BPC-3600A
BPC-3600B
BPC-3600C

**6.4" Industrial Panel PC
with Embedded Engine Board
& Touch Screen**

• 6.4" TFT Panel •
• Embedded Engine Board •
• Embedded Low Power CPU •
• 64MB SO-DIMM •
• 2.5" HDD •
• +5V/+12V DC Power Adapter •

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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 hazard.

➢ 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.

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-3600 series.

- **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 before replacement is about 30,000 hours, although this depends on operating conditions.

- **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).

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Chapter 1

Introduction

The BPC-3600 series is an industrial Panel PC. The rear design of BPC-3600 series enhanced the disassembly process when required. It also supports various mounting solution like wall mount, panel mount or desktop for different application.

The BPC-3600 series has a 6.4" display and an optional touch screen that operate under all types of working environment.

This model can accommodate BOSER's HS-2603/HS-2604/HS-2605 Embedded Engine Board. The BPC-3600 series provides CF, CRT, BNC, RJ-45, KB/MS, COM and USB connectors.

● The BPC-3600 series is IBM PC/AT compatible and can draw from a large body of hardware and software resources worldwide.

● The user can select the operating system he wants to use just like an ordinary personal computer. An operating system such an MS-DOS, Windows can be selected to suit the application.

● The BPC-3600 series features an all-in-one flat display.

● Keyboard less operations are possible through the use of a touch screen. In addition to a watchdog timer indispensable in FA applications.

You can select from a broad range of variations to arrive at the optimum configuration for your application and budget.

1.1 Major Features

The BPC-3600 series comes with the following features:

● **BPC-3600A**

➢ Aluminum chassis
➢ 6.4" high brightness TFT color panel display
➢ Built-in HS-2603 Industrial Single Board Computer
➢ Built-in 300MHz Low Power CPU, 64MB SO-DIMM, 2.5" HDD
➢ Cyrix CX5530 CRT/Panel display controller
➢ RealTek RTL8100 10/100 Based LAN
➢ Three COM, one USB connector
➢ DiskOnChip socket supporting memory sizes of up to 288MB
➢ Supports CompactFlash card adapter (optional)
➢ Supports 6.4" Touch Screen (optional)
➢ Supports open frame type (optional)

● **BPC-3600B**

➢ Aluminum chassis
➢ 6.4" high brightness TFT color panel display
➢ Built-in HS-2604 Industrial Single Board Computer
➢ Built-in EDEN 400MHz Low Power CPU, 64MB SO-DIMM, 2.5" HDD
➢ VIA VT8606 CRT/Panel display controller
➢ RealTek RTL8100 10/100 Based LAN
➢ Three COM, one USB connector
➢ DiskOnChip socket supporting memory sizes of up to 288MB
➢ Supports 6.4" Touch Screen (optional)
➢ Supports open frame type (optional)

● **BPC-3600C**

➢ Aluminum chassis
➢ 6.4" high brightness TFT color panel display
➢ Built-in HS-2605 Industrial Single Board Computer
➢ Built-in EDEN 667MHz Low Power CPU, 64MB SO-DIMM, 2.5" HDD
➢ VIA VT8606 CRT/Panel display controller
➢ RealTek RTL8100 10/100 Based LAN
➢ AC97 3D audio controller
➢ One COM, one USB connector
➢ DiskOnChip socket supporting memory sizes of up to 288MB
➢ Supports 6.4" Touch Screen (optional)
➢ Supports Capture function (optional)
➢ Supports open frame type (optional)

