



LG OLED TV

THE ULTIMATE DISPLAY

OWNER'S MANUAL

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

55EG9100



www.lg.com

P/NO : MFL68685926 (1510-REV01)

IMPORTANT SAFETY INSTRUCTIONS

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.



WARNING/CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



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

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

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

WARNING/CAUTION

- TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

⚠ WARNING

If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

⚠ CAUTION

If you ignore the caution message, you may be slightly injured or the product may be damaged.

! NOTE

The note helps you understand and use the product safely. Please read the note carefully before using the product.

Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.



- Do not allow the television to become wet.



- Clean only with a dry cloth.



- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.



- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet (Can differ by country).



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



- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.



- Only use attachments/accessories specified by the manufacturer.



- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- Unplug this apparatus during lightning storms or when unused for long periods of time.



- 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.



- Do not stick metal objects or any other conductive material into the power cord. Do not touch the end of the power cord while it is plugged in.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children. Anti-moisture material is harmful if swallowed. If swallowed, induce vomiting and go to the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.

- **CAUTION** concerning the Power Cord (Can differ by country):

Check the specification page of this owner's manual to be certain. Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock. 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. 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 move the TV with the power cord plugged in. Do not use a damaged or loose power cord. Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.



- **Warning** - To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the TV with wet hands. Do not install this product near flammable objects such as gasoline or candles, or expose the TV to direct air conditioning.

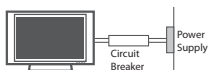


- Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g., on shelves above the unit).



• Grounding

(Except for devices which are not grounded.) Ensure that you connect the earth ground wire to prevent possible electric shock (i.e., a TV with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightning rods, or gas pipes.



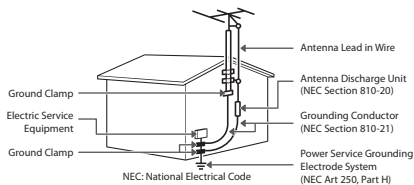
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.
- Do not attempt to modify this product in any way without written authorization from LG Electronics. Unauthorized modification could void the user's authority to operate this product.

• Outdoor Antenna Grounding

(Can differ by country):

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits as death or serious injury can occur. Be sure the antenna system is grounded to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

Antenna grounding according to the National Electrical Code, ANSI/NFPA 70



• Cleaning

When cleaning, unplug the power cord and wipe gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the TV as electric shock may occur. Do not clean with chemicals such as alcohol, thinners, or benzene.

• Moving

Make sure the product is turned off, unplugged, and all cables have been removed. It may take 2 or more people to carry larger TVs. Do not press or put stress on the front panel of the TV.

• Ventilation

Install your TV where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials while plugged. Do not install in excessively dusty places.

- If you smell smoke or other odors coming from the TV, unplug the power cord and contact an authorized service center.
- Keep the product away from direct sunlight.
- Never touch this apparatus or antenna during a lightning storm.
- When mounting a TV on the wall, make sure not to install the TV by hanging the power and signal cables on the back of the TV.
- Do not allow an impact shock, any objects to fall into the product, and do not drop anything onto the screen.

• DISCONNECTING THE DEVICE FROM THE MAIN POWER

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

• Batteries

- Store the accessories (battery, etc.) in a safe location out of the reach of children.
- This apparatus uses batteries. In your community there might be regulations that require you to dispose of these batteries properly due to environmental considerations. Please contact your local authorities for disposal or recycling information.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble, or allow the batteries to overheat.

- Do not use high voltage electrical equipment near the TV (e.g., a bug zapper). This may result in product malfunction.

- **Dot Defect**

The panel is a high technology product with resolution of two million to six million pixels. In a very few cases, you could see fine dots on the screen while you're viewing the TV. Those dots are deactivated pixels and do not affect the performance and reliability of the TV.

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

- Take care not to touch the ventilation openings. When watching the TV for a long period, the ventilation openings may become hot. This does not affect the performance of the product or cause defects in the product.
- 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 the TV feels cold to the touch, there may be a small flicker when it is turned on. This is normal; there is nothing wrong with TV. Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the TV's performance. Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.
- Displaying a still image for a prolonged period of time may cause an image sticking. Avoid displaying a fixed image on the TV screen for a extended length of time.

Viewing 3D imaging

WARNING

Viewing Environment

- Viewing Time
 - When watching 3D content, take 5 to 15 minute breaks every hour. Viewing 3D content for a long period of time may cause headache, dizziness, fatigue or eye strain.

Those who have a photosensitive seizure or chronic illness

- Some users may experience a seizure or other abnormal symptoms when they are exposed to a flashing light or particular pattern from 3D content.
- Do not watch 3D videos if you feel nauseous, are pregnant and/ or have a chronic illness such as epilepsy, cardiac disorder, or blood pressure disease, etc.
- 3D Content is not recommended for those who suffer from stereo blindness or stereo anomaly. Double images or discomfort in viewing may be experienced.
- If you have strabismus (cross-eyed), amblyopia (weak eyesight), or astigmatism, you may have trouble sensing depth and easily feel fatigue due to double images. It is advised to take more frequent breaks than the average adult.
- If your eyesight varies between your right and left eye, revise your eyesight prior to watching 3D content.

Symptoms which require discontinuation or refraining from watching 3D contents

- Do not watch 3D content when you feel fatigue from lack of sleep, overwork, or drinking.
- When these symptoms are experienced, stop using/watching 3D content and get enough rest until the symptom subsides.
 - Consult your doctor when the symptoms persist. Symptoms may include headache, eyeball pain, dizziness, nausea, palpitation, blurriness, discomfort, double image, eyestrain, or fatigue.

CAUTION

Viewing Environment

- Viewing Distance
 - Maintain a distance of at least twice the screen diagonal length when watching 3D content. If you feel discomfort in viewing 3D content, move further away from the TV.

Viewing Age

- Infants / Children
 - Usage/ Viewing 3D content for children under the age of 5 is recommended.
 - Children under the age of 10 may overreact and become overly excited because their vision is in development, for example, trying to touch the screen or trying to jump into it. Special monitoring and extra attention is required for children watching 3D content.
 - Children have greater binocular disparity of 3D presentations than adults because the distance between the eyes is shorter than one of adults. Therefore they will perceive more stereoscopic depth compared to adults for the same 3D image.
- Teenagers
 - Teenagers may be stimulated to light coming from 3D videos. Advise them not to watch 3D videos for a long time when they are tired.
- Elderly
 - The elderly may perceive less of a 3D effect than the youth. Do not sit closer to the TV than the recommended distance.

Cautions when using the 3D glasses

- Make sure to use LG 3D glasses. Otherwise, you may not be able to view 3D videos properly.
- Do not use 3D glasses instead of your normal glasses, sunglasses, or protective goggles.
- Using modified 3D glasses may cause eye strain or image distortion.
- Do not keep your 3D glasses in extremely high or low temperatures. It will cause deformation.
- The 3D glasses are fragile and are easy to be scratched. Always use a soft, clean piece of cloth when wiping the lenses. Do not scratch the lenses of the 3D glasses with sharp objects or clean/wipe them with chemicals.

LICENSES

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



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.

! 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.

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INSTALLATION PROCEDURE

- 1 Open the package and make sure all the accessories are included.
- 2 Attach the stand to the TV set.
- 3 Connect an external device to the TV set.
- 4 Make sure the network connection is available.
You can use the TV network functions only when the network connection is made.

*When the TV is turned on for the first time after being shipped from the factory, initialization of the TV may take approximately one minute.

ASSEMBLING AND PREPARING

Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.



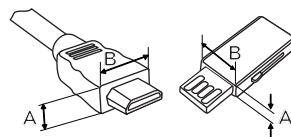
CAUTION

- Do not use any unapproved items to ensure the safety and lifespan of the product.
- Any damages or injuries by using unapproved items are not covered by the warranty.
- Some models appear to have a thin film on the screen. It is actually part of the screen; do not remove it.



NOTE

- The items supplied with your product may vary depending upon 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 flash drive 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 (3 m or less)
 - High-Speed HDMITM Cable
 - High-Speed HDMITM Cable with Ethernet



*A ≤ 10 mm
*B ≤ 18 mm



**Remote Control,
Batteries (AA)**
(See page 26.)



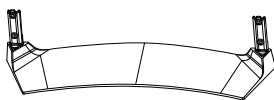
Owner's Manual



Cable Holder
(See page 15.)



Cinema 3D Glasses
The number of 3D glasses may
differ depending upon the
model or country.



Stand Base
(See page 14.)



Stand Screws
4 EA, M4 x L20
(See page 14.)



Component Video Cable
(See page 20.)



Composite Video Cable
(See pages 20 and 21.)

Optional Extras

Optional extras can be changed or modified for quality improvement without any notification. Contact your dealer for buying these items.

These devices only work with certain models.

The model name or design may be changed due to the manufacturer's circumstances or policies.

AN-MR6**

Magic Remote

AG-F*DP**

Dual Play Glasses

AG-F***

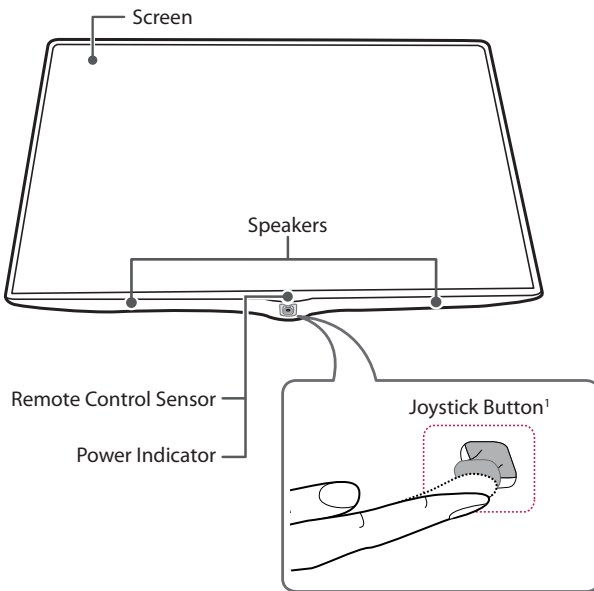
Cinema 3D Glasses

AN-VC550

Smart Camera

LG Audio Device

Parts and Buttons



1 Joystick button is located below the screen of TV.

Using the Joystick Button

You can operate the TV by pressing the button or moving the joystick left, right, up, or down.

Basic Functions

	Power On	When the TV is turned off, place your finger on the joystick button, press it once, and release it.
	Power Off	When the TV is turned on, place your finger on the joystick button, press it once for a few seconds, and release it. All running apps will close and any recording in progress will stop.
	Volume Control	If you place your finger over the joystick button and move it left or right, you can adjust the volume level.
	Channels Control	If you place your finger over the joystick button and move it up or down, you can scroll through the saved channels.

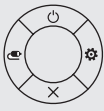
!

NOTE

- With your finger over the joystick button move it up, down, left, or right. Be careful not to press the joystick button. If you press the joystick button first, you may not be able to adjust the volume level and/or scroll through saved channels.

Adjusting the Menu

When the TV is turned on, press the joystick button one time.
You can adjust the menu items moving the joystick button up, down, left, or right.

		POWER OFF	Turns the power off.
		SETTINGS	Accesses the quick settings.
		CLOSE	Clears on-screen displays and returns to TV viewing.
		INPUTS	Changes the input source.

Lifting and Moving the TV

When moving or lifting the TV, read the following to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

CAUTION

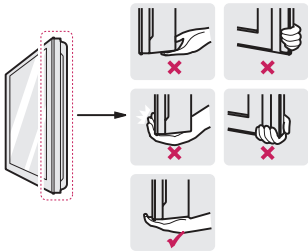
- Avoid touching the screen at all times, as this may result in damage to the screen.
- Do not place the product on the floor with its front facing down without padding. Failure to do so may result in damage to the screen.

- 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.

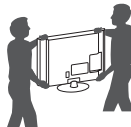
- When holding the TV, the screen should face away from you to avoid damage.



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



- Use at least two people to move a large TV.
- When transporting the TV by hand, hold the TV as shown in the following illustration.



- When handling the TV, be careful not to damage the protruding joystick button.
- 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 or bending of frame chassis as it may damage screen.
- Be sure to keep your TV upright instead of laying it down or tilting it while moving the TV.

Setting Up The TV

You can mount your TV to a wall or attach the stand if you wish to place the TV on an entertainment center or other furniture.

Attaching the Stand

If you are not mounting the TV to a wall, use the following instructions to attach the stand.

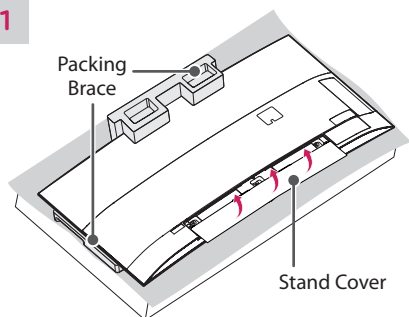
CAUTION

- Make sure that the screws are fastened tightly. (If they are not fastened securely enough, the TV may tilt forward after being installed.)
- Do not tighten the screws with too much force; otherwise they may be damaged and come loose later.

