



OWNER'S MANUAL

LG Digital Signage

(LED SIGNAGE, SYSTEM
CONTROLLER)

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

LCLG003

LCLG003-A

LCLG003-B

www.lg.com

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TABLE OF CONTENTS

IMPORTANT PRECAUTIONS.....3

- Electrical Power Related Precautions..... 3
- Precautions for installing the Product..... 5
- Precautions for Moving the Product..... 6
- Precautions for Using / Cleaning the Product
..... 7
- Product Disposal (Only, Hg lamp used LCD
Monitor)..... 8

LICENSES.....9

ASSEMBLING AND PREPARING 10

- Optional Accessories..... 11
- Parts and Buttons 12
- Rack Installation (Optional)..... 13
- Connecting to LCLG003* with LAN Cable
..... 14

USING LCLG003* 15

- Connecting to PC..... 15
- Connecting to External Devices..... 16

CONNECT A USB DEVICE 17

TROUBLESHOOTING..... 19

PRODUCT SPECIFICATIONS... 21

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.
- Install the product firmly fixed on a floor, wall, etc. to prepare against external impact such as wind and earthquake.
 - You must refer to the installation guide.
- Safely install the product in a place that can hold the weight of the product.
 - A lack of strength may cause the product to fall.
- When installing the product on a shelf or cabinet, make sure that the bottom end of the product is not protruding forward.
 - The product may fall due to unbalanced centre of gravity, which may cause personal injury or damage to the product. Be sure to use cabinets or shelves that fit your product.

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.
- When transporting the product, there should be at least 2 people.
 - This may cause the product to fall resulting in damage or injury.
- 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.
- Do not dispose the product-packing box. Use it when you move.

Precautions for Using / Cleaning the Product

WARNING

- All the power sources must be disconnected by removing the power cables to remove all power from the unit.
- Do not attempt to disassemble, repair or modify the product yourself.
 - Fire or electric shock can occur.
 - Contact LG Customer Service for repair.
- 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 high voltage electrical goods near the product(e.g. electric swatter).
 - This may result in product malfunction.
- Ensure the power cord does not come into contact with hot objects such as a heater.
 - Fire or electric shock can occur.
- Do not touch the surface to overheat.
- Never touch the wall outlet when there is leakage of gas, open the windows and ventilate.
 - It may cause a fire or a burn by a spark.
- Since the LED Signage uses a high technology to produce a screen comprised of millions of LED packages, a few pixel spots (red, green, white, and black) may occasionally appear on the screen during use.
 - This is a phenomenon that can occur due to the unique properties of the LED Signage and does not indicate any performance issues or malfunction.
- 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.)
- To clean the product, use an air gun to lightly remove dust from the front frame and the screen. If there are foreign substances in between the LEDs on the screen, it may cause a defect in the screen.
- Do not physically come in contact with the screen of the LED Package. This may cause damage to the product.

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.

LICENSES

Supported licenses may differ by model. Visit www.lg.com for more information on licenses.



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.



ASSEMBLING AND PREPARING

CAUTION

- Always use genuine components to ensure safety and durability of the product.
- The product warranty will not cover damage or injury caused by the use of unauthorised components.
- Replacing the batteries with the wrong type may result in explosion.
- Batteries that have reached end-of-life should be disposed in an appropriate manner.

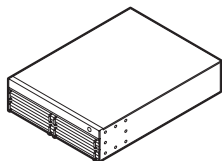
NOTE

- The accessories provided with your product may vary depending on the model.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.
- The warranty will not cover any damage caused by using the product in an excessively dusty environment.
- SuperSign Software & Manual
 - Visit <http://partner.lge.com> to download the latest SuperSign software and manual.

Optional Accessories

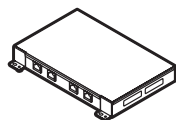
Without prior notice, optional accessories are subject to change to improve the performance of the product, and new accessories may be added. The illustrations in this manual may differ from the actual product and optional accessories.

