



Owner's Manual

CLOUD 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.

24CK550Z

www.lg.com

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LICENSE

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

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.
- If you use generic cables not certified by LG, the screen may not display or there may be image noises.
- 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.

NOTE

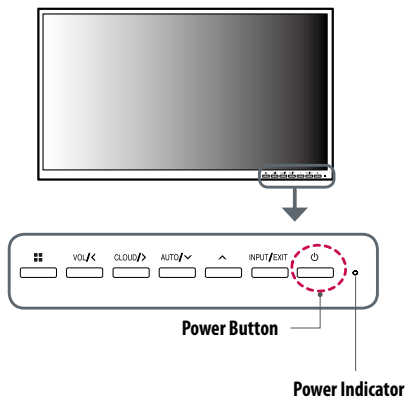
- The components may look different from those illustrated here.
- Without prior notice, all product information and specifications contained in this manual are subject to change to improve the performance of the product.
- To purchase optional accessories, visit an electronics store or an online shopping 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).

Drivers and Software	Installation Priority
Monitor Driver	Recommended

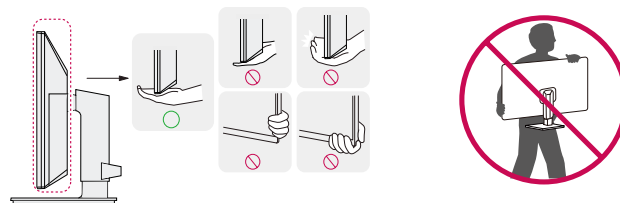
Product and Button Description



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.

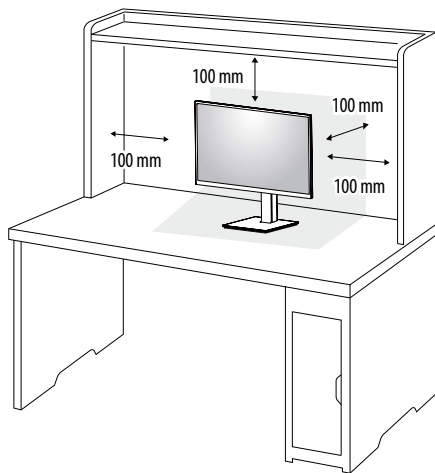


CAUTION

- 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 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 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.

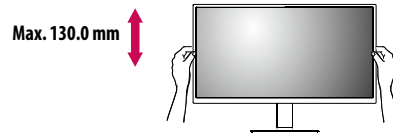


CAUTION

- 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.

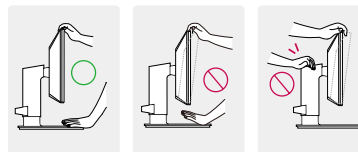
Adjusting the Angle

- 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 35° 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.



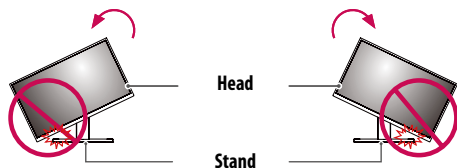
Swivel stand

Swivel 355 degrees and adjust the angle of the Monitor set to suit your view.



Pivot Feature

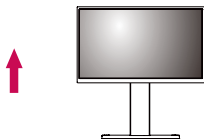
The pivot feature allows the monitor to rotate 90° clockwise.



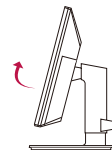
⚠ WARNING

- To avoid scratching the stand base, make sure that when rotating the monitor using the pivot feature, the stand does not make contact with the monitor.

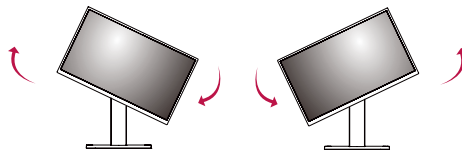
- 1 Raise the monitor to the maximum height.



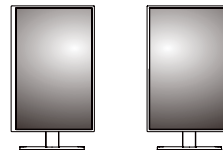
- 2 Adjust the angle of the monitor in the direction of the arrow as shown in the figure.



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



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



ⓘ NOTE

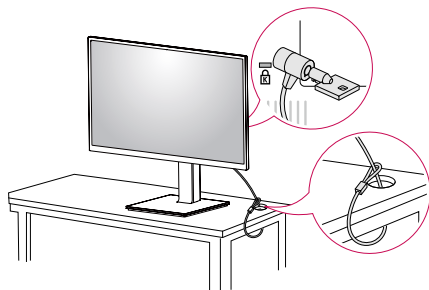
- Auto Pivot feature of the display is not supported.
- The screen can be rotated easily using the screen pivot shortcut key provided with your Windows operating system. Note that some Windows versions and some graphics card drivers may use different settings for the screen pivot key or may not support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

Using the Kensington Lock

The Kensington security system connector is located at the back of the Monitor set.

