

OWNER'S MANUAL

Please read this manual carefully before operating your set and retain it for future reference.

LED LCD MONITOR MODELS E2391VR

CONTENTS

3 ASSEMBLING AND PREPAR-ING

- 3 Unpacking
- 4 Parts and buttons
- 6 Setting up the Monitor set
- 6 Mounting on a table

8 USING THE MONITOR SET

- 8 Connecting to a PC
- 8 D-SUB connection
- 9 HDMI connection
- 9 DVI to HDMI connection

10 CUSTOMIZING SETTINGS

- 10 Accessing The Main Menus
- 11 Customizing Settings
- 11 Menu Settings
- 13 DUAL MONITOR Settings
- 13 DUAL WEB Settings
- 14 SUPER+ RESOLUTION Settings
- 14 Volume Settings (Only supported in HDMI mode)
- 15 SUPER ENERGY SAVING Settings

16 TROUBLESHOOTING

18 SPECIFICATIONS

- 19 Preset Modes (Resolution)
- 19 PC(D-SUB / HDMI) Timing
- 19 HDMI Timing
- 19 Indicator

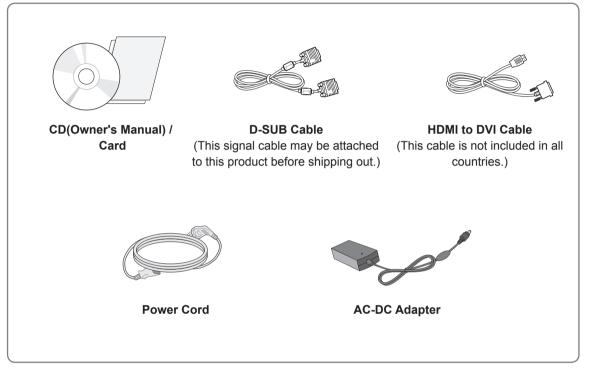
20 PROPER POSTURE

20 Proper posture for using the Monitor set.

ASSEMBLING AND PREPARING

Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and accessories.

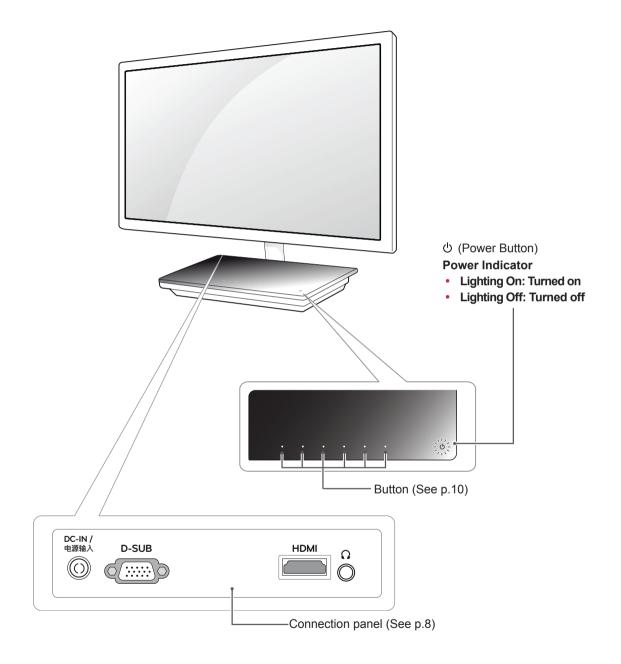


- Do not use any unapproved accessories to ensure the safety and product life span.
- Any damages or injuries by using unapproved accessories are not covered by the warranty.



- The accessories supplied with your product may vary depending on the model.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.
- User should use shielded signal interface cables (RGB cable) with ferrite cores to maintain standard compliance for the product.

