



Owner's Manual

LG UltraGear™ Gaming Monitor

(LED Monitor*)

* LG LED Monitor applies LCD screen with LED backlights.

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

27GN950 27GN95B

www.lg.com

Copyright © 2020 LG Electronics Inc. All Rights Reserved.

TABLE OF CONTENTS

LICENSE	3
OPEN SOURCE SOFTWARE NOTICE INFORMATION	4
ASSEMBLING AND PREPARING	4
USING THE MONITOR.....	16
USER SETTINGS	18
TROUBLESHOOTING	26
PRODUCT SPECIFICATION	30

LICENSE

Each model has different licenses. Visit www.lg.com for more information on the license.



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



The SuperSpeed USB Trident logo is a registered trademark of USB Implementers Forum, Inc.



VESA, VESA logo, DisplayPort compliance logo and DisplayPort compliance logo for dual-mode source devices are all registered trademarks of the Video Electronics Standards Association.



Waves MaxxAudio®, Maxx®, and addition Maxx marks are trademarks or registered trademarks of Waves Audio Ltd.

OPEN SOURCE SOFTWARE NOTICE INFORMATION

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>. In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download. LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to opensource@lge.com. This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

ASSEMBLING AND PREPARING



CAUTION

- Always use genuine LG components to ensure safety and product performance.
- The product warranty will not cover damage or injury caused by the use of unauthorized components.
- It is recommended that use the supplied components.
- Illustrations in this document represent typical procedures, so they may look different from the actual product.
- Do not apply foreign substances (oils, lubricants, etc.) to the screw parts when assembling the product. (Doing so may damage the product.)
- Applying excessive force when tightening screws may cause damage to the monitor. Damage caused in this way will not be covered by the product warranty.
- Do not carry the monitor upside down by just holding the base. This may cause the monitor to fall off the stand and could result in personal injury.
- When lifting or moving the monitor, do not touch the monitor screen. The force applied to the monitor screen may cause damage to it.
- For wave pattern on appearance, unlike the general method of coating, it's applied to added glittering material in raw material. With no peeled-off appearance, it has good durability. Please use it with confidence because there is no problem in using the product at all.

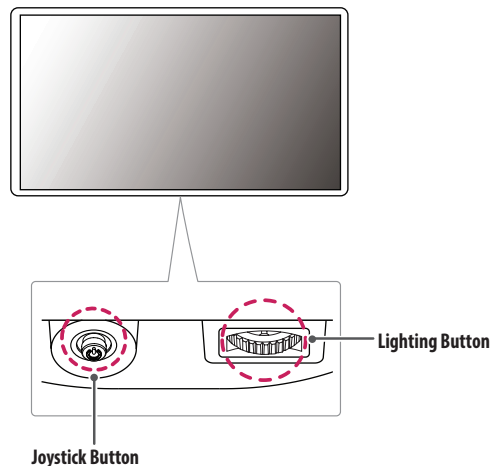
NOTE

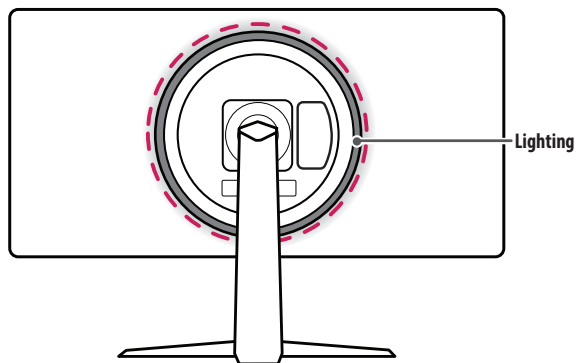
- The components may look different from those illustrated here.
- Without prior notice, all product information and specifications contained in this manual are subject to change to improve the performance of the product.
- To purchase optional accessories, visit an electronics store or an online shopping site, or contact the retailer from which you purchased the product.
- The power cord provided may differ depending upon the region.

Supported Drivers and Software

- You can download and install the latest version from the LGE website (www.lg.com).
 - Monitor Driver / OnScreen Control / LG UltraGear™ Control Center / LG Calibration Studio

Product and Button Description





How to Use the Joystick Button

You can easily control the functions of the monitor by pressing the joystick button or moving it left/right/up/down with your finger.

Basic Functions

A	B	C	D

A (Power on): Press the joystick button once with your finger to turn on the monitor.

B (Power off): Press and hold the joystick button once more than 5 seconds with your finger to turn off the monitor.

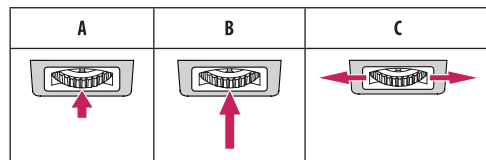
C (Volume control): You can control the volume by moving the joystick button left/right.

D (Controls screen brightness): You can control the screen's brightness by moving the joystick button up/down.

How to Use the Lighting Button

You can easily control the functions of the monitor by pressing the lighting button or moving it left/right with your finger.

Basic Functions



When Lighting is Off

A: Press the lighting button once with your finger to turn on the lighting on the back of the monitor.

