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ADP-1XX5A Display Monitor
User Manual

Release Date	Revision
Feb. 2013	V1.1

Warning!

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, it may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Electric Shock Hazard – Do not operate the machine with its back cover removed. There are dangerous high voltages inside.

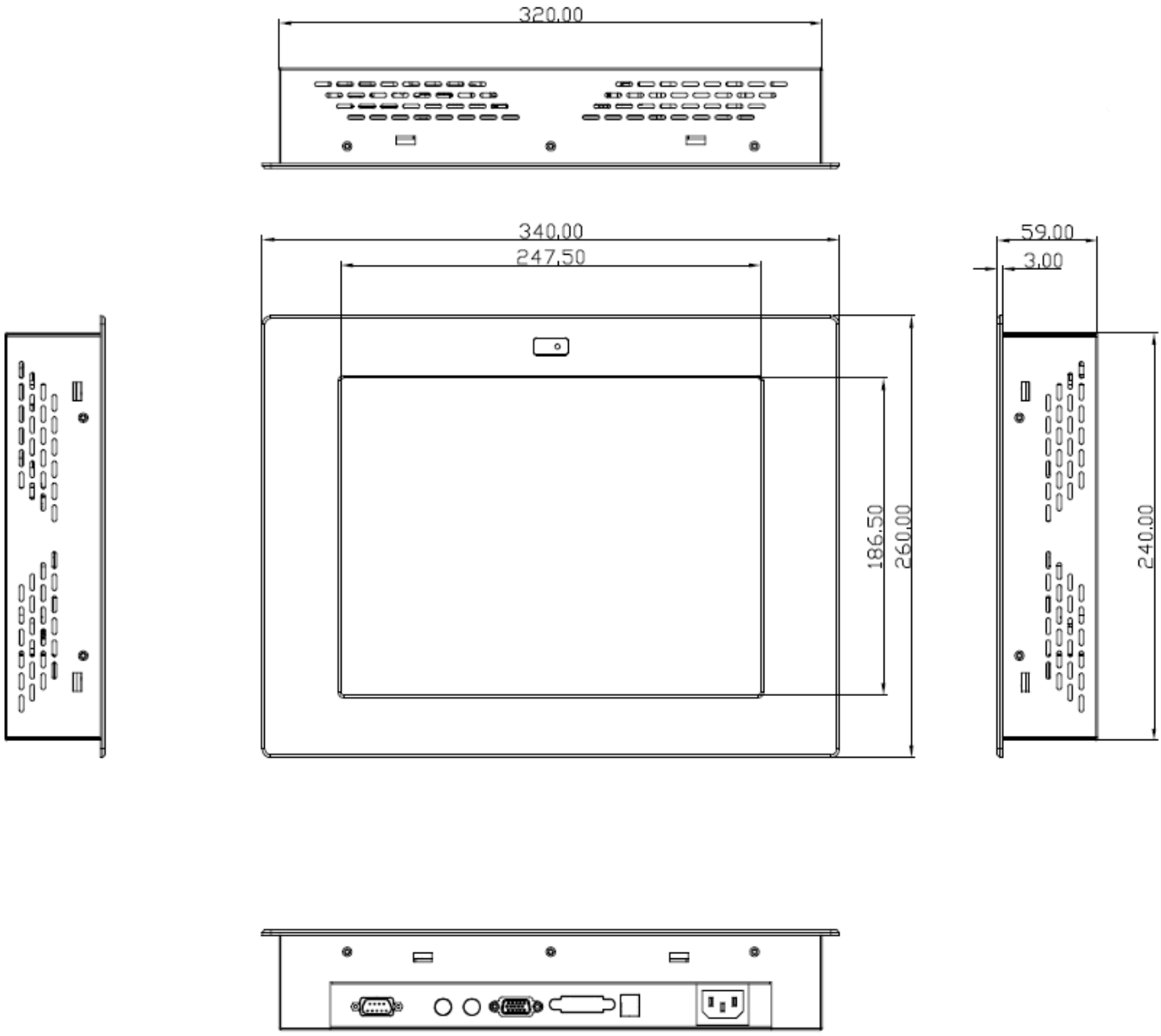
Table of Contents

Chapter 1 Getting Started

1.1 Specifications

Model No. / Specs	ADP-1125A	ADP-1155A	ADP-1195A
Display Type	12.1”	15”	19”
Max. Resolution	800x600	1024x768	1280x1024
Max. Color	16.2M		16.7M
Luminance (cd/m²)	1,000nits		
Viewing Angle (H/V)	H:140 / V:110	H:140 / V:125	H:170/V:160
Backlight Lifetime	50,000 Hours		
On Screen Display Control	On the rear side		
External I/O Port	Default ●VGA Input ●AC 100-240V input Optional ●DVI ●Video ●S-Video Touch I/O		
Power Input	AC 100-240V		
Touch Screen Type	Resistive Touch		
Construction	Metal front panel + Metal housing, Pantone 413C		
IP Rating	Front Panel IP 65		
Mounting	Panel/VESA 75x75		
Dimensions (WxHxD)	340x260x59	410x310x59.7	467x379x68
Operating Temperature	0~50℃		
Storage Temperature	-20~60℃		
Storage Humidity	10~90% @40℃ (non-condensing)		
Certificate	CE / FCC Class A		

