



**PLL2210MW**  
**LED Monitor**

**USER'S GUIDE**

[www.planar.com](http://www.planar.com)

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## Operation Instructions

Thank you for purchasing this LED Monitor, a high-resolution multi-scan color LED Monitor. Please read this guide thoroughly before installation.

### **FCC RADIO FREQUENCY INTERFERENCE STATEMENT WARNING: (FOR FCC CERTIFIED MODELS)**

This LED Monitor has been tested and found compliant with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide proper protection against harmful interference to a residential installation. This LED Monitor generates, uses, and can radiate radio frequency energy. Harmful interference to radio communication may be led as a result if it's not properly installed and used. However, there is no guarantee that interference will not occur in a particular installation. If this LED Monitor does cause serious interference to radio or television reception, resetting the LED Monitor may determine it. Moreover, users are encouraged to correct interference by doing one or more of the following:

- Reorient or relocate the receiving antenna.
- Move the LED Monitor and the receiver further away from each other.
- Connect the LED Monitor into an outlet on a circuit different from that to which the receiver is connected.
- Consult your local dealer or an qualified technician.

### **FCC Warning:**

To assure a continued FCC compliance, a user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to this LED Monitor would void the user's authority to operate this device.

**Note:** If necessary, shielded interface cables and AC power cord must be used to meet the emission level limits.



**According to WEEE regulation, this LED Monitor can't be handled as normal trash in Europe when it is out of usage. Please refer to the recycle information from our website to handle it.**

## **Safety Precautions**

This LED Monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may result danger to the LED Monitor as well as to the user. Carefully go over the following WARNINGS before installation and keep this guide handy.

### **WARNINGS:**

- ◆ This LED Monitor should be operated only at the correct power sources indicated on the label on the rear end of the LED Monitor. If you're unsure of the power supply in your residence, consult your local dealer or power company.
- ◆ Do not try to repair the LED Monitor yourself as it contains no user-serviceable parts. The LED Monitor should only be repaired by a qualified technician.
- ◆ Do not remove the LED Monitor cabinet. There is high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is disconnected .
- ◆ Stop using the LED Monitor if the cabinet is damaged. Have it checked by a service technician.
- ◆ Put your LED Monitor only in a clean, dry environment. Unplug the LED Monitor immediately if gets wet and consult your service technician.
- ◆ Always unplug the LED Monitor before cleaning it. Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- ◆ Keep the LED Monitor away from magnetic objects, motors, TV sets, and transformer.
- ◆ Do not place heavy objects on the cable or power cord.
- ◆ For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
- ◆ Due to safety concerns, if the VESA mounting kit is purchased separately please make sure the mounting kit is UL-Listed, and replaceable only by service personnel.

## First Setup

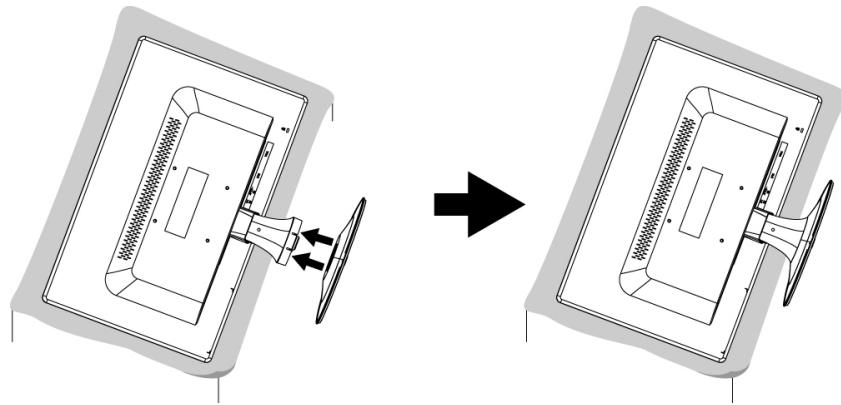
Congratulations on your purchase of this high performance LED monitor.

