OWNER'S MANUAL
Safety and Reference

LED TV*
*Disclaimer
LG LED TV applies LCD screen with LED backlights.

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

MT48S

www.lg.com

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ENGLISH

Licenses

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

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Preparing

ⓘ NOTE

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

$*A \leqq 10\ mm$
$*B \leqq 18\ mm$
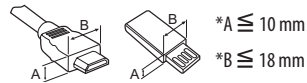
- Use a certified cable with the HDMI logo attached. If you do not use a certified HDMI cable, the screen may not display or a connection error may occur.
- Recommended HDMI cable types
  - High-Speed HDMI®/™ cable
  - High-Speed HDMI®/™ cable with Ethernet

⚠ CAUTION

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

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

AN-MR600 Magic Remote	*AN-WF500 Wi-Fi/Bluetooth Dongle	LG Audio Device

* Some models require Wi-Fi/Bluetooth Dongle for using Magic Remote or LG Audio Device.

Lifting and moving the TV

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

- It is recommended to move the TV in the box or packing material that the TV originally came in.
- Before moving or lifting the TV, disconnect the power cord and all cables.
- When holding the TV, the screen should face away from you to avoid damage.
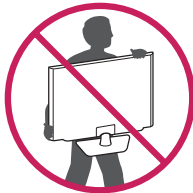
- Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.
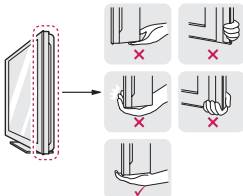
- When transporting the TV, do not expose the TV to jolts or excessive vibration.
- When transporting the TV, keep the TV upright, never turn the TV on its side or tilt towards the left or right.
- Do not apply excessive pressure to cause flexing /bending of frame chassis as it may damage screen.

⚠ CAUTION

- Avoid touching the screen at all times, as this may result in damage to the screen.
- When handling the TV, be careful not to damage the protruding joystick button.
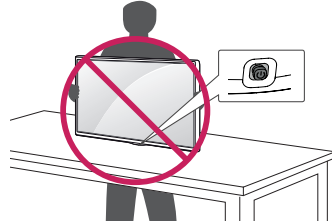
Setting up the TV

⚠ 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.
- Do not carry the monitor upside-down by holding the stand body (or stand base) as this may cause it to fall off, resulting in damage or injury.
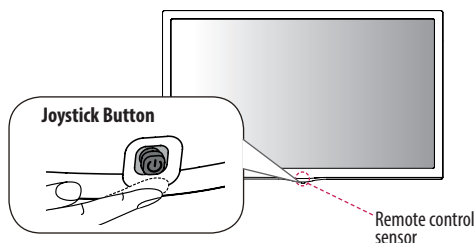
❗ NOTE

- Lift up the latch at the bottom of the stand base and detach the stand base from the TV.

Using the joystick button

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

- Image shown may differ from your TV.

Joystick Button

Remote control sensor

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 and press it once for a few seconds and release it. All running apps will close, and any recording in progress will stop.
	Volume Control	If you place your finger over the joystick button and move it left or right, you can adjust the volume level you want.
	Programmes Control	If you place your finger over the joystick button and move it up or down, you can scrolls through the saved programmes you want.

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.

|	
⏻	Turns the power off.
✕	Clears on-screen displays and returns to TV viewing.
☝	Changes the input source.
⚙	Accesses the quick settings.

❶ NOTE

- If you press the joystick button first, you may not be able to adjust the volume level and saved programmes.

⚠ CAUTION

- 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.

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 100 mm (minimum) space from the wall for proper ventilation.

100 mm
100 mm
100 mm
100 mm
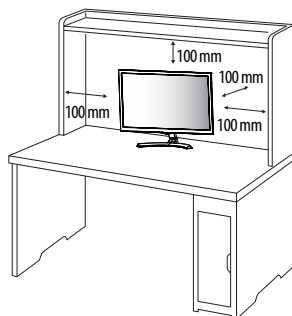
2 Connect the AC-DC Adapter and Power Cord to a wall outlet.

⚠ CAUTION

- Do not place the TV near or on sources of heat, as this may result in fire or other damage.
- Please be sure to connect the TV to the AC/DC power adapter before connecting the TV's power plug to a wall power outlet.

Using the kensington security system

(This is not available for all models.)
- Image shown may differ from your TV.

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.
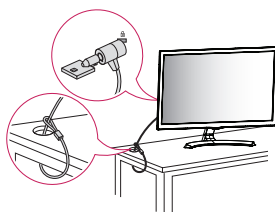
❶ NOTE

- The Kensington security system is optional. You can obtain additional accessories from most electronics stores.

Mounting on a wall

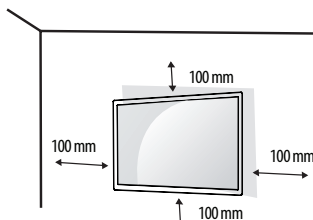For proper ventilation, allow a clearance of 100 mm on each side and from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.