B: Press and hold the lighting button once with your finger to turn on the lighting on the back of the monitor.

C: Not functional

When Lighting is On

A: Pressing the lighting button enables you to change the lights on the back of the monitor to eight different colors.

B: Press and hold the lighting button once with your finger to turn off the lighting on the back of the monitor.

C: You can control the lighting brightness by moving the lighting button left/right.

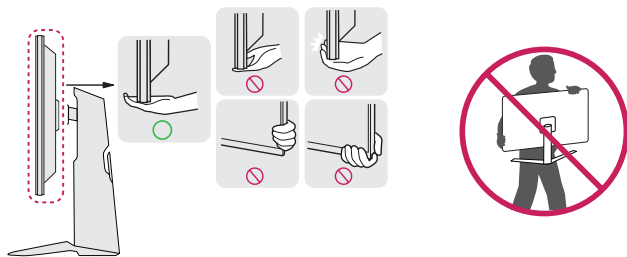
! NOTE

- The joystick and lighting button are located at the bottom of the monitor.
- The Lighting function for the back of the monitor is available even when the monitor is in power saving mode or when its screen is off. ([Settings] > [General] > [Lighting Option] > [Keep Lighting Status])
- Lighting LED is not for illumination purposes. Please be aware that changes in this setting component may increase energy consumption of this monitor.

Moving and Lifting the Monitor

When moving or lifting the monitor, follow these instructions to prevent the monitor from being scratched or damaged and to ensure safe transportation, regardless of its shape or size.

- Place the monitor in the original box or packing material before attempting to move it.
- Before moving or lifting the monitor, disconnect the power cord and all other cables.
- Hold the bottom and side of the monitor frame firmly. Do not hold the panel itself.
- When holding the monitor, the screen should face away from you to prevent it from being scratched.
- When transporting the monitor, do not expose the monitor to shock or excessive vibration.
- When moving the monitor, keep it upright and never turn the monitor on its side or tilt it sideways.

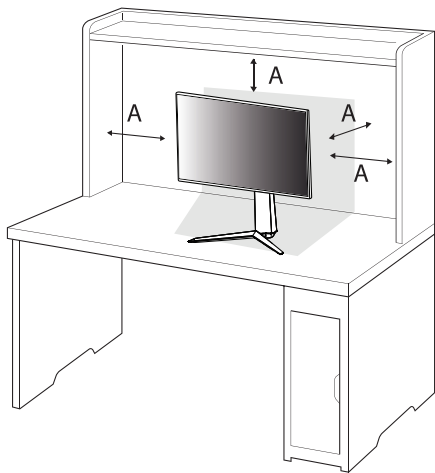


CAUTION

- Avoid touching the monitor screen as much as possible.
 - This may result in damage to the screen or some of the pixels used to create images.
- If you use the monitor panel without the stand base, its joystick button may cause the monitor to become unstable and fall, resulting in damage to the monitor or human injury. In addition, this may cause the joystick button to malfunction.

Installing on a Table

- Lift the monitor and place it on the table in an upright position. Place the monitor at least 100 mm away from the wall to ensure sufficient ventilation.



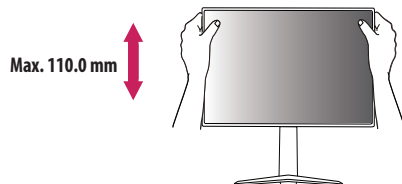
A: 100 mm

CAUTION

- Unplug the power cord before moving or installing the monitor. There is risk of electric shock.
- Make sure to use the power cord that is provided in the product package and connect it to a grounded power outlet.
- If you need another power cord, please contact your local dealer or the nearest retail store.

Adjusting the Stand Height

- 1 Place the monitor mounted on the stand base in an upright position.
- 2 Handle the monitor with both hands for safety.



WARNING

- When adjusting the screen height, do not place your hand on the stand body to avoid injury to your fingers.

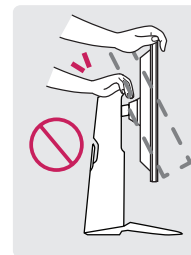
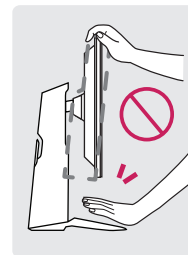
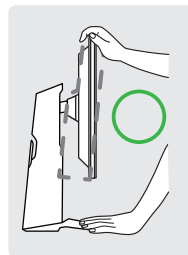
Adjusting the Angle

- 1 Place the monitor mounted on the stand base in an upright position.
- 2 Adjust the angle of the screen.

The angle of the screen can be adjusted forward or backward from -5° to 15° for a comfortable viewing experience.

WARNING

- To avoid injury to the fingers when adjusting the screen, do not hold the lower part of the monitor's frame as illustrated below.
- Be careful not to touch or press the screen area when adjusting the angle of the monitor.