1.2 Dimensions



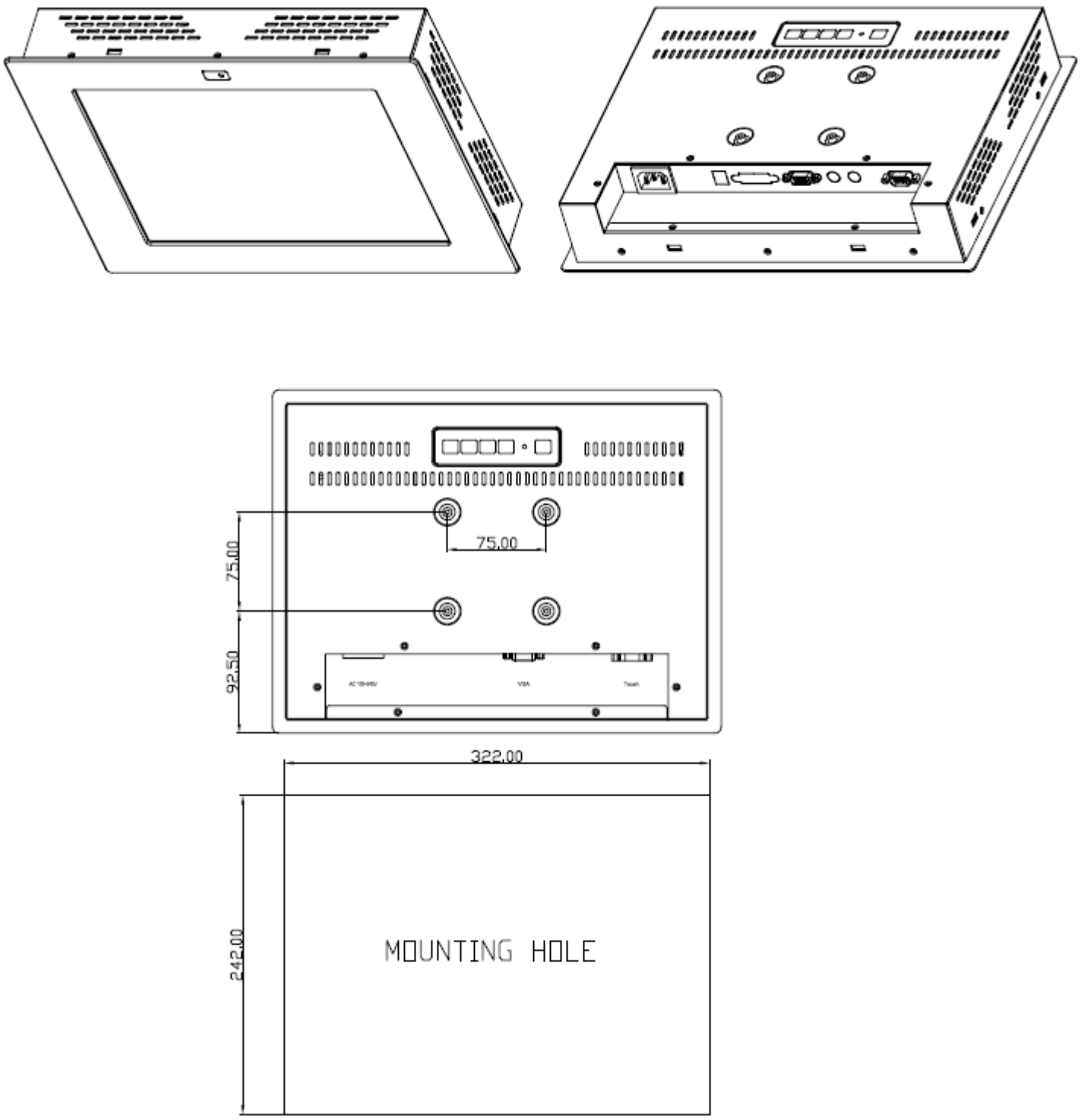


Figure 1.1: Dimensions of ADP-1125A

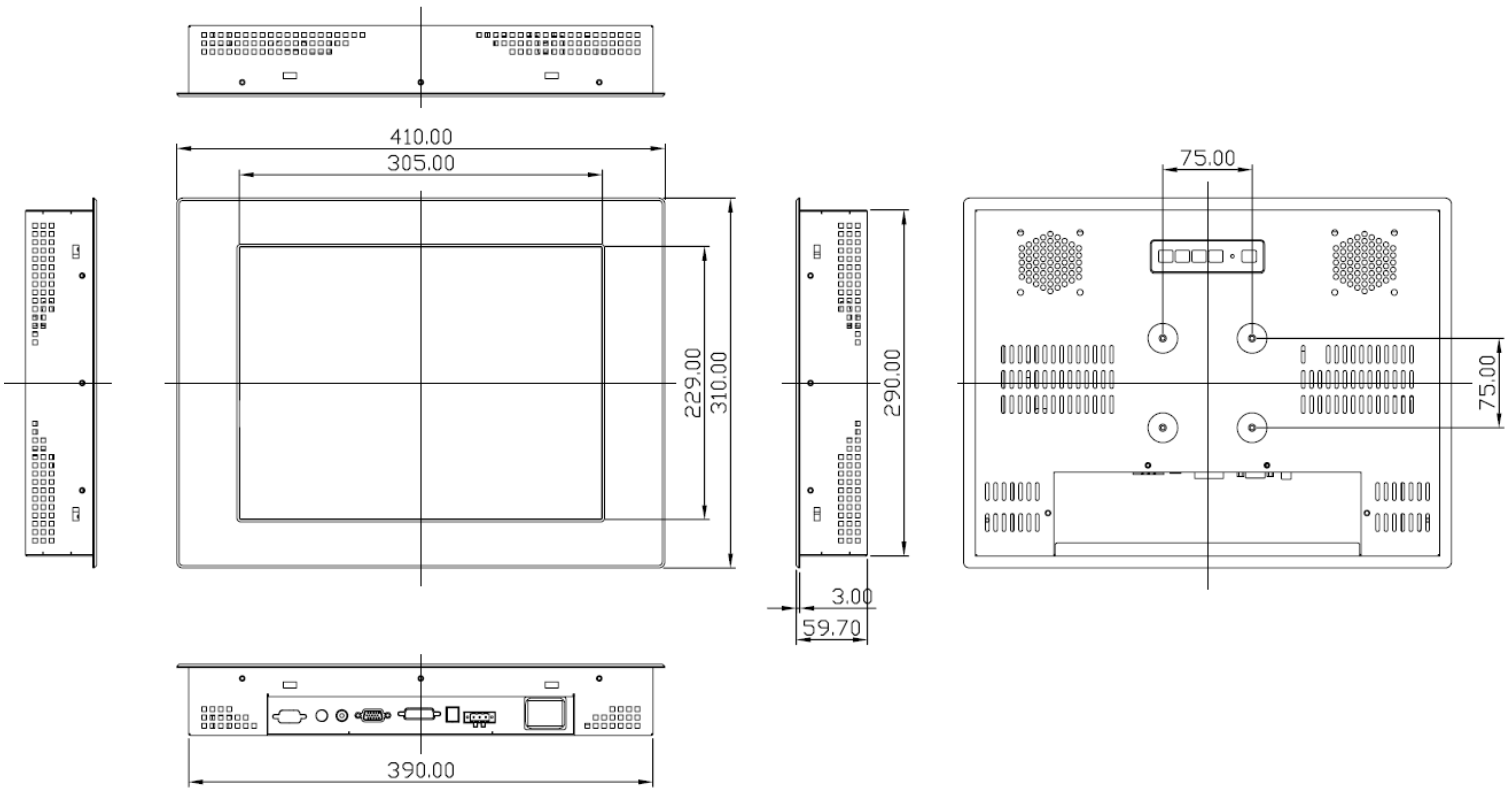
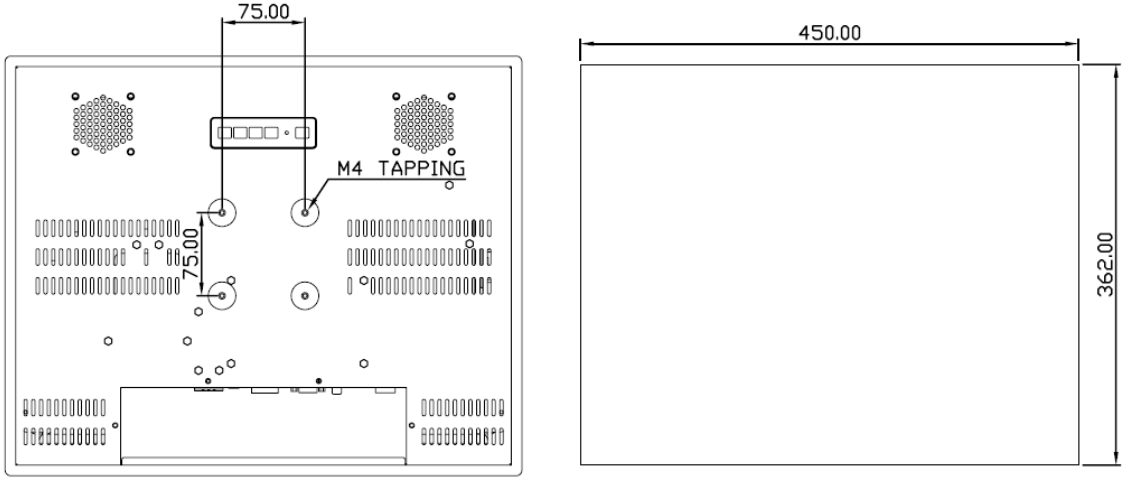


Figure 1.2: Dimensions of ADP-1155A



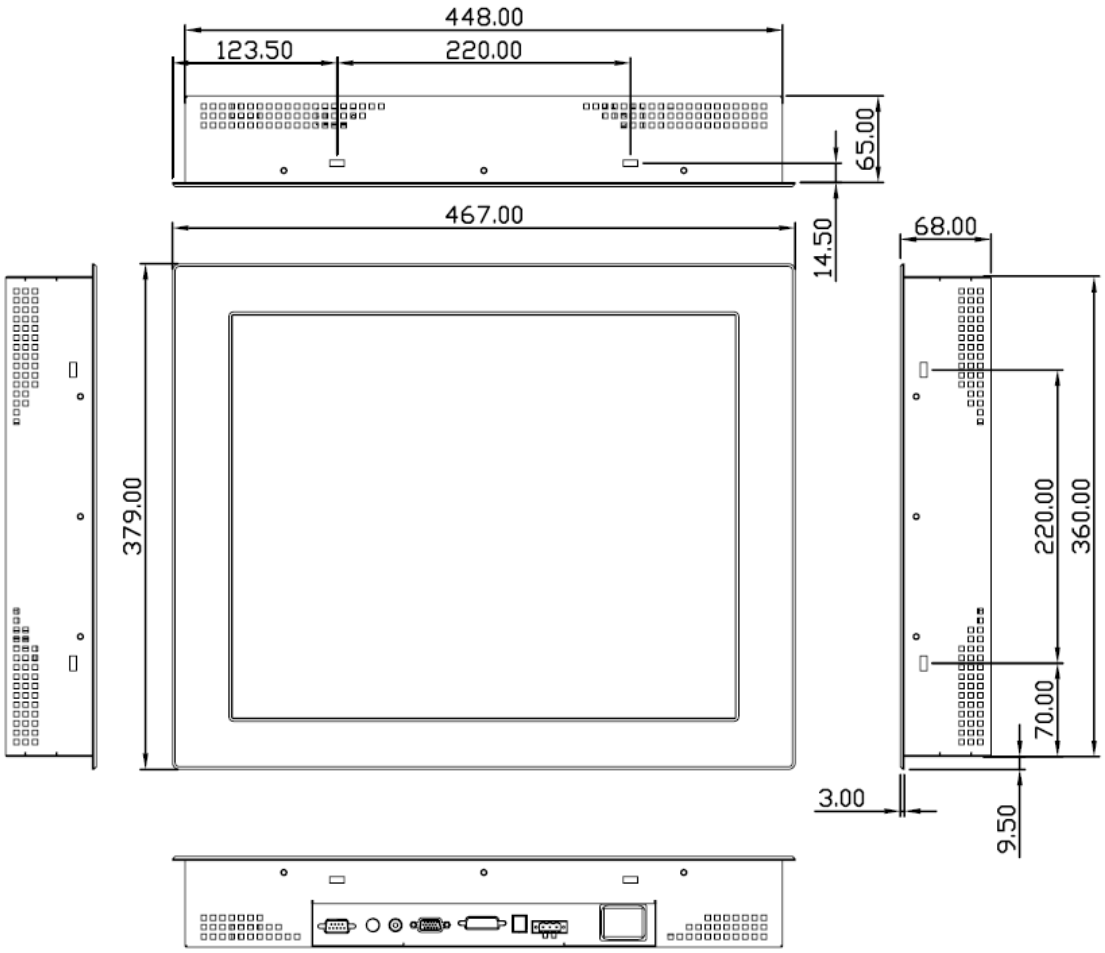


Figure 1.3: Dimensions of ADP-1195A

1.3 Brief Description of the ADP-1XX5A

ADP-1125A/1155A/1195A is a Steel Enclosure LCD Display that comes with a 12.1-inch/15-inch/19-inch (luminance of 1000 cd/m²) TFT LCD, and more outstanding features, thus giving you the best in monitoring and control applications.
The front panel of the display is sealed IP65 rating when it is VESA-mounted in a NEMA rated cabinet or enclosure. It is optional to be equipped with a resistive touch screen.

