USER's GUIDE

■ TPM-152 Series ■

Touch Screen LCD Monitors

Important Recycle Instruction:

(Hg) Lamp(s) inside this product contains mercury. This product may contain other electron-
ic 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.

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Usage Notice

⚠ **Warning -** To prevent the risk of fire or shock hazards, do not expose this product to rain or moisture.

⚠ **Warning -** Please do not open or disassemble the product as this may cause electric shock.

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 cloth moistened with mild window glass commercial cleaners or 50/50 mixture of water and isopropyl alcohol.
• Use a soft cloth moistened with mild detergent to clean the display housing.
• Use only high quality and safety approved AC/DC adapter.
• 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.

Introduction

About TPM-152 Series

The TPM-152 Series is a 15" flat panel screen with an active matrix, thin-film transistor (TFT) liquid crystal display (LCD).

Features include:

• Direct Analog signal input

• Active matrix TFT LCD technology

• 1024x768 XGA resolution

• 15" viewable display area

• 31.5 ~ 60.2 KHz horizontal scan

• 56.3 ~ 75 Hz high refresh rate

• 0.297mm x 0.297mm pixel pitch

• Auto adjustment function

• Multilingual OSD user control

• Kensington security slot

• 75 mm VESA mount

• Removable base for flexible mounting solutions.

• TPM-152R- 5-wire resistive touch screen with dual RS-232 Serial / USB controller

• TPM-152W - SAW touch screen with USB controller

• TPM-152C - Capactive touch screen with dual RS-232 Serial / USB controller

• Built-in speakers-1W x 2

Touch Screen for TPM-152R (Standard / Bezel Free)

- Analog 5-wire resistive touch screen for finger and stylus input
- Surface: Anti-glare treatment
- Interface: Dual RS-232 Serial/USB controller
- Transmittance: 80±5%
- Driver: Windows® VISTA, XP, 2000, ME, 98, CE, XP Embedded, Linux/Apple® Mac OS

Touch Screen for TPM-152W (Standard)

- Surface Acoustic Wave (SAW) touch screen for finger and stylus input
- Surface: Anti-glare treatment
- Interface: USB controller
- Transmittance: 90±5%
- Driver: Windows® VISTA 64 / 32 bits, XP, 2000, 98

Touch Screen for TPM-152C (Standard)

- Analog capacitive touch screen for finger input only
- Surface: Anti-glare treatment
- Interface: Dual RS-232 Serial/USB controller
- Transmittance: 85±5%
- Driver: Windows® VISTA, XP, 2000, ME, 98, CE, XP Embedded, Linux/Apple® Mac OS
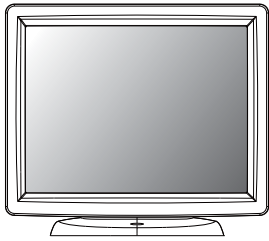
Package Overview

LCD Display
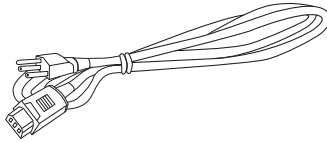
Power Cord
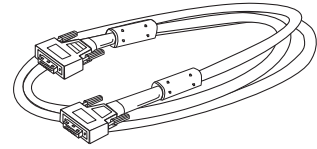
VGA Signal Cable
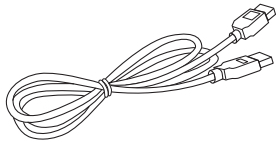
USB Cable (A to B)

Audio-in Cable
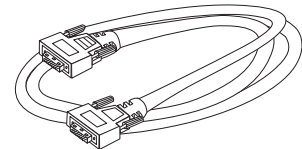
RS-232 Cable
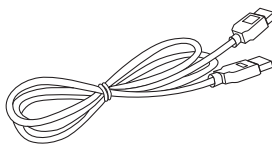
USB Cable (A to A)
(Option for MSR)

