



OWNER'S MANUAL

LG Digital Signage (MONITOR SIGNAGE)

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

55EF5F

55EF5F-L

55EF5F-P

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WARNING - This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

IMPORTANT PRECAUTIONS

Please read these safety precautions carefully before using the product.

WARNING

- Failure to follow those warnings may result in death, serious injury or damage to the product or other property.

CAUTION

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

WARNING

- Indoor Use Only.

Electrical Power Related Precautions

WARNING

- Use only the power cord supplied with the unit or another manufacturer's authorized cord.
 - Failure to do so may result in fire or electrical shock or damage to the product.
- Use only a properly grounded plug and receptacle.
 - If you do not you may be electrocuted or injured. Or the product might be damaged.
- Do not use a damaged or loose plug.
 - This may cause electrical shock or fire.
- Operate the display only from a power source(i.e. voltage) indicated in the product specification.
 - Otherwise the product can be damaged, fire can occur or you may be electrocuted. If you are not sure what type of power supply you have, consult a certified electrician.
- In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.
 - It can cause electric shock.
- Do not connect several extension cords, electrical appliances or electrical heaters to a single outlet. Use a power strip with a grounding terminal designed for exclusive use with the computer.
 - A fire can break out due to overheating.

- Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off before plugging in the cord.
 - You may be electrocuted due to excess moisture.
- If you don't intend to use the product for a long time, unplug the power cable from the product.
 - Layers of dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- Insert the power plug firm so it cannot come loose.
 - A loose connection can cause fire.
- Hold the plug when pulling out the power cable. Do not pull the plug out by the wire. Do not bend the power cord with excessive force or put heavy objects on the power cord.
 - The power line can be damaged, which may cause electric shock or fire.
- Do not insert metal or other conductive materials into the product openings. Additionally, do not touch the power cable right after plugging into the wall input terminal.
 - You may be electrocuted.
- Use an appliance coupler as a disconnect device.
- Please make sure the device is installed near the wall outlet to which it is connected and that the outlet is easily accessible.
- Do not unplug the power cord while the product is in use.
 - Electrical shock can damage the product.
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.

Precautions for installing the Product

WARNING

- Keep away from heat sources like heaters or open flames.
 - Electrical shock, fire, malfunction or deformation may occur.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children.
 - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- Do not put heavy objects on the product or sit upon it.
 - If the product collapses or is dropped, you may be injured. Prevent Children from climbing or pulling on the unit.
- Do not leave the power or signal cable where someone can trip over it.
 - Pedestrians may become entangled in the cables and cause the device to become damaged causing electrical shock, fire, or serious injury.
- Install the product in a neat and dry place. Do not use near water.
 - Dust or moisture can cause electrical shock, fire or product damage.
- Do not add accessories that have not been designed for this display.
- If you smell smoke or other odors or hear a strange sound from the product unplug the power cord and contact LG Customer Service.
 - If you continue to use without taking proper measures, electrical shock or fire can occur.
- If you dropped the product or the case is broken, turn off the product and unplug the power cord.
 - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact LG Customer Service.
- Do not drop an object on or apply impact to the product. Do not throw any toys or objects at the product.
 - It can cause injury to humans, problems to the product and damage the display.
- Keep out of reach of children and do not place toys near the product.
- Make sure the product ventilation hole is not blocked. Install the product more than 100 mm (3.9 inches) from the wall.
 - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat build-up.
- Do not cover the product with cloth or other material (eg. plastic) while plugged in.
 - The product can be deformed or fire can break out due to internal overheating.
- Place the product on a flat and stable surface that is large enough to support the product.
 - If the product is dropped, you may be injured or the product may be broken.
- Install the product where no Electromagnetic Interference occurs.
- Keep the product away from direct sunlight.
 - The product can be damaged.
- Do not place the product on the floor.
 - Small Children and others may trip over it.
- Do not install this product on a wall if it could be exposed to oil or oil mist.
 - This may damage the product and cause it to fall.
- For displays with glossy bezels the user should consider the placement of the display as the bezel may cause unwanted reflections from surrounding light and bright surfaces.

Precautions for Moving the Product

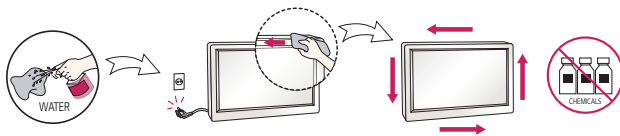
WARNING

- Make sure to turn off the product.
 - You may be electrocuted or the product can be damaged.
- Make sure to remove all cables before moving the product.
 - You may be electrocuted or the product can be damaged.
- When lifting or moving the product, do not hold it upside down while holding only the stand.
 - This may cause the product to fall resulting in damage or injury.
- Do not shock the product when moving it.
 - You may be electrocuted or the product can be damaged.
- Make sure the panel faces forward and hold it with both hands to move.
 - If you drop the product, the damaged product can cause electric shock or fire.
- Do not place the product face down.
 - This may damage the TFT-LCD screen.