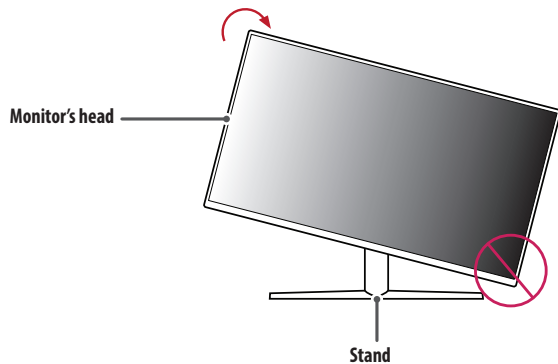


Pivot Feature

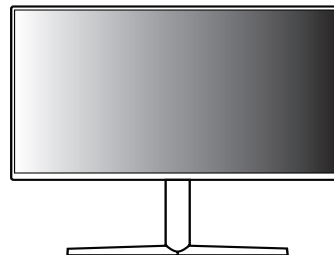
The pivot feature allows the monitor to rotate 90 ° clockwise.

WARNING

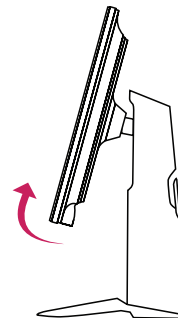
- When using the Pivot function, do not rotate the monitor too fast or with excessive force.
 - The head may come in contact with the stand and scratch the base.
 - Be careful as you may injure your finger by jamming it between the head and the stand.



- 1 Raise the monitor to the maximum height.



- 2 Adjust the angle of the monitor in the direction of the arrow as shown in the figure.



- 3 Rotate the monitor clockwise as shown in the figure.



- 4 Complete the installation by rotating the monitor 90° as shown below.



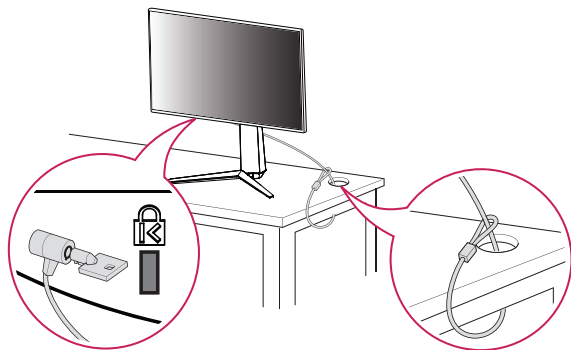
NOTE

- Auto Pivot feature of the display is not supported.
- The screen can be rotated easily using the screen pivot shortcut key provided with your Windows operating system. Note that some Windows versions and some graphics card drivers may use different settings for the screen pivot key or may not support the pivot key at all.

Using the Kensington Lock

For more information on installation and usage, refer to the Kensington lock owner's manual or visit the website at <http://www.kensington.com>.

Connect the monitor to a table using the Kensington security system cable.



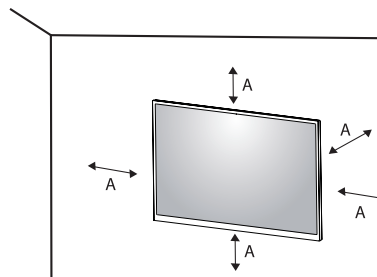
! NOTE

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

Installing on the Wall

This monitor meets the specifications for the wall mount plate or other compatible devices.

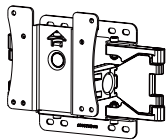
Install the monitor at least 100 mm away from the wall and leave about 100 mm of space at each side of the monitor to ensure sufficient ventilation. Detailed installation instructions can be obtained from your local retail store. Alternatively, please refer to the manual for how to install and set up a tilting wall mounting bracket.



A: 100 mm

Installing the Wall Mount Plate

To install the monitor to a wall, attach a wall mounting bracket (optional) to the back of the monitor. Make sure that the wall mounting bracket is securely fixed to the monitor and to the wall.

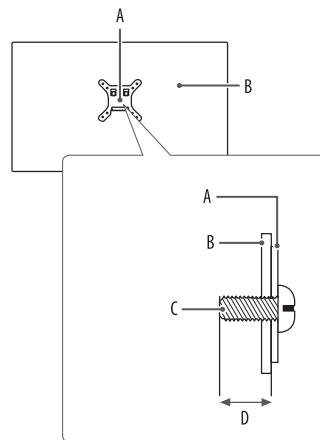
Wall Mount (mm)	100 x 100
Standard screw	M4 x L10
Number of screws	4
Wall Mount Plate (Optional)	LSW 149 

NOTE

- Use the screws specified by VESA standards.
- The wall mount kit includes the installation guide and all necessary parts.
- The wall mounting bracket is optional. You can obtain optional accessories from your local dealer.
- The length of the screw may differ for each wall mounting bracket. If you use screws longer than the standard length, it may damage the inside of the product.
- For more information, please refer to the user manual for the wall mounting bracket.
- Be careful not to apply too much force while mounting the wall mount plate as it may cause damage to the screen.
- Remove the stand before installing the monitor on a wall mount by performing the stand attachment in reverse.