TouchKit CD
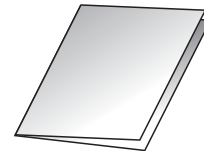
Quick Start Guide
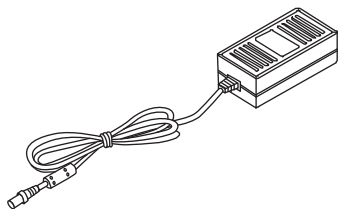
DC Power Supply
(sold separately)

Installation

Product Overview

- **Front View**
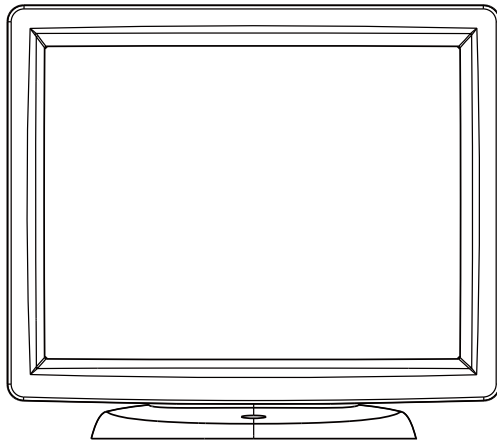
Standard
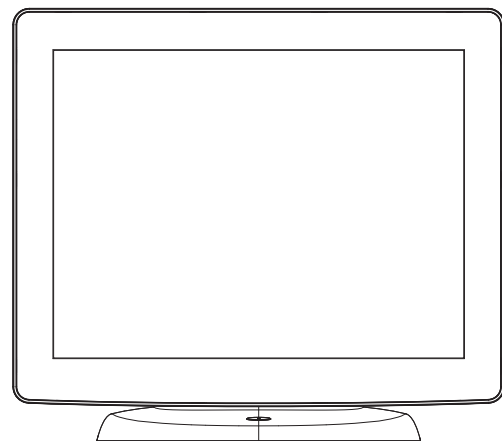
Bezel Free

- **TPM-152R / TPM-152C Bottom View (Without Stand)**

Audio

VGA IN

USB

RS-232 (Option)

DC IN

AC IN
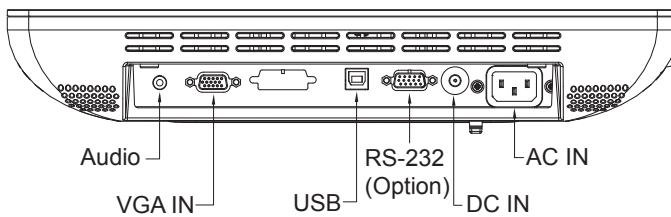
- **TPM-152W Bottom View (Without Stand)**

Audio

VGA IN

USB

DC IN

AC IN

5
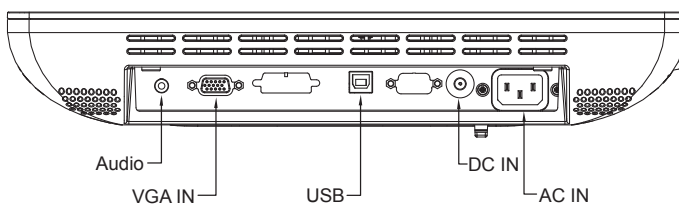
Kensington Security Slot

The monitor can be secured to your desk or any other fixed object with Kensington lock security products. The Kensington lock is not included.

