



integration with integrity

2907780 User's Manual
17" Ultra Slim Fanless PC
Version 1.0



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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 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 2907780.

- **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)
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Chapter 1

General Description

The 2907780 is a latest Industrial Panel PC, Panel PC features anti-vibration design and is a best cost-effective alternation for users. This precise streamline platform can be applied to Kiosk, DSA, transaction terminal, POS, home security system, ATM system and voting machine parking field and more.

It has a built-in ultra low power consumption Intel® mobile processor is responded to demands of cost-effective panel system. All of the Panel PC's Support resistive touch screens, highly expandable, it is an ideal for space-limited environments, and furthermore it supports an optional rotational WLAN antenna for wireless network connection.

Anti-vibration

With an unique anti-vibration design, All of the 2907780 series Panel PC has been approved for vibration tests at Intel® Pentium® M/Celeron® M processor in the u-FCPGA 478 package in operation mode with Hard Disk

Ultra slim design: 55~61 mm thickness

With streamlined mechanical layout, the 2907780 series panel PC has an ultra slim thickness for space- limited environment. It is not only decreases maintenance time but also saves the space considerably.

Cost-effective Fanless Embedded System

The 2907780 series Panel PC, the most slim, compact size, fanless embedded computer, is powered by an ultra low power processor, Intel® Pentium® M/Celeron® M processor in the u-FCPGA 478 package onboard, The total power consumption of the system is under 27W merely. It generates the best value for both power usage and cost saving. Without hard disk space and extra add-on cards, All of the panel PC's present a ultra slim design and provides a cost-effective alternative for users. I/O feature contains VGA, COM, dual LAN, USB 2.0, and PS/2 connectors. Moreover.

1.1 Major Features

The 2907780 series comes with the following features:

- Ultra slim, fanless, aluminum front panel design
- 17" TFT color panel display
- Built-in touch screen, HS-1752, 150W adapter
- Provides Intel® P-M/C-M, WLAN Module (optional)
- Onboard graphics, dual GB ethernet, audio controller
- 2.5" SATA HDD space x 2, slim CD-ROM space x 1
- 2907780 provides COM x 6, USB2.0 x 6

1.2 Specifications

● System

- CPU
Intel® Pentium® M/Celeron® M processor in the u-FCPGA 478 package (optional)
- BIOS
Award BIOS with 4Mb SPI Flash EEPROM
- System Chipset:
Intel® 915GME/ICH6-M

-
- **System Memory**
Two 240-pin DIMM socket up to 2GB DDR2 SDRAM
 - **Display Chipset**
Intel® 915GME
 - **Audio Chipset**
Realtek ALC655 5.1CH audio codec
 - **Ethernet Chipset**
Dual RealTek RTL8111B 10/100/1000 Mbps LAN
Provides Wireless LAN Module (optional)
 - **Drive Bay**
2 x 2.5" SATA HDD space
1 x Slim CD-ROM space
 - **Watchdog Timer**
Reset: 1 sec.~255 min. and 1 sec. or 1 min./step

● **Panel & Touch Screen**

- **LCD Size**
17"
- **Max Resolution**
1280 x 1024 pixels
- **Brightness (cd/m²)**
300 (center, Typ)@7.5mA
- **Contrast Ratio**
800:1
- **LCD Color**
16.7M color (RGB 6-bits + FRC data)
- **Pixel Pitch (mm)**
0.264(H) x 0.264(V)
- **OSD**
Provides OSD function
- **Touch Screen**
17" resistive

● **Mechanical & Environmental**

- **Front Panel Color**
Black
- **Dimensions (LxHxW)**
45.0 x 37.0 x 8.95 cm
- **Operation Temperature**
0~+45 degrees C
- **Storage Temperature**
-20~+70 degrees C
- **EMC**
FCC/CE

