

IBT3319TSF

19" Fanless Panel PC
w/Touch Screen, MainBoard,
12V DC Powered
Provides Intel® Atom™ processor 1.6GHz,
2W AMP Stereo Speaker

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Edition 1.1, October 05, 2010

Table of Contents

Chapter 1	General Description.....	1
1.1	Major Features.....	2
1.2	Specifications.....	2
1.3	Dimensions.....	5
Chapter 2	Unpacking.....	7
2.1	Opening the Delivery Package.....	7
2.2	Inspection.....	7
Chapter 3	Hardware Installation.....	9
3.1	SBC Installation.....	9
3.2	HDD/CD-ROM Installation.....	11
3.3	WLAN Device Installation.....	14
3.4	Back Cover Installation.....	15
3.5	Wall Mount Kit.....	16
Chapter 4	Touch Screen Driver Installation.....	17
4.1	Resistive Type Touch Screen Driver Installation.....	17
4.1.1	Installing Touch Screen Driver in WIN95/98.....	17
4.1.2	Installing Touch Screen Driver in WIN2000.....	19
4.1.3	PenMount Control Panel.....	21
4.1.4	PenMount Monitor.....	23

Declaration of Conformity -- CE Mark

IBT Technologies Inc. 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>IBT3319TSF</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:

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 IBT3319TSF.

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 IBT3319TSF is a latest Industrial 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® Atom™ N270 processor 1.6GHz which is responded to demands of cost-effective panel system. All of Panel PC supports resistive touch screen. highly expandable. It is an ideal for space-limited environments, and furthermore supports an option rotational WLAN antenna for wireless network connection.

Anti-vibration

With an unique anti-vibration design, All of TSF series Panel PC has been approved for vibration tests at Intel® Atom™ N270 processor 1.6GHz in operation mode with Hard Disk

Ultra slim design: 55~61 mm thickness

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

Cost-effective Fanless Embedded System

The IBT3XXXTSF Panel PC are the most slim, compact size, fanless embedded computer, is powered by an ultra low power processor, Intel® Atom™ N270 processor 1.6GHz, 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 TSF series panel PC presents an ultra slim design and provides a cost-effective alternative for users. I/O feature contains VGA, COM, GB LAN, USB2.0, Audio, and PS/2 connectors.

1.1 Major Features

The IBT3319TSF series comes with the following features:

- Fanless, aluminum front panel design
- 19" TFT color panel display
- Built-in touch screen, Brightness Control, SBC+intel® Atom™ N270 processor 1.6GHz, CCD Camera, 12V DC adapter
- Onboard graphics, GB ethernet, audio controller
- 2 x 2.5" SATA HDD space, 1 x slim CD-ROM space
- Provides 2W AMP with Stereo Speaker
- Provides CF, 1 x mini PCI, 6 x COM, 6 x USB2.0
- COM1 and COM2 provides +5V power output
- Option for wireless LAN module

1.2 Specifications

System

- CPU
- Intel® Atom™ N270 processor 1.6GHz
- BIOS
- Award PnP Flash BIOS

System Chipset:
Intel® 945GSE/ICH7-M

System Memory
1 x 200-pin SO-DIMM socket up to 2GB DDR2 SDRAM

Display Chipset
Intel® 945GSE integrated Intel® GMA950

Audio Chipset
RealTek ALC202A
2W AMP with Stereo Speaker

Ethernet Chipset
RealTek RTL8111C 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

Storage
1 x Type II CF socket

Watchdog Timer
Software programmable time-out intervals from 1~255 sec. or 1~255 min.

Expansion Interface
1 x Type III Mini PCI slot

CCD Camera
Provides CCD Camera

Dimensions (LxHxW)
48.0 x 38.0 x 6.02 cm

Cut Out Size (LxH)
43.4 x 34.9 cm

Operation/Storage Temperature
0~+45 degrees C/-20~+70 degrees C

EMC
FCC/CE

Front Panel Protection
IP65 compliance

Power Adapter
12V DC in 84W adapter (Lockable jack)

