



User's Manual

2901090

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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.

- ¾ Do not operate product for any purposes other than its intended use.
- ¾ This product is intended for indoor use only.
- ¾ Do not operate product if power cord is damaged in anyway.
- ¾ Do not insert objects into openings.
- ¾ Do not immerse product in water or permit liquids to spill inside.
- ¾ 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.
- ¾ Do not alter or extend electric plug. Plug is configured for appropriate electrical supply.
- ¾ 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 2901090.

Z 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.

Z Power Supply

Assuming continuous use at 25 degrees C, the expected life of the power supply is approximately 50,000 hours. This may be lower given use at higher temperatures.

Z 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 2901090 is an industrial Panel PC. The rear design of 2901090 enhanced the disassembly process when required. It also supports various mounting solution like wall mount, panel mount or desktop for different application.

The 2901090 has a 10.4" display and an optional touch screen that operate under all types of working environment.

This model can accommodate the 3304140 single board computer. The 2901090 provides three COM and one USB connector. It is fully compatible with Intel-base systems with operating systems including Windows 95/98/NT/ME/2000/XP, Linux and other OS.

- Z The 2901090 is IBM PC/AT compatible and can draw from a large body of hardware and software resources worldwide.
- Z 70W power supply with FCC, UL, CSA, VED

- Z The user can select the operating system he wants to use just like an ordinary personal computer. An operating system such as MS-DOS, Windows can be selected to suit the application.
- Z The 2901090 features an all-in-one flat display.
- Z 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 2901090 comes with the following features:

- ¼ Aluminum chassis
- ¼ 10.4" high brightness TFT color panel display
- ¼ Built-in 3304140 Industrial Single Board Computer
- ¼ Built-in VIA EDEN 400MHz low power CPU, 64MB SO-DIMM, 2.5" HDD, 70W power supply
- ¼ VIA VT8606 CRT/Panel display controller
- ¼ RealTek RTL8100 10/100 Based LAN
- ¼ Three COM, one USB connector
- ¼ DiskOnChip socket supporting memory sizes of up to 288MB
- ¼ Supports 10.4" touch screen (optional)

