

BPC-6690

**19" Industrial Panel PC
with MainBoard, Touch Screen
180W ATX P/S**

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Table of Contents

Chapter 1	General Description	1
1.1	Major Features	2
1.2	Specifications	2
1.3	Panel Specifications	3
1.4	Control Keys	3
1.5	Dimensions	4
Chapter 2	Unpacking	5
2.1	Opening the Delivery Package	5
2.2	Inspection	5
Chapter 3	Hardware Installation	7
3.1	Open the Cover	7
3.2	HDD/CD-ROM Installation	8
3.3	WLAN Device Installation	10
Chapter 4	Touch Screen Driver Installation	11
4.1	Touch Screen Driver Installation	11
4.2	Driver Functions	16

Declaration of Conformity -- CE Mark

BOSER Technology hereby acknowledges that compliance testing in accordance with applicable standards of the EU's EMC Directive, 89/336/EEC, was successfully completed on a sample of the equipment identified below:

Equipment Class:	<i>Information Technology Equipment</i>
Product Model Series:	<i>BPC-6690</i>
This Product Complies With:	<i>EN55022: Class A for Radiated emissions</i>
	<i>EN50082-2: Heavy Industrial EMC Immunity</i>

We, the undersigned, hereby declare that the equipment specified above conforms to the above directives and standards.

Manufacturer:
BOSER TECHNOLOGY CO., LTD.

Safety Instructions

The safety recommendations outlined in this section are to be read, understood and followed before operating the product. Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious damage.

- Do not operate product for any purposes other than its intended use
- This product is intended for indoor use only
- Do not operate product if power cord is damaged in anyway
- Do not insert objects into openings
- Do not immerse product in water or permit liquids to spill inside
- Turn off power when unattended or not in use. Unplug product before moving it or when it is not in use for an extended period of time. The socket-outlet shall be installed near the equipment and shall be easily accessible
- Do not alter or extend electric plug. Plug is configured for appropriate electrical supply
- Do not overload electrical outlets beyond their capacity as this can result in a fire

NOTE: *DO NOT TOUCH THE PRODUCT OR ANY OTHER SENSITIVE COMPONENTS WITHOUT ALL NECESSARY ANTI-STATIC PROTECTIONS.*

Life Expectancy of Constituent Parts

This section describes the life expectancy of constituent parts (backlight, power supply, internal cooling fan and touch screen) which make up to BPC-6690.

- **TFT Display Backlight**

Display brightness decreases over time with use. The expected operating lifetime of the backlight (time to reach 50% initial brightness) is 30,000 hours (assuming continuous lit state at 25 degrees C). Actual lifetime result may be different.

- **Touch Screen**

The operating lifetime of the touch screen is approximately 1 million operations (as tested by mechanical manipulation under 100g of force at a rate of two presses per second)

Chapter 1

General Description



The rear of BPC-6690 design with easy assembly when needed.

The BPC-6690 has a 19" touch screen that operates under all types of working environment. It comes with a reliable power supply with 2 of 4cm ball bearing cooling fan that enhance system stability.

The unit can also be mounted in several configurations. A variety of BOSER SBCs is compatible with the BPC-6690. Please see **1.2 Specification** section for more detail.

- The BPC-6690 is IBM PC/AT compatible and can draw from a large body of hardware and software resources worldwide
- 180W power supply with UL, CE, CSA, TUV approved
- Variety of operation system can be used in BPC-6690

- The BPC-6690 features an all-in-one flat display and keyboard less operation.
- The BPC-6690 can be use widely such as, Digital signage, Factory Automation, oil Industry, Entertainment, transportation, POS, and kiosk, etc...
- You can select a mainboard from various range to meet your optimal configuration and budget.

