OWNER’S MANUAL
Safety and Reference

LED TV*

* LG LED TV applies LCD screen with LED backlights.

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

43UM6900PUA          49UM7100PUA          55UM6900PUA          65UM6900PUA
49UM6900PUA          65UM6900PUA          43UM7100PUA          49UM7100PUA
43UM7100PUA          49UM7100PUA          50UM7100DUA          60UM7100DUA
55UM7200PUA          55UM7200PUA          55UM7310PUA          60UM7200PUA
65UM7310PUA          65UM7310PUA          70UM7370PUA          70UM7370PUA
60UM7300PUB          65UM7300PUE          75UM7300AEU          50UM7300AEU
75UM7300PUE          75UM7300PUE          75UM7300PUE          50UM7300PUE
75UM7350PUA          75UM7350PUA          70UM7370PUD          70UM7370PUD
75UM7350PUD          75UM7350PUD          80UM7570PUB          80UM7570PUB
75UM7570PUE          75UM7570PUE          82UM7570AUB          82UM7570AUB
75UM8070PUA          75UM8070PUA          86UM8070AUB          86UM8070AUB
82UM8070AUB          82UM8070AUB          86UM8070AUB          86UM8070AUB

www.lg.com
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Important Safety Instruction

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with 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.
- 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 the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- 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.

By using this product, you agree that all disputes between you and LG arising out of or relating in any way to this product (including but not limited to warranty disputes) shall be resolved exclusively through binding arbitration on an individual basis. The terms of the arbitration agreement (including details on the procedure for resolving disputes) is available at www.lg.com/us/arbitration (USA) or www.lg.ca/arbitration (Canada).
• **Grounding** (Except for devices which are not grounded.)
  - TV with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet. Ensure that you connect the earth ground wire to prevent possible electric shock.
  - Never touch this apparatus or antenna during a lightning storm. You may be electrocuted.
  - Make sure the power cord is connected securely to the TV and wall socket if not secured damage to the Plug and socket may occur and in extreme cases a fire may break out.
  - Do not insert metallic or inflammable objects into the product. If a foreign object is dropped into the product, unplug the power cord and contact the customer service.
  - Do not touch the end of the power cord while it is plugged in. You may be electrocuted.

• **If any of the following occur, unplug the product immediately and contact your local customer service.**
  - The product has been damaged.
  - If water or another substance enters the product (like an AC adapter, power cord, or TV).
  - If you smell smoke or other odors coming from the TV
  - When lightning storms or when unused for long periods of time. Even the TV is turned off by remote control or button, AC power source is connected to the unit if not unplugged in.
  - Do not use high voltage electrical equipment near the TV (e.g., a bug zapper). This may result in product malfunction.
  - Do not attempt to modify this product in any way without written authorization from LG Electronics. Accidental fire or electric shock can occur. Contact your local customer service for service or repair. Unauthorized modification could void the user’s authority to operate this product.
  - Use only an authorized attachments / accessories approved by LG Electronics. Otherwise, this may result in fire, electric shock, malfunction, or product damage.
  - Never disassemble the AC adapter or power cord. This may result in fire or electric shock.
  - Handle the adapter carefully to avoid dropping or striking it. An impact could damage the adapter.
  - To reduce the risk of fire or electrical shock, do not touch the TV with wet hands. If the power cord prongs are wet or covered with dust, dry the power plug completely or wipe dust off.

• **Batteries**
  - Store the accessories (battery, etc.) in a safe location out of the reach of children.
  - Do not short circuit, disassemble, or allow the batteries to overheat. Do not dispose of batteries in a fire. Batteries should not be exposed to excessive heat.

• **Moving**
  - When 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. Otherwise, this may result in product damage, fire hazard or injury.
  - Keep the packing anti-moisture material or vinyl packing out of the reach of children.
  - Do not allow an impact shock, any objects to fall into the product, and do not drop anything onto the screen.
  - 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. It may cause damage to screen.

• **Cleaning**
  - When cleaning, unplug the power cord and wipe gently with a soft/dry cloth. Do not spray water or other liquids directly on the TV. Do not clean your TV with chemicals including glass cleaner, any type of air freshener, insecticide, lubricants, wax (car, industrial), abrasive, thinner, benzene, alcohol etc., which can damage the product and/or its panel. Otherwise, this may result in electric shock or product damage.
Warning! Safety Instructions

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). ONLY QUALIFIED SERVICE PERSONNEL SHOULD ATTEMPT TO SERVICE OR REPAIR THIS PRODUCT. THE SYMBOLS MEAN THE FOLLOWING:

1. The symbol 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.
2. The symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the device.
3. The symbol 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.

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

- **To prevent the spread of fire, keep candles or other items with open flames away from this product at all times.**
- **Do not place the TV and/or remote control in the following environments:**
  - Keep the product away from direct sunlight.
  - An area with high humidity such as a bathroom.
  - Near any heat source such as stoves and other devices that produce heat.
  - Near kitchen counters or humidifiers where they can easily be exposed to steam or oil.
  - An area exposed to rain or wind.
  - 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).
  - Near flammable objects such as gasoline or candles, or expose the TV to direct air conditioning.
  - Do not install in excessively dusty places. Otherwise, this may result in fire, electric shock, combustion/explosion, malfunction or product deformation.

