

# LG O ED TV

# **OWNER'S MANUAL**

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

EG91\*\* EG92\*\* EG96\*\* EF95\*\*



www.lg.com P/NO : MFL68927402 (1512-REV06) Printed in Korea India region only. (Below sentence is not applicable for above 1920 X 1080 resolution TV models.)

#### **ATTENTION:**

This product is qualified for the BEE Star rating in the 'Home' Mode.

The Objectives of Star Labeling Program is designed to promote energy efficient products and practices.

When the television is initially set up, it is designed to meet the BEE Star Labeling requirements while maintaining optimum picture quality.

- Changes to certain functionalities of this television (TV Guide, Picture/sound etc) may change the power consumption.
- Depending upon such changed setting (eg., Retail mode), the power consumption may vary which possibly could exceed the stated energy consumption.

To reset the television to Star rating qualified settings, select 'Home' mode from the initial set-up procedure in 'factory settings' under the 'Set-up' menu.

### **TABLE OF CONTENTS**

#### 4 LICENSES

#### 4 OPEN SOURCE SOFTWARE NOTICE INFORMATION

#### 5 SAFETY INSTRUCTIONS

11 - Viewing 3D Imaging (Only 3D models)

#### 13 INSTALLATION PROCEDURE

#### 13 ASSEMBLING AND PREPARING

- 13 Unpacking
- 15 Separate purchase
- 16 Parts and buttons
- 17 Using the joystick button
- 18 Lifting and moving the TV
- 19 Setting up the TV
- 19 Attaching the stand
- 26 Mounting on a table
- 27 Mounting on a wall
- 28 Tidying cables

#### 29 MAKING CONNECTIONS

- 29 Antenna connection
- 30 HDMI connection
- 31 DVI to HDMI connection
- 32 Component connection
- 33 Composite connection
- 33 Audio connection
- 33 Digital optical audio connection
- 34 Headphone connection
- 34 USB connection

#### 36 MAGIC REMOTE FUNCTIONS

- 38 Registering magic remote
- 38 How to use magic remote
- 38 Precautions to take when using the magic remote

#### 39 USING THE USER GUIDE

39

39 Cleaning your TV

MAINTENANCE

- 39 Screen, frame, cabinet and stand
- 39 Power cord

#### 40 TROUBLESHOOTING

#### 40 EXTERNAL CONTROL DEVICE SETUP

41 ENVIRONMENTAL INFORMATION

#### 42 SPECIFICATIONS

# WARNING

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

# 

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

## 

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

3

## LICENSES

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



(Australia region only)

freeview*tplus* 

FreeviewPlus provides access to content and services from the Freeview networks. The FreeviewPlus service provides a 7 + day EPG, all available Catch Up TV, recommendations and the ability to set reminders and favourites. FreeviewPlus is available by pressing the green button on the remote.

\*FreeviewPlus uses HbbTV technology which combines broadcast and broadband. It requires an internet connection. Normal data usage charges and conditions apply.

### **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.

4

## SAFETY INSTRUCTIONS

Please read these safety precautions carefully before using the product.



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

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

• Near containers of water such as vases Otherwise, this may result in fire, electric shock, malfunction or product deformation.



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



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



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



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



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



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



Do not place a heavy object, or the product itself, on power cables.

Otherwise, this may result in fire or electric shock.



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



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



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



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



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



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



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



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



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



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



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



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

6



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



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



Do not disassemble, repair or modify the product at your own discretion. Fire or electric shock accident can occur.

Contact the service centre for check, calibration or repair.



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

- The product has been impacted by shock
- The product has been damaged
- Foreign objects have entered the product

• The product produced smoke or a strange smell This may result in fire or electric shock.



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



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

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



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



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



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



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



Install the product where no radio wave occurs.



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



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



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

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

Only use the attachments / accessories specified by the manufacturer.



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



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



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



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

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

Do not place non-rechargeable batteries in charging device.



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

ENGLISH

8



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



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



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



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

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

Otherwise, this may result in fire.



Take care not to touch the ventilation openings when watching the TV for long periods as the ventilation openings may become hot. This does not affect the operation or performance of the product. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer.



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



Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.



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



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



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

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



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

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



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



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



Contact the service centre once a year to clean the internal parts of the product.

Accumulated dust can cause mechanical failure.



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



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



The panel is a high technology display product with resolution of two million to six million pixels. You may see tiny black dots and/or brightly coloured dots (white, red, blue, green) at a size of 1 ppm on the panel. This does not indicate a malfunction and does not affect the performance and reliability of the product.

This phenomenon also occurs in third-party products and is not subject to exchange or refund.



You may find different brightness and colour of the panel depending on your viewing position(left/right/top/down).

This phenomenon occurs due to the characteristic of the panel. It is not related with the product performance, and it is not malfunction.

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

#### **Generated Sound**

"Cracking" noise: A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to tempera-ture 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 depend-ing on the product. This generated sound does not affect the performance and reliability of the product.

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

#### Viewing 3D Imaging (Only 3D models)

WARNING

#### Viewing environment

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

## Those that 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 contents.
- Do not watch 3D videos if you feel nausea, are pregnant and/ or have a chronic illness such as epilepsy, cardiac disorder, or blood pressure disease, etc.
- 3D Contents are not recommended to 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 frequent breaks than the average adult.
- If your eyesight varies between your right and left eye, correct your eyesight prior to watching 3D contents.

#### Symptoms which require discontinuation or refraining from watching 3D contents

- Do not watch 3D contents when you feel fatigue from lack of sleep, overwork or drinking.
- When these symptoms are experienced, stop using/watching 3D contents 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, visual inconvenience or fatigue.

# 2

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#### Viewing environment

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

#### Viewing age

- Infants/Children
  - Usage/Viewing 3D contents for children under the age of 5 are prohibited.
  - 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 contents.
  - Children have greater binocular disparity of 3D presentations than adults because the distance between the eyes is shorter than that of adults. Therefore they will perceive more stereoscopic depth compared to adults for the same 3D image.
- Teenagers
  - Teenagers under the age of 19 may react with sensitivity due to stimulation from light in 3D contents. Advise them to refrain from watching 3D contents for a long time when they are tired.
- Elderly
  - The elderly may perceive less 3D effect compared to the young. 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 easily 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.



- 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 TV can be placed in standby mode in order to reduce the power consumption. And the TV should be turned off if it will not be watched for some time, as this will reduce energy consumption.
- The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and this will reduce the overall running cost.