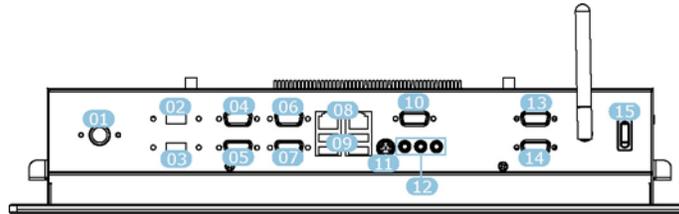
- **Front Panel Protection**
IP65 Compliance

- **Power Adapter**
150W adapter

- **I/O Interface**

- **External I/O**
USB2.0 x 6, COM x 6, VGA, LAN x 2, PS/2 KB/MS, Line In, Line Out, MIC In

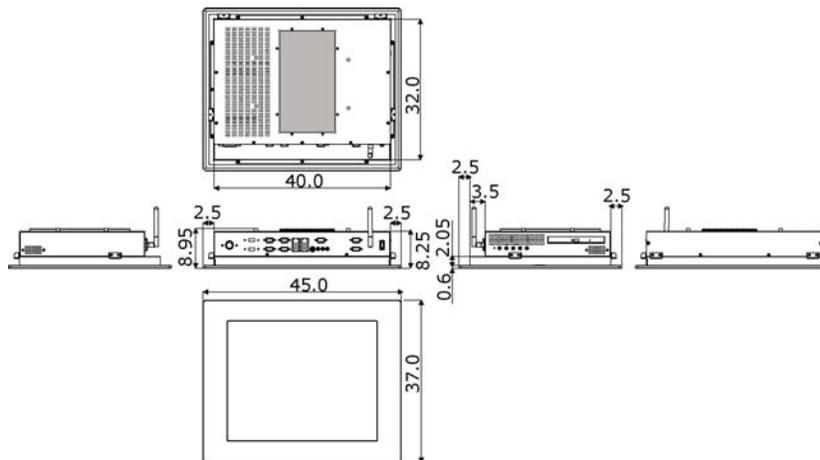
- **Rear I/O**



- | | | |
|---------------------|----------------------|-------------------|
| 01. Power In | 06. COM 5 | 11. KB/MS |
| 02. USB2.0 | 07. VGA | 12. Audio |
| 03. USB2.0 | 08. LAN * 2 | 13. COM 4 |
| 04. COM 1 | 09. USB2.0 *4 | 14. COM 6 |
| 05. COM 2 | 10. COM 3 | 15. ON/OFF |

1.3 Dimensions

Dimension measure in mm



Chapter 2

Unpacking

2.1 Opening the Delivery Package

The 2907780 is packed with an anti-static bag. The board contains sensitive electricity components that are easily damaged by static (electricity). Do not remove the anti-static wrapping until proper grounding have been taken. Safety instructions 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 it for any damage that might have occurred during shipment. Ground the board and exercise extreme careful to prevent and damage to the board from static.

The 2907780 delivery package contains the following items:

- 2907780 x 1
- Power Cable x 1
- System Board Driver CD x 1
- System Board User's Manual x 1
- 2907780 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 reasons that require for returning the product. In case you find any missing and/or damaged items from the list, please contact your dealer or sale representatives immediately.

