User's Guide



Make sure to read the **Important Precautions** before using the product. Keep the User's Guide(CD) in an accessible place for future 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.

NOTE

• THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTRERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT.SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

NOTE

This epuipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and the receiver.

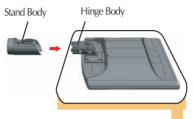
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

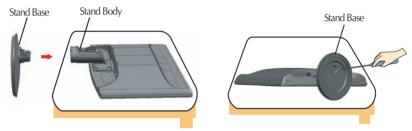
Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

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.



3. Assemble the Stand Base (Front, Rear) into the Stand Body in the correct direction, then tighten the screw as shown in the picture.



4. Insert the Cable Deco Cover in the Stand Body in the correct direction.



5. 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.
- Do not carry the product upside down holding only the stand base. The product may fall and get damaged or injure your foot.

Disassembling the stand

- $1. \ {\rm Put} \ {\rm a} \ {\rm cushion} \ {\rm or} \ {\rm soft} \ {\rm cloth} \ {\rm on} \ {\rm a} \ {\rm flat} \ {\rm surface}.$
- 2. Place the monitor face down on the cushion or soft cloth.



 $\mathbf{3.}$ Slide the Cable Deco Cover out from the stand body.





4. Loosen the screw, then take off the stand base from stand body.





5. Please pull the stand body lightly to separate it from the hinge body.



Important

• Your monitor may differ from the items shown in the picture.



 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

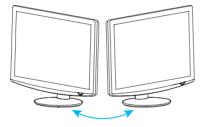
- 1. Adjust the position of the panel in various ways for maximum comfort.
 - Tilt Range: -5°~20°







Swivel: 355°

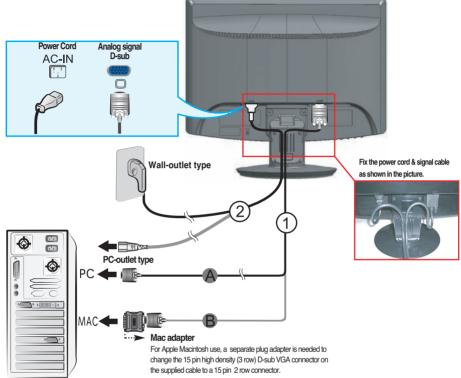


Ergonomic

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. Make sure to turn off the computer and product. Connect the cable as below sketch map form 1 to 2.
- A Connect Dsub Cable (PC)
- B Connect Dsub Cable (Mac)



2. Insert the Cable Deco Cover in the Stand Body in the correct direction.





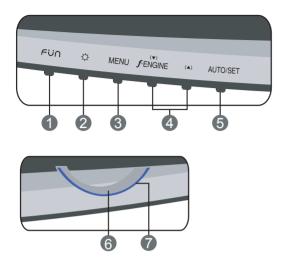
- **3.** Press **(**) button on the front switch panel to turn the power on. When monitor power is turned on, the **'Self Image Setting Function'** is executed automatically.
- PROCESSING SELF IMAGE SETTING

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.
Support Function? When you encounter problems such as blurry screen, blurred letters, screen flicker or tilted screen while using the device or after changing screen resolution, press the AUTO/SET function button to improve resolution.



Front Panel Controls



Control	Function
f UN Button	Use this button to enter EZ ZOOMING, 4:3 IN WIDE, PHOTO EFFECT, SOUND items, for more information, refer to page A15-A16.
2 ¢	Use this button to enter On Screen Display Sub-menu to adjust the BRIGHTNESS directly.
MENU Button	Use this button to enter or exit from the On Screen Display.
	OSD LOCKED/UNLOCKED
OSD LOCKED	This function allows you to lock the current control settings, so that these settings are not inadvertently changed. To lock the OSD settings, press and hold the MENU button for several seconds. The message " OSD LOCKED " appears.
OSD UNLOCKED	You can unlock the OSD settings at any time by pushing the MENU button for several seconds. The message " OSD UNLOCKED " appears.

Control	Function
Buttons	Use these buttons to select or adjust functions in the On Screen Display.
▼ ∫ •ENGINE ,	For more information, refer to page A17.
6 AUTO/SET Button	Use this button to select an icon in the On Screen Display.
PROCESSING AUTO IMAGE ADJUSTMENT	AUTO IMAGE ADJUSTMENT When adjusting your display settings, always press the AUTO/SET button prior to 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: W2452S : 1920 x 1200
6 Power Button	Use this button to turn the display on or off.
Power Indicator	This Indicator lights up as blue when the display is operating normally(On Mode). If the display is in Sleep Mode (Energy Saving), this indicator color changes to amber.