### **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.
- \* 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.

### ASSEMBLING AND PREPARING

#### Unpacking

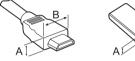
Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.

## 

- Do not use any unapproved items to ensure the safety and product life span.
- Any damages or injuries by using unapproved items are not covered by the manufacturer's warranty.
- Some models have a thin film attached on to the screen and this must not be removed.

## NOTE

- The items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm thick and 18 mm width. Use an extension cable that supports USB 2.0 if the USB cable or USB memory stick does not fit into your TV's USB port.





- Use a certified cable with the HDMI logo attached.
- If you do not use a certified HDMI cable, the screen may not display or a connection error may occur. (Recommended HDMI Cable Types)
  - High-Speed HDMI<sup>°</sup>/<sup>TM</sup> Cable (3m or less)
- High-Speed HDMI<sup>°</sup>/<sup>TM</sup> Cable with Ethernet (3m or less)

ENGLISH

13

#### 14 ASSEMBLING AND PREPARING





Magic remote, Batteries (AA) (See p. 36)



Owner's manual



**Cinema 3D glasses** The number of 3D glasses may differ depending on the model or country.



**Cable Holder** (See p. 28)



**Component gender cable** (See p. 32)



Composite gender cable (See p. 32, 33)



Stand Assy (Stand Base/Stand Body) (Only 55EG96\*\*) (See p. 20, 21)



Stand Assy (Stand Base/Stand Body) (Only 65EG96\*\*) (See p. 21, 22)







Stand Assy (Stand Base/Stand Body) (Only 55EG91\*\*) (See p. 19, 20)



**Stand Screw** 4 EA, M4 x L20 (Only 55EG91\*\*) 5 EA, M4 x L20 (Only 55EG96\*\*, 55EG92\*\*) 8 EA, M4 x L20 (Only 65EG96\*\*) (See p. 19, 20, 22)

#### Stand Assy (Stand Base/Stand Body) (Only 55EG92\*\*) (See p. 20, 21)



Stand Screw

5 EA, M4 x L14

(Only 55EF95\*\*)

8 EA, M4 x L14

(Only 65EF95\*\*)

(See p. 23, 25)

Stand assy (Stand body / Stand base) (Only 55EF95\*\*) (See p. 23, 24)



Stand assy (Stand body / Stand base) (Only 65EF95\*\*) (See p. 24, 25)

#### Separate purchase

Separate purchase items can be changed or modified for quality improvement without any notification. Contact your dealer to buy these items. These devices only work with certain models.

| AG-F***           | AN-MR600     | AN-VC550     | AG-F***DP         |
|-------------------|--------------|--------------|-------------------|
| Cinema 3D Glasses | Magic Remote | Smart Camera | Dual Play Glasses |

LG Audio Device

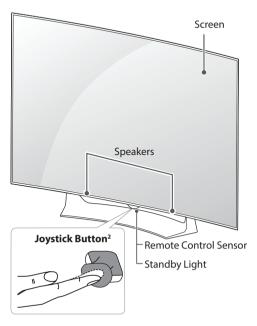
| Compatibility                   | EG91**, EG92**, EG96**, EF95** |
|---------------------------------|--------------------------------|
| AG-F***<br>Cinema 3D Glasses    | •                              |
| <b>AN-MR600</b><br>Magic Remote | •                              |
| AN-VC550<br>Smart Camera        | •                              |
| AG-F***DP<br>Dual Play Glasses  | •                              |
| LG Audio Device                 | •                              |

The model name or design may be changed depending on the upgrade of product functions, manufacturer's circumstances or policies.

#### 16 ASSEMBLING AND PREPARING

### Parts and buttons

A type : EG91\*\*

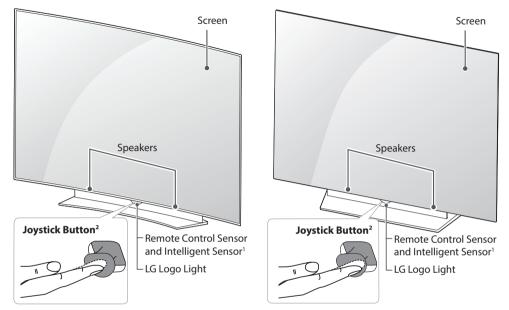


Screen Speakers Joystick Button<sup>2</sup> Remote Control Sensor Standby Light

C type : EG96\*\*

D type : EF95\*\*

B type : EG92\*\*



- 1 Intelligent sensor Adjusts the image quality and brightness based on the surrounding environment.
- 2 Joystick Button This button is located below the TV screen.



• You can set the LG Logo Light or Standby Light to on or off by selecting GENERAL in the main menus.

#### 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 and press it once and release it.  |
|-----------------------|--|
| Power Off             | When the TV is turned on, place your finger on the joystick button<br>and press it once for a few seconds and release it. All running apps will<br>close, and any recording in progress will stop. |
| Volume<br>Control     | If you place your finger over the joystick button and move it left or right, you can adjust the volume level you want.   |
| Programmes<br>Control | If you place your finger over the joystick button and move it up or<br>down, you can scrolls through the saved programmes you want.  |

## NOTE

• When your finger over the joystick button and push it to the 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 saved programmes.

#### 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.

| Ċ | Turns the power off.                                 |  |
|---|--|--|
| Ö | Accesses the Quick Settings.                         |  |
| × | Clears on-screen displays and returns to TV viewing. |  |
| • | Changes the input source.                            |  |

#### Lifting and moving the TV

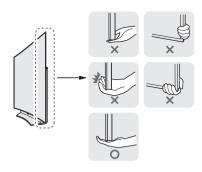
Please note the following advice to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

## 

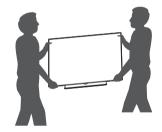
- Avoid touching the screen at all times, as this may result in damage to the screen.
- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should 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 grill area.



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



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

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#### Setting up the TV

(Image shown may differ from your TV.)

#### Attaching the stand

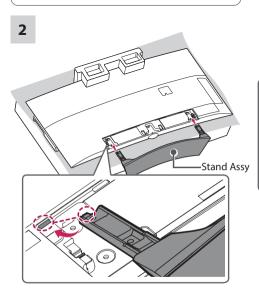
Only 55EG91\*\*

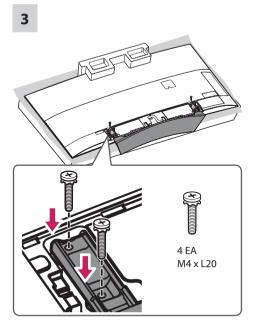
# 1 Protective Package

1 When assembling the stand, lay the front screen Protective Package included in the product box on a table or product box and then place the TV screen face down on the Protective Package.

