PLANAR™

PX2230MW
LCD Touch Monitor

USER'S GUIDE

www.planar.com

Content

Operation Instructions

Thank you for purchasing the PX2230MW multi-touch LCD monitor. Please read this guide thoroughly before installation.

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

This TFT LCD 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 TFT Touchscreen LCD Monitor generates, uses, and can radiate radio frequency energy. Harmful interference to radio communication may be the 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 TFT Touchscreen LCD Monitor does cause serious interference to radio or television reception, resetting may correct it. Moreover, users are encouraged to reduce interference by doing one or more of the following:

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

Important Recycle Instructions:

Lamp(s) inside this product contain mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG.

According to WEEE regulation, this TFT Touchscreen LCD Monitor can't be handled as normal trash in Europe when it is out of usage. Please refer to the recycle information on Planar's website to handle it.

Unpacking Instructions

- Move the LCD 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 between 0° leaning forward and 20° leaning backward.

Safety Precautions

Follow all warnings, precautions and maintenance as recommended in this user's manual to maximize the life of your unit.

Do:

- Turn off the product before cleaning.
- Touch screen surface may be cleaned using a soft clean clothmoistened with mild window glass commercialcleaners or 50/50 mixture of water and isopropyl alcohol.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

Don't:

- Do not touch the LCD Display screen surface with sharp or hard objects.
- Do not use abrasive cleaners, waxes or solvents for your cleaning.
- Do not operate the product under the following conditions:
    - Extremely hot, cold or humid environment.
    - Areas susceptible to excessive dust and dirt.
    - Near any appliance generating a strong magnetic field.
    - In direct sunlight.

- If smoke, abnormal noise or odor emits from your TFT Touchscreen LCD Monitor, remove the power cord immediately and call your service center.
- Never remove the rear cover of your TFT Touchscreen LCD Monitor. The display unit inside contains high-voltage parts and may cause electric shock.
- Never try to repair your TFT Touchscreen LCD Monitor yourself. Always call your service center or a qualified technician to fix it.

Front View of the Product
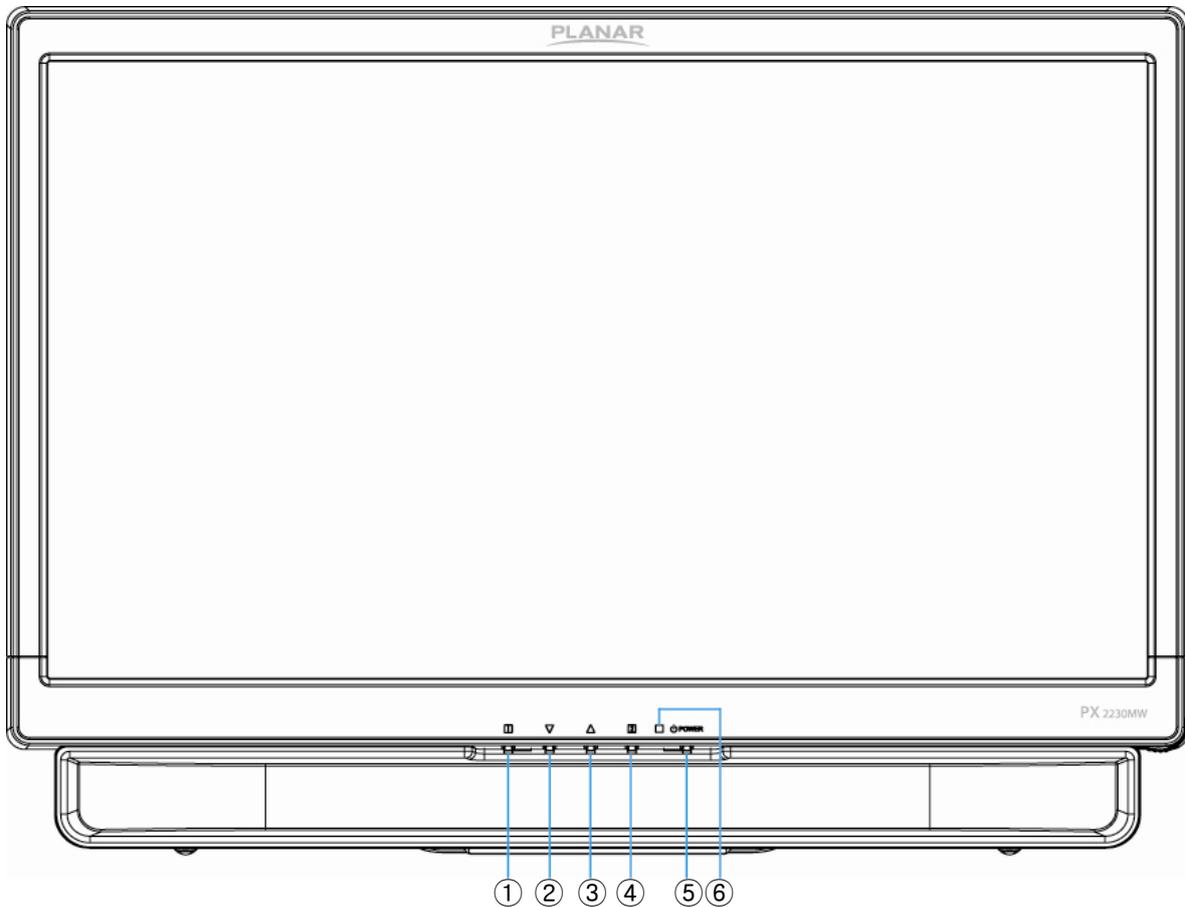
①	OSD Turn On/ Off
②	Volume Adjust/ Scroll Down/ Adjust Decrease
③	Preset Mode/ Scroll UP/ Adjust Increase
④	Input select/ Confirm Selection
⑤	Power On/ Off
⑥	LED Indicator