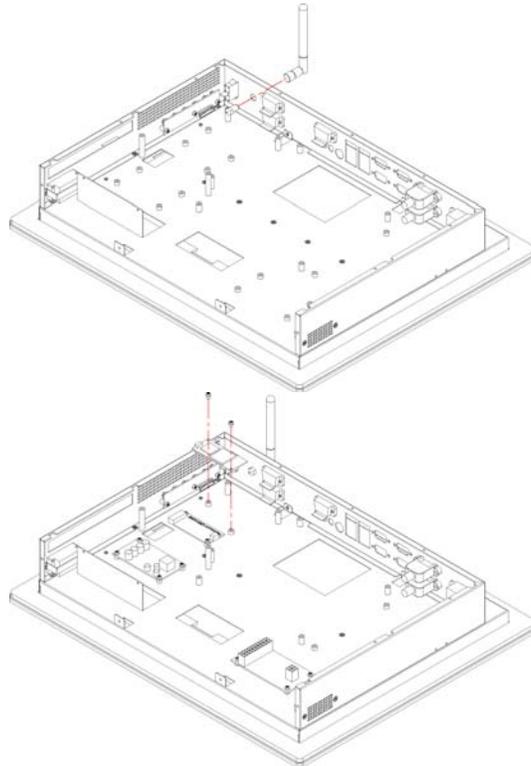
Chapter 3

Hardware Installation

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

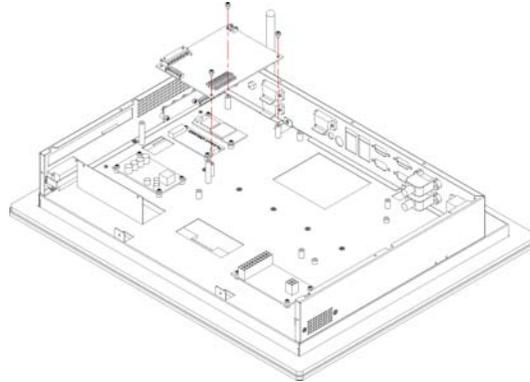
3.1 WLAN Device Installation

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



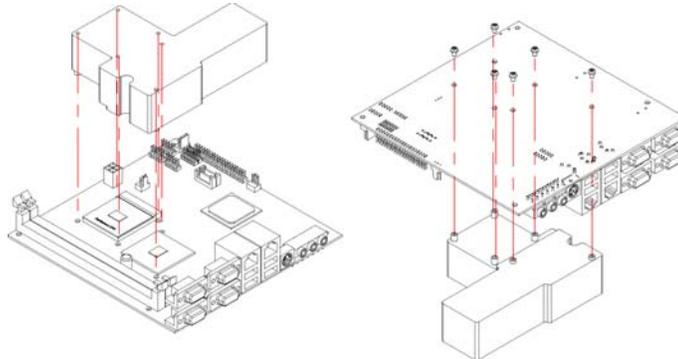
3.2 Installation AD

1. Follow the photo instruction install the AD into the chassis.



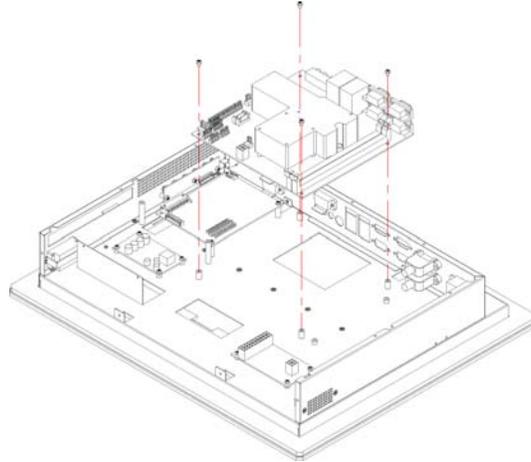
3.3 Heat Sink Installation for CPU

1. Follow the photo instruction install the heat sink into the SBC with 6 screws evenly.

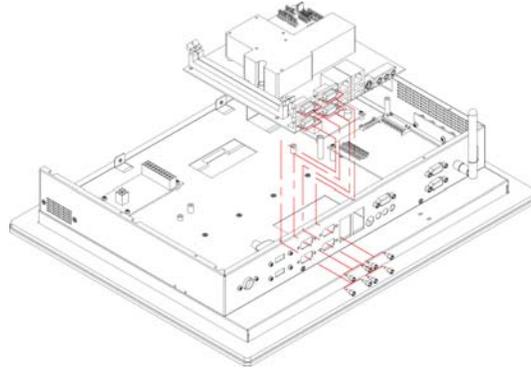


