



integration with integrity

2907770 User's Manual

19" High Speed Panel PC with one PCI slot, 180W ATX P/S

Version 1.0 September 2008

Copyrights

This document is copyrighted and all rights are reserved. It does not allow any non authorization in copied, photocopied, translated or reproduced to any electronic or machine readable form in whole or in part without prior written consent from the manufacturer.

In general, the manufacturer will not be liable for any direct, indirect, special, incidental or consequential damages arising from the use of inability to use the product or documentation, even if advised of the possibility of such damages. The manufacturer keeps the rights in the subject to change the contents of this document without prior notices in order to improve the function design, performance, quality and reliability. The author assumes no responsibility for any errors or omissions, which may appear in this document, nor does it make a commitment to update the information contained herein.

Trademarks

Intel is a registered trademark of Intel Corporation.

Award is a registered trademark of Award Software, Inc.

All other trademarks, products and or product's name mentioned herein are mentioned for identification purposes only, and may be trademarks and/or registered trademarks of their respective companies or owners.

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	HDD/CD-ROM/PCI Card Installation	7
Chapter 4	Touch Screen Driver Installation	11
4.1	Touch Screen Driver Installation	11
4.1.1	Installing Touch Screen Driver in WIN95/98	11
4.1.2	Installing Touch Screen Driver in WIN2000	13
4.2	Driver Functions	16
4.2.1	PenMount Control Panel	16
4.2.2	PenMount Monitor	17

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 2907770.

- **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 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)

This page intentionally left blank.

Chapter 1

General Description



The 2907770 is an industrial-grade panel PC that provides one convenient 5V PCI slot for expansion.

*NOTE: check PCI device specification that will not be blocked with others first before you to do so.

The rear of 2907770 design with easy assembly when needed.

The 2907770 has a 19" touch screen that operates under all types of working environment. It comes with a reliable power supply and 3 of 4cm ball bearing cooling fan that enhance system stability.

The unit can also be mounted in several configurations. A variety of Global SBCs is compatible with the 2907770. Please see **1.2 Specification** section for more detail.

- The 2907770 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 2907770
- The 2907770 features an all-in-one flat display and keyboard less operation.
- The 2907770 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 2907770 series come with the following features:

- Aluminum front panel design
- 19" TFT color panel display
- Built-in OSD key, touch screen, motherboard, 180W ATX P/S
- Provides Intel® Core™ Duo T2050 processor
- Onboard graphics, dual ethernet, audio controller
- Standard 5V PCI expansion slot x 1
- COM x 2, USB2.0 x 4
- 2.5" HDD space x 1, slim CD-ROM space x 1
- 4cm ball bearing cooling fan x 3

1.2 Specifications

2907770

- **CPU:** Intel® Core™ Duo T2050 processor
- **Memory:** Two 200-pin SO-DIMM Sockets up to 4GB DDR2 SDRAM
- **Chipset:** Intel® 945GME/ICH7-M
- **PCI Slot:** Standard 5V PCI expansion slot x 1
- **OSD:** Provides OSD function
- **Touch Screen:** 19" resistive touch screen
- **Display:** Onboard graphics controller, provides CRT and DVI display interface
- **Ethernet:** Onboard dual 10/100/1000 Based controller
- **Audio:** Onboard 5.1CH audio codec
- **Storage:**
 - 2.5" HDD space x 1
 - Slim CD-ROM space x 1

- **Serial Port:** 2 ports (optional for 3)
- **USB:** USB2.0 port x 4 (optional for 7)
- **Keyboard:** PS/2 6-pin Mini DIN
- **Mouse:** PS/2 6-pin Mini DIN
- **BIOS:** Award BIOS with 4Mb Flash EEPROM
- **Watchdog Timer:** Reset: 1 sec. ~ 255 min. and 1 sec. or 1 min./step
- **Thermal System:** 4cm ball bearing cooling fan x 3
- **Power In:** 180W ATX power supply
- **Temperature:** 0~+45 °C (operating); -20~+70 °C (storage)
- **Dimensions:** 49.0(L) x 39.0(H) x 9.82(W) cm