Precautions for Using / Cleaning the Product

WARNING

- Do not attempt to disassemble, repair or modify the product yourself.
 - Fire or electric shock can occur.
 - Contact LG Customer Service for repair.
- When cleaning the product, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not clean with a wet cloth or spray water or other liquids directly onto the product. An electric shock may occur. (Do not use chemicals such as benzene, paint thinners or alcohol.)
- Keep the product away from water.
 - Fire or electric shock accident can occur.
- Avoid high temperatures and humidity.
- Do not put or store flammable substances near the product.
 - There is a danger of explosion or fire.
- Keep the product clean at all times.
- Take a comfortable and natural position when working with the product.
- Take a regular break when working with the product for a long time.
- Do not press on the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it.
- Keep proper distance from the product and rest from time-to-time.
 - Your vision may be impaired if you look at the product too closely or for too long.
- Set the appropriate resolution by referring to the User's Guide.
- Keep small accessories out of the reach of children.
- Displaying a still image for long time on the monitor may leave persistent image or stain on the monitor screen. To avoid this problem, use a screen saver and power off when this product is not used. Persistent image or stain caused by long time usage are not covered by the warranty on this product.
- Do not use products using high voltage around the Monitor. (ex. Electrical Swatter)
 - Monitor may have malfunction as its electrical shock.
- Spray water onto a soft cloth 2 to 4 times, and use it to clean the front frame; wipe in one direction only. Too much moisture may cause staining.



Product Disposal (Only, Hg lamp used LCD Monitor)

- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste.
- Disposal of this product must be carried out in accordance to the regulations of your local authority.

ASSEMBLY AND PREPARATION

CAUTION

- Always use genuine components to ensure safety and product performance.
- The product warranty will not cover damage or injury caused by the use of counterfeit components.
- Connect the power cord to the product before you plug it into a wall outlet. Plugging the power cord into a wall outlet first may cause an electric shock, which can also damage the product.
- The warranty will not cover any damage caused by using the product in an excessively dusty environment.

NOTE

- The accessories provided with your product may vary depending on the model or region.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.
- SuperSign Software & Manual
 - Downloading from the LG Electronics website.
 - Visit the LG Electronics website (<http://partner.lge.com>) and download the latest software for your model.

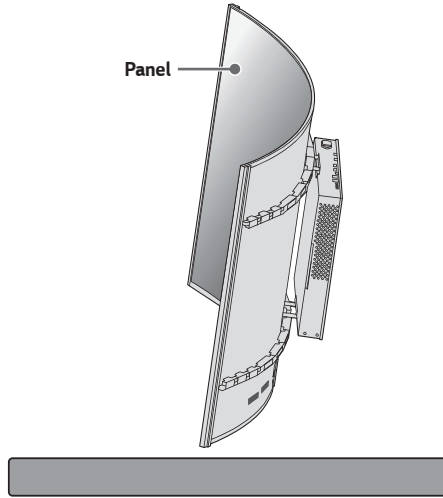
WARNING

- The product warranty does not cover any electrostatic damage to parts that may occur during product installation. Wear the appropriate gear that can prevent electrostatic discharge (ESD) when installing the product.

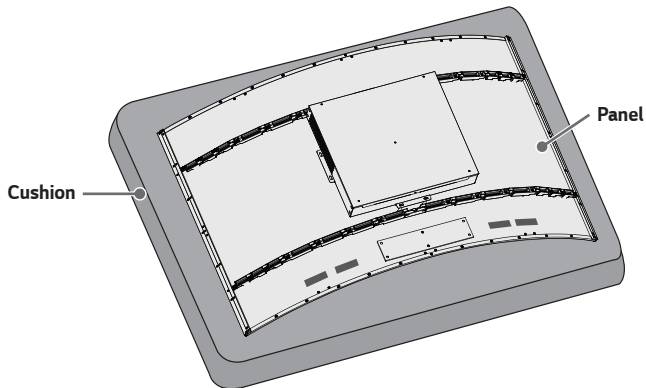
Storage Method For Panel Protection

Correct Method

- 1 If the product needs to be set upright, hold both sides of the product and make sure that the panel does not touch the floor.