1.1 Major Features

The BPC-6690 series come with the following features:

- Aluminum front panel
- 19" high brightness TFT color panel display
- Built-in touch screen, OSD key, mainboard, wireless LAN module, 180W ATX P/S
- Provides Intel® Core™ 2 Duo/Pentium® D/Pentium® 4/Celeron® D/ Celeron® processor (optional)
- Onboard graphics, ethernet, audio controller
- Parallel x 1, COM x 1, USB x 2
- 2.5" HDD space x 1, 3.5" HDD space x 1, slim CD-ROM space x 1
- 4cm ball bearing cooling fan x 2

1.2 Specifications

BPC-6690

- **CPU:** Intel® Core™ 2 Duo/Pentium® D/Pentium® 4/Celeron® D/ Celeron® processor Hz
- **Memory:** Two 240-pin DIMM sockets up to 2GB DDR2 SDRAM
- **OSD:** Provides OSD function
- **Touch Screen:** 19" resistive touch screen
- **Display:** Onboard graphics controller
- **Ethernet:** Onboard 10/100 Based LAN controller
- **Wireless LAN:** Provides wireless LAN module
- **Audio:** Onboard 8CH High Definition audio controller
- **Storage:**
 - 2.5" HDD space x 1
 - 3.5" HDD space x 1
 - Slim CD-ROM space x 1

- **Parallel:** Standard parallel port x 1
- **Serial Port:** 1 port
- **USB:** USB port x 2
- **Keyboard:** PS/2 6-pin Mini DIN
- **Mouse:** PS/2 6-pin Mini DIN
- **BIOS:** Award PnP Flash BIOS
- **Power In:** 180W ATX power supply
- **Thermal System:** 4cm ball bearing cooling fan x 2
- **EMC:** CE, FCC
- **Temperature:** 0~+45°C (operating); -20~+70°C (storage)
- **Dimensions:** 49.0(L) x 38.0(H) x 8.52(W) cm

1.3 Panel Specifications

- **Screen Size:** 19 inches
- **Display Format:** 1280 x 1024 pixels
- **Pixel Pitch:** 0.294(H) x 0.294(V) m/m
- **White Luminance:** 300 (center, Typ) @ 7.5mA
- **Contrast Ratio:** 800:1
- **Color:** 16.7M colors

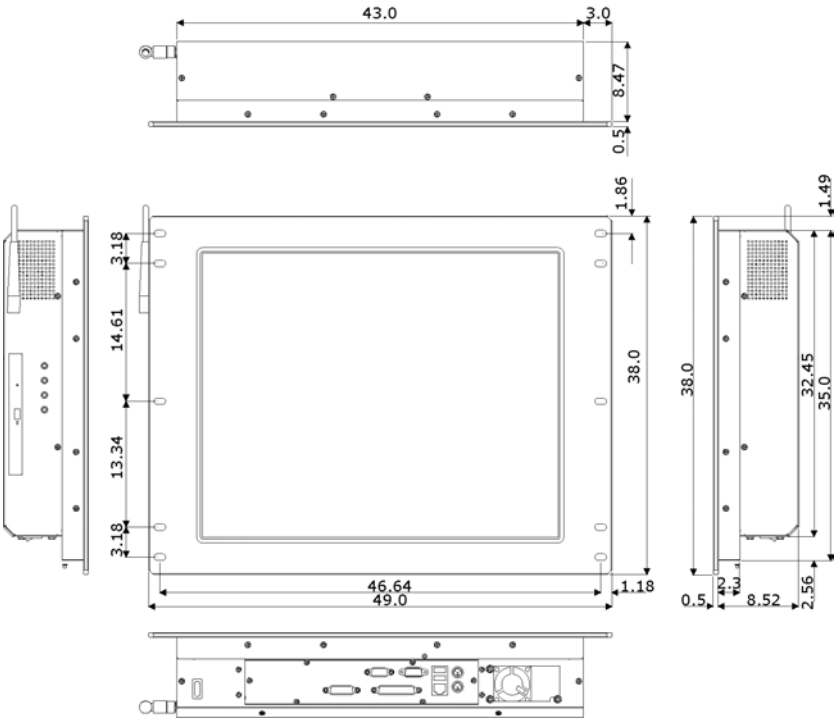
1.4 Control Keys

● OSD Control Keys Define



- **Menu:** Menu/Item select
- **Down:** Cursor down control
- **Up:** Cursor up control
- **Return:** Return to menu

1.5 Dimensions



Chapter 2

Unpacking

2.1 Opening the Delivery Package

The BPC-6690 is packed with an anti-static bag. The board contains sensitive electrical components that are easily damaged by static (electricity). Do not remove the anti-static wrapping until proper grounding have been taken. Safety instruction has been described the anti-static precautions and procedures in the previous.

