



Take care not to touch the ventilation openings when watching the TV for long periods as the ventilation openings may become hot. This does not affect the operation or performance of the product.

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 servicer.



Prevent dust collecting on the power plug pins or outlet. This may cause a fire hazard.



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.



Do not press strongly upon the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it, as it may cause damage to screen.



Avoid touching the screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary or permanent distortion/damage to screen.



When cleaning the product and its components, unplug the power first and wipe it with a soft cloth. Applying excessive force may cause scratches or discolouration. Do not spray with water or wipe with a wet cloth. Never use glass cleaner, car or industrial shiner, abrasives or wax, benzene, alcohol etc., which can damage the product and its panel. Otherwise, this may result in fire, electric shock or product damage (Deformation, corrosion or breakage).

As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.



When unplugging the cable, grab the plug and unplug it, by pulling at the plug.

Don't pull at the cord to unplug the power cord from the power board, as this could be hazardous.



When moving the product, make sure you turn the power off first. Then, unplug the power cables, antenna cables and all connecting cables. The TV set or power cord may be damaged, which may create a fire hazard or cause electric shock.



When moving or unpacking the product, work in pairs because the product is heavy. Otherwise, this may result in injury.



Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



If the product feels cold to the touch, there may be a small "flicker" when it is turned on. This is normal, there is nothing wrong with product.



This panel is an advanced product that contains millions of pixels. You may see tiny black dots and/or brightly coloured dots (red, blue or green) at a size of 1 ppm on the panel. This does not indicate a malfunction and does not affect the performance and reliability of the product. This phenomenon also occurs in third-party products and is not subject to exchange or refund.



You may find different brightness and color of the panel depending on your viewing position(left/right/top/down). This phenomenon occurs due to the characteristic of the panel. It is not related with the product performance, and it is not malfunction.

Displaying a still image for a prolonged period of time may cause image sticking. Avoid displaying a fixed image on the TV screen for a long period of time.

Generated sound

"Cracking" noise: A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required. Electrical circuit humming/panel buzzing: A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending on the product.

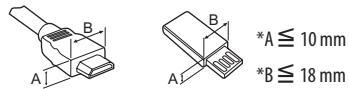
This generated sound does not affect the performance and reliability of the product.

Do not use high voltage electrical goods near the TV (e.g. electric mosquito-swatter). This may result in product malfunction.

Preparing

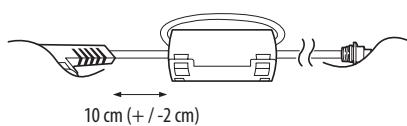
! NOTE

- Image shown may differ from your TV.
- Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this TV in the future.
- The items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm thick and 18 mm width. Use an extension cable that supports USB 2.0 if the USB cable or USB memory stick does not fit into your TV's USB port.



- Use a certified cable with the HDMI logo attached.
- If you do not use a certified HDMI cable, the screen may not display or a connection error may occur. (Recommended HDMI Cable Types)
 - High-Speed HDMI™ cable (3 m or less)
 - High-Speed HDMI™ cable with Ethernet (3 m or less)
- How to use the ferrite core (Depending on model)
 - Use the ferrite core to reduce the electromagnetic interference in the power cord. Wind the power cord on the ferrite core once.

[Wall side] [TV side]



CAUTION

- Do not use any unapproved items to ensure the safety and product life span.
- Any damage or injuries caused by using unapproved items are not covered by the warranty.
- Some models have a thin film attached on to the screen and this must not be removed.
- When attaching the stand to the TV set, place the screen facing down on a cushioned table or flat surface to protect the screen from scratches.
- Make sure that the screws are inserted correctly and fastened securely. (If they are not fastened securely enough, the TV may tilt forward after being installed.) Do not use too much force and over tighten the screws; otherwise screw may be damaged and not tighten correctly.

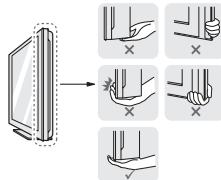
Lifting and moving the TV

Please note the following advice to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

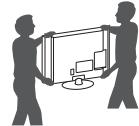
- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should face away from you to avoid damage.



- Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.



- When transporting a large TV, there should be at least 2 people.
- When transporting the TV by hand, hold the TV as shown in the following illustration.



- When transporting the TV, do not expose the TV to jolts or excessive vibration.
- When transporting the TV, keep the TV upright, never turn the TV on its side or tilt towards the left or right.
- Do not apply excessive pressure to cause flexing / bending of frame chassis as it may damage screen.
- When handling the TV, be careful not to damage the protruding buttons.

CAUTION

- Avoid touching the screen at all times, as this may result in damage to the screen.
- Do not move the TV by holding the cable holders, as the cable holders may break, and injuries and damage to the TV may occur.