This LED Monitor comes with the following accessories :

- LED Monitor
- Power Cable
- VGA Cable (15 pin)
- AC/DC Power Adapter (AC 100~240V Input / DC 12V Output)
- Audio Cable
- User's Guide
- Base
- DVI Cable (24 pin)

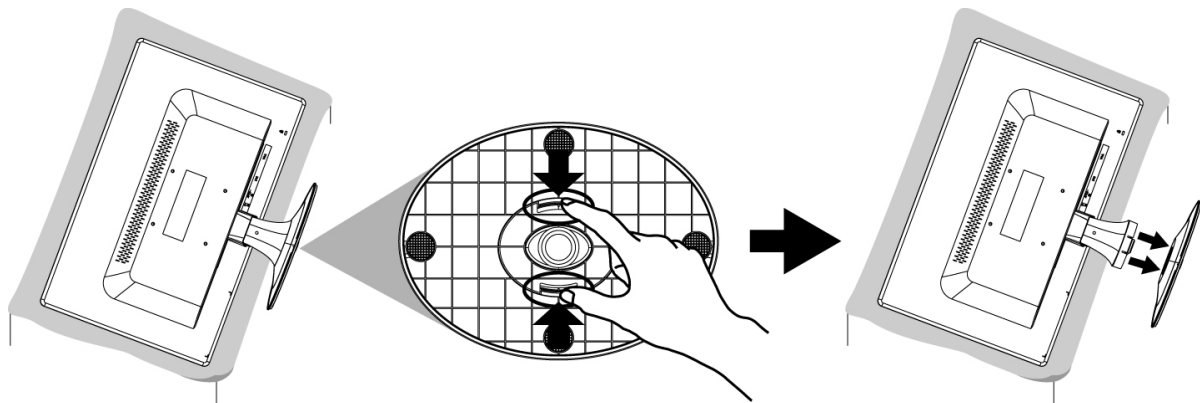
### Install the stand base

1. Lay the LED Monitor flat on a table with the LED screen face down. To prevent the monitor from being scratched, put a piece of soft cloth on the table on which the screen will be set.
2. Unpack the base, one hand hold the monitor, the other hand attach the base to the stand.
3. Stand the LED Monitor up.