Kensington Security Slot
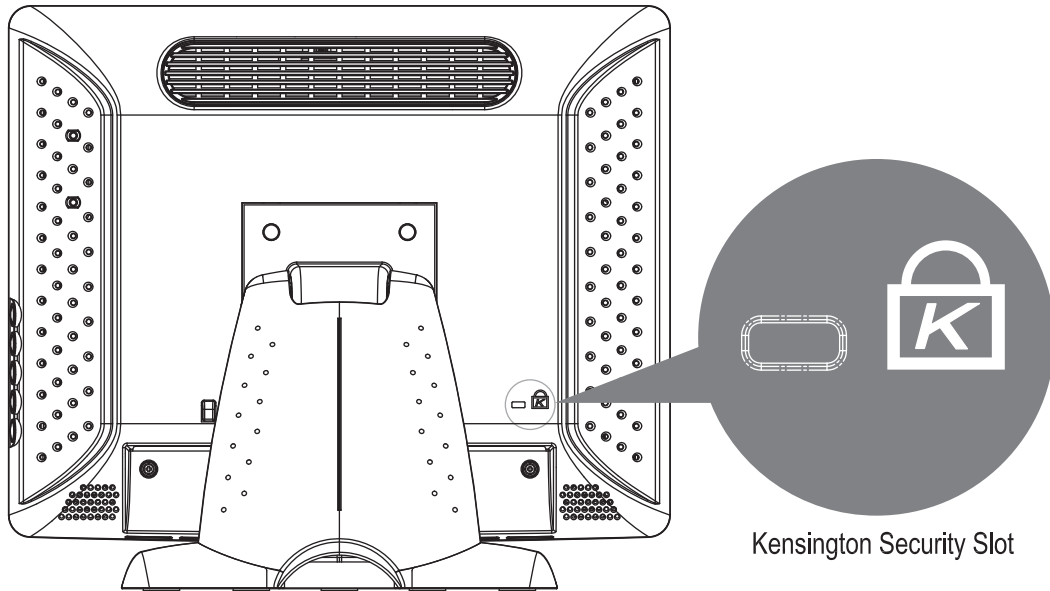
VESA Mount your monitor

This monitor conforms to the VESA Flat Panel Mounting Physical Mounting Interface Standard which defines a physical mounting interface for flat panel monitors, and corresponding with the standards of flat panel monitor mounting devices, such as wall and table arms. The VESA mounting interface is located on the back of your monitor.

To mount the monitor on a swing arm or other mounting fixture, follow the instructions included with the mounting fixture to be used, please note to mount your monitor to the devices (either mounting fixture or swing arm) what conforms to the UL listed.
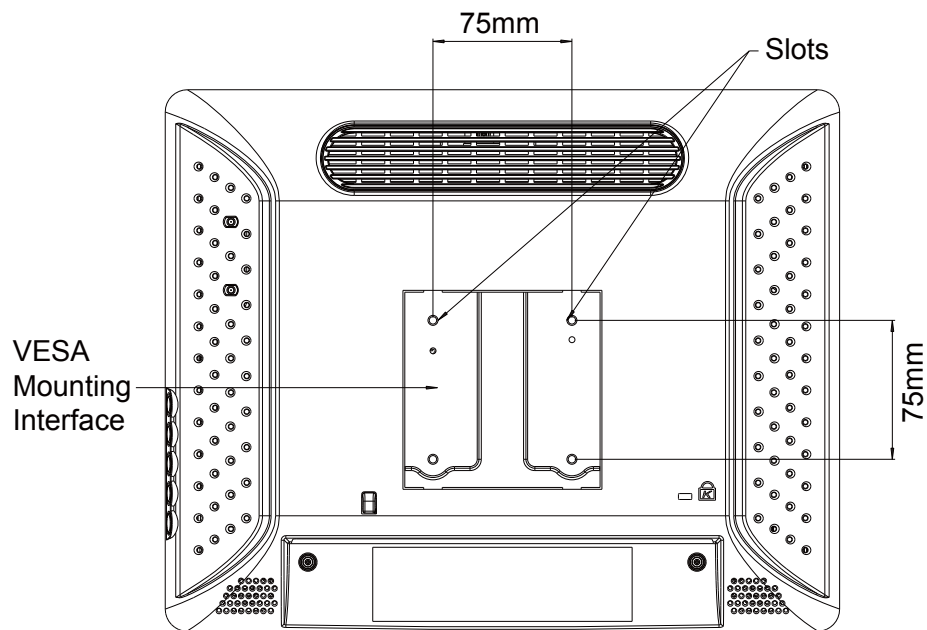
⚠ *Warning!*

Please select the proper screws!