1.3 Panel Specifications

- **Screen Size:** 19 inches
- **Active Area:** 376.32(H) x 301.06(V) mm
- **Pixels H x V:** 1280(x3) x 1024
- **Pixel Pitch:** 0.294 (per one triad) x 0.294
- **Pixel Arrangement:** R.G.B Vertical Stripe
- **White Luminance:** 300 cd/m² @ 7.5mA
- **Contrast Ratio:** 800:1 (Typ)
- **Optical Response Time:** 5 ms (Typ, on/off)
- **Support Color:** 16.7M colors (RGB 6-bit data + HiFRC data)

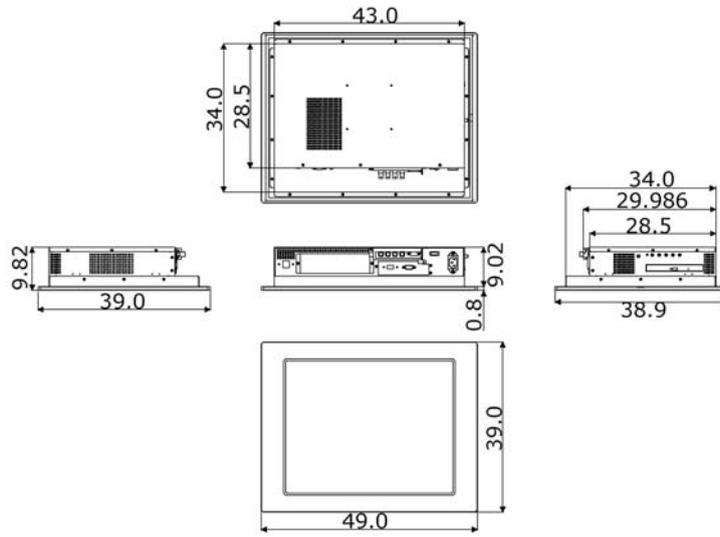
1.4 Control Keys

● 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 2907770 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 has 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 2907770 delivery package contains the following items:

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.

This page intentionally left blank.

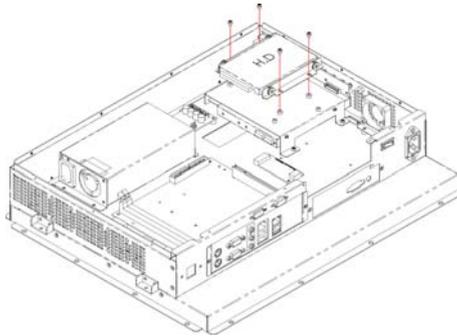
Chapter 3

Hardware Installation

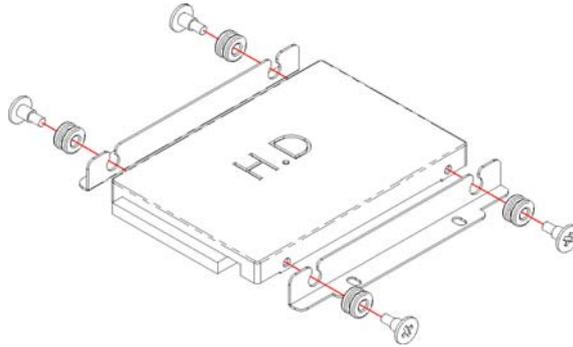
This chapter illustrates how to install components into the Panel PC system. External interface please refers to system board's manual.

3.1 HDD/CD-ROM/PCI Card Installation

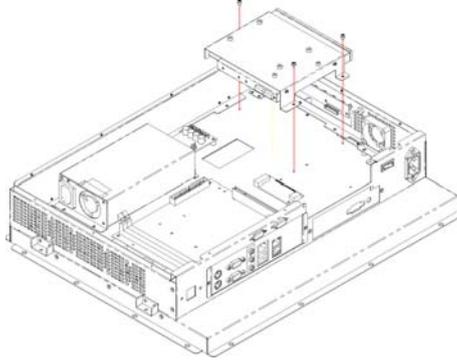
1. Remove the HDD drive bay holding bracket.