NOTE

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

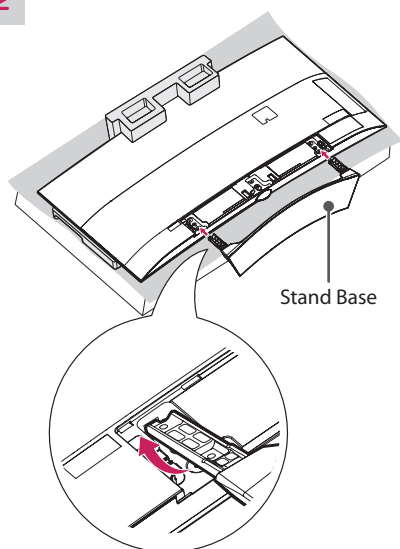
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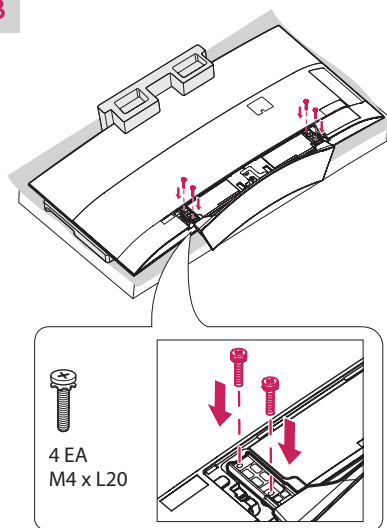
CAUTION

- When assembling the stand, lay the packing brace on a table or product box and then place the TV with its screen facing down on the packing brace. Be sure to protect the screen from scratches. When there is no packing brace provided, make sure that you place the screen on soft clothing or a cushion.
- Do not place the TV without the stand attached into its upright position. The protruding Joystick Button may be damaged.

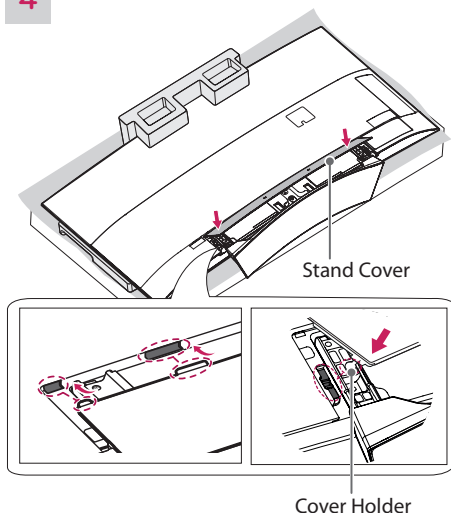
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3



4

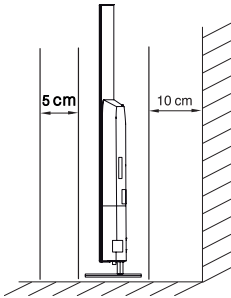
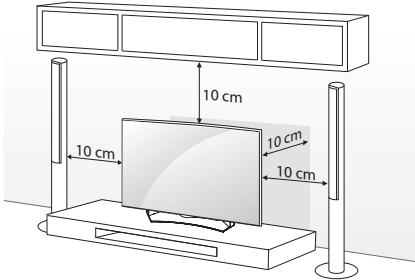


- 1 Insert the protruding parts of the stand cover into the holes.
- 2 Insert the cover holder of the stand cover into the holes until it clicks.
- 3 Press the stand cover gently so that the non-woven fabric inside is attached tightly.

Mounting on a Table

(Image shown may differ from your TV)

- 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.



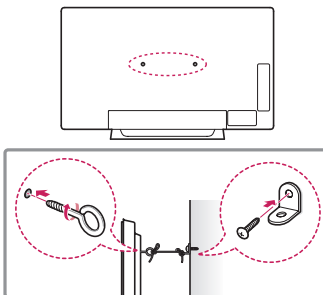
- 2 Connect the power cord to a wall outlet.

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 (optional)

(Depending upon model)



- 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 or cable.
Make sure to keep the rope parallel to the flat surface.

CAUTION

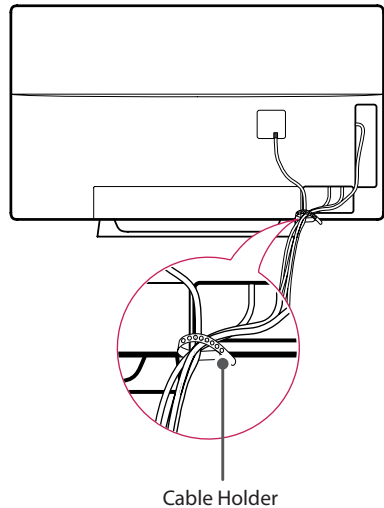
- Make sure that children do not climb on or hang on the TV.

NOTE

- Use a platform or cabinet that is strong and large enough to support the TV securely.
- Brackets, bolts, and ropes are optional. You can obtain additional accessories from your local dealer.

Tidying Cables

Gather and bind the cables with the cable holder.



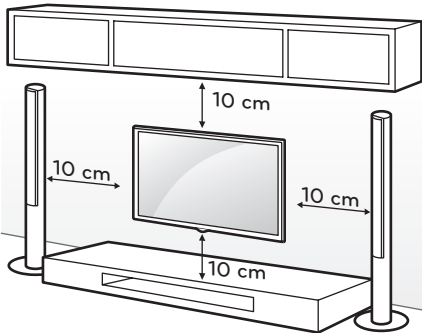
Cable Holder

CAUTION

- Do not move the TV by holding the cable holder, as the cable holders may break, and injuries and damage to the TV may occur.

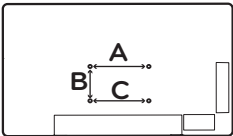
Mounting on a Wall

An optional wall mount can be used with your LG Television. Consult with your local dealer for a wall mount that supports the standard used by your TV model. Carefully attach the wall mount bracket at the rear of the TV. Install the wall mount bracket on a solid wall perpendicular to the floor. If you are attaching the TV to other building materials, please contact qualified personnel to install the wall mount. Detailed instructions will be included with the wall mount.



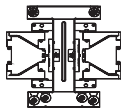
Make sure to use screws and wall mounts that meet the standard. Standard dimensions for the wall mount kits are described in the following table.

Model	55EG9100
A x B x C	200 x 340 x 195
Standard screw	M6
Number of screws	4
Wall mount bracket (optional)	OTW150



Wall mount bracket (optional)

OTW150



CAUTION

- Disconnect the power before moving or installing the TV. Otherwise electric shock may occur.
- If you install the TV on a ceiling or slanted wall, it may fall and result in severe injury. Use an authorized LG wall mount and contact the local dealer or qualified personnel.
- Do not overtighten the screws as this may cause damage to the TV and void your warranty.
- Use the screws and wall mounts that meet the standard. Any damages or injuries by misuse or using an improper accessory are not covered by the warranty.

NOTE

- Use the screws that are listed in the standard screw specifications.
- The wall mount kit includes an installation manual and necessary parts.
- The wall mount bracket is optional. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending upon the wall mount. Make sure to use the proper length.
- For more information, refer to the manual supplied with the wall mount.

MAKING CONNECTIONS

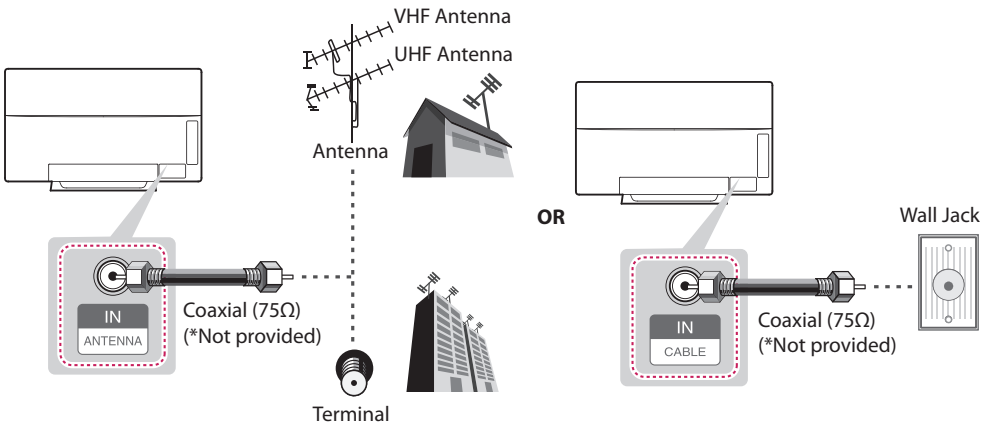
You can connect various external devices to the TV. Supported external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices. For more information on external device's connection, refer to the manual provided with each device.

NOTE

- 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 about recording, refer to the manual provided with the connected device.
- The external device connections shown may differ slightly from illustrations in this manual.
- Connect external devices to the TV regardless about the order of the TV port.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.
- Refer to the external equipment's manual for operating instructions.

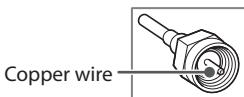
Connecting to an Antenna or Cable

Connect an antenna, cable, or cable box to watch TV. The illustrations may differ from the actual items and an RF cable is optional.



CAUTION

- Make sure not to bend the copper wire of the RF cable.



- Complete all connections between devices, and then connect the power cord to the power outlet to prevent damage to your TV.

NOTE

- To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.
- Use a signal splitter to use more than 2 TVs.
- If the antenna is not installed properly, contact your dealer for assistance.
- DTV Audio Supported Codec: MPEG, AAC, HE-AAC

Connecting to an HD receiver, DVD Player, or VCR

Connect a HD receiver, DVD Player, or VCR to the TV and select an appropriate input mode.

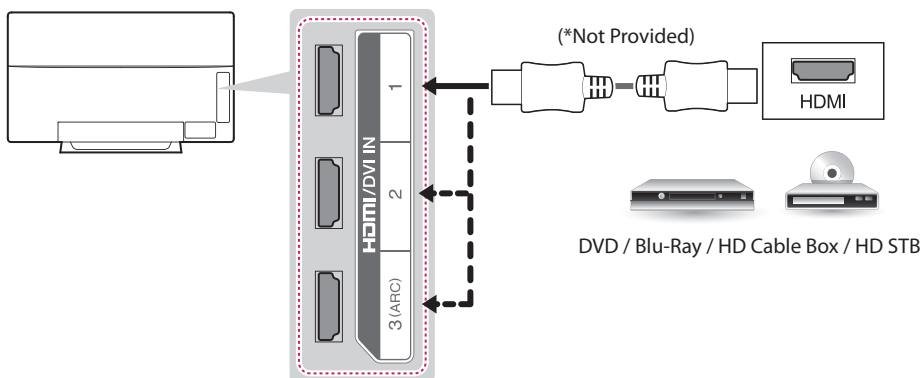
HDMI Connection

HDMI is the best way to connect a device.

Transmits the digital video and audio signals from an external device to the TV. Connect the external device and the TV with the HDMI cable as shown in the following illustration.

NOTE

- Use the latest High Speed HDMI™ Cable that supports CEC (Customer Electronics Control) function.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.
- HDMI Audio Supported Format: DTS (44.1 kHz / 48 kHz), AC3 (32 kHz / 44.1 kHz / 48 kHz), PCM (32 kHz / 44.1 kHz / 48 kHz / 96 kHz / 192 kHz)



ARC (Audio Return Channel)

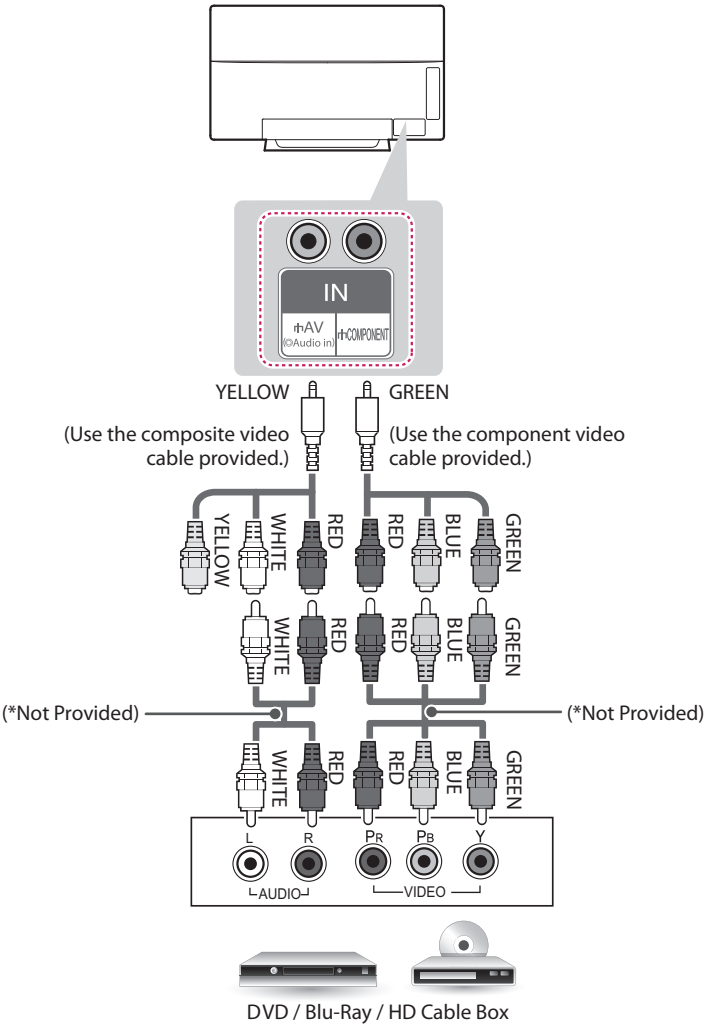
- When connected with a high-speed HDMI cable, digital audio can be sent to a compatible device without an additional optical audio cable.
- ARC is only supported on the **HDMI / DVI IN 3 (ARC)** port. An external audio device that supports ARC should be connected to **HDMI / DVI IN 3 (ARC)** if you wish to use ARC.

