



# EB1927WSL LCD MONITOR

USER'S MANUAL



Before operating the monitor, please read this manual thoroughly. This manual should be retained for future reference.

## FCC Class B Radio Frequency Interference Statement

### WARNING: (FOR FCC CERTIFIED MODELS)

**NOTE:** This equipment 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

### NOTICE:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

### WEEE Declaration (Optional)

Disposal of Waste Equipment by Users in Private Household in the European Union.



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

### WEEE Declaration for India (Optional)



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

### WARNING:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

### PRECAUTIONS

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable cart, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long period of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor by yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

## SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

### NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

## BEFORE YOU OPERATE THE MONITOR

### FEATURES

- 47.0cm(18.5") / 49.5cm(19.5") / 54.7cm(21.5")TFT Color LCD Monitor
- Recommended Resolutions: 1366x768@60Hz(18.5")/1600x900@60Hz(19.5")/1920x1080@60Hz(21.5")
- Space Saving, Compact Case Design
- Crisp, Clear Display for Windows
- Ergonomic Design

## CHECKING THE CONTENTS OF THE PACKAGE

The product package should include the following items:

1.	LCD Monitor	3.	Power Cord	5.	Stand	7.	Warranty Registration Card
2.	User's Manual	4.	15-pin D-Sub Cable	6.	Base		

## INSTALLATION INSTRUCTIONS

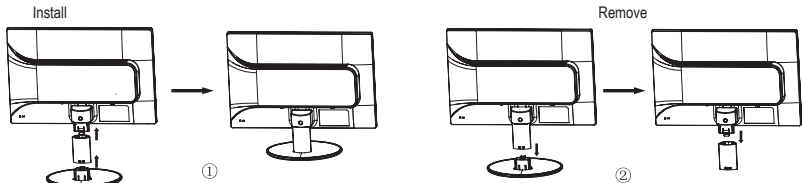


Figure 1 Installing and Removing the Base

## POWER SOURCE

1. Make sure that the power cord is the correct type required in your area.
2. This LCD monitor allows operation in 100-240V AC voltage area(No user adjustment is required.).
3. Connect the AC-power cord into your LCD monitor's AC-power-input. The AC-power cord may be connected to either a wall power outlet or the power outlet socket on your PC, depending on the type of power cord supplied with your LCD monitor.

## CONTROLS AND CONNECTORS

**Connecting the D-Sub Cable:** Connect one end of the 15-pin VGA cable to the back of the monitor and connect the other end to the computer's D-Sub port.

**Connecting the Power Cord:** Plug the AC-power cord one end to LCD monitor's AC input socket,the other end to Wall outlet.

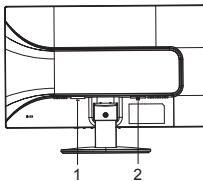


Figure 2 Connecting Cables

1.	AC input socket
2.	D-Sub input socket

## ADJUSTING THE VIEWING ANGLE



Figure 3 Angle

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.
- Hold the stand so you do not topple the monitor when you change the monitor's angle.
- You are able to adjust the monitor's angle from -3° to 11°.

### NOTES

- Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you change the angle.

## OPERATING INSTRUCTIONS

### GENERAL INSTRUCTIONS

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor (See Figure 4). By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.

### EXTERNAL CONTROLS

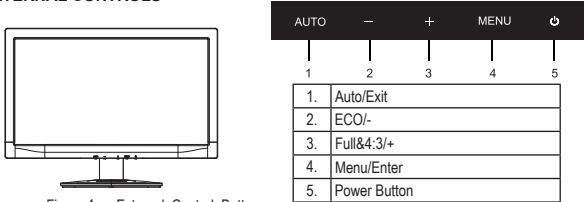


Figure 4 External Control Button

### FRONT PANEL CONTROL

- **Power Button:** Press the button to turn on or turn off the monitor.
- **Menu / Enter:** Activate OSD menu when OSD is OFF or activate/de-activate adjustment function when OSD is ON.
- **ECO / - :** When OSD menu is in off status, press this key continuously to select the different ECO mode.( Eco mode hot key may not be available in all models).  
When OSD menu is in active status, press this key as function select key.
- **Full&4:3/+:** When OSD menu is in off status, press this key continuously to change 4:3 or wide image ratio( If the product screen size is 4:3 or input signal resolution is wide format, the hot key is disable to adjust).  
When OSD menu is in active status, press this key as function select key.
- **Auto/Exit:** When OSD menu is in off status, press this button to activate the Auto Adjustment function.  
The Auto Adjustment function is used to set the HPos, VPos, Clock and Phase.  
When OSD menu is in active status, this button will act as EXIT-KEY (EXIT OSD menu).
- **Power Indicator:** Blue-Power On mode, Flickering Blue-Standby mode.
- **OSD Lock Function:** To lock the OSD, press and hold the MENU button while the monitor is off and then press power button to turn the monitor on. To un-lock the OSD - press and hold the MENU button while the monitor is off and then press power button to turn the monitor on.