Power Supply Unit



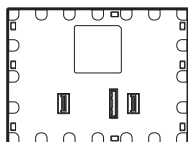
LPLG001

LED Controller



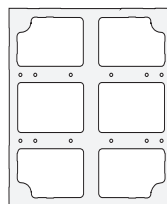
LLLG003*

LED Display Module



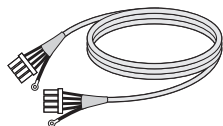
LAP015EL6B, LAP020EL6B, LAP025EL4D
LAP015EL7B, LAP020EL7B, LAP025EL7B
LAP015EL7N, LAP020EL7N, LAP025EL7N

Unit Frame



LFLG000E

LED Accessory



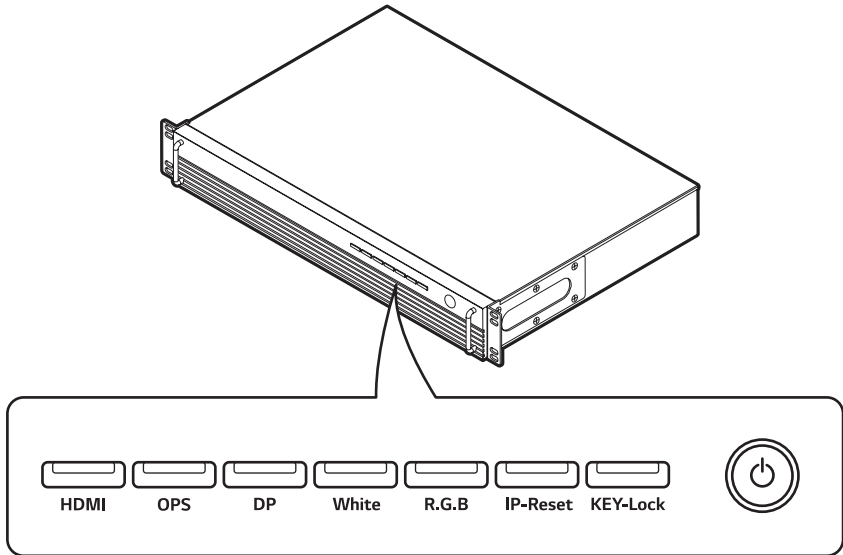
ACC-LAPPC06, ACC-LAPPC60


! NOTE

- Optional accessories are only available for some models. If necessary, please purchase them separately.

Parts and Buttons

The illustrations may differ depending on the model.