Rear View of the Product
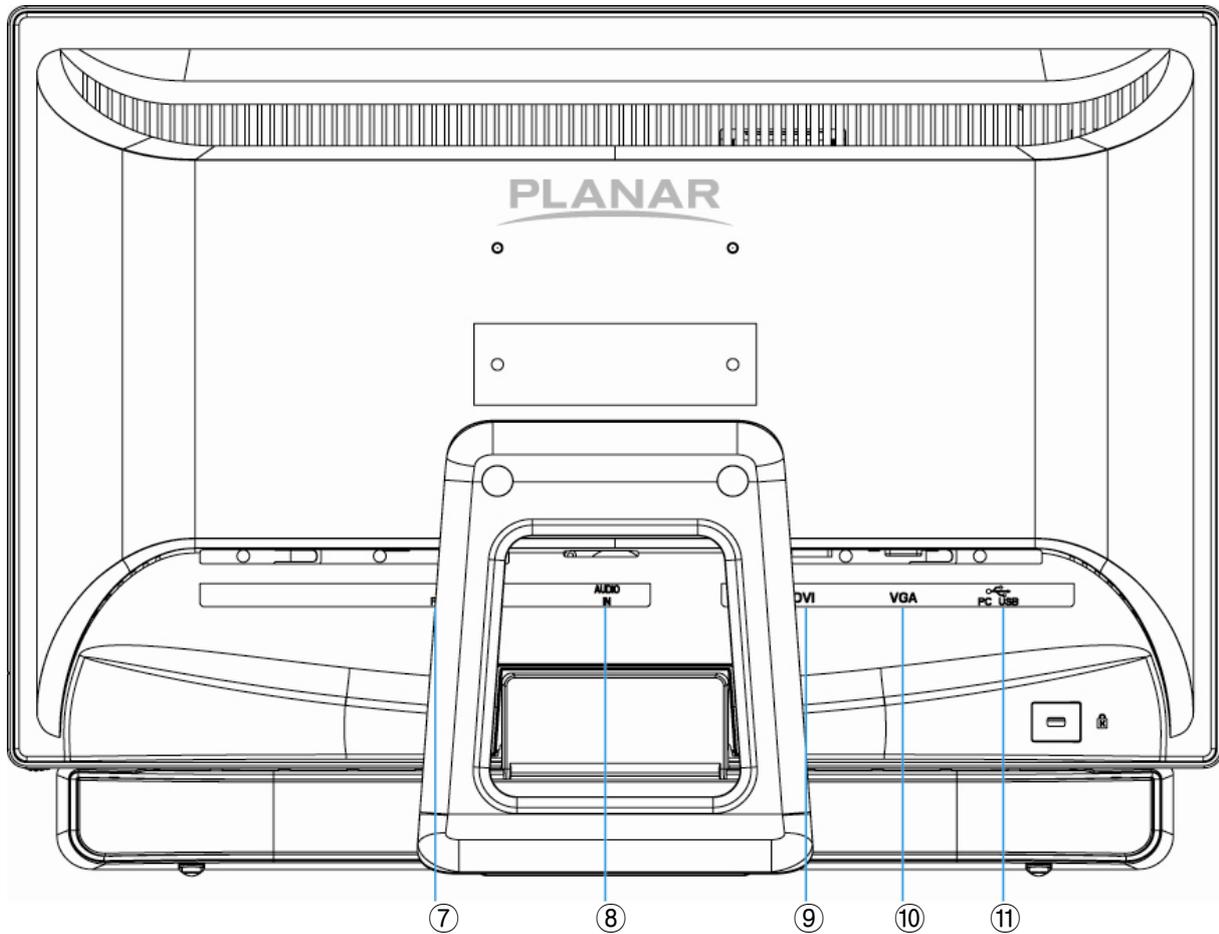
⑦	Power Input
⑧	Audio Input
⑨	DVI Input (DVI 24 pin)
⑩	VGA Input (D-Sub 15 pin)
⑪	USB – Type A to B