Parts and buttons



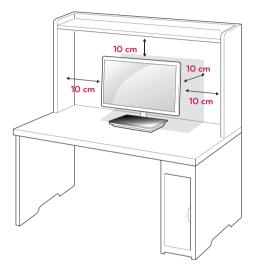
Button	Description	
MENU	Accesses the main menus.(See p.11)	
Left First Button	OSD LOCKED/ UNLOCKED	This function allows you to lock the current control settings, so that they cannot be inadvertently changed. Press and hold the left first button for several seconds. The message "OSD LOCKED" should appear. You can unlock the OSD controls at any time by pushing the left first button for several seconds. The message "OSD UNLOCKED" should appear.
SUPER+ RESOLUTION	Use this button to enter SUPER+ RESOLUTION menu. For more information.(See p.14)	
SUPER ENERGY SAVING	Use this button to enter SUPER ENERGY SAVING menu. For more information.(See p.15)	
AUTO	When adjusting your display settings, always press the AUTO button on the MONITOR SETUP OSD. (Only supported in Analog Mode)	
	The best display mode : 1920 x1080	
VOLUME (Only HDMI mode)	Adjust the volume of the Monitor set.(See p.14)	
INPUT	 You can choose the input signal. When two input signals are at least are connected, you can select the input signal (D-SUB/HDMI) you want. When only one signal is connected, it is automatically detected. The default setting is D-SUB. 	
EXIT	Exit the OSD(On Screen Display).	
し (Power Button)	Turns the power on or off.	
	Power Indicator	The power indicator stays white color if the display is running properly (On Mode). If the display is in Sleep Mode, the power indicator color is red.

Setting up the Monitor set

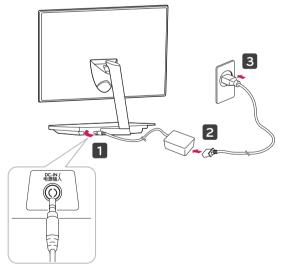
Mounting on a table

1 Lift and tilt the Monitor set into its upright position on a table.

Leave a 10 cm (minimum) space from the wall for proper ventilation.



2 Connect the AC-DC Adapter and Power Cord to a wall outlet.

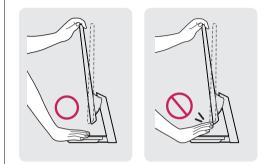


3 Press Power button on the Stand base of the Monitor set to turn the power ON.

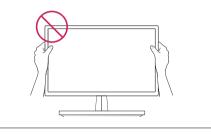
Disconnect the power cord first, and then move or install the Monitor set. Otherwise electric shock may occur.



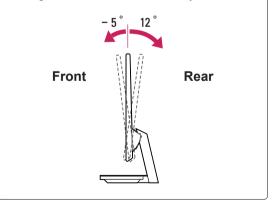
When you adjust the angle, do not hold the bottom of the Monitor set frame as shown on the following illustration, as may injure your fingers.



Do not touch or press the screen when adjusting the angle of the monitor.



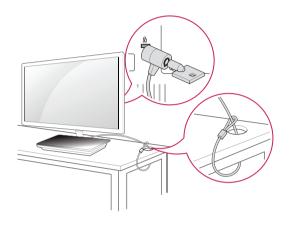
Tilt from +12 to -5 degrees up or down to adjust the angle of the Monitor set to suit your view.



Using the Kensington security system

The Kensington security system connector is located at the back of the Monitor set. For more information of installation and using, refer to the manual supplied with the Kensington security system or visit *http://www.kensington.com*.

Connect the Kensington security system cable between the Monitor set and a table.



NOTE

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

USING THE MONITOR SET

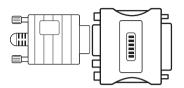
Connecting to a PC

• Your Monitor set supports Plug & Play*. *Plug & Play: A PC recognizes a connected device that users connect to a PC and turn on, without device configuration or user intervention.

D-SUB connection

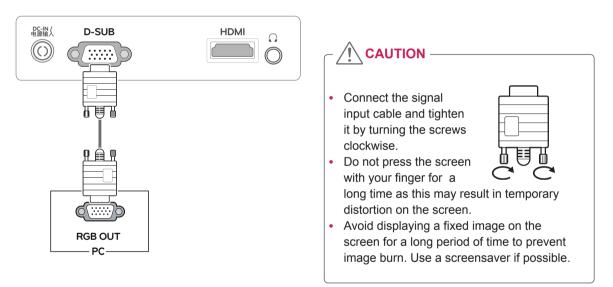
Transmits analog video from your PC to the Monitor set. Connect the PC and the Monitor set with the supplied D-sub 15 pin signal cable as shown in the following illustrations.

