



**LG**

Life's Good

# OWNER'S MANUAL LED LCD TV

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

LT64\*\*  
LT65\*\*  
LT74\*\*  
LT76\*\*  
LS34\*\*  
LS64\*\*

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### WARNING

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

### CAUTION

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

### NOTE

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

# LICENSES

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Covered by one or more of the following U.S. patents :  
7,295,673; 7,460,668; 7,515,710; 7,519,274

# OPEN SOURCE SOFTWARE NOTICE

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](mailto:opensource@lge.com). This offer is valid for three (3) years from the date on which you purchased the product.

**NOTE**

- Image shown may differ from your TV.
- Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this TV in the future.
- 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. (Only LT74\*\*, LT76\*\*)

## ASSEMBLING AND PREPARING

### Unpacking

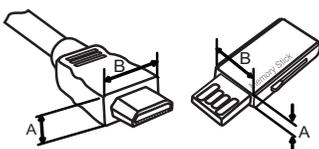
Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.

**CAUTION**

- Do not use any unapproved items to ensure the safety and 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.

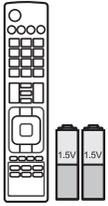
**NOTE**

- 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.



\*A ≤ 10 mm

\*B ≤ 18 mm



**Remote control,  
Batteries (AAA)**  
(See p.28, 29, 30, 31)



**Owner's manual**



**Cable holder**  
(Depending on model)  
(See p.19)



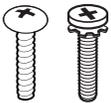
**Power cord**  
(Depending on model)



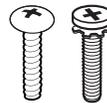
**Stand Screws**  
8 EA, M4 x 12  
(Only 26LT64\*\*, 26LT65\*\*)  
(See p.12)



**Stand Screws**  
8 EA, M4 x 14  
(Only 32/37/42/47LT64\*\*,  
32/37/42/47LT65\*\*,  
32/37/42/47LT74\*\*,  
32/37/42/47LT76\*\*)  
(See p.13)



**Stand Screws**  
2EA, P4 x 16  
4EA, M4 x 20  
(Only 32LS34\*\*)  
(See p.13)



**Stand Screws**  
4EA, P4 x 16  
4EA, M4 x 14  
(Only 42LS34\*\*)  
(See p.14)



**Stand Screws**  
8 EA, M4 x 20  
(Only 55LS64\*\*)  
(See p.14)



**Desk-mount Screw**  
1 EA  
(Only 32/37/42/47LT64\*\*,  
32/37/42/47LT65\*\*,  
32/37/42/47LT74\*\*,  
32/37/42/47LT76\*\*,  
32/42LS34\*\*)  
(See p.15)



**Wall mount Screws**  
4 EA, M6 x 51  
(Only 47LT\*\*\*\* models)



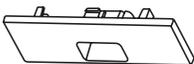
**Stand Screws**  
4EA, M4 x 12  
2EA, P4 x 16  
(Only 22LT65\*\*)  
(See p.12)



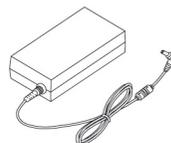
**Power Cord holder**  
(Only 32/37/42/47LT64\*\*,  
32/37/42/47LT65\*\*,  
32/37/42/47LT74\*\*,  
32/37/42/47LT76\*\*)  
(See p.19)



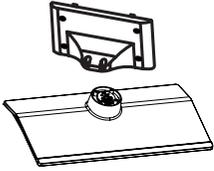
**Protection cover**  
(Only 32/37/42/47LT64\*\*,  
32/37/42/47LT65\*\*,  
32/37/42/47LT74\*\*,  
32/37/42/47LT76\*\*)  
(See p.18)



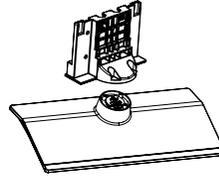
**Protection cover**  
(Only 32LS34\*\*)  
(See p.18)



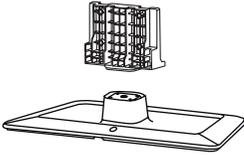
**DC Adapter**  
(Only 26LT64\*\*,  
22/26LT65\*\*)  
(See p.20)



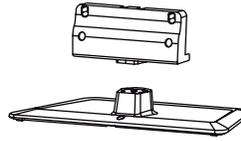
**Stand body / Stand base**  
 (Only 26LT64\*\*,  
 22/26LT65\*\*)  
 (See p.12)



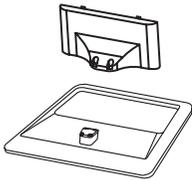
**Stand body / Stand base**  
 (Only 32/37/42/47LT64\*\*,  
 32/37/42/47LT65\*\*,  
 32/37/42/47LT74\*\*,  
 32/37/42/47LT76\*\*)  
 (See p.13)



**Stand body / Stand base**  
 (Only 32LS34\*\*)  
 (See p.13)



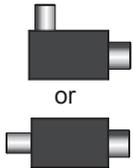
**Stand body / Stand base**  
 (Only 42LS34\*\*)  
 (See p.14)



**Stand body / Stand base**  
 (Only 55LS64\*\*)  
 (See p.14)



**EzSign 2.0 Editor CD**  
 (Only LT640E)



**Isolator**  
 (Depending on model)  
 (See p.7)

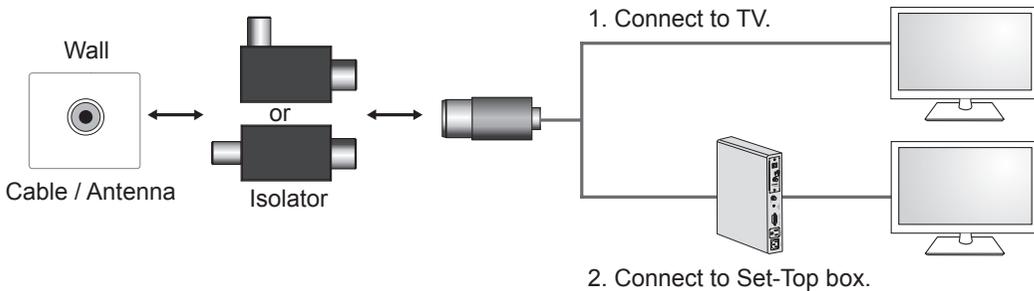


**Wall mount inner spacers**  
 4EA  
 (Only 55LS64\*\*)  
 (See p.18)

**NOTE**

- Antenna Isolator Installation Guide

- Use this to install TV in a place where there is a voltage difference between TV Set and GND of antenna signal.
  - » If there is a voltage difference between TV Set and GND of antenna signal, the antenna contact might be heated and excessive heat might cause an accident.
- You can improve the safety when watching TV by efficiently removing power voltage from TV antenna. It is recommended to mount the isolator to the wall. If it cannot be mounted to the wall, mount it on the TV. Avoid disconnecting the antenna Isolator after installation.
- Before starting, be sure that the TV antenna is connected.



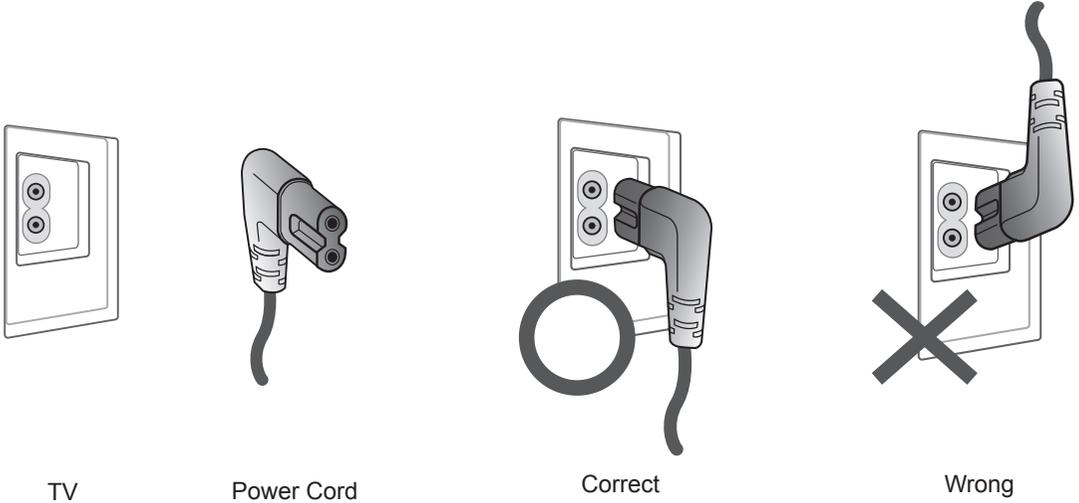
Connect one end of the isolator to cable/antenna jack and the other to TV set or set-top box.

“Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”

When applying the RF Isolator, a slight loss of signal sensitivity can occur.

**CAUTION**

- Power Cord Installation Guide
- If the power cord provided with TV looks like the below picture, please ensure that it is inserted in the right direction.



**Separate purchase**

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

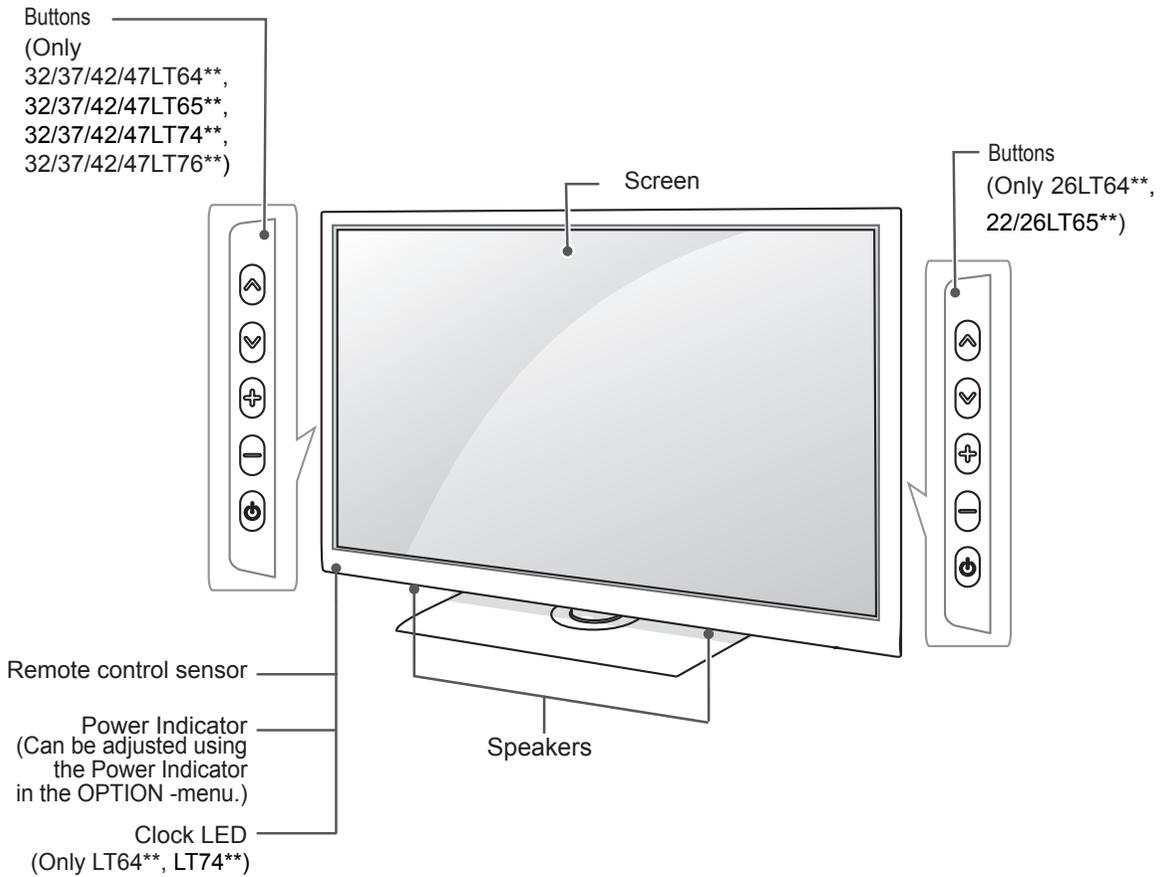


**AN-WF100**  
Wireless Dongle  
(Only LT640E)

<b>Compatibility</b>	LT640E	LT640H, LT650H, LT740H, LT760H, LS345H, LS645H
<b>AN-WF100</b> Wireless Dongle	•	

## Parts and buttons

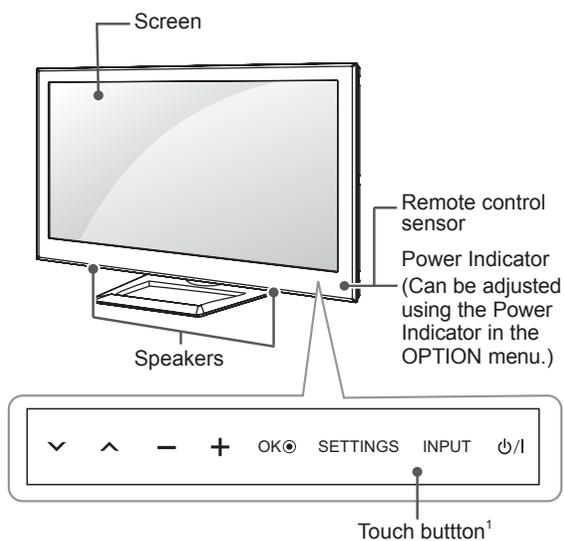
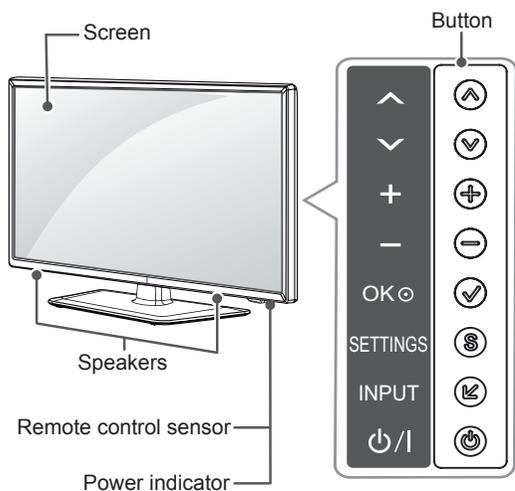
(Only LT64\*\*, LT65\*\*, LT74\*\*, LT76\*\*)



Button	Description
^ v	Scrolls through the saved programmes.
+ -	Adjusts the volume level.
⏻	Turns the power on or off.