Figure 1.3: Front View of ADP-1XX5A

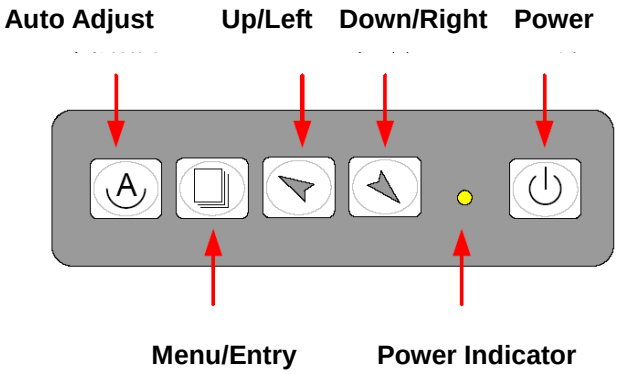
Figure 1.4: Rear View of ADP-1XX5A

1.4 Display Mode

Display Mode		Hori. Sync (KHz)	Vert. Sync. (Hz)
VGA 640 x 480		31	60
		38	72
		38	75
SVGA 800 x 600		35	56
		38	60
		48	72
		47	75
XGA 1024 x 768		48	60
		56	70
		60	75
SXGA	1152 x 864	68	75
	1280 x 1024	64	60
		80	75

Chapter 2

2.1 Front Panel OSD Functions



Power switch: To turn ON or OFF the power

Shift the icon to the right side or shift it up

Shift the icon to the left side or shift it down

Menu: To enter OSD menu for related icon and item.

Auto Button: One-touch auto adjustment

1.) Getting into Burn-in Mode

Before setting into a burn-in mode, first disconnect the AC power cord. Then press (don't let them go) the buttons until the AC power cord is connected and the "RGB" appears on the top left corner of your screen. Now it can be put into the burn-in mode for changing colors.

2.) Getting Out of Burn-in Mode

Before getting out of the burn-in mode, please first disconnect the AC power cord. Then press the button (If not workable, press the button and don't let them go) until the AC power cord is connected. Please don't let your fingers go until the AC power cord is connected again and the wording of "RGB" appears on the top left corner of your screen, and wait for 3 seconds. Under the non-signal entry situation, if **Cable Not Connected** is seen, exit is thus successfully made.

2.2 OSD Controls

To make any adjustment, select the following:

1. Press (Menu) to show the OSD menu or disable the OSD menu.
2. Select the icon that you wish to adjust with the (/ or +/-) key in the menu.
3. Press (Menu) and then choose the item with the (/ or +/-) key.
4. Press (Menu) and then adjust the quality with the (/ or +/-) key.

1.) If the “RGB” is still on the top left corner of the screen, press to enter “Miscellaneous” and choose “Reset”, and then **Yes,** and press . When the screen goes black, disconnect power and repeat the above steps.

2.) If the “RGB” is not found, disconnect the AC power cord first. Then press the buttons (don’t let them go) until the AC power cord is connected, and wait for 2 to 3 seconds. When “RGB” appears, repeat the above steps.

3.) Functions of OSD Keys

2.3 Main Menu

In the **Main** menu, there are the following items:

- Color
- Image Setting
- Position
- OSD Menu
- Language
- Misc
- Exit

For **Color**, check out the following:

- Contrast
- Brightness
- Color Adjust
- Color Temp
- Back

For **Image setting**, check out the following:

- Clock
- Phase
- Gamma
- Sharpness
- Back

In the **Position**, there are the following:

- H. Position
- V. Position
- Back

In the **OSD** menu, there are:

- OSD H. Pos.
- OSD V. Pos.
- OSD Timer
- Back

In the **Language** menu, there are:

- English
- Frances
- Germany
- Spanish
- Traditional Chinese
- Simplified Chinese
- Japanese

In the **Misc** menu, there are:

- Signal Source
- Select VGA: Analogue VGA Input
- Select DVI: Digital DVI-D Input
- Select AV: Composite Video Input
- Select SV: S-Video Video Input
- Reset
- Back

2.4 AD Board OSD Functions

2.) Getting into Burn-in Mode

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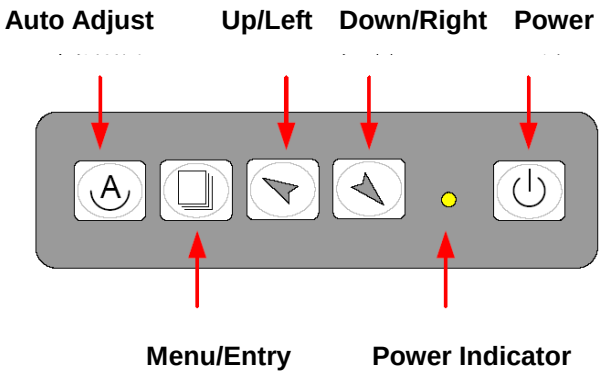
When the Burn-in Mode is Unable to Eradicate…

4.) If the "RGB" is still on the top left corner of the screen, press to enter "Miscellaneous" and choose "Reset", and then **Yes,** and press . When the screen goes black, disconnect power and repeat the above steps.

5.) If the "RGB" is not found, disconnect the AC power cord first. Then press the buttons (don't let them go) until the AC power cord is connected, and wait for 2 to 3 seconds. When "RGB" appears, repeat the above steps.

6.) Functions of OSD Keys



Chapter 3

This chapter describes how to install drivers and other software that will allow your PenMount 6000 Controller Board to work with different operating systems.

NOTE: PenMount USB drivers support up to 15 USB controllers.

3.1 Introduction to Touch Screen Controller Board

PenMount 6300 USB control board is a touch screen control board designed for USB interface and specific for 4, 5, 8-wire touch screens. It is designed with USB interface features with multiple devices supporting function. PenMount 6300 control board using PenMount 6000 controller that has been designed for those who may like and all-in-one solution with 10-bit A/D converter built-in to make the total printed circuit board denser, circuit diagram also designed for 12-bit ADC for optional. There are two connectors on this board, one connector is for 4, 5, 8-wire touch screen cable (optional), and another is for 4-pin USB A type cable (optional).

Figure 3.1: Bird's Eye View of Control Board

3.2 Windows 2000/XP/2003/Vista Universal Driver Installation for PenMount 6000 Series

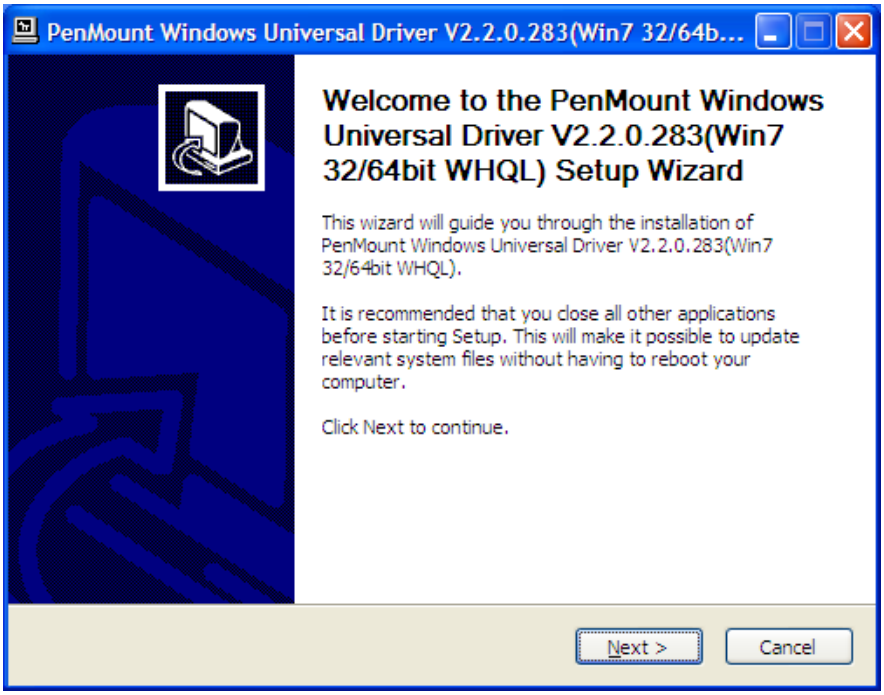
Before installing the Windows 2000/XP driver software, you must have the Windows 2000/XP system installed and running on your computer. You must also have one of the following PenMount 6000 series controller or control boards installed: PM6500, PM6300.