### NOTES

- Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- For maximum protection, repack your monitor as it was originally packed at the factory.
- To keep the monitor looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the monitor before cleaning it.
- Do not scratch the screen with hard things, it may cause permanent damage.
- Don't leak liquid into monitor which will result in the damage of component.

### HOW TO ADJUST A SETTING

1. Press the MENU-button to activate the OSD window.
2. Press - or + to navigate through the functions. Once the desired function is highlighted, press the MENU-button to activate it. If the function selected has a sub-menu, press - or + again to navigate through the sub-menu functions. Once the desired function is highlighted, press MENU-button to activate it.
3. Press - or + to change the settings of the selected function.
4. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-3.

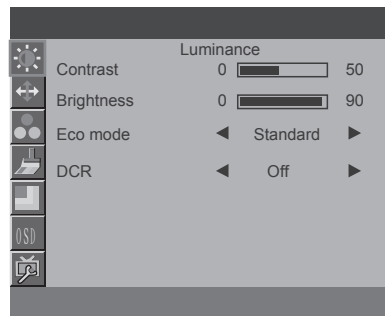









Figure 5 The OSD Message

## ADJUSTING THE PICTURE

### The descriptions for function control

Main Menu Item	Main Menu Icon	Sub Menu Item	Sub Menu	Description	
Luminance		Contrast		Contrast from Digital-register	
		Brightness		Backlight Adjustment	
		Eco Mode	Standard		Standard Mode
			Text		Text Mode
			Internet		Internet Mode
			Game		Game Mode
			Movie		Movie Mode
		DCR	Off		Disable dynamic contrast ratio
On			Enable dynamic contrast ratio		
Image Setup		Clock		Adjust picture Clock to reduce Vertical-Line noise	
		Phase		Adjust Picture Phase to reduce Horizontal-Line noise	
		H. Position		Adjust the Horizontal Position of the picture	
		V. Position		Adjust the Vertical Position of the picture	
		Image Ratio	Wide / 4:3		Select Wide or 4:3 format for display
Color Temp		Warm		Recall Warm Color Temperature from EEPROM	
		Normal		Recall Normal Color Temperature from EEPROM	
		Cool		Recall Cool Color Temperature from EEPROM	
		sRGB		Recall sRGB Color Temperature from EEPROM	
		User	Red		Red Gain from Digital-register
			Green		Green Gain from Digital-register
Blue			Blue Gain from Digital-register		
Color Boost		Full Enhance	On or Off	Enable or Disable Full Enhance Mode	
		Nature Skin	On or Off	Enable or Disable Nature Skin Mode	
		Green Field	On or Off	Enable or Disable Green Field Mode	
		Sky-blue	On or Off	Enable or Disable Sky-blue Mode	
		Auto Detect	On or Off	Enable or Disable AutoDetect Mode	
		Demo	On or Off	Enable or Disable Demo	
Picture Boost		Frame Size		Adjust Frame Size	
		Brightness		Adjust Frame Brightness	
		Contrast		Adjust Frame Contrast	
		H. Position		Adjust the horizontal position of Frame	
		V. Position		Adjust the vertical position of Frame	
		Bright Frame	On or Off	Enable or Disable Bright Frame	
OSD Setup		H. Position		Adjust the Horizontal Position of OSD	
		V. Position		Adjust the Vertical Position of OSD	
		Timeout		Adjust the OSD Timeout	
		Language		Select the OSD Language	
Extra		DDC/CI	On or Off	Enable or Disable DDC/CI Support	
		Reset		Reset the menu to default	
		Information		Show the Information of the main image and sub-image source	

**PLUG AND PLAY  
PLUG & PLAY DDC2B FEATURE**

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities. The DDC2B is a bi-directional data channel based on the I2C protocol. The host can request EDID information over the DDC2B channel.

**THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL  
THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.**

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

**TECHNICAL SUPPORT (FAQ)**

Problem & Question	Possible Solution
Power LED is Not ON	Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.
No images on the screen	Is the power cord connected properly? Check the power cord connection and power supply. Is the cable connected correctly? (Connected using the D-sub cable) Check the DB-15 cable connection. (Connected using the DVI cable) Check the DVI cable connection. * DVI input is not available on every model. (Connected using the HDMI cable) Check the HDMI cable connection. * HDMI input is not available on every model. If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen. If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. If the initial screen (the login screen) does not appear, contact the Service Center or your dealer. Can you see "Input Not Supported" on the screen? You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly.
Picture Is Fuzzy & Has Ghosting Shadowing Problem	Adjust the Contrast and Brightness Controls. Press to auto adjust. Make sure you are not using an extension cable or switch box. We recommend plugging the monitor directly to the video card output connector on the back .
Picture Bounces, Flickers Or Wave Pattern Appears In The Picture	Move electrical devices that may cause electrical interference as far away from the monitor as possible. Use the maximum refresh rate your monitor is capable of at the resolution your are using.
Monitor Is Stuck In Active Off-Mode*	The Computer Power Switch should be in the ON position. The Computer Video Card should be snugly fitted in its slot. Make sure the monitor's video cable is properly connected to the computer. Inspect the monitor's video cable and make sure no pin is bent. Make sure your computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.
Missing one of the primary colors (RED, GREEN, or BLUE)	Inspect the monitor's video cable and make sure that no pin is damaged. Make sure the monitor's video cable is properly connected to the computer.
Screen image is not centered or sized properly	Adjust H-Position and V-Position or press hot-key (AUTO).
Picture has color defects (white does not look white)	Adjust RGB color or select desired color temperature.
Horizontal or vertical disturbances on the screen	Use Windows 95/98/2000/ME/XP shut-down mode Adjust CLOCK and PHASE. Press to auto-adjust.