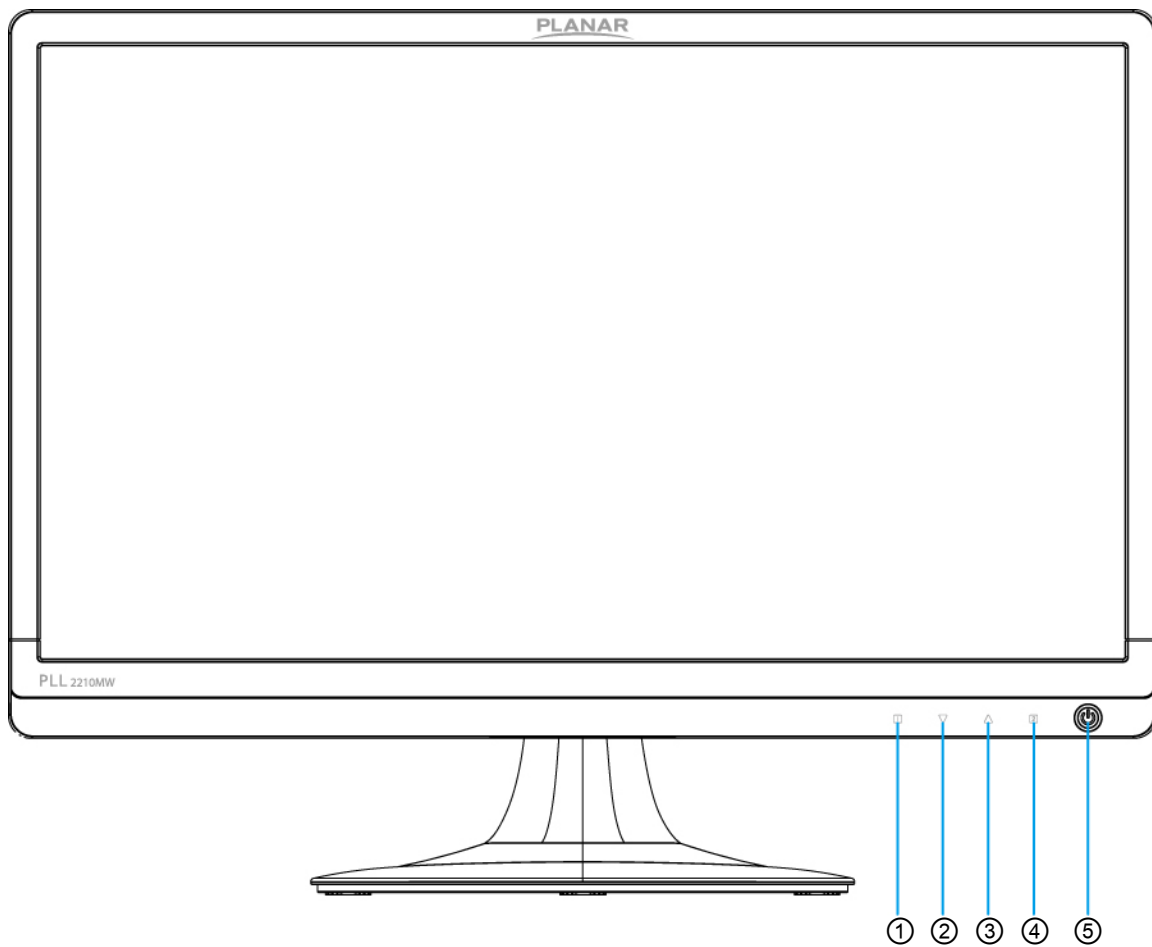


### Disconnecting the stand base

1. Lay the LED Monitor flat on a table with the LED screen face down. To prevent the LED Monitor from being scratched, put a piece of soft cloth on the table on which the screen will be set.
2. Hold the monitor down with one hand. With the other hand, use two fingers to press the hooks down as directed below.
3. Remove the base from the stand.