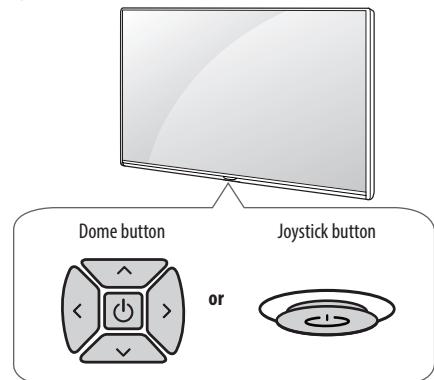
Using the button

(Depending on model)

You can simply operate the TV functions, pressing or moving the button.

NOTE

- LHS1, LHS2 series does not have a Joystick functions but has only a power On/Off button.



Basic functions

		Power On (Press) Power Off (Press and hold) ¹
		Volume Control
		Programmes Control

1 If the Menu button is on the screen, pressing and holding the button will let you exit the Menu.

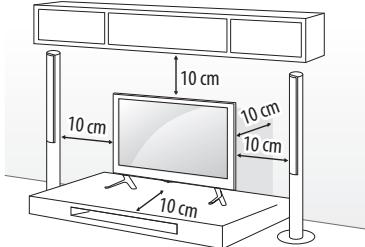
Adjusting the menu

When the TV is turned on, press the button one time. You can adjust the Menu items pressing or moving the buttons.

	Turns the power off.
	Clears on-screen displays and returns to TV viewing.
	Changes the input source.
	Accesses the settings menu.

Mounting on a table

- 1 Lift and tilt the TV into its upright position on a table.
 - Leave a 10 cm (minimum) space from the wall for proper ventilation.



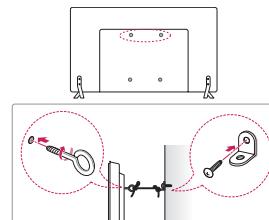
- 2 Connect the power cord to a wall outlet.

CAUTION

- Do not place the TV near or on sources of heat, as this may result in fire or other damage.

Securing the TV to a wall

(This feature is not available for all models.)



- 1 Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.

- If there are bolts inserted at the eye-bolts position, remove the bolts first.

- 2 Mount the wall brackets with the bolts to the wall.

Match the location of the wall bracket and the eye-bolts on the rear of the TV.

- 3 Connect the eye-bolts and wall brackets tightly with a sturdy rope. Make sure to keep the rope horizontal with the flat surface.

CAUTION

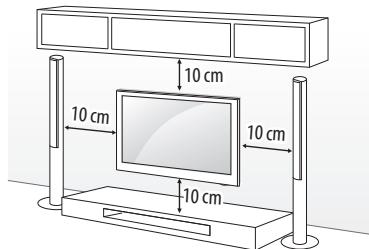
- Make sure that children do not climb on or hang on the TV.

NOTE

- Use a platform or cabinet that is strong and large enough to support the TV securely.
- Brackets, bolts and ropes are not provided. You can obtain additional accessories from your local dealer.

Mounting on a wall

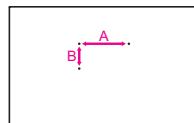
Attach an optional wall mount bracket at the rear of the TV carefully and install the wall mount bracket on a solid wall perpendicular to the floor. When you attach the TV to other building materials, please contact qualified personnel. LG recommends that wall mounting be performed by a qualified professional installer. We recommend the use of LG's wall mount bracket. LG's wall mount bracket is easy to move with cables connected. When you do not use LG's wall mount bracket, please use a wall mount bracket where the device is adequately secured to the wall with enough space to allow connectivity to external devices. It is advised to connect all the cables before installing fixed wall mounts.



Make sure to use screws and wall mount bracket that meet the VESA standard. Standard dimensions for the wall mount kits are described in the following table.

Separate purchase (Wall mounting bracket)

Model	32/43LH51** 32/43LH52** 32LH53** 43LH54**	49LH51** 49LH52** 49LH54**
VESA (A x B) (mm)	200 x 200	300 x 300
Standard screw	M6	M6
Number of screws	4	4
Wall mount bracket	LSW240B MSW240	LSW350B MSW240
Model	55LH54**	
VESA (A x B) (mm)	400 x 400	
Standard screw	M6	
Number of screws	4	
Wall mount bracket	LSW440B MSW240	

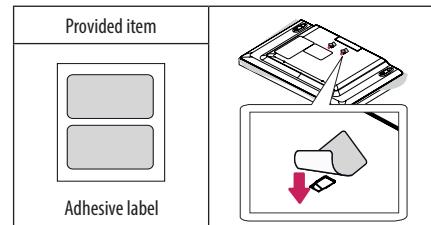


CAUTION

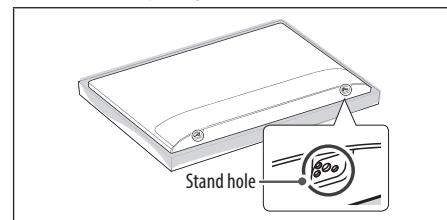
- Remove the stand before installing the TV on a wall mount by performing the stand attachment in reverse.