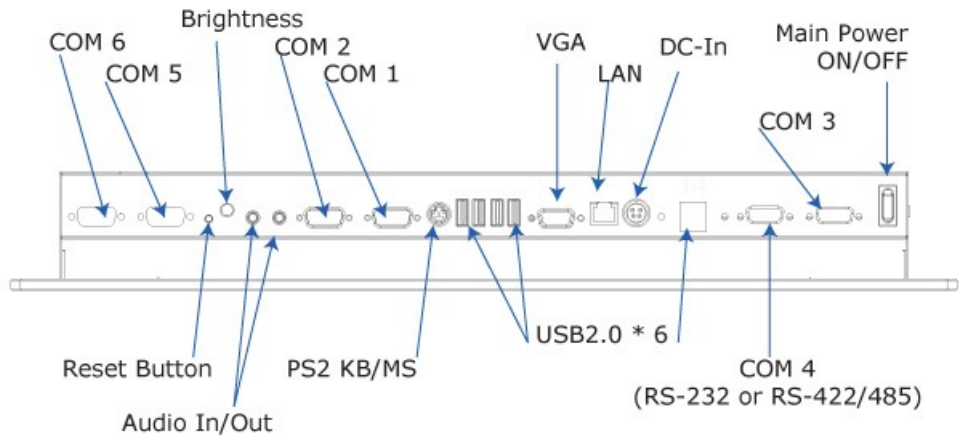
Panel & Touch Screen

LCD Size
19"
Max Resolution
1280 x 1024 pixels
Brightness (cd/m²)
300 (center, Typ)@7.5mA
Contrast Ratio
800:1
LCD Color
16.7M colors
Pixel Pitch (mm)
0.294 x 0.294
Touch Screen
19" resistive

I/O Interface

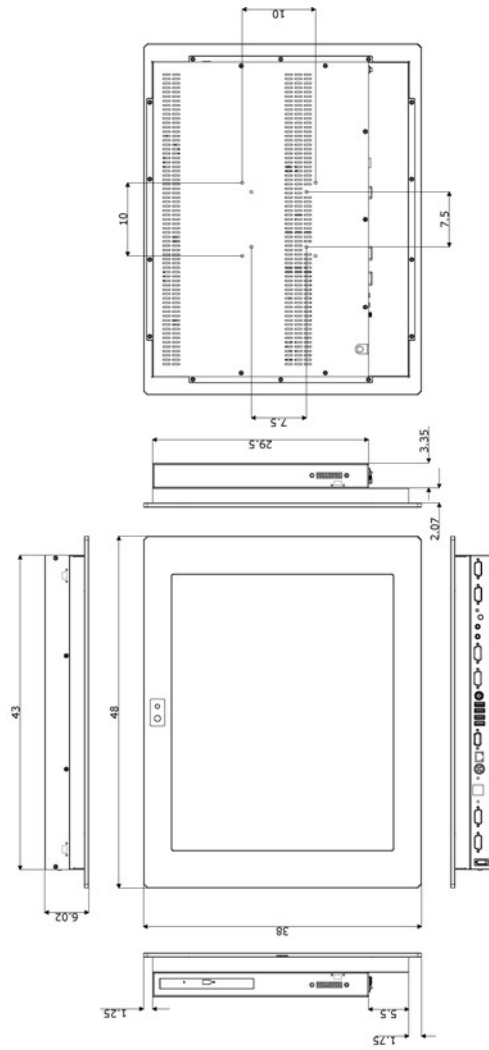
External I/O
6 x COM, MIC In, Line Out, PS/2 KB/MS, 6 x USB2.0, VGA, LAN
Rear I/O

IBT3319TSF connectors



1.3 Dimensions

Dimension measure in cm



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Chapter 2

Unpacking

2.1 Opening the Delivery Package

The IBT3319TSF 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 IBT3319TSF delivery package contains the following items:

- PANELPC x 1**
- Power Cable x 1**
- System Board Driver CD, including User's Manual**

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.