3.2.1 Installing Software

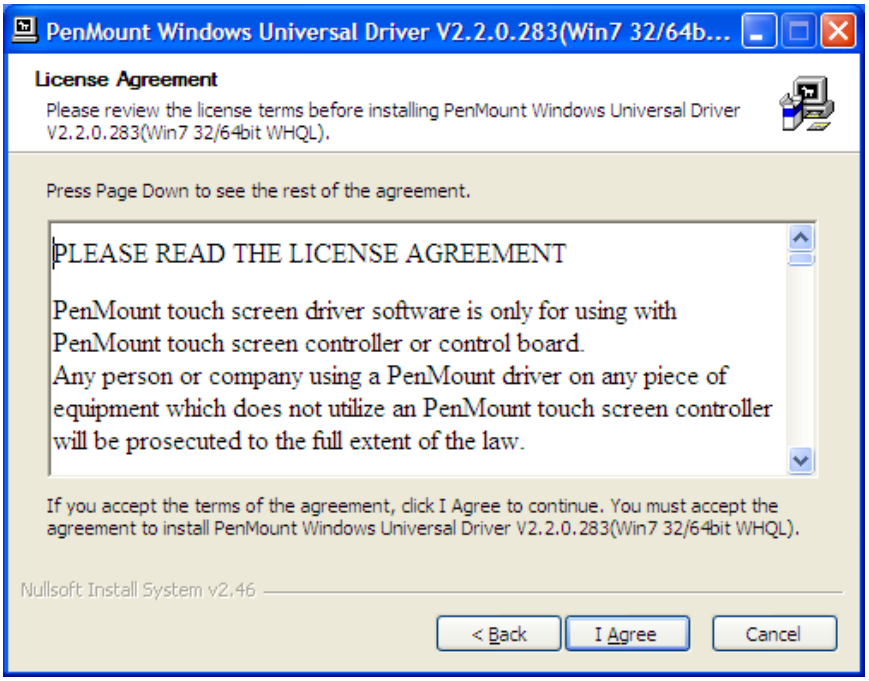
If you have an older version of the PenMount Windows 2000/XP driver installed in your system, please remove it first. Follow the steps below to install the PenMount DMC6000 Windows 2000/XP driver.

Step 1. Please make sure your PenMount 6000 device had plugged in advance. If your device uses RS232 interface, please plugged in before the machine is turned on. When the system first detects the controller board, a screen appears that shows “Unknown Device”. Do not use this hardware wizard. Press Cancel.

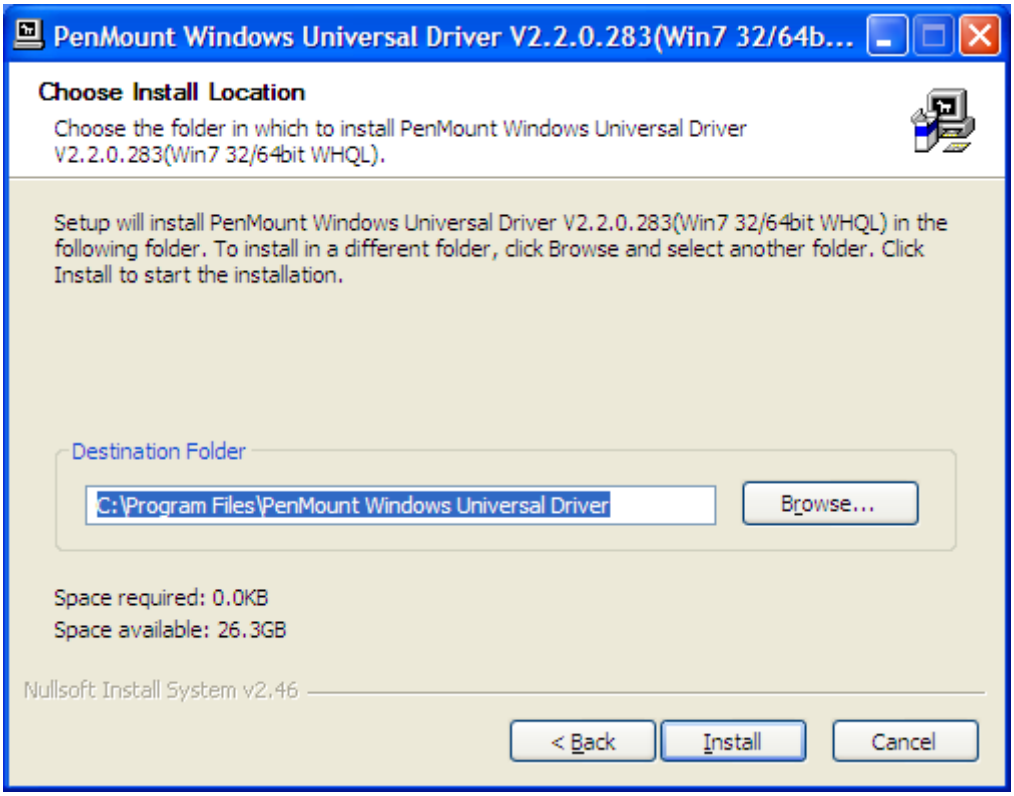
Step 2. Insert the product CD install **setup.exe.** Click touch panel driver



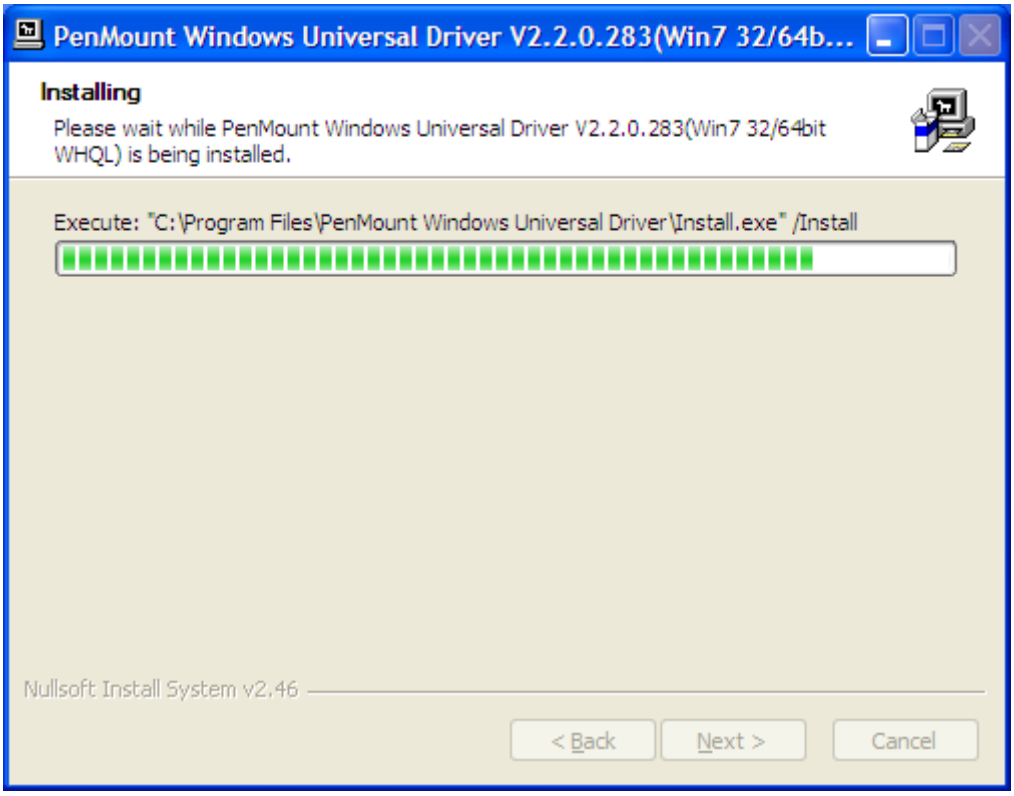
Step 3. A License Agreement appears. Click "**I Agree…**" and "**Next**"



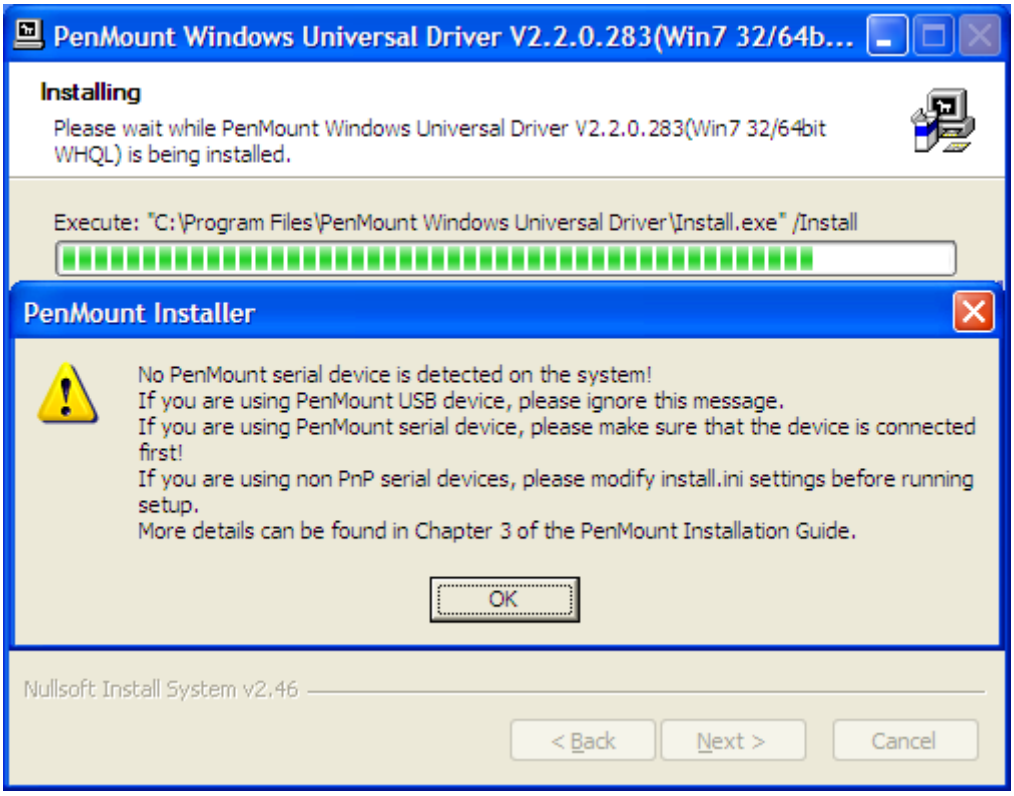
Step 4. Choose the folder in which to install PenMount Windows Universal Driver. Click **Install.**



