User's Guide

L194WS L204WS

$$\label{eq:second} \begin{split} M & \text{ake sure to read the Important Precautions before using the product.} \\ & \text{Keep the User's Guide(CD) in an accessible place for furture reference.} \\ & \textbf{S} & \text{ee the label attached on the product and give the information to your dealer when you ask for service.} \end{split}$$



This unit has been engineered and manufactured to ensure your personal safety, however improper use may result in potential electrical shock or fire hazards. In order to allow the proper operation of all safeguards incorporated in this display, observe the following basic rules for its installation, use, and servicing.

On Safety

Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable national standards if not being provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.

Operate the display only from a power source indicated in the specifications of this manual or listed on the display. If you are not sure what type of power supply you have in your home, consult with your dealer.

Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

Do not Open the Display.

- There are no user serviceable components inside.
- There are Dangerous High Voltages inside, even when the power is OFF.
- Contact your dealer if the display is not operating properly.

To Avoid Personal Injury :

- Do not place the display on a sloping shelf unless properly secured.
- Use only a stand recommended by the manufacturer.
- Do not drop an object on or apply impact to the product. Do not throw any toys or objects on the product screen.
 It can cause injuny to human problem to product and damage the display.

It can cause injury to human, problem to product and damage the display.

To Prevent Fire or Hazards:

- Always turn the display OFF if you leave the room for more than a short period of time. Never leave the display ON when leaving the house.
- Keep children from dropping or pushing objects into the display's cabinet openings. Some internal parts carry hazardous voltages.
- Do not add accessories that have not been designed for this display.
- When the display is to be left unattended for an extended period of time, unplug it from the wall outlet.
- 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.

On Installation

Do not allow anything to rest upon or roll over the power cord, and do not place the display where the power cord is subject to damage.

Do not use this display near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

Displays are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built-up heat can cause failures which may result in a fire hazard. Therefore, NEVER:

- Block the bottom ventilation slots by placing the display on a bed, sofa, rug, etc.
- Place the display in a built-in enclosure unless proper ventilation is provided.
- Cover the openings with cloth or other material.
- Place the display near or over a radiator or heat source.
- Main power breaker is the power cord and this breaking device must be located at a location where it is easy to operate.

Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mar, or damage the Active Matrix LCD permanently.

Do not press the LCD screen with your finger for a long time as this may cause some afterimages.

Some dot defects may appear as Red, Green or Blue spots on the screen. However, this will have no impact or effect on the display performance.

If possible, use the recommended resolution to obtain the best image quality for your LCD display. If used under any mode except the recommended resolution, some scaled or processed images may appear on the screen. However, this is characteristic of the fixed-resolution LCD panel.

On Cleaning

- Unplug the display before cleaning the face of the display screen.
- Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the display screen because over-spraying may cause electrical shock.

On Repacking

 Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.

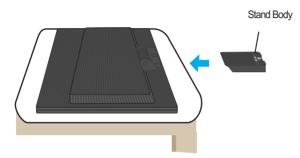
On Disposal

- 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.

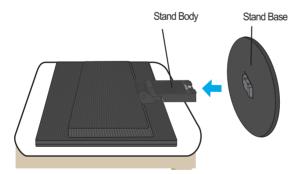
• Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

Connecting the stand

- 1. Place the monitor with its front facing downward on a soft cloth.
- 2. Assemble the Stand Body into the product in the correct direction as shown in the picture. Make sure you push it until you hear it "dick".



- 3. Assemble the Stand Base(Front, Rear) into the Stand Body in the correct direction.
- 4. Once assembled take the monitor up carefully and face the front side



Important

- This illustration depicts the general model of connection. Your monitor may differ from the items shown in the picture.
- Once you connect the stand base, try not to disconnect it.
- Do not carry the product upside down holding only the stand base. The product may fall and get damaged or injure your foot.