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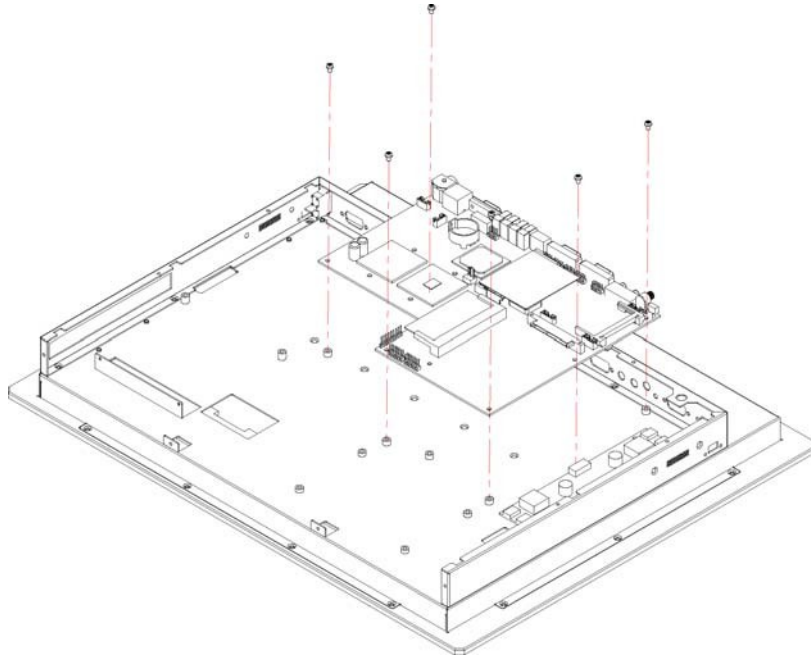
Chapter 3

Hardware Installation

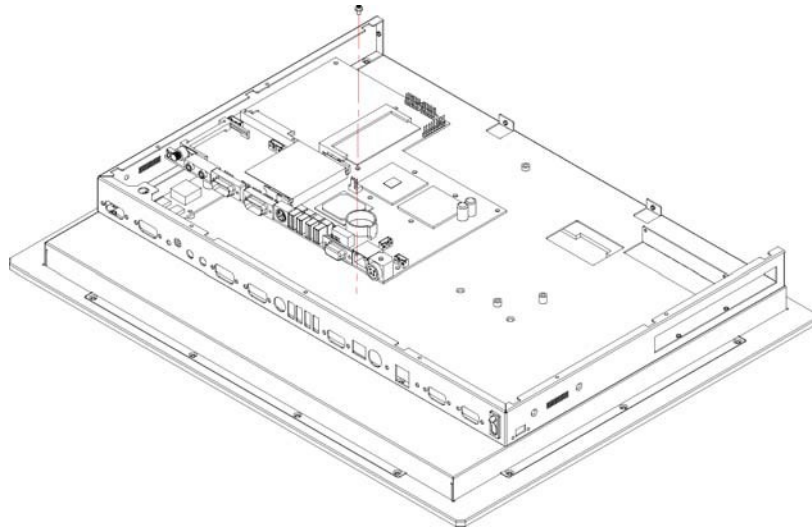
This chapter illustrates how to install components into the Panel PC system. Please refer to system board's manual for the external interface.