(A type : Only 32/42LS34\*\*)

(B type : Only 55LS64\*\*)



A type	B type	Description
Button	Touch button	
^ v	v ^	Scrolls through the saved programmes.
+ -	- +	Adjusts the volume level.
✓	OK	Selects the highlighted menu option or confirms an input.
S	SETTINGS	Accesses the main menu, or saves your input and exits the menus.
↵	INPUT	Changes the input source.
⏻	⏻ / I	Turns the power on or off.

1 B type buttons are touch sensitive and can be operated through simple touch with your finger.

## Lifting and moving the TV

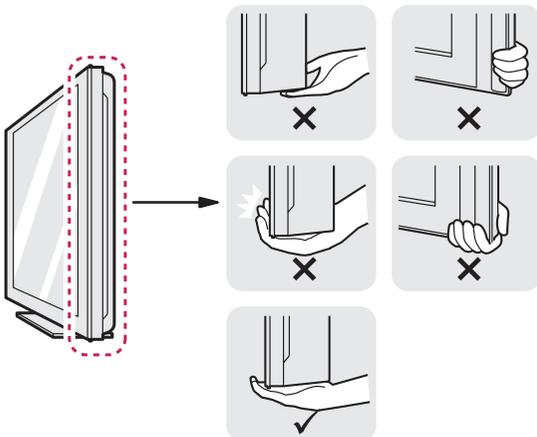
When moving or lifting the TV, read the following to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

### CAUTION

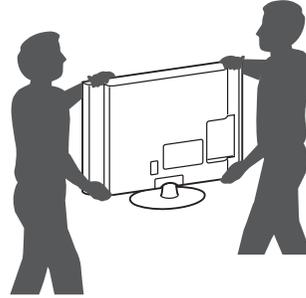
- Avoid touching the screen at all times, as this may result in damage to the screen.
- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should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

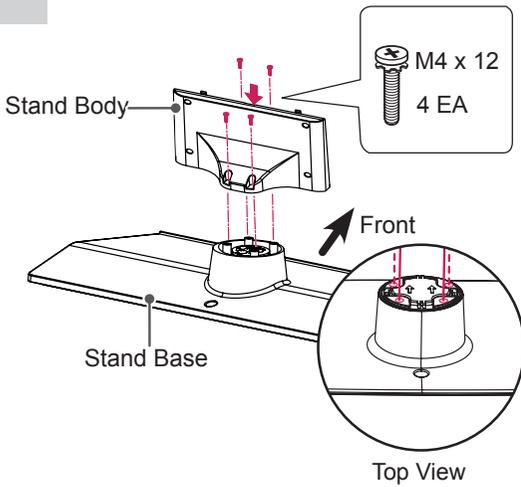
## Setting up the TV

Put your TV on a pedestal stand and mount the TV on a table or wall.

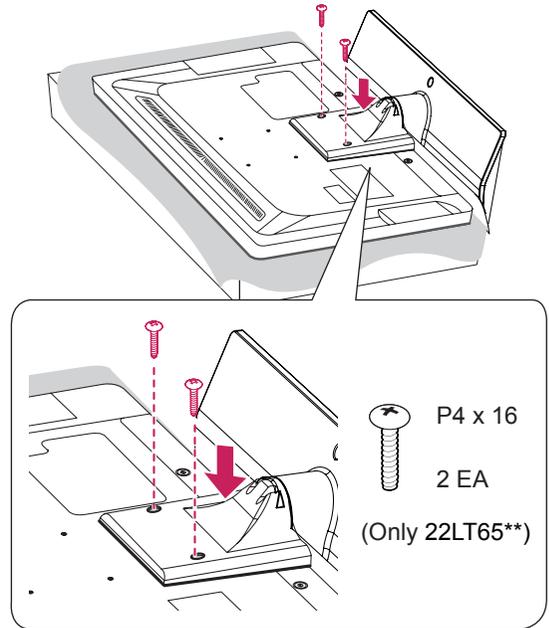
### Attaching the stand

(Only 26LT64\*\*, 22/26LT65\*\*)

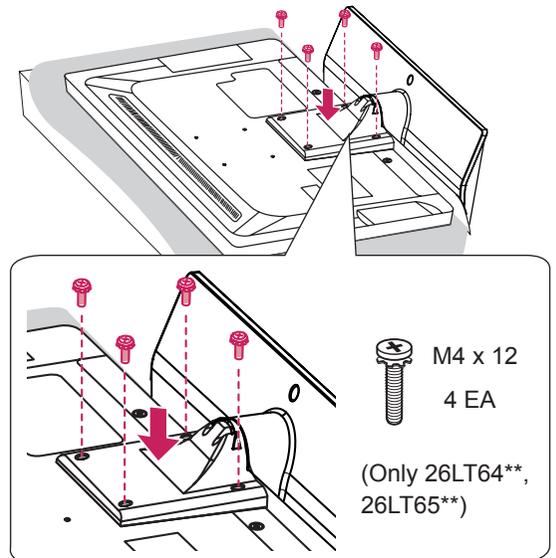
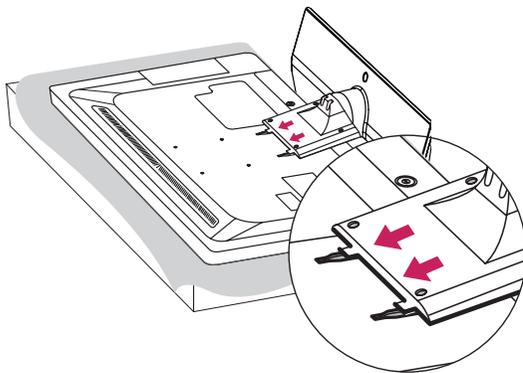
1



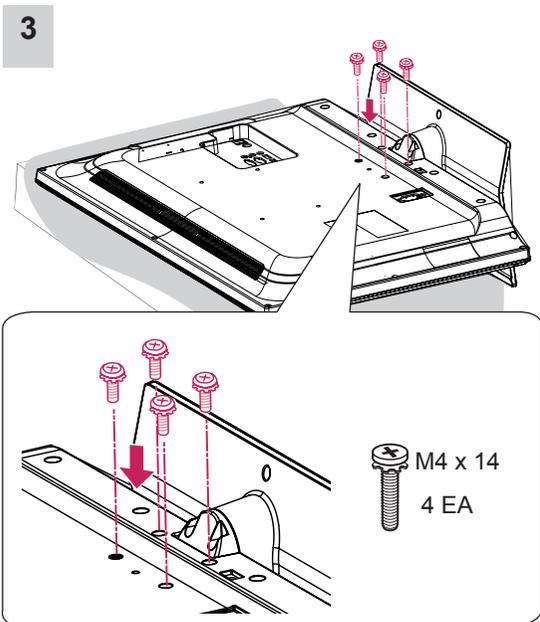
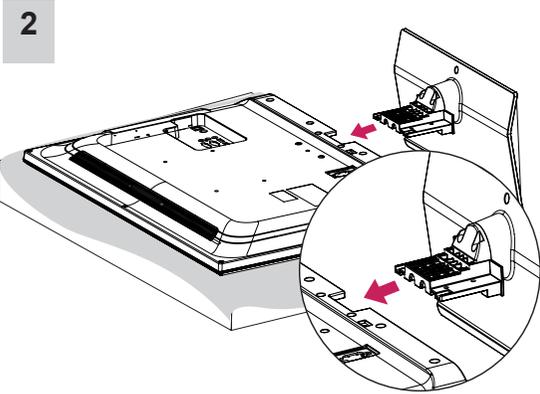
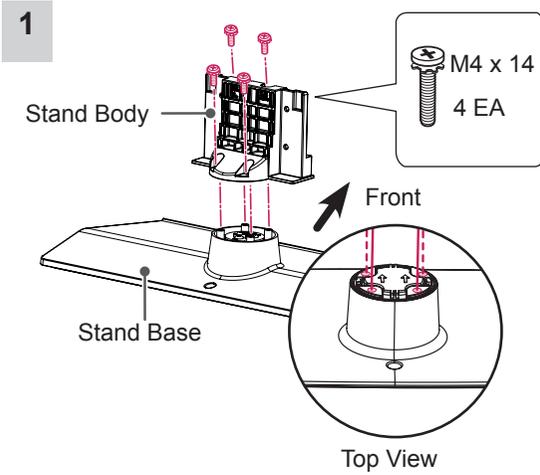
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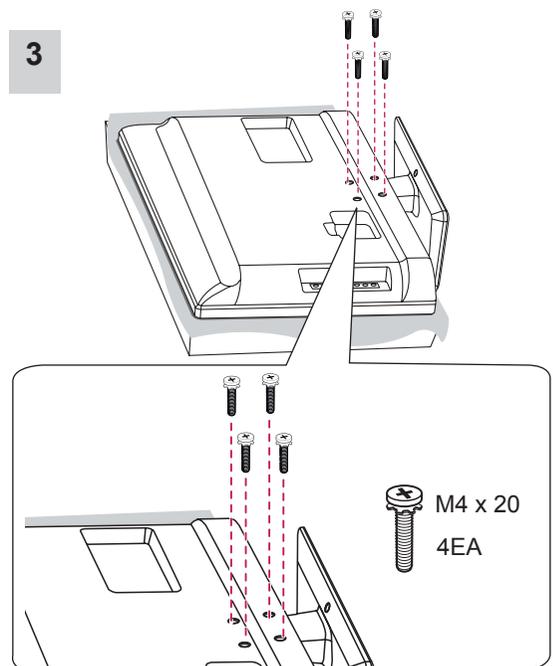
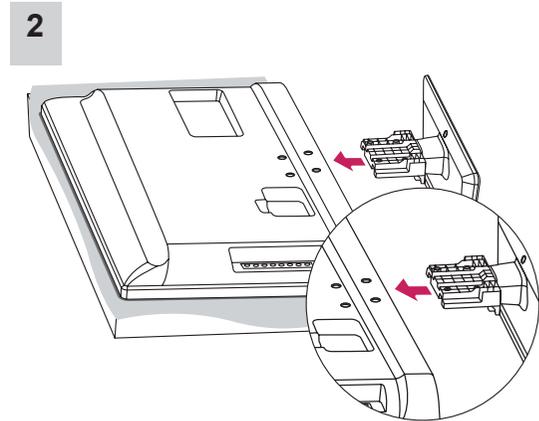
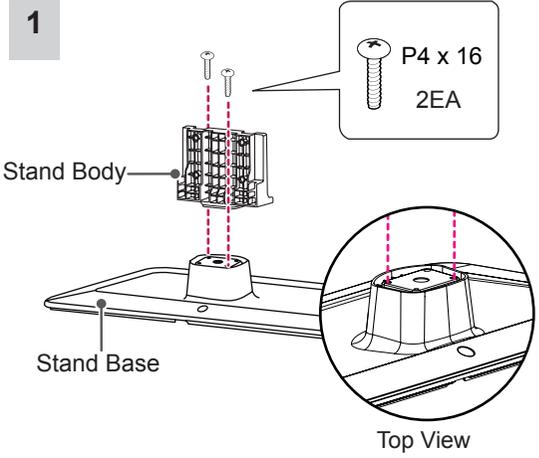
2