1.2 Specifications

● **BPC-3600A**

- **System Board:** HS-2603 Industrial Single Board Computer
- **CPU:** 300MHz Embedded Low Power CPU
- **Memory:** One SO-DIMM socket supporting up to 128MB
- **Chipset:** Cyrix Geode GX1/CX5530
- **Touch Screen:** 6.4" resistive Touch Screen (optional)
- **VGA:** Cyrix CX5530 with 4MB shared main memory supporting CRT/Panel displays up to 1027 x 768 at 16-bit colors
- **LAN:** RealTek RTL8100 10/100 Based LAN
- **HDD/FDD/CD-ROM:** 2.5" HDD x 1
- **Serial Port:** One RS-232/422/485 and two RS-232, OR three RS-232
- **USB:** One USB connector
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **DiskOnChip:** DiskOnChip socket supporting memory sizes of up to 288MB
- **CompactFlash:** One standard CompactFlash card adapter (optional)
- **BIOS:** Award PnP Flash BIOS
- **Power Supply:** +5V/+12V DC power adapter
- **Operating Temperature:** 0~55°C
- **Storage Temperature:** -20~+70°C
- **Dimensions:** 23.3 x 6.8 x 16.4 cm
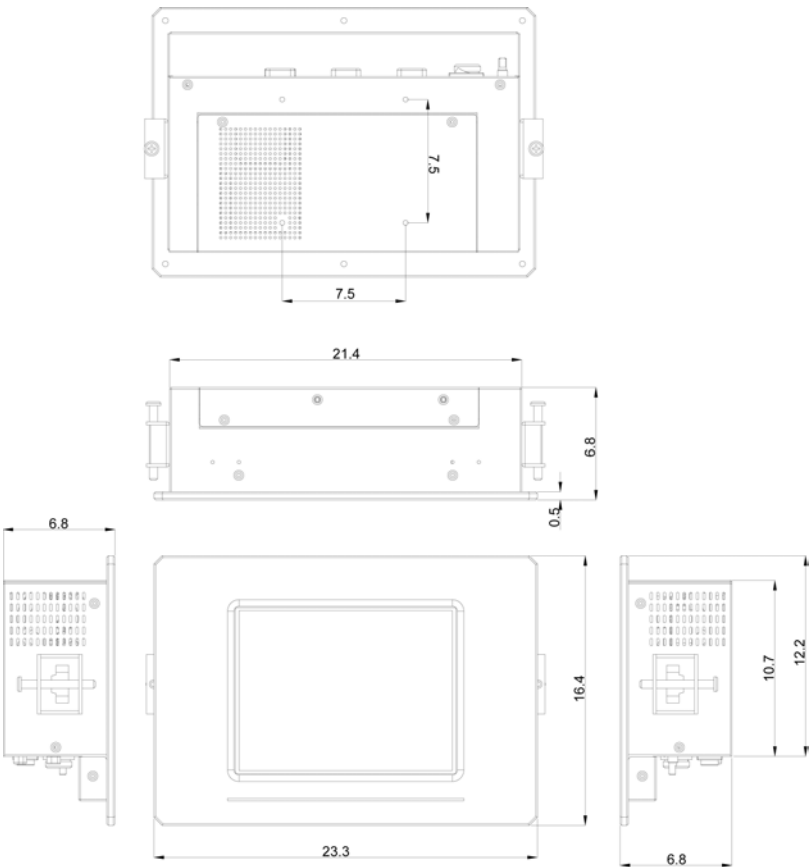
● **BPC-3600B**

- **System Board:** HS-2604 Industrial Single Board Computer
- **CPU:** VIA C3 EDEN 400MHz Embedded Low Power CPU
- **Memory:** One SO-DIMM socket supporting up to 256MB
- **Chipset:** VIA VT8606/VT82C686B
- **Touch Screen:** 6.4" resistive Touch Screen (optional)
- **VGA:** VIA VT8606 integrated S3 3D supporting AGP Bus
- **LAN:** RealTek RTL8100 10/100 Based LAN
- **HDD/FDD/CD-ROM:** 2.5" HDD x 1
- **Serial Port:** One RS-232/422/485 and two RS-232, OR three RS-232
- **USB:** One USB connector
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **DiskOnChip:** DiskOnChip socket supporting memory sizes of up to 288MB

- **BIOS:** AMI PnP Flash BIOS
- **Power Supply:** +5V/+12V DC power adapter
- **Operating Temperature:** -15~+60°C
- **Storage Temperature:** -20~+70°C
- **Dimensions:** 23.3 x 6.8 x 16.4 cm

- **BPC-3600C**

  - **System Board:** HS-2605 Industrial Single Board Computer
  - **CPU:** VIA C3 EDEN 667MHz Embedded Low Power CPU
  - **Memory:** One SO-DIMM socket supporting up to 256MB
  - **Chipset:** VIA VT8606/VT82C686B
  - **Touch Screen:** 6.4" resistive Touch Screen (optional)
  - **VGA:** VIA VT8606 integrated S3 3D supporting AGP Bus
  - **Capture:** One BNC or RCA connector supporting CCD (optional)
  - **Capture Card:** HS-878 capture card (optional)
  - **LAN:** RealTek RTL8100 10/100 Based LAN
  - **Audio:** AC97 3D audio controller
  - **HDD/FDD/CD-ROM:** 2.5" HDD x 1
  - **Serial Port:** One RS-232/422/485, OR one RS-232
  - **USB:** One USB connector
  - **Keyboard/Mouse:** PS/2 6-pin Mini DIN
  - **DiskOnChip:** DiskOnChip socket supporting memory sizes of up to 288MB
  - **BIOS:** AMI PnP Flash BIOS
  - **Power Supply:** +5V/+12V DC power adapter
  - **Operating Temperature:** 0~55°C
  - **Storage Temperature:** -20~+70°C
  - **Dimensions:** 23.3 x 6.8 x 16.4 cm