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 power cord to a properly grounded AC outlet,then to the monitor.**
3. **Power-ON computer and then POWER-ON the monitor**
4. **Set the timing mode on your computer. Recommended resolution and refresh rate is 1920 x 1080 @ 60Hz.**

Figure 1:

Power cable

Audio cable

DVI cable

USB

VGA cable

PC
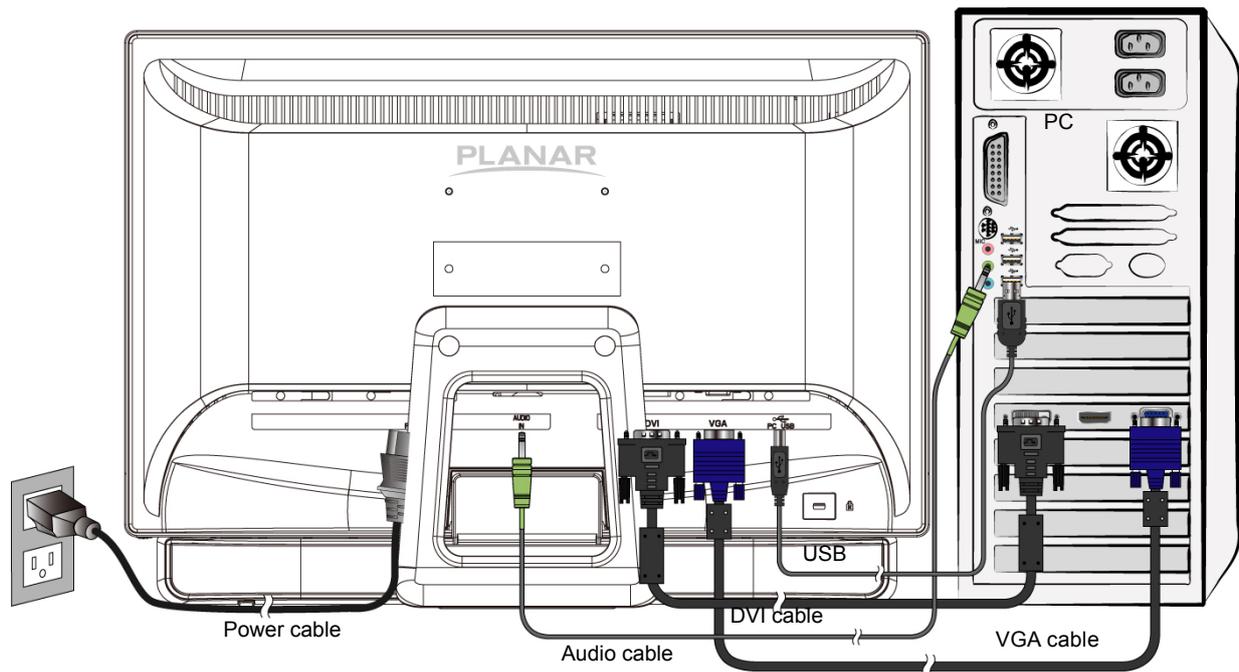
Basic Operation and Calibration/Reset Instructions