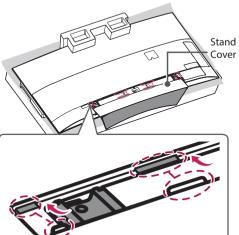
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• Do not lift your TV without the stand. The protruding Joystick Button may be damaged.

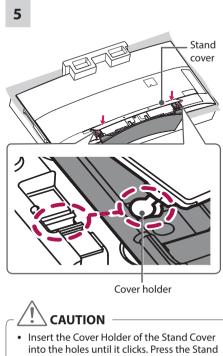






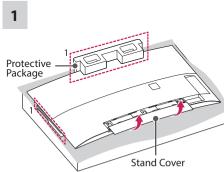


CAUTION
 Insert the protruding parts of the Stand Cover into the holes.

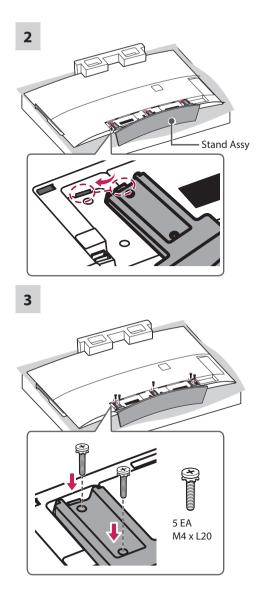


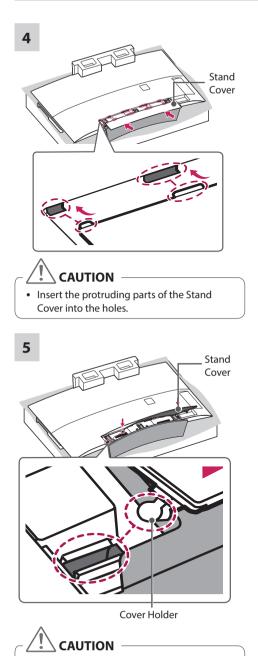
 Insert the Cover Holder of the stand Cover into the holes until it clicks. Press the Stand Cover gently so that the non-woven fabric inside is attached tightly.

Only 55EG96\*\*, 55EG92\*\*

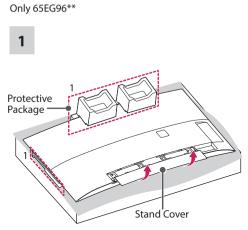


- 1 When assembling the stand, lay the front screen Protective Package included in the product box on a table or product box and then place the TV screen face down on the Protective Package.
- CAUTION
   Do not lift your TV without the stand. The protruding Joystick Button may be damaged.





• Insert the Cover Holder of the Stand Cover into the holes until it clicks. Press the Stand Cover gently so that the non-woven fabric inside is attached tightly.

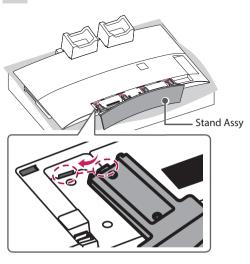


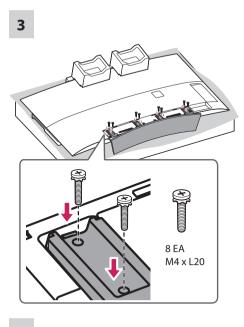
When assembling the stand, lay the front screen 1 Protective Package included in the product box on a table or product box and then place the TV screen face down on the Protective Package.

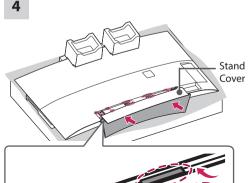


- CAUTION
- Do not lift your TV without the stand. The protruding Joystick Button may be damaged.









CAUTION

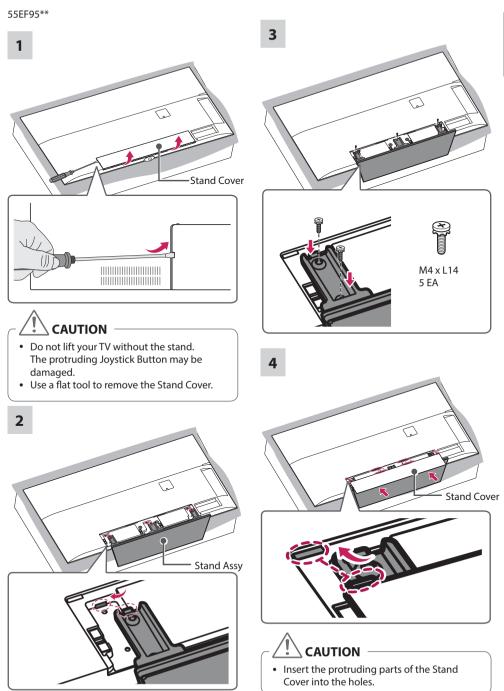
Cover into the holes.