If you intend to mount the TV to a wall, attach Wall mounting interface (optional parts) to the back of the TV.

When you install the TV using the wall mounting interface (optional parts), attach it carefully so it will not drop.

1 If you use screw longer than standard, the TV might be damaged internally.

2 If you use improper screw, the product might be damaged and drop from mounted position. In this case, LG Electronics is not responsible for it.

Separate purchase
(Wall mounting bracket)

Model	24MT48S	28MT48S
Wall mount (A x B)	75 x 75	100 x 100
Standard screw	M4 x L10	
Number of screws	4	
Wall mount bracket (optional)	RW120	

⚠ 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 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 VESA standard. Any damages or injuries by misuse or using an improper accessory are not covered by the warranty.
- Screw length from outer surface of back cover should be under 8 mm.

Wall mount Pad
Back Cover
Wall mount Pad
Back Cover
Standard screw
: M4 x L10
Max.8 mm
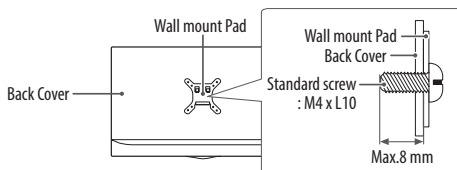
🛈 NOTE

- 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 optional. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending on the wall mount. Be sure to use the proper length.
- For more information, refer to the instructions supplied with the wall mount.

Connections (notifications)

Connect various external devices to the TV and switch input modes to select an external device. For more information about an external device's connection, refer to the manual supplied with each device. Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, camcorders or cameras, 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 programme on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information of recording, refer to the manual provided with the connected device.
- Refer to the external equipment's manual for operating instructions.
- If you connect a gaming device to the TV, use the cable supplied with the gaming device.
- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.
- In PC mode, some resolution settings may not work properly depending on the graphics card.

Antenna connection

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

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

Satellite dish connection

(Only satellite models)

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

CI module connection

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

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

Euro scart connection

(Depending on model)

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

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

1 Outputs Analogue TV or Digital TV signals.

ⓘ NOTE

- Any Euro scart cable used must be signal shielded.

PC connection

When connecting your PC to the HDMI input port, set the **HDMI-PC** mode to **On**.

Q.MENU ✿ (Remote control) or ⚙ **(SETTINGS)** (Joystick Button) → ⋮ **(Advanced)** → **Picture** → **HDMI-PC**

Other connections

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

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.
• The remote control will not be included for all sales market.

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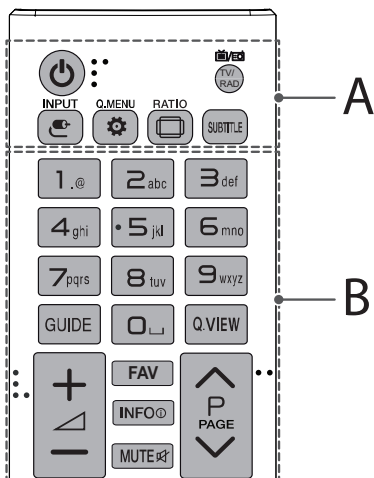
A

 (Power) Turns the TV on or off.
TV/RAD 📺/🔲 Selects Radio, TV and DTV programme.
INPUT 📥 Changes the input source.
Q.MENU ⚙ Accesses the Quick Settings.
RATIO ☐ Resizes an image.
SUBTITLE Recalls your preferred subtitle in digital mode.

B

Number buttons Enters numbers.
GUIDE Shows programme guide.
⎵ **(Space)** Opens an empty space on the screen keyboard.
Q.VIEW Returns to the previously viewed programme.
+ 🔊 — Adjusts the volume level.
FAV Accesses your favourite programme list.
INFO ① Views the information of the current programme and screen.
MUTE 🔇 Mutes all sounds.
⋀**P**⋁ Scrolls through the saved programmes.
⋀**PAGE**⋁ Moves to the previous or next screen.
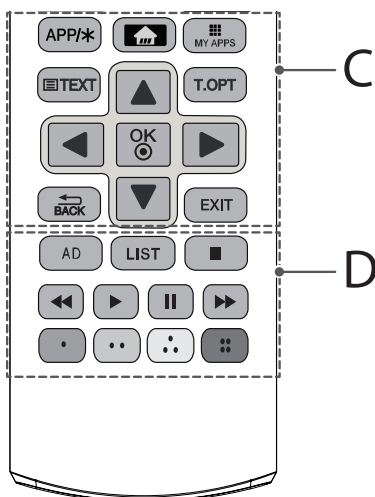
C

APP/✳ Selects the MHP TV menu source. (Depending on model)
🏠 **(Home)** Accesses the Home menu.
▦ **MY APPS** Shows the list of Apps.
Teletext buttons (▤ TEXT / T.OPT) These buttons are used for teletext.
Navigation buttons (up/down/left/right) Scrolls through menus or options.
OK ◉ Selects menus or options and confirms your input.
↰**BACK** Returns to the previous level.
EXIT Clears on-screen displays and returns to TV viewing.