1.3 Panel Specifications

- **Screen Size:** 6.4 inches
- **Display Format:** R x 640, G, B x 480
- **Pixel Pitch:** 0.203(H) x 0.203(V) m/m
- **Brightness:** 300cd/m^2
- **Contrast Ratio:** 120:1
- **MTBF:** 15,000 hrs.

1.4   Dimensions

● **BPC-3600A/BPC-3600B/BPC-3600C**

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Chapter 2

Unpacking

2.1 Opening the Delivery Package

The BPC-3600 series is packed in an anti-static bag. The board has components that are easily damaged by static electricity. Do not remove the anti-static wrapping until proper precautions have been taken. Safety Instructions in front of this manual describe anti-static precautions and procedures.

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. Ground the board and exercise extreme care to prevent damage to the board from static electricity.

Integrated circuits will sometimes come out of their 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-3600 series delivery package contains the following items:

- **BPC-3600A**
  - **BPC-3600A Panel PC x 1**
  - **Power Cable x 1**
  - **Drive CD Disk x 1**
  - **HS-2603 User's Manual x 1**
  - **BPC-3600A User's Manual x 1**
  - **Touch Screen Drive Diskette x 1 (optional)**

- **BPC-3600B**
  - **BPC-3600B Panel PC x 1**
  - **Power Cable x 1**
  - **Drive CD Disk x 1**
  - **HS-2604 User's Manual x 1**
  - **BPC-3600B User's Manual x 1**
  - **Touch Screen Drive Diskette x 1 (optional)**

● **BPC-3600C**
  - ■ **BPC-3600B Panel PC x 1**
  - ■ **Power Cable x 1**
  - ■ **Drive CD Disk x 1**
  - ■ **HS-2605 User's Manual x 1**
  - ■ **BPC-3600C User's Manual x 1**
  - ■ **Touch Screen Drive Diskette x 1 (optional)**

It is recommended that you keep all the parts of the delivery package intact and store them in a safe/dry place for any unforeseen event requiring the return shipment of the product. In case you discover any missing and/or damaged items from the list of items, please contact your dealer immediately.

Chapter 3

Hardware Installation

This chapter tells how to install components into the Panel PC system. External Interface please refers to SBC's manual.

3.1 Remove Hard Disk Drive

1. Please loose screws and detach the HDD module from main chassis.
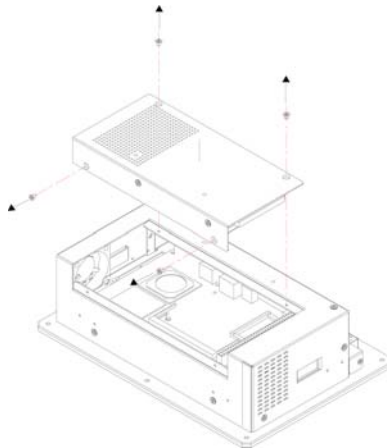
2. Remove the HDD from rear cover.
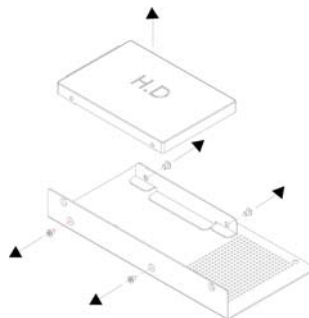
3.2 Install Hard Disk Drive