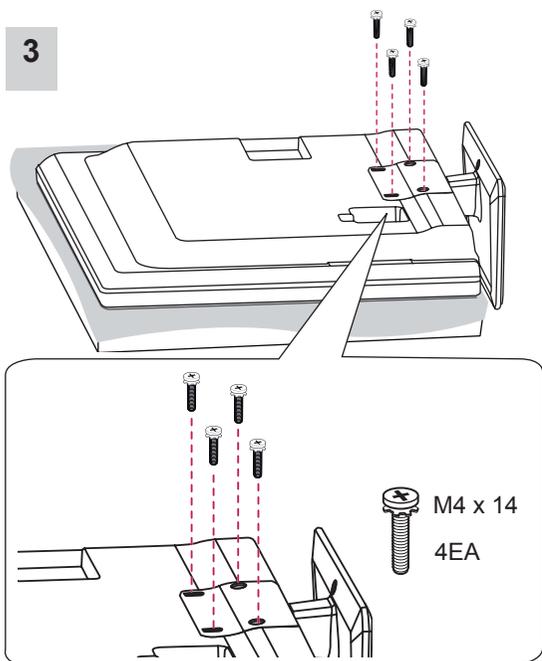
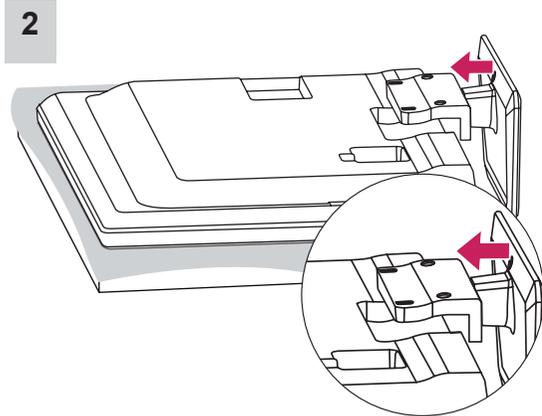
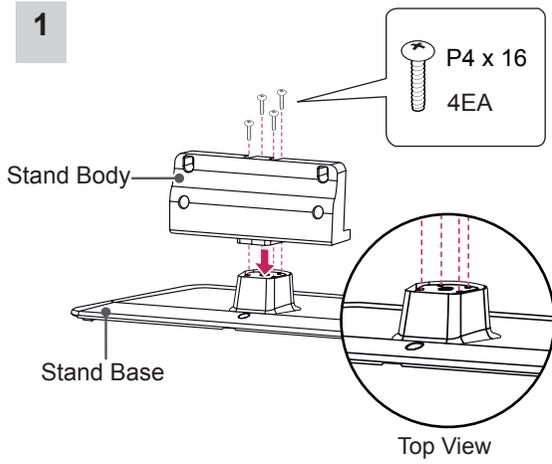
(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, 32/37/42/47LT74\*\*, 32/37/42/47LT76\*\*)



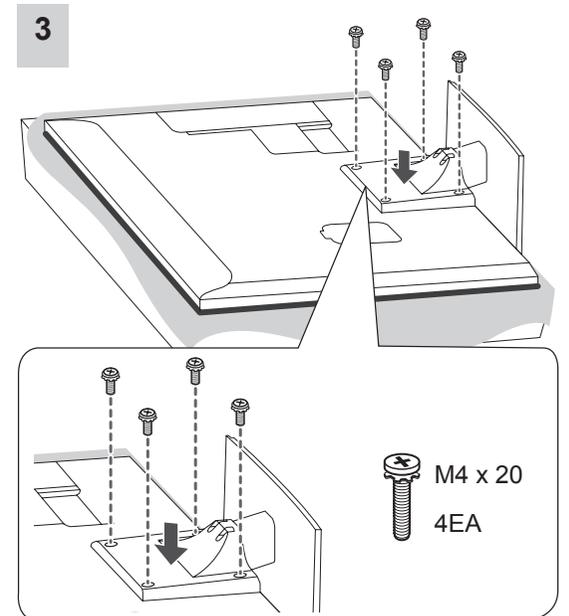
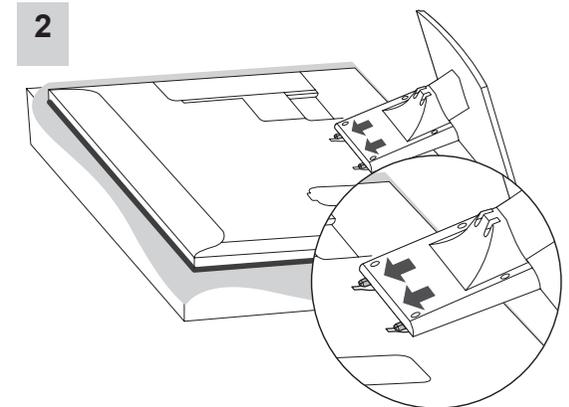
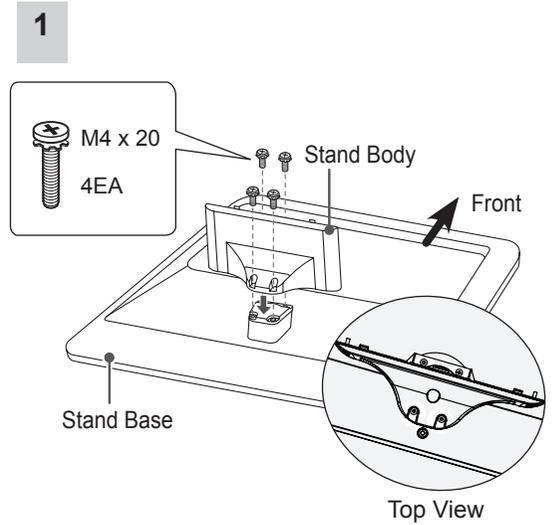
(Only 32LS34\*\*)



(Only 42LS34\*\*)



(Only 55LS64\*\*)



**CAUTION**

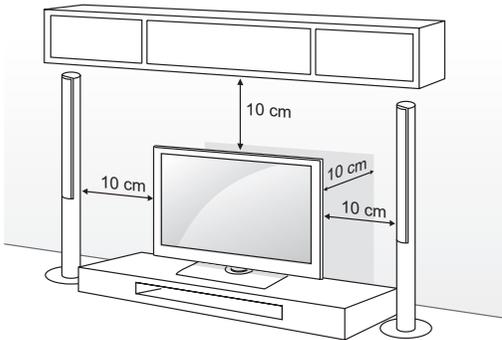
- When attaching the stand to the TV set, place the screen facing down on a cushioned table or flat surface to protect the screen from scratches.
- Make sure that the screws are inserted correctly and fastened securely. If they are not fastened securely enough, the TV may tilt forward after being installed. Do not use too much force and over tighten the screws; otherwise screw may be damaged and not tighten correctly.

**NOTE**

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

**Mounting on a table**

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



- 2 Connect the power cord to a wall outlet.

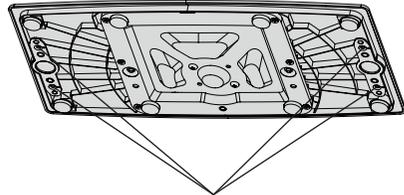
**CAUTION**

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

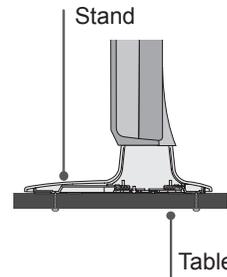
**Attaching the TV to a table**

Image shown may differ from your TV. The TV must be attached to desk so it cannot be pulled in a forward/backward direction, potentially causing injury or damaging the product.

(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, 32/37/42/47LT74\*\*, 32/37/42/47LT76\*\*)



4-Screws  
(not provided as parts of the product)

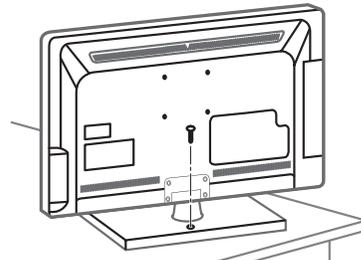


Screws: M5 x L (\*L: Table depth + 8-10 mm)  
ex) Table depth: 15 mm, Screw: M5 x 25

**Securing the TV to a table**

(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, 32/37/42/47LT74\*\*, 32/37/42/47LT76\*\*, 32/42LS34\*\*)

Fix the TV to a table to prevent from tilting forward, damage, and potential injury. Mount the TV on a table, and then insert and tighten the supplied screw on the rear of the stand.

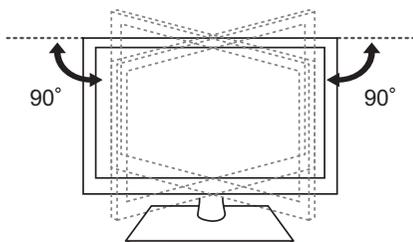


**WARNING**

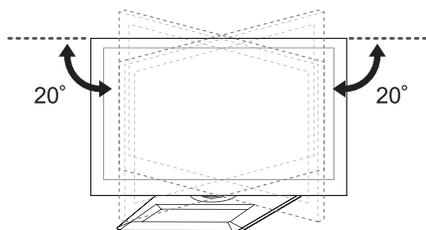
- To prevent TV from falling over, the TV should be securely attached to the floor/wall per installation instructions. Tipping, shaking, or rocking the TV may cause injury.

**Adjusting the angle of the TV to suit view**

Swivel 90 degrees to the left or right and adjust the angle of the TV to suit your view.  
(Only LT64\*\*, LT65\*\*, LT74\*\*, LT76\*\*)



Swivel 20 degrees to the left or right and adjust the angle of the TV to suit your view.  
(Only LS64\*\*)

**CAUTION**

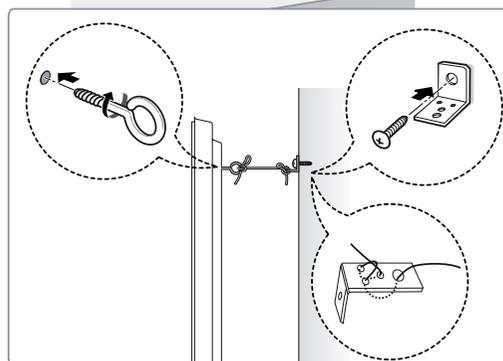
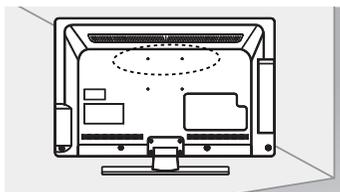
- When adjusting the angle of the product, watch out for your fingers.
  - » Personal injury may occur if hands or fingers are pinched. If the product is tilted too much, it may fall, causing damage or injury.

**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.

**CAUTION**

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

**NOTE**

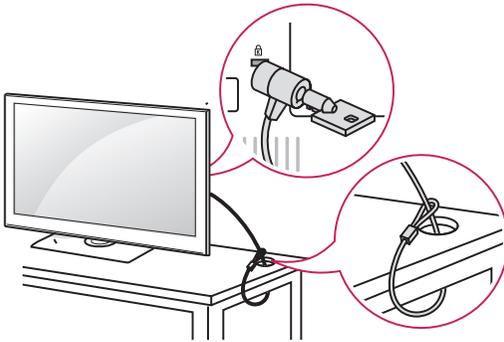
- Use a platform or cabinet that is strong and large enough to support the TV securely.
- Brackets, bolts and ropes are not provided. You can obtain additional accessories from your local dealer.

**Using the Kensington security system**

(This feature is not available for all models.)

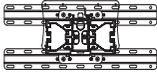
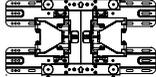
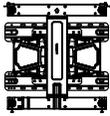
The Kensington security system connector is located at the rear of the TV. For more information of installation and using, refer to the manual provided with the Kensington security system or visit <http://www.kensington.com>.

Connect the Kensington security system cable between the TV and a table.



