PANEL 6153-O/P 15" INDUSTRIAL TFT LCD MONITOR User's Manual

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Safety Approvals

- CE Marking
- ◆ FCC Class A

FCC Compliance

This equipment has been tested and complies with the limits for a Class A 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. If not installed and used in accordance with proper instructions, this equipment might generate or radiate radio frequency energy and 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 measurers:

- 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.

Shielded interface cables must be used in order to comply with emission limits.

Safety Precautions

Before getting started, read the following important cautions.

- 1. The P6153 does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.
- 2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
- 3. Disconnect the power cord from the P6153 before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge of power could ruin sensitive components. Make sure the P6153 is properly grounded.
- 4. The brightness of the flat panel display decreases with usage. However, hours of use vary depending on the application environment.
- 5. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen. The P6153 may come with or without a touchscreen. Although the touchscreen is chemical resistant, it is recommended that you spray the liquid cleaner on a cloth first before wiping the screen. In case your system comes without the touchscreen, you must follow the same procedure and not spray any cleaner on the flat panel directly.
- 6. Avoid using sharp objects to operate the touchscreen. Scratches on the touchscreen may cause malfunction or internal failure to the touchscreen.
- 7. The flat panel display is not susceptible to shock or vibration. When assembling the P6153, make sure it is securely installed.

- 8. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
 - ✓ Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
 - ✓ When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

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Chapter 1

Introduction

This chapter contains the general information and the detailed specifications of the P6153-O/P. Chapter 1 includes the following sections:

- General Description
- Features
- System Specification
- Dimensions
- I/O Inputs

1.1 General Description

The Panel6153, a industrial 15.0 inches view area LCD Monitor comes with slim, light and reliable features to replace traditional bulky CRT for industrial application. Its unique front side design is fit for open frame mounting (Panel6153-O) or panel mounting (Panel6153-P). The display interface offers VGA-in, DVI, S-Video, Video standard interfaces for different input source from PC system or multimedia system that let you upgrade the display don't change anything from your system. Besides, for varied HMI field, you can choose one of resistive, capacitive touch screen or glass interface to meet your application. In addition, this monitor has more comfort, safety, and environmental protection for humanized & health consideration those would be the benefit that users can get.

This LCD monitor builds in 15.0" color active matrix thin-film-transistor (TFT) liquid crystal display to provide superior display performance. A maximum resolution of 1024x768 is ideal for displaying complex graphics and high definition images. Other outstanding designs that enhance this LCD monitor 's performance are Plug & Play compatibility, and OSD (On Screen Display) controls, especially OSD, it made you ease adjustment on screen image.

Introduction 1

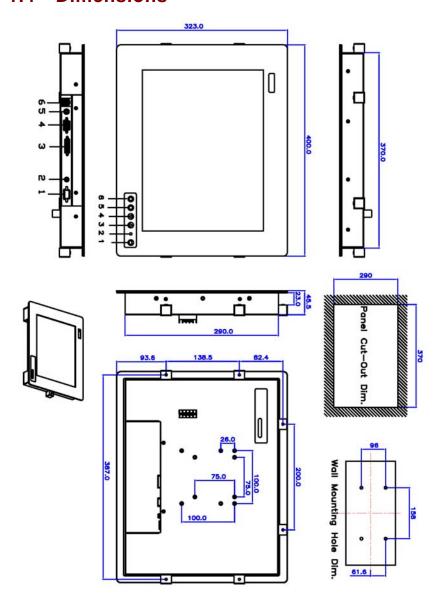
1.2 Features

- High contrast color 15.0" SXGA TFT LCD display support resolution up to 1024x768
- Heavy-duty steel chassis with NEMA4/IP65-compliant
- Suits with resistive, capacitive or tempered anti-reflection glass
- Multi-scan function supports XGA, SVGA, VGA, VGA-Text, PC-9801, MAC.
- High Brightness and Ultra-wide viewing angle with anti-glare features
- Power management system conforms to VESA DPMS standard
- Advanced OSD control for picture quality adjustment
- Supports VESA ARMS, Desktop Stand
- Rear, Panel, Wall or Rack mounting