3.4 Installation SBC

1. Install the SBC with chassis.

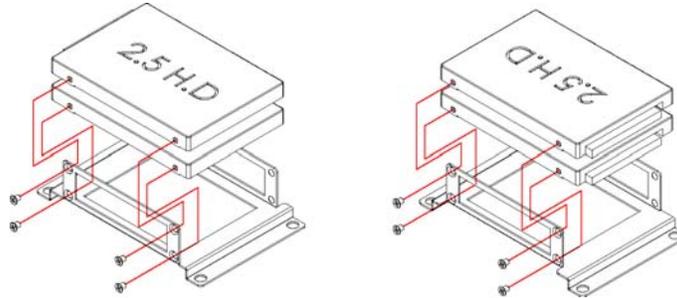


2. Use Eight screws install SBC with front panel.

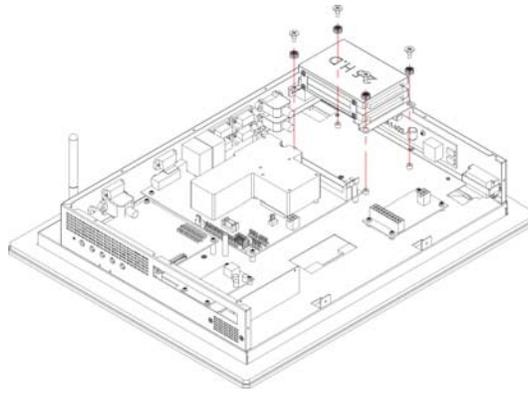


3.5 HDD Cage Assembly

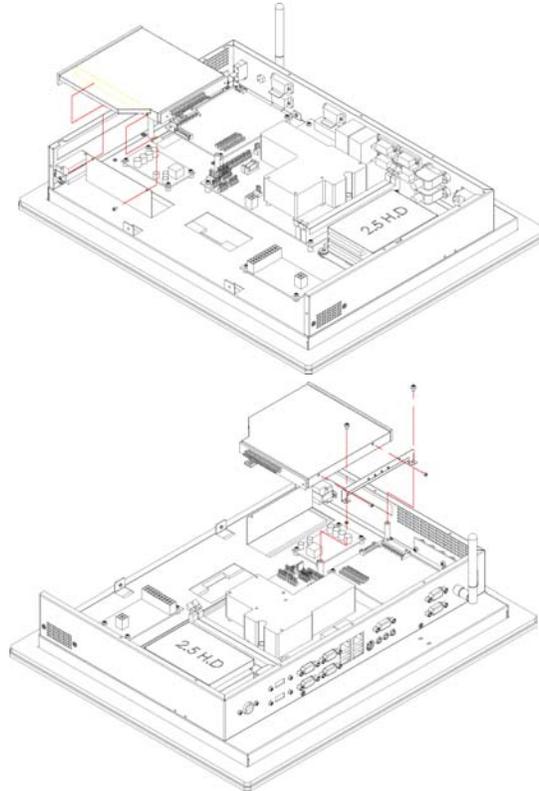
1. Follow the photo instruction install the HDD into the HDD mounting bracket.



2. Follow the photo instruction install the HDD KIT into the chassis.

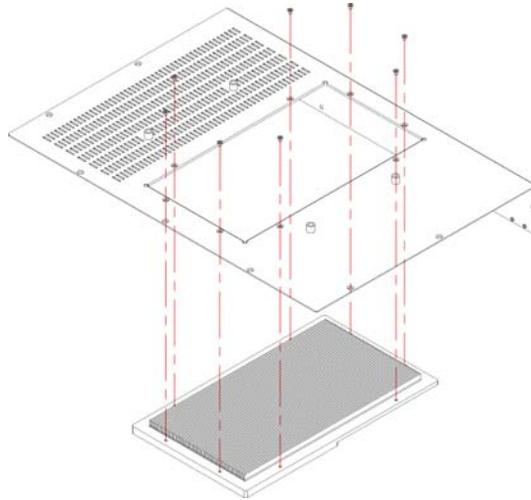


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3. Follow the photo instruction install the CD-ROM into the CD-ROM mounting bracket.