Before using the TFT Touchscreen LCD Monitor:
- Connect external equipment properly.
- Insert the power plug, and the power LED indicator will light orange.

Power On/Off

To turn the TFT Touchscreen LCD Monitor on/off:
Press **POWER** button on the front. The power LED indicator light will be blue when the TFT Touchscreen LCD Monitor is on.

Using the OSD Menu

Use OSD menus to adjust settings by using the menu button on the front of the TFT Touchscreen LCD Monitor.

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 TFT Touchscreen LCD Monitor is in normal mode, the "OSD Lock Out" function can be enabled.

Option 1: OSD lock – all 4 buttons are locked except the "POWER" button.
Press and hold the 1 button and the ▲ button for 10 seconds to lock the OSD buttons.

The TFT Touchscreen LCD Monitor will show an "OSD Lock Out" message for 3 seconds and the message will disappear automatically.

OSD Lock out

Repeat this step to unlock.

Option 2: OSD & Power button lock – all 5 buttons including the "POWER" button are locked. Press and hold the **1** button and the ▼ button for 10 seconds to lock all 5 buttons.

The TFT Touchscreen LCD Monitor will show a "Lock Out" message for 3 seconds and the message will disappear automatically.

Repeat this step to unlock.

PX2230MW Calibration/Reset Instructions:

The PX2230MW is available with USB connection. It is Microsoft® Windows® 7

HID (Human Interface Device) compatible if you use the USB touch screen interface. No

additional software driver is required. Calibration is a simple process and can be invoked by

running Tablet PC Settings from Control Panel and clicking the Calibrate button.

Click the **Reset** button to reset the touchscreen to the factory calibration settings. To reset the

existing calibration data, click "Reset" in the Tablet PC Settings window.

Advanced Operation—OSD Menu

You can use the OSD menu to adjust various settings for your TFT Touchscreen LCD Monitor. Press the 1 button to display the OSD Menu, and use ▲ ▼ to select the desired OSD menu.
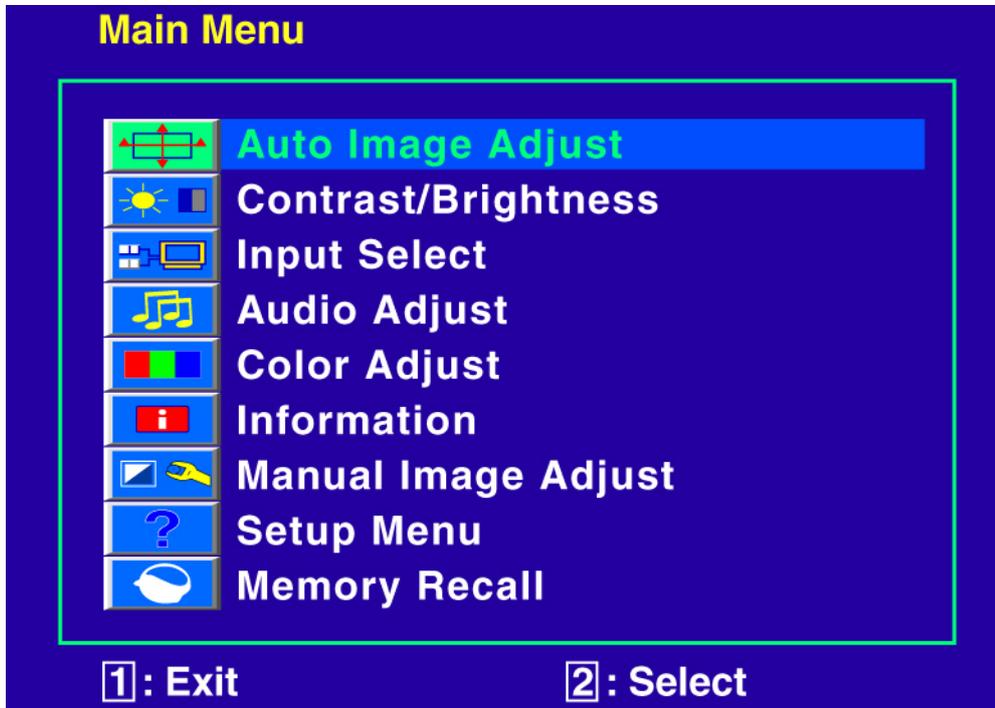
Short Cuts Function from the button(s)