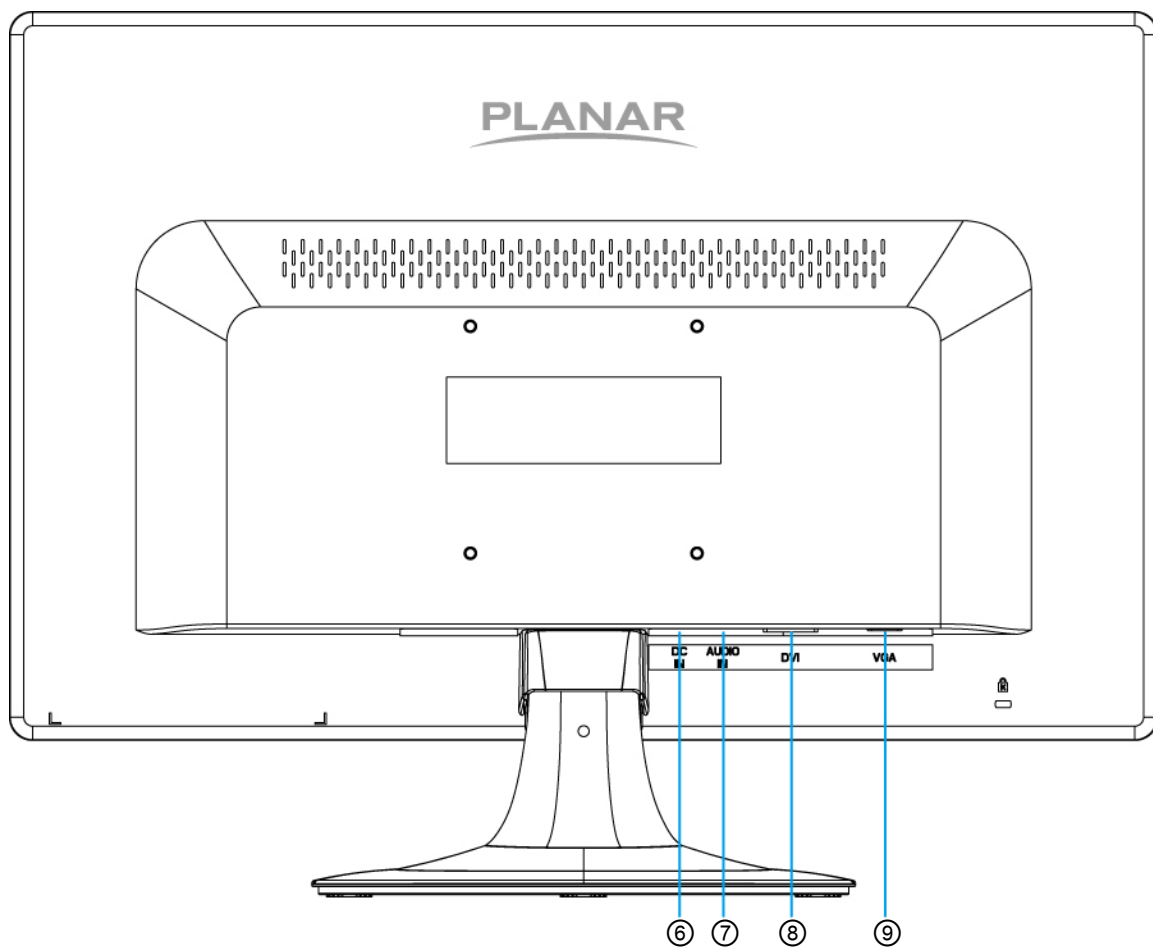


## Front View of the Product



①	OSD Turn On/ Off
②	Volume Adjust/ Scroll Down/ Adjust Decrease
③	Preset Mode/ Scroll UP/ Adjust Increase
④	Input select/ Confirm Selection
⑤	Power On/Off / LED Indicator

## Rear View of the Product

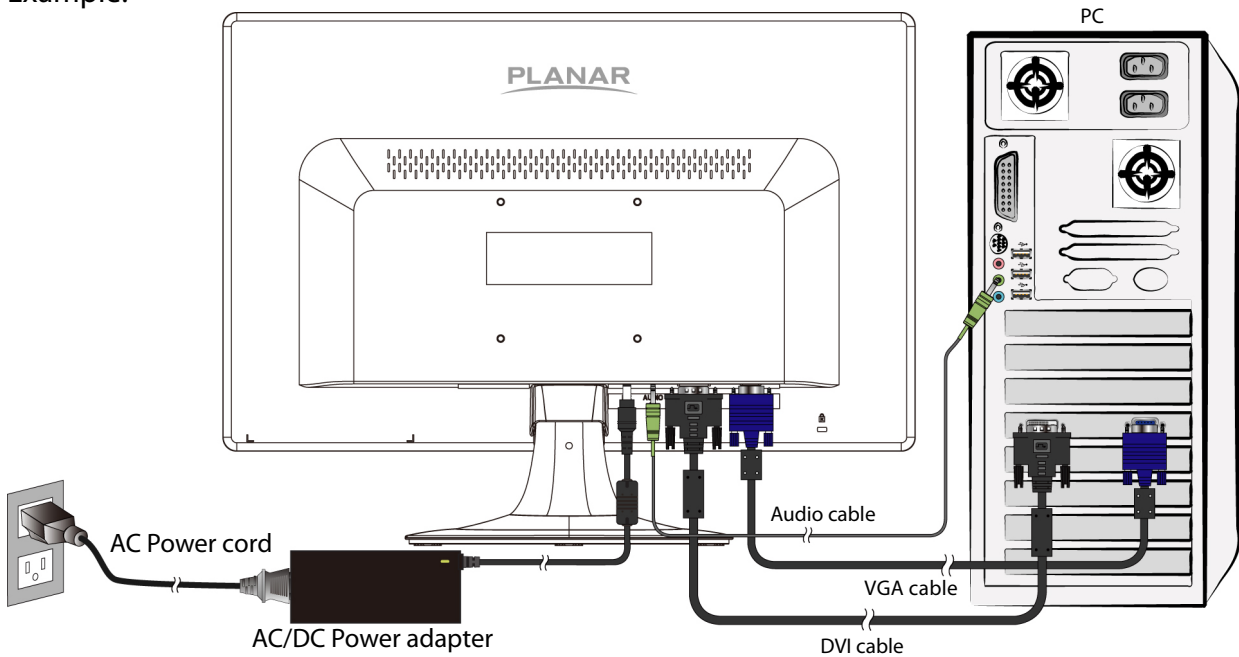


⑥	Power input (+12V DC in)
⑦	Audio Input
⑧	DVI Input (DVI 24 pin)
⑨	VGA Input (D-Sub 15 pin)