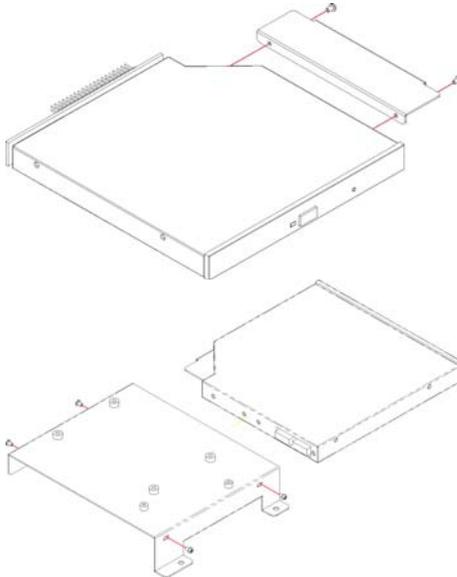
2. Install the holding bracket with HDD.



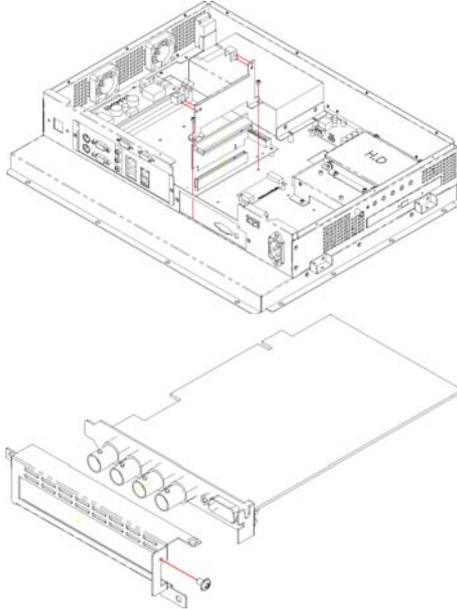
3. Remove the CD-ROM drive holding bracket.



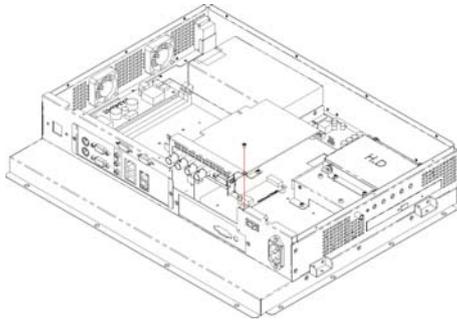
4. Install the holding bracket with CD-ROM.



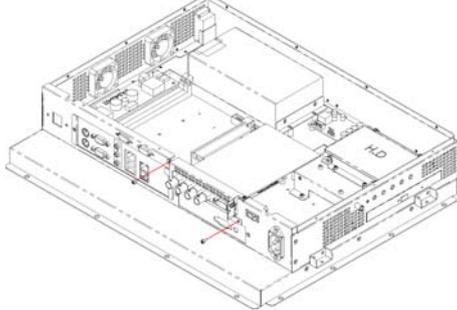
5. Install the PCI Card holding bracket.



6. Install the PCI Card with chassis.



7. Use two screws install PCI Card with front panel.



This page intentionally left blank.

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

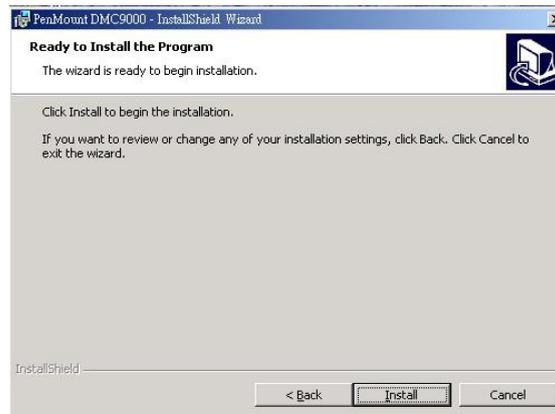
1. Insert Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "Installation Wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click on **Next>**.