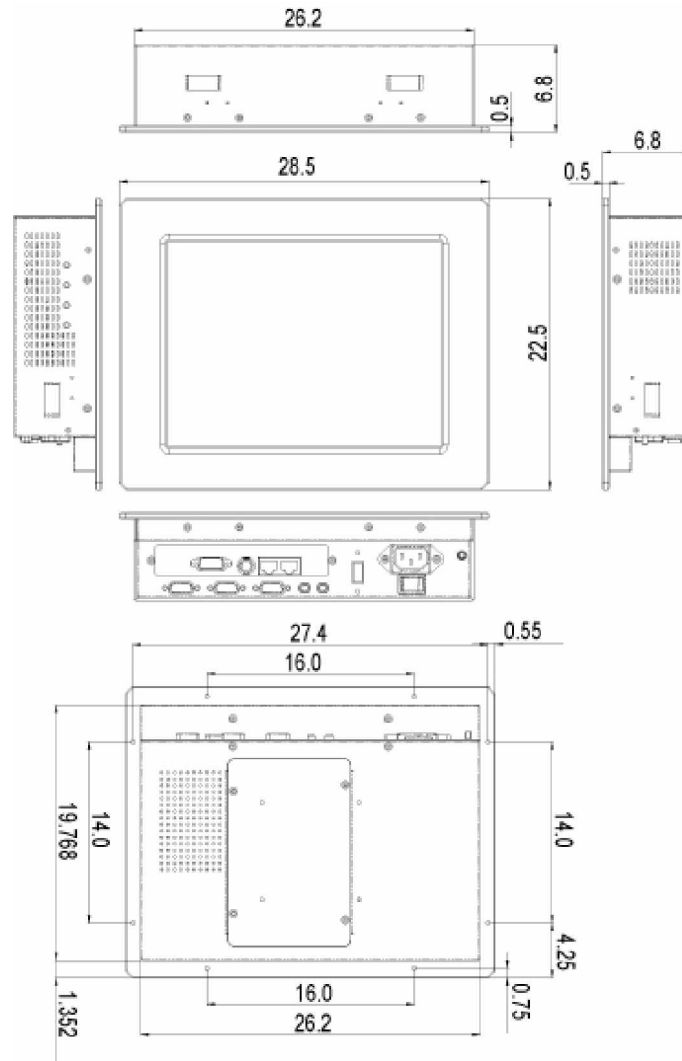
1.2 Specifications

- ” **System Board:** 3304140 industrial embedded engine board
- ” **CPU:** VIA EDEN 400MHz low power embedded CPU
- ” **Memory:** One SO-DIMM socket supporting up to 256MB
- ” **Chipset:** VIA VT8606/VT82C686B
- ” **Touch Screen:** 10.4” resistive touch screen (optional)
- ” **VGA:** VIA VT8606 integrated S3 3D supporting AGP Bus
- ” **LAN:** RealTek RTL8100 10/100 Based LAN
- ” **HDD/FDD/CD-ROM:** One 2.5” HDD
- ” **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
- ” **Watchdog Timer:** Sets 1/2/10/20/110/220 seconds activity trigger with Reset or NMI
- ” **Power Supply:** 70W power supply
- ” **Operating Temperature:** -15~+60°C
- ” **Storage Temperature:** -20~+70°C
- ” **Dimensions:** 28.5 x 6.8 x 22.5 cm

1.3 Panel Specifications

- ” **Screen Size:** 10.4 inches
- ” **Display Format:** 800 x 600 pixels
- ” **Pixel Pitch:** 0.264(H) x 0.264(V) m/m
- ” **Brightness:** 220cd/m²
- ” **MTBF:** 25,000 hrs.

1.4 Dimensions



Chapter 2

Unpacking

2.1 Opening the Delivery Package

The 2901090 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 2901090 delivery package contains the following items:

- „ 2901090 Panel PC x 1
- „ Wallmount kit x 4
- „ Power cable x 1
- „ Touch Screen Drive diskette x 1 (optional)
- „ Driver CD Disk x 1
- „ SBC Manual x 1
- „ User's Manual x 1

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.

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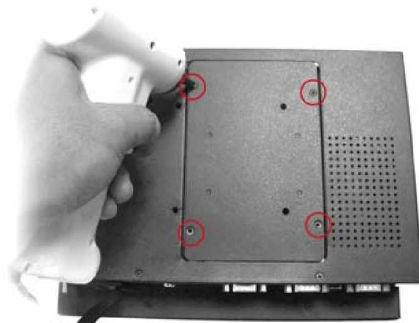
Chapter 3

Hardware Installation

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

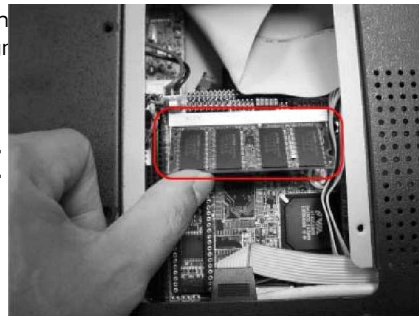
3.1 DRAM & HDD Installation

1. Ensure that all power supplies to the system are switched off.
2. Please loose screws and open the back cover.

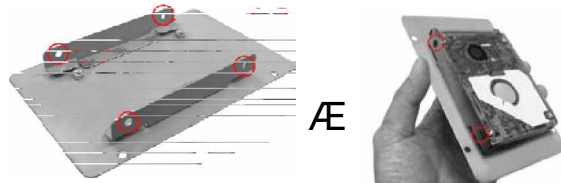


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- Secure the HDD with four screws (6#-32) on HDD tray.



- Connect one end of the 44-pin IDE cable to the IDE connector on the drive. Match the red stripe on the cable with Pin-1 on the IDE interface.



- Reinstall the back cover and HDD to the chassis. Secure the back cover with the screws you earlier removed.



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.