1. Please attach the HDD to rear cover and fasten screws.
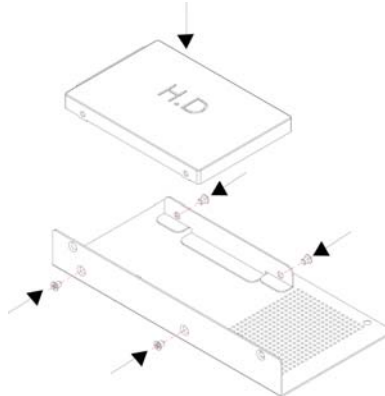

2. Install the HDD module onto main chassis.
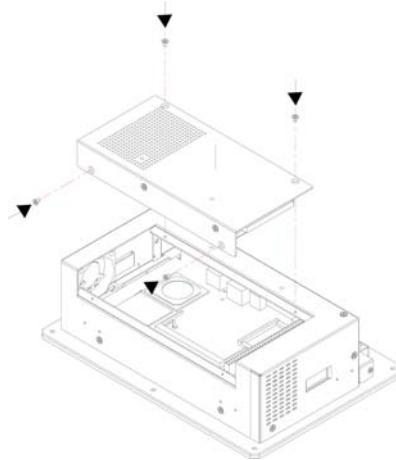
Chapter 4

Touch Screen Driver Installation

This chapter contains the detailed information of 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 Win 2000 operating systems. It is recommended that you install the drivers matching the sections listed in this chapter.

4.1   Touch Screen Driver Installation

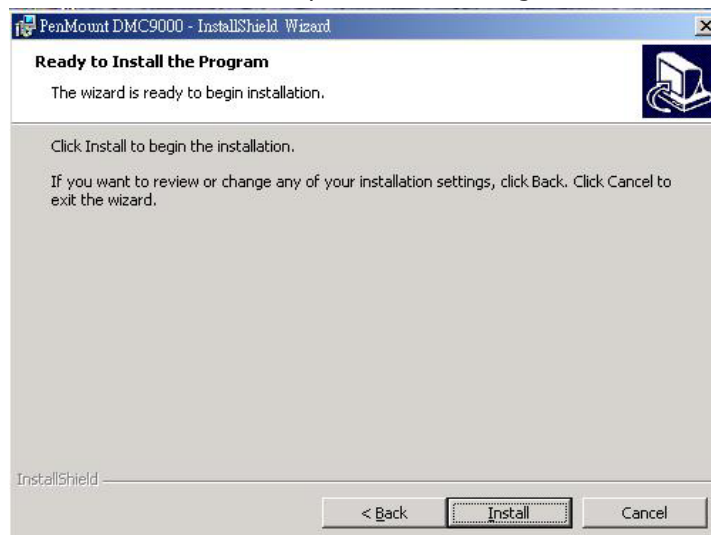### 4.1.1   Installing Touch Screen Driver in Win 95 and 98