2.2 Inspection

After unpacking the Panel PC, place it on a raised surface and carefully inspect the board for any damage that might have occurred during shipment. Grounding the board and exercise extremely careful to prevent any damages to the board from static.

Integrated circuits will sometimes come out from sockets during shipment. Examine all integrated circuits, particularly the BIOS, processor, memory modules, ROM-Disk, and keyboard controller chip to ensure that they are firmly seated. The BPC-6690 delivery package contains the following items:

- BPC-6690 x 1
- Power Cable x 1
- Main board Driver CD x 1
- System Board User's Manual x 1
- BPC-6690 User's Manual x 1
- Touch Screen Driver CD x 1

It is recommended that user keeps all the parts of the delivery package intactness and store them in a safe/dry place for any require the returning the product. In case you find any missing and/or damaged items from the list, please contact your dealer or sale representatives immediately.

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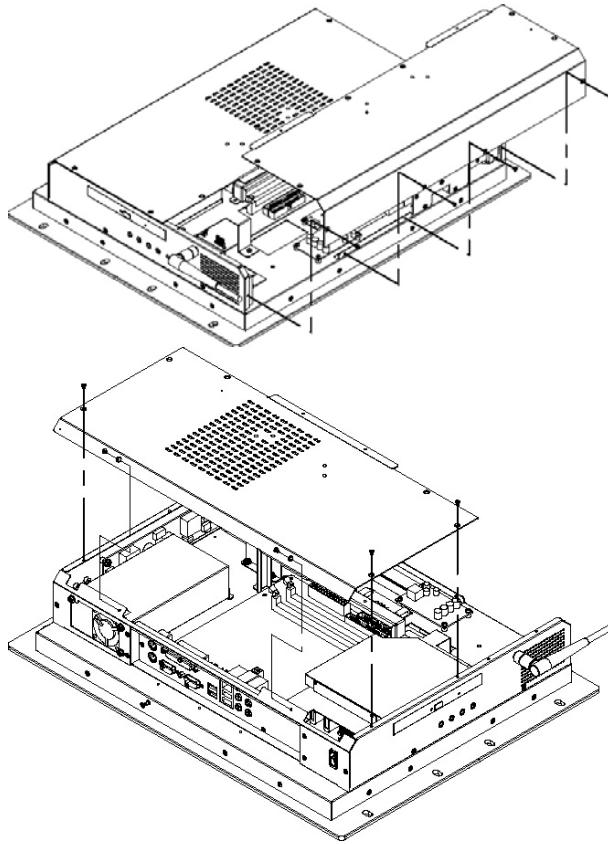
Chapter 3

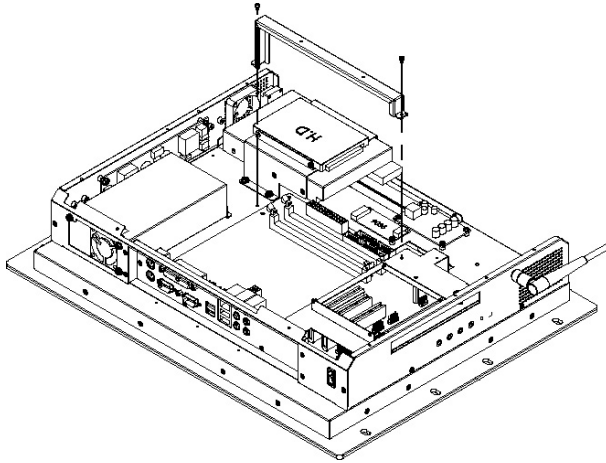
Hardware Installation

This chapter illustrates how to install components into the Panel PC system. External interface please refers to system board's manual.