- **Ventilation**
  - Install your TV where there is proper ventilation. Do not install in a confined space such as a bookcase.
  - Do not install the product on a carpet or cushion.
  - Do not block or cover the product with cloth or other materials while unit is plugged in.
  - Take care not to touch the ventilation openings. When watching the TV for a long period, the ventilation openings may become hot.
  - Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the device.
  - Do not move the TV whilst the Power cord is plugged in.
  - Do not use a damaged or loosely fitting power cord.
  - Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.
  - Do not connect too many devices to the same AC power outlet as this could result in fire or electric shock.

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

- **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
Preparing

- 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.
- Image shown may differ from your TV.
- Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this TV in the future.
- The device must be easily accessed to a location outlet near the access. Some devices are not made by turning on / off button, turning off the device and unplugging the power cord.
- 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 (0.39 inches) thick and 18 mm (0.7 inches) 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 (9.84 feet) or less)
  - Ultra High-Speed HDMI cable®/TM

Optional Extras

Optional extras can be changed or modified for quality improvement without any notification. Contact your dealer for buying these items. These devices work only with certain models.

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

Magic Remote Control

(Depending upon model)

AN-MR198A

Check whether your TV model supports Bluetooth in the Wireless Module Specification to verify whether it can be used with the Magic Remote.

Wall Mounting Bracket

(Depending upon model)

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

<table>
<thead>
<tr>
<th>Model</th>
<th>43UM69*</th>
<th>43UM71*</th>
<th>49/55UM69*</th>
<th>43/50UM73*</th>
<th>50UM74*</th>
<th>50UM76*</th>
<th>49/55UM72*</th>
<th>49/55UM73*</th>
<th>55UM74*</th>
<th>55UM76*</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESA (A x B) (mm)</td>
<td>200 x 200</td>
<td>300 x 300</td>
<td>200 x 200</td>
<td>300 x 300</td>
<td>200 x 200</td>
<td>300 x 300</td>
<td>200 x 200</td>
<td>300 x 300</td>
<td>200 x 200</td>
<td>300 x 300</td>
</tr>
<tr>
<td>Standard screw</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
<td>M6</td>
</tr>
<tr>
<td>Number of screws</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Wall mount bracket (optional)</td>
<td>LSW240B</td>
<td>MSW240</td>
<td>OLW480B</td>
<td>MSW240</td>
<td>OLW480B</td>
<td>MSW240</td>
<td>OLW480B</td>
<td>MSW240</td>
<td>OLW480B</td>
<td>MSW240</td>
</tr>
</tbody>
</table>
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.

• 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 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.
- When handling the TV, be careful not to damage the protruding buttons.

Mounting on the Table

1 Lift and tilt the TV into its upright position on a table.

• Leave a minimum of 10 cm (4 inches) space from the wall for proper ventilation.

2 Connect the power cord to a wall outlet.

![Diagram of TV mounting on the table]

<table>
<thead>
<tr>
<th>Model</th>
<th>65UM69*</th>
<th>60UM71*</th>
<th>60UM72*</th>
<th>65UM73*</th>
<th>65UM74*</th>
<th>65UM76*</th>
<th>70UM71*</th>
<th>70UM73*</th>
<th>75/82/86UM75*</th>
<th>75/82/86UM80*</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESA (A x B) (mm)</td>
<td>300 x 300</td>
<td>600 x 400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard screw</td>
<td>M6</td>
<td>M8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of screws</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall mount bracket (optional)</td>
<td>OLW480B</td>
<td>LSW640B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Do not apply foreign substances (oils, lubricants, etc.) to the screw parts when assembling the product. (Doing so may damage the product.)
• If you install the TV on a stand, you need to take actions to prevent the product from overturning. Otherwise, the product may fall over, which may cause injury.
• Do not use any unapproved items to ensure the safety and product life span.
• Any damage or injuries caused by using unapproved items are not covered by the warranty.
• 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 fasten the screws with excessive force otherwise they may strip and become loose.

### Mounting to the Wall

An optional wall mount can be used with your LG Television. Consult with your local dealer for a wall mount that supports the VESA 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. We recommend that you use an LG brand wall mount. The LG wall mount is easy to adjust or to connect the cables. When you do not use LG’s wall mount bracket, use a wall mount bracket where the device is adequately secured to the wall with enough space to allow connectivity to external devices. If you are using a non-adjustable mount, attach the mount to the wall. Attach the cables to the TV first, then attach the TV to the mount.

1 Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.
   • If there are bolts inserted at the eye-bolts position, remove the bolts first.
2 Mount the wall brackets with the bolts to the wall.
   Match the location of the wall bracket and the eye-bolts on the rear of the TV.
3 Connect the eye-bolts and wall brackets tightly with a sturdy rope. Make sure to keep the rope horizontal with the flat surface.

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

10 cm
10 cm (4 inches)
10 cm
10 cm
10 cm
10 cm

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

Connections

You can connect various external devices to the TV. For more information on external device's connection, refer to the manual provided with each device.

Antenna/Cable

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

• 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.
• Use a signal splitter to use 2 TVs or more.
• DTV Audio Supported Codec: MPEG, Dolby Digital
• This TV cannot receive ULTRA HD (3840 x 2160 pixels) broadcasts directly because the related standards have not been confirmed.