• When using a D-Sub signal input cable connector for Macintosh



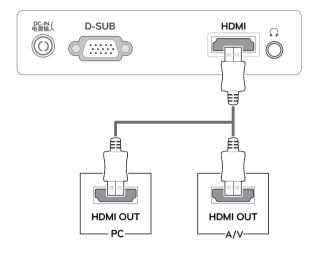
Mac adapter

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



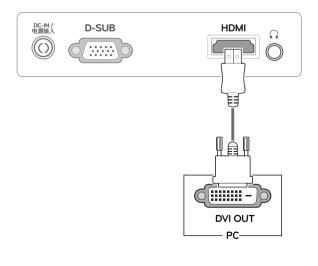
HDMI connection

Transmits the digital video and audio signals from your PC or A/V to the Monitor set. Connect the PC or A/V and the Monitor set with the HDMI cable as shown in the following illustrations.



DVI to HDMI connection

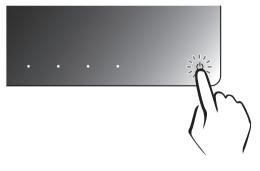
Transmits the digital video signal from your PC to the Monitor set. Connect the PC and the Monitor set with the DVI to HDMI cable as shown the following illustrations.



- If you use HDMI PC, it can cause compatibility problem.
- When you want to use two PC in our Monitor, please connect the signal cable(D-SUB/ HDMI) respectively in Monitor set.
- If you turn the Monitor set on while it is cold, the screen may flicker. This is normal.
- Some red, green, or blue spots may appear on the screen. This is normal.

Self Image Setting Function

Press the power button on the stand base of the Monitor set to turn the power on. When monitor power is turned on, the **"Self Image Setting"** Function is executed automatically. (Only supported in Analog Mode)



"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. (Only supported in Analog Mode)

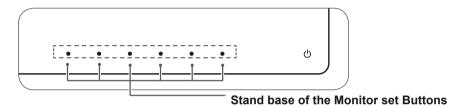
• 'AUTO' Function.

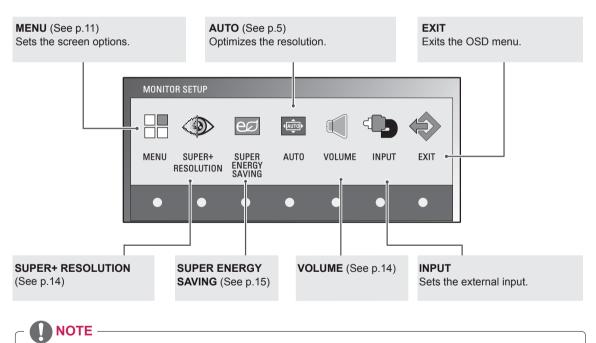
When you encounter problems such as blurry screen, blurred letters, screen flicker or tilted screen while using the device or after changing screen resolution, press the AUTO function button to improve resolution. (Only supported in Analog Mode)

CUSTOMIZING SETTINGS

Accessing The Main Menus

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the desired menu item.
- 3 Change the value of the menu item by pressing the buttons on the stand base of the Monitor set. To return to the upper menu or set other menu items, use the up arrow (1) button.
- 4 Select **EXIT** to leave the OSD menu.





Different menu items are enabled depending on the type of input signal. Menu SUPER+ SUPER AUTO VOLUME INPUT EXIT RESOLUTION **ENERGY SAVING** E2391VR • • • • -• • E2391VR • • • • . . (Only HDMI Mode)

Customizing Settings

Menu Settings

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the **MENU** button to display the options in the OSD menu.
- 3 Set the options by pressing the \triangleleft or \triangleright or \blacktriangledown buttons.
- Select EXIT to leave the OSD menu.
 To return to the upper menu or set other menu items, use the up arrow (1) button.

The available MENU settings are described below.