3.1 Open the Cover

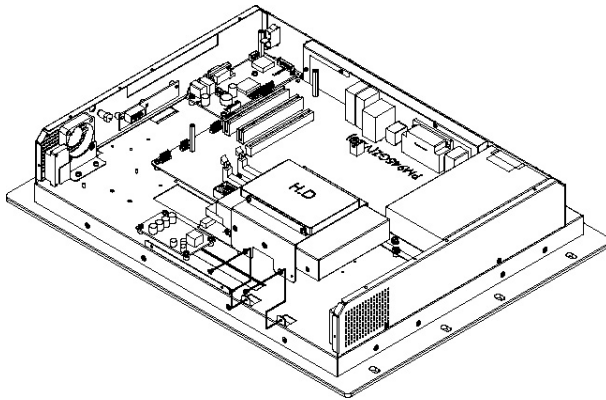
1. Remove screws from the side and back cover accordingly.

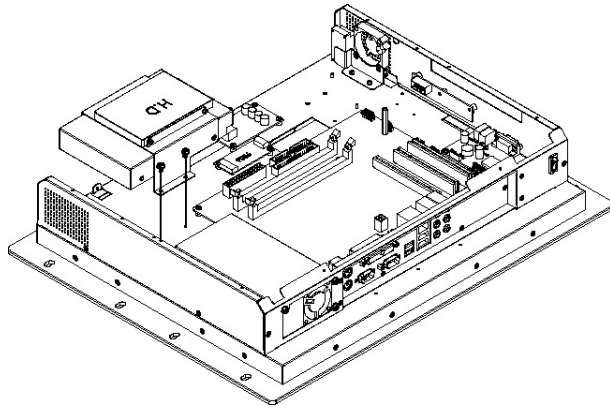




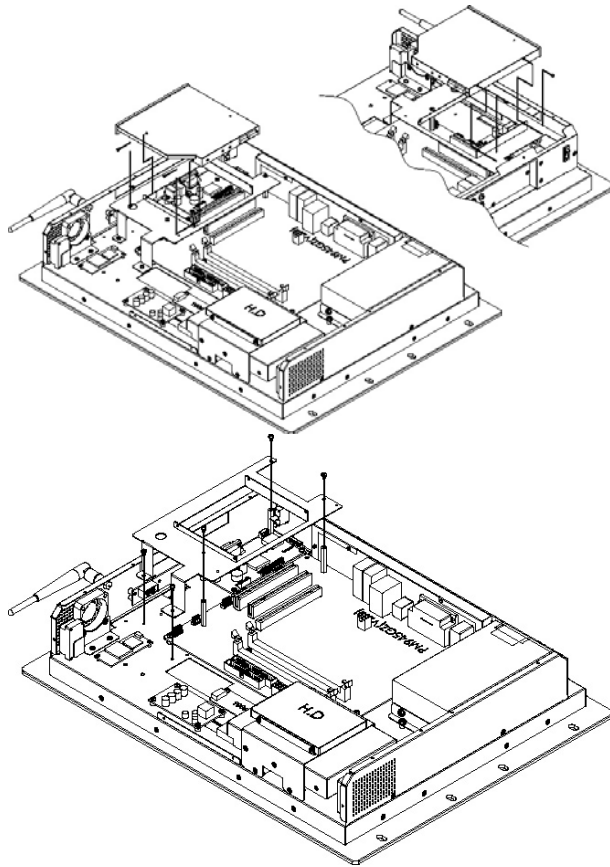
3.2 HDD/CD-ROM Installation

Remove the 4 screws from drive bay holding bracket.