3.1 SBC Installation and Service

1. Install the SBC on the chassis.

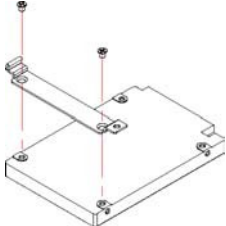


2. Screw the SBC with the front panel.

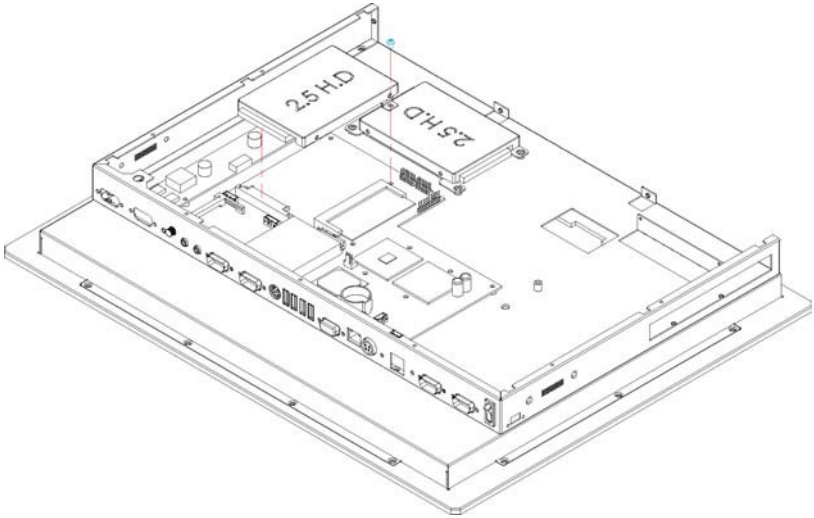


3.2 HDD/CD-ROM Installation

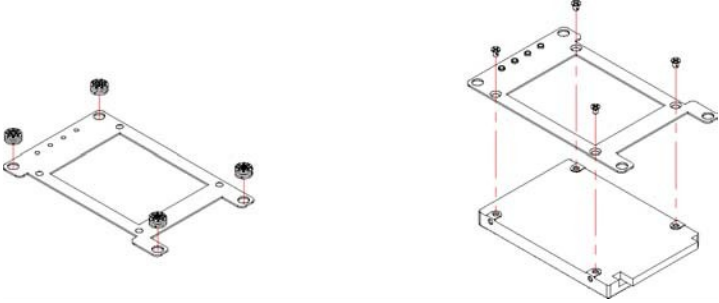
- 1. Screw the HDD bracket on the hard disk.



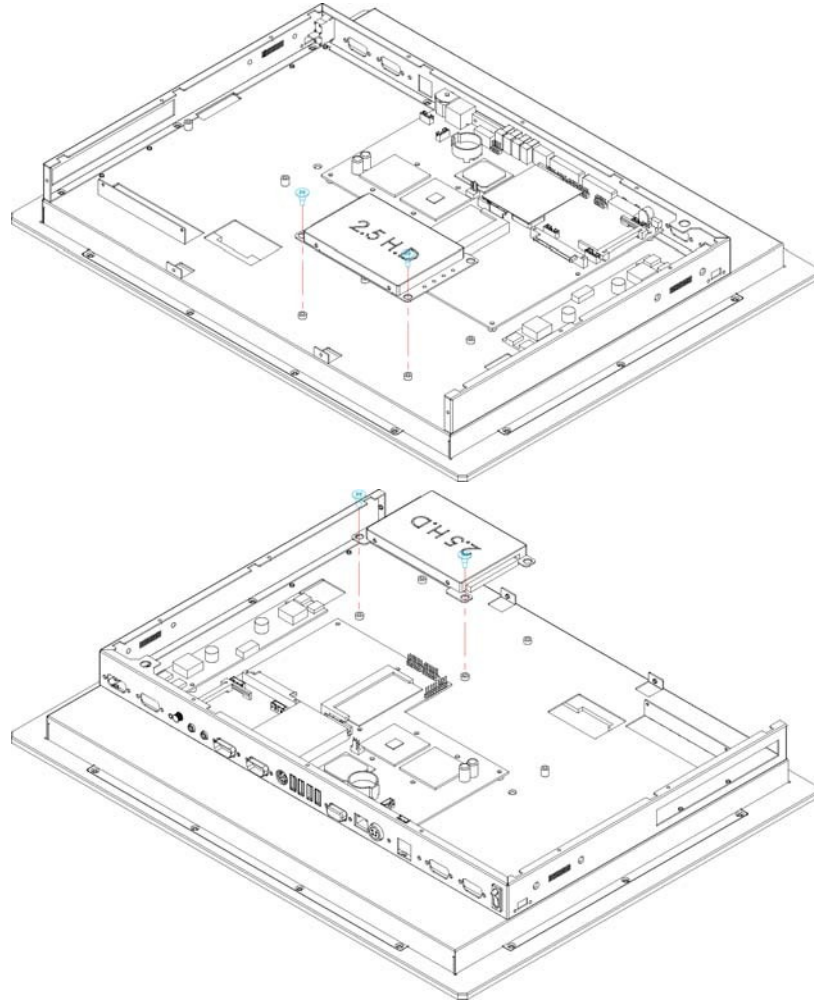
- 2. Install the hard disk on the main board.



