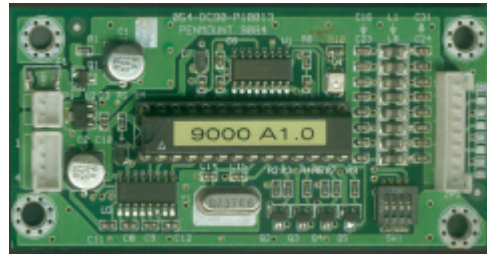


PenMount 9084 Control Board

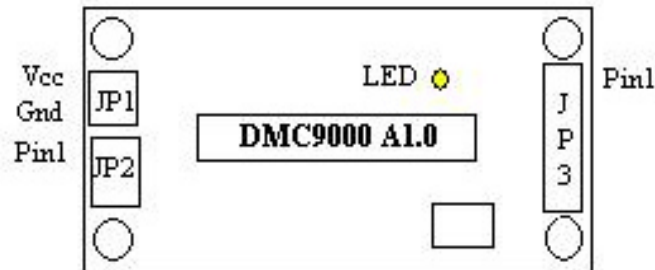


PenMount 9084 control board is a touch screen control board. The touch screen controller is DMC9000 that interfaces analog resistive touch screens to a personal computer through its COM port. PenMount 9084 control board is designed to have a small mechanical size in order to be located inside the system easily. Together with PenMount driver counterparts on various, PenMount9084 control board becomes the most popular touch screen solution worldwide. It's designed to have LED on board to show the touch status and also bundled with three interface cables, customer only needs to power in 5V to 12V DC power to the board, and via RS-232 interface to computer system, PenMount touch screen solution is in your hand.

PenMount 9084 Control Board Features:

- ✂✂ Resolution: 10 bit (1024*1024)
- ✂✂ Design for best touch performance and easy configuration
- ✂✂ Design for best cost arrangement
- ✂✂ Supporting 1024*1024 pen device resolution
- ✂✂ Built-in 10-bit A/D converter inside the DMC9000
- ✂✂ Fast conversion and transmission, 19200 baud rate fixed
- ✂✂ Upgraded noise handling mechanism (3 level scheme)
- ✂✂ Fixed and high-speed sampling rate
- ✂✂ 4-wire and 8-wire touch screen supported
- ✂✂ RS-232 interface supported
- ✂✂ 5V to 12V power input
- ✂✂ Power protection fuse to protect the circuit
- ✂✂ Touch activated indication LED on board

PenMount 9084 Control Board Description



JP1: Power cable: 5V to 12V DC power

JP2: RS-232 cable connector: PIN1: RTS

PIN2: TXD

PIN3: RXD

PIN4: GND

JP3: Touch Screen cable, for 4-wire or 8-wire touch screen

PenMount 9084 Control Board Hardware Installation

1. Connect the RS-232 cable to JP2 on the control board.
2. Connect the RS-232 cable's DB-9 female connector to a 9-pin serial COM port on the back of the computer.
3. Connect the touch screen to the controller using one of the controller interconnect cables (4-wire or 8-wire).
4. Connect the DC power cable to JP1. (5V to 12V)

PenMount Windows 98/Me Driver Users Manual

(PenMount Windows 98/Me driver V3.0)

PenMount DMC9000 For Windows 98/Me Software Installation

This driver supports Windows 98/Me. PenMount Windows 98/Me driver detail contents are list as below:

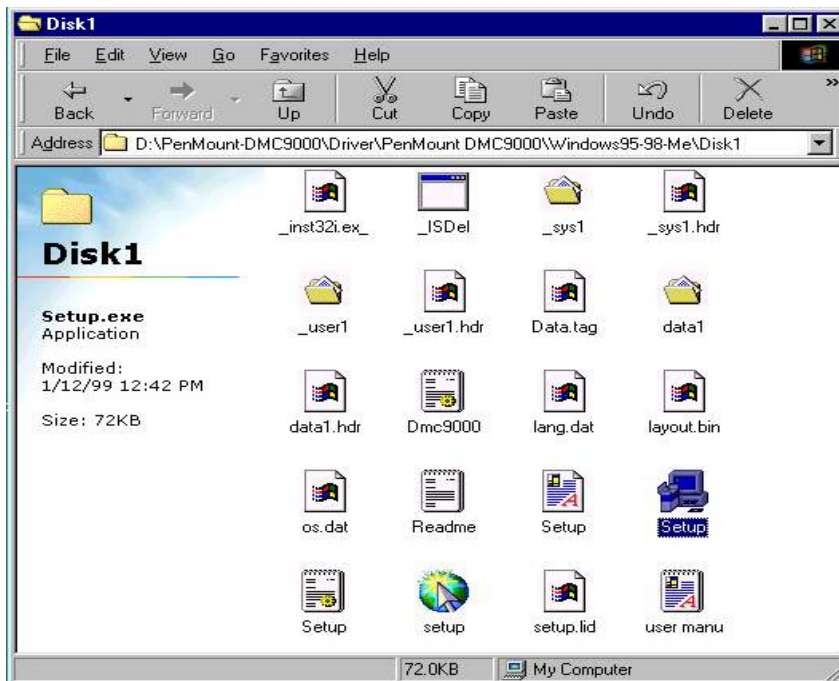
“SETUP.EXE”

To install the software to your computer, you must have Windows 98/Me system running. If you have an older version of PenMount Windows 98/Me driver installed in your system, please remove it first. Follow up the steps below to install the PenMount Windows 98/Me driver.

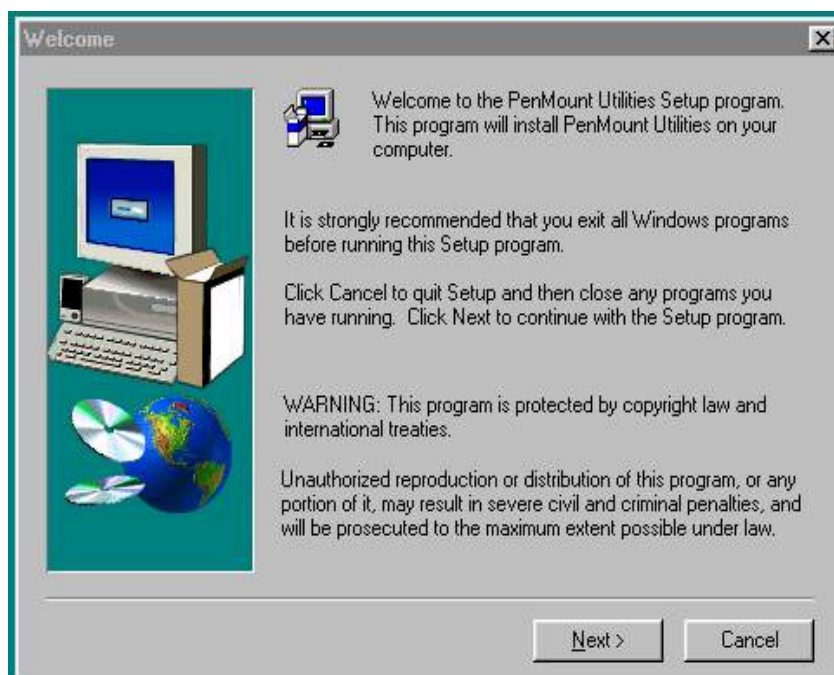
1. You will find out "Unknown Device" when start the system, please choose "Cancel"



2. Select CD-ROM “PenMount DMC9000\Driver\PenMount DMC9000\Windows98-Me\Disk1” to install PenMount windows 98/Me driver to system