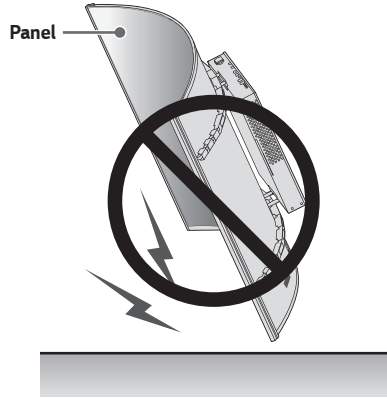


- 2 When laying down the product, lay a cushion on a flat floor. Put the product on it with the panel of the product facing down.

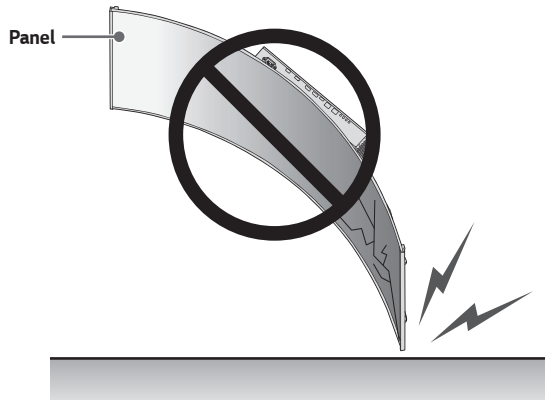


Incorrect Method

- 1 If the product is tilted onto the bezel, the bottom of the panel may be damaged.

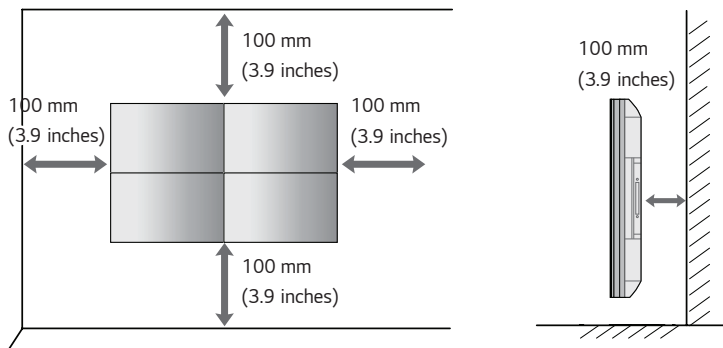


- 2 If the product is tilted onto the edge of the panel, the panel may be damaged.



Installing on a Wall

Install the monitor at least 100 mm (3.9 inches) away from the wall and leave about 100 mm (3.9 inches) of space at each side of the monitor to ensure sufficient ventilation.



⚠ CAUTION

- Disconnect the power cord before moving or installing the monitor to avoid risk of electric shock.
- If you install the monitor on a ceiling or slanted wall, it may fall and result in injury.
- Do not over tighten the screws as this may damage the monitor and void your warranty.

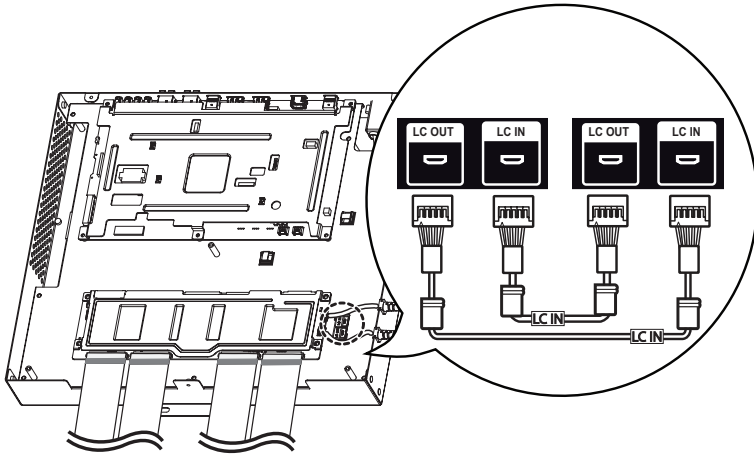
ⓘ NOTE

- Do not install the product in a place with no ventilation (e.g., on a bookshelf or in a closet) or on a carpet or cushion. If there is no other option but to mount the product on the wall, make sure that sufficient ventilation is provided before installation.
 - Failure to do so may result in a fire due to the increase in the internal temperature.
- The illustration shows a general example of installation and may look different from the actual product.

! NOTE

Connecting the LC (Luminance Compensation) Cable

Basic Connection Diagram of the LC (Luminance Compensation) Cable



! NOTE

- Connect the port with an attached label to LC IN.
- If not properly connected, the LC (Luminance Compensation) function does not operate as intended.
- The LC function will not operate normally if you use a cable other than the one provided.
 - Make sure that you use the cable provided exclusively for LC.
- Refer to ESG for a detailed LC (Luminance Compensation) connection diagram.