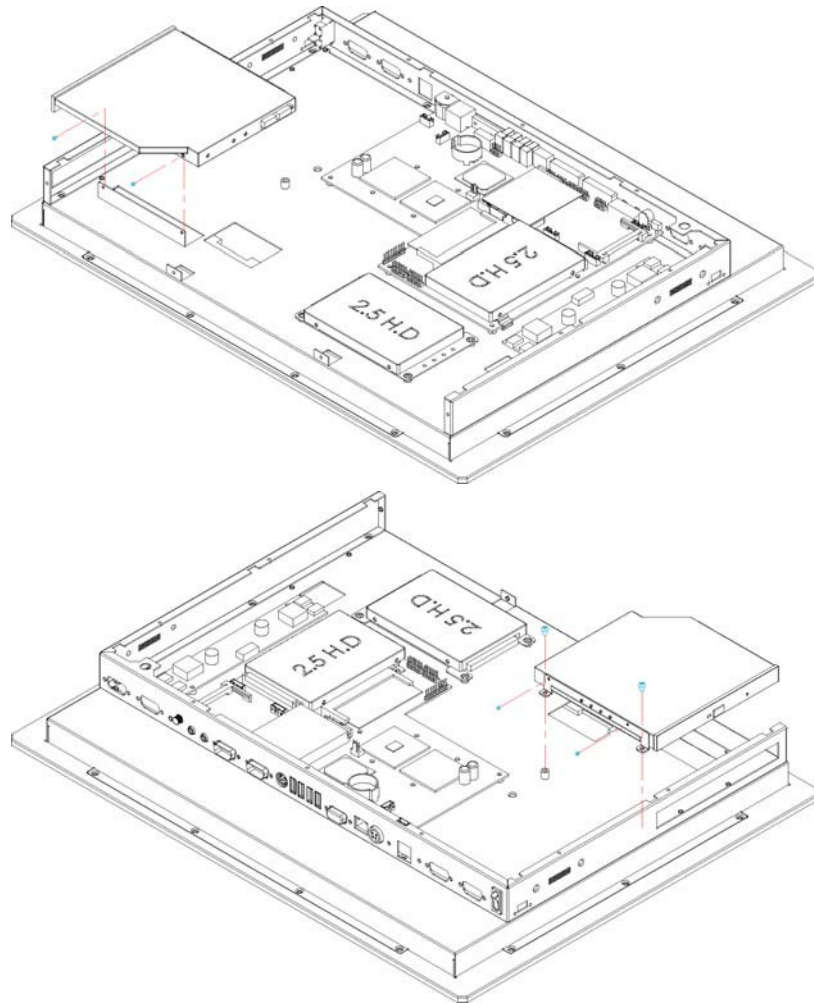
- 3. Screw the other HDD bracket on the hard disk.