• Insert the protruding parts of the Stand

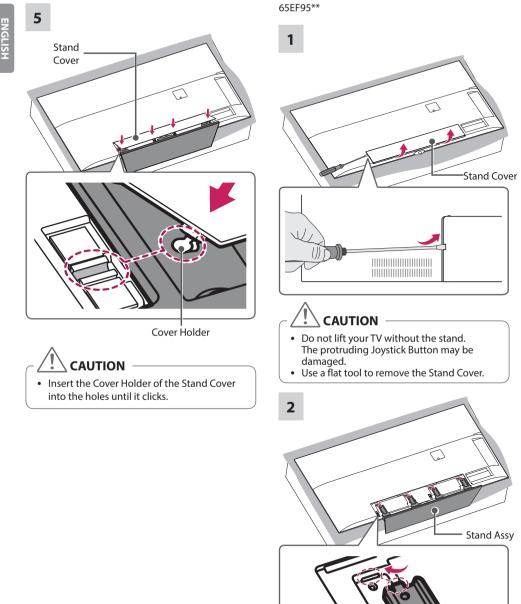
5

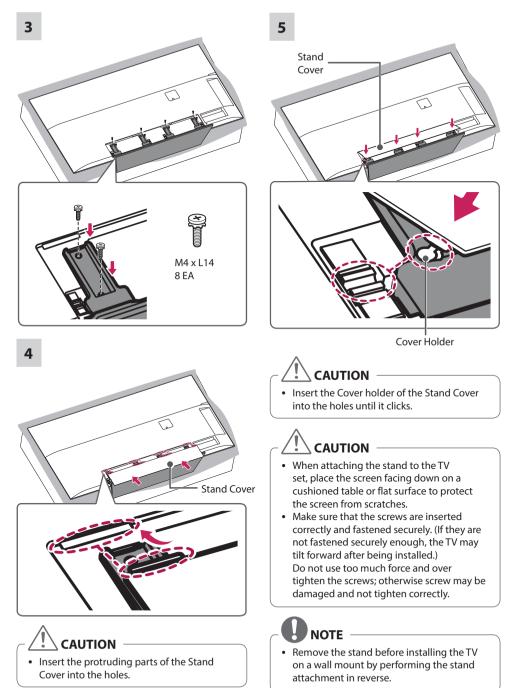
Cover Holder

• Insert the Cover Holder of the Stand Cover into the holes until it clicks. Press the Stand Cover gently so that the non-woven fabric inside is attached tightly.



#### 24 ASSEMBLING AND PREPARING

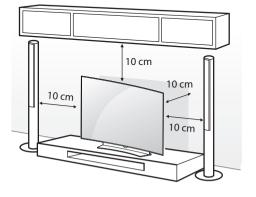


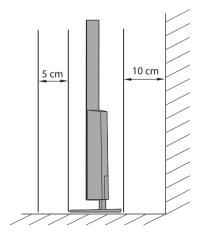


#### Mounting on a table

(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.

### 

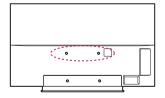
• Do not place the TV near or on sources of heat, as this may result in fire or other damage.

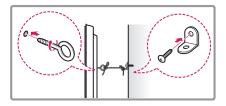
## WARNING

- If a television is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. 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.
  - » Only using furniture that can safely support the television.
  - » Ensuring the television is not overhanging the edge of the supporting furniture.
  - » Not placing the television on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television to a suitable support.
  - » Not standing the televisions on cloth or other materials placed between the television and supporting furniture.
  - » Educating children about the dangers of climbing on furniture to reach the television or its controls.

#### Securing the TV to a wall

(This feature is not available for all models.)





- 1 Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.
  - If there are bolts inserted at the eye-bolts position, remove the bolts first.
- 2 Mount the wall brackets with the bolts to the wall.

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

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

## 

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

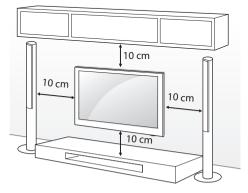
## 

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

#### Mounting on a wall

Attach an optional wall mount bracket at the rear of the TV carefully and install the wall mount bracket on a solid wall perpendicular to the floor. When you attach the TV to other building materials, please contact qualified personnel.

LG recommends that wall mounting be performed by a qualified professional installer.



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

#### Separate purchase(Wall mounting bracket)

| Model                 | 55EG91**<br>55EG92**<br>55EG96** | 65EG96**<br>55/65EF95** |  |
|-----------------------|----------------------------------|-------------------------|--|
|                       | 200 x 340 x 195                  | 200 x 330 x 120         |  |
| A x B x C<br>(mm)     |                                  |                         |  |
| Standard<br>screw     | M6                               |                         |  |
| Number of<br>screws   | 4                                |                         |  |
| Wall mount<br>bracket |                                  |                         |  |

# ENGLIS

## 

- Disconnect the power first, and then move or install 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 over tighten 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 manufacturer's warranty.

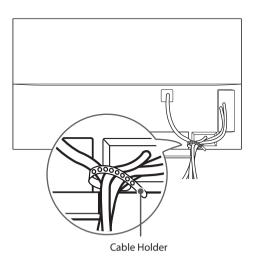
## 

- Use the screws that are listed on the standard screw specifications.
- The wall mount kit includes an installation manual and necessary parts.
- The wall mount bracket is not provided. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending on the wall mount. Make sure to use the proper length.
- For more information, refer to the manual supplied with the wall mount.

#### **Tidying cables**

(Image shown may differ from your TV.)

Gather and bind the cables with the cable holder.



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

## MAKING CONNECTIONS

This section on **MAKING CONNECTIONS** mainly uses diagrams for the EG96\*\* models.

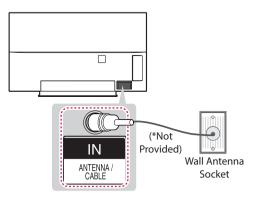
Connect various external devices to the TV and switch input modes to select an external device. For more information of external device's connection. refer to the manual provided with each device. Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices.

## NOTE

- The external device connection may differ from the model.
- Connect external devices to the TV regardless of the order of the TV port.
- If you record a TV program on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information of recording, refer to the manual provided with the connected device.
- Refer to the external equipment's manual for operating instructions.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.
- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- In PC mode, some resolution settings may not work properly depending on the graphics card.
- If ULTRA HD content is played via PC. the video or audio may have disruptions intermittently depending on your PC's performance. (Depending on model)

#### Antenna connection

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



NOTE

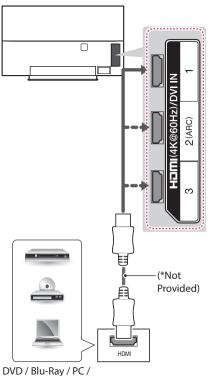
- Use a signal splitter to use more than 2 TVs.
- If the image quality is poor, install a signal amplifier properly to improve the image quality.
- If the image quality is poor with an antenna connected, try to realign the antenna in the correct direction.
- An antenna cable and converter are not provided.
- Supported DTV Audio: MPEG, Dolby Digital, Dolby Digital Plus, HE-AAC.
- For a location that is not supported with ULTRA HD broadcasting, this TV cannot receive ULTRA HD broadcasts directly. This TV cannot receive ULTRA HD (3840 x 2160 pixels) broadcasts directly because the related standards have not been confirmed. (Depending on model)

29

#### **HDMI connection**

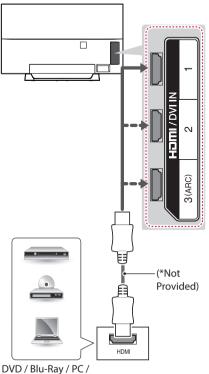
Transmits the digital video and audio signals from an external device to the TV. Connect the external device and the TV with the HDMI cable as shown.