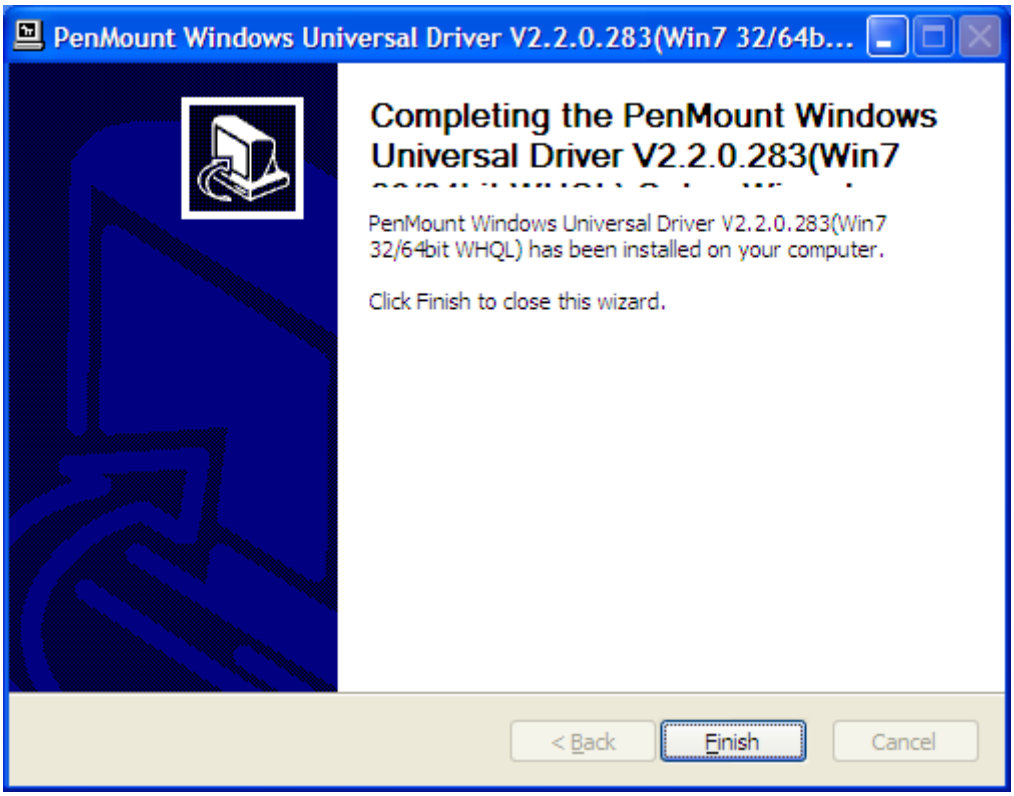
Step 5. Wait for installation. Click **Next** to continue.



Step 6. Click **OK**.



Step 7. Click **Finish** to complete installation.



3.2.2 Software Functions

Upon rebooting, the computer automatically finds the new 6000 controller board. The touch screen is connected but not calibrated. Follow the procedures below to carry out calibration.

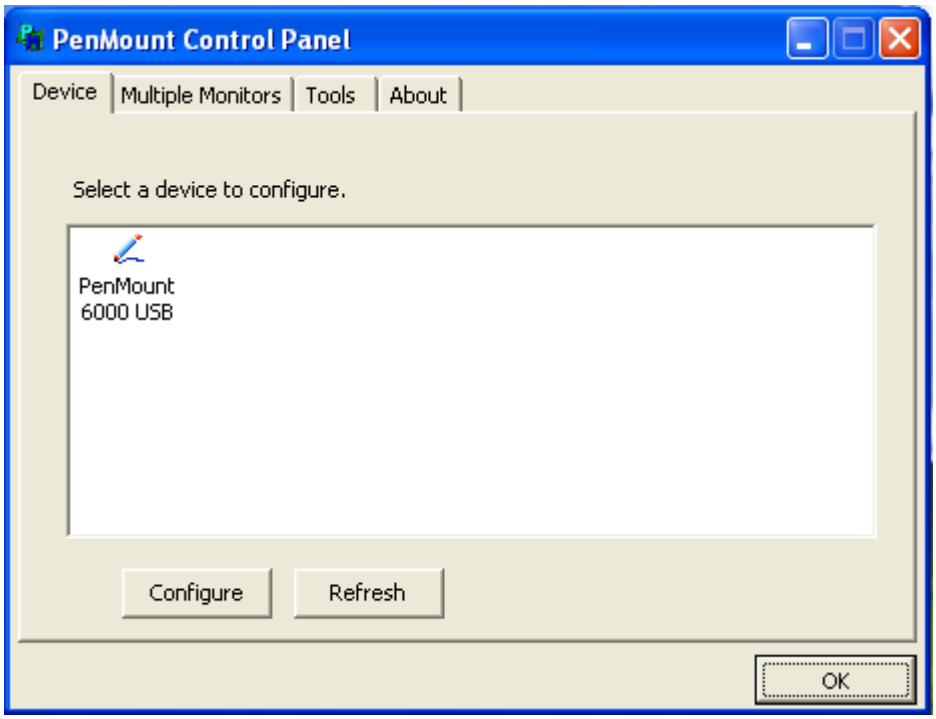
1. After installation, click the PenMount Monitor icon “PM” in the menu bar.
2. When the PenMount Control Panel appears, select a device to “Calibrate.”

PenMount Control Panel

The functions of the PenMount Control Panel are **Device, Multiple Monitors, Tools** and **About**, which are explained in the following sections.

Device

In this window, you can find out that how many devices are detected on your system.



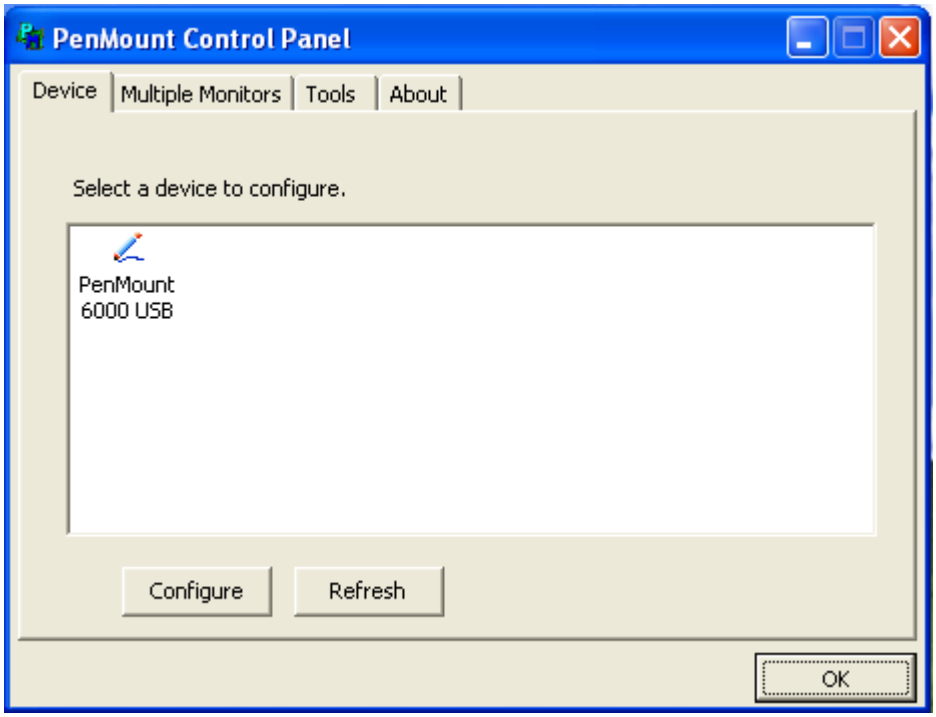
Calibrate

This function offers two ways to calibrate your touch screen. ‘Standard Calibration’ adjusts most touch screens. ‘Advanced Calibration’ adjusts aging touch screens.