## Quick Installation

1. Connect either VGA or DVI Video Source from the monitor to the computer. Make sure both monitor and computer are powered OFF.
2. Connect the audio cable from audio output of computer to the audio input of the monitor.
3. Connect the AC power cord to the AC/DC power adapter, then to the monitor.
4. Power-ON computer and then POWER-ON the monitor.
5. Set the timing mode on your computer. Recommended resolution and refresh rate is 1920 x 1080 @ 60Hz.

Example:





## Basic Operation

Before using the LED Monitor:

Connect external equipments properly.

Insert the power plug, and the power LED indicator will light orange.

### Power On/Off

To turn the LED Monitor on/off:

Press **POWER** button on the front of LED Monitor. The power LED indicator lights green when the LED Monitor is on.

### Using the OSD Menu

You are able to use OSD menus to adjust various settings by using menu button on the front of the LED Monitor.

The basic operation is as following:

1	Displays main menu
	Exits from OSD menu
2	Selects between VGA, DVI or Auto mode
▼	Select the desired item when in OSD menu
	When not in OSD menu, directly enters Volume adjust
▲	Select the desired item when in OSD menu
	When not in OSD menu, directly enters Preset Mode
▼ + ▲	Recalls both Contrast and Brightness (when not in OSD menu)

### OSD Lock Out Function

When LED Monitor is in normal display, you can enable the "OSD Lock Out" function.


**Option 1:** OSD lock – all 4 buttons are locked except the "POWER" button.

Press and hold the 1 button and the ▲ button for 3 seconds to lock the OSD buttons.

The LED Monitor will show an "OSD Lock Out" message for 5~10 seconds and the message will disappear automatically.



Repeat this step to unlock.

**Option 2:** OSD & Power button lock – all 5 buttons including the “POWER” button are locked. Press and hold the  button and the ▼ button for 3 seconds to lock all 5 buttons.

The LED Monitor will show an “Lock Out” message for 5~10 seconds and the message will disappear automatically.