(Only EG96\*\*, EG92\*\*, EF95\*\*)



HD Cable Box / HD STB

#### (Only EG91\*\*)



HD Cable Box / HD STB

#### **ARC (Audio Return Channel)**

- An external audio device that supports SIMPLINK and ARC must be connected using HDMI(4K @ 60 Hz)/DVI IN 2 (ARC) or HDMI/DVI IN 3 (ARC) port.
- When connected with a high-speed HDMI cable, the external audio device that supports ARC outputs optical SPDIF without additional optical audio cable and supports the SIMPLINK function.

(Only EG96\*\*, EG92\*\*, EF95\*\*)

#### 4 $\rightarrow$ 3 $\rightarrow$ 3 $\rightarrow$ Picture $\rightarrow$ HDMI ULTRA HD Deep Colour :

- **On** Support 4K @ 50/60 Hz (4:4:4, 4:2:2, 4:2:0)
- Off Support 4K @ 50/60 Hz (4:2:0)

If the device connected to Input Port also supports ULTRA HD Deep Colour, your picture may be clearer. However, if the device doesn't support it, it may not work properly.

In that case, connect the device to a different HDMI port or change the TV's **HDMI ULTRA HD Deep Colour** setting to **Off**. (This feature is available on certain models which are supported ULTRA HD Deep Colour only.)

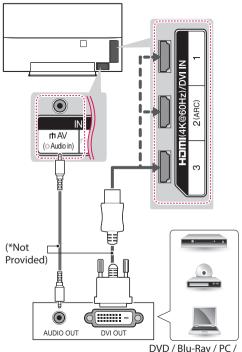
# 

- The external device connection may differ from the model.
- It is recommended to use the TV with the HDMI connection for the best image quality.
- Use the latest High Speed HDMI<sup>™</sup> Cable with CEC (Customer Electronics Control) function.
- High Speed HDMI<sup>™</sup> Cables are tested to carry an HD signal up to 1080p and higher.
- Supported HDMI Audio format : Dolby Digital (32 kHz, 44.1 kHz, 48 kHz), DTS (44.1 kHz, 48 kHz), PCM (32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 192 kHz) (Depending on model)

#### **DVI to HDMI connection**

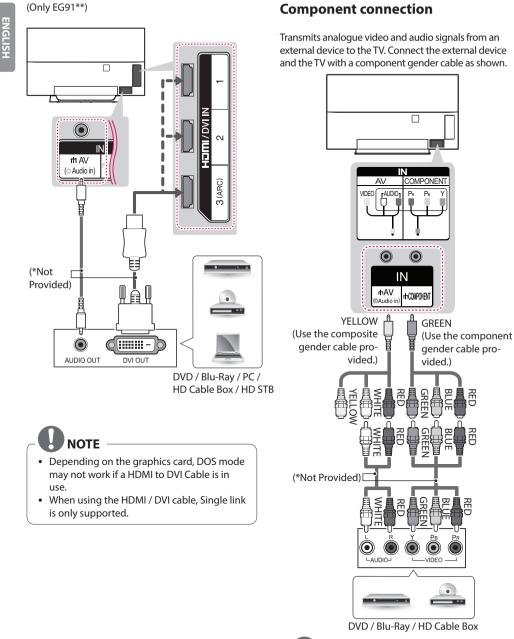
Transmits the digital video signal from an external device to the TV. Connect the external device and the TV with the DVI-HDMI cable as shown. To transmit an audio signal, connect an audio cable.

(Only EG96\*\*, EG92\*\*, EF95\*\*)



HD Cable Box / HD STB

#### 32 MAKING CONNECTIONS



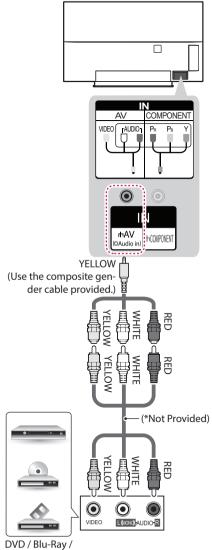
#### **Component connection**

• If cables are not installed correctly, it could cause this image to display in black and white or with distorted colours.

NOTE

#### **Composite connection**

Transmits analogue video and audio signals from an external device to the TV. Connect the external device and the TV with a composite gender cable as shown.



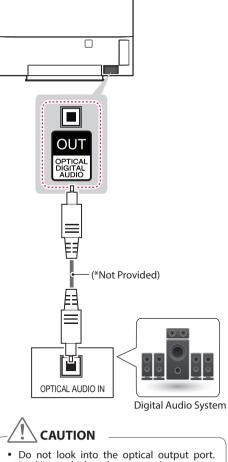
HD Cable Box / VCR

#### **Audio connection**

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

#### **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.



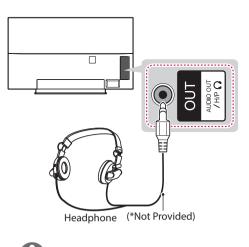
- Do not look into the optical output port. Looking at the laser beam may damage your vision.
- Audio with ACP (Audio Copy Protection) function may block digital audio output.

# ENGLISH

#### Headphone connection

Transmits the headphone signal from the TV to an external device. Connect the external device and the TV with the headphone as shown.

(Only EG96\*\*, EF95\*\*)



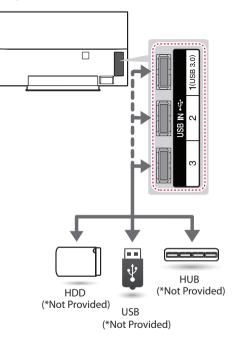
## NOTE

- AUDIO menu items are disabled when connecting a headphone.
- Optical Digital Audio Out is not available when connecting a headphone.
- Headphone impedance:  $16 \Omega$
- Max audio output of headphone: 0.627 mW to 1.334 mW
- Headphone jack size: 0.35 cm

#### **USB** connection

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

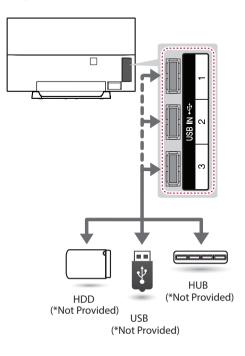
(Only EG96\*\*, EG92\*\*, EF95\*\*)



#### MAKING CONNECTIONS 35

ENGLISH

#### (Only EG91\*\*)

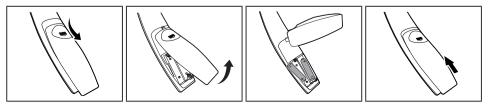


# NOTE Some USB Hubs may not work. If a USB device connected using a USB Hub is not detected, connect it to the USB IN port on