Other connections

Connect your TV to external devices. For the best picture and audio quality, connect the external device and the TV with the HDMI cable.

HDMI

• HDMI Audio Supported Format:
  (Depending upon model)
  DTS (44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz),
  DTS HD (44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz),
  True HD (48 kHz),
  Dolby Digital / Dolby Digital Plus (32 kHz / 44.1 kHz / 48 kHz),
  PCM (32 kHz / 44.1 kHz / 48 kHz / 96 kHz / 192 kHz)
Remote RS-232C setup

To obtain the RS-232C external control setup information, please visit www.lg.com. Download and read the manual. (Depending upon model).

- Do not drop the product or let it fall over when connecting external devices. Otherwise, this may result in injury or damage to the product.
- When connecting external devices such as video game consoles, make sure the connecting cables are long enough. Otherwise, the product may fall over, which may cause injury or damage the product.

Using Button

You can simply operate the TV functions, using the button.

Basic functions

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power On (Press)</td>
<td>Power Off (Press and Hold)</td>
</tr>
<tr>
<td>Menu Control (Press)</td>
<td>Menu Selection (Press and Hold)</td>
</tr>
</tbody>
</table>

1 All running apps will close.
2 You can access and adjust the menu by pressing the button when TV is on.
3 You can use the function when you access menu control.

Adjusting the menu

When the TV is turned on, press the button one time. You can adjust the Menu items using the button.

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Turns the power off.</td>
</tr>
<tr>
<td></td>
<td>Changes the input source.</td>
</tr>
<tr>
<td></td>
<td>Adjusts the volume level.</td>
</tr>
<tr>
<td></td>
<td>Scrolls through the saved channels.</td>
</tr>
</tbody>
</table>
Using Remote Control

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

To install batteries, open the battery cover, replace batteries (1.5 V AAA) matching the + and - ends to the label inside the compartment, and close the battery cover. To remove the batteries, perform the installation actions in reverse. This remote uses infrared light. When in use, it should be pointed in the direction of the TV’s remote sensor.

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

(For models or regions)

** To use the button, press and hold for more than 1 second.

- (POWER) Turns the TV on or off.
- TV Returns to the last TV channel.
- (SEARCH) Shows the search mode.
- (SUB) Activates or deactivates the subtitles.
- (Q. Settings) Accesses the Quick Settings.
- (INPUT) Changes the input source.
- Number button Enters numbers.
- ** Accesses the [QUICK HELP].
- ** (MUTE) Accesses the [Accessibility] menu.
- (DASH) Inserts a — between numbers such as 2-1 and 2-2.
- LIST Accesses the saved channels list.
- ** (MORE ACTIONS) Displays more remote control functions.

QUICK ACCESS** Edits QUICK ACCESS.

- QUICK ACCESS is a feature that allows you to enter a specified app or Live TV directly by pressing and holding the number buttons.
- VOL Adjusts the volume level.
- FAV Accesses your favorite channel list.
- GUIDE Displays the program event according to time scheduler.
- (MUTE) Mutes all sounds.
- ** (MUTE) Accesses the [Accessibility] menu.
- CH Scrolls through the saved channels.
- PAGE Moves to the previous or next screen.

Streaming Service buttons Connects to the Video Streaming Service.

- (HOME) Accesses the Home menu.
- ** (HOME) Shows the previous history.
- BACK Returns to the previous screen.
- EXIT Clears on-screen displays and returns to last input viewing.

Navigation button (up / down / left / right) Scrolls through menus or options.

- (OK) Selects menus or options and confirms your input.
- INFO Shows information on the current program.
- SAP Enables SAP (Secondary Audio Program) Feature.
- REC Starts to record. (Only Time Machine supported model)

(Control buttons) Control buttons for media contents.

These access special functions in some menus.

(Some buttons and services may not be provided depending upon models or regions.)
Using Magic Remote Control

(Depending upon model)

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

When the message [Magic remote battery is low. Please change the battery.] is displayed, replace the batteries.

To install batteries, open the battery cover, replace batteries (1.5 V AA) matching the + and - ends to the label inside the compartment, and close the battery cover. Be sure to point the magic remote toward the remote control sensor on the TV. To remove the batteries, perform the installation actions in reverse. This remote uses infrared light. When in use, it should be pointed in the direction of the TV’s remote sensor.

** To use the button, press and hold for more than 1 second.

- **(POWER)** Turns the TV on or off.
- **(STB POWER)** You can turn your set-top box on or off by adding the set-top box to the universal remote control for your TV.

**Number buttons** Enters numbers.

- **(Dash)** Inserts a — between numbers such as 2-1 and 2-2.
- **(MORE ACTIONS)** Displays more remote control functions.

**QUICK ACCESS** Edits QUICK ACCESS.

- QUICK ACCESS is a feature that allows you to enter a specified app or Live TV directly by pressing and holding the number buttons.

- **(HOME)** Accesses the [HOME DASHBOARD].

These access special functions in some menus.

**Streaming Service buttons** Connects to the Video Streaming Service.

**Control buttons** Controls media contents.
Registering Magic Remote Control

How to register the Magic Remote Control

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 Control

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

User Guide

For more information about this TV, read the USER GUIDE embedded in the product.
   - To open the USER GUIDE → (General) → [About This TV] → [User Guide]

Troubleshooting

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 auto-off function is activated in the settings menu.
   - If there is no signal while the TV is on, the TV will turn off automatically after 15 minutes of inactivity.
Abnormal Display

- 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.
- This panel is an advanced product that contains millions of 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.
- 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 an extended length of time.