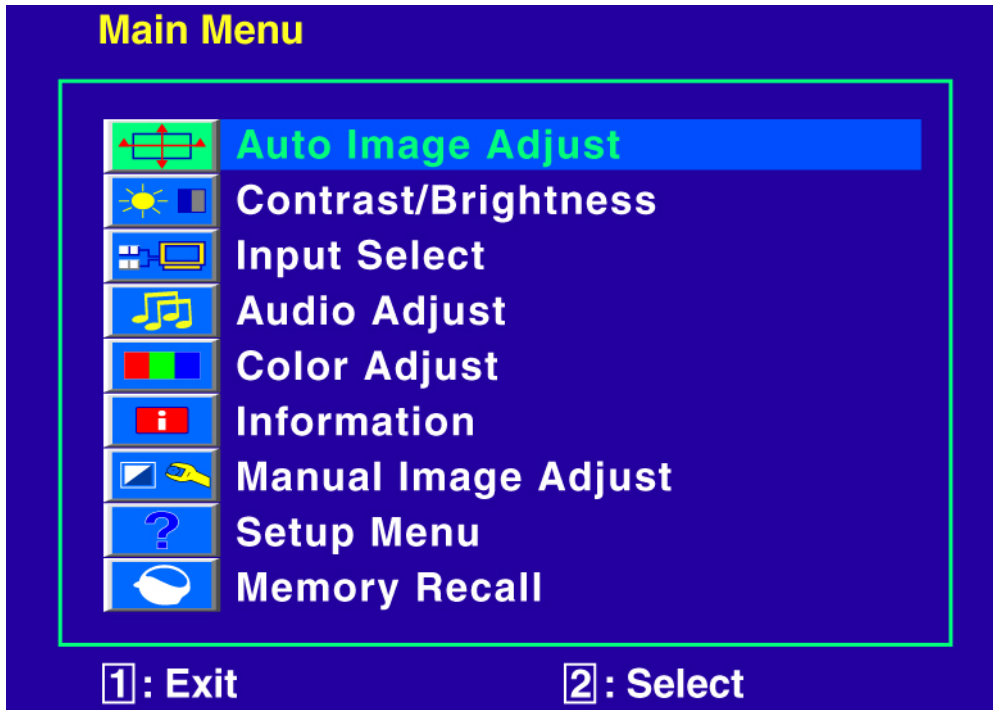


Repeat this step to unlock.

## Advanced Operation—OSD Menu

You can use the OSD menu to adjust various settings for your LED Monitor.

Press the **1** button to display the OSD Menu, and use **▲ ▼** to select the desired OSD menu.



### Short Cuts Function from the button(s)



**Auto Image Adjust:** To auto adjust Horizontal Position, Vertical Position, Phase (Fine Tune) and Clock (H. Size) of the screen.



**Contrast:** To adjust the foreground white level of screen image.  
**▲:** increase contrast, **▼:** decrease contrast.



**Brightness:** To adjust the luminance of the video.  
**▲:** increase brightness, **▼:** decrease brightness.

**ECO Mode:** Allows the user to turn the ECO On or Off. Contrast and Brightness adjustment disabled when ECO is active.



**Input Select:** When press Input Select change Input signal to VGA, DVI or Auto.



**Audio Adjust:** To adjust the audio functions.  
**Volume:** To adjust the volume of speaker output.  
**Mute:** To turn the Mute ON/OFF.



**Color Adjust:** To select the color for improving brightness and color saturation between 9300K, 6500K, 5400K, and User Color.

**9300K:** Adds blue to screen image for cooler white.

**6500K:** Adds red to screen image for warmer white and richer red.

**5400K:** Adds green to screen image for a darker color.

**User Color:** Individual adjustments for red (R), green (G), blue (B).

1. Press button **2** to select the desired color.

2. Press **▼** or **▲** button to adjust selected color.



**Information:** To display the information, regarding the current input signal coming from the graphic card in your computer.

**Note:** See your graphic card user guide for more information about changing the resolution and refresh rate.



**Manual Image Adjust:** To manually adjust the Horizontal Size, H./V. position, Fine Tune, Sharpness, Video Mode adjust and Preset Mode.



**Horizontal Size:** To adjust the width of the screen image.

**▼:** decrease the width of screen image, **▲:** increase the width of screen image.



**H./V. Position:** To adjust the horizontal and vertical position of the video.

**H. Position:** **▲:** move screen to the right, **▼:** move screen to the left.

**V. Position:** **▲:** move screen up, **▼:** move screen down.



**Fine Tune:** To adjust the delay time of data and clock.

Press **▼** or **▲** to adjust to your preference.



**Sharpness:** To adjust the clarity of a non-Full HD Resolution (1920x1080) signal with **▼** or **▲** button.



**Video Mode adjust:** To select the video mode from Full Screen, Over Screen or Aspect Ratio.

**Full Screen:** To select full-screen size image.

**Over Screen:** To select over-screen size image.

**Aspect Ratio:** To select input timing image size.



**Preset Mode:** Provides an optimum display environment depending on the contents displayed. It contains 5 user-selectable presets.

**Standard** is for general windows environment and monitor default setting.

**Game** optimized for PC game environment.

**Cinema** optimized for movie and video environment.

**Scenery** optimized for displaying outdoor scenery images.

**Text** optimized for text editing and viewing in a word processing environment.



**Setup Menu:** To set up Language, OSD Position, OSD Time Out and OSD Background.



**Language Select:** To allow users to choose from available languages.



**OSD Position:** Press ▼ or ▲ button to select between horizontal and vertical OSD Position adjustment.

**H. Position:** To horizontally adjust the OSD position.

▲: move OSD to the right, ▼: move OSD to the left.

**V. Position:** To vertically adjust the OSD position.

▲: move OSD up, ▼: move OSD down.