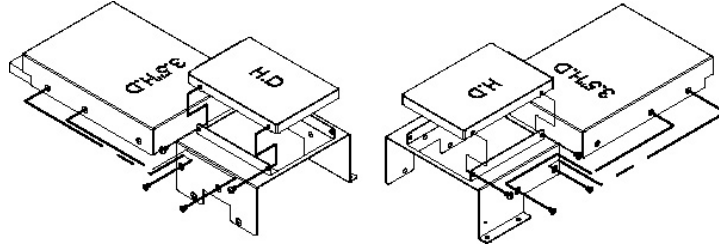




3.2.1 Slim CD-ROM Installation

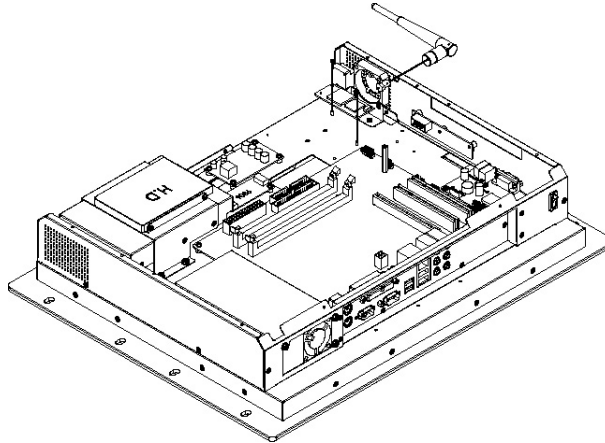


3.2.2 2.5"/3.5" inch HDD Installation



3.3 WLAN Device Installation

User can install the Network Card and Network antenna module as below.



Chapter 4

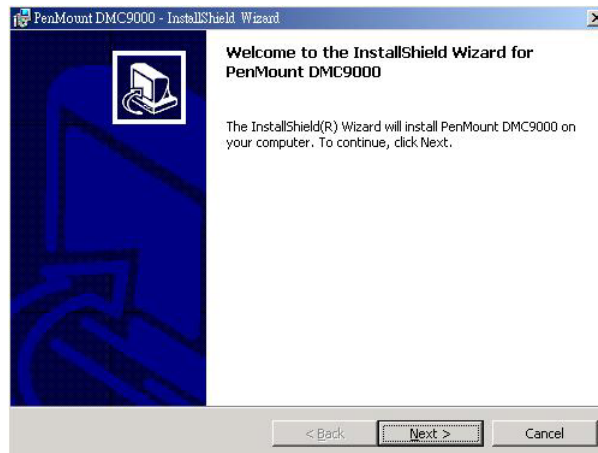
Touch Screen Driver Installation

This chapter illustrates the detailed information for touch screen driver installation procedures. The utility disk that came with the delivery package contains an auto-run program that invokes the installation programs for the touch screen driver. The following sections describe the installation procedures of driver based on WIN2000 operating systems. Other operation system may slightly different.

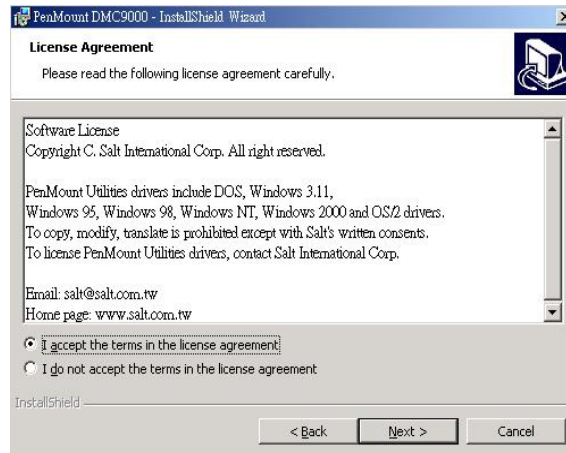
4.1 Touch Screen Driver Installation

4.1.1 Installing Touch Screen Driver in WIN95/98

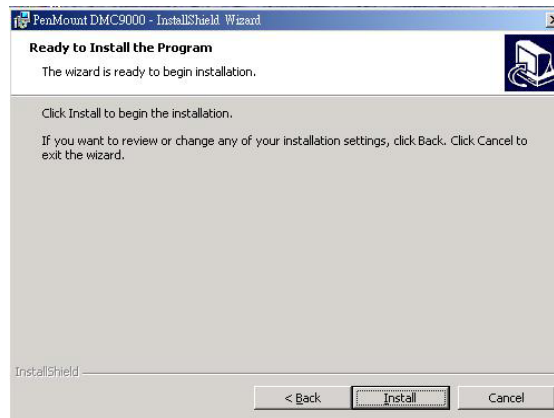
1. Insert Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "Installation Wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click on **Next>**.