4. Install the hard disk on the chassis.

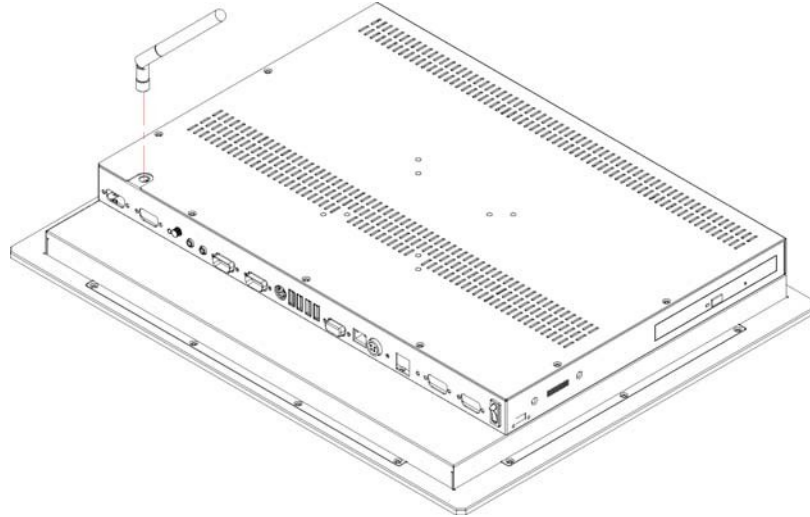


5. Install the optical device on the chassis



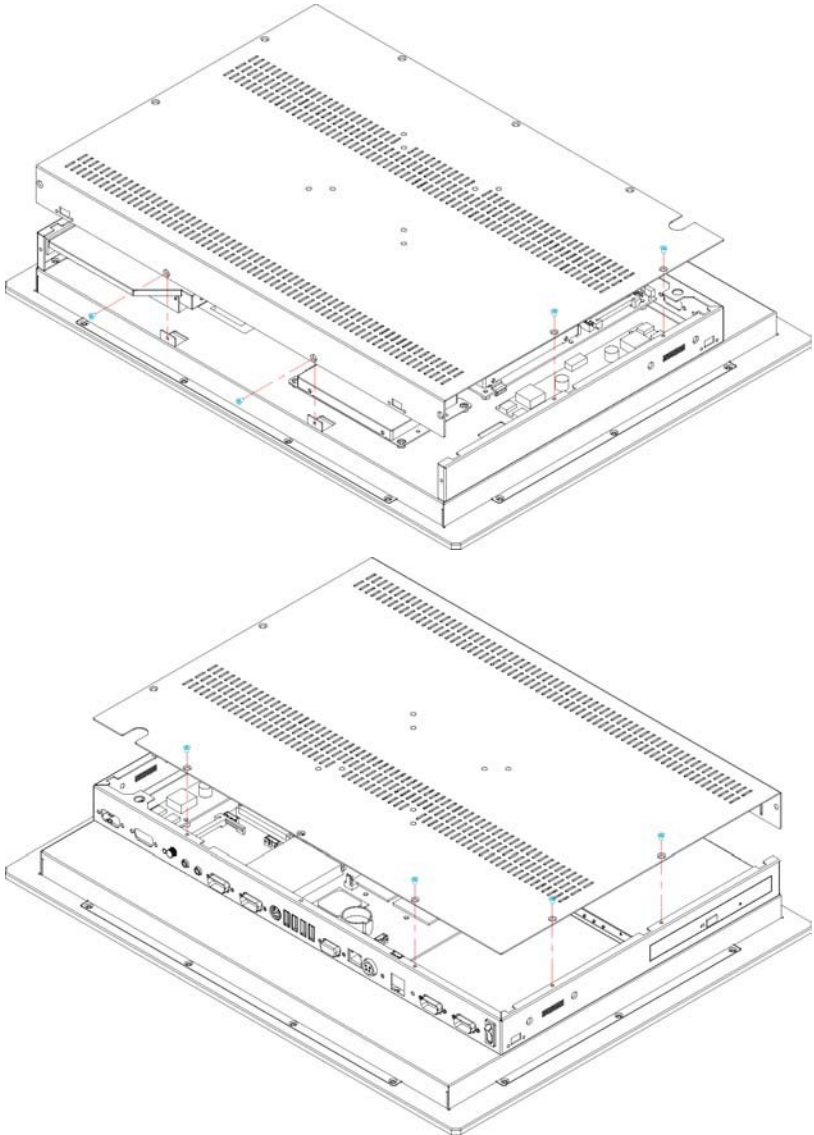
3.3 WLAN Device Installation

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



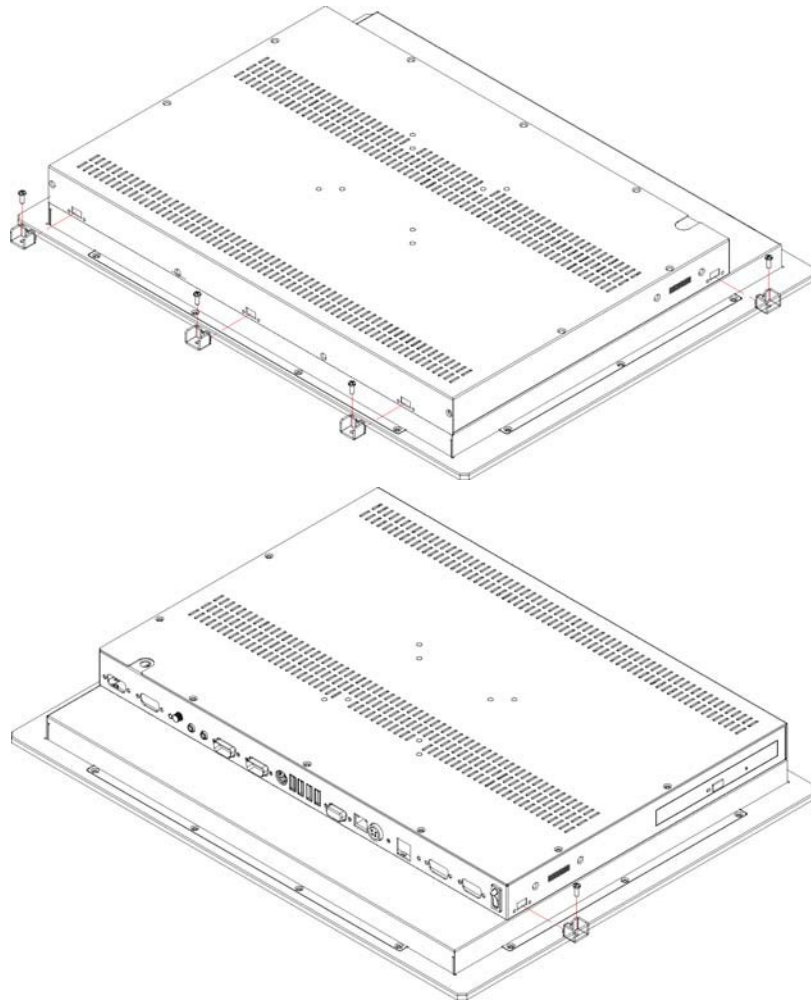
3.4 Back Cover Installation

- 1. Follow the photo instructions to install the back cover onto the chassis.