To remove the Stand:

1. Put a cushion or soft cloth on a flat surface.



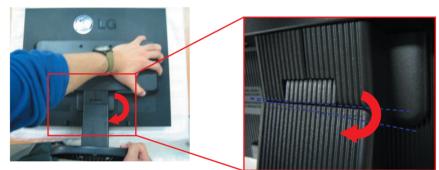
 $\label{eq:2.Place the monitor face down on the cushion or soft cloth.}$



3. Hold the product as it follows and lift up the Stand slightly.



4. Change your hold on the product as it follows and turn the Stand Base in the arrow direction.



5. Pull out the Stand to remove.

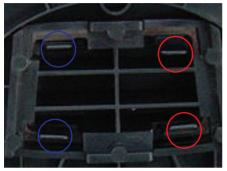




To remove the Stand Base:

Туре. А

1. Ensure there are two short and two long latches at the bottom of the Stand Base.

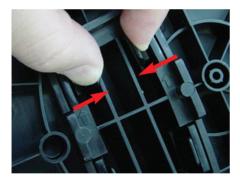


3. Press inside the two long latches at the same time with your strength as it follows.

2. Hold the body of the Stand as it follows.



4. Keep pressing the two latches and use the other hand to hold the body of the Stand to push the Stand Base in the arrow direction to remove.





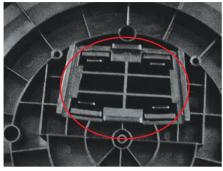
5. The body of the Stand and the Stand Base are successfully separated.



To remove the Stand Base:

Туре. В

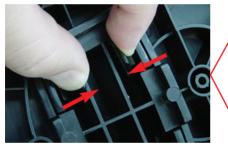
1. Ensure there are four latches at the bottom of the Stand Base.



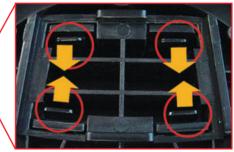
2. Hold the body of the Stand as it follows.



 $\mathbf{3.}$ Press inside the four latches individually toward each end.



4. Put the Stand Base on a flat surface and pull up the body of the Stand while holding the Stand Base with the other hand. to remove.



5. The body of the Stand and the Stand Base are successfully separated.



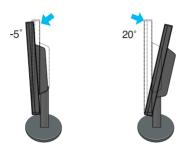


 Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

Positioning your display

1. Adjust the position of the panel in various ways for maximum comfort.

■ Tilt Range : -5°~20°



Warning: When adjusting the angle of the screen, do not put your finger(s) in between the head of the monitor and the stand body. You can hurt your finger(s).

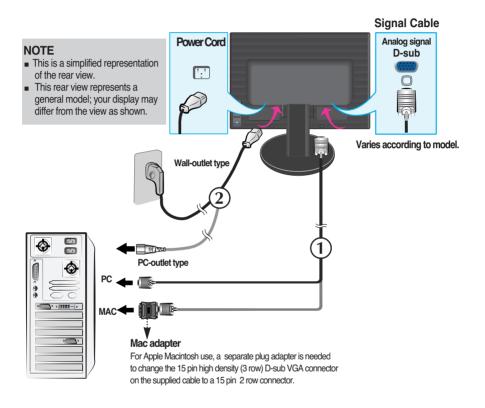


Ergonomic

It is recommended that in order to maintain an ergonomic and comfortable viewing position, the forward tilt angle of the monitor should not exceed 5 degrees.

Using the Computer

- 1. Place the monitor in a convenient, well-ventilated location near your computer.
- $\mathbf{2.}$ Connect the signal cable. When attached, tighten the thumbscrews to secure the connection $\mathbf{0}$
- 3. Connect the power cord into a proper power outlet that is easily accessible and close to the display. ②



4. Press 🕁 button on the front switch panel to turn the power on. When monitor power is turned on, the 'Self Image Setting Function' is executed automatically.

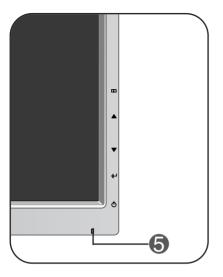
PROCESSING SELF IMAGE SETTING

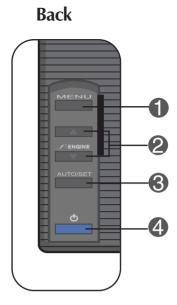
NOTE

* Self Image Setting Function'? This function provides the user with optimal display settings. When the user connects the monitor for the first time, this function automatically adjusts the display to optimal settings for individual input signals. If you want to adjust the monitor while in use, or wish to manually run this function once again, push the 'AUTO/SET' button on the front panel of the monitor. Otherwise, you may execute the 'Factory reset' option on the OSD adjustment menu. However, be aware that this option initializes all the menu items except 'Language'.