NOTE

- When installing the wall mounting bracket, use the adhesive label provided. The adhesive label will protect the opening from accumulating dust and dirt. (Only when the item of the following form is provided)



- When installing the wall mounting bracket, it is recommended to cover the stand hole using tape, in order to prevent the influx of dust and insects. (Depending on model)



Connections (notifications)

Connect various external devices to the TV and switch input modes to select an external device. For more information of external device's connection, refer to the manual provided with each device.

Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices.

NOTE

- The external device connection may differ from the model.
- Connect external devices to the TV regardless of the order of the TV port.
- If you record a TV program on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information of recording, refer to the manual provided with the connected device.
- Refer to the external equipment's manual for operating instructions.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.

- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- In PC mode, some resolution settings may not work properly depending on the graphics card.

Antenna connection

Connect the TV to a wall antenna socket with an RF cable (75 Ω).

- Use a signal splitter to use more than 2 TVs.
- If the image quality is poor, install a signal amplifier properly to improve the image quality.
- If the image quality is poor with an antenna connected, try to realign the antenna in the correct direction.
- An antenna cable and converter are not supplied.
- Supported DTV Audio: MPEG, Dolby Digital, Dolby Digital Plus, HE-AAC

Adapter connection

(Depending on model)

⚠ CAUTION

- Please be sure to connect the TV to the AC-DC power adapter before connecting the TV's power plug to a wall power outlet.

Satellite dish connection

(Only satellite models)

Connect the TV to a satellite dish to a satellite socket with a satellite RF cable (75 Ω).

CI module connection

(Depending on model)

View the encrypted (pay) services in digital TV mode.

- Check if the CI module is inserted into the PCMCIA card slot in the right direction. If the module is not inserted properly, this can cause damage to the TV and the PCMCIA card slot.
- If the TV does not display any video and audio when CI+ CAM is connected, please contact to the Terrestrial/Cable/Satellite Service Operator.

Euro scart connection

(Depending on model)

Transmits the video and audio signals from an external device to the TV set. Connect the external device and the TV set with the euro scart cable.

Output Type	AV1 (TV Out ¹)
Current input mode	
Digital TV	Digital TV
Analogue TV, AV	
Component	Analogue TV
HDMI	

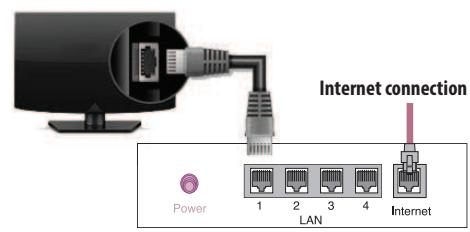
1 TV Out : Outputs Analogue TV or Digital TV signals.

- Any Euro scart cable used must be signal shielded.

Network connection

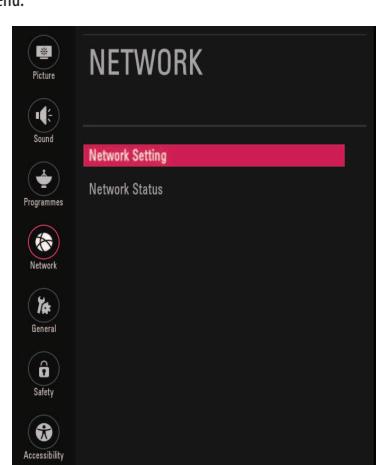
(Only LAN PORT model)

Wired network connection

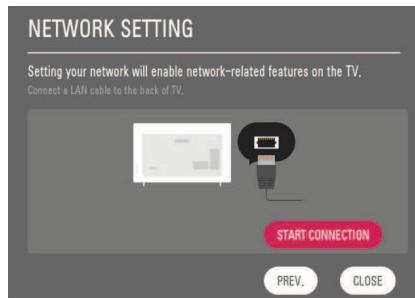


Network setting

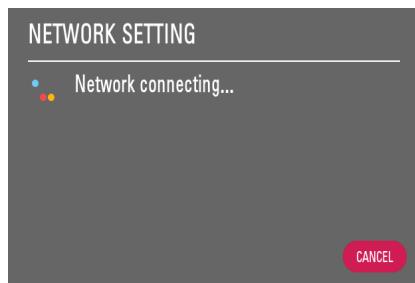
1 Select the **Settings** \Rightarrow **NETWORK** \Rightarrow **Network Setting** menu.