External equipment Setup

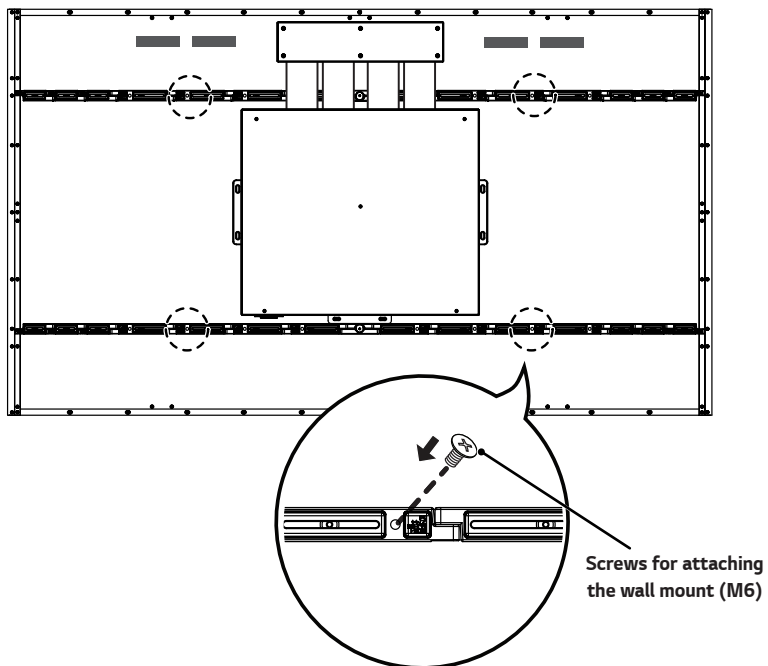
IR Receiver

This allows a remote control sensor to be placed in a custom location. Then that display can control other displays via an RS-232C cable.

Tiling Displays

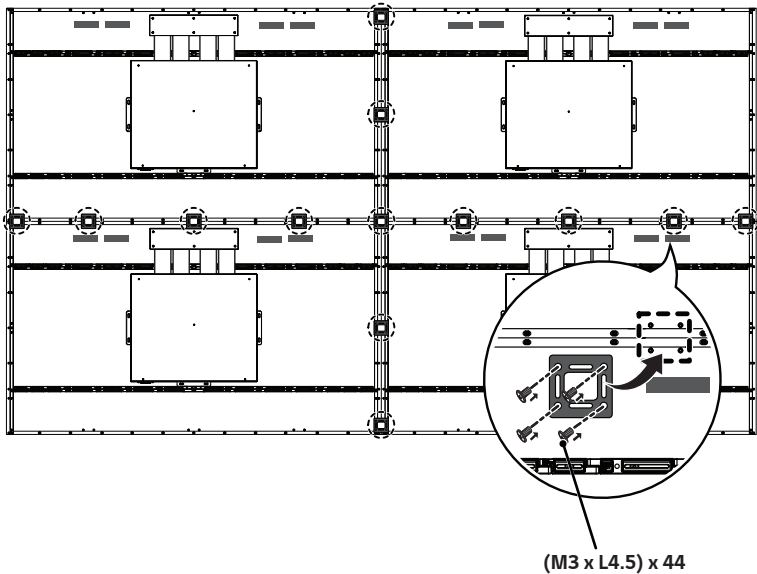
How to Mount the Set

Example of 2 x 2 Tiling



How to Join Sets

- 1 After joining the sets, use the tiling guide to adjust the gap between the sets.



- 2 Now the 2 x 2 tiling is complete. You can tile in various combinations, such as 3 x 3.

! NOTE

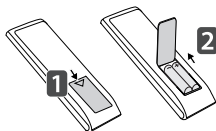
- You may mount the set without using the tiling guide; this does not affect the performance of the device.
- The screws are enclosed with the other components in the box, including the tiling guides.
- Refer to ESG for a detailed connection diagram.

REMOTE CONTROL

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

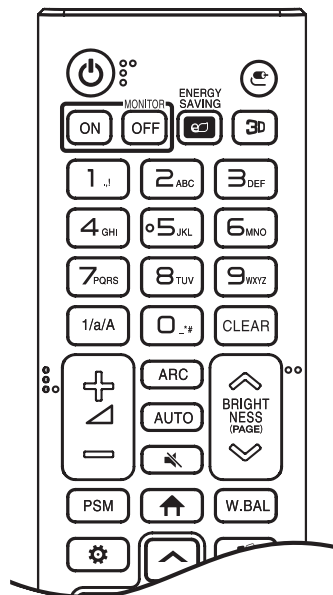
To install batteries, open the battery cover, place batteries (1.5 V AAA) matching ⊕ and ⊖ terminals to the labels inside the compartment, and close the battery cover.