The distance between the back cover surface and the bottom of the screw hole is 8 mm. Please use four M4 screws diameter with the maximum length of 8 mm to mount your monitor.

Please note the mounting stand shall be able to sustain at least 5Kg weight.

Start Your Installation
Remove the Back Cover

Please follow these instructions to remove the cover on the back panel of the LCD so that you can hookup the cables to associated connector.
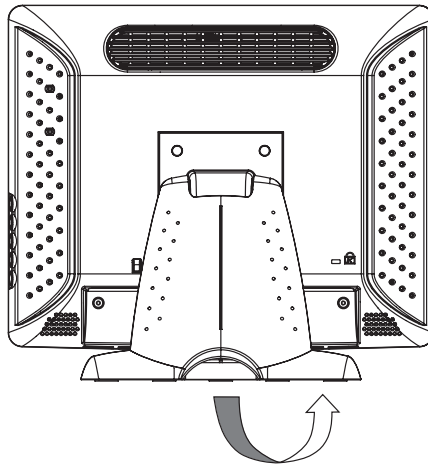
Figure A

1. To remove the back cover, follow the arrows in figure A and pull out with your fingers and the cover should be removed from the stand.
2. Follow the instructions on P.10 (Figure 11.1) to connect the cables to the appropriate connectors.
3. Attach the cover back to the LCD stand by pressing firmly until the tabs snap into place. You may also keep the cables in order by using the cable organizer.

included cables organizer
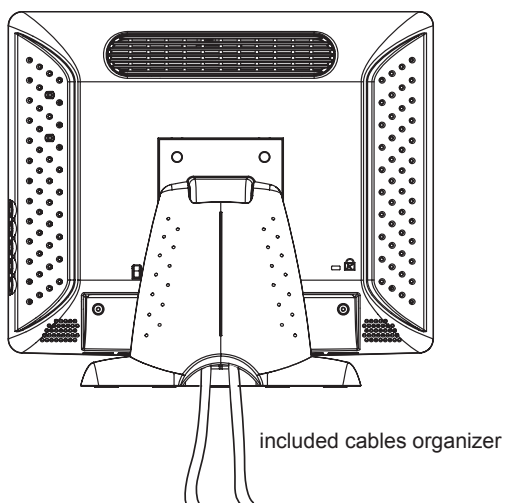
⚠ *Note!*

You can place the LCD flat horizontally to make it easier to connect the cables. Please make sure that you place it on an even surface lest the LCD should be damaged by scratches or collision.

Connecting the Display (Figure 11.1)

To setup this display, please refer to the following figure and procedures.

1. Be sure all equipments are turned off.
2. Connect the AC power cord to the power connector on the monitor and the other end into an electrical outlet (11.1).
3. Connect the D-SUB cable from the display's VGA input connector to the D-SUB connector of your host computer and tighten the screws (11.1).
4. Connect the Audio-In cable from the audio input port of your display to the Audio out port of your computer (11.1).
5. Connect the RS-232 or USB cable from the RS-232 or USB port of your display to the RS-232 port (11.1) or USB port (11.1) of your computer.
6. Configure the touch screen. Refer to the "Touch Screen Driver Installation" section on Page 18.
7. Once the touch screen is configured, the monitor is ready for use.

⚠ *Notice!*

To ensure the LCD display works well with your computer, please configure the display mode of your graphics card to make it less than or equal to 1024 x 768 resolution and make sure the timing of the display mode is compatible with the LCD display.

We have listed the compatible "Video Modes" of your LCD display in the appendix (on page 14) for your reference.