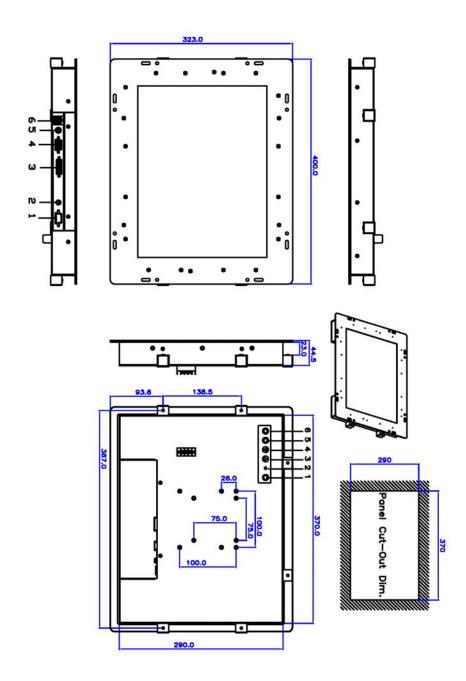
1.3 Specifications

- Construction: Heavy-duty steel chassis
- Control: OSD (On Screen Display) control pad on front side
- Mounting: Support Panelmount, VESA arm mounting, Rackmount(optional), and Wallmount(optional)
- Net weight: 5.1Kgs for P6153PR
- Dimension (main body size):
- P6153-P
 - 400.0X323.0X45.5 mm
- P6153-O
 - 400.0X323.0X45.5 mm
- Operating Temperature Range: 0°C ~ 50°C
- Relative Humidity: 20% ~ 90%; non-condensing

1.4 Dimensions



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1.5 I/O Inputs



P6153-P/ P6153-O Inputs

- 1. **T/S Port (D-sub optional):** This connector will be present only if a touchscreen is installed. It must be connected to the RS-232 port of the PC. The touchscreen cable is included with all orders, which include the touchscreen optio
- 2. **DC** +12V: This connector will be connected to the DC 12V Switching Power Supply.
- 3. **DVI Port**: This connector can be connected to the system via the external DVI connector located on the bottom side of the system unit.
- 4. **VGA Port (D-sub):** This D-Sub15 connector can be connected to the system via the external D-Sub15 connector located on the bottom side of the system unit.
- 5. **AV Port**: This connector can be connected to the system via the external connector located on the bottom side of the system unit.
- 6. **S-Video Port**: This connector can be connected to the system via the external connector located on the bottom side of the system unit.

Remark: P6153 only support one display input. Please do not plug-in multiple display input at one time.

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Chapter 2

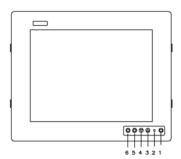
System Setup

This chapter details the system parts and components with figures. Sections include

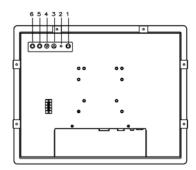
- System Configuration
- Rack Mounting
- Panel Mounting
- Desktop Stand
- Wall Mounting

2.1 System Configuration

The figure below shows the front views of P6153 series.



P6153-P Control Keypad



P6153-0 Control Keypad

- 1. **Power switch:** Press this button to turn on/off the monitor.
- 2. **Power LED:** When the light is green, the power is on, flash when the power is active off.

3. **SEL+:**

- To scroll up the menu.
- To increase the value of selected item.

4. **SEL-:**

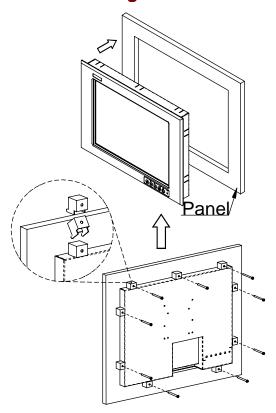
- To scroll down the menu.
- To decrease the value of selected item.

5. Menu:

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- Press this button to turn on/off the OSD (On Screen Display) main menu.
- Press this button to activate selected items.
- 6. **Exit:** Jump out the selection icon.

2.2 Panel Mounting



Two accessory items are needed for this application.

Mounting bracket x 6 pcs

Pan head screws (M4x0.7PxL45.0mm) x 6 pcs

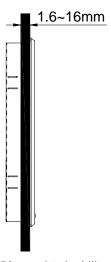
Installation instruction

- 1. Find a plate and cut off a window, refer the *1.4 P6153-P Dimensions* for the dimension.
- 2. Screw the mounting bracket to the unit.
- 3. Combine flange nuts with box head screws and then screw to the mounting bracket to tighten the unit.