 CAUTION

- Unplug the power cord before moving or installing the monitor to avoid electric shock.
- Installing the monitor on the ceiling or on a slanted wall may result in the monitor falling off, which could lead to injury. Use an authorized LG wall mount and contact the local dealer or qualified personnel.
- To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.
- Applying excessive force when tightening screws may cause damage to the monitor. Damage caused in this way will not be covered by the product warranty.
- Use the wall mounting bracket and screws that conform to VESA standards. Damage caused by the use or misuse of inappropriate components will not be covered by the product warranty.
- When measured from the back of the monitor, the length of each installed screw must be 8 mm or less.



- A: Wall Mount Plate
B: Back of the Monitor
C: Standard screw
D: Max. 8 mm

USING THE MONITOR

- Illustrations in this manual may differ from the actual product.
- Press the joystick button, go to [Settings] > [Input], and then select the input option.

CAUTION

- If you use generic cables not certified by LG, the screen may not display or there may be image noises.
- Do not press the screen for a prolonged time. This may cause image distortion.
- Do not display a still image on the screen for a prolonged time. This may cause image retention. Use a PC screensaver if possible.
- When connecting the power cord to the outlet, use a grounded (3-hole) power strip or a grounded power outlet.
- The monitor may flicker when turned on in an area where the temperature is low. This is normal.
- Sometimes red, green, or blue spots may appear on the screen. This is normal.

Connecting to a PC

- This monitor supports the Plug and Play* feature.

* Plug and Play: A feature that allows you to add a device to your computer without having to reconfigure anything or install any manual drivers.

HDMI Connection

Transmits digital video and audio signals from your PC to the monitor.

CAUTION

- Using a DVI to HDMI / DP (DisplayPort) to HDMI cable may cause compatibility issues.
- 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

DisplayPort Connection

Transmits digital video and audio signals from your PC to the monitor.

! NOTE

- There may be no video or audio output depending on the DP (DisplayPort) version of the PC.
- If you are using a Mini DisplayPort output graphics card, use a Mini DP to DP (Mini DisplayPort to DisplayPort) cable or gender that supports DisplayPort1.4. (Sold separately)

Connecting AV Devices

HDMI Connection

HDMI transmits digital video and audio signals from your AV device to the monitor.

! NOTE

- Using a DVI to HDMI / DP (DisplayPort) to HDMI cable may cause compatibility issues.
- 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

Connecting Peripherals

USB Device connection

The USB port on the product functions as a USB hub.

To use USB 3.0, connect the A-B type USB 3.0 cable of the product to the PC.

Peripheral devices connected to the USB IN port can be controlled from the PC.

! NOTE

- It is recommended you install all Windows Updates to keep your Windows up-to-date before connecting to the product for use.
- Peripheral devices are sold separately.
- A keyboard, mouse, or USB device can be connected to the USB port.
- The charging speed may vary depending on the device.

⚠ CAUTION

- Cautions when using a USB device.
 - A USB device with an automatic recognition program installed, or that uses its own driver, may not be recognized.
 - Some USB devices may not be supported or may not work properly.
 - It is recommended to use a USB hub or hard disk drive with power supplied. (If the power supply is not adequate, the USB device may not be recognized properly.)

Connecting Headphones

Connect peripherals to the monitor via the headphones port.

! NOTE

- Peripheral devices are sold separately.
- Depending on the audio settings of the PC and external device, headphones and speaker functions may be limited.
- If you use angled earphones, it may cause a problem with connecting another external device to the monitor. Therefore, it is recommended to use straight earphones.



Angled



Straight
(Recommend)

USER SETTINGS

! NOTE

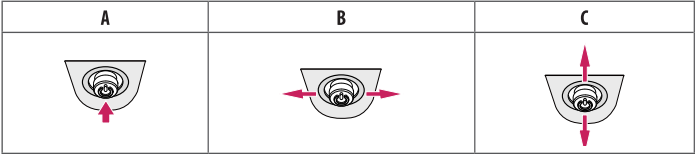
- Your monitor's OSD (On Screen Display) may differ slightly from that shown in this manual.

Activating the Main Menu



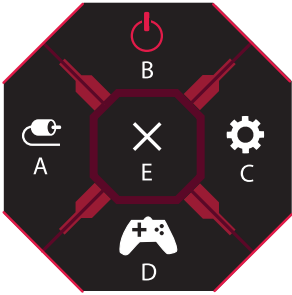
Joystick Button

- 1 Press the joystick button on the bottom of the monitor.
- 2 Move the joystick up/down (▲/▼) and left/right (◀/▶) to set the options.
- 3 Press the joystick button once more to exit the main menu.



- A**
- Main menu disabled: Enables the main menu.
 - Main menu enabled: Exits the main menu. (Holding down the button more than 5 seconds to turn off the monitor. You can turn off the monitor this way at any time, including when the OSD is on.)
- B**
- Main menu disabled: Adjusts the monitor volume level. (◀▶)
 - Main menu enabled: Enters the [Input] features. (◀) / Enters the [Settings] feature. (▶)
- C**
- Main menu disabled: Adjusts the monitor brightness level. (▲▼)
 - Main menu enabled: Turns off the monitor. (▲) / Enters the [Game Mode] feature. (▼)

Main Menu Features



Main Menu	Description
A: [Input]	Sets input mode.
B: [Power Off]	Turns off the monitor.
C: [Settings]	Configures the screen settings.
D: [Game Mode]	Sets the game mode for gaming.
E: [Exit]	Exits the main menu.