MENU		
* BRIGHTNESS	∢ ►1	00
ORIGINAL RATIO	✓ WIDE ►	
- COLOR PRESET	✓ WARM ►	
🕶 BLACK LEVEL	▲ LOW ►	
LANGUAGE	🖌 ENGLISH 🕨	
♬ SOUND	■ ON ►	
⊠ RTC	■ ON ►	
POWER INDICATOR	< ON ►	
BUTTON INDICATOR	< ON ►	
🔤 DUAL PACKAGE	►	
⇒ FACTORY RESET	■ NO ■	
	• · · - E	(IT
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Menu	Analog	HDMI	Description
BRIGHTNESS	•	٠	Adjusts the brightness of the screen.
ORIGINAL RATIO			WIDE
			Switch to full screen mode according to input image signal.
	•	•	ORIGINAL
			Change the input image signal ratio to original. * This function works only if input resolution is lower than Monitor set ratio (16:9).
COLOR PRESET			PRESET
	•	٠	 Select the screen color. WARM: Set the screen to warm color temperature (more red). MEDIUM: Set the screen to medium color temperature. COOL: Set the screen to cool color temperature (More blue).
BLACK LEVEL (Only supported in HDMI mode)	-	•	 You can set the offset level. If you select 'HIGH', the screen will be bright and if you select 'LOW', the screen will be dark. Offset: As the criteria for video signal, it is the darkest screen the monitor can show.
LANGUAGE	•	•	Changes the menu language.
SOUND	•	•	Use this function to set the Buzzer sound to ON or OFF The Buzzer sound operates in below cases: • DC power On/Off • AC power On • Monitor Setup OSD On/Off • MENU OSD On/Off • SUPER+ RESOLUTION OSD On/Off • DUAL PACKAGE OSD On/Off • SUPER ENERGY SAVING OSD On/Off • VOLUME OSD On/Off

Menu	Analog	HDMI	Description
RTC	•	•	If you set ON , you enable the Response Time Control function and reduce the afterimage of the screen. If you set OFF , you disable the Response Time Control function and operate at panel response time.
POWER INDICATOR	•	•	Use this function to set the power indicator on the stand base of the monitor to ON or OFF . If you set OFF , it will be turned off. If you set ON at any time, the power indicator will automatically be turned on.
BUTTON INDICATOR	•	٠	Use this function to set the button indicator on the stand base of the monitor to ON or OFF . If you set OFF , it will be turned off. If you set ON , it will be turned on.
DUAL PACKAGE	•	•	Move to DUAL PACKAGE function.
FACTORY RESET	•	٠	Returns the monitor to original factory settings except "LANGUAGE".

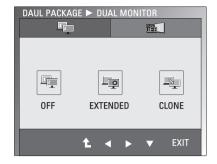
• Analog: D-SUB(Analog signal) input.

• HDMI: HDMI(Digital signal) input.

DUAL MONITOR Settings

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the **MENU** button to display the options in the OSD Menu.
- 3 Select **DUAL PACKAGE** by pressing the ▼ button.
- 4 Enter to **DUAL PACKAGE** by pressing the ► button.
- 5 Set the options by pressing ▼ and then ◄ and ► buttons.
- 6 Select EXIT to leave the OSD menu.
 To return to the upper menu or set other menu items, use the up arrow (1) button.

The available DUAL MONITOR settings are described below.

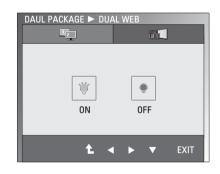


Menu	Description	
DUAL MONITOR	OFF	If select OFF, DUAL MONITOR off
	EXTENDED	By selecting EXETNDED, user can use secondary monitor as extended mode of primary monitor.
	CLONE	By selecting CLONE, user can use secondary monitor as clone mode of primary monitor.

DUAL WEB Settings

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the **MENU** button to display the options in the OSD Menu.
- 3 Select **DUAL PACKAGE** by pressing the ▼ button.
- 4 Enter to DUAL PACKAGE by pressing the ▶ button.
- 5 Set the options by pressing \vee and then \triangleleft and \triangleright buttons.
- 6 Select EXIT to leave the OSD menu.
 To return to the upper menu or set other menu items, use the up arrow (1) button.

The available DUAL WEB settings are described below.

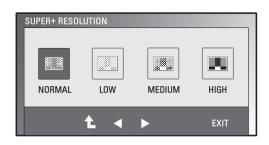


Menu	Description	
DUAL WEB	ON	Help user to browse web efficiently by dividing in half. Help to arrange and move windows on screen. Help user to control divided windows ratio.
	OFF	If select OFF,DUAL WEB is off.