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 Input Select is pressed, change Input signal to VGA, DVI, HDMI or Auto.

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

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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.
Full Screen: To select full-screen size image.
Over Screen: To select over-screen size image.

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

|	
LCD Panel	21.5" TFT
Power Management	On: 48 Watts (maximum)
	Standby Mode: < 1 Watt
	Off: < 1 Watt
Displayable Resolution	Full HD 1920 x 1080 max. Vertical Frequency 60Hz max.
Pixel Dimension	0.24825 x 0.24825 mm
LCD Display Color	16.7M
Tilt	5° (+0/-2) ~ 36° (+/-2)
Active Display Area	476.64 mm x 268.11 mm
Temperature	Operating: 0°C ~ +40°C
	Storage: -20°C ~ + 60°C
Compliance	FCC-B, CE, cTUVus, TÜV/Bauart
Power	Input Voltage AC100-240 V
Speaker	1W x 2
Touchscreen Technology	Optical Touch
Touchscreen Interface	USB
Touch Method	Finger(s) and stylus input
Supported O/S	Microsoft Windows® 7

# Wall-Mount Installation Instructions

Wall Mount Arm not included

Turn the power OFF then disconnect the cables from the TFT Touchscreen LCD Monitor before performing the procedure below.

1. Lay the TFT Touchscreen LCD Monitor face down on a soft surface.
2. Remove the two pieces of flake and Hinge Cover.
3. Remove the two screws under the flake.
4. Remove the stand.
5. Follow instructions included with the Wall Mount kit.

NOTE

100mmx100mm VESA hole pattern (n=4), M4, pitch =0.7 mm
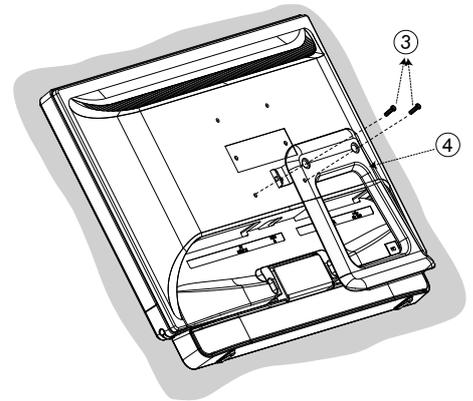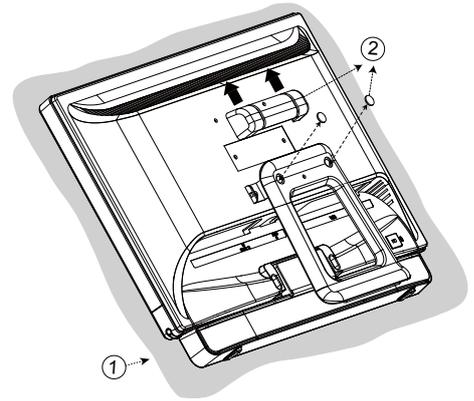
100mm x 100mm Screw
Mounting Options

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 TFT Touchscreen LCD 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 TFT Touchscreen LCD 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 TFT Touchscreen LCD Monitor to another computer.

Product Registration and Technical Support

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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

Cables, Replacement Lamps, Accessories

To find cables, replacement lamps and accessories for your Planar projector, LCD monitor, touch screen or other Planar products visit our online store at www.PlanarOnline.com or find other stores who carry Planar products at http://www.planar.com/howtobuy

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.

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