(Figure 11.1)
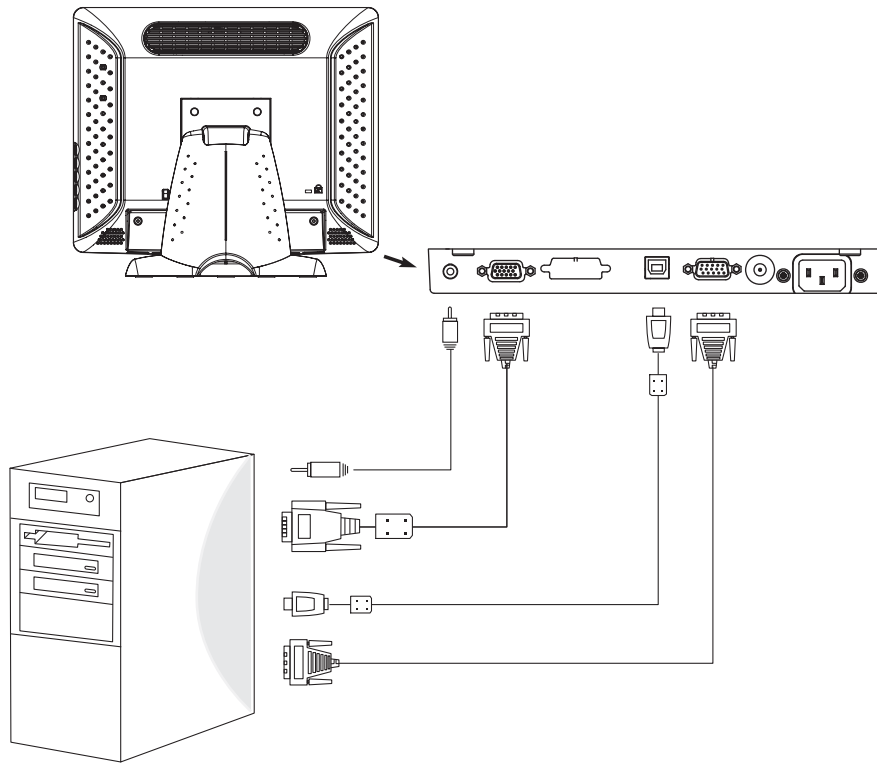
User Controls

Front Panel Controls
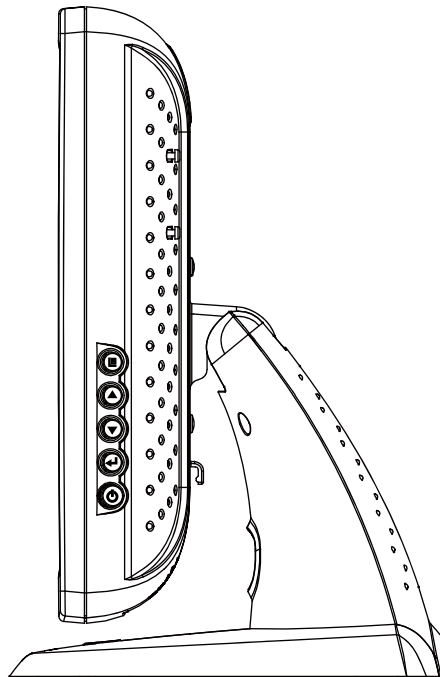
No	/	Icon
1		Menu
2		▲
3		▼
4		↵
5		⏻

No	Icon	Control	Function
❶	**Menu**	Menu button	Display the OSD menus
❷	▲	Brightness Plus Clockwise	1.Enter brightness of the OSD. 2.To increase value of the adjustment items. 3.Select item clockwise.
❸	▼	Mute Minus	1.To decrease value of the adjustment items. 2.Select item count-clockwise.
❹	↵	Select Auto Adjust	Select: Select the adjustment items from OSD menus. Auto Adjust: Activate the "Auto Adjustment" function to obtain the optimum image.
❺	⏻	Power Switch	Switches on/off the power of the LCD display.