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

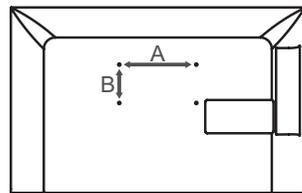
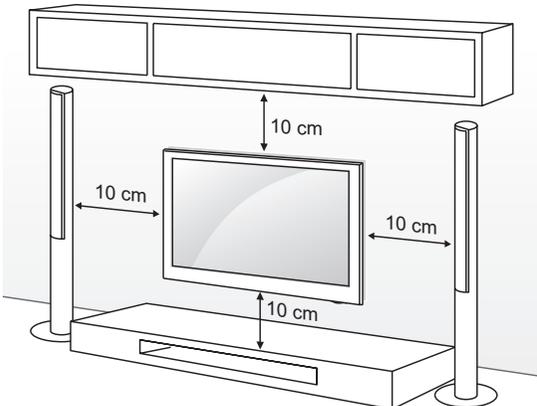
**Separate purchase (Wall Mounting Bracket)**

<b>Model</b>	26LT64** 22/26LT65**	32LT64** 32LT65** 32LT74** 32LT76** 32LS34**
<b>VESA</b>	100 x 100	200 x 100
<b>Standard screw</b>	M4	M4
<b>Number of screws</b>	4	4
<b>Wall mount bracket</b>	LSW100B(G) 	
<b>Model</b>	37/42LT64** 37/42LT65** 37/42LT74** 37/42LT76** 42LS34**	
<b>VESA</b>	200 x 200	
<b>Standard screw</b>	M6	
<b>Number of screws</b>	4	
<b>Wall mount bracket</b>	LSW200B(G) 	LSW220BX 
<b>Model</b>	47LT64** 47LT65** 47LT74** 47LT76** 55LS64**	
<b>VESA</b>	400 x 400	
<b>Standard screw</b>	M6	
<b>Number of screws</b>	4	
<b>Wall mount bracket</b>	LSW420BX 	

**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.

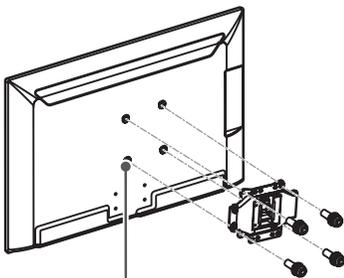


## ⚠ CAUTION

- 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 bracket 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 mount bracket that meet the VESA standard. Any damages or injuries by misuse or using an improper accessory are not covered by the manufacturer's warranty.
- On the 47LT\*\*\*\* models, use M6 x 51 screws.
- If you use the wall mounting bracket, do not fix screw into holes for assembling the stand.

## ! NOTE

- Use the screws that are listed on the VESA 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.
- When attaching a third-party wall mounting bracket to the TV, insert the wall mount inner spacers into the TV wall mount holes to move your TV in vertical angle. Please make sure not to use the spacers for LG wall mounting bracket. (Only 55LS64\*\*)



Wall Mount Inner Spacer

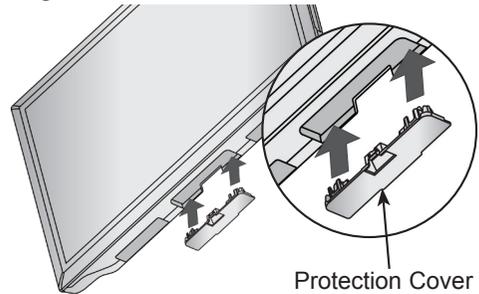
## Not using the DESK-TYPE STAND

(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, 32/37/42/47LT74\*\*, 32/37/42/47LT76\*\*)

Image shown may differ from your TV.

When installing the wall-mounted unit, use the protection cover.

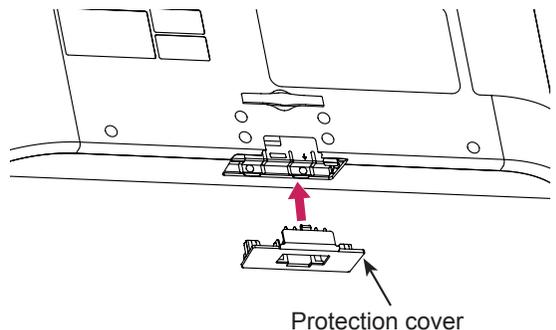
Insert the **Protection cover** into the TV until clicking sound.



(Only 32LS34\*\*)

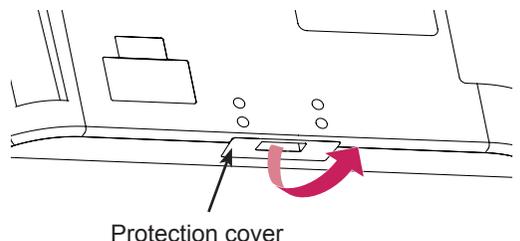
When installing the wall mounting bracket, use the Protection cover. This will protect the opening from accumulating dust and dirt.

- Push the supplied protection cover into the opening at the bottom of the TV until it locks in place.



## ! NOTE

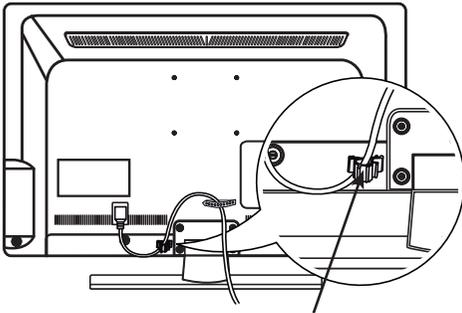
- When removing Protection Cover from bottom of TV insert your fingers into hole of cover hold firmly and pull upwards towards you to remove. (Only 32LS34\*\*)



## Tidying cables

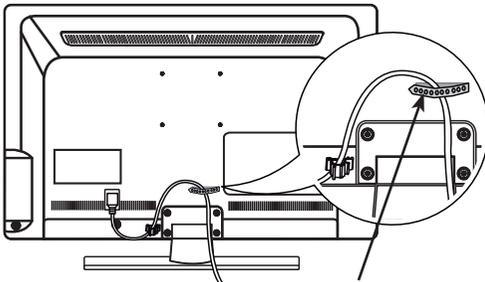
(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, 32/37/42/47LT74\*\*, 32/37/42/47LT76\*\*)

- 1 Install the Power Cord Holder and Power Cord. It will help prevent the power cable from being removed by accident.



Power Cord Holder

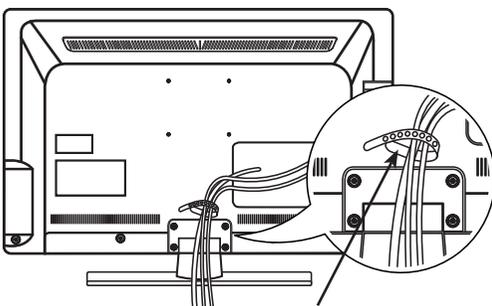
- 2 Gather and bind the cables with the cable holder.



Cable Holder

(Only 26LT64\*\*, 22/26LT65\*\*, 55LS64\*\*)

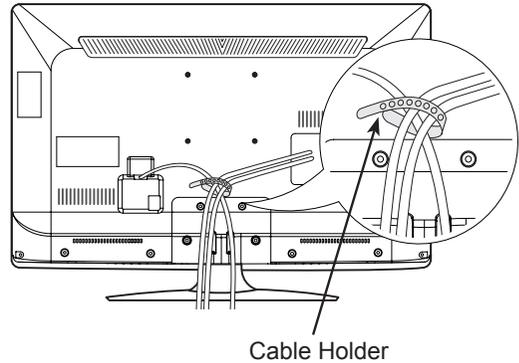
- 1 Gather and bind the cables with the cable holder.



Cable Holder

(Only 32/42LS34\*\*)

- 1 Gather and bind the cables with the Cable Holder on the TV back cover.



Cable Holder



### CAUTION

- Do not move the TV by holding the Cable Holder and Power Cord Holder, as the Cable holders may break, and injuries and damage to the TV may occur.

# MAKING CONNECTIONS

This section on **MAKING CONNECTIONS** mainly uses diagrams for the 32LT64\*\* models.

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

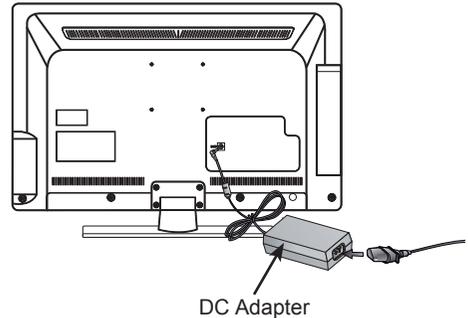
Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices.

## 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 on 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.

## Adapter connection

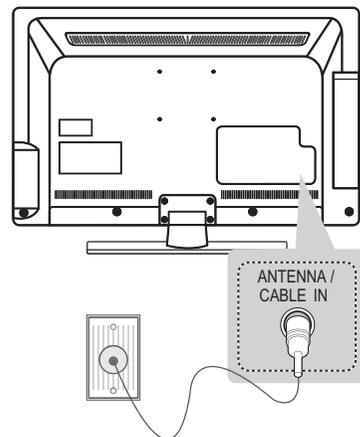
(Only 26LT64\*\*, 22/26LT65\*\*)



- 1 Connect the antenna cable to the antenna input port on the TV.
- 2 Connect the DC adapter plug to the power input jack on the TV.
- 3 Connect the power cord to the DC adapter first, then plug the power cord into the wall power outlet.

## Antenna connection

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

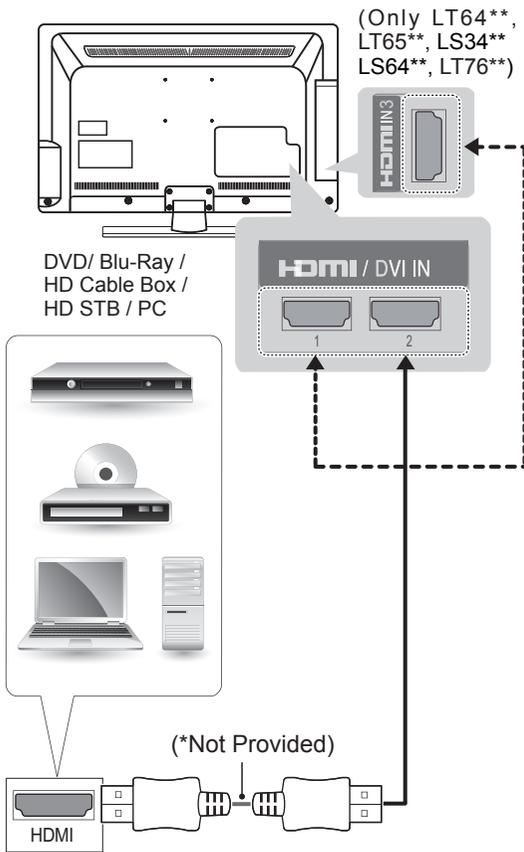


## NOTE

- 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 supplied.
- Supported DTV Audio: MPEG, Dolby Digital, Dolby Digital Plus, HE-AAC

## HDMI connection

Transmits the digital video and audio signals from your PC to the TV. Connect the PC and the TV with the HDMI cable as shown. Choose any HDMI input port to connect. It does not matter which port you use.



(Only 32/37/42/47LT76\*\*)

### ARC (Audio Return Channel)

- An external audio device that supports SIMPLINK and ARC must be connected using HDMI/DVI IN 1 (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.

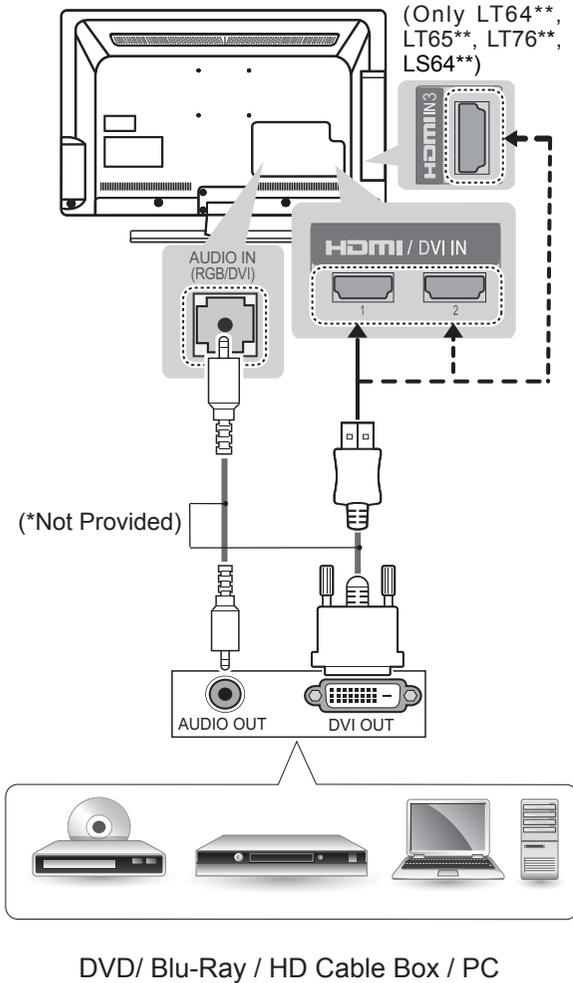
### NOTE

- It is recommended to use the TV with the HDMI connection for the best image quality.
- Use the latest High Speed HDMI™ Cable with CEC (Customer Electronics Control) function.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.
- Supported HDMI Audio format : Dolby Digital, PCM (Up to 192 KHz, 32 KHz/44.1 KHz/48 KHz/88 KHz/96 KHz/176 KHz/192 KHz, DTS Not supported.)