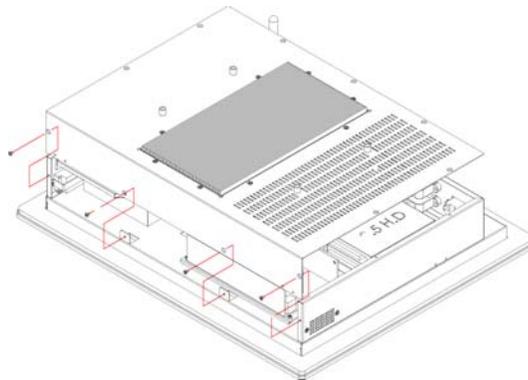
3.6 Heat Sink Installation for Chassis

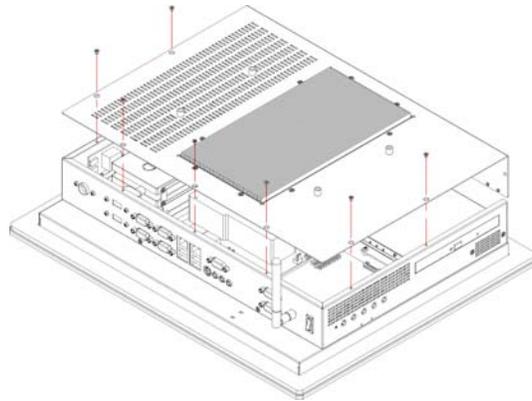
1. Follow the photo instruction install the large heat sink into the back cover of the chassis.



3.7 Back Cover Installation

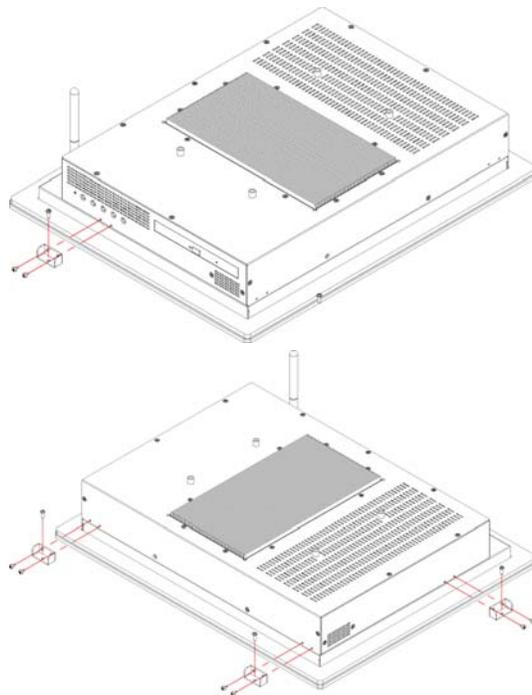
1. Follow the photo instruction install the back cover into the chassis.



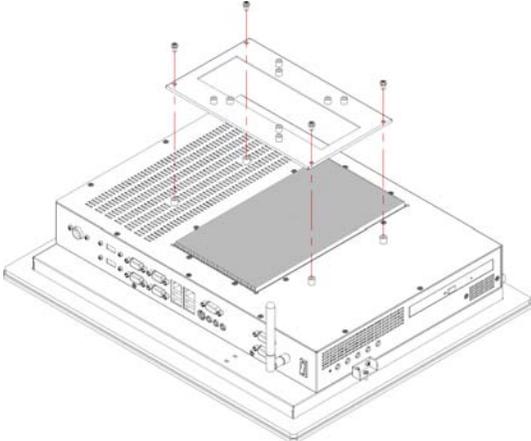


3.8 Wall Mount Kit

1. Follow the photo instruction install the wall mount kit into the chassis.



3.9 VESA Mount Metal Stand Kit



Chapter 4

Touch Screen Driver Installation

This chapter illustrates the detail 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 WIN2000 operating systems. Other operation system may slightly different.