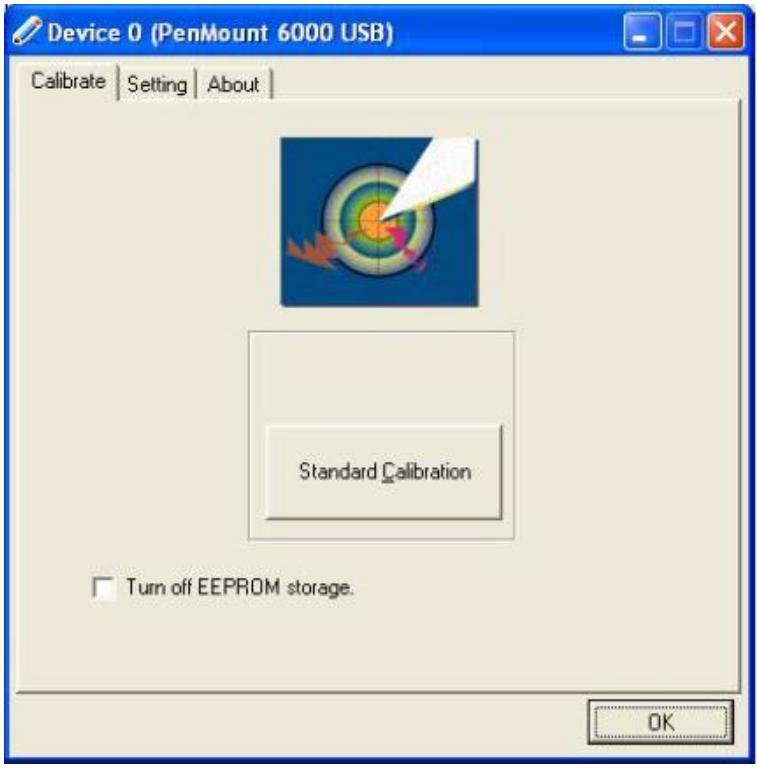
Standard Calibration	**Click this button and arrows appear pointing to red squares. Use your finger or stylus to touch the red squares in sequence. After the fifth red point calibration is complete. To skip, press ‘ESC’.**
Advanced Calibration	**Advanced Calibration uses 4, 9, 16 or 25 points to effectively calibrate touch panel linearity of aged touch screens. Click this button and touch the red squares in sequence with a stylus. To skip, press ESC’.**

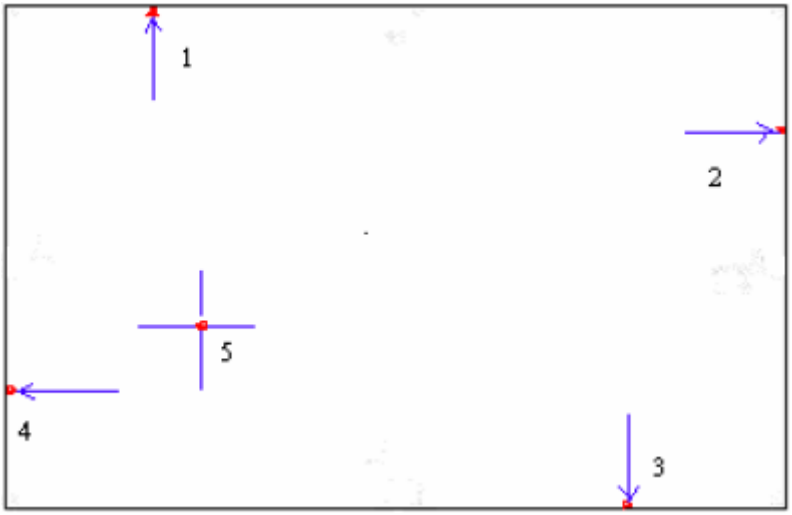
Command Calibration	**Command call calibration function. Use command mode call calibration function, this can uses Standard, 4, 9, 16 or 25 points to calibrate** E.g. Please run ms-dos prompt or command prompt c:\Program Files\PenMount Universa Driver\Dmcctrl.exe -calibration 0 (Standard Calibration) Dmcctrl.exe - calibration ($) 0= Standard Calibration 4=Advanced Calibration 4 9=Advanced Calibration 9 16=Advanced Calibration 16 25=Advanced Calibration 25

Step 1. Please select a device then click “Configure”. You can also double click the device too.



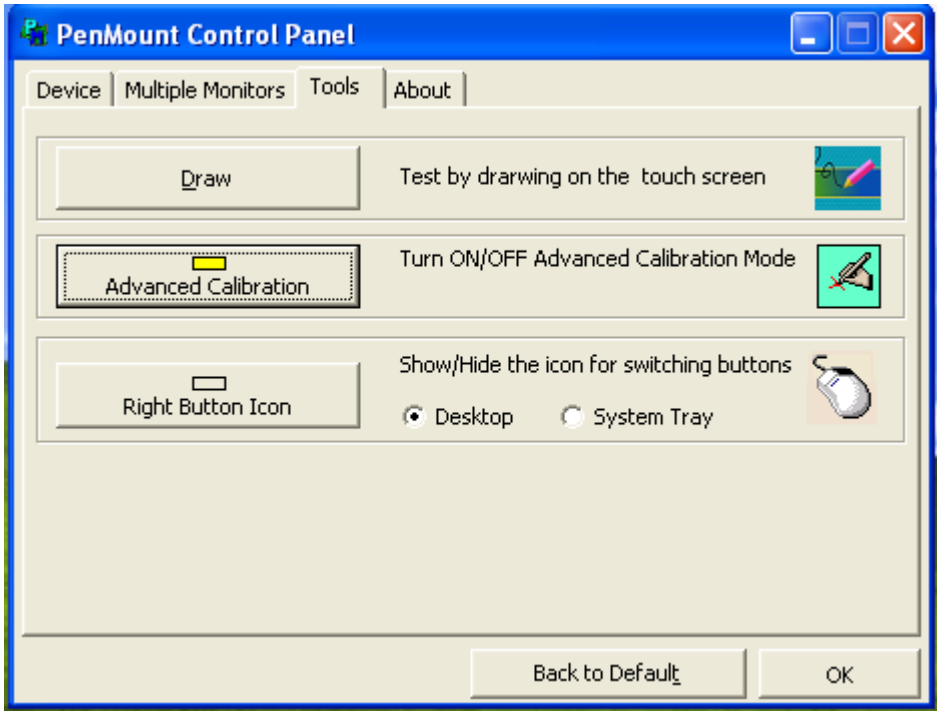
Step 2.Click “Standard Calibration” to start calibration procedure



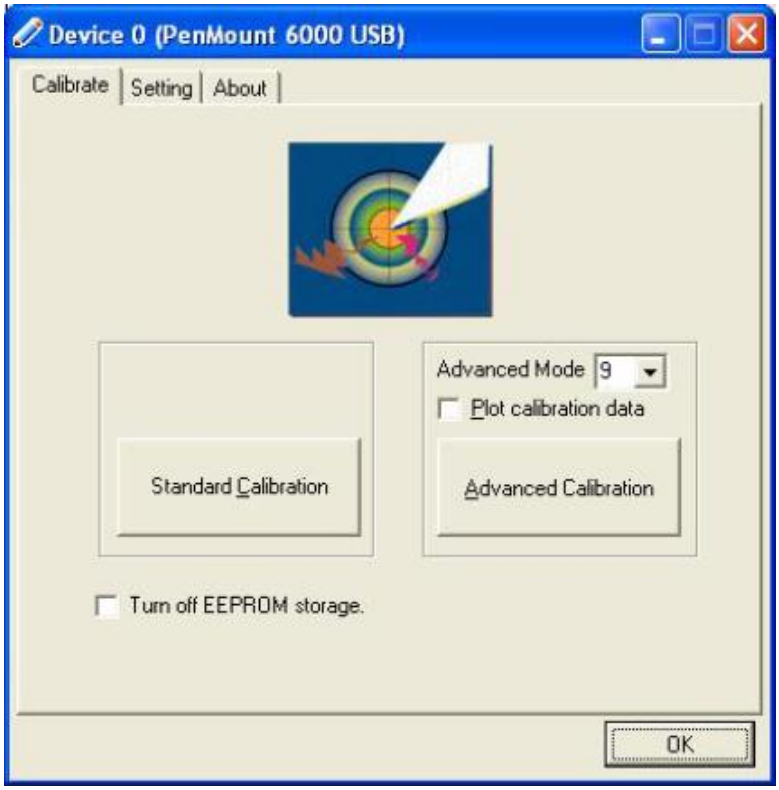


NOTE: The older the touch screen, the more Advanced Mode calibration points you need for an accurate calibration. Use a stylus during Advanced Calibration for greater accuracy. Please follow the step as below:

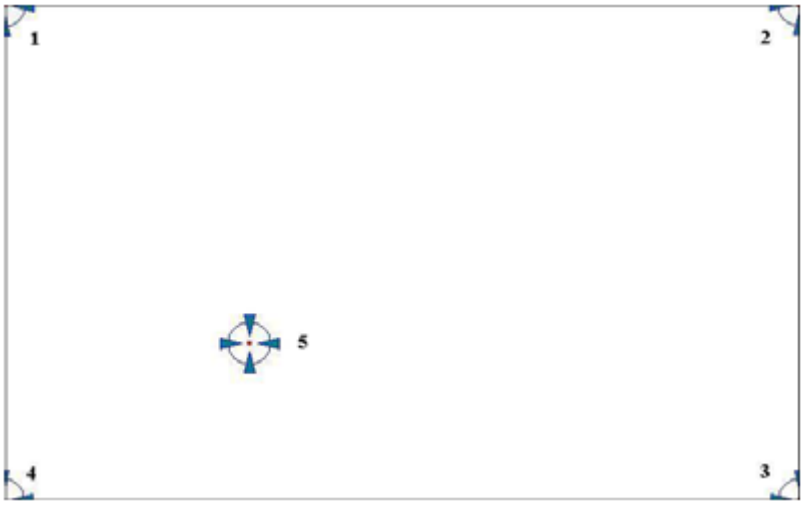
Step 3. Come back to “PenMount Control Panel” and select “**Tools**” then Click “**Advanced Calibration**”.



Select “**Device**” to calibrate, then you can start to do “Advanced Calibration”.