Generated Sound

- **Cracking noise** A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required.
- **Electrical circuit humming/panel buzzing** A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending upon the product. This generated sound does not affect the performance and reliability of the product.

- When cleaning the product, be careful not to allow any liquid or foreign objects to enter the gap between the upper, left or right side of the panel and the guide panel, (Depending upon model).
- Make sure to wring any excess water or cleaner from the cloth.
- Do not spray water or cleaner directly onto the TV screen.
- Make sure to spray just enough of water or cleaner onto a dry cloth to wipe the screen.
Specifications

Product specifications may be changed without prior notice due to upgrade of product functions.
Estimated yearly energy consumption indicated on the FTC label is measured in accordance with the Test Procedures for Television Sets (USA only).
The actual energy consumption depends on the usage environment (The content watched, TV settings, etc.).

(Depending upon country)

<table>
<thead>
<tr>
<th>Broadcasting Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Television system</strong></td>
</tr>
<tr>
<td><strong>Program coverage (Band)</strong></td>
</tr>
<tr>
<td><strong>External antenna impedance</strong></td>
</tr>
</tbody>
</table>

(Except for UM69*)

<table>
<thead>
<tr>
<th>Wireless module (LGSBWAC92) Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wireless LAN (IEEE 802.11a/b/g/n/ac)</strong></td>
</tr>
<tr>
<td><strong>Frequency Range</strong></td>
</tr>
<tr>
<td>2400 to 2483.5 MHz</td>
</tr>
<tr>
<td>5150 to 5725 MHz</td>
</tr>
<tr>
<td>5725 to 5850 MHz</td>
</tr>
<tr>
<td><strong>Bluetooth</strong></td>
</tr>
<tr>
<td><strong>Frequency Range</strong></td>
</tr>
<tr>
<td>2400 to 2483.5 MHz</td>
</tr>
</tbody>
</table>

As band channels can vary per country, the user cannot change or adjust the operating frequency. This product is configured for the regional frequency table.
For consideration of the user, this device should be installed and operated with a minimum distance of 20 cm (7.8 inches) between the device and the body.
FCC ID: BEJLGSBWAC92
IC: 2703H-LGSBWAC92
### Wireless module (LGSWFAC81) Specifications

<table>
<thead>
<tr>
<th>Wireless LAN (IEEE 802.11a/b/g/n/ac)</th>
<th>Output Power (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td></td>
</tr>
<tr>
<td>2400 to 2483.5 MHz</td>
<td>20 dBm</td>
</tr>
<tr>
<td>5150 to 5725 MHz</td>
<td>15 dBm</td>
</tr>
<tr>
<td>5725 to 5850 MHz</td>
<td>14.5 dBm</td>
</tr>
</tbody>
</table>

As band channels can vary per country, the user cannot change or adjust the operating frequency. This product is configured for the regional frequency table.

For consideration of the user, this device should be installed and operated with a minimum distance of 20 cm (7.8 inches) between the device and the body.

FCC ID: BEJLGSWFAC81
IC: 2703H-LGSWFAC81

### Environment condition

<table>
<thead>
<tr>
<th>Environment condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>0 °C to 40 °C (32 °F to 104 °F)</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>Less than 80 %</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20 °C to 60 °C (-4 °F to 140 °F)</td>
</tr>
<tr>
<td>Storage Humidity</td>
<td>Less than 85 %</td>
</tr>
</tbody>
</table>
Open Source Software Notice Information

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

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

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

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

Licenses

HDMI

POWERED BY

QuickSet

(Magic Remote supported models only)

Regulatory

FCC NOTICE

(For USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

FCC Radio Frequency Interference Requirements (for UNII devices)

High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device. This device cannot be co-located with any other transmitter.
FCC RF Radiation Exposure Statement

(For having wireless function (WLAN, Bluetooth,...))
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be colocated or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20 cm (7.8 inches) between the radiator and your body. Users must follow the specific operating instructions for satisfying RF exposure compliance.

Industry Canada Statement

(For Canada)
(For having wireless function (WLAN, Bluetooth,...))
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

IC Radiation Exposure Statement

(For Canada)
(For having wireless function (WLAN, Bluetooth,...))
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.8 inches) between the antenna & your body.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER’S AUTHORITY TO OPERATE THE EQUIPMENT.

RSS-247 Requirement

(For Canada)
(For product having the wireless function using 5 GHz frequency bands)
(1) the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
(2) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
(3) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate; and
(4) [for devices operating in the band 5250-5350 MHz having an e.i.r.p. greater than 200 mW] antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 of RSS-247 shall be clearly indicated.

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

NOTE TO CABLE/TV INSTALLER

(For USA and Canada)
This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.
WARNING!

Never place a television set in an unstable location. A television set may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the television set.
- Only using furniture that can safely support the television set.
- Ensuring the television set is not overhanging the edge of the supporting furniture.
- Not placing the television set on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television set to a suitable support.
- Not placing the television set on cloth or other materials that may be located between the television set and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the television set or its controls.