3.5 Wall Mount Kit

1. Follow the photo instructions to install the wall mount kits onto the chassis.



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 the driver based on WIN2000 operating systems. Other operation system may slightly different.

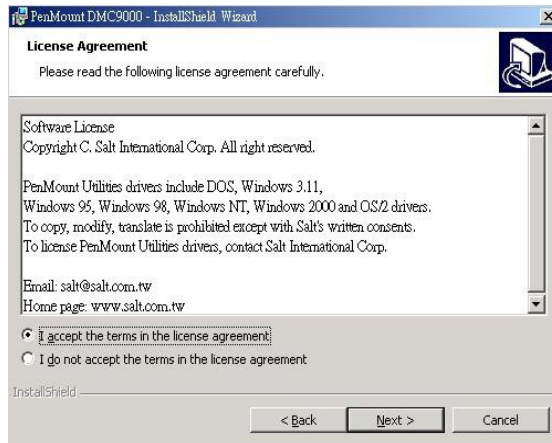
4.1 Resistive Type Touch Screen Driver Installation

4.1.1 Installing Touch Screen Driver in WIN95/98

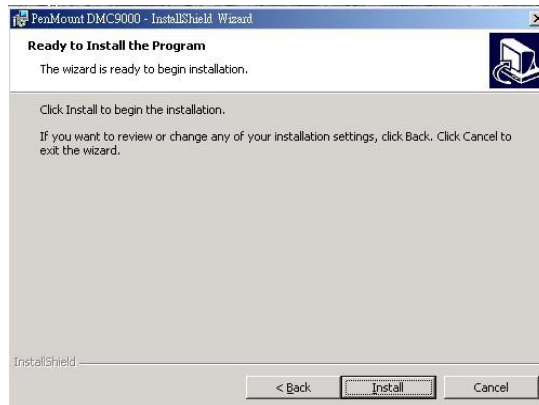
1. Insert the Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "Installation Wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click on **N _ext>**.



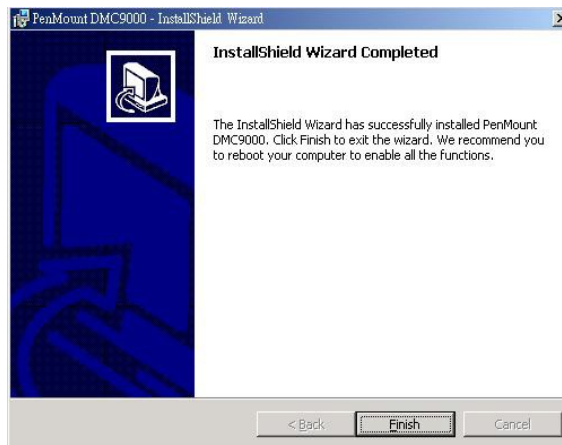
3. The next screen is “Software License Agreement”, select “I accept” and click on **N_ext>**.



4. Click on **I_nstall** to begin the installation.



5. Once the Install Shield Wizard finishes updating your system, click on **F_inish** to exit the wizard. We recommend you to reboot your computer to enable the functions.