How to Use the OSD Menus

1. Press the "MENU" button to pop up the "on-screen menu" and press "▼" or "▲" to select among the six functions in the main menus to select among the four Main Menus.
2. Choose the adjustment items by pressing the " ↵ " button.
3. Adjust the value of the adjustment items by pressing the "▲" or "▼" button.

   (1) The OSD menu will automatically close, if you have left it idle for a pre-set time.

   (2) To disable the OSD / Power menu buttons, please follow the instructions below:

   (**Please note:** the monitor has to be turned ON with a valid signal preset)

       a. Press and hold the "Menu" and "Power" key simultaneously for 1 seconds.

       b. The wording "OSD Lock" / "Power Lock" will appear for 2 seconds on the monitor. This indicates that all the front buttons, with the exception of the power button, are now disabled.

   (3) To enable the OSD / Power menu buttons, please follow the instructions below.

   (**Please note:** the monitor has to be turned ON with a valid signal present.)

       a. Press and hold the "Menu" and "Power" key simultaneously for 1 seconds.

       b. The wording "OSD Unlock" / "Power Unlock" will appear for 2 seconds on the monitor. This indicates that all the front buttons are now enabled.

On-Screen Display Menus

Main OSD Menu:

MAIN MENU	SUB Menu	Function Description
Contrast	0-100	Adjusts the maximum luminance level of the monitor.
Brightness	0-100	Adjusts the backlight of the monitor.
Auto Adjust	NO / YES	The screen is moved horizontally right and left (1 pixel pitch increment).
Left / Right	0-100	The screen is moved horizontally right and left (1 pixel pitch increment).
Down / Up	0-100	The screen is moved vertically up and down (1 line increment).
Horizontal size	0-100	The ratio of dividing frequency of the dot clock is adjusted.
Fine	0-100	The phase of the dot clock is adjusted.
OSD Left / Right	0-100	Adjusts the OSD menu screen position left or right.
OSD Up / Down	0-100	Adjusts the OSD menu screen position up or down.
OSD Time out	5-60	Adjusts the amount of the OSD menu is displayed.
OSD Language		Select the language used for the OSD menu among English, French, Japanese, Deutsch, Spanish, Italian, Traditional Chinese and Simplified Chinese.
Factory Reset	NO / YES	Restores original factory settings.
RGB		Sets the color temperature.9300, 6500, 5500, 7500, User.
Volume	0-100	To adjust the volume.
Mute	ON / OFF	To turn ON/OFF the sound.

Appendix

Troubleshooting

If you are experiencing trouble with the LCD display, refer to the following. If the problem persists, please contact your local dealer or our service center.

Problem: No image appears on screen.

► Check that all the I/O and power connectors are correctly and well connected described in the "Installation" section.
► Make sure the pins of the connectors are not crooked or broken.

Problem: Partial Image or incorrectly displayed image.

► Check to see if the resolution of your computer is higher than that of the LCD display.
► Reconfigure the resolution of your computer to make it less than or equal to 1024 x 768.

Problem: Image has vertical flickering line bars.

► Use "Fine" to make an adjustment.
► Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display.

Problem: Image is unstable and flickering

► Use "Horizontal size" to make an adjustment.

Problem: Image is scrolling

► Check and make sure the VGA signal cable (or adapter) is securely connected.
► Check and reconfigure the display mode of the vertical refresh rate of your graphics card to make it compatible with the LCD Display.

Problem: Vague image (characters and graphics)

► Use "Fine" to make an adjustment. If this problem still exists, use "Horizontal size" to make an adjustment.

Warning Signal

If you see warning messages on your LCD screen, this means that the LCD display cannot receive a clean signal from the computer graphics card.

There may be three sources for this problem. Please check the cable connections or contact your local dealer or our service center for more information.