Component Connection

Transmits analog video and audio signals from an external device to the TV. Connect the external device and the TV with a component cable as shown in the following illustration.

NOTE

- If cables are installed incorrectly, it could cause the image to display in black and white or with distorted color.
- Check to ensure the cables are matched with the corresponding color connection.

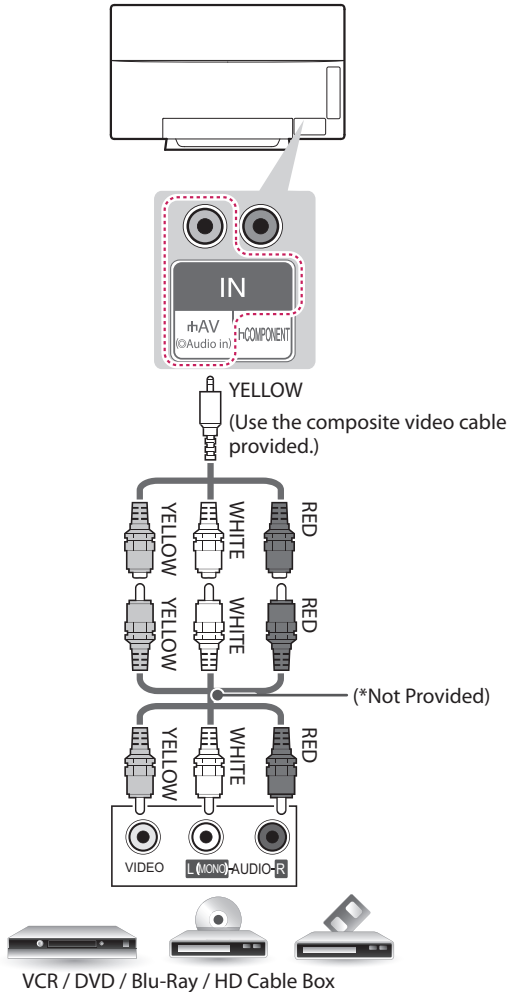


Composite Connection

Transmits analog video and audio signals from an external device to the TV. Connect the external device and the TV with the composite cable as shown in the following illustration.

! NOTE

- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO L/MONO jack of the TV.
- **Check to ensure the cables are matched with the corresponding color connection.**



Connecting to a PC

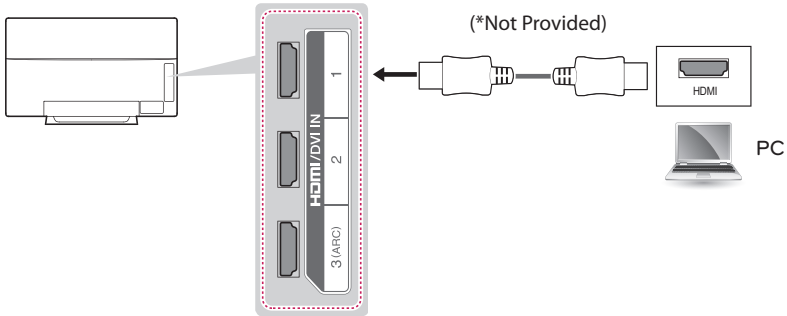
! NOTE

- Use an HDMI connection for the best image quality.
- Depending upon the graphics card, DOS mode video may not work if a HDMI to DVI Cable is in use.
- 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.
- The synchronization input form for Horizontal and Vertical frequencies is separate.
- Depending upon the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.
- If you are using DVI out from a PC, you have to connect analog audio separately. Refer to the instructions on the next page.
- When using the HDMI/DVI cable, only Single link is supported.

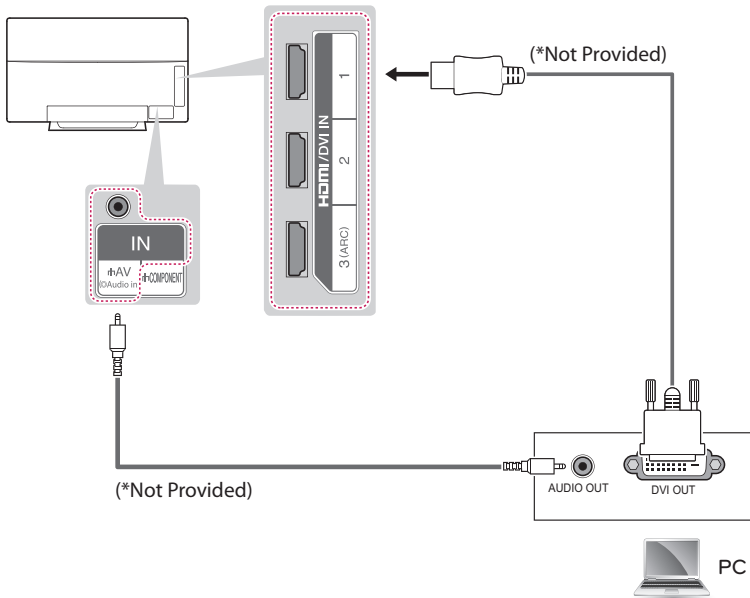
HDMI Connection or DVI to HDMI Connection

Choose method A or B to make connection.

Method A: HDMI Connection



Method B: DVI to HDMI Connection



Connecting to an Audio System

You may use an optional external audio system instead of the built-in speakers.

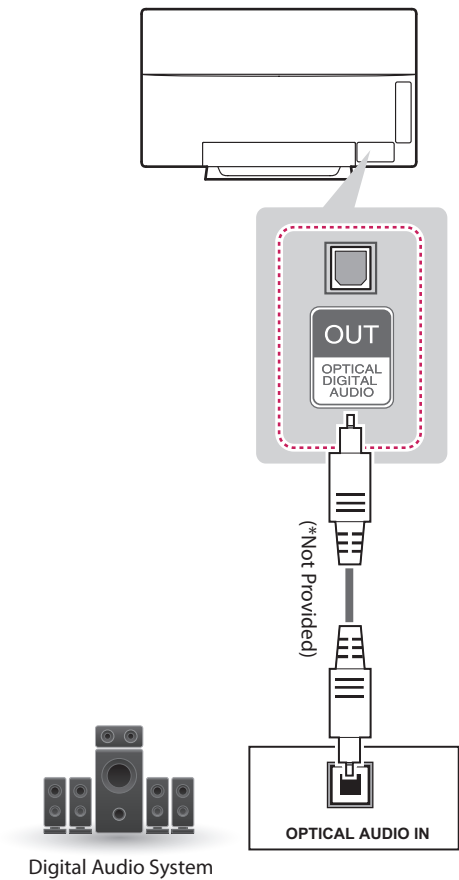
Digital Optical Audio Connection

Transmits a digital audio signal from the TV to an external device. Connect the external device and the TV with the optical audio cable as shown in the following illustration.

! NOTE

- Do not look into the optical output port. Looking at the laser beam may damage your vision.
- Audio with ACP (Audio Copy Protection) function may block digital audio output.

ENGLISH



Connecting a USB Drive

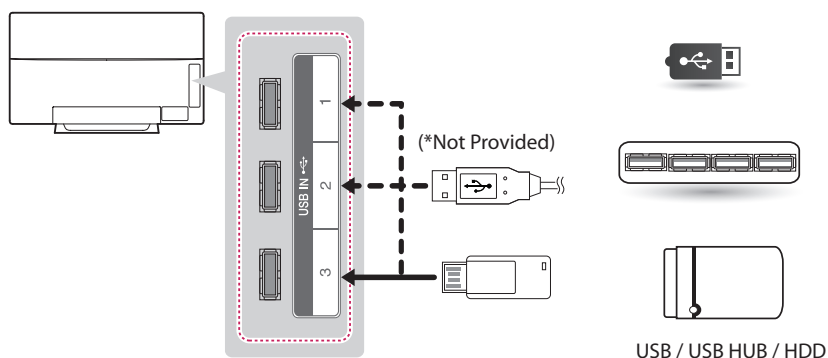
Connect a USB storage device such as a USB flash thumbdrive, external hard drive, or a USB memory card reader to the TV and access the SmartShare menu to use various multimedia files.

! NOTE

- Some USB Hubs may not work. If a USB device connected using a USB Hub is not detected, connect it directly to the USB port on the TV.

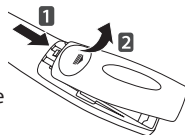
Choose any USB input port to connect.

It does not matter which port you use.



MAGIC REMOTE FUNCTIONS

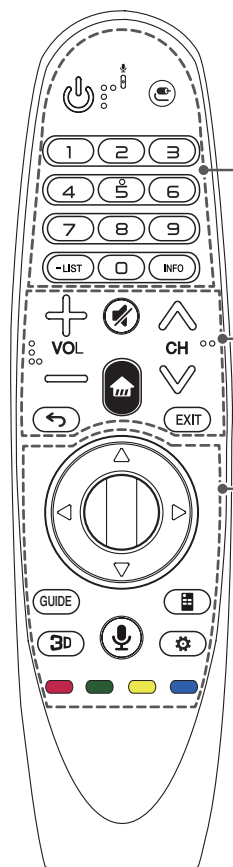
When the message *Magic remote control battery is low. Change the battery.* is displayed, replace the batteries. To install batteries, open the battery cover, replace batteries (1.5 V AA) matching the $\oplus$ and $\ominus$ ends to the label inside the compartment, and close the battery cover. Failure to match the correct polarities of the battery may cause the battery to burst or leak, resulting in fire, personal injury, or ambient pollution. Be sure to point the remote control at the remote control sensor on the TV. To remove the batteries, perform the installation actions in reverse.



CAUTION

- Do not mix old and new batteries, as this may damage the remote control.

This remote uses infrared light. When in use, it should be pointed in the direction of the TV's remote sensor.



- (POWER)** Turns the TV on or off.
- (INPUT)** Changes the input source.
 - * Pressing and holding the **(INPUT)** button displays all the lists of external inputs.
- Number buttons** Enters numbers.
- (DASH)** Inserts a dash between numbers such as 2-1 and 2-2.
- LIST** Accesses the saved channel list.
- INFO** Views the information of the current channels and screen.
- + VOL —** Adjusts the volume level.
- (MUTE)** Mutes all sounds.
- (HOME)** Accesses the Home menu.
- CH** Scrolls through the saved channels.
- (BACK)** Returns to the previous screen.
- EXIT** Clears on-screen displays and returns to Last Input viewing.
- Wheel (OK)** Press the center of the Wheel button to select a menu. You can change channels by using the Wheel button.
- (up/down/left/right)** Press the up, down, left or right button to scroll the menu. If you press while the pointer is in use, the pointer will disappear from the screen and Magic Remote will operate like a general remote control. To display the pointer on the screen again, shake Magic Remote to the left and right.
- (Voice recognition)**
 - Network connection is required to use the voice recognition function.
 - 1. Press the voice recognition button.
 - 2. Speak when the voice display window appears on the TV screen.
 - * Use the Magic Remote no further than 10 cm from your face.
 - * The voice recognition may fail when you speak too fast or too slowly.
 - * The recognition rate may vary depending upon the user's characteristics (voice, pronunciation, intonation, and speed) and the environment (noise and TV volume).
- GUIDE** Shows channels or programmes guide. (Depending upon model)
- (Screen remote)** Displays the Screen Remote.
 - * Accesses the Universal Control Menu in some regions.
- 3D** Used for viewing 3D video. (Works with a 3D-enabled TV.)
- (Q. Settings)** Accesses the Quick Settings.
 - * Pressing and holding the **(Q. Settings)** button displays the **Advanced** menu.
- Color buttons** These access special functions in some menus.
 - Red, Green, Yellow, Blue

Registering Magic Remote

How to register the Magic Remote

 (Wheel)	To use the Magic Remote, first pair it with your TV. 1 Put batteries into the Magic Remote and turn the TV on. 2 Point the Magic Remote at your TV and press the  Wheel (OK) on the remote control. * If the TV fails to register the Magic Remote, try again after turning the TV off and back on.
--	--

How to deregister the Magic Remote

 (BACK) (Home)	Press the  (BACK) and  (Home) at the same time, for five seconds, to unpair the Magic Remote with your TV. » Pressing and holding the EXIT button will let you cancel and re-register Magic Remote at once.
---	---

How to Use Magic Remote

	Shake the Magic Remote slightly to the right and left or press  (Home),  (INPUT),  3D buttons to make the pointer appear on the screen. (In some TV models, the pointer will appear when you turn the Wheel button.) • If the pointer has not been used for a certain period of time or Magic Remote is placed on a flat surface, then the pointer will disappear. • If the pointer does not move as you wish, shake Magic Remote to the left and right. The pointer will move to the center of the screen. • The Magic Remote depletes batteries faster than a normal remote due to the additional features.
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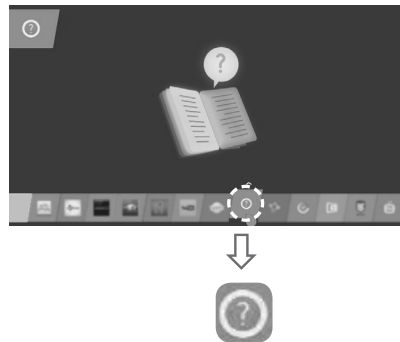
Precautions to Take When Using the Magic Remote

- Use the remote control within the specified range (within 10 m). You may experience communication failures when using the device outside the coverage area or if there are obstacles within the coverage area.
- You may experience communication failures depending on the accessories. Devices such as a microwave oven and wireless LAN operate in the same frequency band (2.4 GHz) as the Magic Remote. This may cause communication failures.
- The Magic Remote may not work properly if a wireless router (AP) is within 1 meter of the TV. Your wireless router should be more than 1 m away from the TV.
- Do not disassemble or heat the batteries.
- Do not drop the batteries. Avoid extreme shocks to the batteries.
- Inserting the batteries in the wrong way may result in explosion.