• When monitor goes to Power Saving Mode with PC power saving option, on pressing any button and selecting DAUL PACKAGE option user can bring back monitor to normal mode.

SUPER+ RESOLUTION Settings

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the **SUPER+ RESOLUTION** button to display the options in the OSD menu.
- 3 Set the options by pressing ◄ or ► buttons.
- Select EXIT to leave the OSD menu.
 To return to the upper menu or set other menu items, use the up arrow (1) button.



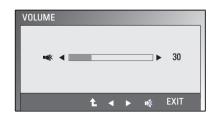
The available SUPER+ RESOLUTION settings are described below.

Menu	Description
NORMAL	Select this when you want to use the product in the most general using environment. In the General mode, the SUPER+ RESOLUTION is turned off.
LOW	When the user wants a natural video screen with soft image, it helps to get the optimized screen. It is effective for video with small movement or still image.
MEDIUM	When the user wants a comfortable video screen at the medium level between low and high mode, it helps to get the optimized screen. It is effective for UCC and SD level videos.
HIGH	When the user wants a sharp video screen with clear images, it helps to get the optimized screen. It is effective for high resolution video screens and games.

 Noise may exist according to SR(SUPER+ RESOLUTION) Mode, so enjoy the clear image by selecting SR(SUPER+ RESOLUTION) Mode according to the Contents.

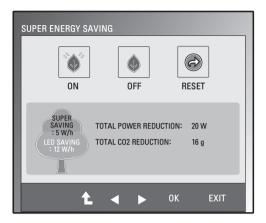
Volume Settings (Only supported in HDMI mode)

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the VOLUME button to display the options in the OSD menu.
- 3 Adjust the **VOLUME** by pressing \triangleleft or \triangleright buttons.
- 4 Select EXIT to leave the OSD menu. To return to the upper menu or set other menu items, use the up arrow (▲) button.



SUPER ENERGY SAVING Settings

- 1 Press any button on the stand base of the Monitor set to display the **MONITOR SETUP** OSD menu.
- 2 Press the **SUPER ENERGY SAVING** button to display the options in the OSD Menu.
- 3 Set the options by pressing \blacktriangleleft or \blacktriangleright buttons.
- Select EXIT to leave the OSD menu.
 To return to the upper menu or set other menu items, use the up arrow (▲) button.



The available SUPER ENERGY SAVING settings are described below.

Menu	Description
ON	Enables SUPER ENERGY SAVING you can save energy with this energy-efficient function.
OFF	Disables SUPER ENERGY SAVING.
RESET	Resets the values of total energy consumption reduction and CO2 emission reduction estimates.

- TOTAL POWER REDUCTION: How much power is saved while using the monitor.
- TOTAL CO2 REDUCTION: Change the TOTAL POWER REDUCTION to CO2.
- SAVING DATA(W/h)

	584 mm (23 inch)
SUPER SAVING	5 W/h
LED SAVING	12 W/h

- Saving Data depends on the Panel. So, those values should be different from each panel and panel vendor.
- LG calculated these values by using "broadcast video signal".
- LED Saving means how much power can be saved using a WLED Panel instead of CCFL panel.
- SUPER SAVING means how much power can be saved using the SUPER ENERGY SAVING function.

TROUBLESHOOTING

Check the following before calling for service.

No image appears	
Is the power cord of the display connected?	 Check and see if the power cord is connected properly to the power outlet.
Is the power indicator light on?	Press the Power button.
Is the power indicator red?	 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 Left First 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 left first button for several seconds: the message "OSD UNLOCKED" will appear.

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

- 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.
- If the recommended resolution (optimal resolution) is not selected, letters may be blurred and the screen may be dimmed, truncated or biased. Make sure to select the recommend resolution.
- The setting method can differ by computer and O/S (Operating 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.

The image on the screen is cut off/truncated.		
Is the image not shown in full on the screen? Or is a part of the image truncated?	 Access the MENU and make sure that the ORIGINAL RATIO option is set to WIDE. This option can be disabled for some resolutions. In this situation, check the video card's aspect ratio. 	

- The setting method can differ by computer, O/S (Operating System).
- 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.

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

The Audio function is not working		
Picture OK & No sound.	Check whether volume is "0".	
	Check sound muted.	
	 HDMI cable installed properly. 	
	 Head phone cable installed properly. 	
	 Check sound format. Not support to compressed sound format. 	