To remove the batteries, perform the installation actions in reverse. The illustrations may differ from the actual accessories.



CAUTION

- Do not mix old and new batteries, as this may damage the remote control.
- Ensure the remote control is always pointed toward the monitor's IR receiver.
- Some features of the remote control may not be supported in certain models.
- The product's internal and external batteries should not be exposed to excessive heat such as direct sunlight, fire, or the like.



⏻ (POWER) Turns the monitor on or off.

MONITOR ON Turns the monitor on.

MONITOR OFF Turns the monitor off.

ENERGY SAVING Reduces power consumption by adjusting peak screen brightness.

⏪ (INPUT) Selects the input mode.

3D Used for viewing 3D videos.

1/a/A Toggles between numerical and alphabetical.

Number and Alphabet buttons Enters numerical or alphabetical characters depending upon the setting.

CLEAR Deletes the entered numerical or alphabetical character.

Volume Up/Down Button Adjusts the volume.

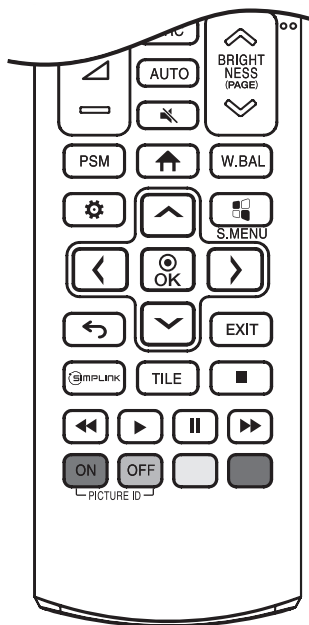
ARC Selects the Aspect Ratio mode.

AUTO Automatically adjusts picture position and minimizes image instability. (available for RGB input only).

🔇 (MUTE) Mutes all sounds.

BRIGHTNESS Adjusts the brightness of the display.

PAGE Function is not supported in this model.



PSM Selects the Picture Mode.

HOME Activates the Launcher.

W.BAL Enters the White Balance menu.

SETTINGS Accesses the main menus or saves your input and exit menus.

S.MENU SuperSign menu key.

Navigation Buttons Scrolls through menus or options.

OK Selects menus or options and confirms your input.

BACK Allows you to move back one step in the user interaction function.

EXIT Quit all OSD tasks and applications.

SIMPLINK Allows you to control various multimedia devices to enjoy multimedia simply by using the remote control through the SimpLink menu.

TILE Selects the TILE Mode.

PICTURE ID ON/OFF When the Picture ID number matches the Set ID number, you can control whichever monitor you want in multi-display format.

USB Menu Control Buttons Controls media playback.

Trick key May not be supported on some models.

MAKING CONNECTIONS

You can connect various external devices to your monitor. Change the input mode and select the external device you want to connect. For more information about external device connections, see the user manual provided with each device.

Connecting to a PC

Some of the cables are not provided. This monitor supports the Plug and Play* feature.

* Plug and Play: a feature that enables a PC to recognize devices attached by the user without device configuration or user intervention when powering up.

External Device Connection

Some of the cables are not provided. Connect a HD receiver, DVD, or VCR player to the monitor and select an appropriate input mode.

For the best picture and sound quality, connecting external devices to your monitor using HDMI cables is recommended.

NOTE

- For the best image quality, using the monitor with HDMI connection is recommended.
- To comply with the specifications of the product, use a shielded interface cable with ferrite core, such as a HDMI cable.
- If you turn the monitor on when the set is cold, the screen may flicker. This is normal.
- Sometimes red, green, or blue spots may appear on the screen. This is normal.
- Use a High Speed HDMI®/TM cable (shorter than 3 meters).
- 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®/TM Cable
 - High-Speed HDMI®/TM Cable with Ethernet
- If you cannot hear any sound in HDMI mode please check your PC settings. Some PCs require you to manually change the default audio output to HDMI.
- If you want to use HDMI-PC mode, you must set your PC/DTV to PC mode.
- You may experience compatibility issues if you use HDMI-PC mode.
- Make sure the power cable is disconnected.
- If you connect a gaming device to the monitor, use the cable provided with the gaming device.