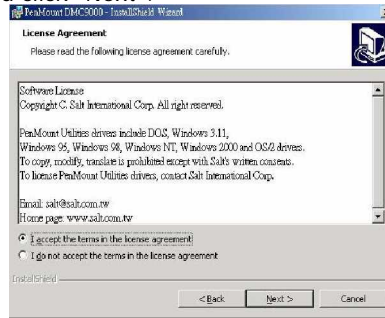
4.1 Touch Screen Driver Installation

4.1.1 Installing Touch Screen Driver in Win 95 and 98

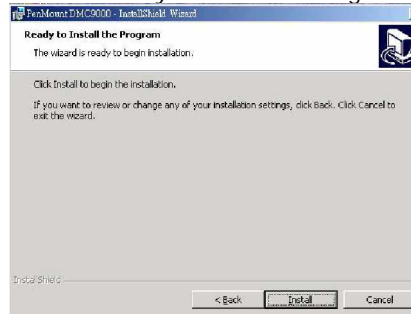
1. Insert Utility CD Disk to your CD ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "installation wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click "Next".



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.

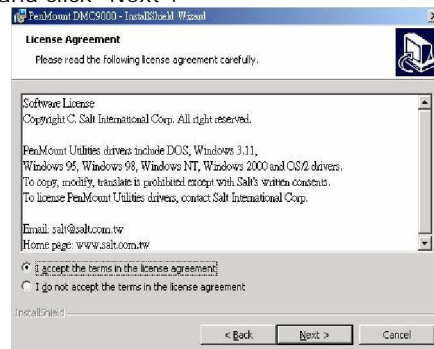


4.1.2 Installing Touch Screen Driver in Win 2000

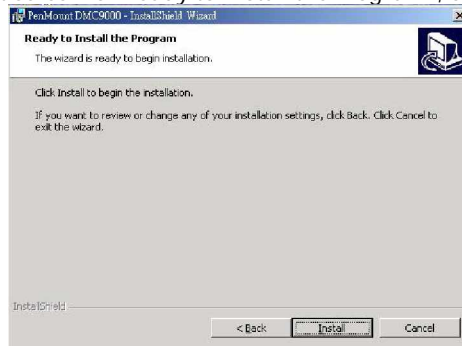
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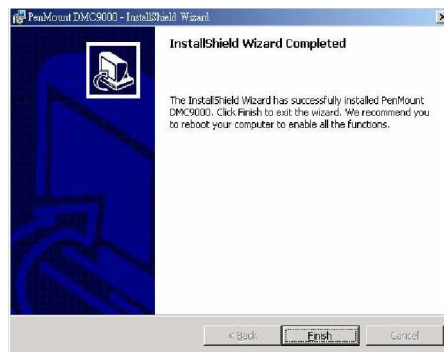
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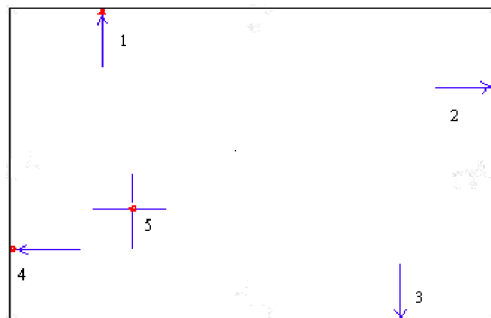


4.2 Driver Functions

4.2.1 PenMount Control Panel

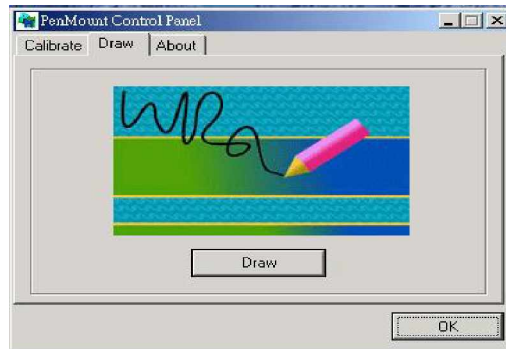
z Calibrate

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.



z Draw

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



z 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.



There are several functions on PenMount monitor:

z 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.

z Beep

Turn on or off beep sound.

z Exit

Close the PenMount Monitor function.

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 you for your products, projects and business

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