Menu Settings

- 1 To view the OSD menu, press the joystick button at the bottom of the monitor and then enter the [Settings].
- 2 Move the joystick up/down and left/right to set the options.
- 3 To return to the upper menu or set other menu items, move the joystick to ◀ or pressing (⏮) it.
- 4 If you want to exit the OSD menu, move the joystick to ◀ until you exit.



[Game Mode]



[Game Adjust]



[Picture Adjust]



[Input]



[General]

[Game Mode]

[Settings] > [Game Mode]

[Game Mode] on SDR(Non-HDR) signal

- [Gamer1]/[Gamer2]: [Gamer1] and [Gamer2] picture modes allow you to save two sets of customized display settings, including game-related setup options.
- [FPS]: This mode is optimized for FPS games. It is suitable for very dark FPS games.
- [RTS]: This mode is optimized for RTS Game.
- [Vivid]: Optimized the screen for vivid colors.
- [Reader]: Optimizes the screen for reading documents. You can brighten the screen in the OSD menu.
- [HDR Effect]: Optimizes the screen for high dynamic range.
- [sRGB]: A standard RGB color space for the monitor and printer.
- [Calibration 1]: Adjusts to the last calibrated screen.
- [Calibration 2]: Adjusts to the previously calibrated screen. Installation of LG CALIBRATION STUDIO will enable this menu.

[Game Mode] on HDR signal

- [Gamer1]/[Gamer2]: [Gamer1] and [Gamer2] picture modes allow you to save two sets of customized display settings, including game-related setup options.
- [FPS]: This mode is optimized for FPS games. It is suitable for very dark FPS games.
- [RTS]: This mode is optimized for RTS Game.
- [Vivid]: Optimized the screen for vivid colors.

! NOTE

- HDR content may not display correctly depending on Windows 10 OS settings, please check HDR on/off settings in Windows.
- When the HDR function is turned on, the characters or picture quality may be poor according to Graphic card performance.
- While the HDR function is on, screen flickering or cracking may occur when changing the monitor input or power on/off according to Graphic card performance.
- For information about whether the graphics card and game support HDR, visit their manufacture's website.

[Game Adjust]**[Settings] > [Game Adjust]**

- [Overclock]
 - [On]: Sets Overclock to a higher refresh rate than specified by the panel specification.
 - [Off]: Disables the Overclock improvement feature.
- [Adaptive-Sync]/[FreeSync Premium Pro]: Provides seamless and natural images in a gaming environment. Note that the screen flickering may occur intermittently in a specific gaming environment.

! NOTE

- [Overclock]
 - After the monitor reboots, change the maximum refresh rate setting in the GPU control panel.
 - If the screen display appears abnormal, turn off the Overclock setting.
 - The function can only be used through DisplayPort.
 - The Overclock function's features/performance may vary depending on the graphics card or gaming content.
 - We do not guarantee the performance of the function and are not responsible for any side effects that may occur from its activation.
- [Adaptive-Sync]/[FreeSync Premium Pro]
 - Supported Interface: DisplayPort (G-SYNC Compatible, FreeSync Premium Pro), HDMI (FreeSync Premium Pro).
 - Supported Graphic Card: A graphic card that supports NVIDIA's G-SYNC or AMD's FreeSync is necessary.
 - Supported Version: Make sure to update the graphic card to the latest driver.
 - For more information and requirement, refer to NVIDIA website (www.nvidia.com) and AMD website (www.amd.com).

- [Black Stabilizer]: You can control the black contrast to have better visibility in dark scenes. You can easily distinguish objects on dark game screens.
- [Response Time]: Sets a response time for displayed pictures based on the speed of the screen.
For a normal environment, it is recommended that you use [Fast].
For a fast-moving picture, it is recommended that you use [Faster].
Setting to [Faster] may cause image sticking.
 - [Faster]: Sets the response time to [Faster].
 - [Fast]: Sets the response time to [Fast].
 - [Normal]: Sets the response time to [Normal].
 - [Off]: Disables the feature.
- [Cross Hair]: Cross hair provides a mark on the center of the screen for First Person Shooter (FPS) games. Users can select the cross hair that fits their gaming environment among four different cross hairs.
When the monitor is off or enters energy saving mode, the cross hair feature is automatically turned off.

[Settings] > [Game Adjust] > [Game Reset]

- [Do you want to reset your Game settings?]:
 - [No]: Cancel the select.
 - [Yes]: Returns to the default settings.