CAUTION

- Do not press the screen with your finger for a prolonged period as this may result in temporary distortion on the screen.
- Avoid displaying static images on the screen for a long period of time to prevent image retention. Use a screensaver if possible.
- A wireless communication device near your monitor can affect the image.

Using the Input List

 (HOME) → 

- HDMI → DISPLAYPORT

TROUBLESHOOTING

No image is displayed.

Problem	Action
Is the product power cord connected?	<ul style="list-style-type: none"> • Check if the power cord is correctly plugged into the power outlet.
Does the "Invalid Format" message appear?	<ul style="list-style-type: none"> • The signal from the PC (Graphics card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual.
Does the "No Signal" message appear?	<ul style="list-style-type: none"> • The signal cable between PC and product is not connected. Check the signal cable. • Access the input menu to check the input signal.

The 'Unknown Product' message appears when the product is connected.

Problem	Action
Did you install the driver?	<ul style="list-style-type: none"> • Check if the Plug and Play function is supported by referring to the graphics card user manual.

The screen image looks abnormal.

Problem	Action
Is the screen position wrong?	<ul style="list-style-type: none"> • Check if the graphics card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the (Control Panel) → (Display) → (Setting) menu. (The settings may differ depending on your operating system.)
The screen is displayed abnormally.	<ul style="list-style-type: none"> • The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.

The audio function does not work.

Problem	Action
No sound.	<ul style="list-style-type: none"> • See if the audio cable is connected properly. • See if the sound is set properly.
Sound is too dull.	<ul style="list-style-type: none"> • Select the appropriate equalizer sound.

Screen color is abnormal.

Problem	Action
Screen has poor color resolution (16 colors).	<ul style="list-style-type: none"> • Set the number of colors to more than 24 bits (true color). Select (Control Panel) → (Display) → (Settings) → (Color Table) in Windows. (The settings may differ depending on your operating system.)
Screen color is unstable or mono-colored.	<ul style="list-style-type: none"> • Check the connection status of the signal cable. Or, re-insert the PC graphics card.
Do black spots appear on the screen?	<ul style="list-style-type: none"> • Several pixels (red, green, white, or black color) may appear on the screen, which can be attributable to the unique characteristics of the OLED panel. This is not a malfunction of the OLED.

The operation does not work normally.

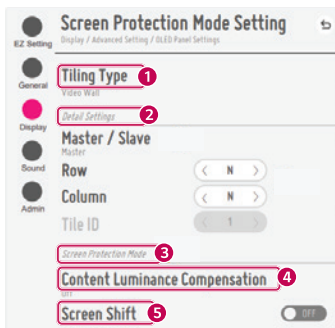
Problem	Action
The power suddenly turned off.	<ul style="list-style-type: none"> • Is the Timer set? • Check the power control settings. Power interrupted. • Are the fans functioning properly? <ul style="list-style-type: none"> - View the fan status in HOME → Information → Fan Status.

⚠ CAUTION

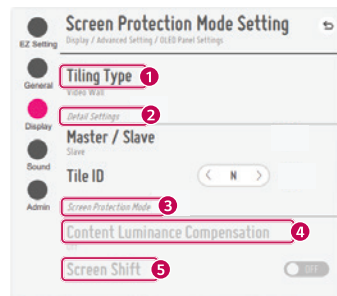
- Since afterimage can occur when a specific fixed screen is used for a long time, it is recommended to use a screen up to 18 hours a day and to display the video content with a small number of fixed characters or logos.
- Some horizontal lines may appear when the [Clear Panel Noise] feature is performed. It is for normal execution of the feature, and there is no need to be concerned. When you power on the product during the execution of the [Clear Panel Noise] feature, abnormal behavior may occur.
- During the execution of the [Clear Panel Noise] feature, the external speaker connected to the product may output sound.
- [Clear Panel Noise]: Correct issues that may arise on the screen when it is turned on for a long period of time.
- Use the [Screen Protection Mode Setting] feature in [OLED Panel Settings] to effectively prevent the formation of an afterimage.

[OLED Panel Settings]

- [Screen Protection Mode Setting]: This feature analyzes the characteristics of the image from the external input to prevent afterimages on the screen.



When Master is selected



When Slave is selected

No.	Item	Description
1	[Tiling Type]	Select and set the mode according to the installation type of your Signage. <ul style="list-style-type: none"> • Stand-alone: Select and use this mode when you use only one unit. • Video Wall: Select and use this mode when using two or more multi-screen configurations. This mode requires advanced settings.
2	[Detail Settings]	Select Master or Slave. <ul style="list-style-type: none"> • When Master is selected: Enter the number of rows and columns for the entire multi-screen. • When Slave is selected: Enter the multi-tile ID number for the individual set.
3	[Screen Protection Mode]	This feature enables you to set the content correction level and to set whether to use the Screen Switch feature. <ul style="list-style-type: none"> • 4 [Content Luminance Compensation]: Select a high or low correction level to use. • 5 [Screen Shift]: Set whether to use the Screen Switch feature.