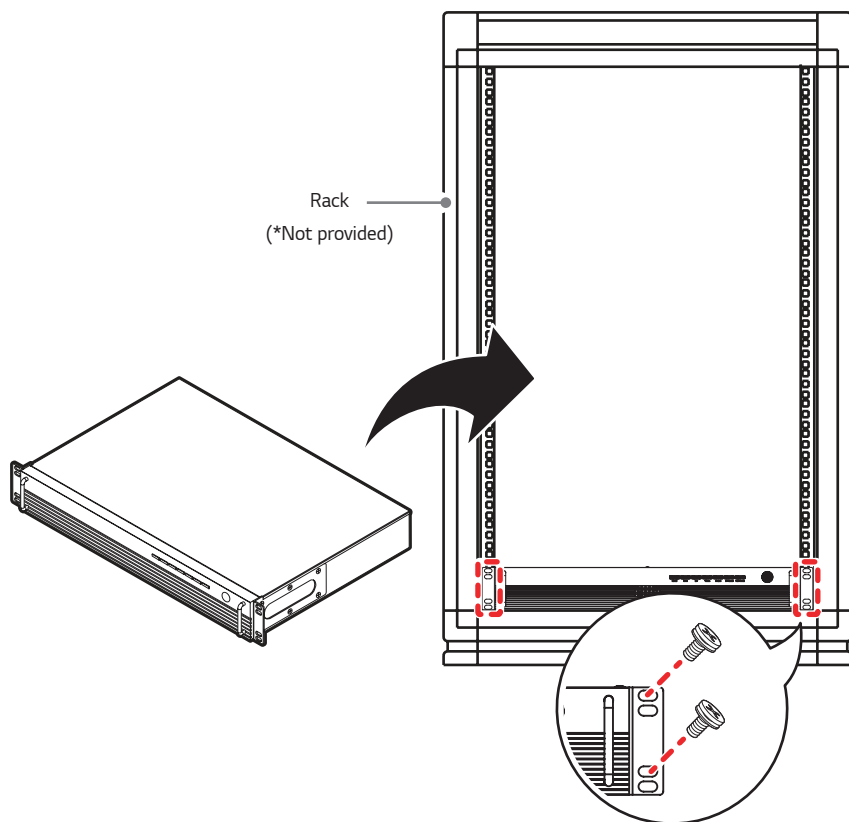


	Explanation
	<ul style="list-style-type: none"> • Turns the power on and off.
HDMI	<ul style="list-style-type: none"> • Switches to HDMI input.
OPS	<ul style="list-style-type: none"> • Switches to OPS input.
DP	<ul style="list-style-type: none"> • Switches to DP input.
White	<ul style="list-style-type: none"> • Accesses/Exits White Pattern.
R.G.B	<ul style="list-style-type: none"> • Consecutively accesses/exits R/G/B Pattern.
IP-Reset	<ul style="list-style-type: none"> • Press and hold for 3 seconds or more to set the IP address to 192.168.0.101.
KEY-Lock	<ul style="list-style-type: none"> • Press and hold for 3 seconds or more to access/exit Key Lock.

NOTE

- If you press **White** or **R.G.B** to access the corresponding pattern, HDMI/OPS/DP screen will not be available. If you want to switch to the external input screen, repeatedly press the button until you exit from the pattern.

Rack Installation (Optional)

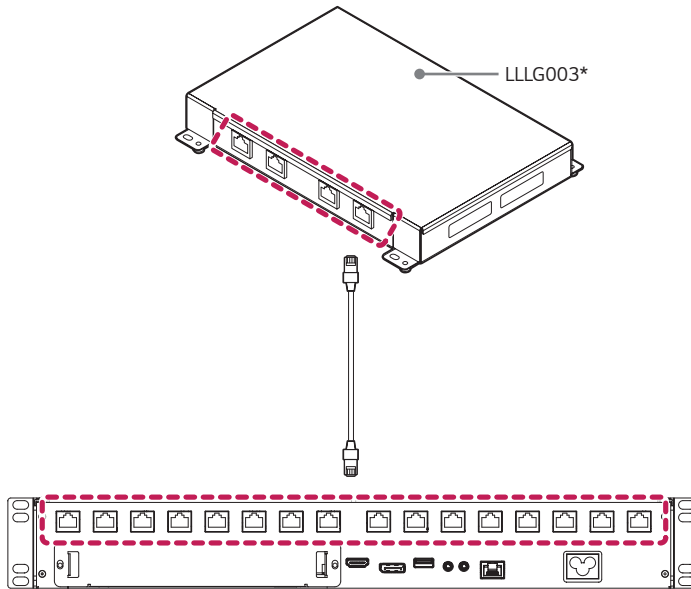


! NOTE

- Use the bolts included in the rack to fasten the product.

Connecting to LCLG003* with LAN Cable

Connect the LAN cable with the set.



CAUTION

- Check the direction so that the LAN cable is not damaged.
- Inserting the LAN cable with excessive force may damage the contact point.

USING LCLG003*

Connecting to PC

The LCLG003* model itself does not have any screen.

You may connect it with LLLG003 models and see the screen through the LAP015EL6B, LAP020EL6B, LAP025EL4D.

You may connect it with LLLG003-A models and see the screen through the LAP015EL7B, LAP020EL7B, LAP015EL7N, LAP020EL7N.

You may connect it with LLLG003-B models and see the screen through the LAP025EL7B, LAP025EL7N.

LCLG003* supports the Plug and Play¹⁾ feature.

¹⁾ Plug and Play: a feature that enables a PC to recognise devices attached by the user without device configuration or user intervention when powering up.

Connecting to External Devices

Connect a HD receiver, DVD, or VCR player to the product and select an appropriate input mode.

For the best picture quality, use a HDMI cable to connect the product to external devices.

NOTE

- For the best image quality, using HDMI connection is recommended.
- To comply with the specifications of the product, use a shielded interface HDMI cable with ferrite core.
- Fasten the cables with cable ties to minimise electromagnetic interference.
- Use a High-Speed HDMI®/TM cable.
- If you want to use HDMI-PC mode, you must set your input to PC mode.
- You may experience compatibility issues if you use a HDMI cable to connect to a PC.
- Use a certified cable that displays the HDMI logo. The screen may not appear or a connection error could occur if a non-certified cable is used.
- Recommended HDMI Cable Types
 - High-Speed HDMI®/TM Cable
 - High-Speed HDMI®/TM Ethernet Cable

CAUTION

- Connect the signal input cable and check whether it is inserted properly into the connector.
- If you are using a DP to HDMI dongle, use products that have been verified by graphics card manufacturers.
- If you are connecting the graphics card to multiple-channel ports, use the same DP to HDMI dongle model.