USING THE USER GUIDE

User Guide allows you to easily access detailed TV information.

- 1 Press  **(Home)** button to access the Home menu.
- 2 Select **User Guide** and press the  **Wheel (OK)** button.



SPECIFICATIONS

Product specifications may be changed without prior notice due to upgrade of product functions.

Power requirement		AC 100 - 240 V ~ 50 / 60 Hz
Television System		Analog : NTSC, PAL - M/N / Digital : SBTVD
Program Coverage		VHF 2 - 13, UHF 14 - 69, DTV 2 - 69, CATV 1 - 135
External Antenna Impedance		75 Ω
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 %



ENGLISH

MODELS		55EG9100 (55EG9100-SB)
Dimensions (W x H x T (D))	With stand (mm)	1,225 x 760 x 208
	Without stand (mm)	1,225 x 719 x 48.9 (87.3)
Weight	With stand (kg)	15.0
	Without stand (kg)	12.8
Current Value / Power consumption		3.2 A / 320 W

Wireless module (LGSBW41) Specifications			
Wireless Lan		Bluetooth	
Standard	IEEE 802.11a/b/g/n	Standard	Bluetooth Version 4.0
Frequency Range	2400 to 2483.5 MHz 5150 to 5250 MHz 5725 to 5850 MHz	Frequency Range	2400 to 2483.5 MHz
Output Power (Max.)	802.11a: 11.5 dBm 802.11b: 11 dBm 802.11g: 10.5 dBm 802.11n - 2.4 GHz: 11 dBm 802.11n - 5 GHz: 12.5 dBm	Output Power (Max.)	10 dBm or Lower
• Contains FCC ID: BEJLGSBW41 / Contains IC: 2703H-LGSBW41			

- Because band channel used by the country could be different, the user can not change or adjust the operating frequency and this product is set for the regional frequency table.
- This device should be installed and operated with minimum distance 20 cm between the device and your body. And this phrase is for the general statement for consideration of user environment.

MAINTENANCE

Cleaning Your TV

Clean your TV regularly to keep it at peak performance and to extend the product's lifespan.



CAUTION

- Before cleaning, turn the power off and disconnect the power cord and all other cables.
- When the TV is left unattended or unused for a long time, disconnect the power cord from the wall outlet to prevent possible damage from lightning or power surges.

Screen, Frame, Cabinet, and Stand

To remove dust or light dirt, wipe the surface with a dry, clean, and soft cloth.

To remove major dirt, wipe the surface with a soft cloth dampened in clean water or a diluted mild detergent. Then wipe immediately with a dry cloth.



CAUTION

- Do not push, rub, or hit the surface with your fingernail or a sharp object, as this may result in scratches on the screen and image distortions.
- Do not use any chemicals, such as waxes, benzene, alcohol, thinners, insecticides, air fresheners, or lubricants, as these may damage the screen's finish and cause discoloration.
- Do not spray liquid onto the surface. If water enters the TV, it may result in fire, electric shock, or malfunction.

Power Cord

Remove the accumulated dust or dirt on the power cord regularly.

TROUBLESHOOTING

Problem	Solution
Cannot control the TV with the remote control.	• Check if anything such as tape has been placed over the receiver. • Check if there is any obstacle between the product and the remote control. • Replace the batteries with new fresh ones.
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 Sleep Timer / Timer Power Off feature 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.



The model and serial numbers of the TV are located on the back and on one side of the TV. Record them below should you ever need service.

MODEL _____
SERIAL _____



OWNER'S MANUAL

EXTERNAL CONTROL DEVICE SETUP

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

KEY CODES

- This feature is not available for all models.

Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
00	CH +, PR +	R/C Button	53	List	R/C Button
01	CH -, PR -	R/C Button	5B	Exit	R/C Button
02	Volume +	R/C Button	60	PIP(AD)	R/C Button
03	Volume -	R/C Button	61	Blue	R/C Button
06	> (Arrow Key / Right Key)	R/C Button	63	Yellow	R/C Button
07	< (Arrow Key / Left Key)	R/C Button	71	Green	R/C Button
08	Power	R/C Button	72	Red	R/C Button
09	Mute	R/C Button	79	Ratio / Aspect Ratio	R/C Button
0B	Input	R/C Button	91	AD (Audio Description)	R/C Button
0E	SLEEP	R/C Button	9E	LIVE MENU	R/C Button
0F	TV, TV/RAD	R/C Button	7A	User Guide	R/C Button
10 - 19	* Number Key 0 - 9	R/C Button	7C	Smart / Home	R/C Button
1A	Q.View / Flashback	R/C Button	7E	SIMPLINK	R/C Button
1E	FAV (Favorite Channel)	R/C Button	8E	▶▶ (Forward)	R/C Button
20	Text (Teletext)	R/C Button	8F	◀◀ (Rewind)	R/C Button
21	T. Opt (Teletext Option)	R/C Button	AA	Info	R/C Button
28	Return (BACK)	R/C Button	AB	Program Guide	R/C Button
30	AV (Audio / Video) Mode	R/C Button	B0	▶ (Play)	R/C Button
39	Caption/Subtitle	R/C Button	B1	■ (Stop / File List)	R/C Button
40	∧ (Arrow Key / Cursor Up)	R/C Button	B5	RECENT	R/C Button
41	∨ (Arrow Key / Cursor Down)	R/C Button	BA	(Freeze / Slow Play / Pause)	R/C Button
42	My Apps	R/C Button	BB	Soccer	R/C Button
43	Menu / Settings	R/C Button	BD	● (REC)	R/C Button
44	OK / Enter	R/C Button	DC	3D	R/C Button
45	Q.Menu	R/C Button	99	AutoConfig	R/C Button
4C	List, - (ATSC Only)	R/C Button	9F	App / *	R/C Button
4D	PICTURE	R/C Button	9B	TV / PC	R/C Button
52	SOUND	R/C Button			

* Key code 4C (0x4C) is available on ATSC/ISDB models which use major/minor channel.
(For South Korea, Japan, North America, Latin America except Colombia models)

EXTERNAL CONTROL DEVICE SETUP

- Image shown may differ from your TV.

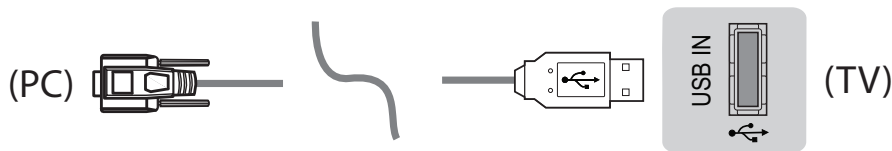
Connect the USB to Serial converter/RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

Note: The type of control port on the TV can be different between model series.

- * Please be advised that not all models support this type of connectivity.
- * Cable is not provided.

USB to Serial converter with USB Cable

USB Type



- LGTV supports PL2303 chip-based (Vendor ID : 0x0557, Product ID : 0x2008) USB to serial converter which is not made nor provided by LG.
- It can be purchased from computer stores that carry accessories for IT support professionals.

RS-232C With RS232C Cable

DE9 (D-Sub 9pin) Type

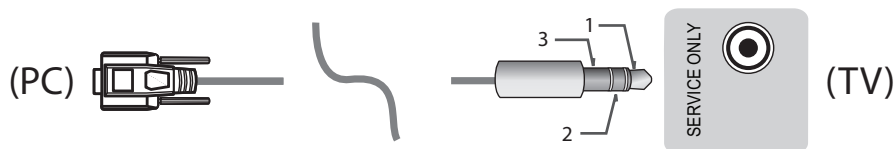
- You need to purchase the RS-232C (DE9, D-Sub 9pin female-to-female type) to RS-232C cable required for the connection between the PC and the TV, which is specified in the manual.



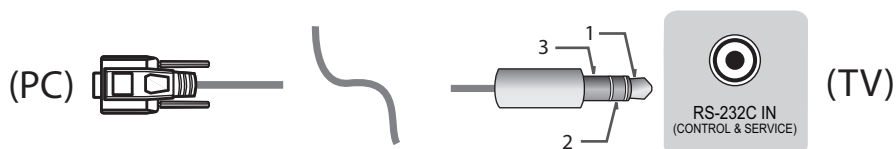
The connection interface may differ from your TV.

Phone jack Type

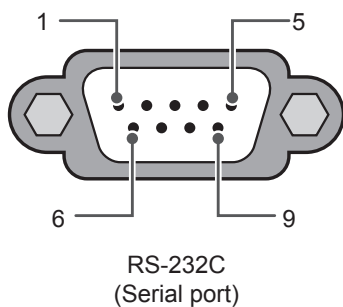
- You need to purchase the phone-jack to RS-232 cable required for the connection between the PC and the TV, which is specified in the manual.
- * For other models, connect to the USB port.
- * The connection interface may differ from your TV.



- or

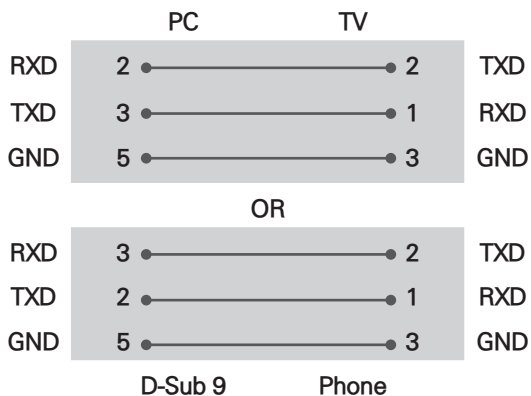


Customer Computer



RS-232C configurations

3-Wire Configurations(Not standard)



Set ID

For Set ID number, see "Real Data Mapping" on p.6

- Press **SETTINGS** to access the main menus.
- Press the Navigation buttons to scroll to (***General** → **About this TV or OPTION**) and press **OK**.
- Press the Navigation buttons to scroll to **SET ID** and press **OK**.
- Scroll left or right to select a set ID number and select **CLOSE**. The adjustment range is 1-99.
- When you are finished, press **EXIT**.
 - * (Depending on model)

Communication Parameters

- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code
- Use a crossed (reverse) cable.

Command reference list

(Depending on model)

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power*	k	a	00 to 01	15. Balance	k	t	00 to 64
02. Aspect Ratio	k	c	(p.7)	16. Color (Colour) Temperature	x	u	00 to 64
03. Screen Mute	k	d	(p.7)	17. ISM Method (Only Plasma TV)	j	p	(p.8)
04. Volume Mute	k	e	00 to 01	18. Equalizer	j	v	(p.8)
05. Volume Control	k	f	00 to 64	19. Energy Saving	j	q	00 to 05
06. Contrast	k	g	00 to 64	20. Tune Command	m	a	(p.9)
07. Brightness	k	h	00 to 64	21. Channel (Programme) Add/Del(Skip)	m	b	00 to 01
08. Color/ Colour	k	i	00 to 64	22. Key	m	c	Key Codes
09. Tint	k	j	00 to 64	23. Control Backlight, Control Panel Light	m	g	00 to 64
10. Sharpness	k	k	00 to 32	24. Input select (Main)	x	b	(p.11)
11. OSD Select	k	l	00 to 01	25. 3D (Only 3D models)	x	t	(p.11)
12. Remote Control Lock Mode	k	m	00 to 01	26. Extended 3D (Only 3D models)	x	v	(p.12)
13. Treble	k	r	00 to 64	27. Auto Configure	j	u	(p.12)
14. Bass	k	s	00 to 64				

* Note: During playing or recording media, all commands except Power (ka) and Key (mc) are not executed and treated as NG.

With RS232C cable, TV can communicate "ka command" in power-on or power-off status. but with USB-to-Serial converter cable, the command works only if TV is on.

Transmission / Receiving Protocol

Transmission

[Command1][Command2][][Set ID][][Data][Cr]

[Command 1] : First command to control the TV. (j, k, m or x)

[Command 2] : Second command to control the TV.

[Set ID] : You can adjust the [Set ID] to choose desired monitor ID number in option menu.
Adjustment range in TV is 1 to 99. If [Set ID] value is selected to '0', every connected set can be controlled.
* [Set ID] is indicated as decimal (1 to 99) on menu and as Hexadecimal (0x00 to 0x63) on transmission/receiving protocol.

[DATA] : To transmit command data (hexadecimal). Transmit 'FF' data to read status of command.

[Cr] : Carriage Return - ASCII code '0x0D'

[] : Space - ASCII code '0x20'

OK Acknowledgement

[Command2][][Set ID][][OK][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][][Set ID][][NG][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

Data 00: Illegal Code

Real data mapping (Hexadecimal to Decimal)

* When you enter the [data] in hexadecimal, refer to following conversion table.

* Channel Tune (ma) Command uses two-byte hexadecimal value([data]) to select channel number.

00 : Step 0	32 : Step 50 (Set ID 50)	FE : Step 254
01 : Step 1 (Set ID 1)	33 : Step 51 (Set ID 51)	FF : Step 255
...	...	...
0A : Step 10 (Set ID 10)	63 : Step 99 (Set ID 99)	01 00 : Step 256
...	...	...
0F : Step 15 (Set ID 15)	C7 : Step 199	27 0E : Step 9998
10 : Step 16 (Set ID 16)	C8 : Step 200	27 0F : Step 9999
...	...	...