! NOTE

- The [Screen Protection Mode] function is supported for external input images.
 - The [Screen Protection Mode] function is not enabled for playing images in USB devices.
 - The [Screen Protection Mode] function is not enabled when interlaces signals are input.
- [Screen Protection Mode] does not work with the functions [TruMotion] / [Noise Reduction] / [MPEG Noise Reduction].
 - To enable the functions [TruMotion] / [Noise Reduction] / [MPEG Noise Reduction] in the DTV input mode, ensure that the [Screen Protection Mode] menu is set to (Off).
- It is recommended to use contents with 10 minutes of playback time. (The [Screen Protection Mode] function may not work smoothly for the content with the duration longer than 10 minutes.)
- For the [Screen Protection Mode] feature to work normally, the Dithering feature should be turned OFF on the external input player or the graphics chip/card you are using.
- To enable the [Screen Protection Mode] feature in Video Wall, the screens must be connected to the same network through a LAN.
However, some operations may not be available when the screens are connected to [LAN Daisy Chain]. In this case, we recommend using a router or network switch.
- If the [Screen Protection Mode] function is interrupted or its related settings are changed while the function is enabled after [Screen Protection Mode Setting] is all set, the function will only be enabled again the next time the device is turned on.
 - To enable the [Screen Protection Mode] function, it needs time to recognize the pattern of the content. (The time may vary depending on the duration of the content.)
- The [Screen Shift] feature is supported only for the stand-alone configuration or for use in a single DP daisy chain. That is, if [Tile Mode] is enabled, the [Screen Shift] feature only works properly when the values of [Row] and [Column] in [Tile Mode Setting] are the same as those of [Row] and [Column] in [Detail Settings].
- If the [Content Luminance Compensation] setting is set to [High], there may be a difference in brightness compared to the [low] setting.

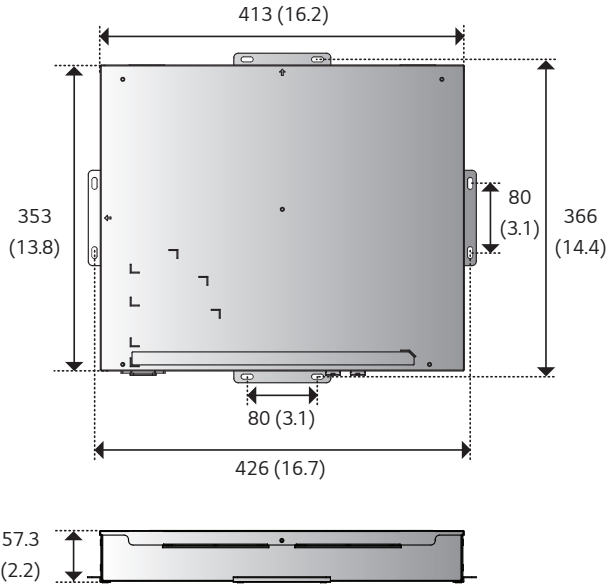
PRODUCT SPECIFICATIONS

The product specifications below may be changed without prior notice due to upgrade of product functions.
 “~” refers to alternating current (AC), and “—” refers to direct current (DC).

OLED screen	Screen type	Thin Film Transistor (TFT) OLED Screen	
Operating conditions	Daily usage	18 hours (video)	
Video signal	Maximum resolution	HDMI / DISPLAYPORT: 3840 x 2160 @ 30 Hz - This may not be supported on some OS or graphics card types.	
	Recommended resolution	HDMI / DISPLAYPORT: 1920 x 1080 @ 60 Hz - This may not be supported on some OS or graphics card types.	
	Horizontal frequency	HDMI / DISPLAYPORT: 30 kHz to 83 kHz	
	Vertical frequency	HDMI / DISPLAYPORT: 56 Hz to 60 Hz	
	Synchronization	Separate Sync, Digital	
Input/ Output ports	HDMI IN, DP IN/OUT, USB2.0 IN, LAN IN/OUT, IR IN, RS-232C IN/OUT, AUDIO OUT, LC IN/OUT		
Embedded battery		Applied	
Environmental Conditions	Operating Temperature	0 °C to 40 °C (32 °F à 104 °F)	
	Operating Humidity	10 % to 80 %	
	Storage Temperature	-20 °C to 60 °C (-4 °F à 140 °F)	
	Storage Humidity	5 % to 85 %	
OLED Panel	Pixel Pitch	0.630 mm (H) x 0.630 mm (V)	
Power	Rated Voltage	AC 100-240 V ~ 50/60 Hz 3.7 A	
	Power Consumption	On Mode: 309 W (Typ.) Sleep Mode (HDMI, DISPLAYPORT): ≤ 3 W Off Mode: ≤ 0.5 W	
Dimensions (Width x Depth x Height)	Display Module (Back metal plate assembled)	55EF5F-L	1224.9 x 38 x 696.2 (mm) 48.2 x 1.4 x 27.4 (inches)
		55EF5F-P	701.4 x 38 x 1219.7 (mm) 27.6 x 1.4 x 48 (inches)
	Signage Box	413 x 57.3 x 353 (mm) 16.2 x 2.2 x 13.8 (inches)	
Weight	55EF5F-L	9.9 (kg) 21.8 (lbs)	
		55EF5F-P	11.3 (kg) 24.9 (lbs)