Control Panel Functions

Front Panel Controls





Control	Function
MENU Button	Use this button to enter or exit the On Screen Display.
V	OSD LOCKED/UNLOCKED
OSD LOCKED	This function allows you to lock the current control settings, so that they cannot be inadvertently changed. Press and hold the MENU button for several seconds. The message "OSD LOCKED " should appear.
	You can unlock the OSD controls at any time by pushing the MENU button for several seconds. The message " OSD UNLOCKED " should appear.
2 ▲ ▼ Buttons	Use these buttons to select or adjust functions in the On Screen Display.
∫ •ENGINE	For more information, refer to page A17.
FLATRON J'ENGINE Image: Second state Image: Second state NORMAL MENU22 A SEC 10	

Cont	trol	Function
	UTO/SET utton	Use this button to enter a selection in the On Screen Display.
	PROCESSING AUTO IMAGE ADJUSTMENT	AUTO IMAGE ADJUSTMENT When adjusting your display settings, always press the AUTO/SET button before entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode). The best display mode is: 19 inch monitor : 1440 x 900 20.1 inch monitor : 1680 x 1050
4 P	ower Button	Use this button to turn the display on or off.
5 Po	ower Indicator	This Indicator lights up blue when the display operates normally(On Mode). If the display is in Sleep Mode (Energy Saving), this indicator color changes to amber.

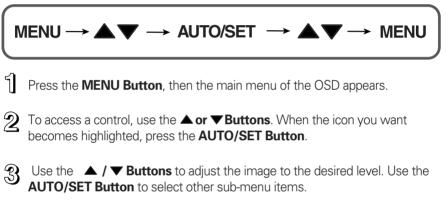
Screen Adjustment

Making adjustments to the image size, position and operating parameters of the display is quick and easy with the On Screen Display Control system. A short example is given below to familiarize you with the use of the controls. The following section is an outline of the available adjustments and selections you can make using the OSD.

NOTE

• Allow the display to stabilize for at least 30 minutes before making image adjustments.

To make adjustments in the On Screen Display, follow these steps:



Push the **MENU Button** once to return to the main menu to select another function. Push the **MENU Button** twice to exit from the OSD.

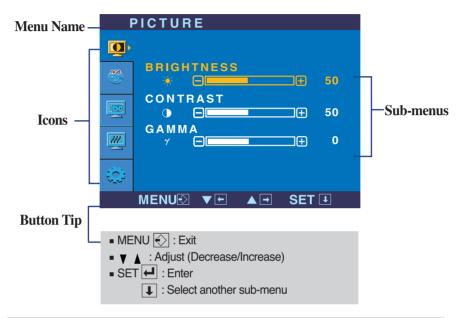
The following table indicates all the On Screen Display control, adjustment, and setting menus.

Main menu	Sub-menu		Α	Reference
PICTURE	BRIGHTNESS			To adjust the brightness,
	CONTRAST			contrast and gamma of the
	GAMMA			screen
COLOR		sRGB		To customize the color of
COLOR	PRESET	6500K		the screen
		9300K		
	RED			_
	GREEN			
	BLUE			
	HORIZON	TAL		To adjust the position of the
POSITION	VERTICAL			screen
	CLOCK			To improve the clarity and
TRACKING	PHASE			stability of the screen
	SHAPNESS			
SETUP	LANGUAG	iE		To sustamize the series
SETU	OSD I	HORIZONTAL		To customize the screen status for a user's operating
	POSITION	VERTICAL		environment
	WHITE BA	LANCE		
	POWER IN	DICATOR		
	ARC			
	FACTORY RESET			
FLATRON	MOVIE/TEXT			To select or customize
F-ENGINE	USER			desired image settings
	NORMAL			
	<u>a</u>			djustable aalog Input

NOTE

• The order of icons may differ depending on the model (A12~A17).

You were introduced to the procedure of selecting and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the all items shown on the Menu.