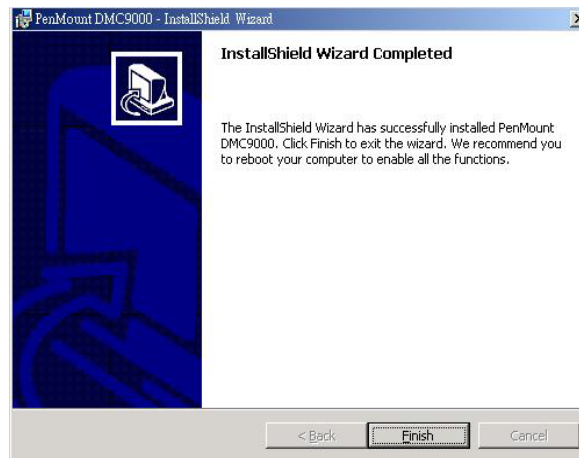
3. The next screen is "Software License Agreement", select "I accept" and click on **Next>**.



4. The next screen is Ready to Install the Program, click on **Install**.

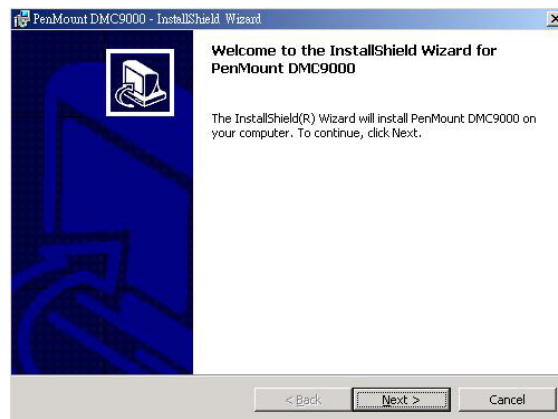


5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click on **Finish** to exit the wizard.

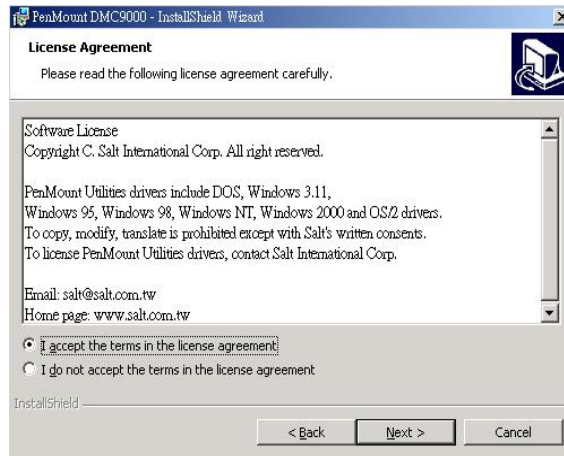


4.1.2 Installing Touch Screen Driver in WIN2000

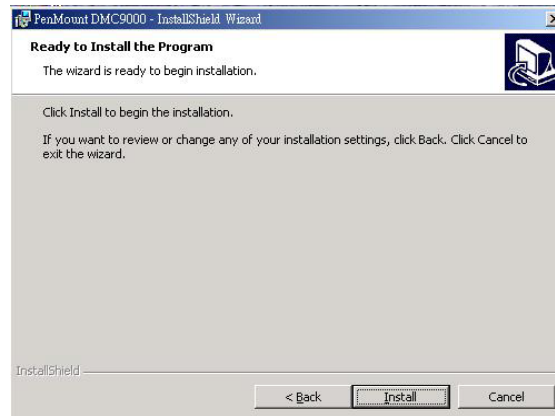
1. Insert Utility CD Disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying Installation Wizard and PenMount Utilities Installation screen plus welcome message appear, click on **Next>**.