4.1 Resistive Type Touch Screen Driver Installation

4.1.1 Installing Touch Screen Driver in WIN95/98

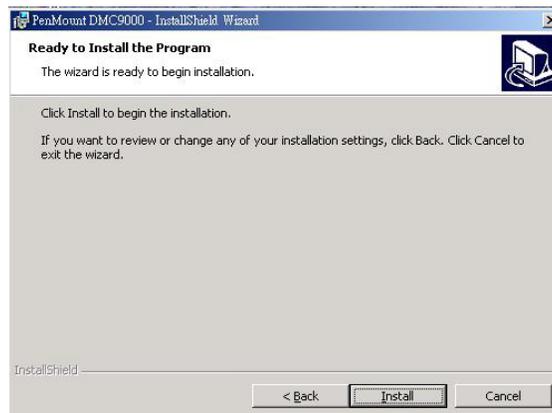
1. Insert Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "Installation Wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click on **Next>**.



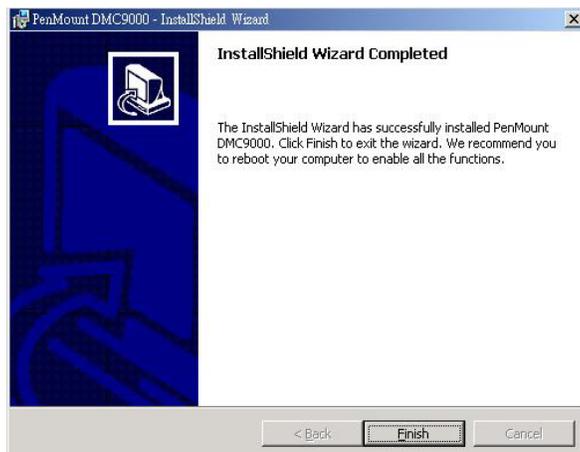
3. The next screen is "Software License Agreement", select "I accept" and click on **Next>**.



4. Click "**Install**" to begin the installation.



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

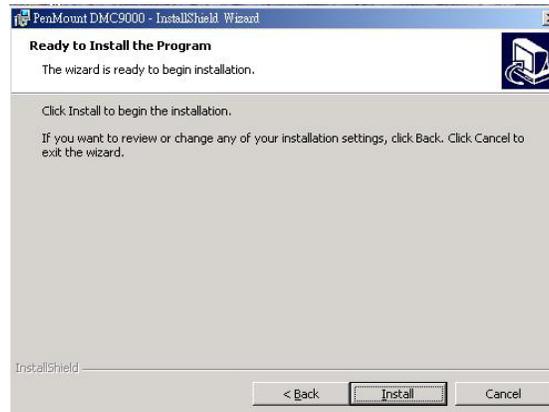
1. Insert Utility CD Disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying Installation Wizard and PenMount Utilities Installation screen plus welcome message appear, click on **Next>**.



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

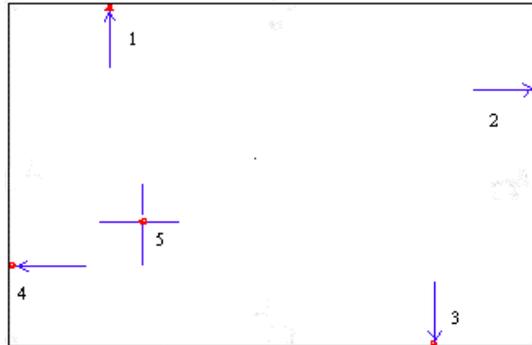


4.1.3 PenMount Control Panel

- **Calibrate**

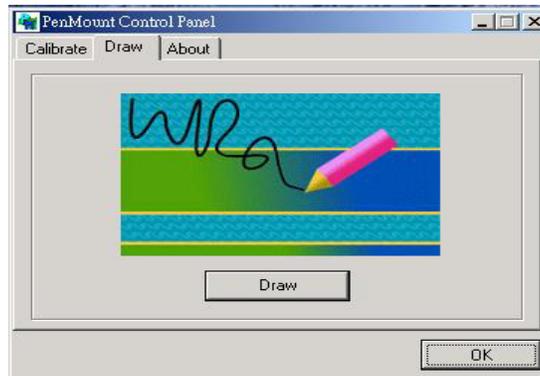
To adjust the display with touch screen, click on “Calibrate” button and follow the calibrate point to do the calibration, there are five points on screen for calibration.