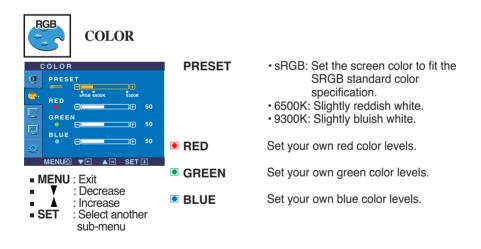
Press the MENU Button, then the main menu of the OSD appears.

NOTE

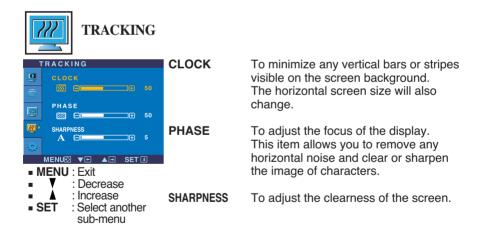
OSD (On Screen Display) menu languages on the monitor may differ from the manual.



Main menu	Sub menu	Description
PICTURE		
PICTURE	BRIGHTNESS	To adjust the brightness of the screen.
BRIGHTNESS * Contrast	CONTRAST	To adjust the contrast of the screen.
	GAMMA	Set your own gamma value. : -50/0/50 On the monitor, high gamma values display whitish images and low gamma values display high contrast images.
 ■ MENU : Exit ■ ▼ : Decrease ■ ▲ : Increase ■ SET : Select another su 	b-menu	



Main menu	Sub menu	Description
POSITION		
POSITION	HORIZONTAL	To move image left and right.
HORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL BORIZONTAL	VERTICAL	To move image up and down.
VERTICAL 50		
MENU® Ve A set 1 MENU : Exit Decrease A : Increase SET : Select another sub	ı D-menu	



Main menu	Sub menu	Description
SETUP	LANGUAGE	To choose the language in which the control names are displayed.
SETUP Q LANGUAGE → ENGLISH OSD POSITION HORIZONTAL	OSD POSITION	To adjust position of the OSD window on the screen.
HORIZONTAL	WHITE BALANCE	If the output of the video card is different the required specifications, the color level may deteriorate due to video signal distortion. Using this function, the signal level is adjusted to fit into the standard output level of the video card in order to provide the optimal image.
		Activate this function when white and black colors are present in the screen.
POWER INDICATOR ► ON ARC ► FULL FACTORY RESET ► NO 1280 x 1024 60H2 MENUS ▼ ▲ SET I MENUS Fxit	POWER INDICATOR	Use this function to set the power indicator on the front side 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.
MENU : Exit Adjust Adjust SET : Select another sub-menu	ARC	To select the image size of the screen.

* ORIGINAL : Depending on the input video signal ratio, it is automatically changed to an optimized screen ratio. (The 1280X1024 input signal is changed to 5:4 ratio and 1024X768 to 4:3.)

Resolution	Screen ratio
1280x1024	5:4
1152x864	4:3
1024x768	4:3
800x600	4:3
640x480	4:3
720x480	3:2

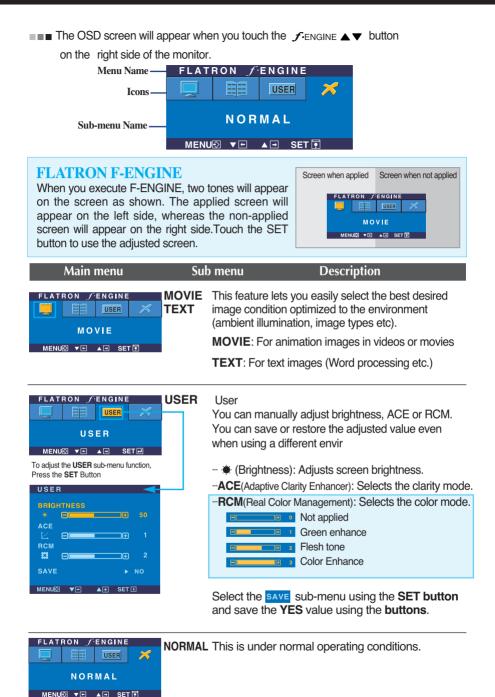
- * The input signal which the ARC does not support the 'ORIGINAL' is the following.
- The 19 inch monitor is 720x400,1280x768,1360x768,1440x900
- The 20.1 inch monitor is 720x400,1280x768,1360x768,1680x1050

FACTORY RESET

Restore all factory default settings except "LANGUAGE."