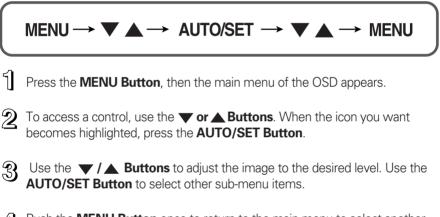
Screen Adjustment

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.

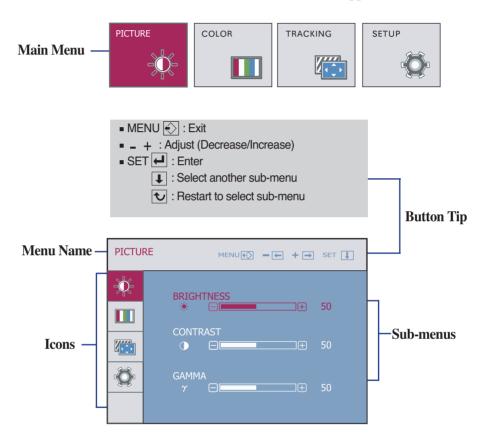
Main menu	Sub-menu		А	Reference	
EZ ZOOMING			•	To adjust the resolution	
4:3 IN WIDE			•	To adjust the image size	
	NORMAL				
РНОТО	GAUSSIAN E	BLUR		To adjust screen color mode	
EFFECT	SEPIA		•		
	MONOCHRC	ME			
SOUND				To select or turn off the sound	
	BRIGHTNES	S		To adjust the brightness, contrast	
PICTURE	CONTRAST			- and gamma of the screen	
	GAMMA			and gamma of the colocit	
		sRGB			
	PRESET	6500K	•		
COLOR		9300K	•	To customize the color of the	
	RED		•	screen	
	GREEN BLUE		•		
	HORIZONTAL			To adjust the position of the	
	VERTICAL			screen	
TRACKING	CLOCK			To improve the clarity and stability	
	PHASE	_		of the screen	
	SHARPNESS	8			
	LANGUAGE			_	
	OSD	HORIZONTAL	•	_	
SETUP	POSITION	VERTICAL		To customize the screen status for	
	WHITE BALANCE			a user's operating environment	
	POWER IND			_	
	FACTORY R	ESET			
	MOVIE			_	
FLATRON	INTERNET			To select or customize desired	
F-ENGINE	USER			- image settings	
	NORMAL			_	
	DEMO				
				djustable nalog Input	

NOTE

The order of icons may differ depending on the model (A10~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	To adjust the contrast of the screen.	
CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRAST CONTRA	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.	

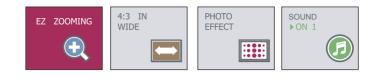
- MENU : Exit
- : Decrease
- + : Increase
- SET : Select another sub-menu



Main menu	Sub menu	Description
TRACKING TRACKING		
TRACKING MENUER - E + H SET 1	HORIZONTAL	To move image left and right.
HORIZONTAL 50	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.
SHAPPLESS 5	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.
 MENU : Exit - : Decrease + : Increase SET : Select another sub-men 	SHARPNESS u	To adjust the clearness of the screen.

Main menu	Sub menu	Description
SETUP SETUP	LANGUAGE	To choose the language in which the control names are displayed.
SETUP HERNED - + = SET I COSD POSITION HORIZONTAL	osd Position	To adjust position of the OSD window on the screen.
Control Contro Control Control Control Control Control Control Control Control Co	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.
POWER INDICATOR ► ON		Activate this function when white and black colors are present in the screen.
 MENU : Exit - : Adjust + : Adjust SET : Select another sub-me 	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.
	FACTORY RESET	Restore all factory default settings except "LANGUAGE." Press the V , A buttons to reset immediated

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. The OSD screen will appear when you touch the **FUN** button on the left bottom of the monitor.



Main menu	Sub menu	Description
EZ ZOOMING	EZ ZOOMING	At the current display, use 'AUTO/SET' button to select 'EZ ZOOMING', then the display resolution is transferred to the one step low resolution. Select 'EZ ZOOMING' one more, the display is back to the original display.
		*This function is operated only if the forteManager is installed to PC.

4:3 IN WIDE	4:3 IN WIDE	To select the image size	e of the screen.
		WIDE	4:3
		*4:3 : Depending on the	input video signal ratio,

*4:3 : Depending on the input video signal ratio, it is automatically changed to an optimized screen ratio.