If your existing television set is being retained and relocated, the same considerations as above should be applied.

Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>~</td>
<td>Refers to alternating current (AC).</td>
</tr>
<tr>
<td>———</td>
<td>Refers to direct current (DC).</td>
</tr>
<tr>
<td>☐</td>
<td>Refers to class II equipment.</td>
</tr>
<tr>
<td>⬜</td>
<td>Refers to stand-by.</td>
</tr>
<tr>
<td>I</td>
<td>Refers to “ON” (power).</td>
</tr>
<tr>
<td>⚡</td>
<td>Refers to dangerous voltage.</td>
</tr>
</tbody>
</table>

LG Recycling Policy

(For USA)

LG Electronics offers a customized e-waste take-back and recycling service that meets local needs and requirements in the countries where e-waste regulations are in place, and also provides product and packaging take-back and recycling service voluntarily in some countries. LG Electronics evaluates products’ recyclability at the design step using LG’s recyclability evaluation tool, with the goal of improving recyclability where practicable. Through these activities, LG seeks to contribute to conserving natural resources and protecting the environment. For more information about the LG Recycling Policy, please visit our global site at http://www.lg.com/global/sustainability/environment/take-back-recycling
THE CONSUMER ELECTRONICS INDUSTRY CARES

- Manufacturers, retailers and the rest of the consumer electronics industry are committed to making home entertainment safe and enjoyable.
- As you enjoy your television, please note that all televisions – new and old – must be supported on proper stands or installed according to the manufacturer’s recommendations. Televisions that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, carts, etc., may fall over, resulting in injury.

TUNE IN TO SAFETY

- ALWAYS follow the manufacturer’s recommendations for the safe installation of your television.
- ALWAYS read and follow all instructions for proper use of your television.
- NEVER allow children to climb on or play on the television or the furniture on which the television is placed.
- NEVER place the television on furniture that can easily be used as steps, such as a chest of drawers.
- ALWAYS install the television where it cannot be pushed, pulled over or knocked down.
- ALWAYS route cords and cables connected to the television so that they cannot be tripped over, pulled or grabbed.

WALL OR CEILING MOUNT YOUR TELEVISION

- ALWAYS contact your retailer about professional installation if you have any doubts about your ability to safely mount your television.
- ALWAYS use a mount that has been recommended by the television manufacturer and has a safety certification by an independent laboratory (such as UL, CSA, ETL).
- ALWAYS follow all instructions supplied by the television and mount manufacturers.
- ALWAYS make sure that the wall or ceiling where you are mounting the television is appropriate. Some mounts are not designed to be mounted to walls and ceilings with steel studs or cinder block construction. If you are unsure, contact a professional installer.
- Televisions can be heavy. A minimum of two people is required for a wall or ceiling mount installation.

MOVING AN OLDER TELEVISION TO A NEW PLACE IN YOUR HOME

- Many new television buyers move their older CRT televisions into a secondary room after the purchase of a flat-panel television. Special care should be made in the placement of older CRT televisions.
- ALWAYS place your older CRT television on furniture that is sturdy and appropriate for its size and weight.
- NEVER place your older CRT television on a dresser where children may be tempted to use the drawers to climb.
- ALWAYS make sure your older CRT television does not hang over the edge of your furniture.

CE.org/safety
The model and serial number of the product are located on the back and on one side of the product. Record them below in case you ever need service.

MODEL:  
Serial NO.:  

Supplier’s Declaration of Conformity

Trade Name: LG
Responsible Party: LG Electronics USA, Inc.
Address: 1000 Sylvan Ave Englewood Cliffs, NJ 07632
Telephone: (201)266-2215

LG Customer Information Center

For inquiries or comments, visit www.lg.com or call:
1-800-243-0000 USA, Consumer User
1-888-865-3026 USA, Commercial User
1-888-542-2623 CANADA

Register your product Online!
www.lg.com
EXTERNAL CONTROL
DEVICE SETUP

Please read this manual carefully before operating the set and retain it for future reference.
This feature is not available for all models.

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

* 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**

![USB to Serial converter](image)

- 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.

![RS-232C cable](image)

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.

Customer Computer

RS-232C configurations

3-Wire Configurations (Not standard)

Set ID

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

1. Press SETTINGS to access the main menus.
2. Press the Navigation buttons to scroll to (*General → About this TV or OPTION) and press OK.
3. Press the Navigation buttons to scroll to SET ID and press OK.
4. Scroll left or right to select a set ID number and select CLOSE. The adjustment range is 1-99.
5. 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)