**OSD Time Out:** To automatically turn off On Screen Display (OSD) after a preset period of time.



**OSD Background:** Allows the user to turn the OSD background On or Off.



**Memory Recall:** To recall factory settings for Video & Audio controls.

Press button **2** to select the Memory Recall menu option.

## Supporting Timing Modes

STANDARD	RESOLUTION
VGA	720 x 400 @ 70Hz
VGA	640 x 480 @ 60Hz
MAC	640 x 480 @ 67Hz
VESA	640 x 480 @ 72Hz
VESA	640 x 480 @ 75Hz
VESA	800 x 600 @ 56Hz
VESA	800 x 600 @ 60Hz
VESA	800 x 600 @ 72Hz
VESA	800 x 600 @ 75Hz
MAC	832 x 624 @ 75Hz
VESA	1024 x 768 @ 60Hz
VESA	1024 x 768 @ 70Hz
VESA	1024 x 768 @ 75Hz
VESA	1280 x 960 @ 60Hz
VESA	1152 x 864 @ 75Hz
MAC	1152 x 870 @ 75Hz
VESA	1280 x 1024 @ 60Hz
VESA	1280 x 1024 @ 75Hz
VESA	1440 x 900 @ 60Hz
CVT	1400 x 1050 @ 60Hz
VESA	1600 x 1200 @ 60Hz
VESA	1680 x 1050 @ 60Hz
VESA	1920 x 1080 @ 60Hz

**Note:**

1. DVI supports 480i, 480p, 576i, 576p, 720p, 1080i, and 1080p.
2. Simultaneously press **1** and **2** keys on monitor panel to switch between similar PC timings.

**Similar PC Timing on list below:**

- 720 x 400 @ 70Hz / 640 x 400 @ 70Hz
- 1400 x 1050 @ 60Hz / 1680 x 1050 @ 60Hz

**Warning:** Do not set the graphic card in your computer to exceed these maximum refresh rates. Doing so may result in permanent damage to your monitor.

## Technical Information

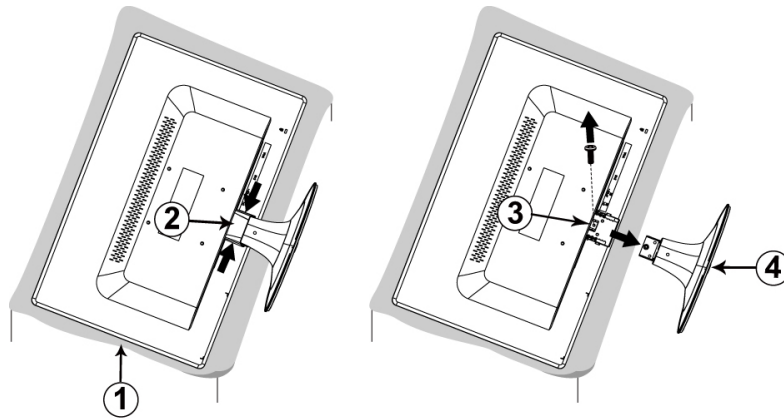
<b>Panel</b>	21.5" TFT (with LED backlight)
<b>Power Management</b>	On: 25 Watts (typical), 35 Watts (maximum) Standby Mode: < 0.5 Watt Off: < 0.5 Watt
<b>Displayable Resolution</b>	Full HD 1920 x 1080 max. Vertical Frequency 60Hz max.
<b>Pixel Dimension</b>	0.24825 x 0.24825 mm
<b>Display Color</b>	16.7M
<b>Tilt</b>	-5° (+/-2) ~ 20° (+/-2)
<b>Active Display Area</b>	476.64 mm x 268.11 mm
<b>Temperature</b>	Operating: 0°C ~ +40°C Storage: -20°C ~ + 60°C
<b>Compliance</b>	FCC-B, CE, cTUVus
<b>Power</b>	Input Voltage DC +12V $\overline{\text{---}}$ 3.0A, FSP, FSP036-DGAA1 or Lien Chang, LCAP07X (X=0-9, A-Z or Blank)
<b>Speaker</b>	1W x 2

## Wall-mount instruction

### Preparing To Install The Optional Wall Mount Arm (not included)

This LED Monitor can be attached to a wall mounting arm you can purchase separately. Turn the power OFF then disconnect the cables from the LED Monitor before performing the procedure below.