* Commands may work differently depending on model and signal.

01. Power (Command: k a)

- To control Power *On or Off of the set.

Transmission [k][a][][Set ID][][Data][Cr]

Data 00 : Power Off 01 : *Power On

Ack [a][][Set ID][][OK/NG][Data][x]

- To Show TV is Power On or *Off

Transmission [k][a][][Set ID][][FF][Cr]

Ack [a][][Set ID][][OK][Data][x]

* Similarly, if other functions transmit 'FF' data based on this format, Acknowledgement feedback presents status about each function.

02. Aspect Ratio (Command: k c)

(Main Picture Size)

- To adjust the screen format. (Main picture format)
You can also adjust the screen format using the Aspect Ratio in the Q.MENU. or PICTURE menu.

Transmission [k][c][][Set ID][][Data][Cr]

Data 01 : Normal screen (4:3)	07 : 14:9 (Europe, Colombia, Mid-East, Asia except South Korea and Japan)
02 : Wide screen (16:9)	09 : * Just Scan
04 : Zoom	0B : Full Wide (Europe, Colombia, Mid-east except Colombia Only)
05 : Zoom 2 (Latin America)	10 to 1F : Cinema Zoom 1 to 16 Original
06 : Set by Program/	0c : 21:9 (Depending on model)

Ack [c][][Set ID][][OK/NG][Data][x]

- * Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.
- * In DTV/HDMI/Component mode (high-definition), Just Scan is available.
- * Full wide mode may work differently based on model and is supported for DTV fully, and ATV, AV partially.

03. Screen Mute (Command: k d)

- To select screen mute on/off.

Transmission [k][d][][Set ID][][Data][Cr]

Data 00 : Screen mute off (Picture on)
Video mute off
01 : Screen mute on (Picture off)
10 : Video mute on

Ack [d][][Set ID][][OK/NG][Data][x]

* In case of video mute on only, TV will display On Screen Display(OSD). But, in case of Screen mute on, TV will not display OSD.

04. Volume Mute (Command: k e)

- To control volume mute on/off.

You can also adjust mute using the MUTE button on remote control.

Transmission [k][e][][Set ID][][Data][Cr]

Data 00 : Volume mute on (Volume off)
01 : Volume mute off (Volume on)

Ack [e][][Set ID][][OK/NG][Data][x]

05. Volume Control (Command: k f)

- To adjust volume.

You can also adjust volume with the volume buttons on remote control.

Transmission [k][f][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [f][][Set ID][][OK/NG][Data][x]

06. Contrast (Command: k g)

- To adjust screen contrast.

You can also adjust contrast in the PICTURE menu.

Transmission [k][g][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [g][][Set ID][][OK/NG][Data][x]

07. Brightness (Command: k h)

- To adjust screen brightness.

You can also adjust brightness in the PICTURE menu.

Transmission [k][h][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [h][][Set ID][][OK/NG][Data][x]

08. Color/Colour (Command: k i)

- To adjust the screen Color(Colour).

You can also adjust colour in the PICTURE menu.

Transmission [k][i][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [i][][Set ID][][OK/NG][Data][x]

09. Tint (Command: k j)

- To adjust the screen tint.
You can also adjust tint in the PICTURE menu.

Transmission [k][j][][Set ID][][Data][Cr]

Data Red : 00 to Green : 64

Ack [j][][Set ID][][OK/NG][Data][x]

10. Sharpness (Command: k k)

- To adjust the screen sharpness.
You can also adjust sharpness in the PICTURE menu.

Transmission [k][k][][Set ID][][Data][Cr]

Data Min : 00 to Max : 32

Ack [k][][Set ID][][OK/NG][Data][x]

11. OSD Select (Command: k l)

- To select OSD (On Screen Display) on/off when controlling remotely.

Transmission [k][l][][Set ID][][Data][Cr]

Data 00 : OSD off 01 : OSD on

Ack [l][][Set ID][][OK/NG][Data][x]

12. Remote control lock mode (Command: k m)

- To lock the front panel controls on the monitor and remote control.

Transmission [k][m][][Set ID][][Data][Cr]

Data 00 : Lock off 01 : Lock on

Ack [m][][Set ID][][OK/NG][Data][x]

- * If you are not using the remote control, use this mode.
When main power is off & on (plug-off and plug-in, after 20 - 30 seconds), external control lock is released.

- * In the standby mode (DC off by off timer or 'ka', 'mc' command), and if key lock is on, TV will not turn on by power on key of IR & Local Key.

13. Treble (Command: k r)

- To adjust treble.
You can also adjust in the AUDIO menu.

Transmission [k][r][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [r][][Set ID][][OK/NG][Data][x]

* (Depending on model)

14. Bass (Command: k s)

- To adjust Bass.
You can also adjust in the AUDIO menu.

Transmission [k][s][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [s][][Set ID][][OK/NG][Data][x]

* (Depending on model)

15. Balance (Command: k t)

- To adjust balance.
You can also adjust balance in the AUDIO menu.

Transmission [k][t][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [t][][Set ID][][OK/NG][Data][x]

16. Color(Colour) Temperature (Command: x u)

- To adjust colour temperature. You can also adjust Color(Colour) Temperature in the PICTURE menu.

Transmission [x][u][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [u][][Set ID][][OK/NG][Data][x]

17. ISM Method (Command: j p) (Only Plasma TV)

- To control the ISM method. You can also adjust ISM Method in OPTION menu.

Transmission [j][p][][Set ID][][Data][Cr]

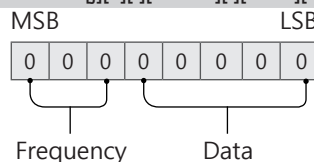
Data Min : 02: Orbiter
08: Normal
20: Color(Colour) Wash

Ack [p][][Set ID][][OK/NG][Data][x]

18. Equalizer (Command : j v)

- Adjust EQ of the set.

Transmission [j][v][][Set ID][][Data][Cr]



7	6	5	Frequency	4	3	2	1	0	Step
0	0	0	1st Band	0	0	0	0	0	0(decimal)
0	0	1	2nd Band	0	0	0	0	1	1(decimal)
0	1	0	3rd Band	...	...	...	...	...	...
0	1	1	4th Band	1	0	0	1	1	19(decimal)
1	0	0	5th Band	1	0	1	0	1	20(decimal)

Acknowledgement [v][][Set ID][][OK/NG][Data][x]

* It depends on model, and can adjust when sound mode is EQ adjustable value.

19. Energy Saving (Command: j q)

- ▶ To reduce the power consumption of the TV. You can also adjust Energy Saving in PICTURE menu.

Transmission [j][q][][Set ID][][Data][Cr]

Data

- 00 : Off
- 01 : Minimum
- 02 : Medium
- 03 : Maximum
- 04 : Auto (For LCD TV / LED TV) / Intelligent sensor (For PDP TV)
- 05 : Screen off

* (Depending on model)

Ack [q][][Set ID][][OK/NG][Data][x]

20. Tune Command (Command: m a)

* This command may work differently depending on model and signal.

- For Europe, Mid-East, Colombia, Asia except South Korea and Japan Model

- ▶ Select channel to following physical number.

Transmission [m][a][][Set ID][][Data 00][][Data 01][][Data 02][Cr]

* Analog Antenna/Cable

[Data 00][Data 01] Channel Data

Data 00 : High byte channel data

Data 01 : Low byte channel data

- 00 00 ~ 00 C7 (Decimal : 0 ~ 199)

Data 02 : Input Source (Analog)

- 00 : Antenna TV (ATV)

- 80 : Cable TV (CATV)

* Digital Antenna/Cable/Satellite

[Data 00][Data 01]: Channel Data

Data 00 : High Channel data

Data 01 : Low Channel data

- 00 00 ~ 27 0F (Decimal: 0 ~ 9999)

Data 02 : Input Source (Digital)

- 10 : Antenna TV (DTV)
- 20 : Antenna Radio (Radio)
- 40 : Satellite TV (SDTV)
- 50 : Satellite Radio (S-Radio)
- 90 : Cable TV (CADTV)
- a0 : Cable Radio (CA-Radio)

* Tune Command Examples:

1. Tune to the Analog antenna (PAL) Channel 10.

Set ID = All = 00

Data 00 & 01 = Channel Data is 10 = 00 0a

Data 02 = Analog Antenna TV = 00

Result = **ma 00 00 0a 00**

2. Tune to the digital antenna (DVB-T) Channel 01.

Set ID = All = 00

Data 00 & 01 = Channel Data is 1 = 00 01

Data 02 = Digital Antenna TV = 10

Result = **ma 00 00 01 10**

3. Tune to the satellite (DVB-S) Channel 1000.

Set ID = All = 00

Data 00 & 01 = Channel Data is 1000 = 03 E8

Data 02 = Digital Satellite TV = 40

Result = **ma 00 03 E8 40**

Ack [a][][Set ID][][OK][Data 00][Data 01]

[Data 02][x][a][][Set ID][][NG][Data 00][x]

- For South Korea, North/Latin America except Colombia Model

- ▶ To tune channel to following physical/major/minor number.

Transmission [m][a][][0][][Data00][][Data01][][Data02][][Data03][][Data04][][Data05][Cr]

Digital channels have a Physical, Major, and Minor channel number. The Physical number is the actual digital channel number, the Major is the number that the channel should be mapped to, and the Minor is the sub-channel. Since the ATSC tuner automatically maps the channel from the Major / Minor number, the Physical number is not required when sending a command in Digital.

* Analog Antenna/Cable

Data 00 : Physical Channel Number

- Antenna (ATV) : 02~45 (Decimal: 2 ~ 69)

- Cable (CATV) : 01, 0E~7D (Decimal : 1, 14~125)

[Data 01 ~ 04]: Major/Minor Channel Number

Data 01 & 02: xx (Don't care)

Data 03 & 04: xx (Don't care)

Data 05: Input Source (Analog)

- 00 : Antenna TV (ATV)

- 01 : Cable TV (CATV)

* Digital Antenna/Cable

Data 00 : xx (Don't care)

[Data 01][Data 02]: Major Channel Number

Data 01 : High byte Channel Data

Data 02 : Low byte Channel Data

- 00 01 ~ 27 0F (Decimal: 1 ~ 9999)

[Data 03][Data 04]: Minor Channel Number

Data 03 : High byte Channel Data

Data 04 : Low byte Channel Data

Data 05 : Input Source (Digital)

- 02 : Antenna TV (DTV) – Use Physical Channel Number

- 06 : Cable TV (CADTV) – Use Physical Channel Number

- 22 : Antenna TV (DTV) – Don't Use Physical Channel Number

- 26 : Cable TV (CADTV) - Don't Use Physical Channel Number

- 46 : Cable TV (CADTV) – Use Physical/Major Channel Number Only (One Part Channel)

- 66 : Cable TV (CADTV) – Use Major Channel Number Only (One Part Channel)

Two bytes are available for each major and minor channel data, but usually the low byte is used alone (high byte is 0).

* Tune Command Examples:

1. Tune to the Analog cable (NTSC) channel 35.

Set ID = All = 00

Data 00 = Channel Data is 35 = 23

Data 01 & 02 = No Major = 00 00

Data 03 & 04 = No Minor = 00 00

Data 05 = Analog Cable TV = 01

Total = **ma 00 23 00 00 00 00 01**

2. Tune to the digital antenna (ATSC) channel 30-3.

Set ID = All = 00

Data 00 = Don't know Physical = 00

Data 01 & 02 = Major is 30 = 00 1E

Data 03 & 04 = Minor is 3 = 00 03

Data 05 = Digital Antenna TV = 22

Total = **ma 00 00 00 1E 00 03 22**

Ack [a][][Set ID][][OK][Data 00][Data 01]

[Data 02][Data 03][Data 04][Data 05]

[x][a][][Set ID][][NG][Data 00][x]

• For Japan Model

- To tune channel to following physical/major/minor number.

Transmission [m][a][][0][][Data00][][Data01]

[][Data02][][Data03][][Data04][][Data05][Cr]

* Digital Antenna/Satellite

Data 00: xx (Don't care)

[Data 01][Data 02]: Major Channel Number

Data 01: High byte Channel Data

Data 02: Low byte Channel Data

- 00 01 ~ 27 0F (Decimal: 1 ~ 9999)

[Data 03][Data 04]: Minor/Branch Channel Number

(Don't care in Satellite)

Data 03: High byte Channel Data

Data 04: Low byte Channel Data

Data 05 : Input Source (Digital/Satellite for Japan)

- 02 : Antenna TV (DTV)

- 07 : BS (Broadcasting Satellite)

- 08 : CS1 (Communication Satellite 1)

- 09 : CS2 (Communication Satellite 2)

* Tune Command Examples:

1. Tune to the digital antenna (ISDB-T) channel 17-1.

Set ID = All = 00

Data 00 = Don't know Physical = 00

Data 01 & 02 = Major is 17 = 00 11

Data 03 & 04 = Minor/Branch is 1 = 00 01

Data 05 = Digital Antenna TV = 02

Total = **ma 00 00 00 11 00 01 02**

2. Tune to the BS (ISDB-BS) channel 30.

Set ID = All = 00

Data 00 = Don't know Physical = 00

Data 01 & 02 = Major is 30 = 00 1E

Data 03 & 04 = Don't Care = 00 00

Data 05 = Digital BS TV = 07

Total = **ma 00 00 00 1E 00 00 07**

* This feature is varied based on the model.