<table>
<thead>
<tr>
<th>COMMAND1</th>
<th>COMMAND2</th>
<th>DATA (Hexadecimal)</th>
<th>COMMAND1</th>
<th>COMMAND2</th>
<th>DATA (Hexadecimal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>k</td>
<td>a</td>
<td>00 to 01</td>
<td>k</td>
<td>t</td>
<td>00 to 64</td>
</tr>
<tr>
<td>k</td>
<td>c</td>
<td>(p.7)</td>
<td>x</td>
<td>u</td>
<td>00 to 64</td>
</tr>
<tr>
<td>k</td>
<td>d</td>
<td>(p.7)</td>
<td>j</td>
<td>p</td>
<td>(p.8)</td>
</tr>
<tr>
<td>k</td>
<td>e</td>
<td>00 to 01</td>
<td>j</td>
<td>v</td>
<td>(p.8)</td>
</tr>
<tr>
<td>k</td>
<td>f</td>
<td>00 to 64</td>
<td>j</td>
<td>q</td>
<td>00 to 05</td>
</tr>
<tr>
<td>k</td>
<td>g</td>
<td>00 to 64</td>
<td>m</td>
<td>a</td>
<td>(p.9)</td>
</tr>
<tr>
<td>k</td>
<td>h</td>
<td>00 to 64</td>
<td>m</td>
<td>b</td>
<td>00 to 01</td>
</tr>
<tr>
<td>k</td>
<td>i</td>
<td>00 to 64</td>
<td>m</td>
<td>c</td>
<td>Key Codes</td>
</tr>
<tr>
<td>k</td>
<td>j</td>
<td>00 to 64</td>
<td>m</td>
<td>g</td>
<td>00 to 64</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
<td>00 to 32</td>
<td>x</td>
<td>b</td>
<td>(p.11)</td>
</tr>
<tr>
<td>k</td>
<td>l</td>
<td>00 to 01</td>
<td>x</td>
<td>t</td>
<td>(p.11)</td>
</tr>
<tr>
<td>k</td>
<td>m</td>
<td>00 to 01</td>
<td>x</td>
<td>v</td>
<td>(p.12)</td>
</tr>
<tr>
<td>k</td>
<td>r</td>
<td>00 to 64</td>
<td>j</td>
<td>u</td>
<td>(p.12)</td>
</tr>
<tr>
<td>k</td>
<td>s</td>
<td>00 to 64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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 → 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.

<table>
<thead>
<tr>
<th>Hexadecimal</th>
<th>Decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Step 0</td>
</tr>
<tr>
<td>01</td>
<td>Step 1</td>
</tr>
<tr>
<td>02</td>
<td>...</td>
</tr>
<tr>
<td>0A</td>
<td>Step 10</td>
</tr>
<tr>
<td>0B</td>
<td>...</td>
</tr>
<tr>
<td>0F</td>
<td>Step 15</td>
</tr>
<tr>
<td>10</td>
<td>Step 16</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

Real data mapping (Hexadecimal → Decimal)

<table>
<thead>
<tr>
<th>Hexadecimal</th>
<th>Decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Step 0</td>
</tr>
<tr>
<td>01</td>
<td>Step 1</td>
</tr>
<tr>
<td>02</td>
<td>Step 2</td>
</tr>
<tr>
<td>0A</td>
<td>Step 10</td>
</tr>
<tr>
<td>0B</td>
<td>Step 11</td>
</tr>
<tr>
<td>0C</td>
<td>Step 12</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>0F</td>
<td>Step 15</td>
</tr>
<tr>
<td>10</td>
<td>Step 16</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

00 : Step 0 32 : Step 50 (Set ID 50) 6E : Step 254
01 : Step 1 (Set ID 1) 33 : Step 51 (Set ID 51) FF : Step 255
... 63 : Step 99 (Set ID 99) 01 00 : Step 256
... 77 0E : Step 9998
10 : Step 16 (Set ID 16) C7 : Step 199 27 0F : Step 9999
... 9F 0E : 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]

* 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.

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)
02 : Wide screen (16:9)
04 : Zoom
05 : Zoom 2 (Latin America except Colombia Only)
06 : Set by Program/Original
07 : 14:9 (Europe, Colombia, Mid-East, Asia except South Korea and Japan)
09 : * Just Scan
0B : Full Wide (Europe, Colombia, Mid-East, Asia except South Korea and Japan)
10 to 1F : Cinema Zoom 1 to 16
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
Ace [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
Ace [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
Ace [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
Ace [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
Ace [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
Ace [r][ ][Set ID][ ][OK/NG][Data][x]

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
Ace [s][ ][Set ID][ ][OK/NG][Data][x]
* (Dependong 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
Ace [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
Ace [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
Ace [p][ ][Set ID][ ][OK/NG][Data][x]
18. Equalizer (Command: \texttt{j v})

\begin{itemize}
  \item Adjust EQ of the set.
\end{itemize}

\textbf{Transmission}: \\
\texttt{[j][v][ ][Set ID][ ][Data][Cr]}

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \multicolumn{2}{|c|}{Frequency} \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \multicolumn{2}{|c|}{Data} \\
\hline
\end{tabular}

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

19. Energy Saving (Command: \texttt{j q})

\begin{itemize}
  \item To reduce the power consumption of the TV. You can also adjust Energy Saving in PICTURE menu.
\end{itemize}

\textbf{Transmission}: \\
\texttt{[j][q][ ][Set ID][ ][Data][Cr]}

\begin{tabular}{|c|c|c|c|c|c|}
\hline
0 & 0 & 0 & 0 & 0 & 0 \multicolumn{2}{|c|}{Data} \\
\hline
\end{tabular}

* (Depending on model)

\textbf{Acknowledgement}: \\
\texttt{[v][ ][Set ID][ ][OK/NG][Data][x]}

20. Tune Command (Command: \texttt{m a})

\begin{itemize}
  \item This command may work differently depending on model and signal.
  \item For Europe, Mid-East, Colombia, Asia except South Korea and Japan Model
  \item Select channel to following physical number.
\end{itemize}