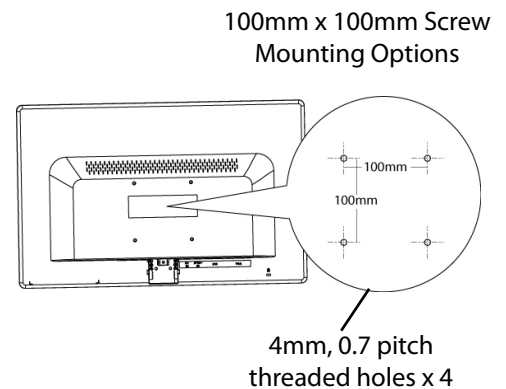
1. Lay the LED Monitor face down on a soft surface.
2. Remove the hinge cover.
3. Remove the one screw holding the stand to the hinge.
4. Remove the stand.



### Attaching The Optional Wall Mount Arm (not supplied)

Follow these steps to finish installing the wall mounting arm:

1. Place the wall mounting arm onto the back of the LED Monitor. Line up the holes of the arm with the holes in the back of the monitor.
2. Insert the 4 screws into the holes and tighten.
3. Reconnect the cables. Refer to the User's Guide that came with the optional wall mounting arm for instructions on attaching it to the wall.



### NOTE

- 100mmx100mm VESA high hole (n=4), M4, pitch =0.7 mm screw mounting kit not included.



## Care and Maintenance

### Care

- Avoid exposing your LED Monitor directly to sunlight or other heat source. Place your LED Monitor away from the sun to reduce glare.
- Put your LED Monitor in a well ventilated area.
- Do not place any heavy things on top of your LED Monitor.
- Make certain your LED Monitor is installed in a clean and moisture-free area.
- Keep your LED Monitor away from magnets, motors, transformers, speakers, and TV sets.

### Note

- Move the LED out of the package and take off the plastic bag and Polystyrene Foam.
- Pull the base from Parallel versus Panel to Vertical.
- Adjust the Panel within  $-5(\pm 2)$  degree leaning forward and  $20(\pm 2)$  degree leaning backward.

### Safety Tips

- If smoke, abnormal noise or odor came out from your LED Monitor, caution you should remove the power cord immediately and call your service center.
- Never remove the rear cover of your LED Monitor cabinet. The display unit inside contains high-voltage parts and may cause electric shock to human bodies.
- Never try to repair your LED Monitor yourself. Always call your service center or a qualified technician to fix it.

## Troubleshooting

### No power

- Make sure A/C power cord is securely connected to the power adapter and the power supply is firmly connected to the LED Monitor.
- Plug another electrical device into the power outlet to verify that the outlet is supplying proper voltage.
- Make sure all signal cables are installed.

### Power on but no screen image

- Make sure the video cable supplied with the LED Monitor is tightly secured to the video output port on back of the computer. If not, tightly secure it.
- Adjust brightness.

### Wrong or abnormal colors

- If any colors (red, green, blue) are missing, check the video cable to make sure it is securely connected. Loose or broken pins in the cable connector could cause an improper connection.
- Connect the LED Monitor to another computer.

## **Product Registration and Technical Support**

### **Register Your Planar Products Today**

Thank you choosing Planar. To assure you receive all the benefits of your Planar product and services, register your Planar product today. Visit our website to register your product at [http://www.planar.com/support/product\\_registration.html](http://www.planar.com/support/product_registration.html)

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### **Technical Support**

Visit Planar at <http://www.planar.com/support> for product registration, operations manuals, touch screen drivers, warranty information and access to Planar's Technical Library for online troubleshooting. To speak with Planar Customer Support please have you model and serial number available and dial:

### **Planar Support**

Tel: 1-866-PLANAR1 (866-752-6271) or +1 503-748-5799 outside the US.

Hours: 24 hours a day, 7 days a week.

Toll or long distance charges may apply.

## **Planar Systems, Inc.**

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