[Picture Adjust]

[Settings] > [Picture Adjust]

- [Brightness]: Adjusts the brightness of the screen.
- [Contrast]: Adjusts the contrast of the screen.
- [Sharpness]: Adjusts the sharpness of the screen.
- [Gamma]
 - [Mode 1], [Mode 2], [Mode 3]: The higher the gamma value, the darker the image becomes. Likewise, the lower the gamma value, the lighter the image becomes.
 - [Mode 4]: If you do not need to adjust the gamma settings, select [Mode 4].
- [Color Temp]: Set your own color temperature.
 - [Custom]: The user can customize the red, green and blue color.
 - [Warm]: Sets the screen color to a reddish tone.
 - [Medium]: Sets the screen color to between a red and blue tone.
 - [Cool]: Sets the screen color to a bluish tone.
 - [Manual]: The user can fine-tune the color temperature.

- [R/G/B]: You can customize the picture color using red, green, and blue colors.
- [Six Color]: Meets the user requirements for colors by adjusting the hue and saturation of the six colors (red, green, blue, cyan, magenta, and yellow) and then saving the settings.
 - Hue: Adjusts the tone of the screen colors.
 - Saturation: Adjusts the saturation of the screen colors. The lower the value, the less saturated and brighter the colors become. The higher the value, the more saturated and darker the colors become.
- [Black Level]: Sets the offset level (for HDMI only).
Offset: as a reference for a video signal, this is the darkest color the monitor can display.
 - [High]: Keeps the current contrast ratio of the screen.
 - [Low]: Lowers the black levels and raises the white levels from the current contrast ratio of the screen.
- [DFC]
 - [On]: Adjusts the brightness automatically according to the screen.
 - [Off]: Disables the DFC feature.

[Settings] > [Picture Adjust] > [Picture Reset]

- [Do you want to reset your picture settings?]:
 - [No]: Cancel the select.
 - [Yes]: Returns to the default settings.

[Input]

[Settings] > [Input]

- [Input]: Selects the input mode.
- [Ratio]: Adjusts the aspect ratio of the screen.

The display may look the same for [Full Wide], [Original], and [Just Scan] options at the recommended resolution.

There is no [Just Scan] menu on [Adaptive-Sync]/[FreeSync Premium Pro] Mode. (Go to [Game Adjust] > [Adaptive-Sync]/[FreeSync Premium Pro], to set [Adaptive-Sync]/[FreeSync Premium Pro] [On] or [Off])

- [Full Wide]: Displays the video in widescreen, regardless of the video signal input.
- [Original]: Displays video according to the aspect ratio of the video signal input.
- [Just Scan]: The aspect ratio is not adjusted from the original.
- [Auto Input Switch]: When [Auto Input Switch] is set to [On], display will automatically switch to new input when connected.

[General]

[Settings] > [General]

- [Waves MaxxAudio®]: Select the sound equipment what you are using.

[Over-the-ear]	[On-ear]	[Ear-buds]
		

- [Off]: Disables the [Waves MaxxAudio®] feature.
- [Language]: Sets the menu screen to the desired language.
- [SMART ENERGY SAVING]: Conserve energy by using luminance compensation algorithm.
 - [High]: Saves energy using the high-efficiency [SMART ENERGY SAVING] feature.
 - [Low]: Saves energy using the low-efficiency [SMART ENERGY SAVING] feature.
 - [Off]: Disables the feature.
 - The value of energy saving data may differ depending on panel and panel suppliers.
 - If you select the option of [SMART ENERGY SAVING] is [High] or [Low], monitor luminance become higher or lower depend on source.
- [Deep Sleep Mode]: When Deep Sleep mode is enabled, power consumption is minimized while the monitor is in standby mode.
 - [On]: Enables [Deep Sleep Mode].
 - [Off]: Disables the feature.
- [Lighting Option]: When turning off the monitor, You can set a [Keep Lighting Status] or [Turn Off Lighting].
 - [Keep Lighting Status]: When the monitor turn off, the lighting on the back of the monitor is always on.
 - [Turn Off Lighting]: When the monitor turn off, the lighting on the back of the monitor turn off. When the monitor turn on, the last selected lighting status turn on.

- [Power LED]: Turns the power LED on the bottom of the monitor on or off.

When the Power LED function is turned on, it operates as follows:

- On Mode: Red
- Sleep Mode: Flashing Red
- Off Mode: Off
- [Automatic Standby]: Feature that automatically turns off the monitor when there is no movement on the screen for a period of time. You can set a timer for the auto-off function ([Off], [4H], [6H], and [8H]).
- [HDMI ULTRA HD Deep Color]: Provides sharper images when connected to a device supporting ULTRA HD Deep Color.
 - To use [HDMI ULTRA HD Deep Color], turn this function on.
 - If the connected device does not support Deep Color, the screen or sound may not work properly. In this case, set this function to off.