Ack [a][][Set ID][][OK][Data 00][Data 01]

[Data 02][Data 03][Data 04][Data 05]

[x][a][][Set ID][][NG][Data 00][x]

21. Channel (Programme) Add/Del (Skip)

(Command: m b)

- To skip current channel (programme) for next time.

Transmission [m][b][][Set ID][][Data][Cr]

Data 00 : Del(ATSC,ISDB)/Skip(DVB) 01 : Add

Ack [b][][Set ID][][OK/NG][Data][x]

- * Set the saved channel status to del(ATSC, ISDB)/skip(DVB) or add.

22. Key (Command: m c)

- To send IR remote key code.

Transmission [m][c][][Set ID][][Data][Cr]

Data Key code - p.2.

Ack [c][][Set ID][][OK/NG][Data][x]

23. Control Backlight (Command: m g)

- For LCD TV / LED TV

- To control the backlight.

Transmission [m][g][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [g][][Set ID][][OK/NG][Data][x]

Control Panel Light (Command: m g)

- For Plasma TV

- To control the panel light.

Transmission [m][g][][Set ID][][Data][Cr]

Data Min : 00 to Max : 64

Ack [g][][Set ID][][OK/NG][Data][x]

24. Input select (Command: x b)

(Main Picture Input)

- To select input source for main picture.

Transmission [x][b][][Set ID][][Data][Cr]

Data

00 : DTV	01 : CADTV
02 : Satellite DTV	10 : ATV
ISDB-BS (Japan)	
03 : ISDB-CS1 (Japan)	
04 : ISDB-CS2 (Japan)	
11 : CATV	
20 : AV or AV1	21 : AV2
40 : Component1	41 : Component2
60 : RGB	
90 : HDMI1	91 : HDMI2
92 : HDMI3	93 : HDMI4

Ack [b][][Set ID][][OK/NG][Data][x]

- * This function depends on model and signal.

25. 3D(Command: x t) (only 3D models)
(Depending on model)

- To change 3D mode for TV.

Transmission [x][t][][Set ID][][Data 00][][Data 01]
[][Data 02][][Data 03][Cr]

- * (Depending on model)

Data Structure

[Data 00] 00 : 3D On

01 : 3D Off

02 : 3D to 2D

03 : 2D to 3D

[Data 01] 00 : Top and Bottom

01 : Side by Side

02 : Check Board

03 : Frame Sequential

04 : Column interleaving

05 : Row interleaving

[Data 02] 00 : Right to Left

01 : Left to Right

[Data 03] 3D Effect(3D Depth): Min : 00 - Max : 14
(*transmit by Hexadecimal code)

- * [Data 02], [Data 03] functions depend on model and signal.

- * If [Data 00] is 00 (3D On), [Data 03] has no meaning.

- * If [Data 00] is 01 (3D off) or 02 (3D to 2D), [Data 01], [Data 02] and [Data 03] have no meaning.

- * If [Data 00] is 03 (2D to 3D), [Data 01] and [Data 02] have no meaning.

- * If [Data 00] is 00 (3D On) or 03 (2D to 3D), [Data 03] works when 3D Mode (Genre) is manual only.

- * All 3D pattern options ([Data 01]) may not be available according to broadcasting/video signal.

[Data 00]	[Data 01]	[Data 02]	[Data 03]
00	O	O	O
01	X	X	X
02	X	X	X
03	X	O	O

X : don't care

Ack [t][][Set ID][][OK][Data00][Data01][Data02]
[Data03][x]

[t][][Set ID][][NG][Data00][x]

26. Extended 3D(Command: x v) (only 3D models) (Depending on model)

- To change 3D option for TV.

Transmission [x][v][][Set ID][][Data 00][][Data 01][Cr]

[Data 00] 3D option

- 00 : 3D Picture Correction
- 01 : 3D Depth (3D Mode is Manual Only)
- 02 : 3D Viewpoint
- 06 : 3D Color Correction
- 07 : 3D Sound Zooming
- 08 : Normal Image View
- 09 : 3D Mode (Genre)

[Data 01] It has own range for each 3D option determined by [Data 00].

1) When [Data 00] is 00

- 00 : Right to Left
- 01 : Left to Right

2) When [Data 00] is 01, 02

Data Min: 0 - Max: 14 (*transmit by Hexadecimal code)

Data value range(0 - 20) converts Viewpoint range (-10 - +10) automatically (Depending on model)

* This option works when 3D Mode (Genre) is manual only.

3) When [Data 00] is 06, 07

- 00 : Off
- 01 : On

4) When [Data 00] is 08

- 00 : Revert to 3D video from 3D-to-2D converted 2D video
- 01 : Change 3D video to 2D video, except 2D-to-3D video

* If conversion condition doesn't meet, command is treated as NG.

5) When [Data 00] is 09

- | | |
|---------------|--------------|
| 00 : Standard | 01 : Sport |
| 02 : Cinema | 03 : Extreme |
| 04 : Manual | 05 : Auto |

Ack [v][][Set ID][][OK][Data00][Data01][x]
[v][][Set ID][][NG][Data00][x]

27. Auto Configure (Command: j u) (Depending on model)

- To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

Transmission [j][u][][Set ID][][Data][Cr]

Data 01 : To set Auto Configure

Ack [u][][Set ID][][OK/NG][Data][x]

MANUAL DEL USUARIO

CONFIGURACIÓN DE DISPOSITIVOS DE CONTROL EXTERNOS

Lea atentamente este manual antes de poner en funcionamiento el equipo y
consérvelo para futuras consultas.

CÓDIGOS DE TECLA

- Esta función no está disponible en todos los modelos.

Código (Hexa)	Función	Nota	Código (Hexa)	Función	Nota
00	CH +, PR +	Botón RC	53	Lista	Botón RC
01	CH -, PR -	Botón RC	5B	Salir	Botón RC
02	Volumen +	Botón RC	60	PIP(AD)	Botón RC
03	Volumen -	Botón RC	61	Azul	Botón RC
06	> (Tecla de flecha / Tecla derecha)	Botón RC	63	Amarillo	Botón RC
07	< (Tecla de flecha / Tecla izquierda)	Botón RC	71	Verde	Botón RC
08	Encendido	Botón RC	72	Rojo	Botón RC
09	Silencio	Botón RC	79	Relación/Relación de Aspecto	Botón RC
0B	Entrada	Botón RC	91	AD (Descripción audio)	Botón RC
0E	SLEEP	Botón RC	9E	LIVE MENU	Botón RC
0F	TV, TV/RAD	Botón RC	7A	Guía del usuario	Botón RC
10 - 19	* Tecla Número 0 - 9	Botón RC	7C	Smart / Inicio	Botón RC
1A	Q.View/Flashback	Botón RC	7E	SIMPLINK	Botón RC
1E	FAV (Canal favorito)	Botón RC	8E	▶▶ (Adelantar)	Botón RC
20	Texto (Teletexto)	Botón RC	8F	◀◀ (Retroceder)	Botón RC
21	T. Opt (Opción teletexto)	Botón RC	AA	Info	Botón RC
28	Regresar (ATRÁS)	Botón RC	AB	Guía de Programación	Botón RC
30	Modo AV (Audio/Video)	Botón RC	B0	▶ (Reproducir)	Botón RC
39	Subtítulo	Botón RC	B1	■ (Detener / Lista Archivo)	Botón RC
40	^ (Tecla de flecha/Cursor arriba)	Botón RC	B5	RECENT	Botón RC
41	V (Tecla de flecha/Cursor arriba)	Botón RC	BA	(Congelar / Reproducción lenta / Pausa)	Botón RC
42	Mis Apls.	Botón RC	BB	Fútbol	Botón RC
43	Menú / Configuración	Botón RC	BD	● (GRABAR)	Botón RC
44	OK / Aceptar	Botón RC	DC	3D	Botón RC
45	Q.Menu (menú rápido)	Botón RC	99	Configuración automática	Botón RC
4C	Lista, - (Solo ATSC)	Botón RC	9F	App / *	Botón RC
4D	IMAGEN	Botón RC	9B	TV, PC	Botón RC
52	SONIDO	Botón RC			

* El código de tecla 4C (0x4C) está disponible en los modelos ATSC/ISDB que utilizan un canal mayor/ menor. (Para Corea del Sur, Japón, Norte América, Latinoamérica, excepto para modelos de Colombia)

CONFIGURACIÓN DE DISPOSITIVOS DE CONTROL EXTERNOS

- Es posible que la imagen que se muestra no sea exactamente igual a la de su TV.

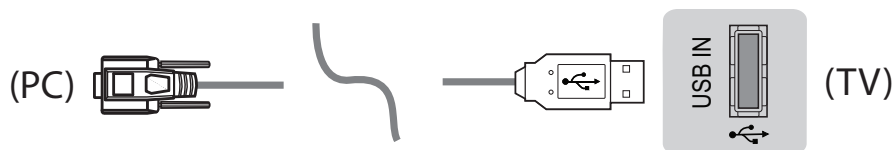
Conecte el USB al convertidor de serie/conector de entrada RS-232C, a un dispositivo de control externo (como una computadora o un sistema de control A/V) para controlar externamente las funciones del producto.

Nota: El tipo de puerto de control de la TV puede variar según la serie de los modelos.

- * Tenga en cuenta que no todos los modelos admiten este tipo de conectividad.
- * Cable no proporcionado.

USB a convertidor de serie con cable USB

Tipo de USB

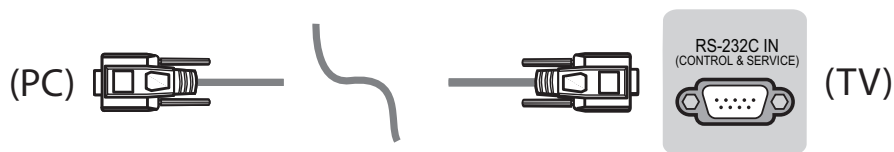


- LGTV admite el uso de un USB a convertidor de serie basado en chip PL2303 (ID de proveedor: 0x0557, ID de producto: 0x2008) que LG no fabrica ni incluye.
- Puede adquirirse en tiendas de computadoras que venden accesorios para profesionales de soporte de TI.

RS-232C con cable RS232C

Tipo DE9 (D-Sub 9pin)

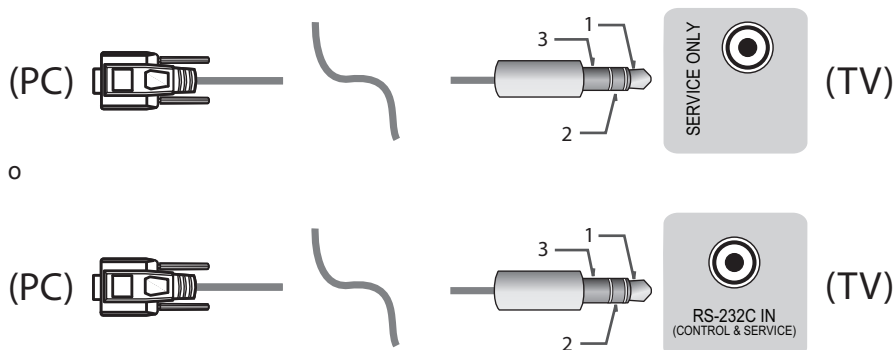
- Necesita comprar el cable RS-232C (DE9, D-Sub 9pin tipo hembra-hembra) a RS-232C necesario para la conexión entre la PC y la TV, el cual se especifica en el manual.



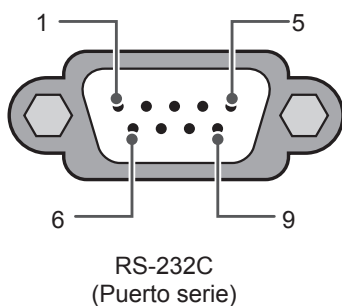
Es posible que la interfaz de conexión no sea exactamente igual a la de su TV.

Tipo de adaptador telefónico

- Para realizar la conexión entre la PC y la TV, que se especifica en el manual, debe comprar el cable de conector telefónico a RS-232.
- * Para otros modelos, conecte al puerto USB.
- * Es posible que la interfaz de conexión no sea exactamente igual a la de su TV.

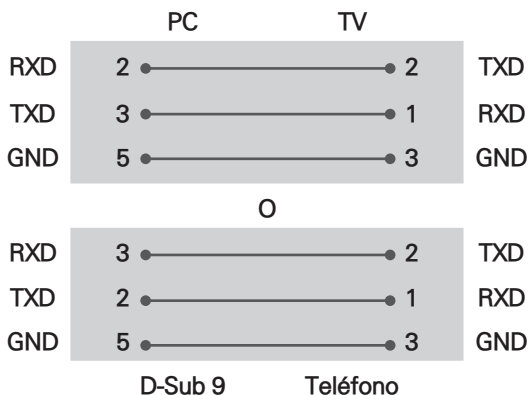


Computadora del cliente



Configuraciones de RS-232C

Configuraciones de 3 cables (no estándar)



ID del televisor

Para establecer el número de ID, consulte "Asignación de datos reales" en la página 6

1. Presione **SETTINGS** para acceder a los menús principales.
2. Presione los botones de navegación para desplazarse hasta (**General** → **Acerca de este TV o OPCIÓN**) y luego presione **OK**.
3. Presione los botones de navegación para desplazarse hasta **ID del televisor** y luego presione **OK**.
4. Desplácese hacia la izquierda o hacia la derecha para establecer un número de ID y seleccione **CERRAR**. El rango de ajuste es de 1 a 99.
5. Al finalizar, presione **EXIT**.
*(según el modelo)

Parámetros de comunicación

- Velocidad en baudios : 9600 bps (UART)
- Longitud de datos: 8 bits
- Paridad: Ninguna
- Bit de parada: 1 bit
- Código de comunicación: código ASCII
- Use un cable cruzado (reversa).