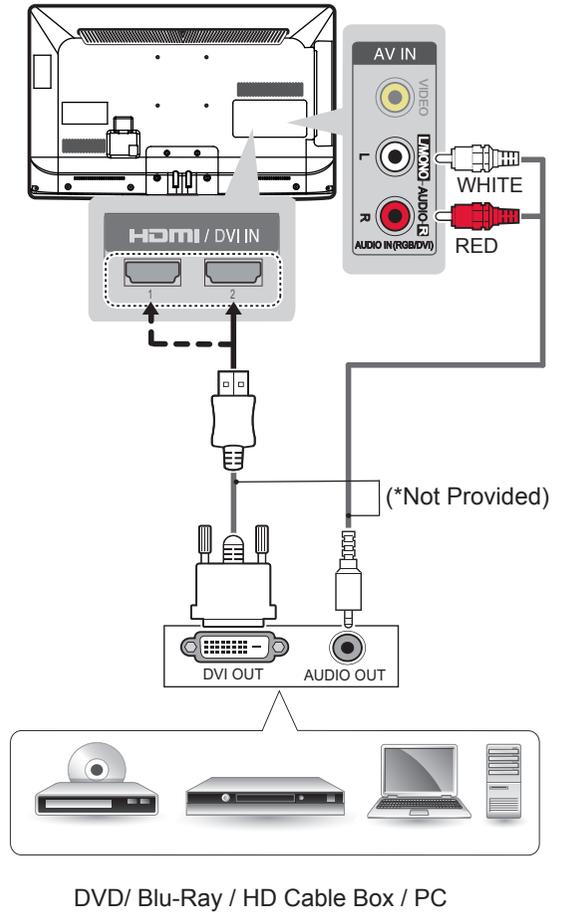
## DVI to HDMI connection

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. Choose any HDMI input port to connect. It does not matter which port you use.

(Only LT64\*\*, LT65\*\*, LT74\*\*, LT76\*\*, LS64\*\*)



(Only LS34\*\*)



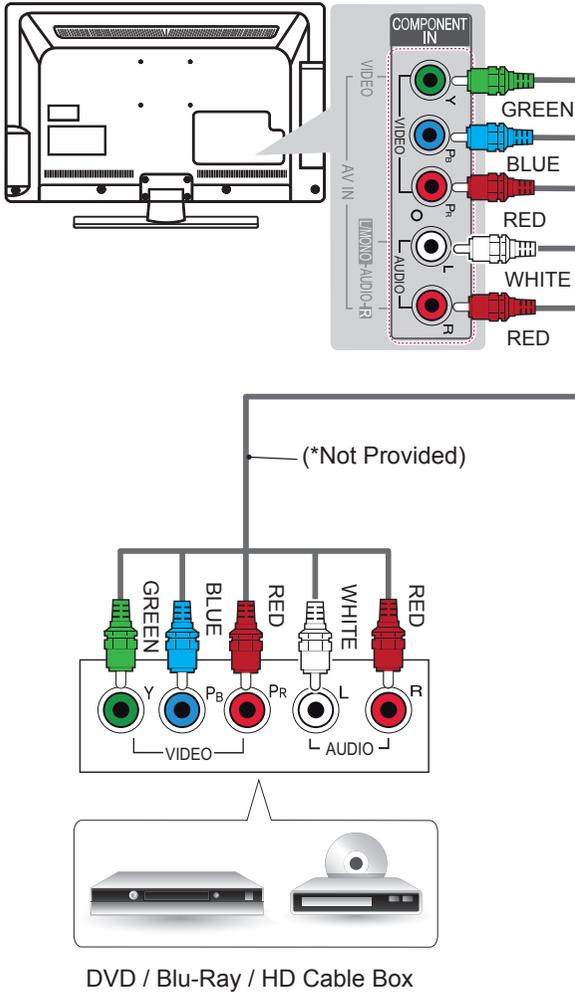
**NOTE**

- Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.

## Component connection

(Only LT64\*\*, LT65\*\*, LT74\*\*, LS64\*\*)

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



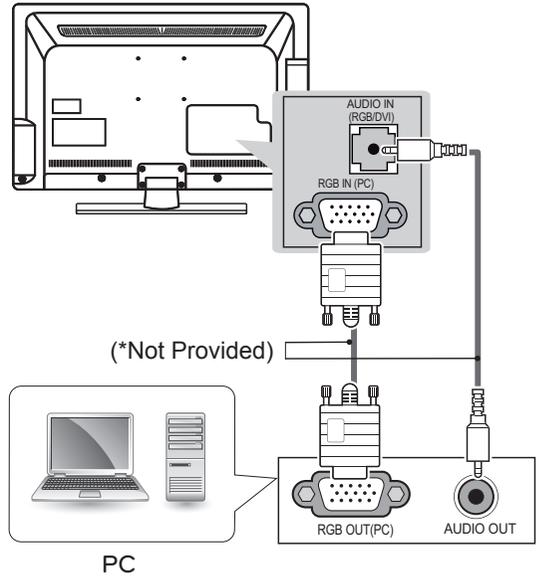
### NOTE

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

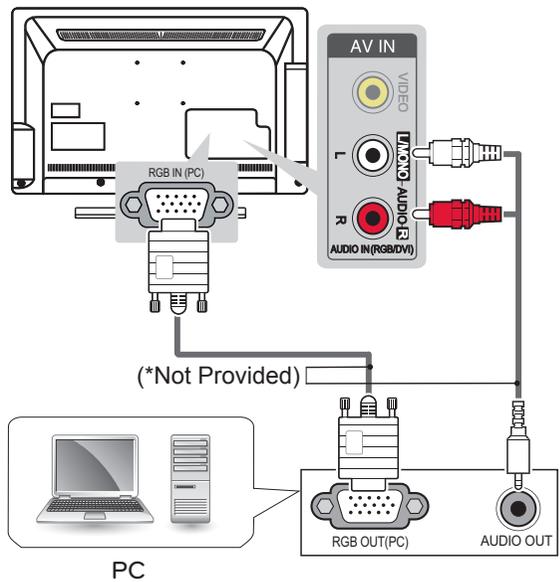
## RGB-PC connection

Transmits the video signal from PC to the TV. To transmit an audio signal, connect an audio cable.

(Only LT64\*\*, LT65\*\*, LT74\*\*, LT76\*\*, LS64\*\*)



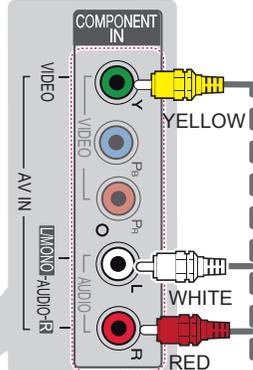
(Only LS34\*\*)



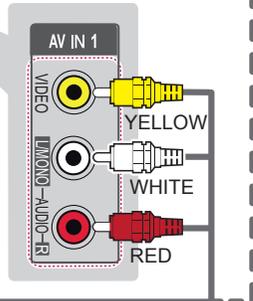
## Composite connection

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

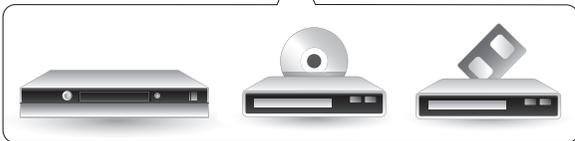
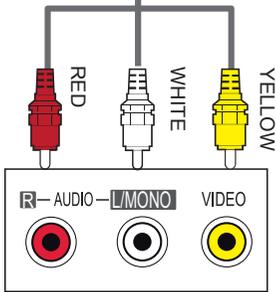
(Only LT64\*\*, LT65\*\*, LS64\*\*)



(Only LT74\*\*, LT76\*\*  
LS34\*\*)



(\*Not Provided)



VCR / DVD / Blu-Ray / HD Cable Box

## Audio connection

(Only 32/37/42/47LT64\*\*, 32/37/42/47LT65\*\*, LT74\*\*, LT76\*\*, LS64\*\*)

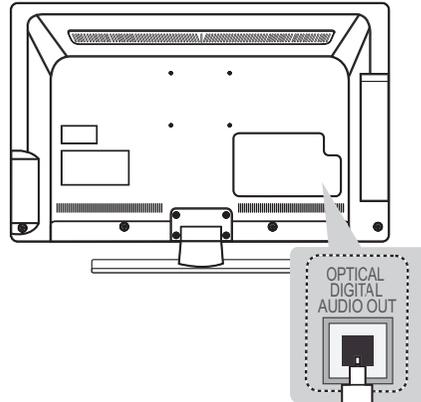
You may use an optional external audio system instead of the built-in speaker.

### NOTE

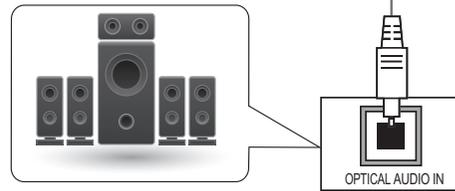
- If you use an optional external audio device instead of the built-in speaker, set the TV speaker feature to off.

## Digital optical audio connection

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



(\*Not Provided)



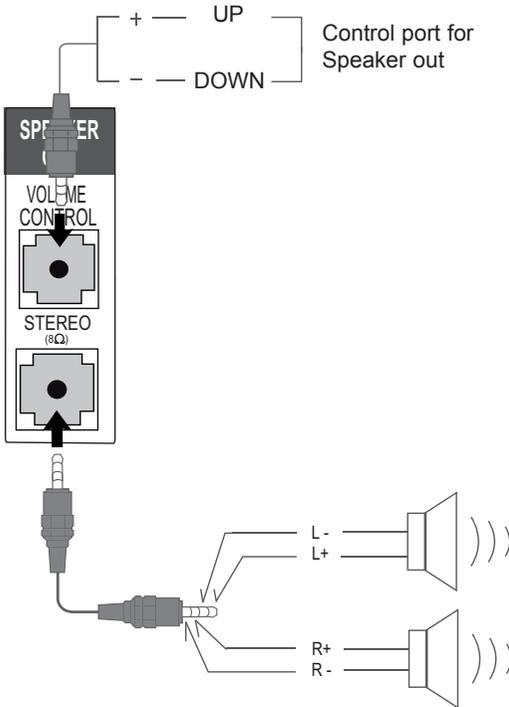
### NOTE

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

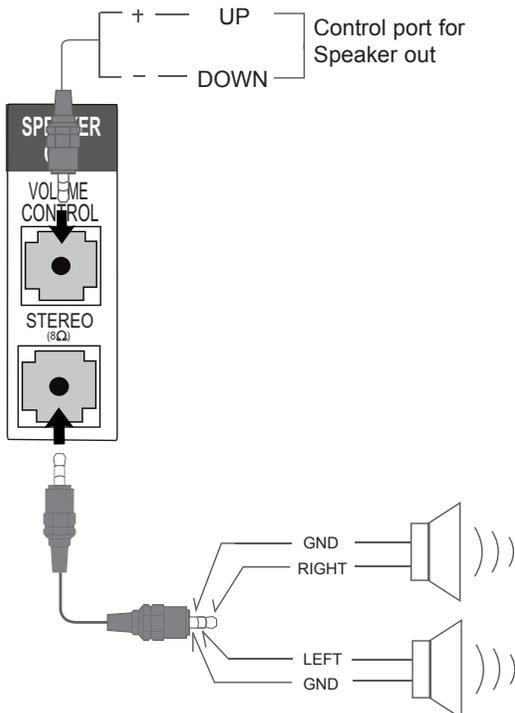
## Speaker output setup

Connect the external speaker to the Speaker output(STEREO) jack on the TV.

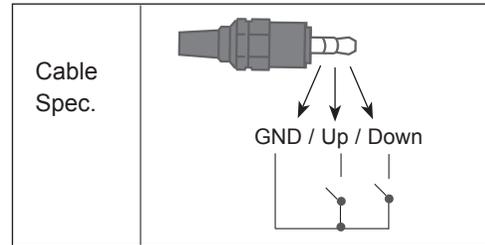
(Only LT64\*\*, LT65\*\*, LT76\*\*, LS64\*\*)



(Only LT74\*\*)



## Volume control port



- Each Up/ Down pin is pulled to 3.3V with CPU GPIO.
- CPU detects that vol. ctrl. Port is shorted to GND for volume control. (Only LT64\*\*, LT65\*\*, LT76\*\*, LS64\*\*)
- CPU detects transition from 3.3V to GND level for volume control.

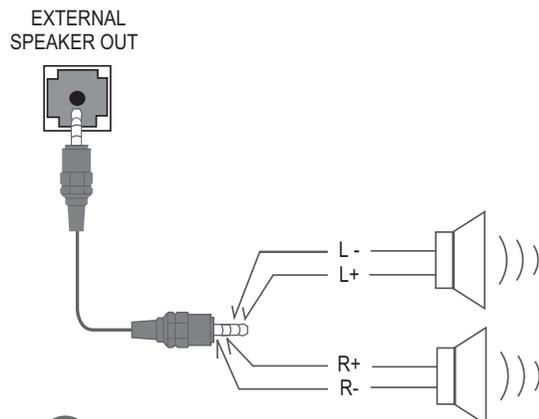
### ! NOTE

- External speaker must be used four plug(BTL: Bridge Tied Load, Stereo) as shown in the drawings and external speaker fully inserted with external Speaker Jack. (Only LT64\*\*, LT65\*\*, LT76\*\*, LS64\*\*)
- External speaker must be used three plug (SE : Single Ended, Stereo) as shown in the drawings and external speaker fully inserted with external Speaker Jack. (Only LT74\*\*)
- Otherwise it will cause defect.