4K @ 60 Hz Support Format (HDMI ULTRA HD Deep Color: On)			
Resolution	Frame rate (Hz)	Color Depth / Chroma Sampling	
		8 bit	10 bit
3840 x 2160	59.94 60.00	YCbCr 4:2:0	
		YCbCr 4:2:2	
		YCbCr 4:4:4	-
		RGB 4:4:4	-

- [DisplayPort Version]
 - Please set the [DisplayPort Version] to match the version of the connected external device ([1.4(DSC)], [1.4], and [1.2]).
 - To display 144 Hz or over on [1.4(DSC)], make sure to use the graphics card that supports DSC (Display Stream Compression).
 - If you want to use the HDR, select the [DisplayPort Version] to [1.4(DSC)] or [1.4].
- [Local Dimming]: Maximizes the contrast ratio by making the bright areas of the screen brighter and the dark areas of the screen darker. Turning this option off may increase energy consumption.
 - [On]: Enables [Local Dimming].
 - [Auto]: Adjusts the contrast ratio automatically according to the screen for high dynamic range.
 - [Off]: Disables the feature.
- [Variable Backlight]: Provides extended contrast and gradation on a dark screen depending on game or video content. When these feature is enabled, the screen flickering may occur intermittently.

The function can only be used on HDR content.

It is recommended to turn off when you are not using the gaming function.

- [Faster]: Preferably for PC gaming experiences.
- [Fast]: Preferably for console gaming experiences.
- [Normal]: Preferably for playing video content and internet or word-processing.
- [Off]: Disables the Variable Backlight feature.

- [Buzzer]: This feature lets you set the sound generated from Buzzer when your monitor powers on.
- [OSD Lock]: This feature disables the configuration and adjustment of menus.
All features are disabled except [Brightness], [Contrast] in [Picture Adjust], [Input], [OSD Lock] and [Information] in [General].
- [Information]: The following display information will be shown; [Total Power On Time], [Resolution].

[Settings] > [General] > [Reset to Initial Settings]

- [Do you want to reset your settings?]
 - [No]: Cancel the reset.
 - [Yes]: Returns to the default settings.

TROUBLESHOOTING

Nothing is displayed on the screen.

- Is the monitor's power cord plugged in?
 - Check if the power cord is correctly plugged into the power outlet.
- Is the monitor's adapter plugged in?
 - Make sure to use the adapter that is provided in the product package.
- Is the power LED on?
 - Check the power cable connection and press the power button.
- Is the power on and the power LED displaying red?
 - Check that the connected input is enabled ([Settings] > [Input]).
- Is the power LED blinking?
 - If the monitor is in sleep mode, move the mouse, or press any key on the keyboard, to switch the display on.
 - Check if the computer is turned on.
- Is the [The screen is not currently set to the recommended resolution.] message being displayed?
 - This occurs when signals transferred from the PC (graphics card) are out of the recommended horizontal or vertical frequency range of the monitor. Please see the Product Specification section of this manual to set the appropriate frequency.
- Is the [No Signal] message being displayed?
 - This is displayed when the signal cable between the PC and the monitor is missing or disconnected. Check the cable and reconnect it.
- Is the [Out of Range] message being displayed?
 - This occurs when signals transferred from the PC (graphics card) are out of the horizontal or vertical frequency range of the monitor. Please see the Product Specification section of this manual to set the appropriate frequency.

3840 x 2160 resolution is not available. (144 Hz or Higher)

- Is it connected to the correct input?
 - If it is connected with HDMI input, set it to DisplayPort input.
 - Go to [Settings] > [General] > [DisplayPort Version] and set the option to [1.4(DSC)].
 - Go to [Settings] > [Game Adjust] > [Overclock] and set the option to [On]. (For 160 Hz)
- Check if the graphic card supports the DSC (Display Stream Compression).
- Check if the graphics card driver has been updated to the latest version.

Some features are disabled.

- Are some functions not available when you press the Menu button?
 - The OSD is locked. Disable [OSD Lock] in [General].

Do you see an "Unrecognized monitor, Plug and Play (VESA DDC) monitor found" message?

- Have you installed the display driver?
 - Be sure to install the display driver from our web site: <http://www.lg.com>.
 - Make sure to check if the graphics card supports Plug and Play function.

The screen retains an image.

- Does image sticking occur even when the monitor is turned off?
 - Displaying a still image for a prolonged time may cause damage to the screen, resulting in the retention of the image.
 - To extend the lifetime of the monitor, use a screensaver.

Screen display is unstable and shaky. / Images displayed on the monitor leave shadow trails.

- Did you select the appropriate resolution?
 - If the selected resolution is HDMI 1080i 60/50 Hz (interlaced), the screen may be flickering. Change the resolution to 1080p or the recommended resolution.

! NOTE

- Vertical Frequency: In order to display an image, the screen must be refreshed dozens of times per second, like a fluorescent lamp. The number of times the screen is refreshed per second is called vertical frequency, or refresh rate, and is represented by Hz.
- Horizontal Frequency: The time it takes to display one horizontal line is called the horizontal cycle. If 1 is divided by the horizontal interval, the result is the number of horizontal lines displayed per second. This is called horizontal frequency and is represented by kHz.
- Check if the graphics card's resolution or frequency is within the range allowed by the monitor and set it to the recommended (optimal) resolution Control Panel > Display > Settings in Windows. (The settings may differ depending on the operating system (OS) you use.)
- Not setting the graphics card to the recommended (optimal) resolution may result in blurred text, a dimmed screen, a truncated display area or misalignment of the display.
- The setting methods may be different depending on the computer or operating system, and some resolutions may not be available depending on the performance of the graphics card. If this is the case, contact the manufacturer of the computer or graphics card for assistance.
- Some graphics cards may not support 3840 x 2160 resolution. If the resolution cannot be displayed, contact the manufacturer of your graphics card.