Lista de referencia de comandos

(según el modelo)

	COMANDO 1	COMANDO 2	Datos (Hexadecimal)		COMANDO 1	COMANDO 2	Datos (Hexadecimal)
01. Encendido*	k	a	00 a 01	15. Balance	k	t	00 a 64
02. Relación de Aspecto	k	c	(página 7)	16. Temperatura del color	x	u	00 a 64
03. Silencio de pantalla	k	d	(página 7)	17. Método de ISM (Solo TV Plasma)	j	p	(página 9)
04. Silencio de volumen	k	e	00 a 01	18. Ecualizador	j	v	(página 9)
05. Control de Volumen	k	f	00 a 64	19. Ahorro de energía	j	q	00 a 05
06. Contraste	k	g	00 a 64	20. Comando Sintonizar	m	a	(página 9)
07. Brillo	k	h	00 a 64	21. Canal (Programa) Agregar/Borrar (Saltar)	m	b	00 a 01
08. Color	k	i	00 a 64	22. Tecla	m	c	CÓDIGOS de tecla
09. Tinte	k	j	00 a 64	23. Controlar Luz de fondo, Luz del panel de control	m	g	00 a 64
10. Nitidez	k	k	00 a 32	24. Selección de entrada (Ppal.)	x	b	(página 12)
11. Seleccionar OSD	k	l	00 a 01	25. 3D (Solo modelos 3D)	x	t	(página 12)
12. Modo de bloqueo de control remoto	k	m	00 a 01	26. 3D Extendido (Solo modelos 3D)	x	v	(página 12)
13. Agudos	k	r	00 a 64	27. Configuración automática	j	u	(página 12)
14. Graves	k	s	00 a 64				

* Nota: Durante la reproducción o grabación de medios, todos los comandos, excepto Power (Alimentación) (ka) y Key (Tecla) (mc), no se ejecutan y se reconocen como NG.
Con el cable RS232C, la TV puede comunicar el "comando ka" en estado encendido u apagado. pero con el cable conversor de USB a serie, el comando funciona solo si la TV está encendida.

Protocolo de Transmisión/Recepción

Transmisión

[Comando1][Comando2][ID del televisor][Dato][Cr]

[Comando 1] : Primer comando para controlar la TV. (j, k, m o x)

[Comando 2] : Segundo comando para controlar la TV.

[ID del televisor]: Puede ajustar [ID del televisor] para elegir el número de ID del monitor que desea en el menú de opciones.

El rango de ajuste en la TV es de 1 a 99. Si el valor [ID del televisor] se selecciona en "0", se puede controlar cada conjunto conectado.

* [ID del televisor] se indica como decimal (1 a 99) en el menú y como hexadecimal (0x00 a 0x63) en el protocolo de transmisión/recepción.

[DATO] : Para transmitir los datos de comando (hexadecimal). Transmite datos "FF" para leer el estado del comando.

[Cr] : Retorno de carro: código ASCII "0x0D"

[] : Espacio: código ASCII "0x20"

Reconocimiento de aceptación

[Comando2][ID del televisor][OK][Dato][x]

El televisor transmite mensajes de ACK (reconocimiento) sobre la base de este formato cuando recibe datos normales. En este momento, si los datos se encuentran en modo de lectura, indica los datos de estado actuales. Si los datos se encuentran en modo de escritura, devuelve los datos de la PC.

Reconocimiento de error

[Comando2][ID del televisor][NG][Dato][x]

* El conjunto transmite mensajes de ACK (reconocimiento) sobre la base de este formato cuando recibe datos anormales de uniones no viables o errores de comunicación.

Datos 00: código ilegal

Asignación de datos reales (Hexadecimal → Decimal)

* Cuando ingresa los [Dato] en hexadecimal, consulte la tabla de conversión a continuación.

* El Comando de sintonización de canales (ma) utiliza un valor hexadecimal de dos bytes ([Dato]) para seleccionar el número de canal.

00: Paso 0	32: Paso 50 (ID del televisor 50)	FE: Paso 254
01: Paso 1 (ID del televisor 1)	33: Paso 51 (ID del televisor 51)	FF: Paso 255
...	...	...
0A: Paso 10 (ID del televisor 10)	63: Paso 99 (ID del televisor 99)	01 00: Paso 256
...	...	...
0F: Paso 15 (ID del televisor 15)	C7: Paso 199	27 0E: Paso 9998
10: Paso 16 (ID del televisor 16)	C8: Paso 200	27 0F: Paso 9999
...	...	...

* Según el modelo y la señal, los comandos podrán funcionar de un modo diferente.

01. Potencia (Comando: k a)

- Para controlar el encendido o apagado del dispositivo.

Transmisión [k][a][][ID del televisor][][Dato]
[Cr]

Dato 00: Apagado 01: *Encendido

Ack [a][][ID del televisor][][OK/NG][Dato][x]

- Para mostrar que la TV está encendida o *apagada

Transmisión [k][a][][ID del televisor][][Dato]
[Cr]

Ack [a][][ID del televisor][][OK][Dato][x]

- * De igual manera, si otras funciones transmiten datos "FF" de acuerdo con este formato, la retroalimentación de reconocimiento presenta el estado de cada función.

02. Relación de aspecto (Comando: k c) (Tamaño de la imagen principal)

- Para ajustar el formato de la pantalla. (Formato de imagen principal)
También puede ajustar el formato de pantalla mediante la opción Relación de aspecto en el Q.MENU. o en el menú IMAGEN.

Transmisión [k][c][][ID del televisor][][Dato]
[Cr]

Dato 01: Pantalla normal	07: 14:9
(4:3)	(Europa, Colombia, Oriente)
02: Pantalla amplia	Medio, Asia, excepto Corea
(16:9)	del Sur y Japón)
04: Zoom	09: * Original
05: Zoom 2	0B: Ancho total
(Solo Latinoamérica,	(Europa, Colombia,
excepto Colombia)	Oriente Medio, Asia,
06: Por Programa	excepto Corea del Sur y
	Japón)
	10 a 1F: Zoom cine 1
	a 16

Ack [c][][ID del televisor][][OK/NG][Dato][x]

- * Usando la entrada de PC, seleccione la relación de aspecto de la pantalla de 16:9 o 4:3.
- * En el modo DTV/HDMI/Componente (alta definición), Sólo búsqueda está disponible.
- * El modo ancho completo puede funcionar de modo diferente según el modelo y es totalmente compatible con DTV y parcialmente compatible con ATV y AV.

03. Screen Mute (Silencio de pantalla) (Comando: k d)

- Para seleccionar el silenciador de la pantalla en Encendido o Apagado.

Transmisión [k][d][][ID del televisor][][Dato][Cr]

Datos 00: Silenciador de pantalla apagado
(imagen encendida)
 Silenciador de video apagado.
 01: Silenciador de pantalla encendido
(imagen apagada)
 10: Silenciador de video encendido

Ack [d][][ID del televisor][][OK/NG][Dato][x]

- * Solo en caso el caso del silenciador de video activado, la TV mostrará la visualización en pantalla (OSD). Pero si está activado el silencio de la pantalla, el televisor no mostrará dicha visualización (OSD).

04. Silenciador de volumen (Comando: k e)

- Para activar o desactivar el silencio del volumen.
También es posible ajustar el silenciador a través del botón MUTE del control remoto.

Transmisión [k][e][][ID del televisor][][Dato]
[Cr]

Datos 00: Silenciador de volumen encendido
(Volumen apagado)
 01: Silenciador de volumen apagado
(Volumen encendido)

Ack [e][][ID del televisor][][OK/NG][Dato][x]

05. Volume Control (Control de volumen) (Comando: k f)

- Para ajustar el volumen.
También puede ajustar el volumen con los botones de volumen en el control remoto.

Transmisión [k][f][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [f][][ID del televisor][][OK/NG][Dato][x]

06. Contraste (Comando: k g)

- Para ajustar el contraste de la pantalla.
También puede ajustar el contraste en el menú IMAGEN.

Transmisión [k][g][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [g][][ID del televisor][][OK/NG][Dato][x]

07. Brillo (Comando: k h)

- Para ajustar el brillo de la pantalla. También puede ajustar el brillo en el menú IMAGEN.

Transmisión [k][h][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [h][][ID del televisor][][OK/NG][Dato][x]

08. Color (Comando: k i)

- Para ajustar el Color de la pantalla. También puede ajustar el color en el menú IMAGEN.

Transmisión [k][i][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [i][][ID del televisor][][OK/NG][Dato][x]

09. Tinte (Comando: k j)

- Para ajustar el tinte de la pantalla. También puede ajustar el tinte en el menú IMAGEN.

Transmisión [k][j][][ID del televisor][][Dato]
[Cr]

Datos Rojo: 00 a Verde: 64

Ack [j][][ID del televisor][][OK/NG][Dato][x]

10. Nitidez (Comando: k k)

- Para ajustar la nitidez de la pantalla. También puede ajustar la nitidez en el menú IMAGEN.

Transmisión [k][k][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 32

Ack [k][][ID del televisor][][OK/NG][Dato][x]

11. OSD Select (Selección de OSD) (Comando: k l)

- Para seleccionar el encendido o apagado del modo de visualización en pantalla (OSD) durante el control remoto.

Transmisión [k][l][][ID del televisor][][Dato]
[Cr]

Dato 00: OSD apagado 01: OSD encendido

Ack [l][][ID del televisor][][OK/NG][Dato][x]

12. Remote control lock mode (Modo de bloqueo del control remoto) (Comando: k m)

- Para bloquear el control remoto y los controles del panel frontal del televisor.

Transmisión [k][m][][ID del televisor][][Dato]
[Cr]

Dato 00: Bloqueo
desactivado

01: Bloqueo activado

Ack [m][][ID del televisor][][OK/NG][Dato][x]

- * Si no está utilizando el control remoto, use este modo.

Cuando la potencia principal se apaga y enciende (se desconecta y conecta, después de 20 a 30 segundos), se lanza el bloqueo del control externo.

- * En modo de espera (CC apagada mediante la hora de apagado o el comando "ka", "mc") si está activado el bloqueo de teclas, la TV no se encenderá al presionar la tecla de encendido de IR o la tecla local.

13. Treble (Agudos) (Comando: k r)

- Para ajustar los agudos. También puede ajustarlos en el menú AUDIO.

Transmisión [k][r][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [r][][ID del televisor][][OK/NG][Dato][x]

- * (según el modelo)

14. Graves (Comando: k s)

- Para ajustar los bajos. También puede ajustarlos en el menú AUDIO.

Transmisión [k][s][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [s][][ID del televisor][][OK/NG][Dato][x]

- * (según el modelo)

15. Balance (Comando: k t)

- Para ajustar el balance. También puede ajustar el balance en el menú AUDIO.

Transmisión [k][t][][ID del televisor][][Dato]
[Cr]

Datos Mín. : 00 a Máx.: 64

Ack [t][][ID del televisor][][OK/NG][Dato][x]

16. Color Temperature (Temperatura de color) (Comando: x u)

- Para ajustar la temperatura de color. También puede ajustar Color Temperature (Temperatura de color) en el menú IMAGEN.

Transmisión [x][u][][ID del televisor][][Dato]
[Cr]

Datos Mín.: 00 a Máx.: 64

Ack [u][][ID del televisor][][OK/NG][Dato][x]

17. ISM Method (Método de ISM) (Comando: j p) (solo en televisores plasma)

- Para controlar el método de ISM. También puede ajustar el Método de ISM en el menú OPTION.

Transmisión [j][p][][ID del televisor][][Dato]
[Cr]

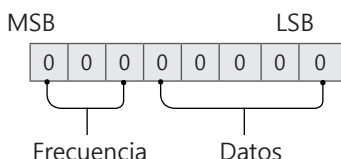
Datos Mín.: 02: Orbiter (Orbitador)
08: Normal
20: Color Wash (Decolorado)

Ack [p][][ID del televisor][][OK/NG][Dato][x]

18. Ecualizador (Comando: j v)

- Ajustar el EQ (ecualizador) del conjunto.

Transmisión [j][v][][ID del televisor][][Dato][Cr]



7	6	5	Frecuencia	4	3	2	1	0	Paso
0	0	0	1st. Banda	0	0	0	0	0	0 (decimal)
0	0	1	2nd. Banda	0	0	0	0	1	1 (decimal)
0	1	0	3rd. Banda	...	...	...	...	...	...
0	1	1	4th. Banda	1	0	0	1	1	19 (decimal)
1	0	0	5th. Banda	1	0	1	0	1	20 (decimal)

Acknowledgement [v][][ID del televisor][][OK/NG][Dato][x]

* Depende del modelo, y puede ajustarse cuando el modo de sonido es un valor de EQ ajustable.

19. Ahorro de energía (Comando: j q)

- Para reducir el consumo de energía de la TV. También puede ajustar el Ahorro de energía en el menú IMAGEN.

Transmisión [j][q][][ID del televisor][][Dato]
[Cr]

Datos

- 00: apagado
- 01: mínimo
- 02: medio
- 03: máximo
- 04: Automático (para TV LCD/TV LED)/
Intelligent sensor (Sensor inteligente) (para
PDP TV)
- 05: apagado de Pantalla

* (según el modelo)

Ack [q][][ID del televisor][][OK/NG][Dato][x]

20. Tune Comando (Comando de sintonización) (Comando: m a)

* Este comando puede funcionar de un modo diferente según el modelo y de la señal.