CONNECT A USB DEVICE

Connect a USB storage device, such as a USB flash memory to the display device to use multimedia features.

CAUTION

- Do not turn the Device off or remove the USB storage device when the multimedia screen is activated. This may cause the loss of a file or damage to a USB storage device.
- Back up your files saved on a USB storage device frequently, as you may lose or damage the files and this may be not covered by the warranty.
- Devices using a power source such as a USB HDD are not supported.
- For USB 3.0 devices, compatibility is not guaranteed.

Tips for Using USB Devices

- Only USB storage devices are recognized.
- A USB storage device using an automatic recognition program may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- The recognition speed of a USB storage device may depend on each device.
- Please do not turn off the display or unplug the USB device when the connected USB storage device is working. When such a device is suddenly disconnected or unplugged, the stored files or the USB storage device may be damaged.
- Please do not connect USB storage devices which were artificially created on the PC. The device may cause the product to malfunction or fail to play.
- Storage devices formatted with utility programs that are not supported by Windows may not be recognized.
- Please connect power to a USB storage device (over 0.5 A) which requires an external power supply. Otherwise, the device may not be recognized.
- Please connect a USB storage device with the cable offered by the device maker.
- Some USB storage devices may not be supported or operated smoothly.
- The file arrangement method for USB storage devices is similar to that of Windows, and file names can be recognized up to 100 English characters.
- Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.
- If your USB storage device has multiple partitions, or if you use a USB multi-card reader, you can use up to four partitions or USB memory devices.
- If a USB storage device is connected to a USB multi-card reader, its volume data may not be detected.
- If the USB storage device does not work properly, remove it and connect it again.
- The speed at which a USB storage device is detected differs from device to device.
- The recommended capacity is 32 GB or less for a USB memory drive.
- Any device with more than the recommended capacity may not work properly.
- USB storage devices (USB 2.0 or below) are also supported.
- The exFAT file system may not work properly for USB storage devices.

TROUBLESHOOTING

No image is displayed.

Problem	Solution
Is the power cord connected to the product?	<ul style="list-style-type: none"> Check if the power cord is correctly plugged into the power outlet.

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

Problem	Solution
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	Solution
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 "Display" settings in Control Panel.
The screen is displayed abnormally.	<ul style="list-style-type: none"> The proper input source is not connected to the port. Connect a cable that matches the input source signal.

After-image appears on the product.

Problem	Solution
After-image appears when the product is turned off.	<ul style="list-style-type: none"> If you display a still image on the screen for a long time, the LED package may be damaged rapidly. Use the screen-saver function. When a dark image is displayed on the screen after an image with high contrast (black and white or grey), this may cause image sticking. This is normal for LED products.

The display color is abnormal.

Problem	Solution
Screen has poor color resolution (16 colors).	<ul style="list-style-type: none"> • Set the color depth to more than 24 bits (true color). To do this, select (Control Panel) → (Display) → (Setting) → (Color Palette) on Windows. (May differ depending on your operating system (OS).)
Screen color is unstable or mono-coloured.	<ul style="list-style-type: none"> • Check the connection status of the signal cable. Or, re-insert the PC graphics card.

The operation does not work normally.

Problem	Solution
The power suddenly turned off.	<ul style="list-style-type: none"> • Is the Timer set? • Check the power control settings. Power supply is interrupted.