The display color is abnormal.

- Does the display appear discolored (16 colors)?
 - Set the color to 24 bit (true color) or higher. In Windows, go to Control Panel > Display > Settings > Color Quality. (The settings may differ depending on the operating system (OS) you use.)
- Does the display color appear unstable or monochrome?
 - Check if the signal cable is connected properly. Reconnect the cable or reinsert the PC's graphics card.
- Are there spots on the screen?
 - When using the monitor, pixilated spots (red, green, blue, white, or black) may appear on the screen. This is normal for an LCD screen. It is not an error, nor is it related to the monitor's performance.

No sound from the headphone port.

- Are images displayed using DisplayPort or HDMI input without sound?
 - Make sure that the headphone port connections are made properly.
 - Try increasing the volume with the joystick.
 - Set the audio output of the PC to the monitor you are using. On Microsoft Windows, go to Control Panel > Hardware and Sound > Sound > set the Monitor as default device. (The settings may differ depending on the operating system (OS) you use.)

The Lighting on the back of the monitor does not turn on.

- Is the monitor's power cord plugged in?
 - Check if the power cord is correctly plugged into the power outlet.
- Is the monitor's adapter plugged in?
 - Make sure to use the adapter that is provided in the product package.
- Did you press the Lighting Button?
 - Press the Lighting Button located at the bottom of the monitor.

PRODUCT SPECIFICATION

Specifications are subject to change without notice.

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

Color Depth: 10-bit color is supported.

Resolution

- Max Resolution:
 - 3840 x 2160 @ 60 Hz (HDMI)
 - 3840 x 2160 @ 160 Hz (DisplayPort) ([Overclock]: [On])
- Recommended Resolution:
 - 3840 x 2160 @ 60 Hz (HDMI)
 - 3840 x 2160 @ 144 Hz (DisplayPort)

AC/DC Adapter

- Model: ADS-110CL-19-3 190110G
Manufacturer: SHENZHEN HONOR ELECTRONIC
 - Input: 100-240 V ~50/60 Hz 1.5 A
 - Output: 19 V — 5.79 A
- Model: ADS-120QL-19A-3 190110E
Manufacturer: SHENZHEN HONOR ELECTRONIC
 - Input: 100-240 V ~50/60 Hz 1.6 A
 - Output: 19 V — 5.79 A

Environmental Conditions

- Operating Conditions
 - Temperature: 0 °C to 40 °C
 - Humidity: Less than 80 %
- Storing Conditions
 - Temperature: -20 °C to 60 °C
 - Humidity: Less than 85 %

Dimensions: Monitor Size (Width x Height x Depth)

- With Stand (mm): 609.2 x 570.6 x 291.2
- Without Stand (mm): 609.2 x 352.9 x 53.7

Weight (Without Packaging)

- With Stand (kg): 7.7
- Without Stand (kg): 5.6

Power Sources

- Power Rating: 19 V — 5.0 A
- Power Consumption
 - Operating Mode: 65 W (Typical)*
 - Sleep Mode: ≤ 0.5 W ([Deep Sleep Mode]: [On])**
 - Off Mode: ≤ 0.3 W

* The Operating Mode of Power Consumption is measured with LGE test standard. (Full White pattern, Maximum resolution)

* The Power Consumption level can be different by operating condition and monitor setting.

** The monitor goes to the sleep mode in a couple of minutes. (Max. 5 minutes)

Supported Mode

(Preset Mode, HDMI/DisplayPort)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Polarity (H/V)	Remarks
640 x 480	31.469	59.94	-/-	
800 x 600	37.879	60.317	+/+	
1024 x 768	48.363	60	-/-	
1920 x 1080	67.5	60	+/+	
2560 x 1440	182.996	120	+/-	HDMI only ([FreeSync Premium Pro]: [On])
3840 x 2160	66.66	30	+/-	HDMI only
3840 x 2160	133.32	60	+/-	
3840 x 2160	214.563	95	+/-	DisplayPort 1.4 (DSC*) / DisplayPort 1.4
3840 x 2160	274.438	120	+/-	DisplayPort 1.4
3840 x 2160	320	144	+/-	DisplayPort 1.4 (DSC*)
3840 x 2160	355	160	+/-	DisplayPort 1.4 (DSC*) ([Overclock]: [On])

* DSC: Display Stream Compression.

* To display 144 Hz or over, make sure to use the graphics card that supports DSC (Display Stream Compression).

HDMI Timing (Video)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Remarks
480P	31.5	60	
576P	31.25	50	
720P	37.5	50	
720P	45	60	
1080P	56.25	50	
1080P	67.5	60	
1080P	135	120	
2160P	54	24	
2160P	56.25	25	
2160P	67.5	30	
2160P	112.5	50	
2160P	135	60	



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. _____