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 "Next".
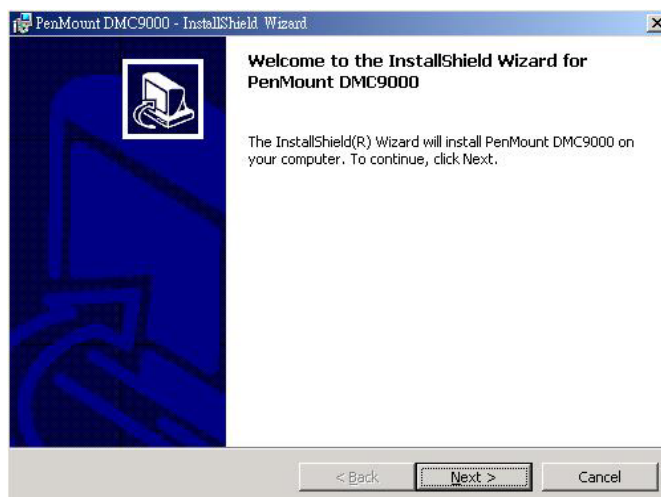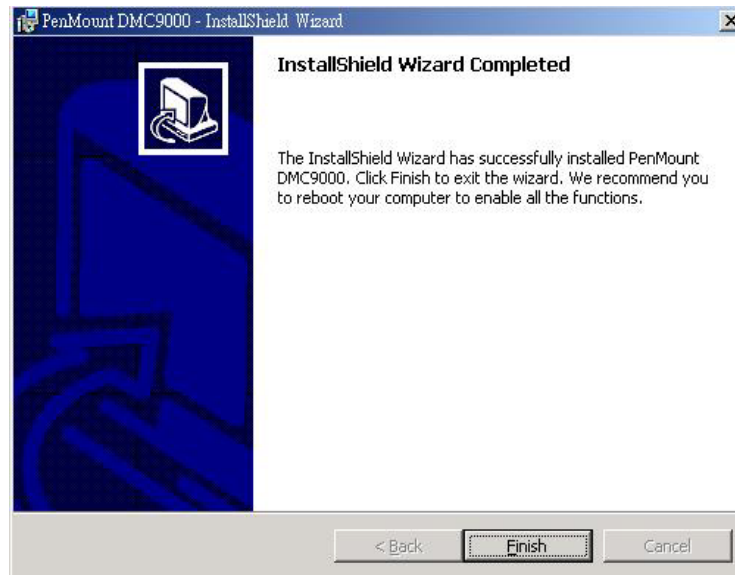
3. The next screen is "Software License Agreement", select "I accept" and click "Next".
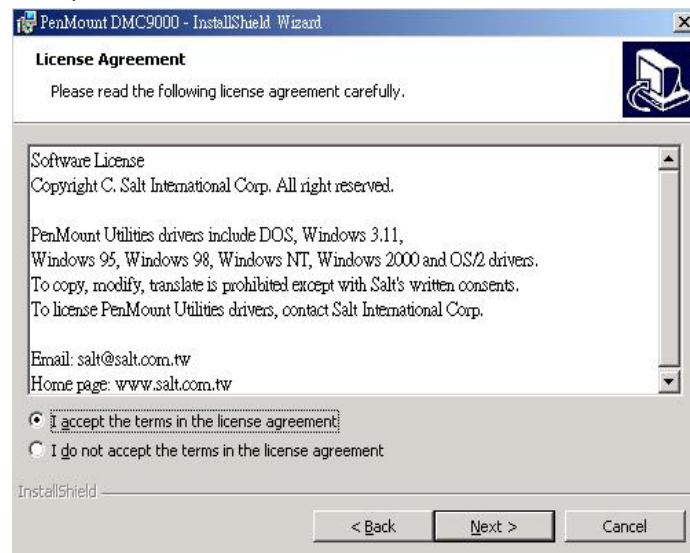
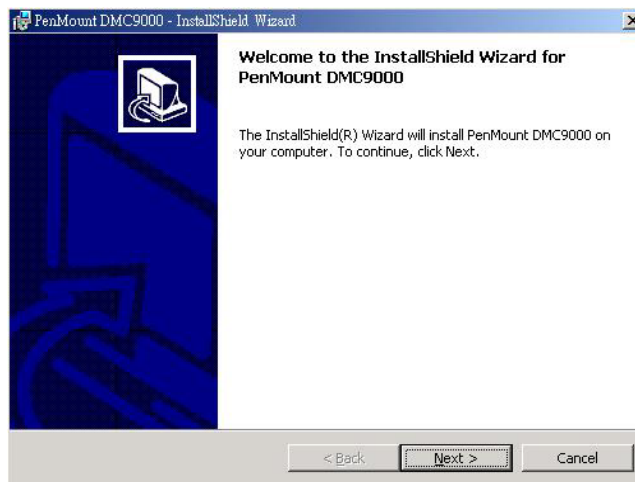4. The next screen is "Ready to Install the Program", click "Install".

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

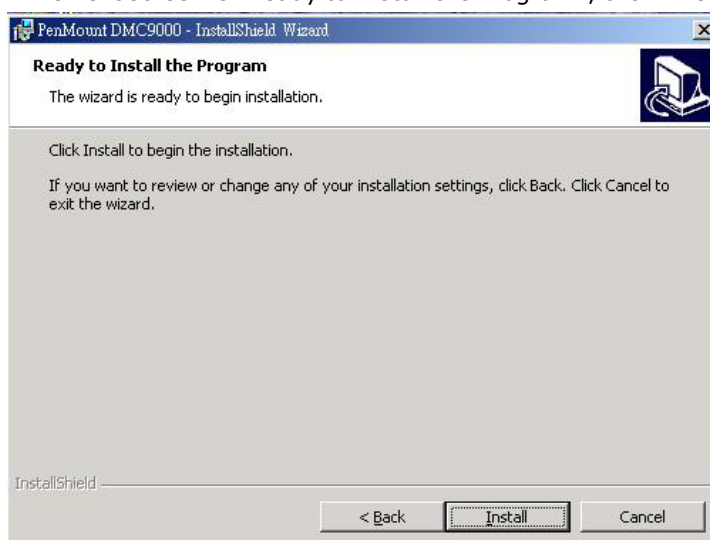### 4.1.2 Installing Touch Screen Driver in Win 2000