\textbf{Transmission}: \\
\texttt{[m][a][ ][Set ID][ ][Data 00][ ][Data 01][Cr]}

* Analog Antenna/Cable

\begin{itemize}
  \item [Data 00][Data 01] Channel Data
  \item Data 00: High byte channel data
  \item Data 01: Low byte channel data
  \item - 00 00 ~ 00 7F (Decimal: 0 ~ 127)
\end{itemize}

\begin{itemize}
  \item Data 02: Input Source (Analog)
  \item - 00: Antenna TV (ATV)
  \item - 80: Cable TV (CATV)
\end{itemize}

* Digital Antenna/Cable/Satellite

\begin{itemize}
  \item [Data 00][Data 01] Channel Data
  \item Data 00: High Channel data
  \item Data 01: Low Channel data
  \item - 00 00 ~ 27 0F (Decimal: 0 ~ 999)
\end{itemize}

\begin{itemize}
  \item Data 02: Input Source (Digital)
  \item - 10: Antenna TV (DTV)
  \item - 20: Antenna Radio (Radio)
  \item - 40: Satellite TV (SDTV)
  \item - 50: Satellite Radio (S-Radio)
  \item - 90: Cable TV (CATV)
  \item - a0: Cable Radio (CA-Radio)
\end{itemize}

* Tune Command Examples:

1. Tune to the Analog antenna (PAL) Channel 10. Set ID = All = 00

\begin{itemize}
  \item Data 00 & 01 = Channel Data is 10 = 00 0a
  \item Data 02 = Analog Antenna TV = 00
  \item Result = \texttt{ma 00 00 0a 00}
\end{itemize}

2. Tune to the digital antenna (DVB-T) Channel 01. Set ID = All = 00

\begin{itemize}
  \item Data 00 & 01 = Channel Data is 01 = 00 01
  \item Data 02 = Digital Antenna TV = 10
  \item Result = \texttt{ma 00 00 01 10}
\end{itemize}

3. Tune to the satellite (DVB-S) Channel 1000. Set ID = All = 00

\begin{itemize}
  \item Data 00 & 01 = Channel Data is 1000 = 03 E8
  \item Data 02 = Digital Satellite TV = 40
  \item Result = \texttt{ma 00 03 E8 40}
\end{itemize}

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

\begin{itemize}
  \item To tune channel to following physical/major/minor number.
\end{itemize}

\textbf{Transmission}: \\
\texttt{[m][a][ ][Set ID][ ][Data 00][ ][Data 01][ ][Data 02][ ][Data 03][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)
  - 0b: Cable DTV Plus – Use Physical Channel Number
  - 2b: Cable DTV Plus – Don’t Use Physical Channel Number
  - 4b: Cable DTV Plus – Use Physical/Major Channel Number Only (One Part Channel)
  - 6b: Cable DTV Plus – 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).

### 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
  - Data 03: High byte Channel Data
  - Data 04: Low byte Channel Data

  **Data 05**: Input Source (Digital/Satellite for Japan)
  - 02: Antenna TV (DTV)
  - 42: Antenna TV (DTV) – Use Physical/Major Channel Number Only (One Part Channel)
  - 62: Antenna TV (DTV) – Use Major Channel Number Only (One Part Channel)
  - 07: BS (Broadcasting Satellite)
  - 08: CS1 (Communication Satellite 1)
  - 09: CS2 (Communication Satellite 2)

### 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

* For Japan Model

- To tune channel to following physical/major/minor number.
  - **Transmission**
    - ma [Set ID] [OK] [Data 00] [Data 01]
    - [Data 02][Data 03][Data 04][Data 05]
    - [Set ID] [NG][Data 00][x]

- **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
  - Data 03: High byte Channel Data
  - Data 04: Low byte Channel Data

  **Data 05**: Input Source (Digital/Satellite for Japan)
  - 02: Antenna TV (DTV)
  - 42: Antenna TV (DTV) – Use Physical/Major Channel Number Only (One Part Channel)
  - 62: Antenna TV (DTV) – Use Major Channel Number Only (One Part Channel)
  - 07: BS (Broadcasting Satellite)
  - 08: CS1 (Communication Satellite 1)
  - 09: CS2 (Communication Satellite 2)

- **Tune Command Examples:**
  - **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

* Tune Command Examples:
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

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)
**EXTERNAL CONTROL DEVICE SETUP**

* [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.

<table>
<thead>
<tr>
<th>[Data 00]</th>
<th>[Data 01]</th>
<th>[Data 02]</th>
<th>[Data 03]</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>01</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>02</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>03</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

X : don’t care

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

<table>
<thead>
<tr>
<th>[Data 00] 3D option</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 : 3D Picture Correction</td>
</tr>
<tr>
<td>01 : 3D Depth (3D Mode is Manual Only)</td>
</tr>
<tr>
<td>02 : 3D Viewpoint</td>
</tr>
<tr>
<td>06 : 3D Color Correction</td>
</tr>
<tr>
<td>07 : 3D Sound Zooming</td>
</tr>
<tr>
<td>08 : Normal Image View</td>
</tr>
<tr>
<td>09 : 3D Mode (Genre)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Data 01] It has own range for each 3D option determined by [Data 00].</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) When [Data 00] is 00</td>
</tr>
<tr>
<td>00 : Right to Left</td>
</tr>
<tr>
<td>01 : Left to Right</td>
</tr>
</tbody>
</table>

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 |

Data 01 : To set Auto Configure

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

| Ack [u] [ ][Set ID][ ][OK/NG][Data][x] |
SMART TV Quick Setup Guide

* Image shown may differ from your TV.
* Image shown on a PC or mobile phone may vary depending on the OS (Operating System).
* App icon positions may vary on the platform, depending on the software version.