## External speaker out

(Only LS34\*\*)

Connecting External Speaker.



### ! NOTE

- Make sure when connecting External Speaker that TV is Power OFF.

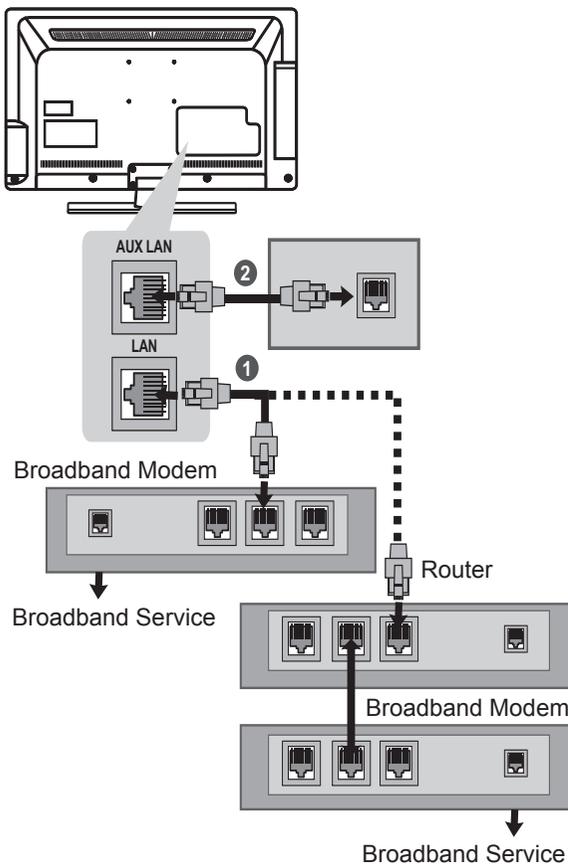
## Network Connection

(Only LT74\*\*, LT76\*\*)

### Connecting to a Wired Network

This TV can be connected to a local area network (LAN) via the LAN port. After making the physical connection, the TV needs to be set up for network communication.

(Image shown may differ from your TV.)



① Connect the LAN port of the Modem or Router to the LAN port on the TV.

② Connect the LAN port of the PC to the AUX LAN port on the TV.



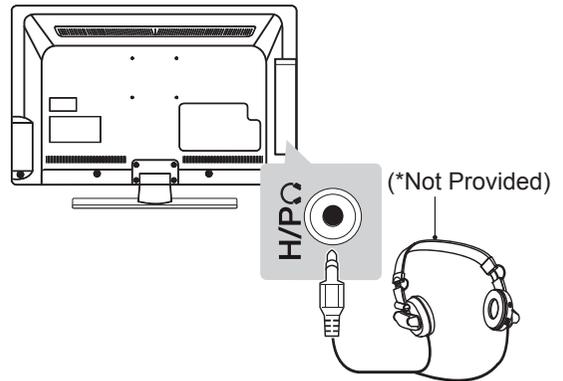
### CAUTION

- Do not connect a modular phone cable to the LAN port.
- Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.

## Headphone connection

(Only LT64\*\*, LT65\*\*, LT74\*\*, LS64\*\*)

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



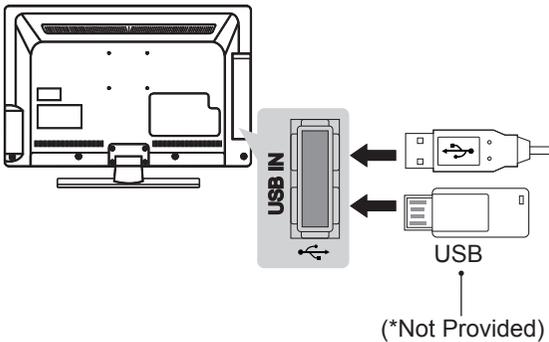
### NOTE

- AUDIO menu items are disabled when connecting a headphone.
- When changing AV MODE with a headphone connected, the change is applied to video but not to audio.
- Optical Digital Audio Out is not available when connecting a headphone.
- Headphone impedance: 16  $\Omega$
- Max audio output of headphone: 9 mW to 15 mW
- Headphone jack size: 0.35 cm

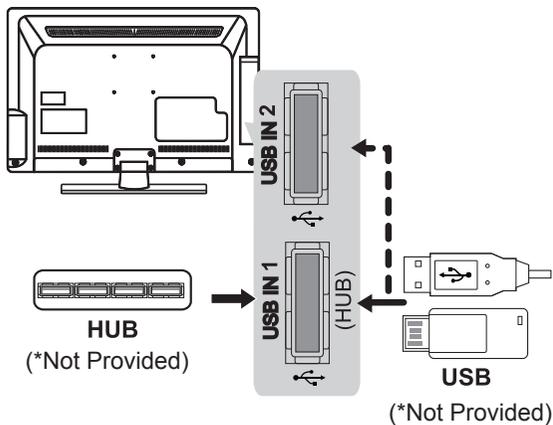
## USB connection

Connect a USB storage device such as a USB flash memory, external hard drive or a USB memory card reader to the TV.

(Only LT64\*\*, LT65\*\*, LT74\*\*, LS64\*\*, LS34\*\*)



(Only LT76\*\*)



### NOTE

- To use a USB Hub device, make sure that it is connected to the **USB IN 1 (HUB)** port.
- Some USB Hubs may not work. If a USB device connected using a USB Hub is not detected, connect it to the USB port on the TV directly.

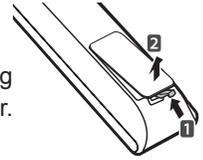
# REMOTE CONTROL

The descriptions in this manual are based on the buttons on the remote control.

Please read this manual carefully and use the TV correctly.

To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching the ⊕ and ⊖ ends to the label inside the compartment, and close the battery cover.

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.

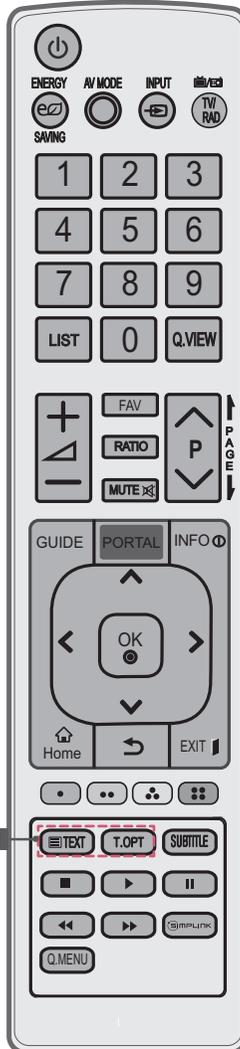
Make sure to point the remote control toward the remote control sensor on the TV.

(Only LT64\*\*)

<b>POWER</b> Turns the TV on or off.		<b>Number buttons</b> Enters numbers.
<b>ENERGY SAVING</b> Adjusts the brightness of the screen to reduce energy consumption.		<b>LIST</b> Accesses the saved programme list.
<b>AV MODE</b> Selects an AV mode.		<b>Q.VIEW</b> Returns to the previously viewed programme.
<b>INPUT</b> Changes the input source.		<b>+ / -</b> Adjusts the volume level.
<b>TV/RAD</b> Selects Radio, TV and DTV programme.		<b>FAV</b> Accesses your favourite programme list.
<b>GUIDE</b> - Shows programme guide. (Only LT640H) - Shows Contents List in EzSign mode. (Only LT640E)		<b>RATIO</b> Resizes an image.
<b>PORTAL</b> - Displays and removes hotel interactive menu. (Only LT640H) - Displays the EzSign content on a TV Screen. (Only LT640E)		<b>MUTE</b> Mutes all sounds.
<b>INFO</b> - Views the information of the current programme and screen. (Only LT640H) - Shows or hides the information on TV remote control buttons in EzSign mode. (Only LT640E)		<b>∇ P ^</b> Scrolls through the saved programmes.
<b>Navigation buttons</b> (up/down/left/right) Scrolls through menus or options.		<b>← PAGE →</b> Moves to the previous or next screen.
<b>OK</b> Selects menus or options and confirms your input.		<b>Colour buttons</b> These access special functions in some menus. (●): Red, (●●): Green, (●●●): Yellow, (●●●●): Blue
<b>Home</b> Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.		<b>1 TELETEXT BUTTONS</b> These buttons are used for teletext.
<b>(BACK)</b> Returns to the previous level.		<b>SUBTITLE</b> Recalls your preferred subtitle in digital mode.
<b>EXIT</b> Clears on-screen displays and return to TV viewing.		<b>Control buttons</b> (■, ▶, II, ◀, ▶▶) - Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB, SIMPLINK). (Only LT640H) - Not functional when EzSign contents is on. (Only LT640E)
	<b>SIMPLINK</b> Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.	
	<b>Q. MENU</b> Accesses the quick menus.	
	<b>ALARM</b> Sets the alarm function.	

(Only LT65\*\*, LT76\*\*, LS64\*\*)

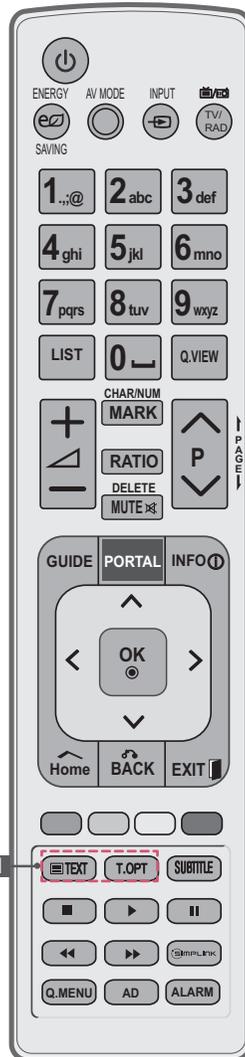
<b>POWER</b> Turns the TV on or off.
<b>ENERGY SAVING</b> Adjusts the brightness of the screen to reduce energy consumption.
<b>AV MODE</b> Selects an AV mode.
<b>INPUT</b> Changes the input source.
<b>TV/RAD</b> Selects Radio, TV and DTV programme.
<b>GUIDE</b> Shows programme guide.
<b>PORTAL</b> Displays and removes hotel interactive menu.
<b>INFO</b> Views the information of the current programme and screen.
<b>Navigation buttons</b> (up/down/left/right) Scrolls through menus or options.
<b>OK</b> Selects menus or options and confirms your input.
<b>Home</b> Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.
<b>(BACK)</b> Returns to the previous level.
<b>EXIT</b> Clears on-screen displays and return to TV viewing.
<b>Number buttons</b> Enters numbers.
<b>LIST</b> Accesses the saved programme list.



<b>Q.VIEW</b> Returns to the previously viewed programme.
+ / - Adjusts the volume level.
<b>FAV</b> Accesses your favourite programme list.
<b>RATIO</b> Resizes an image.
<b>MUTE</b> Mutes all sounds.
∨ P ^ Scrolls through the saved programmes.
← PAGE → Moves to the previous or next screen.
<b>Colour buttons</b> These access special functions in some menus. (●): Red, (●●): Green, (●●●): Yellow, (●●●●): Blue)
<b>1 TELETEXT BUTTONS</b> These buttons are used for teletext.
<b>SUBTITLE</b> Recalls your preferred subtitle in digital mode.
<b>Control buttons</b> (■, ▶,   , ◀, ▶) - Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB, SIMPLINK). (Only LT65**, LS64**) - Controls the Premium contents, DVR or Smart Share menus or the SIMPLINK compatible devices (USB or SIMPLINK or DVR). (Only LT76**)
<b>SIMPLINK</b> Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
<b>Q. MENU</b> Accesses the quick menus.

(Only LT74\*\*)

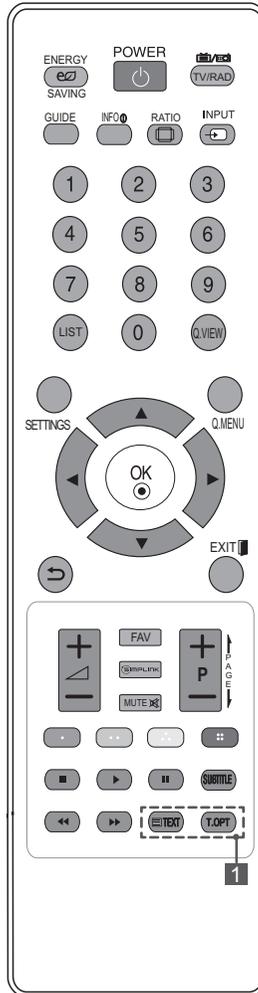
<b>POWER</b> Turns the TV on or off.
<b>ENERGY SAVING</b> Adjusts the brightness of the screen to reduce energy consumption.
<b>AV MODE</b> Selects an AV mode.
<b>INPUT</b> Changes the input source.
<b>TV/RAD</b> Selects Radio, TV and DTV programme.
<b>GUIDE</b> Shows programme guide.
<b>PORTAL</b> Displays and removes hotel interactive menu.
<b>INFO</b> Views the information of the current programme and screen.
<b>Navigation buttons</b> (up/down/left/right) Scrolls through menus or options.
<b>OK</b> Selects menus or options and confirms your input.
<b>Home</b> Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.
<b>BACK</b> Returns to the previous level.
<b>EXIT</b> Clears on-screen displays and return to TV viewing.
<b>AD</b> Switches the Audio Description On or Off.
<b>TELETEXT BUTTONS</b> These buttons are used for teletext.
<b>SIMPLINK</b> Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.