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 "Next".
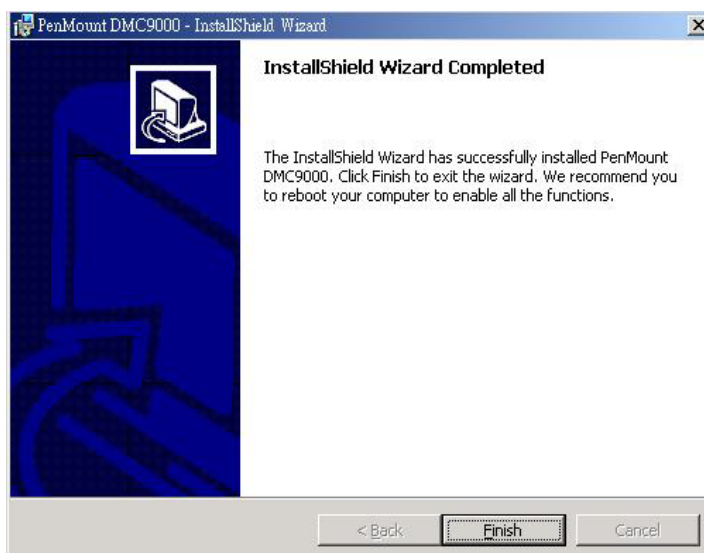

3. The next screen is "Software License Agreement", select "I accept" and click "Next".

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

5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click "Finish" to exit the wizard.
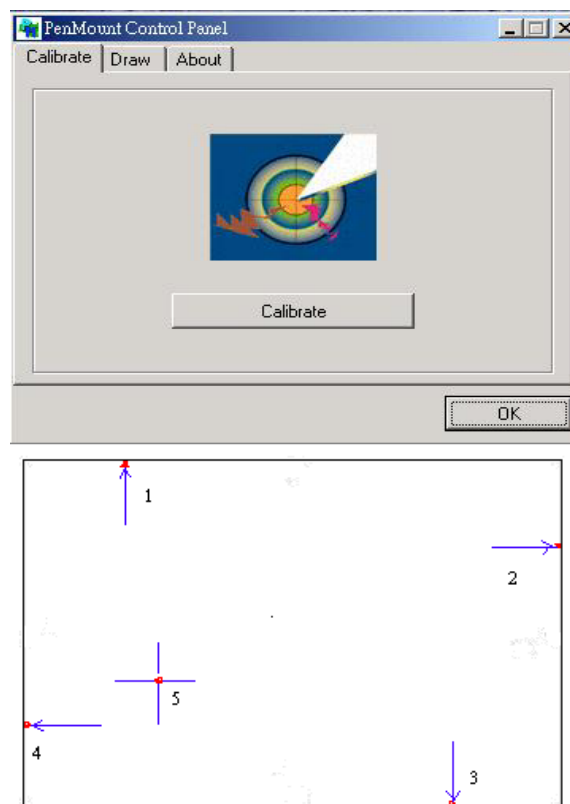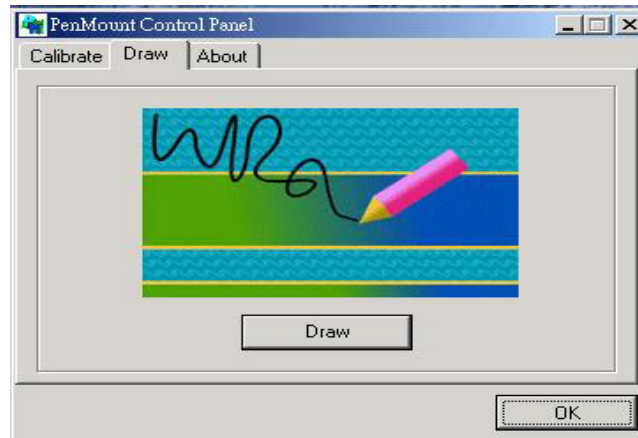
4.2 Driver Functions

4.2.1 PenMount Control Panel

● **Calibrate**

To adjust the display with touch screen, click "Calibration" and follow the calibrate point to do 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 this driver.

4.2.2 PenMount Monitor

The PenMount monitor icon is shown in the menu bar of Windows 2000 system when turn on PenMount monitor from PenMount Utilities.

Control Panel

Beep
Right Button

Exit

There are several functions on PenMount monitor:

● **Right Click Button**

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, touch this mouse icon to change the next touch to be 'Right Button' function. After one touch, the mouse icon will change to 'Left Button' automatically. If user needs to use right button again, user has to touch the mouse icon again for changing the button function.

● **Beep**

Turn on or off beep sound.

● **Exit**

Close the PenMount Monitor function.