Press the $\mathbf{\nabla}$ button to reset immediately.

If this does not improve the screen image, restore the factory default settings. If necessary, perform the white balance function again. This function will be enabled only when the input signal is an analog signal.



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 blue or green?	 Adjust the brightness and the contrast. 	
Is the power indicator amber?	 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.	
Do you see a "CHECK SIGNAL CABLE" message on the screen?	 This message appears when the signal cable between your PC and your display is not connected. Check the signal cable and try again. 	

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/SET button to automatically adjust your display image to the ideal setting. If the results are unsatisfactory, adjust the image position using the H position and V position icon in the on screen display. 	
 On the screen background, vertical bars or stripes are visible. 	• Press the AUTO/SET button to automatically adjust your display image to the ideal setting. If the results are unsatisfactory, decrease the vertical bars or stripes using the CLOCK icon in the on screen display.	
 Any horizontal noise appearing in any image or characters are not clearly portrayed. 	 Press the AUTO/SET button to automatically adjust your display image to the ideal setting. If the results are unsatisfactory, decrease the horizontal bars using the PHASE icon in the on screen display. 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). 	

Important

- Check Control Panel --> Display --> Settings and see if the frequency or the resolution were changed. If yes, readjust the video card to the recommend resolution.
- The setting method can differ by computer and O/S (Operation System), and resolution mentioned above may not be supported by the video card performance. In this case, please ask to the computer or the video card manufacturer.

Display image is incorrect	
 The screen color is mono or abnormal. 	 Check if the signal cable is properly connected and use a screwdriver to fasten if necessary. Make sure the video card is properly inserted in the slot. Set the color setting higher than 24 bits (true color) at Control Panel - Settings.
The screen blinks.	 Check if the screen is set to interlace mode and if yes, change it to the recommend resolution.

Have you installed the display driver?	
Have you installed the display driver?	• Be sure to install the display driver from the display driver CD (or diskette) that comes with your display. Or, you can also download the driver from our web site: http://www.lge.com.
 Do you see an "Unrecognized monitor, Plug&Play (VESA DDC) monitor found" message? 	 Make sure to check if the video card supports Plug&Play function.

Display	19 inches (48.2 cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating 19 inches viewable 0.2835 mm pixel pitch			
Sync Input				
Sync input	Vertical Freq.	56 - 75 Hz (Automatic)		
	Input Form	Separate TTL, Positive/Negative		
			nc On Green)	
Video Input	Signal Input	15 pin D-Sub Connector		
indee input	Input Form	RGB Analog (0.7 Vp-p/ 75 ohm)		
Resolution	Max	VESA 1440 x 9	900 @75 Hz	
	Recommend	VESA 1440 x 9	900 @60 Hz	
Plug&Play	DDC 2B			
Power	0n Mode	: 34 W(Typ).)	
Consumption	Sleep Mode	≤ 1W		
	Off Mode	≤ 1 W		
Dimensions	With S	Stand	Without Stand	
&Weight	Width 43.48 cm	/ 17.11 inches	43.48 cm / 17.11 inches	
	Height 36.99 cm	/ 14.56 inches	28.73 cm / 11.31 inches	
	Depth 22.60 cm	/ 8.89 inches	5.87 cm / 2.31 inches	
	Net	3.6 kg (7.94 lb	s)	
Tilt Range	Tilt	-5°~20°	·	
Power Input	AC 100-240V~ 50/	60Hz 0.8A		
Environmental Conditions	· · · · · · · · · · · · · · · · · · ·			
Conditions	Temperature	10°C to 35 °C		
	Humidity		non-Condensing	
	Storage Conditions	S		
	· ·	-20°C to 60 °C		
	Humidity	5 % to 90 % no	on-Condensing	
Stand Base	Attached (), Detached (O)			
Power cord	Wall-outlet type or	PC-outlet type		

NOTE

• Information in this document is subject to change without notice.

