User's Guide

L194WS L204WS

Make sure to read the **Important Precautions** before using the product. Keep the User's Guide(CD) in an accessible place for furture reference. See the label attached on the product and give the information to your dealer when you ask for service.



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 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.

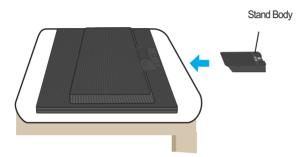
On Disposal

- 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.

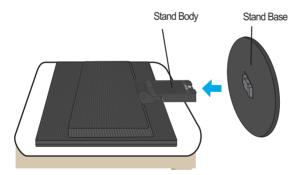
• Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

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.



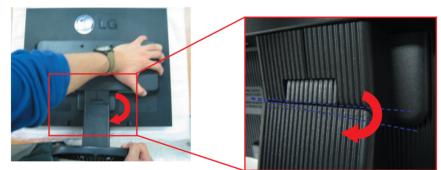
 $\label{eq:2.Place the monitor face down on the cushion or soft cloth.}$



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.

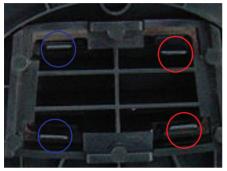




To remove the Stand Base:

Туре. А

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

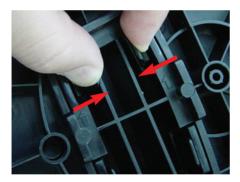


3. Press inside the two long latches at the same time with your strength as it follows.

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.





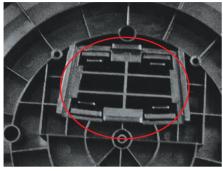
5. The body of the Stand and the Stand Base are successfully separated.



To remove the Stand Base:

Туре. В

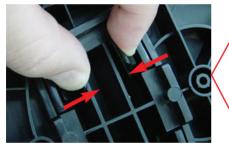
1. Ensure there are four latches at the bottom of the Stand Base.



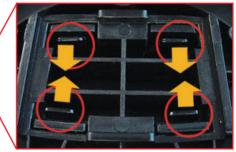
2. Hold the body of the Stand as it follows.



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.



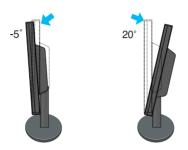


 Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

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).

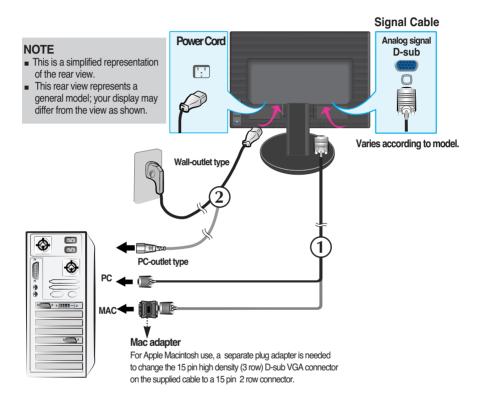


Ergonomic

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.

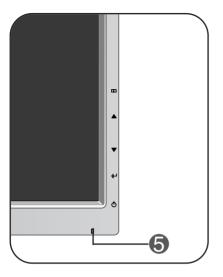
PROCESSING SELF

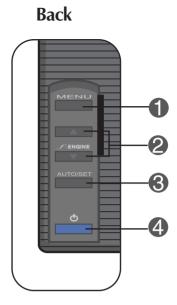
NOTE

* 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 OSD UNLOCKED | 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 USER X NORMAL MENU® ▼■ ▲□ SET® | |

| Control | | Function |
|----------------|-----------------------------|--|
| Buttor | | Use this button to enter a selection in the On Screen Display. |
| | ESSING AUTO E 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 |
| Power | Button | Use this button to turn the display on or off. |
| 5 Power | 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. |

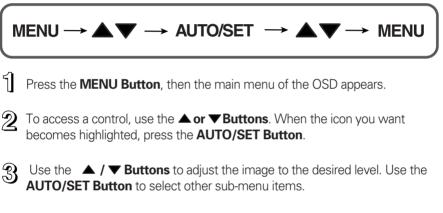
Screen Adjustment

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.

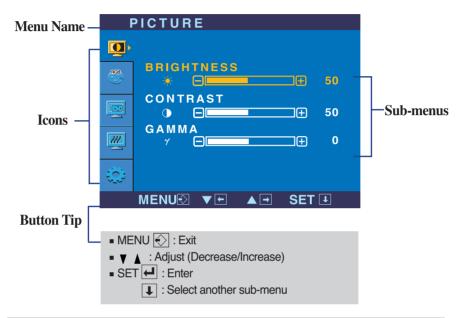
The following table indicates all the On Screen Display control, adjustment, and setting menus.

| 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 | LANGUAGE | | | To quotomize the coreon |
| SEICI | OSD | HORIZONTAL | | To customize the screen status for a user's operating |
| | POSITION | VERTICAL | | environment |
| | WHITE BA | LANCE | | |
| | POWER IN | NDICATOR | | |
| | 4:3 IN WIDE | | | |
| | FACTORY RESET | | | |
| FLATRON | MOVIE/TEXT | | | To select or customize |
| F-ENGINE | USER | | | desired image settings |
| | NORMAL | | | |
| | 3 | | | Adjustable Analog 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.



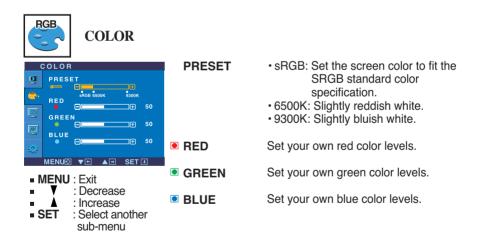
Press the MENU Button, then the main menu of the OSD appears.