2 Select the **START CONNECTION**.

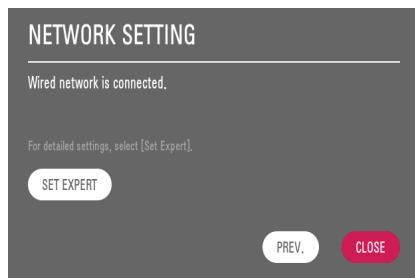


3 The device automatically tries to connect to the network.



4 The connected network is displayed.

Select the **CLOSE** to confirm the network connection.



Other connections

Connect your TV to external devices. For the best picture and audio quality, connect the external device and the TV with the HDMI cable. Some separate cable is not provided.

NOTE

- Supported HDMI Audio format :
 - Dolby Digital (32 kHz, 44.1 kHz, 48 kHz),
 - PCM (32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz)

(Depending on model)

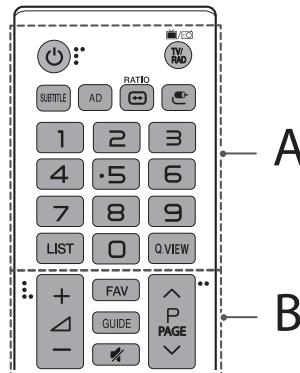
Remote control

(Depending on model)

The descriptions in this manual are based on the buttons on the remote control. Please read this manual carefully and use the TV correctly.

To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching the \oplus and \ominus ends to the label inside the compartment, and close the battery cover. To remove the batteries, perform the installation actions in reverse.

Make sure to point the remote control toward the remote control sensor on the TV.



A

POWER Turns the TV on or off.

TV/RAD Selects Radio, TV and DTV programme.

SUBTITLE Recalls your preferred subtitle in digital mode.

AD By pressing the AD button, audio descriptions function will be enabled.

RATIO Resizes an image.

INPUT Changes the input source.

Number buttons Enters numbers.

LIST Accesses the saved programme list.

Q.VIEW Returns to the previously viewed programme.

B

+ **-** Adjusts the volume level.

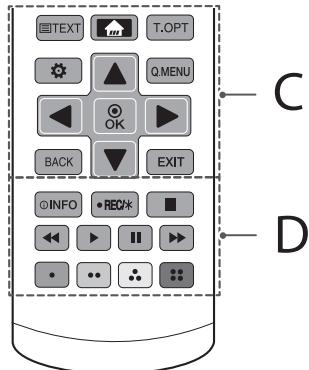
FAV Accesses your favourite programme list.

GUIDE Shows programme guide.

MUTE Mutes all sounds.

^ P ^ Scrolls through the saved programmes.

^ PAGE ^ Moves to the previous or next screen.



C

Teletext buttons (TEXT, T.OPT) These buttons are used for teletext.
HOME Accesses the Home menu.
Settings Accesses the Settings menu.
Q.MENU Accesses the Quick menus.
Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK Selects menus or options and confirms your input.
BACK Returns to the previous level.
EXIT Clears on-screen displays and returns to TV viewing.

D

INFO Views the information of the current programme and screen.
REC Starts to record and displays record menu. (Only Time Machine^{Ready} supported model) (Depending on model)
Control buttons (■, ▶, □, ▲, ▼, ■) Controls media contents.
Coloured buttons These access special functions in some menus.
 (■: Red, ■: Green, ■: Yellow, ■: Blue)

Licenses

Supported licenses may differ by model. For more information about licenses, visit www.lg.com.



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

ENGLISH



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



This DivX Certified® device has passed rigorous testing to ensure it plays DivX® video.

To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.

DivX Certified® to play DivX® video up to HD 1080p, including premium content.

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Open source software notice information

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

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

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

Settings

Automatically Setting Up Programme

⚙ (Settings) ⇨ Programmes ⇨ Auto Tuning

Automatically tunes the programmes.

- If Input Source is not connected properly, programme registration may not work.
- **Auto Tuning** only finds programmes that are currently broadcasting.
- If **Lock System** is turned on, a pop-up window will appear asking for password.

To select Picture Mode

⚙ (Settings) ⇨ Picture ⇨ Picture Mode Settings ⇨ Picture Mode

Select the picture mode optimized for the viewing environment or the programme.

- **Vivid** : Heightens contrast, brightness and sharpness to display vivid images.
- **Standard** : Displays images in standard levels of contrast, brightness and sharpness.
- **Eco/APS** : [Depending on model]
The Energy Saver feature changes settings on the TV to reduce power consumption.
- **Cinema/Game** : Displays the optimum picture for movie, game.
- **Sports** : [Depending on model]
Optimizes the video image for high and dynamic actions by emphasizing primary colours such as white, grass, or sky blue.
- **isf® Expert 1, 2** : Menu for adjusting picture quality that allows experts and amateurs to enjoy the best TV viewing. This is the adjustment menu provided for ISF-certified picture tuning professionals. (ISF logo can only be used on ISF-certified TVs.)
ISFcc: Imaging Science Foundation Certified Calibration Control
- Depending on input signal, available range of picture modes may differ.
- **isf® Expert** mode is for picture tuning professionals to control and fine-tune using a specific image. For normal images, the effects may not be dramatic.
- The ISF function is only available on some models.