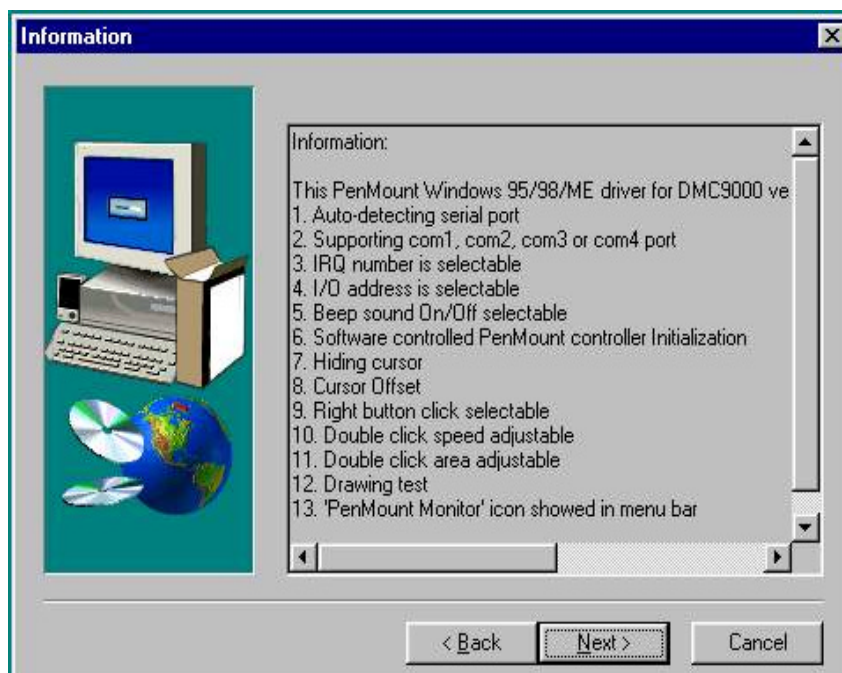
3. The screen displays PenMount logo, copying "installation wizard" and 'PenMount Utilities" screen plus "welcome" message appears. Select "Next".



4. The next screens are "Software License Agreement", select "Yes" .



5. The next screens are "Information" , select "Next".



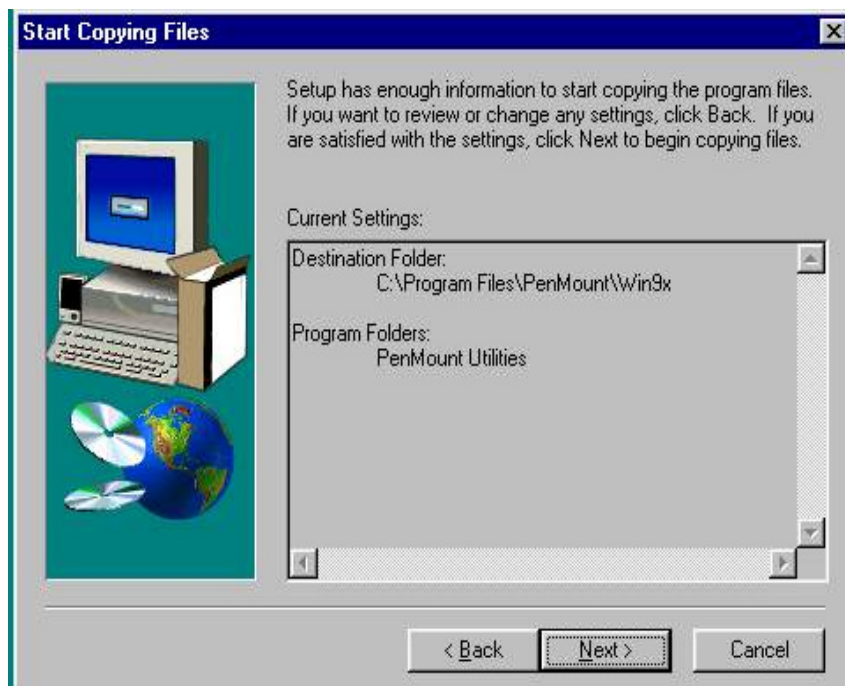
6. The next screen is "Choose Destination Location". It is for Setup installing PenMount Utilities in the folder: C:\Program Files\PenMount\Win9x, select "Next" or modify the folder name you like to use.