D

AD By pressing the AD button, audio descriptions function will be enabled.
LIST Accesses the saved programme list.
Control buttons (■, ◀◀, ▶, ❚❚, ▶▶) Controls the Preminum contents, SmartShare menus or the SIMPLINK compatible devices (USB or SIMPLINK).
Colour buttons These access special functions in some menus.
(⦁ : Red, ⦂ : Green, ⦙ : Yellow, ⦚ : Blue)

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.

Preventing "Image burn" or "Burn-in" on your TV screen

- If a fixed image displays on the TV screen for a long period of time, it will be imprinted and become a permanent disfigurement on the screen. This is "image burn" or "burn-in" and not covered by the warranty.
- If the aspect ratio of the TV is set to 4:3 for a long period of time, image burn may occur on the letterboxed area of the screen.
- Avoid displaying a fixed image on the TV screen for a long period of time (2 or more hours for LCD) to prevent image burn.

Troubleshooting

Cannot control the TV with the remote control.

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

No image display and no sound is produced.

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

The TV turns off suddenly.

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

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

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

Specifications

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

Models	Dimensions (W x H x D) (mm)		Weight (kg)		Power consumption (Outgoing condition)	Power requirement
	With stand	Without stand	With stand	Without stand		
24MT48S	556 x 387.3 x 146.3	556 x 345.2 x 53.1	3.4	3.2	26 W	19 V ⎓ 2.0 A
28MT48S	641.5 x 435.5 x 186.1	641.5 x 396.3 x 57.5	4.7	4.5	32 W	19 V ⎓ 2.4 A

Wireless module specification

- As band channels can vary per country, the user cannot change or adjust the operating frequency. This product is configured for the regional frequency table.
- For consideration of the user, this device should be installed and operated with a minimum distance of 20 cm between the device and the body.

C E 0197 ①

Wireless LAN module(TWFM-B006D) specification	
Standard	IEEE802.11a/b/g/n
Frequency Range	Output Power(Max.)
2400 to 2483.5 MHz 5150 to 5250 MHz 5725 to 5850 MHz (for Non EU)	14 dBm 12.5 dBm 15.5 dBm

AC/DC Adapter	24MT48S	28MT48S
	Manufacturer : Lien Chang Model : LCAP16B-E, LCAP21C Manufacturer : Honor Model : ADS-45FSN-19 19040GPG, ADS-45SN-19-3 19040G	Manufacturer : APD Model : DA-48F19 Manufacturer : Lite-On Model : PA-1650-43, PA-1480-11
	In : AC 100 – 240 V ~ 50/60 Hz Out : DC 19 V ⎓ 2.1 A	In : AC 100 – 240 V ~ 50/60 Hz Out : DC 19 V ⎓ 2.53 A

CI module Size (W x H x D)	100.0 mm x 55.0 mm x 5.0 mm

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

	Digital TV	Analogue TV
Television system	DVB-T/T2* DVB-C DVB-S*/S2*	PAL/SECAM B/G/I/D/K SECAM L/L'
Programme coverage	VHF, UHF C-Band*, Ku-Band*	VHF:E2 to E12, UHF : E21 to E69, CATV : S1 to S20, HYPER : S21 to S47
Maximum number of storable programmes	DVB-S/S2 : 6000 DVB-T/T2/C & Analogue TV : 1500	
External antenna impedance	75 Ω	

*Only DVB-T2/C/S/S2 support model

HDMI (PC) supported mode

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

❶ NOTE

- The optimal display resolution is 1360 x 768 @ 60 Hz.
- The optimal timing in each mode is vertical frequency 60 Hz.

HDMI (DTV) supported mode

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

Component supported mode

Resolution	Horizontal frequency(kHz)	Vertical frequency(Hz)
720 x 480	15.73	59.94
	15.75	60.00
	31.47	59.94
	31.50	60.00
720 x 576	15.62	50.00
	31.25	50.00
1280 x 720	37.50	50.00
	44.96	59.94
	45.00	60.00
1920 x 1080	33.72	59.94
	33.75	60.00
	28.12	50.00
	56.25	50.00
	67.43	59.94
	67.50	60.00

Component port connecting information

Component ports on the TV	Y	P_B	P_R

Video output ports on DVD player	Y	P_B	P_R
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

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

WARNING!

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

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

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

Symbols

∼	Refers to alternating current(AC).
===	Refers to direct current(DC).
▣	Refers to class II equipment.
⏻	Refers to stand-by.
		Refers to "ON" (power).
ϟ	Refers to dangerous voltage.

LG
Life's Good

Make sure to read the Safety Precautions before using the product.
Keep the Owner's Manual (CD) in an accessible place for future reference.
The model and serial number of the TV is located on the back and one side of the TV. Record it below should you ever need service.

MODEL   _____

SERIAL   _____