Fine-tuning Picture Mode

⚙ (Settings) ⇨ Picture ⇨ Picture Mode Settings

This feature allows you to adjust the selected picture mode in detail.

- **Backlight** : Controls the level of screen brightness by adjusting the backlight. The closer to 100, the brighter the screen.
- **Contrast** : Adjusts the contrast of the bright and dark areas of the picture. The closer to 100, the higher the contrast.
- **Brightness** : Adjusts the overall screen brightness. The closer to 100, the brighter the screen.
- **Sharpness** : Adjusts the sharpness of the image. The closer to 50, the sharper and clearer the image.
- **Colour** : Tones down or up the colours displayed on the screen. The closer to 100, the deeper the colour.
- **Tint** : Adjusts the colour balance between red and green displayed on the screen. The closer to Red 50, the more red the colour will be. The closer to Green 50, the more green the colour will be.
- **Colour Temperature** : Adjusts the colour temperature from cold to warm.
- Depending on input signal or other picture settings, the range of detailed items for adjustment may differ.

To set advanced controls

⚙ (Settings) ⇨ Picture ⇨ Picture Mode Settings ⇨ Advanced Controls / Expert Controls

Calibrates the screen for each picture mode; or adjusts picture settings for a special screen.

- **Dynamic Contrast** : Adjusts the contrast to the optimal level according to the brightness of the image.
- **Dynamic Colour** : Adjusts colours to make the image appear in more natural colours.
- **Preferred Colour** : Adjust the colours of skin, grass and sky to your personal preferences.
- **Gamma** : Sets the gradation curve according to the output of picture signal in relation to the input signal.
- **Colour Gamut** : Selects the range of colours that can be expressed.
- **Edge Enhancer** : Shows clearer and distinctive yet natural edges of the video.
- **Colour Filter** : Filters a specific colour spectrum in RGB colours to fine-tune colour saturation and hue accurately.
- **White Balance** : Adjusts the overall tone of the screen as desired.
- **Colour Management System** : This is a system that experts use when they adjust colour with a test pattern. They can select from six colour areas (Red / Green / Blue / Cyan / Magenta / Yellow) without affecting other colours. For normal images, adjustments may not result in noticeable colour changes.
- Depending on input signal or other picture settings, the range of detailed items for adjustment may differ.

To set additional picture options

⚙ (Settings) ⇨ Picture ⇨ Picture Mode Settings ⇨ Picture Options

Adjusts detailed setting for images.

- **Noise Reduction** : Eliminates noise in the picture.
- **MPEG Noise Reduction** : Eliminates noise generated while creating digital picture signals.
- **Black Level** : Adjusts the brightness and contrast of the screen to suit the black level of the input picture by using the blackness (black level) of the screen.
- **Real Cinema** : Optimizes the screen for movie viewing.
- **Motion Eye Care** : Automatically adjusts brightness and reduces image blur based on image data to reduce eyestrain.
- Depending on input signal or other picture settings, the range of detailed items for adjustment may differ.

Resetting picture settings

⚙ (Settings) ⇨ Picture ⇨ Picture Mode Settings ⇨ Picture Reset

Resets picture settings that the user customizes. Each picture mode is reset. Select the picture mode you wish to reset.

To use Energy Saving feature

⚙ (Settings) ⇨ Picture ⇨ Energy Saving

Reduces power consumption by adjusting screen brightness.

- **Auto** : [Depending on model]
The TV sensor detects the ambient lighting and automatically adjusts the screen brightness.
- **Off** : Turns off the Energy Saving mode.
- **Minimum / Medium / Maximum** : Applies the pre-set Energy Saving mode.
- **Screen Off** : Screen is turned off and only sound is played. Press any button except Power button on the remote control to turn the screen back on.

To use Eye Comfort Mode feature

⚙ (Settings) ⇨ Picture ⇨ Eye Comfort Mode

If you turn this option on, colour temperature will be automatically adjusted to reduce eye strain.

- **On** : Automatically adjusts the screen color temperature.
- **Off** : Turns off the Eye Comfort Mode.

Selecting Sound Mode

⚙ (Settings) ⇨ Sound ⇨ Sound Mode Settings ⇨ Sound Mode

Adjusts TV audio to an optimal level based on a selected sound mode.

- **Standard** : Optimizes the sound for all types of content.
- **Clear Voice** : Boosts voice clarity from the TV.
- **Music** : [Depending on model] Optimizes the sound for music.
- **Cinema** : Optimizes the sound for cinemas.
- **Sports** : [Depending on model] Optimizes the sound for sports.
- **Game** : Optimizes the sound for gameplay.