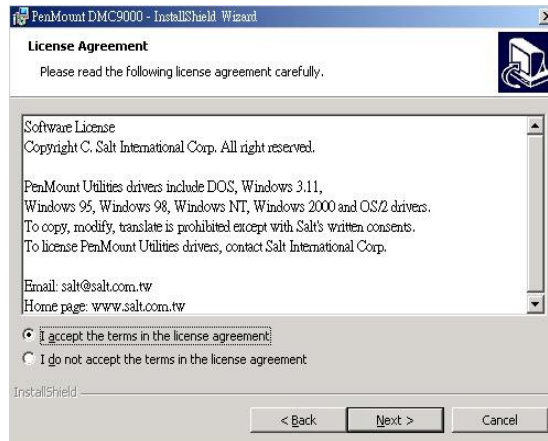


4.1.2 Installing Touch Screen Driver in WIN2000

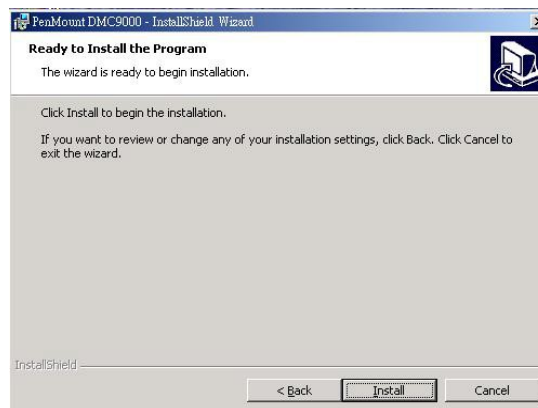
1. Insert the Utility CD Disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying Installation Wizard and PenMount Utilities Installation screen plus welcome message appear, click on **N_ext>**.



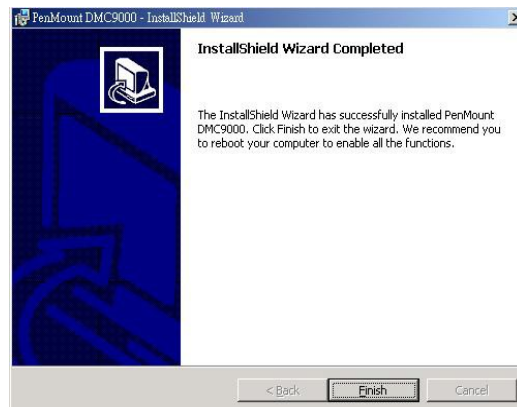
3. The next screen is Software License Agreement, select I accept and click on **Next>**.



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



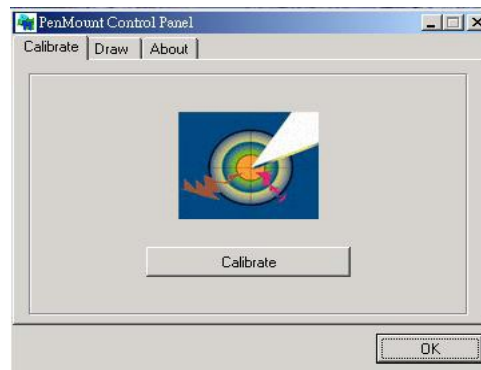
5. Once the Install Shield Wizard finishes updating your system, click on **F_inish** to exit the wizard. We recommend you to reboot your computer to enabled all the functions.

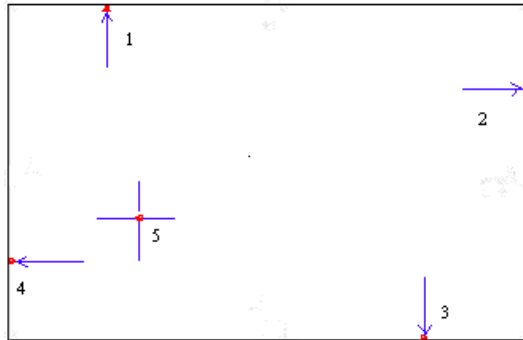


4.1.3 PenMount Control Panel

Calibrate

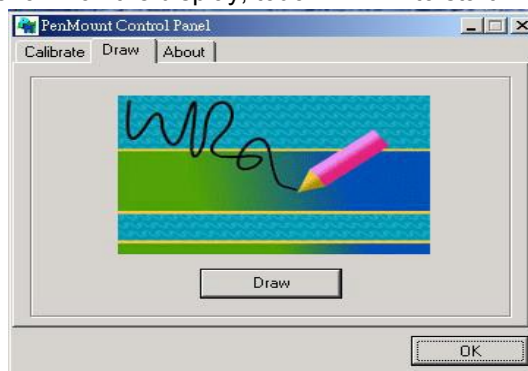
To adjust the display with touch screen, click on "Calibrate" button and follow the calibrate points to do the calibration, there are five points on screen for calibration.





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 the 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 the 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 actived.

Right Button

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

Beep

Turn on or off beep sound.

Exit

Close the PenMount Monitor function.

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