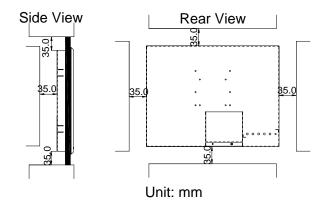
Note: To obtain the maximum degree of moisture resistance, be sure to mount the P6153 on a smooth, flat surface.

The panel itself can be from 1.6 to 16.0mm thick.

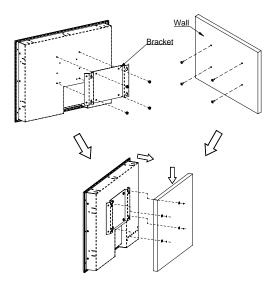
Strengthening may be required for the panel. Be sure to consider the weight of the P6153 when designing the panel.



Note: To enhance the P6153's maintainability, operability and ventilation, allow at least 35mm clearance between the P6153 and any other objects. (The clearance must be large enough to allow you to insert or remove expansion boards and to attach connectors.)



2.3 Wall Mounting (Option)



The unit is designed to support wall mounting application. It let you to mount the unit on the wall.

Three accessory items to support this feature.

Wall mounting bracket x 1 pcs

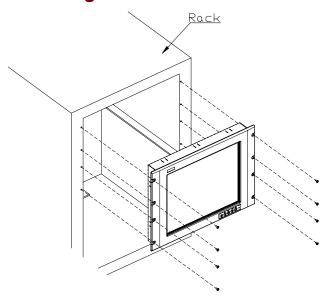
Binding head & washer screws (M4x0.7PxL6.0mm) x 4 pcs Truss head screws (TTS-4, 3.5x10mm-black) x 4 pcs

Installation instruction

- 1. Refer the hole location on the page 3. Screw the truss head screws to the hole location on the wall.
 - **Note:** Do not tight the screw for mounting the unit. The minimum space between the wall and the top of screw is 1.6mm.
- 2. Mount the wall mounting bracket to the back cover of the unit.
- 3. Mount the unit to the wall.

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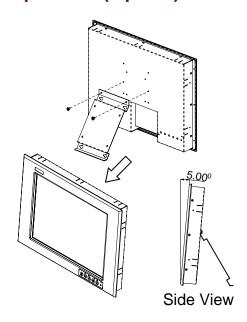
2.4 Rack Mounting



Installation instruction

- 1. Remove 8 seal pads in front panel.
- 2. P6153 series products could to mount directly to standard 19" industrial rack. There are four screw holes on each side of front panel.

2.5 Desktop Stand (Option)



The unit is designed to support desktop stand application.

Two accessory items are needed for this application.

Wall mounting bracket x 1 pcs

Binding head & washer screws (M4x0.7PxL6.0mm) x 2 pcs

Installation instruction

Mounting the wall mounting bracket with the binding header & washer screws to the back over of the unit and then the unit can stand on the desktop.

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Appendix A Supported Input Timing Modes

Supported Input Timing Modes

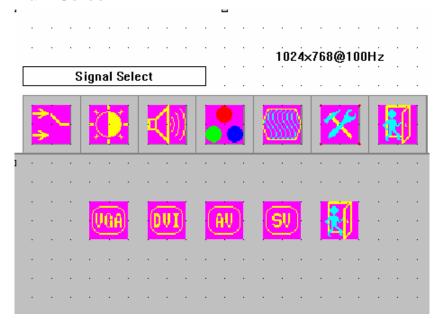
The following timings below are already programmed in this module. The input synchronous signals are automatically recognized.