Adjusting audio balance

⚙ (Settings) ⇨ Sound ⇨ Sound Mode Settings ⇨ Balance

Adjust the volume of the left and right speakers.

Using the Sound Effect function

⚙ (Settings) ⇨ Sound ⇨ Sound Mode Settings

The user can select various sound effects.

- **Virtual Surround** : Enjoy an immersive soundscape with the virtual multi-channel surround sound effect.
- **Equalizer** : Set the desired sound by adjusting the equalizer directly.
- **Reset** : Reset the sound effect settings.
- This is only available if **Sound Mode** is set to **Standard**.

To synchronize audio and video

⚙ (Settings) ⇨ Sound ⇨ AV Sync Adjustment

[Depending on model]

Synchronizes video and audio directly when they do not match. If you set **AV Sync Adjustment** to **On**, you can adjust the sound output (TV speakers or External Speaker) to the screen image.

- If you select the **Bypass**, Outputs the broadcast signals or the sound from external devices without any audio delay. The audio may be output before the video because of the time the TV takes to process the video input.

To use SIMPLINK

[Depending on model]

SIMPLINK is a feature that enables you to control and manage various multimedia devices conveniently via the SIMPLINK menu.

- 1 Connect the TV's **HDMI IN** terminal and the SIMPLINK device's HDMI output terminal using an HDMI cable.
 - [Depending on model]
For home theatre units with a SIMPLINK function, connect HDMI terminals as above, and use an optical cable to connect Optical Digital Audio Out from the TV to Optical Digital Audio In of the SIMPLINK device.
- 2 Select **⚙ (Settings) ⇒ General ⇒ SIMPLINK**.
SIMPLINK menu window appears.
- 3 In SIMPLINK Setting window, set SIMPLINK function to **On**.
- 4 Configure the **Auto Power Sync** settings to **On** or **Off**.
 - You can also set the SIMPLINK in **⏏ (HOME) ⇒ Inputs ⇒ SIMPLINK**. In SIMPLINK menu window, selects the device you want to control.
 - This function is only compatible with devices with the SIMPLINK logo.
 - To use the SIMPLINK function, you need to use a high-speed HDMI® cable (with CEC (Consumer Electronics Control) feature added). High-speed HDMI® cables have the No. 13 pin connected for information exchange between devices.
 - If you switch to another input, the SIMPLINK device will stop.
 - If a third-party device with the HDMI-CEC function is also used, the SIMPLINK device may not work normally.
 - [Depending on model]
If you select or play media from a the device with a home theatre function, the **HT Speaker(Speaker)** is automatically connected. Be sure to connect with an optical cable (sold separately) to use the **HT Speaker(Speaker)** function.

SIMPLINK function description

- **Direct Play** : Plays the multimedia device on the TV instantly.
- **Controlling devices with the TV remote control** : Manages the multimedia device with the TV remote control.
- **Main Power Off** : If **Auto Power Sync** is set to **On** in the SIMPLINK settings and turn off your TV, the devices connected to your TV via SIMPLINK will also be turned off.
- **Main Power On** : If **Auto Power Sync** is set to **On** in the SIMPLINK settings, turning on a SIMPLINK-linked device will turn the TV on. (Behavior may vary depending on connected device.)
- **Speaker** : [Depending on model]
Select speaker either on the home theatre unit or the TV.

To set password

⚙ (Settings) ⇒ Safety ⇒ Set Password

Sets or changes the TV password.

- The initial password is set to '0000'.
- When France is selected for Country, password is not '0000' but '1234'.
- When France is selected for Country, password cannot be set to '0000'.

To return Reset to Initial Settings

⚙ (Settings) ⇒ General ⇒ Reset to Initial Settings

All stored information is deleted and TV settings are reset.

The TV turns itself off and back on, and all settings are reset.

- When **Lock System** is in place, a pop-up window appears and asks for password.
- Do not turn off the power during initialization.

To remove the USB device

Select the connected USB HDD from **⏏ (HOME) ⇒ Inputs** and select the **Eject** button to disconnect the USB HDD storage device.

When you see a message that the USB device has been removed, separate the device from the TV.

- Once a USB device has been selected for removal, it can no longer be read. Remove the USB storage device and then re-connect it.

Using a USB storage device - warning

- If the USB storage device has a built-in auto recognition program or uses its own driver, it may not work.
- Some USB storage devices may not work or may work incorrectly.
- Use only USB storage devices formatted with the Windows FAT32 or NTFS File System.
- For external USB HDDs, it is recommended that you use devices with a rated voltage of less than 5 V and a rated current of less than 500 mA.
- It is recommended that you use USB memory sticks of 32 GB or less and USB HDDs of 2 TB or less.
- If a USB HDD with power-saving function does not work properly, turn the power off and on. For more information, refer to the user manual of the USB HDD.
- Data in the USB storage device can be damaged, so be sure to back up important files to other devices. Data maintenance is the user's responsibility and the manufacturer is not responsible for data loss.