- **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.

4.1.4 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**

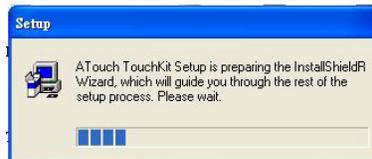
Turn on or off beep sound.

- **Exit**

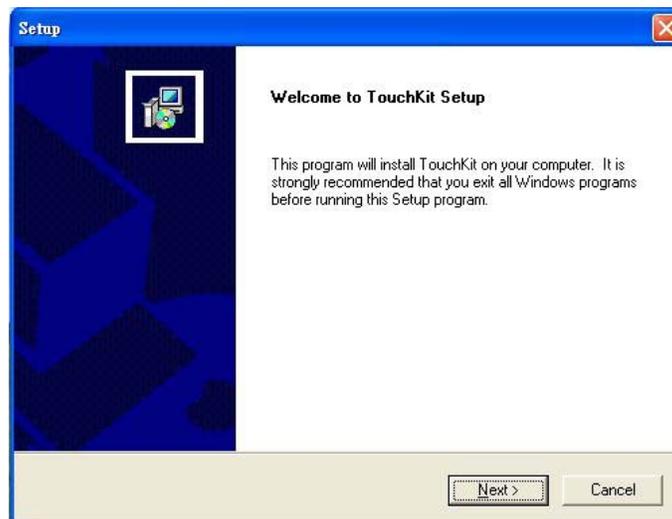
Close the PenMount Monitor function.

4.2 SAW Type Touch Screen Driver Installation

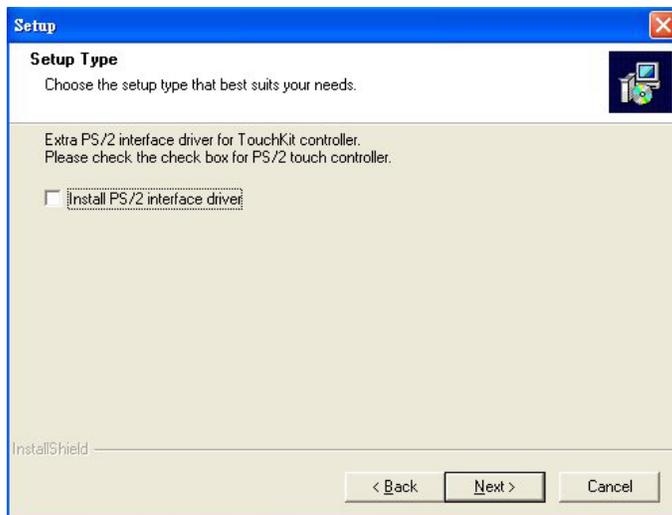
1. Insert Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.