- Para los modelos de Europa, Oriente Medio, Colombia, Asia, excepto Corea del Sur y Japón
- Seleccione el canal de los siguientes números físicos.

Transmisión [m][a][][ID del televisor][][Dato]
00][]

[Dato 01][][Dato 02][Cr]

* Analógica Antena/Cable

[Dato 00][Dato 01] Datos de canales

Datos 00: datos de canal de bytes altos

Datos 01: datos de canal de bytes bajos

- 00 00 ~ 00 C7 (decimal: 0 ~ 199)

Datos 02: fuente de entrada (analógica)

- 00: TV Antena (ATV)
- 80: TV por cable (CATV)

* Digital Antena/Cable/Satélite

[Dato 00][Dato 01]: datos de canales

Datos 00: datos de canal de bytes altos

Datos 01: datos de canal de bytes bajos

- 00 00 ~ 27 0F (decimal: 0 ~ 9999)

Datos 02: fuente de entrada (digital)

- 10: TV Antena (DTV)
- 20: Radio Antena (Radio)
- 40: TV satelital (SDTV)
- 50: Radio satelital (S-Radio)
- 90: TV por cable (CADTV)
- a0: Radio por cable (CA-Radio)

* Ejemplos de comandos de sintonización:

1. Sintonizar el canal Antena analógico (PAL) 10.

ID del televisor = Todo = 00

Datos 00 & 01 = Datos de canal es 10 = 00 0a

Datos 02 = TV Antena analógica = 00

Resultado = **ma 00 00 0a 00**

2. Sintonizar el canal Antena digital (DVB-T) 01.

ID del televisor = Todo = 00

Datos 00 & 01 = Datos de canal es 1 = 00 01

Datos 02 = TV Antena digital = 10

Resultado = **ma 00 00 01 10**

3. Sintonizar el canal satelital (DVB-S) 1000.

ID del televisor = Todo = 00
 Datos 00 & 01 = Datos de canal es 1000 = 03 E8
 Datos 02 = Satélite de TV digital = 40
 Resultado = **ma 00 03 E8 40**

Ack [a][][ID del televisor][][OK][Dato 00]
 [Dato 01][Dato 02][x][a][][ID del televisor][]
 [NG][Dato 00][x]

- Para los modelos de Corea del Sur, América del Norte, América Latina, excepto Colombia.
- Para sintonizar los canales en el siguiente número físico/mayor/menor.

Transmisión [m][a][][0][][Dato00][][Dato01]
 [][Dato02][][Dato03][][Dato04][][Dato05][Cr]

Los canales digitales poseen un número de canal físico, mayor y menor. El número físico es el número de canal digital real, el mayor es el número al cual el canal se debe asignar y el menor es el subcanal. Como el sintonizador ATSC asigna automáticamente el canal al número mayor/menor, cuando se envía un comando en modo Digital, no es necesario especificar el número físico.

* Analógica Antena/Cable

Datos 00 : número de canal físico
 - Antena (ATV): 02~45 (decimal: 2 ~ 69)
 - cable (CATV): 01, 0E~7D (decimal: 1, 14~125)

Datos 01 y 04: número de canal mayor/menor
 Datos 01 y 02: xx (no importa)
 Datos 03 y 04: xx (no importa)
 Datos 05: fuente de entrada (analógica)
 - 00: TV Antena (ATV)
 - 01: TV por cable (CATV)

* Antena digital/Cable

Datos 00: xx (no importa)

[Dato 01][Dato 02]: número de canal mayor
 Datos 01: datos de canal de bytes altos
 Datos 02: datos de canal de bytes bajos
 - 00 01 ~ 27 0F (decimal: 1 ~ 9999)
 [Dato 03][Dato 04]: número de canal menor
 Datos 03: datos de canal de bytes altos
 Datos 04: datos de canal de bytes bajos

Datos 05: fuente de entrada (digital)
 - 02: TV Antena (DTV): usar número de canal físico
 - 06: Cable de TV (CADTV): usar número de canal físico
 - 22: TV Antena (DTV): no usar número de canal físico
 - 26: Cable de TV (CADTV): no usar un número de canal físico
 - 46: Cable de TV (CADTV): usar solo un Physical/número de canal mayor (canal de una parte)
 - 66: Cable de TV (CADTV): usar solo un número de canal mayor (canal de una parte)

Hay dos bytes disponibles para cada dato de canal mayor y menor, pero generalmente, solo se usa el byte más bajo (los bytes altos son de 0).

* Ejemplos de comandos de sintonización:

1. Sintonice el canal de cable analógico (NTSC) 35.

ID del televisor = Todo = 00
 Datos 00 = Datos de canal es 35 = 23
 Datos 01 & 02 = No Mayor = 00 00
 Datos 03 & 04 = No Menor = 00 00
 Datos 05 = Cable de TV analógico = 01
 Total = **ma 00 23 00 00 00 01**

2. Sintonice el canal Antena digital (ATSC) 30-3.

ID del televisor = Todo = 00
 Datos 00 = No conoce Físico = 00
 Datos 01 & 02 = Mayor es 30 = 00 1E
 Datos 03 & 04 = Menor es 3 = 00 03
 Datos 05 = TV Antena digital = 22
 Total = **ma 00 00 00 1E 00 22**

Ack [a][][ID del televisor][][OK][Dato 00]
 [Dato 01][Dato 02][Dato 03][Dato 04][Dato 05]
 [x][a][][ID del televisor][][NG][Dato 00][x]

- Para modelos de Japón
- Para sintonizar los canales en el siguiente número físico/mayor/menor.

Transmisión [m][a][][0][][Dato00][][Dato01]
 [][Dato02][][Dato03][][Dato04][][Dato05][Cr]

* Antena digital/Satélite
 Datos 00: xx (no importa)

[Dato 01][Dato 02]: número de canal mayor
 Datos 01: datos de canal de bytes altos
 Datos 02: datos de canal de bytes bajos
 - 00 01 ~ 27 0F (decimal: 1 ~ 9999)

[Dato 03][Dato 04]: Número de canal menor/
 sucursal
 (No importa en satélite)

Datos 03: datos de canal de bytes altos
 Datos 04: datos de canal de bytes bajos

Datos 05: fuente de entrada (digital/satelital para Japón)

- 02: TV Antena (DTV)
 - 07: BS (satélite de transmisión)
 - 08: CS1 (satélite de comunicación 1)
 - 09: CS2 (satélite de comunicación 2)

* Ejemplos de comandos de sintonización:

1. Sintonizar el canal Antena digital (ISDB-T) 17-1.

ID del televisor = Todo = 00
 Datos 00 = No conoce Físico = 00
 Datos 01 & 02 = Mayor es 17 = 00 11
 Datos 03 & 04 = Menor/Sucursal es 1 = 00 01
 Datos 05 = TV Antena digital = 02
 Total = **ma 00 00 00 11 00 01 02**

2. Sintonizar el canal BC (ISDB-BS) 30.

ID del televisor = Todo = 00
 Datos 00 = No conoce Físico = 00
 Datos 01 & 02 = Mayor es 30 = 00 1E
 Datos 03 & 04 = No importa = 00 00
 Datos 05 = TV BC Digital = 07
 Total = **ma 00 00 00 1E 00 00 07**

* Esta función varía según el modelo.

Ack [a][][ID del televisor][][OK][Dato 00]
 [Dato 01][Dato 02][Dato 03][Dato 04][Dato 05]
 [x][a][][ID del televisor][][NG][Dato 00][x]

21. Canal (Programa) Agregar/Borrar (Saltar) (Comando: m b)

► Para saltar el canal actual (programa) para otra ocasión.

Transmisión [m][b][][ID del televisor][][Dato]
 [Cr]

Dato 00: Borrar(ATSC, ISDB)/Saltar 01: Agregar (DVB)

Ack [b][][ID del televisor][][OK/NG][Dato][x]

* Establecer el estado del canal guardado en borrar (ATSC, ISDB)/saltar (DVB) o agregar.

22. Key (Tecla) (Comando: m c)

► Para enviar el código de tecla del control remoto IR.

Transmisión [m][c][][ID del televisor][][Dato]
 [Cr]

Datos Código de tecla - página 2.

Ack [c][][ID del televisor][][OK/NG][Dato][x]

23. Control BackLight (Control de la luz de fondo) (Comando: m g)

• Para TV LCD/TV LED

► Para controlar luz de pantalla.

Transmisión [m][g][][ID del televisor][][Dato]
 [Cr]

Datos Mín. : 00 a Máx.: 64

Ack [g][][ID del televisor][][OK/NG][Dato][x]

• Para TV plasma

► Para controlar la luz del panel

Transmisión [m][g][][ID del televisor][][Dato]
 [Cr]

Datos Mín. : 00 a Máx.: 64

Ack [g][][ID del televisor][][OK/NG][Dato][x]

24. Input select (Selección de entrada) (Comando: x b)

(Entrada de la imagen principal)

► Para seleccionar la fuente de entrada para la imagen principal.

Transmisión [x][b][][ID del televisor][][Dato]
 [Cr]

Datos

00: DTV 01: CADTV
 02 : Satelital DTV 10: ATV
 ISDB-BS (Japón)
 03: ISDB-CS1 (Japón)
 04: ISDB-CS2 (Japón)
 11: CATV

20: AV o AV1 21: AV2

40: Componente1 41: Componente 2

60: RGB

90: HDMI1 91: HDMI2

92: HDMI3 93: HDMI4

Ack [b][][ID del televisor][][OK/NG][Dato][x]

* Esta función varía según el modelo y la señal.

25. 3D (Comando: x t) (solo modelos 3D) (Depende del modelo)

► Para cambiar el modo 3D del TV.

Transmisión [x][t][][ID del televisor][][Dato 00][][Dato 01][][Dato 02][][Dato 03][Cr]

* (según el modelo)

Datos estructura

[Dato 00] 00: 3D encendido

01: 3D apagado

02: 3D a 2D

03: 2D a 3D

[Dato 01] 00: Top and Bottom (Superior e Inferior)

01: Side by Side (Vertical)

02: Check Board (Comprobar panel)

03: Frame Sequential (Fotogramas secuenciales)

04: Column interleaving (Intercalado en columna)

05: Row interleaving (Intercalado en fila)

[Dato 02] 00: Derecha a Izquierda

01: Izquierda a Derecha

[Dato 03] Efecto 3D (profundidad 3D): Mín.: 00 - Máx.: 14

(*transmite por código hexadecimal)

* Si [Dato 00] es 00 (3D encendido), [Dato 03] no es relevante.

* Si [Dato 00] es 01 (3D apagado) o 02 (3D a 2D), [Dato 01], [Dato 02] y [Dato 03] no son relevantes.

* Si [Dato 00] es 03 (2D a 3D), [Dato 01] y [Dato 02] no son relevantes.

* Si [Dato 00] es 00 (3D encendido) o 03 (2D a 3D), [Dato 03] funciona solo cuando el modo 3D (género) es manual.

* Es posible que todas las opciones del patrón de 3D ([Dato 01]) no estén disponibles según la transmisión/señal de video.

[Dato 00]	[Dato 01]	[Dato 02]	[Dato 03]
00	O	O	O
01	X	X	X
02	X	X	X
03	X	O	O

X: no importa

Ack [t][][ID del televisor][][OK][Dato00]

[Dato01][Dato02][Dato03][x][t][]

[ID del televisor][][NG][Dato00][x]

26. 3D extendido (Comando: x v) (solo modelos 3D) (Depende del modelo)

► Para cambiar la opción 3D del televisor.

Transmisión [x][v][][ID del televisor][][Dato 00]
[][Dato 01][Cr]

[Dato 00] Opción 3D

- 00: Corrección de imagen 3D
- 01: Profundidad 3D (Modo 3D es Solo manual)
- 02: Punto de vista 3D
- 06 : Corrección de Color 3D
- 07 : Ampliación de Sonido 3D
- 08 : Vista de imagen normal
- 09 : Modo 3D (Tipo)

[Dato 01] Cuenta con su propio rango para cada opción 3D determinada por [Dato 00].

1) Cuando [Dato 00] es 00
00: Derecha a Izquierda
01: Izquierda a Derecha

2) Cuando [Dato 00] es 01, 02
Dato Mín.: 0 - Máx.: 14 (*transmite por código hexadecimal)

El rango de valores de datos (0 - 20) convierte el rango de visión (-10 - +10) de forma automática (según el modelo)

* Esta función funciona cuando el modo 3D (género) es solo manual.

3) Cuando [Dato 00] es 06, 07
00: encendido
01: apagado

4) Cuando [Dato 00] es 08
00: revertir a video 3D de video 2D convertido de 3D a 2D
01: cambiar video 3D a video 2D, excepto video 2D a 3D

* Si la condición de la conversión no se cumple, el comando se trata como NG.

5) Cuando [Dato 00] es 09

- 00: Estándar
- 01: Deportes
- 02: Cine
- 03: Extremo
- 04: Manual
- 05: Automático

Ack [u][][ID del televisor][][OK/NG][Dato][x]

Ack [v][][ID del televisor][][OK][Dato00]

[Dato01][x][v][][ID del televisor][][NG][Dato00]
[x]

27. Configuración automática (Comando: j u) (Depende del modelo)

► Para ajustar la ubicación de la imagen y reducir su temblor de manera automática. La configuración automática solo funciona en el modo RGB-PC.

Transmisión [j][u][][ID del televisor][][Dato][Cr]

Dato 01: Para ajustar la Configuración automática

Ack [u][][ID del televisor][][OK/NG][Dato][x]