My Media supporting file

- Maximum data transfer rate : 20 Mbps (Mega bit per second)
- External supported subtitle formats : *.srt (SubRip), *.smi (SAMI), *.sub (SubViewer, MicroDVD, DVDSubtitleSystem, SubIdx(Vobsub)), *.ass/*.ssa (SubStation Alpha), *.txt (TMplayer), *.psb (PowerDivX)
- Internal supported subtitle formats: *.dat/*.mpg/*.mpeg/*.vob (DVD Subtitle), *.ts/*.tp/*.m2ts (DVB Subtitle), *.mp4 (DVD Subtitle, UTF-8 Plain Text), *.mkv (ASS, SSA, UTF-8 Plain Text, Universal Subtitle Format, VobSub, DVD Subtitle), *.divx/*.avi (XSUB¹, XSUB+)
- 1 XSUB : Supports internal subtitles generated from DivX6

Supported Video Formats

- Maximum : 1920 x 1080 @ 30p (Only Motion JPEG 640 x 480 @ 30p)
- .asf, .wmv
 - [Video] MPEG-4 Part2, XViD, H.264/AVC, VC1(WMV3, WVC1), MP43
 - [Audio] WMA Standard, WMA9(Pro), MP3, AAC, AC3
- .divx, .avi
 - [Video] MPEG-2, MPEG-4 Part2, DivX3.11, DivX4, DivX5, DivX6, XViD, H.264/AVC
 - [Audio] HE-AAC, LPCM, ADPCM, MPEG-1 Layer I, MPEG-1 Layer II, Dolby Digital, MPEG-1 Layer III (MP3)
- .ts, .trp, .tp, .mts, .m2ts
 - [Video] H.264/AVC, MPEG-2, H.265/HEVC
 - [Audio] MPEG-1 Layer I, MPEG-1 Layer II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, AAC, HE-AAC
- .vob
 - [Video] MPEG-1, MPEG-2
 - [Audio] Dolby Digital, MPEG-1 Layer I, MPEG-1 Layer II, DVD-LPCM
- .mp4, .m4v, .mov
 - [Video] MPEG-2, MPEG-4 Part2, DivX3.11, DivX4, DivX5, XViD, H.264/AVC
 - [Audio] AAC, MPEG-1 Layer III (MP3)
- .mkv
 - [Video] MPEG-2, MPEG-4 Part2, XViD, H.264/AVC
 - [Audio] HE-AAC, Dolby Digital, MPEG-1 Layer III (MP3), LPCM
- motion JPEG
 - [Video] MJPEG
 - [Audio] LPCM, ADPCM
- .mpg, .mpeg, .mpe
 - [Video] MPEG-1, MPEG-2
 - [Audio] MPEG-1 Layer I, MPEG-1 Layer II, Dolby Digital, LPCM
- dat
 - [Video] MPEG-1, MPEG-2
 - [Audio] MP2
- flv
 - [Video] Sorenson H.263, H.264/AVC
 - [Audio] MP3, AAC, HE-AAC
- 3gp, 3gp2
 - [Video] H.264/AVC, MPEG-4 Part2
 - [Audio] AAC, AMR(NB/WB)

Supported Audio Formats

- File type : mp3
 - [Bit rate] 32 Kbps - 320 Kbps
 - [Sample freq.] 16 kHz - 48 kHz
 - [Support] MPEG1, MPEG2, Layer2, Layer3
- File Type : AAC
 - [Bit rate] Free Format
 - [Sample freq.] 8 kHz ~ 48 kHz
 - [Support] ADIF, ADTS
- File Type : M4A
 - [Bit rate] Free Format
 - [Sample freq.] 8 kHz ~ 48 kHz
 - [Support] MPEG-4
- File Type : WMA
 - [Bit rate] 128 Kbps ~ 320 Kbps
 - [Sample freq.] 8 kHz ~ 48 kHz
 - [Support] WMA7, WMA8, WMA9 Standard
- File Type : WMA10 Pro
 - [Bit rate] ~ 768 Kbps
 - [Channel / Sample freq.] M0 : up to 2 Channel @ 48 kHz
(Except LBR mode),
M1 : up to 5.1 Channel @ 48 kHz,
M2 : up to 5.1 Channel @ 96 kHz
 - [Support] WMA10 Pro
- File Type : OGG
 - [Bit rate] Free Format
 - [Sample freq.] 8 kHz ~ 48 kHz
 - [Support] OGG Vorbis
- File Type : WAV
 - [Bit rate] 64 kbps ~ 1.5 Mbps
 - [Sample freq.] 8 kHz ~ 48 kHz
 - [Support] LPCM
 - [Bit depth] 8 bit / 16 bit / 24 bit