Preset No.	Display Size	Vsync (Hz)
1	640x350	70
2	640x400	70
3	640x480	60
4	640x480	72
5	640x480	75
6	720x400	70
7	800x600	60
8	800x600	72
9	800x600	75
10	1024x768	60
11	1024x768	70
12	1024x768	75

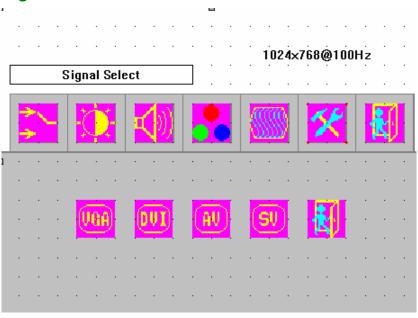
Appendix B OSD Operation

Function Description of OSD Menu

Main Screen



Signal Select





VGA Input

Setting Monitor's Input to VGA



DVI Input

Setting Monitor's Input to DVI



AV Input

Setting Monitor's Input to AV



S-Video Input

Setting Monitor's Input to S-Video

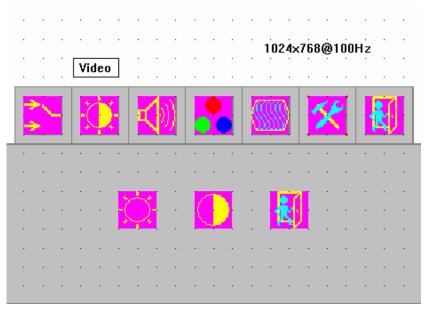


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Exit

Exit the LCD Setting

Video Adjust





Brightness Adjust

Adjust Monitor's Brightness

Use \triangle or \blacktriangledown button to increase or decrease the setting.



Contrast Adjust

Adjust Monitor's Contrast

Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



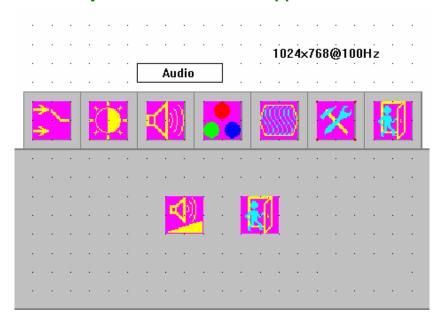
Exit

Exit the LCD Setting

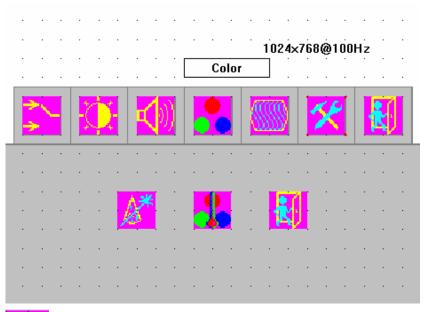
OSD Operation

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Audio Adjust: P6153 doesn't support Audio.



Color Adjust





Automatically Color Tuning

Monitor will automatically tune the color setting.



Manually Color Tuning

Adjust color setting

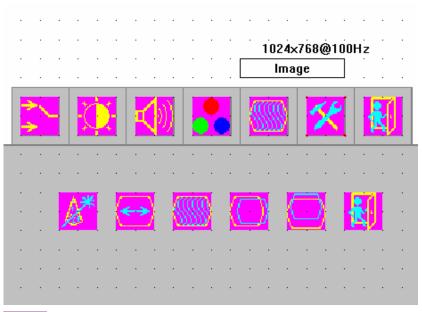
Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



Exit

Exit the LCD Setting

Image Adjust





Automatically Image Tuning

Monitor will automatically tune the image setting.



Horizontal Width Adjust

Adjust Monitor's horizontal width setting.

Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



Horizontal Phase Adjust

Adjust Monitor's horizontal phase setting.

Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



Horizontal Position Adjust

Adjust horizontal position setting.

Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



Vertical Position Adjust

Adjust vertical position setting.

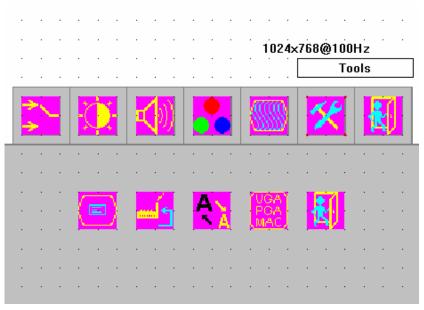
Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.



Exit

Exit the LCD Setting

Image Adjust





OSD Setting

Adjust OSD setting.



Recall Previous Setting

Monitor will recall the previous setting.



Sharpness Adjust

Adjust Monitor's sharpness setting.

Use \blacktriangle or \blacktriangledown button to increase or decrease the setting.

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