7. The next screen is "Select Program Folder", the default is set at "PenMount Utilities", select "Next" or change it.



8. The screen is showing "Start Copying Files", select "Next" for starting copy files to system.



9. The screen is show, "Setup Complete", select "Finish".

]



10. The screen now is| “Restarting Windows”, select “Yes I want to restart my computer now”, and “OK”



PenMount Windows 98/Me Driver Functions

A. PenMount Control Panel

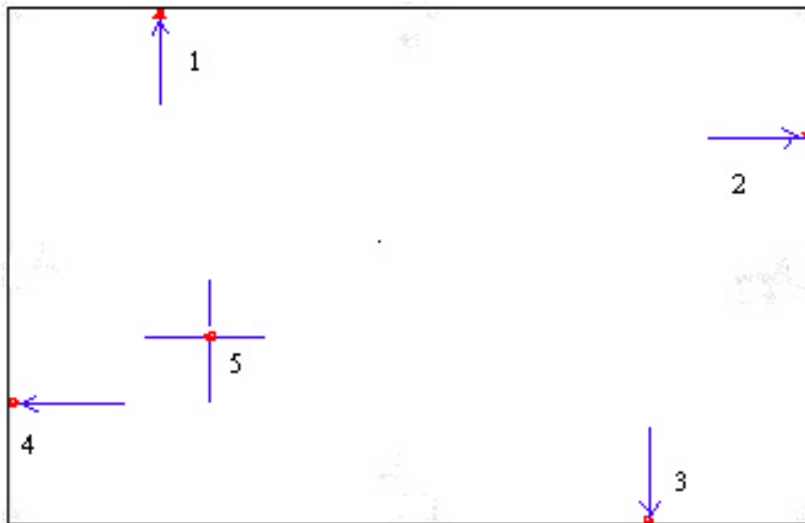
Calibrate:

After completing PenMount DMC9000 Driver installation, please follow up below procedures to carry out calibration, PenMount offers several ways for calibration your touch screen. The standard way is using 'Standard Calibration' to adjust the touch screen. The more advanced way is for decorating the aged touch screen to perform normally by using 4, 9, 16 or 25 points 'Advanced Calibration' function.

Standard Calibration:

Standard Calibration is designed for normal usage. After starting Standard Calibration, you may find arrow signals. Please touch with finger or stylus on the red points by clockwise turn when the arrow signals showed. Standard Calibration is completed after the 5th red point. If you want to skip the calibration, please press 'ESC' key.



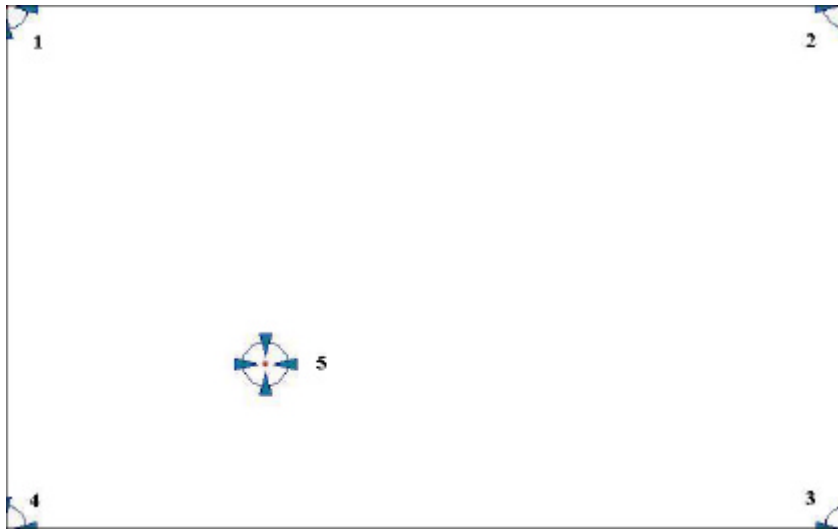


Advanced Calibration:

Advanced Calibration is particularly for more accuracy of touch panel, by using our Advanced Calibration function, 4, 9, 16 or 25 calibration points, the touch panel linearity will be performed very well even the touch screen was aged. When you start the Advanced Calibration, you may find animated calibration points. Please hit the red points with a stylus one by one. The Advanced Calibration is complete after you touch the last red point. If you want to skip it during doing the calibration, please press 'ESC' key

◎It is suggested to use a stylus during Advanced Calibration to maintain high degree of accuracy.