Supported Photo Formats

- Category : 2D (jpeg, jpg, jpe)
 - [Available file type]
 - SOFO: Baseline,
 - SOF1 : Extend Sequential,
 - SOF2 : Progressive
 - [Photo size]
 - Minimum : 64 x 64,
 - Maximum (Normal Type) : 15360 (W) x 8640 (H),
 - Maximum (Progressive Type) : 1920 (W) x 1440 (H)
- Category : BMP
 - [Photo size] Minimum : 64 x 64, Maximum : 9600 x 6400
- Category : PNG
 - [Available file type] Interlace, Non-Interlace
 - [Photo size]
 - Minimum : 64 x 64,
 - Maximum (Interlace) : 1200 x 800,
 - Maximum (Non-Interlace) : 9600 x 6400
- BMP and PNG format files may be slower to display than JPEG.



ENGLISH

To see web manual

To obtain detailed User Guide information, please visit www.lg.com.

External control device setup

To obtain the external control device setup information, please visit www.lg.com.

Troubleshooting

Cannot control the TV with the remote control.

- Check the remote control sensor on the product and try again.
- Check if there is any obstacle between the product and the remote control.
- Check if the batteries are still working and properly installed (⊕ to ⊕, ⊖ to ⊖).

No image display and no sound is produced.

- Check if the product is turned on.
- Check if the power cord is connected to a wall outlet.
- Check if there is a problem in the wall outlet by connecting other products.

The TV turns off suddenly.

- Check the power control settings. The power supply may be interrupted.
- Check if the **Auto Power Off** (Depending on model) / **Sleep Timer / Timer Power Off** is activated in the **Timers** settings.
- If there is no signal while the TV is on, the TV will turn off automatically after 15 minutes of inactivity.

When connecting to the PC (HDMI), 'No signal' or 'Invalid Format' is displayed.

- Turn the TV off/on using the remote control.
- Reconnect the HDMI cable.
- Restart the PC with the TV on.

Specifications

CI Module Size (W x H x D)		100.0 mm x 55.0 mm x 5.0 mm
Environment condition	Operating Temperature	0 °C to 40 °C
	Operating Humidity	Less than 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	Less than 85 %

(Depending on country)

	Digital TV			Analogue TV
	Satellite	Terrestrial	Cable	Terrestrial / Cable
Television system	DVB-S/S2*	DVB-T DVB-T2*	DVB-C	PAL/SECAM B/G, D/K, I, SECAM L
Channel coverage (Band)	950 ~ 2150 Mhz	VHF III : 174 ~ 230 Mhz UHF IV : 470 ~ 606 Mhz UHF V : 606 ~ 862 Mhz S Band II : 230 ~ 300 Mhz S Band III : 300 ~ 470 Mhz	46 ~ 862 Mhz	46 ~ 862 Mhz
Maximum number of storables programmes	6,000	2,000		
External antenna impedance	75 Ω			

* Only DVB-T2/C/S2 support models.

AC/DC Adapter	32LH51**, 32LH52**	43/49LH51**, 43/49LH52**
	Manufacturer : Lien Chang Model : LCAP16B-E, LCAP25B Manufacturer : Honor Model : ADS-45FSN-19 19040GPG, ADS-45SN-19-2 19040G	Manufacturer : Lien Chang Model : LCAP40 Manufacturer : APD Model : DA-65F19
	Input : AC 100 - 240 V ~ 50/60 Hz Output : DC 19 V --- 2.1 A	Input : AC 100 - 240 V ~ 50/60 Hz Output : DC 19 V --- 3.42 A

HDMI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 480	31.46	59.94
	31.50	60.00
720 x 480	31.47	59.94
	31.50	60.00
720 x 576	31.25	50.00
	37.50	50.00
1280 x 720	45.00	60.00
	44.96	59.94
	28.12	50.00
1920 x 1080	33.75	60.00
	33.72	59.94
	56.25	50.00
	67.50	60.00
	67.43	59.94
	27.00	24.00
	26.97	23.97
	33.75	30.00
	33.71	29.97

Component port connecting information

Component ports on the TV	Y	P _B	P _R
	Y	P _B	P _R

Video output ports on DVD player	Y	P _B	P _R
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

Signal	Component
480i / 576i	0
480p / 576p	0
720p / 1080i	0
1080p	0 (Only 50 Hz / 60 Hz)

HDMI-PC supported mode

Use HDMI IN 1 for PC mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 350	31.46	70.09
720 x 400	31.46	70.08
640 x 480	31.46	59.94
800 x 600	37.87	60.31
1024 x 768	48.36	60.00
1152 x 864	54.34	60.05
1360 x 768	47.71	60.01
1280 x 1024	63.98	60.02
1920 x 1080	67.50	60.00

 : Except for 32LH51**, 32LH52**

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Record the model number and serial number of the TV.
Refer to the label on the back cover and quote this
information to your dealer when requiring any service.

MODEL

SERIAL