► No Signal

This message means that the LCD Display has been powered on but it cannot receive any signal from the computer graphics card. Check all the power switches, power cables, and VGA signal cable.

► Going to sleep

The LCD is under the power saving mode, in addition, the LCD will go into this sleep mode when experiencing a sudden signal disconnecting problem.

► Out of Range

This message means that the signal of the computer graphic card is not compatible with the LCD display. When the signal is not included in the "Video Modes" list we have listed in the Appendices of this manual, the LCD monitor will display this message.

Product Dimensions

364.00

320.40

295.00

Front View

61.49

205.41

Side View

Top View
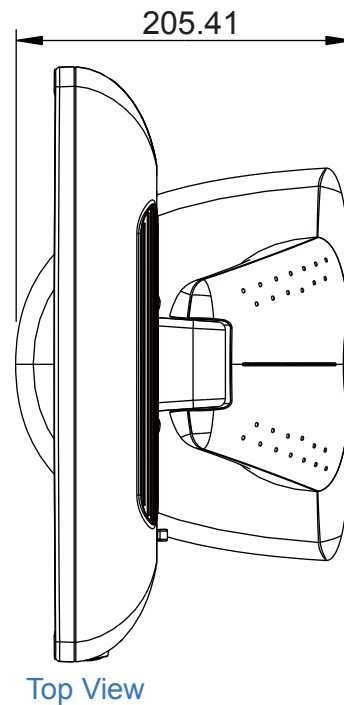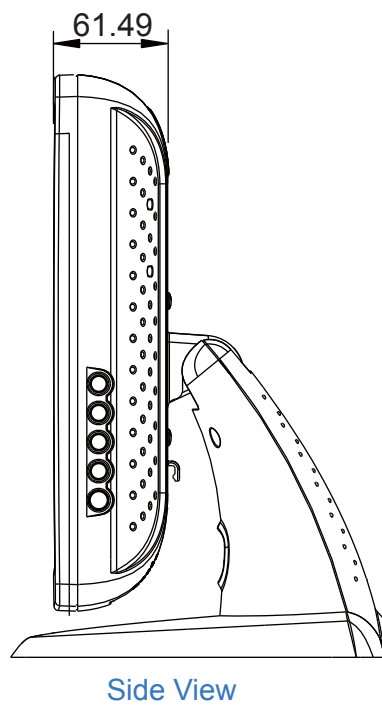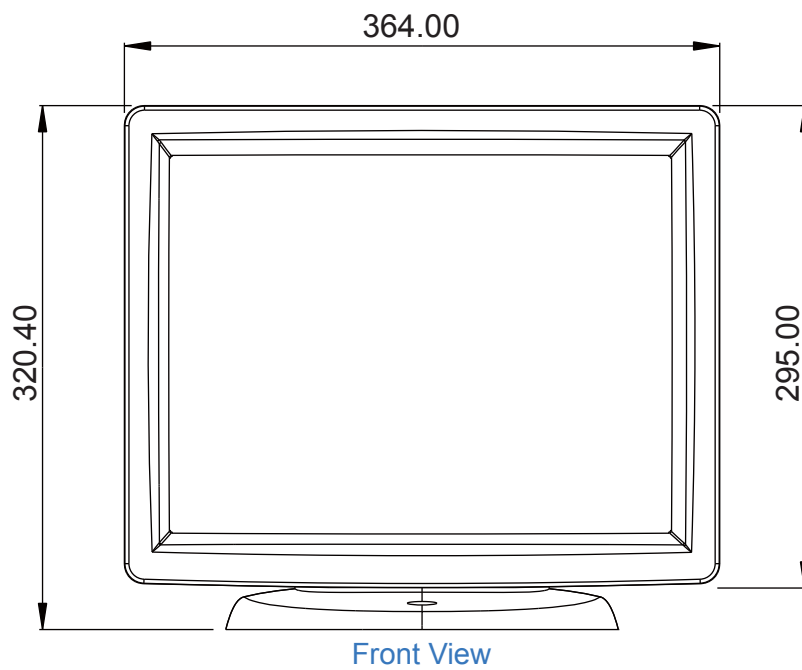
Compatibility Modes