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.

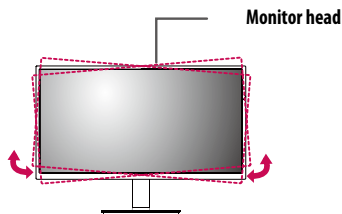


! NOTE

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

! NOTE

- The left or right side of the monitor head can be slightly rotated up or down (up to 3°). Adjust the horizontal level of the monitor head.



Installing the Wall Mount Plate

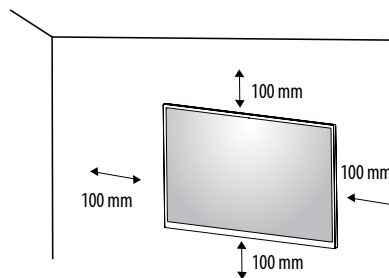
This monitor meets the specifications for the wall mount plate or other compatible devices.

! NOTE

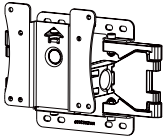
- The wall mount plate is sold separately.
- For more information on installation, refer to the wall mount plate's installation guide.
- Be careful not to apply too much force while mounting the wall mount plate as it may cause damage to the screen.
- Remove the stand before installing the monitor on a wall mount by performing the stand attachment in reverse.

Installing on the Wall

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.



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.

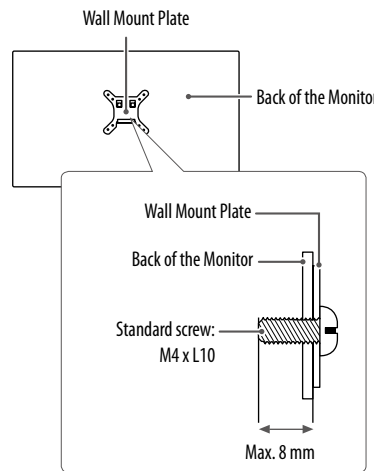
Wall Mount (mm)	100 x 100
Standard screw	M4 x L10
Number of screws	4
Wall Mount Plate (Optional)	LSW 149 

NOTE

- A non-VESA standard screw may damage the product and cause the monitor to fall. LG Electronics is not liable for any accidents relating to the use of non-standard screws.
- 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.

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.
- 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.



USING THE MONITOR

- Illustrations in this manual may differ from the actual product.



CAUTION

- 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.

D-SUB connection

Transmits analog video from your PC to the Monitor set. Connect the PC and the Monitor set with the D-sub 15 pin signal cable.



NOTE

- When using a D-Sub signal input cable connector for Macintosh
- Mac adapter
For Apple Macintosh use, a separate plug adapter is needed to change the 15 pin high density (3 row) D-SUB VGA connector on the supplied cable to a 15 pin 2 row connector.

DisplayPort Connection

Transfers digital video and audio signals from the Cloud Monitor to an extended monitor. Connect the Cloud Monitor to an extended monitor using a DisplayPort cable.



NOTE

- There may be no video or audio output depending on the DP (DisplayPort) version of the PC.
- Make sure to use the supplied DisplayPort cable of the product. Otherwise, this may cause the device to malfunction.
- 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 DisplayPort1.2 or 1.4. (Sold separately)
- Using a DP (DisplayPort) to HDMI / DP to DVI cable may cause compatibility issues.

Connecting LAN

LAN connection

Connect the router or switch to the monitor.



NOTE

- The LAN cable is sold separately.
- The following LAN cable type can be used: Standard: IEEE 802.3 ETHERNET
- Connect the LAN cable and the peripheral devices prior to booting up the PC.



Connecting Peripherals

USB Device connection

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

! 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.)

Headphones Connection

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)