APPENDIX  
SPECIFICATIONS

Model Name	EB1927WSL		EB2027WSL	EB2227WSL
Viewable Image Size	47.0cm (18.5") diagonal		49.5cm (19.5") diagonal	54.7cm (21.5") diagonal
Pixel Pitch	0.300mm(Horizontal) x 0.300mm(Vertical)		0.27mm (Horizontal) x 0.27mm(Vertical)	0.2482mm (Horizontal) x 0.2482mm(Vertical)
Active Display Area	408.8mm(Horizontal) x 230.4mm(Vertical)		432.0mm (Horizontal) x 239.76mm (Vertical)	476.64mm (Horizontal) x 268.11mm(Vertical)
Frequency Range	Horizontal: 30 kHz~60 kHz, Vertical: 50 Hz~76 Hz		Horizontal: 30 kHz~83 kHz, Vertical: 50 Hz~76 Hz	
Pixel Clock	90MHz		140 MHz	165 MHz
Recommended Resolution	1366*768@60Hz		1600*900@60Hz	1920*1080@60Hz
Display Colors	16.7M Colors			
HDCP Function	NO			
Input Signal	Analog 0.7Vp-p/75 OHM			
Input Connector	D-Sub 15pin			
Power Supply	100-240V~, 50/60 Hz, 1.5 A			
Power Consumption	Active: 18W (Typical), Standby: < 0.5W	Active: 25W (Typical), Standby: < 0.5W	Active: 25W (Typical), Standby: < 0.5W	
Plug & Play	VESA DDC2B/C/I			
Front Control	Menu/Enter · ECO/ · Full&4:3/ · Auto/Exit · Power Button			
Speaker	NO			
Wall Mounting Interface	NO			
Weight (monitor with stand)	2.40Kg	2.55Kg	2.73kg	
Dimension (monitor with stand)	444mm (W) x 343mm (H) x 176mm (D)	479mm (W) x 358mm (H) x 176mm (D)	512mm (W) x 377mm (H) x 176mm (D)	
Function body	Tilt: -3° ~ 11°, Pivot: No, Height adjust: No, Swivel: No			
Environment Condition	Operating	Temperature: 0° C to 40° C, Humidity: 10% to 85% (non-condensing), Altitude: 0~3658m (0~12000ft)		
	Storage	Temperature: -25° C to 55° C, Humidity: 5% to 93% (non-condensing), Altitude: 0~12192m (0~40000ft)		

Presets Display Modes

Standard	Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)	EB1927WSL	EB2027WSL	EB2227WSL
VGA	640*480@60Hz	31.469	59.940	√	√	√
	640*480@72Hz	37.861	72.809	√	√	√
	640*480@75Hz	37.500	75.000	√	√	√
	640*480@67Hz	35.000	66.667	√	√	√
IBM MODE DOS	720*400@70Hz	31.469	70.087	√	√	√
SVGA	800*600@56Hz	35.156	56.250	√	√	√
	800*600@60Hz	37.879	60.317	√	√	√
	800*600@72Hz	48.077	72.188	√	√	√
	800*600@75Hz	46.875	75.000	√	√	√
MAC MODE SVGA	832*624@75Hz	49.725	74.551	√	√	√
XGA	1024*768@60Hz	48.363	60.004	√	√	√
	1024*768@70Hz	56.476	70.069	√	√	√
	1024*768@75Hz	60.023	75.029	√	√	√
WXGA	1280*720@60Hz	45.000	60.000	√	√	√
SXGA	1280*1024@60Hz	63.981	60.020	√	√	√
	1280*1024@75Hz	79.976	75.025	√	√	√
WXGA	1366*768@60Hz	47.712	59.790	√	√	√
WXGA+	1440*900@60Hz	55.935	59.887	√	√	√
WSXGA	1600*900@60Hz	60.000	60.000	√	√	√
WSXGA+	1680*1050@60Hz	65.290	59.954	√	√	√
FHD	1920*1080@60Hz	67.500	60.000	√	√	√

Pin Assignments

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1.	Video-Red	6.	GND-R	11.	GND
2.	Video-Green	7.	GND-G	12.	DDC-Serial data
3.	Video-Blue	8.	GND-B	13.	H-sync
4.	GND	9.	+5V	14.	V-sync
5.	Detect Cable	10.	GND	15.	DDC-Serial clock