NOTE

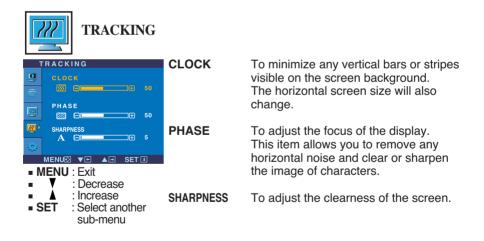
OSD (On Screen Display) menu languages on the monitor may differ from the manual.



| 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 B B 50 | VERTICAL | To move image up and down. |
| VERTICAL | | |
| MENUE VE A SET I MENU : Exit V : Decrease A : Increase SET : Select another sub | p-menu | |



| Main menu | Sub menu | Description |
|---|--------------------|--|
| SETUP | LANGUAGE | To choose the language in which the control names are displayed. |
| SETUP LANGUAGE ENGLISH OSD POSITION HORIZONTAL | OSD POSITION | To adjust position of the OSD window on the screen. |
| HORIZONTAL 50 ♥ ● ● ♥ ● ● ♥ 1280 x 1024 60HZ MENUE ▼ ▲ SETUP | 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. |
| WHITE BALANCE >NO | | Activate this function when white and black colors are present in the screen. |
| POWER INDICATOR ► ON 4:3 IN WIDE ► WIDE FACTORY RESET ► NO 1200 × 1024 60HZ MENUE ▼ ● | 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 V : Adjust A : Adjust SET : Select another sub-menu | 4:3 IN WIDE | To select the image size of the screen. |

* 4:3 : 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.)

4:3

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

WIDE

- The 19 inch monitor is 720x400,1280x768,1360x768,1440x900

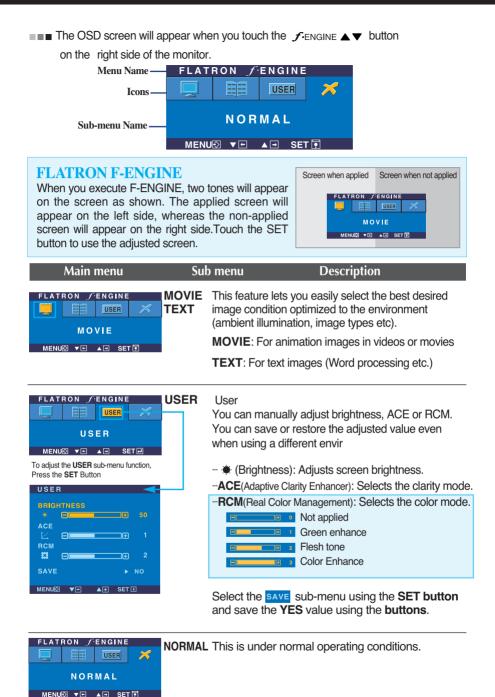
- The 20.1 inch monitor is 720x400,1280x768,1360x768,1680x1050

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 | Horizontal Freq. Vertical Freq. | 30 - 83 kHz (Automatic) 56 - 75 Hz (Automatic) | |
| | Input Form | Separate TTL, SOG (Sync Or | Positive/Negative |
| Video Input | Signal Input Input Form | 15 pin D-Sub (RGB Analog (| Connector 0.7 Vp-p/ 75 ohm) |
| Resolution | Max Recommend | VESA 1440 x 9 VESA 1440 x 9 | |
| Plug&Play | DDC 2B | | |
| Power Consumption | 0n Mode Sleep Mode Off Mode | : 34 W(Typ ≤ 1 W ≤ 1 W |).) |
| Dimensions | With S | Stand | Without Stand |
| &Weight | Width 43.48 cm | / 17.11 inches | 43.48 cm / 17.11 inches |
| | | / 14.56 inches / 8.89 inches | 28.73 cm / 11.31 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 | Operating Condition | | |
| | Humidity | | non-Condensing |
| | Storage Conditions | | |
| | | -20°C to 60 °C | |
| | Humidity | | 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 (RGB Analog ((| Connector 0.7 Vp-p/ 75 ohm) |
| Resolution | Max Recommend | VESA 1680 x 1 | |
| Plug&Play | DDC 2B | | |
| Power Consumption | On Mode Sleep Mode Off Mode | : 45W(Typ ≤ 1 W ≤ 1 W | o.) |
| Dimensions | With S | stand | Without Stand |
| &Weight | | / 18.35 inches | 46.62 cm / 18.35 inches |
| | - 3 | / 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 Temperature Humidity | 10°C to 35 °C 10 % to 80 % r | non-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.

Preset Modes (Resolution)

■19 inch monitor

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

■20.1 inch monitor

*Recommend Mode

| Disp | lay 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 |
| 89 | 1152 x 864 | 67.500 | 75 |
| | 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.



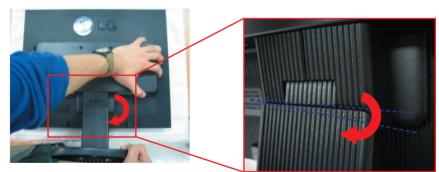
2. Place the monitor face down on the cushion or soft cloth.



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.



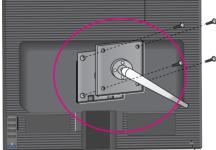
5. Pull out the Stand to remove.



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