2. The screen displays copying "Setup" and "TouchKit Setup" screen message appear, click on **Next>**.

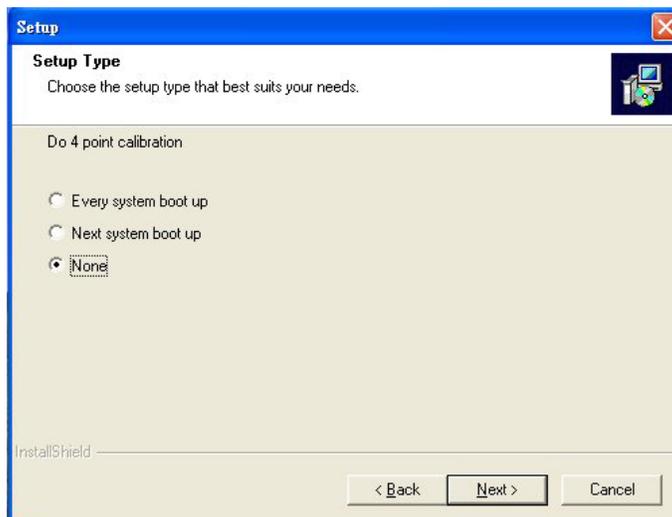


3. The next screen is as below, and click on **Next>**.



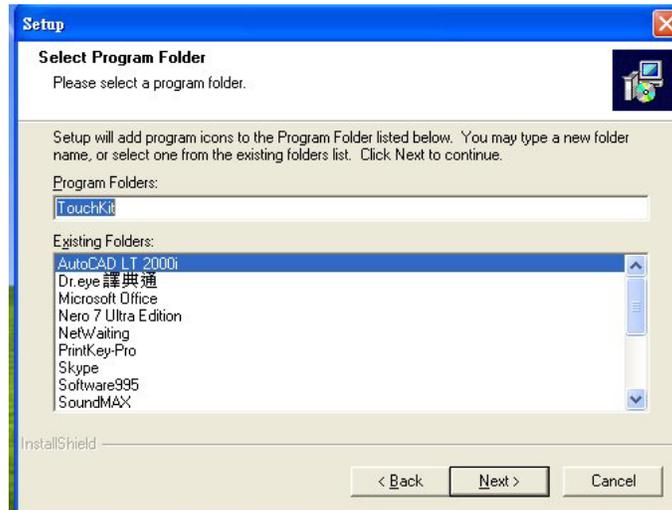
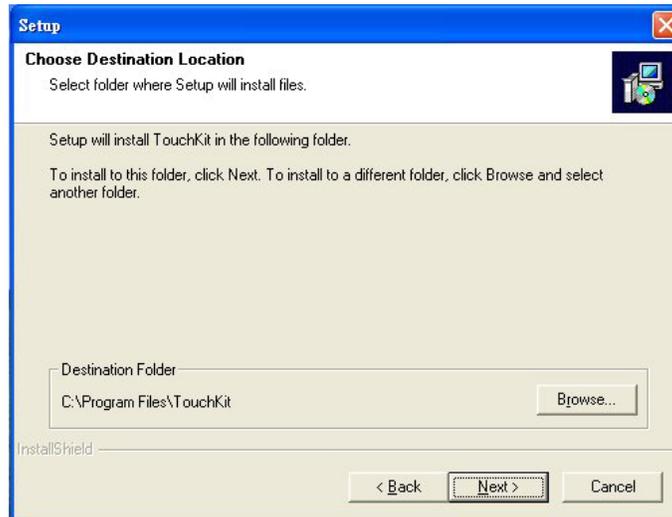
NOTE: *The default is unchecked.*

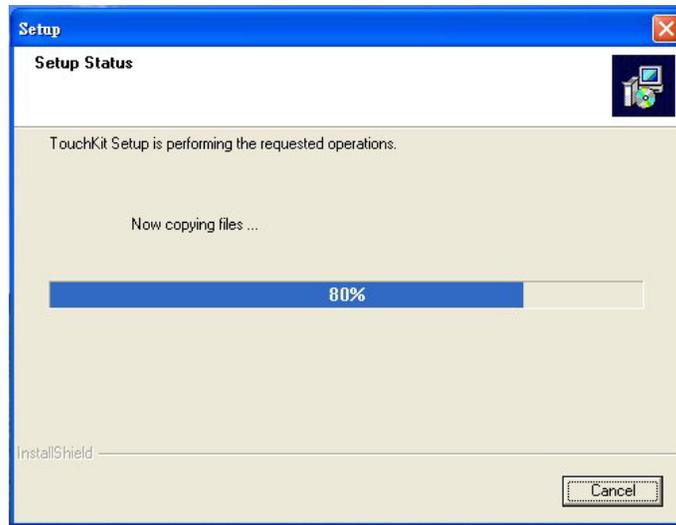
4. The next screen is choosing the setup type that "Do 4 point calibration", select "None" and click on **Next>**.



NOTE: *Check the necessary button for your need.*

5. Choose the drivers install location, you desire or leave if as default and click on **Next>**.





6. When the TouchKit setup finish, you will see an icon names "TouchKit" in your desktop.



Any advice or comments about our products and service, or anything we can help you with please don't hesitate to contact with us. We will do our best to support your products, projects and business.



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