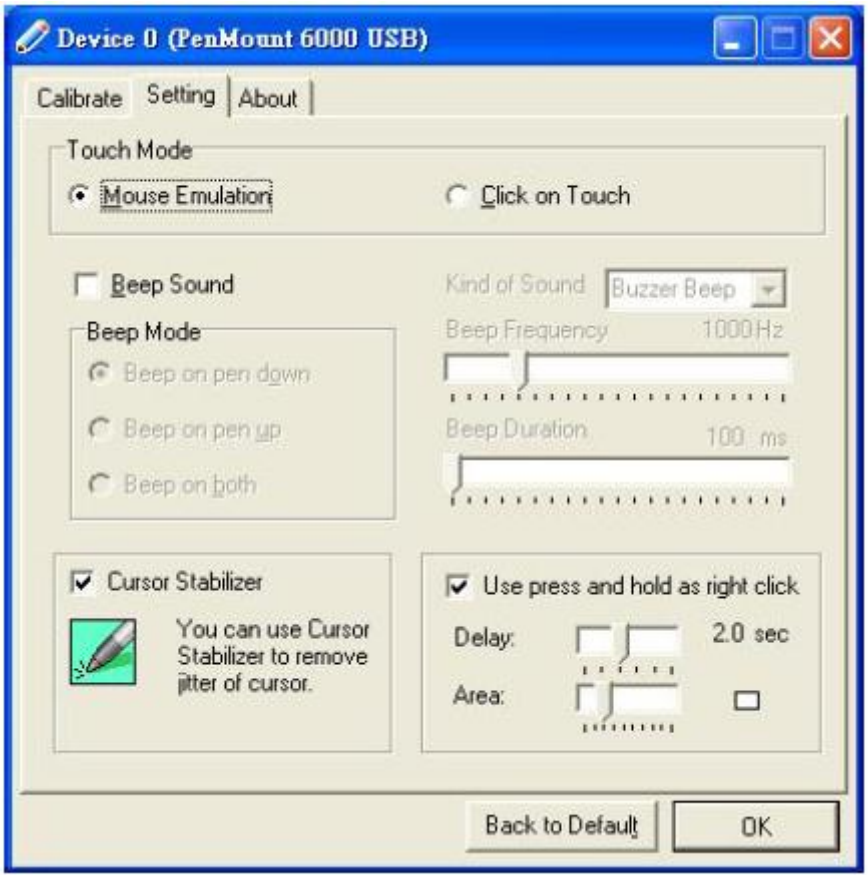
NOTE: Recommend to use a stylus during Advanced Calibration for greater accuracy.



Plot Calibration Data	**Check this function and a touch panel linearity comparison graph appears when you have finished Advanced Calibration. The blue lines show linearity before calibration and black lines show linearity after calibration.**
Turn off EEPROM storage	**The function disable for calibration data to write in Controller. The default setting is Enable**

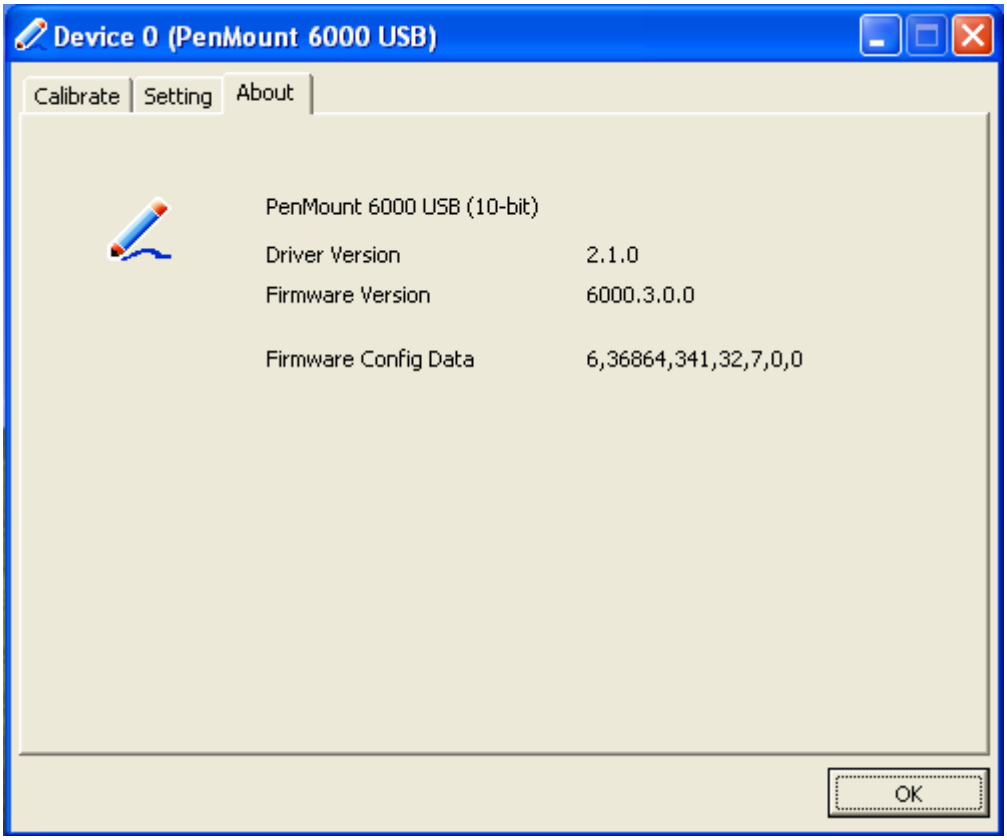
Setting

Touch Mode	**This mode enables and disables the mouse's ability to drag on-screen icons—useful for configuring POS terminals.** **Mouse Emulation – Select this mode and the mouse functions as normal and allows dragging of icons.** **Click on Touch – Select this mode and the mouse only provides a click function, and dragging is disabled**
Beep Sound	**Enable Beep Sound – turns beep function on and off** **Beep on Pen Down – beep occurs when pen comes down** **Beep on Pen Up – beep occurs when pen is lifted up** **Beep on both – beep occurs when comes down and lifted up** **Beep Frequency – modifies sound frequency** **Beep Duration – modifies sound duration**
Cursor Stabilizer	**Enable the function support to prevent cursor shake.**
Use press and hold as right click	**You can set the time out and area for you need**



About

This panel displays information about the PenMount controller and driver version.



Multiple Monitors supports two to six touchscreen displays for one system. PenMount drivers for Windows 2000, XP 32/64bit, and 2003 support **Multiple Monitors**. This function supports from two to six touchscreen displays for one system. Each monitor requires its own PenMount touchscreen control board, either installed inside the display
or in a central unit. The PenMount control boards must be connected to the computer COM ports via the RS-232 interface. Driver installation procedures are the same as for a single monitor. Multiple Monitors supports the following modes: Windows Extend Monitor Function Matrox DualHead Multi-Screen Function nVidia nView unction

NOTE: The **Multiple Monitors** function is for the use with multiple displays only. Do not use this function if you have only one touchscreen display. Please note once you turn on this function the **Rotating** function is disabled.

Requirements

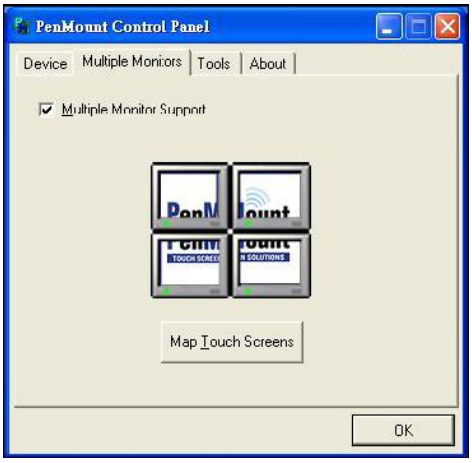
Before using the **Multiple Monitors** function you need the following:
* A display card that supports multiple monitors such as the Matrox, nVidia, ATI, etc.
* (Two or more display cards supported by Windows are also ok.)
* Two or more touchscreens
* Two or more Serial Ports or USB ports.
* Two or more PenMount 6000 control boards such as 6200x, 6202x,6300 or 6500.
* The PenMount Windows Universal Driver (for 2000/XP/2003/VISTA/7).

Before using **Multiple Monitors** you must have two or more monitors that are in **extension mode**. For display cards that support multiple monitors, we suggest you consider Matrox, nVidia, or ATI cards and inquire about operation
and usability issues.

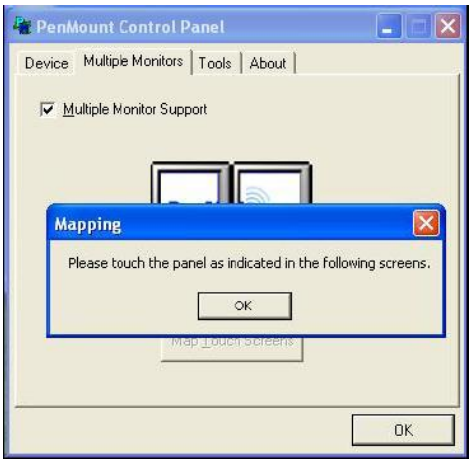
Note: Before you can use multiple monitors you need to map each monitor.