<b>Number buttons</b> Enters numbers.
<b>LIST</b> Accesses the saved programme list.
<b>Q.VIEW</b> Returns to the previously viewed programme.
<b>+ / -</b> Adjusts the volume level.
<b>MARK</b> Select the input to apply the Picture Wizard settings. Check and un-check programmes in the USB menu.
<b>CHAR/NUM</b> Shifts the Character or Number.
<b>RATIO</b> Resizes an image.
<b>MUTE</b> Mutes all sounds.
<b>DELETE</b> Deletes the entered character when entering the character on the screen keyboard.
<b>∨ P ^</b> Scrolls through the saved programmes.
<b>← PAGE →</b> Moves to the previous or next screen.
<b>Colour buttons</b> These access special functions in some menus. (Red, Green, Yellow, Blue)
<b>SUBTITLE</b> Recalls your preferred subtitle in digital mode.
<b>Control buttons</b> (stop, play, pause, fast forward, fast reverse) Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB, SIMPLINK).
<b>Q. MENU</b> Accesses the quick menus.
<b>ALARM</b> Sets the alarm function.

(Only LS34\*\*)

<b>POWER</b> Turns the TV on or off.
<b>ENERGY SAVING</b> Adjusts the brightness of the screen to reduce energy consumption.
<b>TV/RAD</b> Selects Radio, TV and DTV programme.
<b>GUIDE</b> Shows programme guide.
<b>INFO</b> Views the information of the current programme and screen.
<b>RATIO</b> Resizes an image.
<b>INPUT</b> Changes the input source.
<b>Number buttons</b> Enters numbers.
<b>LIST</b> Accesses the saved programme list.
<b>Q.VIEW</b> Returns to the previously viewed programme.
<b>SETTINGS</b> Accesses the main menus.
<b>Q. MENU</b> Accesses the quick menus.
<b>Navigation buttons</b> (up/down/left/right) Scrolls through menus or options.
<b>OK</b> Selects menu or options and confirms your input.



<b>(Back)</b> Returns to the previous level.
<b>EXIT</b> Clears on-screen displays and return to TV viewing.
<b>+ / -</b> Adjusts the volume level.
<b>FAV</b> Accesses your favourite programme list.
<b>SIMPLINK</b> Accesses the AV devices connected with the HDMI cable through HDMI-CEC. Opens the SIMPLINK menu.
<b>MUTE</b> Mutes all sounds.
<b>+ P -</b> Scrolls through the saved programmes.
<b>PAGE</b> Moves to the previous or next screen.
<b>Colour buttons</b> These access special functions in some menus. (Red: Red, Green: Green, Yellow: Yellow, Blue: Blue)
<b>Control buttons</b> (Stop, Play, Pause, Previous, Next) Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB, SIMPLINK).
<b>SUBTITLE</b> Recalls your preferred subtitle in digital mode.
<b>1 TELETEXT BUTTONS</b> These buttons are used for teletext.

# MAINTENANCE

## Cleaning your TV

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



### CAUTION

- 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.



### CAUTION

- 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 style="list-style-type: none"> <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 ( ⊕ to ⊕, ⊖ to ⊖ ).</li> </ul>
No image display and no sound is produced.	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Check the power control settings. The power supply may be interrupted.</li> <li>• Check if the Auto sleep feature is activated in the Time settings.</li> </ul>
When connecting to the PC (RGB/HDMI DVI), 'No signal' or 'Invalid Format' is displayed.	<ul style="list-style-type: none"> <li>• Turn the TV off/on using the remote control.</li> <li>• Reconnect the RGB/HDMI cable.</li> <li>• Restart the PC with the TV on.</li> </ul>

# CAUTION FOR USING EZSIGN 2.0

## Only LT640E

- Do not remove a USB drive while data is being copied. It can corrupt the data and EzSign may not work properly.
- While loading a USB device or dongle, your TV may function slower than normal.
- While EzSign contents is running, the movie with internal subtitles is not supported in USB mode. EzSign TV supports only external subtitles.  
(External Subtitle format: \*.smi/\*.srt/\*.sub(MicroDVD, Subviewer 1.0/2.0)/\*.ass/\*.ssa/\*.txt(TMPlayer)/\*.psb(PowerDivX))
- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- EzSign 2.0 TV function does not work before completing the initial setup Wizard. Make sure to complete the initial setup Wizard by turning on the TV after installation.
- If the time is set according to the TV signal, it may not appeared exactly for some region. In that case, set the time manually.
- It is recommended that you copy files to the TV memory before playing them, as playing directly from the USB memory for an extended period of time may cause the device to overheat.
- In EzSign 2.0 TV mode, some remote control keys may not work.
- EzSign 2.0 TV dose not support the USB HUB. It is recommended that you connect a USB device directly to the TV without using a USB extension cable as it may not work properly.
- It is recommended that you use EzSign 2.0 TV within 8 hours per day as it is standard.
- Refer to the EzSign 2.0 Editor user guide for details.
- EzSign 2.0 TV does not support Store Demo.

# SPECIFICATIONS

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.

MODELS		22LT65**	26LT64**	26LT65**
		22LT650H-TA	26LT640H-TA 26LT640E-TA	26LT650H-TA
Dimensions (W x H x D)	With stand(mm)	516.6 x 385.7 x 192.0	625.9 x 453.5 x 192.0	625.9 x 453.5 x 192.0
	Without stand(mm)	516.6 x 332.2 x 41.6	625.9 x 393.2 x 46.6	625.9 x 393.2 x 46.6
Weight	With stand(kg)	3.7	4.7	4.7
	Without stand(kg)	3.1	4.1	4.1
Power requirement		DC 24 V, 1.4 A AC-DC adaptor : 24 V  , 2.5 A / AC 100-240 V~ 50 / 60 Hz	DC 24 V, 1.8 A AC-DC adaptor : 24 V  , 2.5 A / AC 100-240 V~ 50 / 60 Hz	DC 24 V, 1.8 A AC-DC adaptor : 24 V  , 2.5 A / AC 100-240 V~ 50 / 60 Hz
MODELS		32LT64**	32LT65**	32LT74**
		32LT640H-TA 32LT640E-TA	32LT650H-TA	32LT740H-TA
Dimensions (W x H x D)	With stand(mm)	765.6 x 535.6 x 231.9	765.6 x 535.6 x 231.9	765.6 x 535.6 x 231.9
	Without stand(mm)	765.6 x 475.8 x 68.5	765.6 x 475.8 x 68.5	765.6 x 475.8 x 68.5
Weight	With stand(kg)	9.2	9.2	9.2
	Without stand(kg)	8.0	8.0	8.0
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
MODELS		32LT76**	32LS34**	
		32LT760H-TA	32LS345H-TA	
Dimensions (W x H x D)	With stand(mm)	765.6 x 535.6 x 231.9	738.0 x 501.0 x 185.0	
	Without stand(mm)	765.6 x 475.8 x 68.5	738.0 x 438.0 x 86.0	
Weight	With stand(kg)	9.2	7.5	
	Without stand(kg)	8.0	6.9	
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	
MODELS		37LT64**	37LT65**	37LT74**
		37LT640H-TA 37LT640E-TA	37LT650H-TA	37LT740H-TA
Dimensions (W x H x D)	With stand(mm)	867.3 x 592.8 x 231.9	867.3 x 592.8 x 231.9	867.3 x 592.8 x 231.9
	Without stand(mm)	867.3 x 532.8 x 68.6	867.3 x 532.8 x 68.6	867.3 x 532.8 x 68.6
Weight	With stand(kg)	11.2	11.2	11.2
	Without stand(kg)	10.0	10.0	10.0
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
MODELS		37LT76**		
		37LT760H-TA		
Dimensions (W x H x D)	With stand(mm)	867.3 x 592.8 x 231.9		
	Without stand(mm)	867.3 x 532.8 x 68.6		
Weight	With stand(kg)	11.2		
	Without stand(kg)	10.0		
Power requirement		AC 100-240 V~ 50 / 60 Hz		

MODELS		42LT64**	42LT65**	42LT74**
		42LT640H-TA 42LT640E-TA	42LT650H-TA	42LT740H-TA
Dimensions (W x H x D)	With stand(mm)	991.7 x 666.5 x 273.1	991.7 x 666.5 x 273.1	991.7 x 666.5 x 273.1
	Without stand(mm)	991.7 x 604.0 x 55.0	991.7 x 604.0 x 55.0	991.7 x 604.0 x 55.0
Weight	With stand(kg)	15.5	15.5	15.5
	Without stand(kg)	13.5	13.5	13.5
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
MODELS		42LT76**	42LS34**	
		42LT760H-TA	42LS345H-TA	
Dimensions (W x H x D)	With stand(mm)	991.7 x 666.5 x 273.1	972.0 x 635.0 x 212.0	
	Without stand(mm)	991.7 x 604.0 x 55.0	972.0 x 571.0 x 86.0	
Weight	With stand(kg)	15.5	11.8	
	Without stand(kg)	13.5	10.7	
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	
MODELS		47LT64**	47LT65**	47LT74**
		47LT640H-TA 47LT640E-TA	47LT650H-TA	47LT740H-TA
Dimensions (W x H x D)	With stand(mm)	1101.0 x 728.5 x 273.1	1101.0 x 728.5 x 273.1	1101.0 x 728.5 x 273.1
	Without stand(mm)	1101.0 x 665.4 x 54.5	1101.0 x 665.4 x 54.5	1101.0 x 665.4 x 54.5
Weight	With stand(kg)	17.3	17.3	17.3
	Without stand(kg)	15.3	15.3	15.3
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz
MODELS		47LT76**	55LS64**	
		47LT760H-TA	55LS645H-TB	
Dimensions (W x H x D)	With stand(mm)	1101.0 x 728.5 x 273.1	1263.0 x 822.0 x 315.0	
	Without stand(mm)	1101.0 x 665.4 x 54.5	1263.0 x 754.0 x 35.5	
Weight	With stand(kg)	17.3	25.5	
	Without stand(kg)	15.3	21.9	
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz	

Environment condition	Operating temperature	0 °C to 40 °C
	Operating humidity	Less than 80 %
	Storage temperature	-20 °C to 60 °C
	Storage humidity	Less than 85 %

		Digital TV	Analogue TV
New Zealand, Singapore	Television System	DVB-T	PAL/SECAM-B/G/D/K, PAL-I
	Programme Coverage	UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47
Australia	Television System	DVB-T	PAL B/B
	Programme Coverage	VHF 06 to 12, UHF 27 to 69	B/B : VHF/UHF 0 to 75, CATV : 2 to 44
Indonesia, Israel, Myanmar, Sri Lanka	Television System	DVB-T	PAL/SECAM-B/G/D/K, PAL-I, NTSC-M
	Programme Coverage	UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
Vietnam, Malaysia	Television System	DVB-T	PAL/SECAM-B/G/D/K, PAL-I, NTSC-M
	Programme Coverage	VHF 6 to 12, UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
Iran, Algeria, Tunisia, Digital model	Television System	DVB-T	PAL/SECAM-B/G/D/K, PAL-I, NTSC-M
	Programme Coverage	VHF 5 to 12, UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
Analogue model, India, Thailand, South Africa, --	Television System	-	PAL/SECAM-B/G/D/K, PAL-I, NTSC-M
	Programme Coverage	-	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
	External Antenna Impedance	75 Ω	75 Ω

In country that Digital broadcasting regulation isn't fixed, some DTV function may not work depending on digital broadcasting circumstances. (Only DTV)

(Only LT76\*\*)

ENGLISH

Wireless LAN module(WN8122E) specification	
Standard	IEEE802.11a/b/g/n
Frequency Range	2400 to 2483.5 MHz 5150 to 5250 MHz 5725 to 5850 MHz
Modulation	CCK / OFDM / MIMO
Output Power (Typical)	802.11a: 14 dBm 802.11b: 17 dBm 802.11g: 15 dBm 802.11n - 2.4GHz: 13.5 dBm 802.11n - 5GHz: 12 dBm
Data rate	802.11a/g: 54 Mbps 802.11b: 11 Mbps 802.11n: 300 Mbps
Antenna Gain (Typical)	2400 to 2483.5 MHz: -0.79 dBi 5150 to 5250 MHz: 0.62 dBi 5725 to 5850 MHz: 0.52 dBi
Occupied bandwidth	802.11a/b/g: HT20 802.11n: HT20/40
<ul style="list-style-type: none"> <li>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.</li> </ul>	
	