Main menu	Sub menu	Description
	PHOTO EFFECT	 NORMAL: The PhotoEffect function is disabled. GAUSSIAN BLUR: This option is to add the effect to the screen that the dark and sharp image becomes brighter and more blurred. SEPIA: This option changes the screen to be Sepia tone. The Sepia tone is brown color tone. MONOCHROME: This option changed the screen to be Gray tone. The screen is displayed by white, black, gray.



To select or turn off the Buzzer sound. The Buzzer sound operates in below cases:

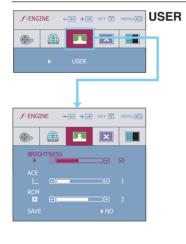
- DC power On
- DC power Off
- Main Button Menu On
- Fun Button Menu On
- Menu Off

Use 'AUTO/SET' button to select sound (Two kinds of Buzzer sound) or turn off the sound, and use 'MENU' button to save the selection and exit the OSD menu.

The OSD screen will appear when you touch the *f*.ENGINE button on the left bottom of the monitor.



Main menu	Sub menu	Description
	INTERNET image condition of	rou easily select the best desired ptimized to the environment tion, image types etc).
► MOVIE	MOVIE: For anin	nation images in videos or movies
	INTERNET: For 1	text images (Word processing etc.)



User

You can manually adjust brightness, ACE or RCM. You can save or restore the adjusted value even when using a different environment.

··· ● (Brightness): Adjusts screen brightness.

...ACE(Adaptive Clarity Enhancer): Selects the clarity mode.

---RCM(Real Color Management): Selects the color mode.

Green enhance Flesh tone

Select the **SAVE** sub-menu using the **AUTO/SET**

button and save the YES value using the $\mathbf{\nabla}$, **buttons**.

					N
۲			×		DI
		NORMA			

ORMAL This is under normal operating conditions.

EMO This is just for advertising to customer in the shops. It's setting is same with Movie mode and screen is divided by half.

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.
- Reasons for Recommending Optimal Resolution : The aspect ratio is 16:10. If the input resolution is not 16:10 (for instance, 16:9, 5:4, 4:3), you might encounter problems such as blurred letters, blurry screen, cut-off screen display or tilted screen.
- 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	24 inches (61.1 cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating 24 inches viewable			
	0.270*0.270 mm pixel pitch			
Sync Input	Horizontal Freq. Analog : 30 - 83 kHz (Automatic)			
	Vertical Freq.	56 - 75 Hz (Automatic)		
	Input Form	Separate TTL, Positive/Negative		
	O'rea al la sa t	SOG (Sync On		
Video Input	Signal Input	15 pin D-Sub C		
	Input Form	÷.	0.7 Vp-p/ 75 ohm)	
Resolution	Max	0	1920 x 1200 @60 Hz	
	Recommend VESA 1920 x 1200 @60 Hz			
Plug&Play	DDC 2AB			
Power	On Mode	: 80 W(Typ.)	
Consumption	Sleep Mode	≤ 1W		
	Off Mode	≤ 1W		
Dimensions	With S		Without Stand	
&Weight		/ 22.58 inches	57.36 cm / 22.58 inches	
	0	/ 18.22 inches	40.55 cm / 15.96 inches	
	Depth 24.26 cm / 9.55 inches 8.70 cm / 3.43 inches			
	Net 6.1 kg (13.45 lbs)		os)	
Tilt Range	Tilt -5°~20°			
Swivel Range	Swivel 355°			
Power Input	AC 100-240V~ 50/60Hz 1.2A			
Environmental	Operating Conditions			
Conditions	Temperature 10°C to 35 °C			
	Humidity 10 % to 80 % non-Condensing			
	Storage Conditions			
	Temperature	-20°C to 60 °C	n Condonaina	
Stand Base	Humidity 5 % to 90 % non-Condensing			
	Attached(), Detached (O)			
Signal cable	Attached(), Detached (O)			
Power cord	Wall-outlet type or	PC-outlet type		

NOTE

Information in this document is subject to change without notice.

Displa	y Modes (Resolution)	Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	640 x 480	31.469	60
2	640 x 480	37.500	75
3	720 x 480	35.162	60
4	720 x 400	31.500	70
5	800 x 600	37.879	60
6	800 x 600	46.875	75
7	1024 x 768	48.363	60
8	1024 x 768	60.023	75
9	1152 x 864	67.500	75
10	1280 x 768	47.776	60
11	1280 x 768	60.289	75
12	1280 x 1024	63.981	60
13	1280 x 1024	79.976	75
14	1600 x 1200	75.000	60
15	1680 x 1050	64.674	60
16	1680 x 1050	65.290	60
*17	1920 x 1200	74.038	60

Preset Modes (Resolution)

* Recommend Mode

Indicator

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

Digitally yours