- the TV directly.Connect the external power source if your USB is needed.
- Connecting via USB 3.0 : Some USB device may not work if it dose not meet USB 3.0 standard. In case, connect it to USB IN 2 or USB IN 3 port. (Only EG96\*\*, EG92\*\*, EF95\*\*)

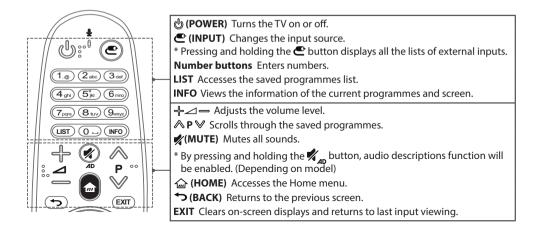
## MAGIC REMOTE FUNCTIONS

When the message "Magic Remote battery is low. Change the battery." is displayed, replace the battery. To replace batteries, open the battery cover, replace batteries (1.5 V AA) matching  $\bigoplus$  and  $\bigcirc$  ends to the label inside the compartment, and close the battery cover. Be sure to point the remote control toward 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.
- In Analogue TV and some countries, some remote control buttons may not work.



**Wheel (OK)** Press the center of the Wheel button to select a menu. You can change programmes by using the wheel button.

 $\triangle \nabla \triangleleft \bigcirc$  Navigation buttons (up/down/left/right)

Press the up, down, left or right button to scroll the menu. If you press  $\bigtriangleup \bigtriangledown \lhd \bigcirc \lhd \bigcirc$  buttons 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.

GUIDE Shows programme guide.

**Screen Remote**) Displays the Screen Remote.

\*Accesses the Universal Control Menu. (Depending on model)

**3D** Used for viewing 3D video.

## (Voice recognition)

#### (Depending on model)

Network connection is required to use the voice recognition function.

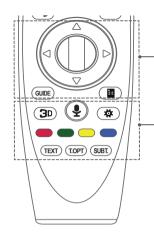
- 1. Press the voice recognition button.
- 2. Speak when the voice display window appears on the TV screen.
- Use the Magic Remote no further than 10 cm from your face.
- The voice recognition may fail when you speak too fast or too slowly.
- The recognition rate may vary depending on the user's characteristics (voice, pronunciation, intonation, and speed) and the environment (noise and TV volume).

**(Q. Settings)** Accesses the Quick Settings.

\* Pressing and holding the 🕸 button displays the **Advanced** menu.

**Coloured buttons** These access special functions in some menus.

**TELETEXT buttons(TEXT, T.OPT)** These buttons are used for teletext. **SUBT.** Recalls your preferred subtitle in digital mode.



#### **Registering magic remote**

#### How to register the magic remote



- 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.

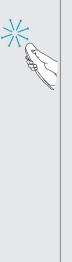
#### How to deregister the magic remote



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 **EXIT** button will let you cancel and reregister Magic Remote at once.

#### How to use magic remote



- 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 is not responding smoothly, you can reset the pointer by moving it to the edge of the screen.
- The Magic Remote depletes batteries faster than a normal remote due to the additional features.

# 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 battery.
- Do not drop the battery. Avoid extreme shocks to the battery.
- Inserting the battery in the wrong way may result in explosion.

# **USING THE USER GUIDE**

User Guide allows you to more easily access the detailed TV information.

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





# MAINTENANCE

# **Cleaning your TV**

Clean your TV regularly to keep the best performance and to extend the product lifespan.



- Make sure to turn the power off and disconnect the power cord and all other cables first.
- When the TV is left unattended and 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.

# 

- Avoid touching the screen at all times, as this may result in damage to the screen.
- Do not push, rub, or hit the screen surface with your fingernail or a sharp object, as this may result in scratches and image distortions.
- Do not use any chemicals as this may damage the product.
- 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.  | <ul> <li>Check the remote control sensor on the product and try again.</li> <li>Check if there is any obstacle between the product and the remote control.</li> <li>Check if the batteries are still working and properly installed<br/>(⊕ to ⊕, ⊖ to ⊖).</li> </ul>   |
| No image display and no sound is produced.  | <ul> <li>Check if the product is turned on.</li> <li>Check if the power cord is connected to a wall outlet.</li> <li>Check if there is a problem in the wall outlet by connecting other products.</li> </ul>   |
| The TV turns off suddenly.  | <ul> <li>Check the power control settings. The power supply may be interrupted.</li> <li>Check if the Sleep Timer or Timer Power Off feature is activated in the TIMERS settings.</li> <li>If there is no signal while the TV is on, the TV will turn off automatically after 15 minutes of inactivity.</li> </ul> |
| When connecting to the PC<br>(HDMI/DVI), 'No signal' or<br>'Invalid Format' is displayed. | <ul> <li>Turn the TV off/on using the remote control.</li> <li>Reconnect the HDMI cable.</li> <li>Restart the PC with the TV on.</li> </ul>  |

# **EXTERNAL CONTROL DEVICE SETUP**

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

ENGLISH

# **ENVIRONMENTAL INFORMATION**

(India region only)

# Disposal of your old appliance (as per e-waste Rules)



- 1. When this crossed out wheeled bin symbol is depicted on the product and its operator's manual, it means the product is covered by the e-waste Management and Handling Rules, 2011 and are meant to be recycled, dismantled, refurbished or disposed off.
- 2. **Do's :** 
  - a. The product is required to be handed over only to the authorized recycler for disposal.b. Keep the product in isolated area, after it becomes non-functional/unrepairable so as to prevent its accidental breakage.

#### Don't :

- a. The product should not be opened by the user himself/herself, but only by authorized service personnel.
- b. The product is not meant for re-sale to any unauthorized agencies/scrap dealer/kabariwalah.
- c. The product is not meant for mixing into household waste stream.
- d. Do not keep any replaced spare part(s) from the product in exposed area.
- 3. Any disposal through unauthorized agencies/person will attract action under Environment (Protection) Act 1986.
- 4. "This product is complied with the requirement of Hazardous Substances as specified under Rule 13 (1) & (2) of the E-Waste (Management & Handling) Rules, 2011."
- 5. To locate a nearest collection centre or call for pick-up (limited area only) for disposal of this appliance, please contact Toll Free No. 1800-315-9999 / 1800-180-9999 for details. All collection centre and pick up facilities are done by third parties with LG Electronics India Pvt. Ltd. Merely as a facilitator. For more detailed information, please visit : <u>http://www.lge.com/in</u>.