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.

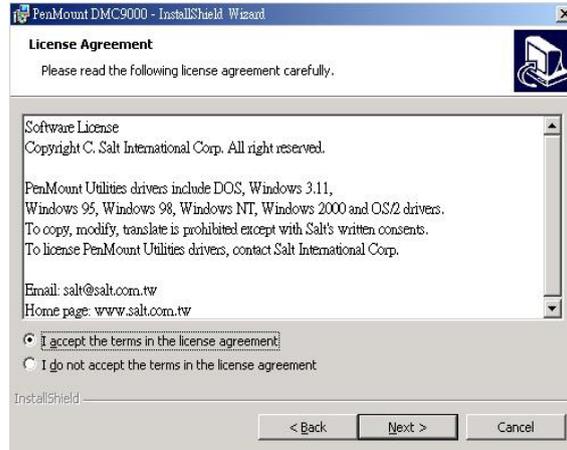


4.1.2 Installing Touch Screen Driver in WIN2000

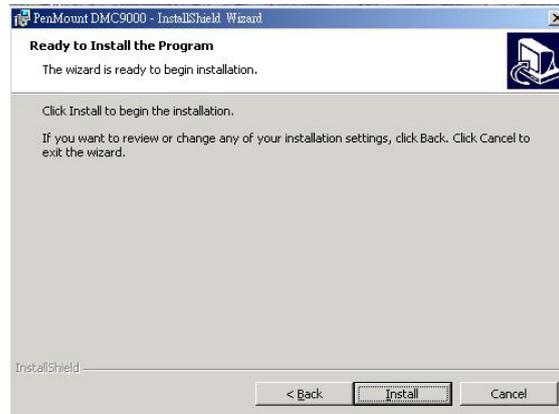
1. Insert Utility CD Disk to your CD-ROM drive. The main menu will pop up as shown below.
2. The screen displays copying Installation Wizard and PenMount Utilities Installation screen plus welcome message appear, click on **Next>**.



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

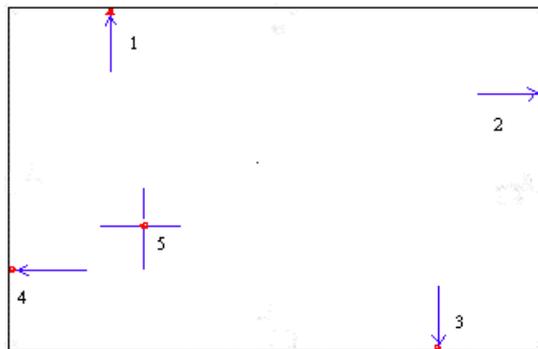


4.2 Driver Functions

4.2.1 PenMount Control Panel

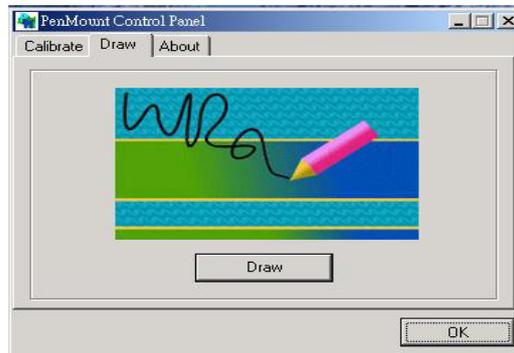
- **Calibrate**

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 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.

This page intentionally left blank.

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.



Address: Global American, Inc.
17 Hampshire Drive
Hudson, NH 03051

Telephone: Toll Free U.S. Only (800) 833-8999
(603) 886-3900

FAX: (603) 886-4545

Website: <http://www.globalamericaninc.com>

Support: Technical Support at Global American