Enable the Multiple Monitors

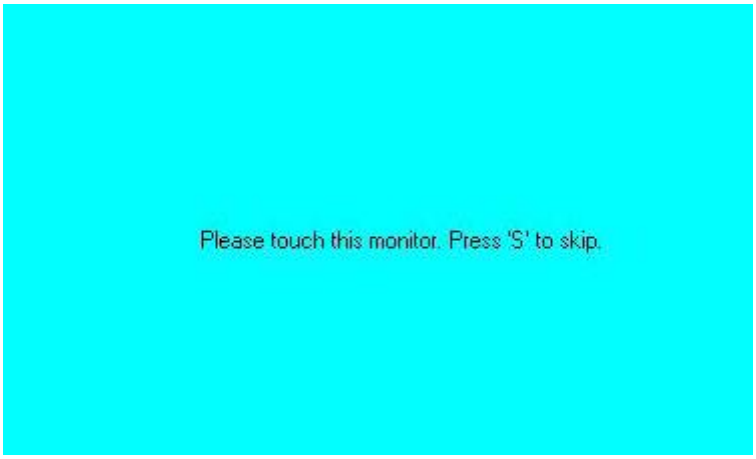
Enable the multiple display function as follows:
1. In PenMount **Control Panel**, under **Multiple Monitors** tag, check the "**Multiple Monitor Support**" box. Then click "**Map Touchscreens**" to assign touch controllers to displays.



2. When the mapping screen message appears, click “**OK**”.



3. Touch each screen as it displays “Please touch this monitor. Press ‘**S**’ to skip”. Follow this sequence and touch each screen to map the touchscreens.



4. After the setting procedure is finished, maybe you need to calibrate for each panel and controller.

NOTES:

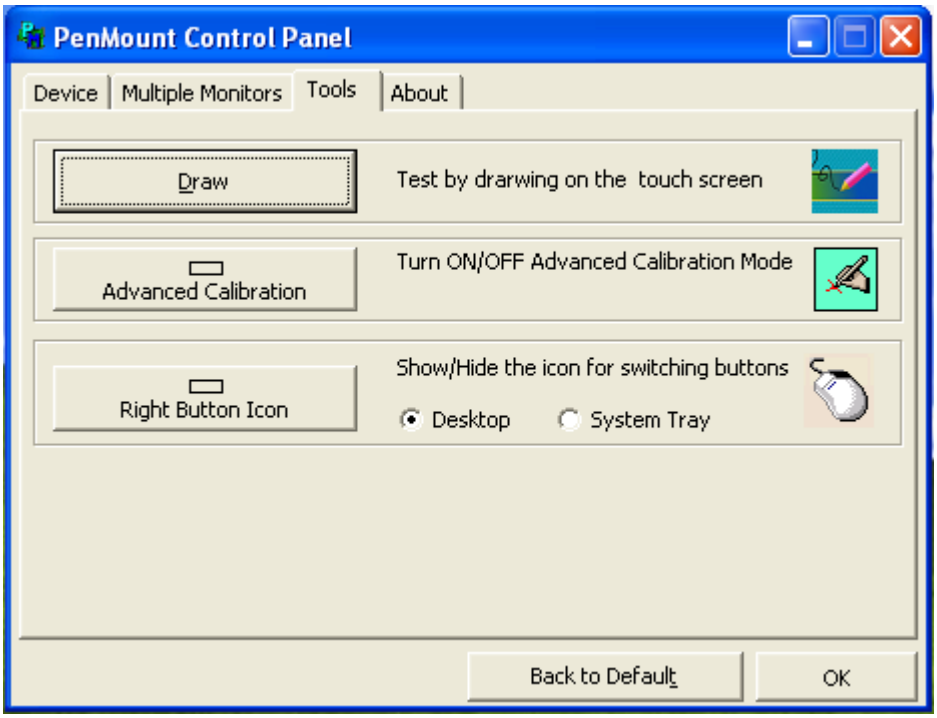
1. If you use a single VGA output for multiple monitors, please do not use the **Multiple Monitors** function. Just follow the regular procedure for calibration on each of your desktop monitors.
2. The **Rotating** function is disabled if you use the **Multiple Monitors** function.
3. If you change the resolution of display or screen address, you have to redo **Map Touchscreens** so the

system understands where the displays are.

4. If you have multiple monitors but only one touchscreen, press '**S**' to skip mapping step.

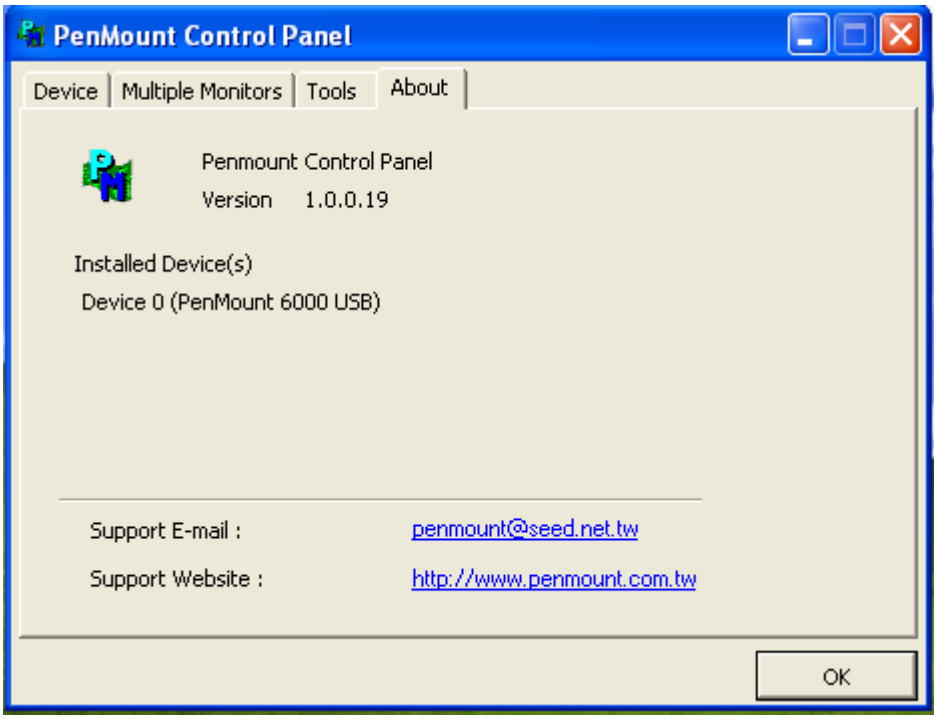
Tools

Draw	**Tests or demonstrates the PenMount touch screen operation.**
Advanced Calibration	**Enable Advanced Calibration function**
Right Button Icon	**Enable right button function. The icon can show on Desktop or System Tray (menu bar).**



About

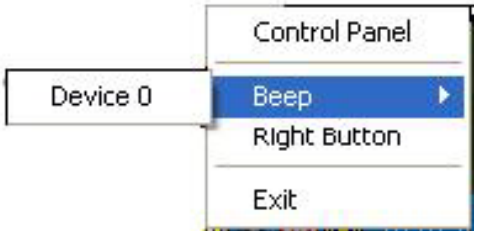
You can see how many devices of PenMount controller that are plugged to your system



PenMount Monitor Menu Icon

The PenMount monitor icon (PM) appears in the menu bar of Windows 2000/XP system when you turn on PenMount Monitor in PenMount Utilities.

PenMount Monitor has the following function



Control Panel	**Open Control Panel Windows**
Beep	**Setting Beep function for each device**
Right Button	**When you select this function, a mouse icon appears in the right-bottom of the screen. Click this icon to switch between Right and Left Button functions.**
Exit	**Exits the PenMount Monitor function.**

PenMount Rotating Functions

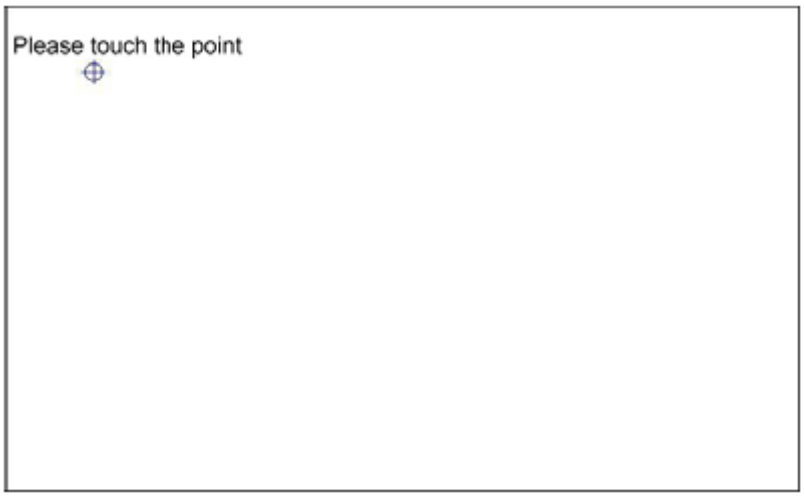
The PenMount driver for Windows 2000/XP supports several display rotating software packages.

Windows Me/2000/XP support display rotating software packages such as:

- Portrait's Pivot Screen Rotation Software
- ATI Display Driver Rotate Function
- nVidia Display Driver Rotate Function
- SMI Display Driver Rotate Function
- Intel 845G/GE Display Driver Rotate Function

Configuring the Rotate Function

1. Install the rotation software package.
2. Choose the rotate function (0°, 90°, 180°, 270°) in the 3rd party software. The calibration screen appears automatically. Touch this point and rotation is mapped.



NOTE: The Rotate function is disabled if you use Monitor Mapping