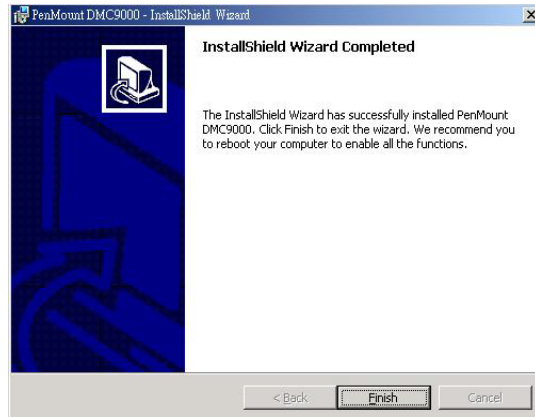
3. The next screen is Software License Agreement, select I accept and click on **Next>**.



4. The next screen is Ready to Install the Program, click on **Install**.



5. Once the InstallShield Wizard finishes updating your system, it will prompt you to restart the computer. Click on **Finish** to exit the wizard.

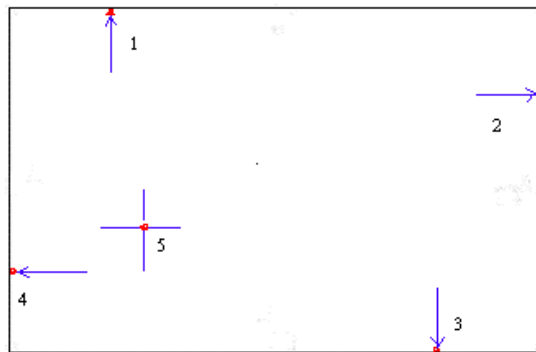
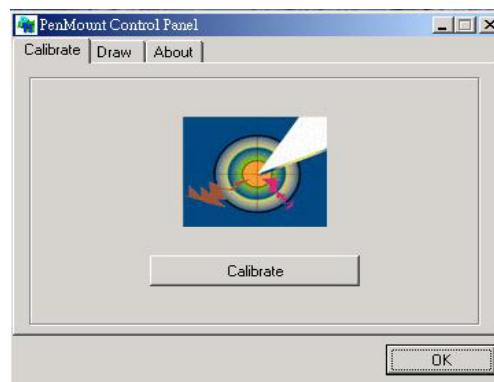


4.2 Driver Functions

4.2.1 PenMount Control Panel

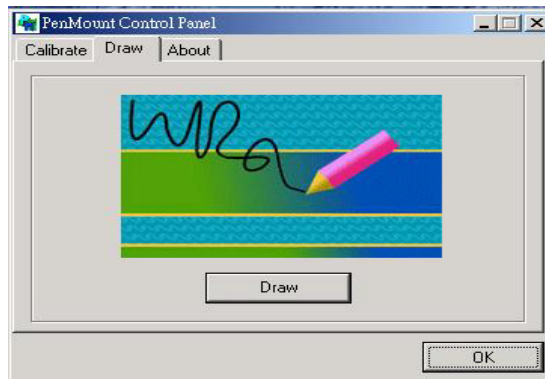
- **Calibrate**

To adjust the display with touch screen, click on “Calibrate” button and follow the calibrate point to do the calibration, there are five points on screen for calibration.



- **Draw**

Test or demonstrate PenMount touch screen operation, also the touch location is shown on the display, touch DRAW to start.



- **About**

It shows information about PenMount controller and driver version.

4.2.2 PenMount Monitor

The PenMount monitor icon is shown in the menu bar of Windows system when turn on PenMount monitor from PenMount Utilities.



There are several functions on PenMount monitor:

- **Control Panel**

When select this function, there is a mouse icon shown in the right-button place of screen. It shows Left Button being as default for normal use, change Right/Left button by clicking the mouse icon box. Blue area expresses what button has been selected or activated.

- **Right Button**

Change Right/Left button by clicking the mouse icon box. Blue area expresses what button has been or activated.

- **Beep**

Turn on or off beep sound.

- **Exit**

Close the PenMount Monitor function.

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