Display	20.1 inches (51.1 cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating 20.1 inches viewable 0.258 mm pixel pitch		
Sync Input	Horizontal Freq. Vertical Freq. Input Form	30 - 83 kHz (A 56 - 75 Hz (Au Separate TTL, SOG (Sync Or	tomatic) Positive/Negative
Video Input	Signal Input Input Form	15 pin D-Sub C RGB Analog (C	Connector).7 Vp-p/ 75 ohm)
Resolution	Max Recommend	VESA 1680 x 1050 @ 60 Hz VESA 1680 x 1050 @60 Hz	
Plug&Play	DDC 2B		
Power Consumption	0n Mode Sleep Mode Off Mode	: 45W(Typ ≤ 1 W ≤ 1 W	ɔ.)
Dimensions	With S	tand	Without Stand
&Weight	Width 46.62 cm	/ 18.35 inches	46.62 cm / 18.35 inches
		/ 15.11 inches / 8.89 inches	30.54 cm / 12.02 inches 6.46 cm / 2.54 inches
	Net	4.8 kg (10.58 ll	bs)
Tilt Range	Tilt	-5°~20°	
Power Input	AC 100-240V~ 50/60Hz 1.0A		
Environmental Conditions	Operating Conditio Temperature Humidity Storage Conditions	10°C to 35 °C 10 % to 80 % r	non-Condensing
	Temperature Humidity	-20°C to 60 °C 5 % to 90 % no	
Stand Base	Attached (), Detached (O)		
	Wall-outlet type or PC-outlet type		

NOTE

Information in this document is subject to change without notice.

Preset Modes (Resolution)

■19 inch monitor

Dis	play Modes (Resolution)	Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	640 x 350	31.469	70
2 3	720 x 400 640 x 480	31.468 31.469	70 60
4	640 x 480	37.500	75
5	800 x 600	37.879	60
6	800 x 600	46.875	75
7	832 x 624	49.725	75
8	1024 x 768	48.363	60
9	1024 x 768	60.123	75
10	1152 x 870	68.681	75
11	1152 x 900	61.805	65 60
12	1280 x 1024	63.981	75
13 14	1280 x 1024 1440 x 900	79.976 55.500	60
*15	1440 x 900	55.935	60
16	1440 x 900 1440 x 900	70.635	75

■20.1 inch monitor

*Recommend Mode

Displ	ay Modes (Resolution)	Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	720 x 400	31.468	70
2	640 x 480	31.469	60
3	640 x 480	37.500	75
4	800 x 600	37.879	60
5	800 x 600	46.875	75
6	1024 x 768	48.363	60
7	1024 x 768	60.123	75
8	1152 x 864	67.500	75
9	1280 x 1024	63.981	60
10	1280 x 1024	79.976	75
11	1680 x 1050	64.674	60
*12	1680 x 1050	65.290	60

Indicator

MODE	LED Color
On Mode	blue
Sleep Mode	amber
Off Mode	Off

*Recommend Mode

Installing the Wall mount plate

This monitor satisfies the specifications of the Wall mount plate or the interchange device.

 $1.\,\mbox{Put}$ a cushion or soft cloth on a flat surface.



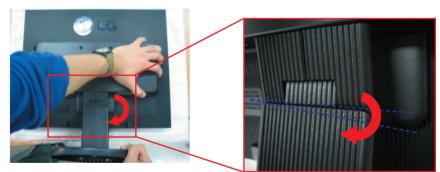
2. Place the monitor face down on the cushion or soft cloth.



3. Hold the product as it follows and lift up the Stand slightly.



4. Change your hold on the product as it follows and turn the Stand Base in the arrow direction.



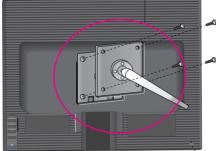
5. Pull out the Stand to remove.



6. Install the Wall mount plate.

Wall mount plate(Separate purchase)

This is stand-type or will mount type and is connectable with Wall mount plate. Please refer to the installation guide for more details, which is provided when Wall mount plate is purchased.



Kensington Security Slot Connected to a locking cable that can be purchased separately at most computer stores





Digitally yours