Mode	Resolution	H-Frequency (KHz)	V-Frequency (Hz)
VGA	720 x 400	31.47	70
VGA	640 x 480	31.47	60
VESA	640 x 480	37.86	72
VESA	640 x 480	37.5	75
VESA	800 x 600	56	35.2
VESA	800 x 600	35.16	56
VESA	800 x 600	37.88	60
VESA	800 x 600	46.88	75
VESA	800 x 600	48.08	72
VESA	1024 x 768	48.36	60
VESA	1024 x 768	56.48	70
VESA	1024 x 768	60.02	75
Apple Mac II	640 x 480	35	66
Apple Mac	832 x 624	49.7	75

Touch Screen Driver Installation

The touch driver is located on the enclosed CD-ROM disk for these OS: Windows ME/2000/XP/Vista/XP Embedded, Linux, CE.NET

Driver Installation Process:

1. Before you start to install the touch driver, please be sure the USB or the RS-232 serial cable is disconnected from the PC or the LCD display.
2. Uninstall any touch screen driver that may be on your system.
3. Click on the driver link found on the CD-ROM.
4. Follow instructions as found below.
5. After installation is complete, click "Finish" and restart your computer to complete installation.

TPM-152R / TPM-152C Driver Install:

Please Note: The TPM-152R/TPM-152C is available with both RS232 and USB connections.

If you are using RS232 connection, follow the instructions below:

1. Be sure that RS232 cable is connected from the computer.
2. Power on the computer.
3. Load the touch screen driver CD.
4. Follow the step-by-step instructions as shown on pop-up windows.

If you are using USB connection on VISTA, follow the instructions below:

1. Be sure that USB cable is connected from the computer.
2. Power on the computer.
3. No need to install USB driver from CD due to it is the HID device, system will recognize the HID device and load driver automatically.

Please note: Do not plug in both RS232 and USB cables. Doing so may cause a driver conflict, making your touch screen idle.

If you are using USB connection on non-VISTA operation system, follow the instructions below:

1. Be sure that USB cable is connected from the computer.
2. Power on the computer.
3. Load the touch screen driver CD.
4. Follow the step-by-step instructions as shown on pop-up windows.

TPM-152W Driver Install:

1. Be sure that USB cable is connected from the computer.

2. Power on the computer.

3. Load the touch screen driver CD.

4. Follow the step-by-step instructions as shown on pop-up windows.

Please Note: The TPM-152C with Capacitive Touch Screen is Microsoft® Windows®HID (Human Interface Device) compatible if you use the USB touch screen interface. No additional software driver is required for general operation of the touch screen.
A special calibration tool can be installed for touch position accuracy. Improvement see "Optional Capacitive Calibration Tool Install" section for more information.

TPM-152C Optional Capacitive Calibration Tool Install:

If you would like to use the Optional Capacitive Calibration Tool, follow the instructions below:

1. Load the driver CD to your CD-Rom drive.
2. Open the "CalTouch" folder.
3. Click "CalTouch.exe" to execute calibration process
4. The HID Touch Digitizer calibration tool will automatically open. From here the user can choose the operations following:
    a. 4 Points Calibration
    b. 9 Points Linearization
    c. 25 Points Linearization
    d. Clear
    e. Draw Test
    f. Advanced. In the Advanced settings area the user may do the adjustment/ operation following:
        i. Adjust the Double Click Area
        ii. Enable auto right click and adjust the auto right click time
        iii. Choose to be either in the HID Mouse Mode or HID Digitizer Mode
        iv. Simply click the "Apply" button once the settings are finalized.