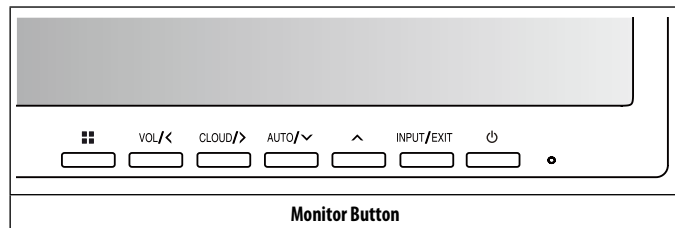
USER SETTINGS



NOTE

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

Activating the Main Menu



Button	Description	
■ ■ ■ ■	Activates the main menu. OSD Lock/Unlock Functions This function allow you to lock the current control settings, so that they cannot be inadvertently changed. Press and hold the MENU button for several seconds. Then OSD of "OSD Lock" will appear. After that, user can select lock or unlock by pressing left/right button. If user selects the "Lock" icon by pressing the "OK" button, the message "OSD Locked" will appear. Otherwise, "OSD Unlocked" will appear. After selecting the "Lock", If you want to change to Unlock, you can push the "MENU" button for several seconds. The message "OSD Unlocked" will appear.	
VOL/←	Adjust the volume of the monitor.(only works in Cloud mode)/the left arrow key.	
CLOUD/→	Disconnects the connection when the key is pressed for a few seconds while in Cloud mode;the right arrow key.	
AUTO/↕	To adjust the monitor settings, press the AUTO button on the MONITOR SETUP OSD menu (only supported for analog signal). For optimal screen display, use the following resolution.	
^	Optimal Resolution	1920 x 1080
	Adjust the monitor settings.	

INPUT	Allows selection of the input signal. • If you connect the monitor to a computer using a D-SUB cable, select either the CLOUD or D-SUB input signal. • The initial input signal is D-SUB.	
EXIT	Exits the OSD menu.	
⏻(Power Button)	• D-SUB Input: Power On/Off • CLOUD Input Monitor Off: Press the power button once then the monitor will be turned off after 5 seconds. CLOUD Off: Press the power button twice then the monitor and CLOUD connection will be disabled. CLOUD On: Press the power button.	
	Power Indicator	The power indicator stays white if the display is running properly (On Mode). If the display is in Sleep Mode, the power indicator blinks white.



Main Menu Features

Menu Settings

- 1 Press **■** (**MENU**) button on the front of the Monitor set to display the **Menu** OSD.
- 2 Set the options by pressing the < or > or ^ or v buttons.
- 3 Select the "**Next Menu**" to enter the more option settings.
- 4 Select **EXIT** to leave the OSD menu.

Menu	D-SUB	CLOUD	Description
Brightness	●	●	To adjust the brightness, contrast of the screen.
Contrast	●	●	
Reader Mode	●	●	Reader 1
			It is a mode that the screen is adjusted to the best for the newspaper. If you want screen more bright, you can control brightness in Menu OSD.
			Reader 2
			It is a mode that the screen is adjusted to the best for the cartoon. If you want screen more bright, you can control brightness in Menu OSD.
Wide/Original	●	●	Off
			It is a mode that reader mode is off.
			Wide
			Switch to full screen mode according to input image signal.
Reset	●	●	Original
			Change the input image signal ratio to original.
			* This function works only if input resolution is lower than Monitor set ratio (16:9).
Reset	●	●	Restore all factory default settings. Press the < , > buttons to reset immediately.

Menu > Next Menu		D-SUB	CLOUD	Description
Picture	Sharpness	●	●	To adjust the clearness of the screen.
Color	Gamma	●	●	To customize the color of the screen.
	Color Temp			
Display	Horizontal	●		To adjust the position of the screen.
	Vertical			
	Clock	●		To improve the clarity and stability of the screen.
	Phase			
Others	Language	●	●	To customize the screen status for a user's operating environment.
	Cloud			
	Power Indicator			

- **CLOUD:** Using PC via a network.



Picture

Menu > Next Menu > Picture	Description
Sharpness	To adjust the clearness of the screen.

Color

Menu > Next Menu > Color	Description
Gamma	Set your own gamma value. : Gamma 0, Gamma 1, Gamma 2, Off on the monitor, high gamma values display whitish images and low gamma values display blackish images. If user don't want adjusted gamma, user can select Gamma off.
Color Temp	Custom • Red: Set your own red color levels. • Green: Set your own green color levels. • Blue: Set your own blue color levels. Select the screen color. Warm: Set the screen to warm color temperature (more red). Medium: Set the screen to medium color temperature. Cool: Set the screen to cool color temperature (more blue).

Display

Menu > Next Menu > Display	Description
Horizontal	To move image left and right.
Vertical	To move image up and down.
Clock	To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.
Phase	To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters.

- Only available in D-SUB input mode.



Others

Menu > Next Menu > Others		Description
Language		To choose the language in which the control names are displayed.
Cloud	Off	CLOUD is disabled in D-SUB input mode.
	On	CLOUD is enabled in D-SUB input mode.
Power Indicator		Use this function to set the power indicator on the front of the monitor to On or Off. If you set Off, it will go off. If you set On at any time, the power indicator will automatically be turned on.

Volume

Volume	Description
Volume	Adjusts the volume (only available in CLOUD input mode).



TROUBLESHOOTING

Check the following before calling for service.