# पर्यावरणीय जानकारी

# अपने पुराने निपटान के उपकरण ( ई-अपशिष्ट नियम के अनुसार )



 .जब इस काटे गए पहिये वाले बिन का चिन्ह किसी उपकरण और इसके ओपेरटर की पुस्तिका के साथ संलग्न होता है तो इसका मतलब है कि इसे "ई-अपशिष्ट" (प्रबधन और हथालन) नियम २०११ के अंतर्गत सम्मिलित किया गया है, और इसे नवीनीकरणकरन, विघटन और निपटान के लिए बनाया गया है।

2. करें :

क. उपकरण को सिर्फ अधिकृत पुनः नवीनीकरणकर्ता को ही निपतारण करने हेत् हस्तांतरित करें ।

खें. जब उपकरण कार्यरत न हो इसे अलग क्षेत्र में रखें ताकि उपकरण से होने वाली दुर्घटनाओ से बचा जा सके ।

न करें :

क इस उपकरण को स्वयं/खुद नहीं खोलना चाहिए ! उपकरण को केवल अधिकृत अधिकारी के द्वारा ही खोला जाना चाहिए ।

. ख. इस उपकरण को पुनेः बिक्री के लिए किसी भी कबाड़ीवाला / भंगार-वाला / अनाधिकृत संस्था को न दें ।

ग. इस उपकरण को किसी घरेल् अपशिष्ट सामान के साथ मिलाकर न रखें । घ. उपकरण के बदले हुए या आतरिक पुरजो को खुले क्षेत्र में न रखें ।

 यदि किसी अनाधिकृत विभाग या व्यक्ति के द्वारा निपटारन किया जाता है तो यह पर्यावरण (सुरक्षा) धारा १९८६ के अंतर्गत आता है।

4. यह उत्पाद ई-अपशिष्ट (प्रबंधन और हथालन) नियम 2011 के अन्तर्गत 13(1) एवं (2) के तहत निर्दिष्ट खतरनाक पदार्थों की आवश्यकता का पालन करता है

5. उपरोक्त पदार्थों के निपटारन के लिए नजदीकी निपटारन संसथान (संकीर्ण क्षेत्र )में कॉल करें। अधिक जानकारी के लिए हमारे टोल फ्री नंबर 1800–315– 9999 / 1800–180–9999 पर कॉल करें. सभी संग्रहण केंद्र व पिक-अप की सुविधाएं किसी थर्ड- पार्टी जो LG Electronics India Pvt. Ltd. को अपनी सेवाएं प्रदान कर रही हों, से करवाएं।

ज्यादा जानकारी के लिए देखें वेब:साईट : http://www.lge.com/in

# **SPECIFICATIONS**

#### (Only EG91\*\*, EG92\*\*, EG96\*\*, EF95\*\*)

| Wireless module(LGSBW41) Specifications |   |                        |                       |  |
|---|---|------------------------|-----------------------|--|
| Wireless LAN                            |   | Bluetooth              |                       |  |
| Standard                                | IEEE 802.11a/b/g/n  | Standard               | Bluetooth Version 4.0 |  |
| Frequency<br>Range                      | 2400 to 2483.5 MHz<br>5150 to 5250 MHz<br>5725 to 5850 MHz(for Non EU)  | Frequency<br>Range     | 2400 to 2483.5 MHz    |  |
| Output Power<br>(Max.)                  | 802.11a: 13 dBm<br>802.11b: 15 dBm<br>802.11g: 14 dBm<br>802.11n - 2.4 GHz: 16 dBm<br>802.11n - 5 GHz: 16 dBm | Output Power<br>(Max.) | 10 dBm or Lower       |  |

• 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.

# €€0197

Product specifications may be changed without prior notice due to upgrade of product functions. For the power supply and power consumption, refer to the label attached to the product.

| Thickr            | ness(T)                              |  | Depth(D)   |
|-------------------|--------------------------------------|--|--|
|                   |                                      | EGS  | 96**   |
|                   | MODELS                               | 55EG960T-TA<br>55EG960Y-TA<br>55EG965T-TA<br>55EG965Y-TA | 65EG960T-TA<br>65EG960Y-TA<br>65EG965T-TA<br>65EG965Y-TA |
| Dimensions        | With stand (mm)<br>(W x H x D)       | 1226 x 760 x 213   | 1447 x 884 x 237   |
|                   | Without stand (mm)<br>(W x H x T(D)) | 1226 x 719 x 50.1(87.8)                                  | 1447 x 842 x 50.1(102.5)                                 |
| \ <b>A</b> /=:    | With stand (kg)                      | 19   | 26.9   |
| Weight            | Without stand (kg)                   | 15.3   | 21.7   |
| Power requirement |                                      | AC 100-240   | V~ 50 / 60 Hz  |

ENGLISH

| MODELS                  |                                      | EG91**                  | EG92**                  |
|-------------------------|--------------------------------------|-------------------------|-------------------------|
|                         |                                      | 55EG910T-TB             | 55EG920T-TA             |
|                         |                                      | 55EG910Y-TB             | 55EG920Y-TA             |
| Dimensions              | With stand (mm)<br>(W x H x D)       | 1225 x 760 x 208        | 1225 x 762 x 191        |
| Dimensions              | Without stand (mm)<br>(W x H x T(D)) | 1225 x 719 x 48.9(87.3) | 1225 x 719 x 48.9(87.3) |
| Weight                  | With stand (kg)                      | 15.0                    | 16.5                    |
| weight                  | Without stand (kg)                   | 12.8                    | 13.2                    |
| Power require           | ment                                 | AC 100-240              | V~ 50 / 60 Hz           |
| MODELS                  |                                      | EFS                     | 95**                    |
|                         |                                      | 55EF950T-TA             | 65EF950T-TA             |
| Dimensions              | With stand (mm)                      | 1228 x 760 x 215        | 1450 x 883 x 236        |
| $(W \times H \times D)$ | Without stand (mm)                   | 1228 x 718 x 50.1       | 1450 x 842 x 50.1       |
|                         | With stand (kg)                      | 17.2                    | 25.8                    |
| Weight                  | Without stand (kg)                   | 13.6                    | 21.2                    |
| Power requirement       |                                      | AC 100-240              | V~ 50 / 60 Hz           |

|             | Operating Temperature | 0 °C to 40 °C   |
|-------------|-----------------------|-----------------|
| Environment | Operating Humidity    | Less than 80 %  |
| condition   | Storage Temperature   | -20 °C to 60 °C |
|             | Storage Humidity      | Less than 85 %  |

|                                       | Digital TV                     | Analogue TV  |  |
|---------------------------------------|--------------------------------|--|--|
|                                       | (Depending on country)         | (Depending on country)   |  |
| Television System                     | DVB-T(*DVB-T/T2)               | PAL B/B, PAL B/G, PAL D/K, PAL-I<br>SECAM B/G, SECAM D/K<br>NTSC-M |  |
| Programme Coverage                    | VHF, UHF VHF, UHF, CATV        |  |  |
| Maximum number of storable programmes | DVB-T/T2 & Analogue TV : 1,500 |  |  |
| External Antenna Impedance            | 75 Ω                           |  |  |

\*: Only DVB-T2 support models.