**Network Settings**

1. Press the (Home) button on the remote to access the Home menu. Point the (Settings) icon and select by pressing the Wheel (OK) button on the remote.

2. Point the (All Settings) icon and select by pressing the Wheel (OK) button on the remote.

3. Select the Network → Wired Connection (Ethernet) or Wi-Fi Connection.

4. The device automatically tries to connect to the network available (wired network first). When you select the Wi-Fi Connection, the network list available is displayed. Choose the network you wish to use.

5. If the connection is successful, the "Connected to Internet" is displayed.

For wireless AP (Router) that have the symbol, you need to enter the security key.

You can check the status of connection in Advanced Wi-Fi settings.

*Image shown may differ from your TV.
* Image shown on a PC or mobile phone may vary depending on the OS (Operating System).
* App icon positions may vary on the platform, depending on the software version.

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Troubleshooting Network Problems

1. Press the 🏠 (Home) button on the remote to access the Home menu. Point the ⚙ (Settings) icon and select by pressing the 🔯 (Wheel (OK)) button on the remote.

2. Point the 🎨 (All Settings) icon and select by pressing the 🔯 (Wheel (OK)) button on the remote.

3. Select the Network → Wired Connection (Ethernet) or Wi-Fi Connection → Advanced Wi-Fi Settings.

Follow the instructions below that correlate to your network status.

### Check the TV or the AP (Router).

When X appears next to TV:
1. Check the connection status of the TV, AP (Router).
2. Power off and power on the TV, AP (Router).
3. If you are using a static IP, enter the IP directly.
4. Contact internet service provider or AP (Router) company.

When X appears next to Gateway:
1. Unplug the power cord of the AP (Router) and try to connect after 5 seconds.
2. Initialize (Reset) the AP (Router).
3. Contact internet service provider or AP (Router) company.

When X appears next to DNS:
1. Unplug the power cord of the AP (Router) and try to connect after 5 seconds.
2. Initialize (Reset) the AP (Router).
3. Check that the MAC address of the TV/AP (Router) is registered with your Internet service provider. (The MAC address displayed on the right pane of the network status window should be registered with your Internet service provider.)
4. Check the AP (Router) manufacturer’s website to make sure your router has the latest firmware version installed.
SmartShare PC SW Installing & Setting

1. Install the SmartShare PC SW programme on your PC.
3. Select SUPPORT. Then, select Drivers & Software, SOFTWARE UPDATE or Software & Firmware.
4. Search for your model. Then, select SmartShare PC SW.
5. You can run the programme when installation is complete.

¡NOTE
• SmartShare service is only available if TV and other devices are connected via a single AP (Router).

SmartShare Connection to Smartphone

1. Check that Wi-Fi is enabled on your smartphone. To use SmartShare, both devices must on the same local network.
2. Install/run the app for sharing content on your smartphone (It’s called LG TV Plus on LG phones).
3. Enable your smartphone to share content files with other devices.
4. Open Device Connector application.
   🏛️ (Home) → Device Connector → Smartphone → CONTENT SHARE.
5. Select the file type you want to play (movie, audio or photo).
6. Select a movie, music or photo file to play on the TV.
7. Play the media file to view and enjoy it on your TV.

Updating the TV Firmware

* If the TV is turned on for the first time after it was shipped from the factory, initialization of the TV may take a few minutes.

1. 🏛️ (Home) → 🏛️ (Settings) → 🏛️ (All Settings) → 🏛️ General → About This TV → CHECK FOR UPDATES
2. After checking the version of the software, update it.
   If you check the “Allow Automatic Updates”, you can update the software automatically.
Wi-Fi Direct Setting

If a local network is not available, you can connect a portable device directly to the TV using Wi-Fi Direct.

With SmartShare, you can share files or screens of devices connected to Wi-Fi Direct.

1. When you open Wi-Fi Direct menu, a list of available devices appears.
2. When you are prompted to request connection, select Yes. Wi-Fi Direct is now connected to your TV.

Miracast Setting

Miracast allows a portable device to securely send video and sound to the TV wirelessly.

1. Miracast should be set to “ON” on your portable device.
2. When your TV is detected, select the device on your portable device. When connection is completed, the device screen appears on the TV screen.

Please call LG Customer Service if you experience any problems.
ENGLISH
Easy Setup Guide
Please read this manual carefully before operating your set and retain it for future reference.

ESPAÑOL
Guía Rápida de Configuración
Lea atentamente este manual antes de poner en marcha el equipo y consérvelo para futuras consultas.

FRANÇAIS
Guide de configuration rapide
Avant d’utiliser l’appareil, veuillez lire attentivement ce manuel et le conserver pour pouvoir vous y reporter ultérieurement.

x 6
(M4 x L30)

Depending upon model / Según el modelo / Selon le modèle