HDMI/DVI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x480	31.469 31.5	59.94 60
720x576	31.25	50
1280x720	37.5 44.96 45	50 59.94 60
1920x1080	33.72	59.94
	33.75	60
	28.125	50
	26.97	23.97
	27	24
	33.716	29.976
	33.75	30.00
	56.25	50
67.43	59.94	
67.5	60	

(Only 37/42/47LT64\*\*, 37/42/47LT65\*\*, 37/42/47LT74\*\*, 37/42/47LT76\*\*, 42LS34\*\*, 55LS64\*\*)

RGB-PC, HDMI/DVI-PC supported mode

(Only LT64\*\*, LT65\*\*, LT74\*\*, LS34\*\*, LS64\*\*)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x720	45	60
1280x768	47.78	59.87
1360x768	47.72	59.80
1280x1024	63.981	60.02
1920x1080 (RGB-PC)	66.587	59.93
1920x1080 (HDMI-PC)	67.5	60.00

(Only 37/42/47LT64\*\*, 37/42/47LT65\*\*, 37/42/47LT74\*\*, 42LS34\*\*, 55LS64\*\*)

Component port connecting information

(Only LT64\*\*, LT65\*\*, LT74\*\*, LS64\*\*)

Component ports on the TV	Y	P <sub>B</sub>	P <sub>R</sub>
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Video output ports on DVD player	Y	P <sub>B</sub>	P <sub>R</sub>
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

Signal	Component
480i/576i	○
480p/576p	○
720p/1080i	○
1080p	○ (50 Hz / 60 Hz only)

(Only LT76\*\*)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1152x864	54.348	60.053
1360x768	47.712	60.015
1280x1024 (HDMI/DVI-PC)	63.981	60.020
1920x1080	67.5	60.00

(Only 37/42/47LT76\*\*)

# IR CODES

- This feature is not available for all models.

Code (Hexa)	Function	Note
08	 (POWER)	Remote control Button (Power On/Off)
95	ENERGY SAVING	Remote control Button
30	AV MODE	Remote control Button
0B	INPUT	Remote control Button
F0	TV/RAD	Remote control Button
10-19	Number Key 0-9	Remote control Button
53	LIST	Remote control Button
1A	Q.VIEW	Remote control Button
02		Remote control Button
03		Remote control Button
79	RATIO	Remote control Button
1E	FAV	Remote control Button
09	MUTE (DELETE)	Remote control Button
00	<b>P</b> ^ (P+)	Remote control Button
01	<b>P</b> v (P-)	Remote control Button
AB	GUIDE	Remote control Button
0C	PORTAL	Remote control Button
AA	INFO	Remote control Button
43	MENU	Remote control Button
28	BACK	Remote control Button
5B	EXIT	Remote control Button
44	OK	Remote control Button
40	^	Remote control Button
41	v	Remote control Button
07	<	Remote control Button
06	>	Remote control Button
72	RED	Remote control Button
71	GREEN	Remote control Button
63	YELLOW	Remote control Button
61	BLUE	Remote control Button
20	TEXT	Remote control Button
21	T.OPT(T.Option)	Remote control Button
39	SUBTITLE	Remote control Button
B1		Remote control Button
B0		Remote control Button
BA		Remote control Button
8E		Remote control Button
8F		Remote control Button
7E	SIMPLINK	Remote control Button
45	Q.MENU	Remote control Button
E8	ALARM	Remote control Button
1E	MARK (CHAR/NUM)	Remote control Button
91	AD	Remote control Button
43	Home	Remote control Button

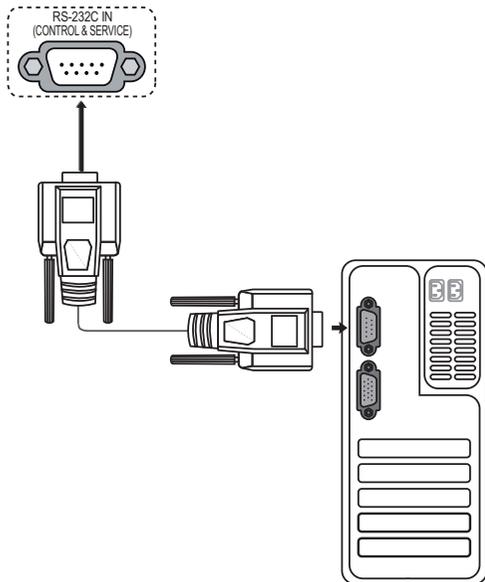
# EXTERNAL CONTROL DEVICE SETUP

## RS-232C Setup

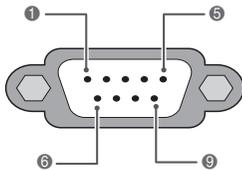
Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

Connect the serial port of the control device to the RS-232C jack on the product back panel.

Note: RS-232C connection cables are not supplied with the product.



### Type of connector; D-Sub 9-Pin Male



No.	Pin name
1	3.5V
2	RXD (Receive data)
3	TXD (Transmit data)
4	IR OUT from TV
5	GND
6	No Connection
7	+5V Power out (except for LS34**)
8	No Connection
9	+12V Power out (except for LS34**)

## RS-232C Configurations

### 7-Wire Configurations (Standard RS-232C cable)

	PC	TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DSR
DSR	6	4	DTR
RTS	7	8	CTS
CTS	8	7	RTS

D-Sub 9                      D-Sub 9

### 3-Wire Configurations(Not standard)

	PC	TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DTR
DSR	6	4	DSR
RTS	7	7	RTS
CTS	8	8	CTS

D-Sub 9                      D-Sub 9

### Set ID

Set ID number. "Real Data Mapping".

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to **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**.

## Communication Parameters

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

## Command reference list

(Depending on model)

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 to 01	13. Treble	k	r	00 to 64
02. Aspect Ratio	k	c	(See p.43)	14. Bass	k	s	00 to 64
03. Screen Mute	k	d	(See p.43)	15. Balance	k	t	00 to 64
04. Volume Mute	k	e	00 to 01	16. Colour Temperature	x	u	00 to 64
05. Volume Control	k	f	00 to 64	17. Energy Saving	j	q	00 to 05
06. Contrast	k	g	00 to 64	18. Auto Configuration	j	u	01
07. Brightness	k	h	00 to 64	19. Tune Command	m	a	(See p.45)
08. Colour	k	i	00 to 64	20. Programme Add/Skip	m	b	00 to 01
09. Tint	k	j	00 to 64	21. Key	m	c	Key Code
10. Sharpness	k	k	00 to 64	22. Control Back Light	m	g	00 to 64
11. OSD Select	k	l	00 to 01	23. Input select (Main Picture Input)	x	b	(See p.46)
12. Remote Control Lock Mode	k	m	00 to 01				

- \* Note : During USB operations such as DivX or EMF, all commands except Power(ka) and Key(mc) are not executed and treated as NG.

## 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 is 1 to 99. When selecting Set ID '0', every connected set is controlled.  
Set ID is indicated as decimal (1 to 99) on menu and as Hexa decimal (0x0 to 0x63) on transmission/receiving protocol.

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

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

[ ] : ASCII code 'space (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

**01. Power (Command: k a)**

- ▶ To control Power On/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 Power On/Off.

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

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

\* Similarly, if other functions transmit '0xFF' data based on this format, Acknowledgement data feed back presents status about each function.

\* OK Ack., Error Ack. and other message may display on the screen when TV is power On.

**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)                            09 : Just Scan  
02 : Wide screen                    0B : Full Wide  
          (16:9)                        10 to 1F : Cinema Zoom 1 to 16  
04 : Zoom  
06 : Original

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 (1080i 50 Hz / 60 Hz, 720p 50Hz / 60 Hz, 1080p 24 Hz / 30 Hz / 50 Hz / 60 Hz), Component( 720p, 1080i, 1080p 50 Hz / 60 Hz) mode, Just Scan is available.

\* Full Wide is supported only for DTV.

**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  
\* Refer to 'Real data mapping'. See p.46.

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  
\* Refer to 'Real data mapping'. See p.46.

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  
\* Refer to 'Real data mapping'. See p.46.

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

## 08. Colour (Command: k i)

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

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

Data Min : 00 to Max : 64

\* Refer to 'Real data mapping'. See p.46.

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

\* Refer to 'Real data mapping'. See p.46.

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 : 64 (Except for LT76\*\*)

Data Min : 00 to Max : 32 (Only LT76\*\*)

\* Refer to 'Real data mapping'. See p.46.

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

## 11. OSD Select (Command: k l)

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

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

Data 00 : OSD off                      01 : OSD on

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

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

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

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

Data 00 : Lock off                      01 : Lock on

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

\* If you are not using the remote control, use this mode.

When main power is on/off, external control lock is released.

\* In the standby mode, if key lock is on, TV will not turn on by power on key of IR & Local Key.

## 13. Treble (Command: k r) (Except for LT76\*\*)

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

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

Data Min : 00 to Max : 64

\* Refer to 'Real data mapping'. See p.46.

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

## 14. Bass (Command: k s) (Except for LT76\*\*)

- ▶ To adjust bass.  
You can also adjust bass in the AUDIO menu.

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

Data Min : 00 to Max : 64

\* Refer to 'Real data mapping'. See p.46.

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

## 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

\* Refer to 'Real data mapping'. See p.46.

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

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

- ▶ To adjust colour temperature. You can also adjust Colour Temperature in the PICTURE menu.

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

Data Min : 00 to Max : 64

\* Refer to 'Real data mapping'. See p.46.

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

## 17. 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]

Power Saving Function					Level				Description
7	6	5	4		3	2	1	0	
0	0	0	0	Low Power	0	0	0	0	Off
0	0	0	0	Low Power	0	0	0	1	Minimum
0	0	0	0	Low Power	0	0	1	0	Medium
0	0	0	0	Low Power	0	0	1	1	Maximum
0	0	0	0	Low Power	0	1	0	1	Screen Off
0	0	0	0	Low Power	0	1	0	0	Auto

- ▶ 'Auto' is available in TV that supports 'Intelligent Sensor'.

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

## 18. Auto Configure (Command: j u)

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

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

Data 01: To set

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

## 19. Tune Command (Command: m a)

- ▶ Select channel to following physical number.

Transmission [m][a][ ][Set ID][ ][Data0][ ][Data1][ ][Data2][Cr]

Data00 : High channel data

Data01 : Low channel data

ex. No. 47 -> 00 2F (2FH)

No. 394 -> 01 8A (18AH),

DTV No. 0 -> Don't care

(Only LT64\*\*, LT65\*\*, LT76\*\*, LS64\*\*)

Data02 : [Antenna]

0x00 : Analog Main

0x10 : DTV Main

0x20 : Radio

[Cable]

0x80 : Analog Main

0x90 : DTV Main

0xA0 : Radio

Channel data range

Analog - Min: 00 to Max: 63 (0 to 99)

Digital - Min: 00 to Max: 3E7 (0 to 999)

(Only LT74\*\*, LS34\*\*)

Data02 : 0x00 : Analogue Main

0x10 : DTV Main

0x20 : Radio

Channel data range

Analogue - Min: 00 to Max: 63 (0 to 99)

Digital - Min: 00 to Max: 3E7 (0 to 999)

(Except For Sweden, Finland, Norway, Denmark, Ireland)

Digital - Min: 00 to Max: 270F (0 to 9999)

(Only Sweden, Finland, Norway, Denmark, Ireland)

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

Data Min: 00 to Max: 7DH

## 20. Programme Add/Skip (Command: m b)

- ▶ To set skip status for the current Programme.

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

Data 00 : Skip 01 : Add

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

## 21. Key (Command: m c)

- ▶ To send IR remote key code.

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

Data Key code - See p.39

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

22. Control Back Light(Command: m g)

► To control the back light.

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

Data Min : 00 to Max : 64

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

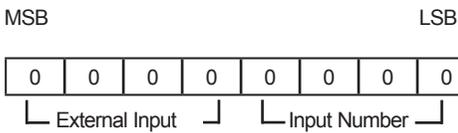
23. Input select (Command: x b)

(Main Picture Input)

► To select input source for main picture.

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

Data Structure



External Input				Data
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB
0	1	1	1	HDMI
1	0	0	0	
1	0	0	1	
1	0	1	0	

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

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

\* Real data mapping

- 00 : Step 0
- :
- A : Step 10 (Set ID 10)
- :
- F : Step 15 (Set ID 15)
- 10 : Step 16 (Set ID 16)
- :
- 64 : Step 100
- :
- 6E : Step 110
- :
- 73 : Step 115
- 74 : Step 116
- :
- CF : Step 199
- :
- FE : Step 254
- FF : Step 255



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 No. :** \_\_\_\_\_

(Only DTV)

**DVB<sup>®</sup>**  
Digital Video  
Broadcasting