Record the model number and serial number of the TV. Refer to the label on the back cover and

quote this information to your dealer when requiring any service.

MODEL \_

SERIAL \_

(Only DTV)





OWNER'S MANUAL

# EXTERNAL CONTROL DEVICE SETUP

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

www.lg.com

# 2 KEY CODES



# **KEY CODES**

• This feature is not available for all models.

| Code<br>(Hexa) | Function                       | Note       | Code<br>(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 | 7A             | User Guide                         | R/C Button |
| 0F             | TV, TV/RAD                     | R/C Button | 7C             | Smart / Home                       | R/C Button |
| 10 - 19        | * Number Key 0 - 9             | R/C Button | 7E             | SIMPLINK                           | R/C Button |
| 1A             | Q.View / Flashback             | R/C Button | 8E             | ►► (Forward)                       | R/C Button |
| 1E             | FAV (Favorite Channel)         | R/C Button | 8F             | <ul><li>◄ (Rewind)</li></ul>       | R/C Button |
| 20             | Text (Teletext)                | R/C Button | AA             | Info                               | R/C Button |
| 21             | T. Opt (Teletext Option)       | R/C Button | AB             | Program Guide                      | R/C Button |
| 28             | Return (BACK)                  | R/C Button | B0             | ► (Play)                           | R/C Button |
| 30             | AV (Audio / Video) Mode        | R/C Button | B1             | ■ (Stop / File List)               | R/C Button |
| 39             | Caption/Subtitle               | R/C Button | BA             | II (Freeze / Slow Play /<br>Pause) | R/C Button |
| 40             | Λ (Arrow Key / Cursor Up)      | R/C Button | BB             | Soccer                             | R/C Button |
| 41             | V (Arrow Key / Cursor<br>Down) | R/C Button | BD             | • (REC)                            | R/C Button |
| 42             | My Apps                        | R/C Button | DC             | 3D                                 | R/C Button |
| 43             | Menu / Settings                | R/C Button | 99             | AutoConfig                         | R/C Button |
| 44             | OK / Enter                     | R/C Button | 9F             | Арр / *                            | R/C Button |
| 45             | Q.Menu                         | R/C Button | 9B             | TV/PC                              | R/C Button |
| 4C             | List, - (ATSC Only)            | 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.

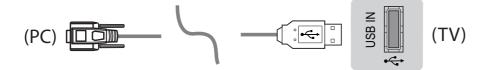
Connect the USB to Serial converter/RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

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

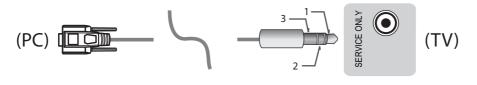
• You need to purchase the RS-232C (DE9, D-Sub 9pin female-to-female type) to RS-232C cable required for the connection between the PC and the TV, which is specified in the manual.



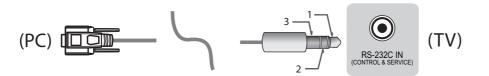
The connection interface may differ from your TV.

Phone jack Type

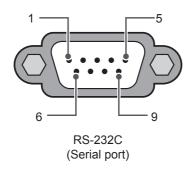
- · You need to purchase the phone-jack to RS-232 cable required for the connection between the PC and the TV, which is specified in the manual.
- \* For other models, connect to the USB port.
- \* The connection interface may differ from your TV.



- or

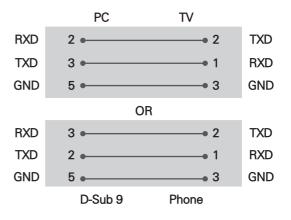


# **Customer Computer**



# **RS-232C** configurations

3-Wire Configurations(Not standard)



# Set ID

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

- 1. Press SETTINGS to access the main menus.
- 2. Press the Navigation buttons to scroll to (\*General  $\rightarrow$  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)

G

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

| (4:3)                | (Europe, Colombia, Mid-East, |
|----------------------|------------------------------|
| 02 : Wide screen     | Asia except South Korea and  |
| (16:9)               | Japan)                       |
| 04 : Zoom            | 09 : * Just Scan             |
| 05 : Zoom 2          | 0B : Full Wide               |
| (Latin America       | (Europe, Colombia, Mid-      |
| except Colombia      | East, Asia except South      |
| Only)                | Korea and Japan)             |
| 06 : Set by Program/ | 10 to 1F : Cinema Zoom 1     |
| Original             | to 16                        |

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

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

Data 00 : OSD off 01 : OSD on

#### Ack [I][ ][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]

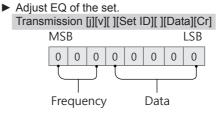
- 16. Color(Colour) Temperature (Command: x u)
- To adjust colour temperature. You can also adjust Color(Colour) Temperature in the PICTURE menu.
   Transmission [x][u][ ][Set ID][ ][Data][Cr]

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)



| 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) |

# ENGLISH

| 1 | 0   | 0 | 5th Band | 1 | 0 | 1 | 0 | 0 | 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 = AII = 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) Úse 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 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:

Total = ma 00 23 00 00 00 01

- 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
- 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 = AII = 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 = AII = 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: mg)
- 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<br>60 : RGB | 41 | : Component2 |
| 90 : HDMI1                  |    | : 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 | 0 | 0 | 0 |
|----|---|---|---|
| 01 | Х | Х | Х |
| 02 | Х | Х | Х |
| 03 | Х | 0 | 0 |

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
- 03 : Extreme 02 : Cinema 05 : Auto
- 04 : Manual

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

# 12 EXTERNAL CONTROL DEVICE SETUP

- 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 : Run Auto Configure

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