No image appears	
Is the power cord of the display connected?	• Check and see if the power cord is connected properly to the power outlet.
Is the power indicator light on?	• Press the Power button.
Is the power on and the power indicator White?	• Adjust the brightness and the contrast.
Is the power indicator flickering?	• If the display is in power saving mode, try moving the mouse or pressing any key on the keyboard to bring up the screen. • Try to turn on the PC.
Do you see an "OUT OF RANGE" message on the screen?	• This message appears when the signal from the PC (video card) is out of horizontal or vertical frequency range of the display. See the 'Specifications' section of this manual and configure your display again.
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.

Do you see a "OSD LOCKED" message on the screen?	
Do you see "OSD LOCKED" when you push MENU button?	• You can secure the current control settings, so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by pushing the MENU button for several seconds: the message "OSD UNLOCKED" will appear.

Display image is incorrect	
Display Position is incorrect.	• Press the AUTO button to automatically adjust your display image to the ideal setting.
On the screen background, vertical bars or stripes are visible.	• Press the AUTO button to automatically adjust your display image to the ideal setting.
Any horizontal noise appearing in any image or characters are not clearly portrayed.	• Press the AUTO button to automatically adjust your display image to the ideal setting. • Check Control Panel ► Display ► Settings and adjust the display to the recommended resolution or adjust the display image to the ideal setting. Set the color setting higher than 24 bits (true color).

! 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. The number of horizontal lines displayed in one second can be calculated by dividing one by the horizontal cycle. This is called horizontal frequency and is represented by kHz.



NOTE

- Check if the video card's resolution or frequency is within the range allowed by the monitor and set to the recommended (optimal) resolution in **Control Panel > Display > Settings**.
- Failing to set the video card to the recommended (optimal) resolution may result in blurred text, a dimmed screen, a truncated display area or misalignment of the display.
- The configuration procedure may differ depending on your computer and/or operating system. Also, some video cards may not support certain resolutions. If this is the case, contact the computer or video card manufacturer for assistance.
- The AUTO option is only available for D-SUB (analog) signals.

The display color is abnormal.	
Does the display color appear discolored (16 color)?	• Set the color to 24 bit (true color) or higher. In Windows, go to Control Panel > Display > Settings > Color Quality.
Does the display color appear unstable or in monochrome?	• Check if the signal cable is connected properly. Re-connect the cable or re-insert the PC's video 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 the LCD screen. It is not an error nor is it related to the monitor's performance.



PRODUCT SPECIFICATION

24CK550Z

Color Depth	8-bit color is supported.		
Resolution	Max Resolution	1920 x 1080 @ 60 Hz	
	Recommended Resolution	1920 x 1080 @ 60 Hz	
Power Sources	Power Rating	19 V $\overline{\text{---}}$ 3.3 A	
	Power Consumption: CLOUD/D-SUB	On Mode: 24 W(D-sub)/29 W(CLOUD) Power Saving Mode $\leq$ 0.5 W(CLOUD mode:5.5 W) Off Mode $\leq$ 0.5 W	
AC/DC adaptor	Type DA-65G19, manufactured by Asian Power Devices Inc Or type LCAP39, manufactured by LIEN CHANG ELECTRONIC ENTERPRISE Or type ADS-65AI-19-3 1906SE, manufactured by SHENZHEN HONOR ELECTRONIC Or type ADS-65FAI-19 1906SEPG-1, manufactured by SHENZHEN HONOR ELECTRONIC Or type ADS-65FAI-19 1906SEPK-1, manufactured by SHENZHEN HONOR ELECTRONIC Or type ADS-65FAI-19 1906SEPCU-1, manufactured by SHENZHEN HONOR ELECTRONIC Output: 19 V $\overline{\text{---}}$ 3.42 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	Max 553.8 x 512.9 x 240 (mm) 21.8 x 20.1 x 9.4 (inches) Min 553.8 x 382.9 x 240 (mm) 21.8 x 15.0 x 9.4 (inches)
	Without Stand	553.8 x 333.1 x 67.6 (mm) 21.8 x 13.1 x 2.6 (inches)
Weight (Without Packaging)	With Stand	6.1 kg
	Without Stand	4.0 kg

The specifications are subject to change without notice.

* The power consumption level can be different by operating condition and monitor setting.

** The On mode power consumption is measured with LGE test standard (Full White pattern , Maximum resolution).



Preset Mode

Display Modes (Resolution)	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Polarity (H/V)	Remark
720 x 400	31.468	70.08	-/+	
640 x 480	31.469	59.94	-/-	
800 x 600	37.879	60.317	+/+	
1024 x 768	48.363	60	-/-	
1280 x 1024	63.981	60.02	+/+	
1680 x 1050	65.290	59.954	-/+	
1920 x 1080	67.5	60	+/+	Recommended Mode

Indicator

Mode	LED Color
On Mode	White
Sleep Mode (Standby Mode)	Blinking White
Off Mode	Off





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. _____