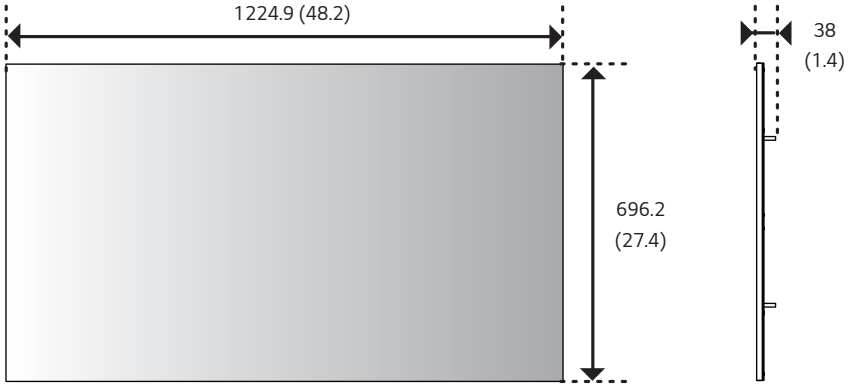
[Unit : mm (inches)]

Signage Box

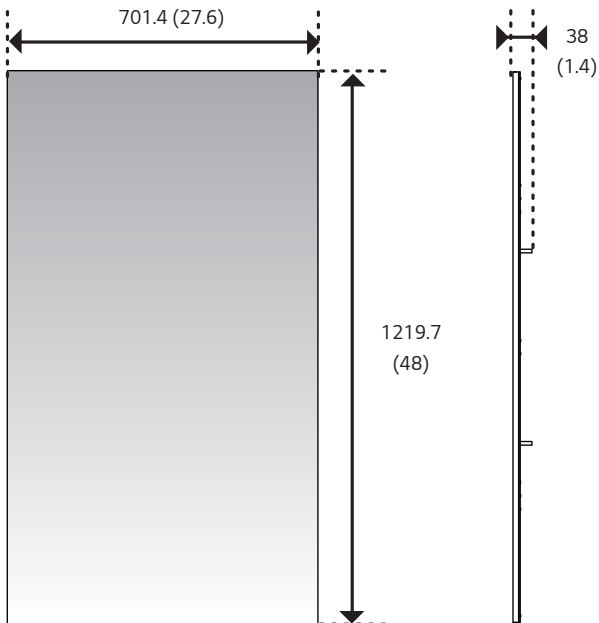


[Unit : mm (inches)]

55EF5F-L



55EF5F-P



HDMI/ DISPLAYPORT (PC) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
800 x 600	37.879	60.317
1024 x 768	48.363	60
1280 x 720	44.772	59.855
1366 x 768	47.7	60
1280 x 1024	63.981	60.02
1680 x 1050	65.29	59.954
1920 x 1080	67.5	60
3840 x 2160	67.5	30

HDMI/ DISPLAYPORT (DTV) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
480/60p	31.5	60
576/50p	31.25	50
720/50p	37.5	50
720/60p	45	60
1080/50i	28.1	50
1080/60i	33.75	60
1080/50p	56.25	50
1080/60p	67.432	59.94
1080/60p	67.5	60
2160/30p	67.5	30

! NOTE

- Vertical frequency: The product display functions by the screen image changing dozens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the number of image displays per second. The unit is Hz.
- Horizontal frequency: The horizontal interval is the time taken to display one horizontal line. When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.

LICENSES

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

MODEL _____
SERIAL NO. _____

Supplier's Declaration of Conformity

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

Temporary noise is normal when powering ON or OFF this device.