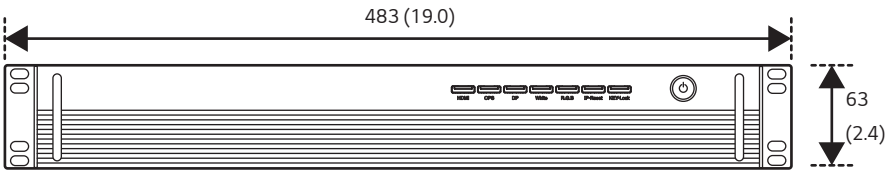
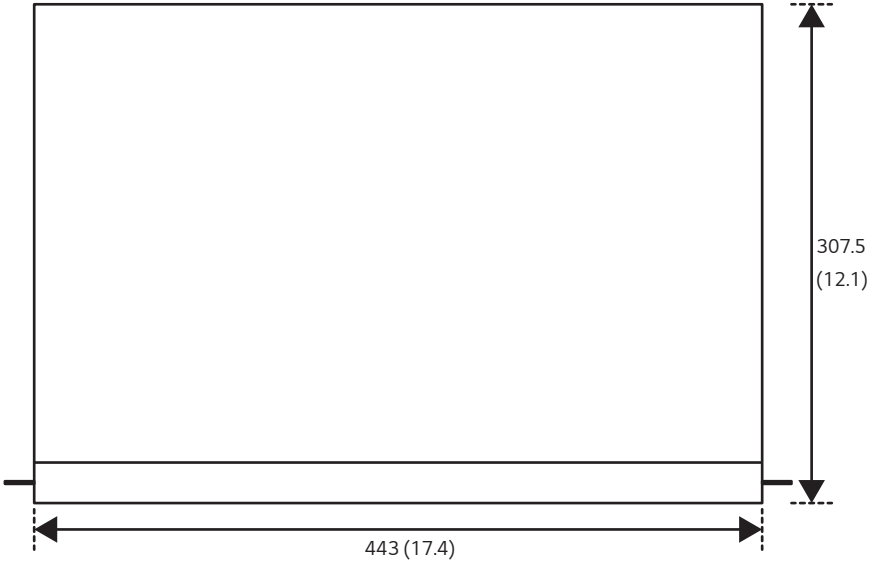
PRODUCT SPECIFICATIONS

Without prior notice, all product information and specifications contained in this manual are subject to change to improve the performance of the product.

The ~ symbol means alternating current, and the symbol --- means direct current.

Video Signal	Max Resolution	HDMI/ DisplayPort/ OPS: 3840 x 2160 @ 60 Hz - This may not be supported on some OS or graphics card types.
	Recommended Resolution	HDMI/ DisplayPort/ OPS: 3840 x 2160 @ 30 Hz - This may not be supported on some OS or graphics card types.
	Horizontal Frequency	HDMI/ DisplayPort/ OPS: 30 kHz to 135 kHz
	Vertical Frequency	HDMI/ DisplayPort/ OPS: 30 Hz to 60.31 Hz
	Synchronization	Separate Sync/ Digital
Input/Output Ports		LAN IN, RS-232C IN/OUT, HDMI IN, DP IN, USB 2.0 IN, OPS, AC IN, LAN-01 – LAN-16
Power	Rated Voltage	AC 100-240 V - 50/60 Hz 1.6 A
	Power Consumption	On Mode (Without OPS): 50 W (Max) Sleep Mode (DisplayPort/HDMI/OPS): ≤ 1 W Off Mode: ≤ 1 W
Embedded Battery		Applied
Environmental Conditions	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	10 % to 80 %
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	5 % to 85 %
Dimensions (Width x Depth x Height) / Weight		443 mm x 307.5 mm x 63 mm / 4.9 kg (17.4 inches x 12.1 inches x 2.4 inches / 10.8 lbs)

[Unit: mm (inches)]



HDMI/DisplayPort/OPS (PC) Support Mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
800 x 600	37.879	60.317
1024 x 768	48.363	60.0
1280 x 720	44.772	59.855
1280 x 1024	63.981	60.02
1680 x 1050	65.290	59.954
1920 x 1080	67.5	60
3840 x 2160	67.5	30
3840 x 2160	135	60

HDMI/DisplayPort/OPS (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
2160/50p	112.5	50
2160/60p	135	60

! NOTE

- Resolutions available for the Input Label option in HDMI/ DisplayPort/ OPS input modes.
 - PC resolutions: 800 x 600 / 60 Hz, 1280 x 720 / 60 Hz, 1920 x 1080 / 60 Hz, 3840 x 2160 / 60 Hz
 - DTV resolutions: 480p, 720p, 1080p, 2160p
- Horizontal Frequency: The horizontal interval is the time taken to display one horizontal line. When one horizontal line is divided by the horizontal interval, the number of horizontal lines displayed every second is the horizontal frequency. The unit is kHz.
- Vertical Frequency: The monitor screen 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.



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.