- Check Control Panel ► Sound ► Settings and make sure the audio format is correct or not.
- The setting method can differ by computer, O/S (Operating System), and audio may not be supported by computer. In this case, please ask to the computer or the video card manufacturer.

SPECIFICATIONS

Display	Screen Type	58.4 cm (23 inch) Flat Panel Active matrix-TFT LCD	
		Anti-Glare coating	
		Visible diagonal size: 58.4 cm	
	Pixel Pitch	0.265 mm x 0.265 mm (Pixel Pitch)	
Sync Input	Horizontal Frequency 30 kHz to 83 kHz (Automatic)		
	Vertical Frequency	56Hz to 75Hz (D-SUB, DVI to HDMI)	
		56Hz to 61Hz (HDMI)	
	Input Form	Separate Sync. HDMI	
Video Input	Signal Input	15 pin D-SUB Connector / HDMI (TYPE - A) Connector	
	Input Form	RGB Analog (0.7 Vp-p/ 75 ohm), HDMI	
Resolution	Max D-SUB(Analog) : 1920 x 1080 @ 60 Hz		
		HDMI(Digital) : 1920 x 1080 @ 60 Hz	
	Recommend	VESA 1920 x 1080 @ 60 Hz	
Plug & Play	DDC 2B(Analog, HDMI)		
Power Consumption	On Mode : 30 W(Typ.)		
	Sleep Mode ≤ 0.5 W		
	Off Mode ≤ 0.5 W		
Power Input	19 V === 2.1 A		
AC-DC Adapter	Type EADP-40LB B, manufactured by Delta Electronics		
Dimensions	With Stand	53.19 cm x 18.58 cm x 41.53 cm	
(Width x Height x Depth)			
Weight	3.5 kg		
Tilt Range	-5° to 12°		
Environmental	Operating Temperature 10°C to 35 °C		
conditions	Operating Humidity 20 % to 80 % non-Condensing		
	Storage Temperature	-10°C to 60 °C	
	Storage Humidity	5 % to 90 % non-Condensing	
Stand Base	Attached (O), Detached ()		
Power cord	Wall-outlet type		

Product specifications shown above may be changed without prior notice due to upgrade of product functions.

Preset Modes (Resolution)

PC(D-SUB / HDMI) Timing

Display Modes (Resolution)	Horizontal Frequency(kHz)	Vertical Frequency(Hz)	Polarity(H/V)	
720 x 400	31.468	70	_/+	
640 x 480	31.469	60	-/-	
640 x 480	37.500	75	-/-	
800 x 600	37.879	60	+/+	
800 x 600	46.875	75	+/+	
1024 x 768	48.363	60	-/-	
1024 x 768	60.123	75	+/+	
1152 x 864	67.500	75	+/+	
1280 x 1024	63.981	60	+/+	
1280 x 1024	79.976	75	+/+	
1680 x 1050	65.290	60	-/+	
1920 x 1080	67.500	60	+/+	Recommend Mode

HDMI Timing

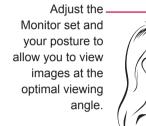
Display Modes (Resolution)	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
480P	31.50	60
576P	31.25	50
720P	37.50	50
720P	45.00	60
1080i	28.12	50
1080i	33.75	60
1080P	56.25	50
1080P	67.50	60

Indicator

Mode	LED Color
On Mode	White
Sleep Mode	Red
Off Mode	Off

PROPER POSTURE

Proper posture for using the Monitor set.



Place your hands gently on the keyboard, keeping your arms bent at the elbows and horizontally outright. Adjust the location of the Monitor set to avoid it reflecting light.



Make sure to read the Safety Precautions before using the product.

Keep the Owner's Manual (CD) in an accessible place for future reference.

The model and serial number of the SET is located on the back and one side of the SET. Record it below should you ever need service.

MODEL

SERIAL

ENERGY STAR is a set of power-saving guidelines issued by the U.S.Environmental Protection Agency(EPA).



As an ENERGY STAR Partner LGE U. S. A.,Inc. has determined that this product meets the ENERGY STAR ENERGY STAR guidelines for energy efficiency.