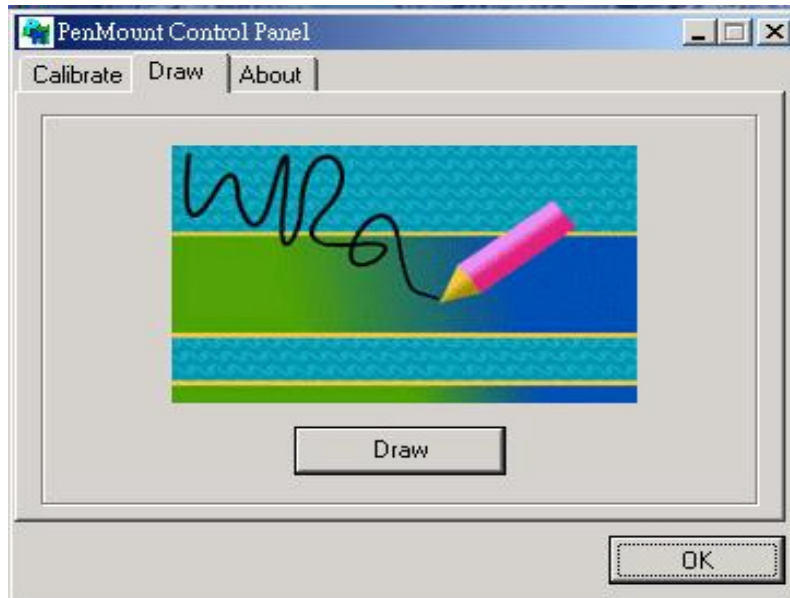
Plot Calibration Data:

When you tick this function, touch panel linearity comparison picture occurs after finishing Advanced Calibration. Blue lines means touch panel linearity and black shares are for comparison.



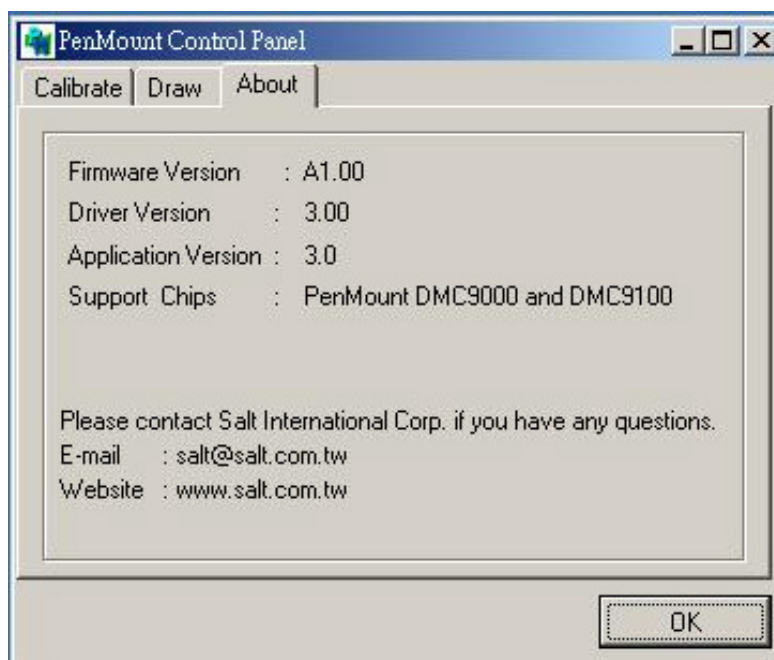
Draw

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



B. PenMount monitor

The PenMount monitor icon is shown in the menu bar of Windows 98/Me system when turn on PenMount Monitor from PenMount Utilities. There are several functions on PenMount monitor :



Right Click Button:

When select this function, there is a mouse icon shown in the right-bottom 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.

Enable PNP

This function can be turn on/off "PNP" , When it is unmarked (turn off PNP) , the RS-232 transfer signal will be continuous when user continuity between unplug and plug the cable to serial port.

Exit:

Close the PenMount Monitor function.

C. PenMount Rotating Functions:

PenMount driver for Windows 98-Me supports several rotating software such as

Portrait's Pivot Screen Rotation Software

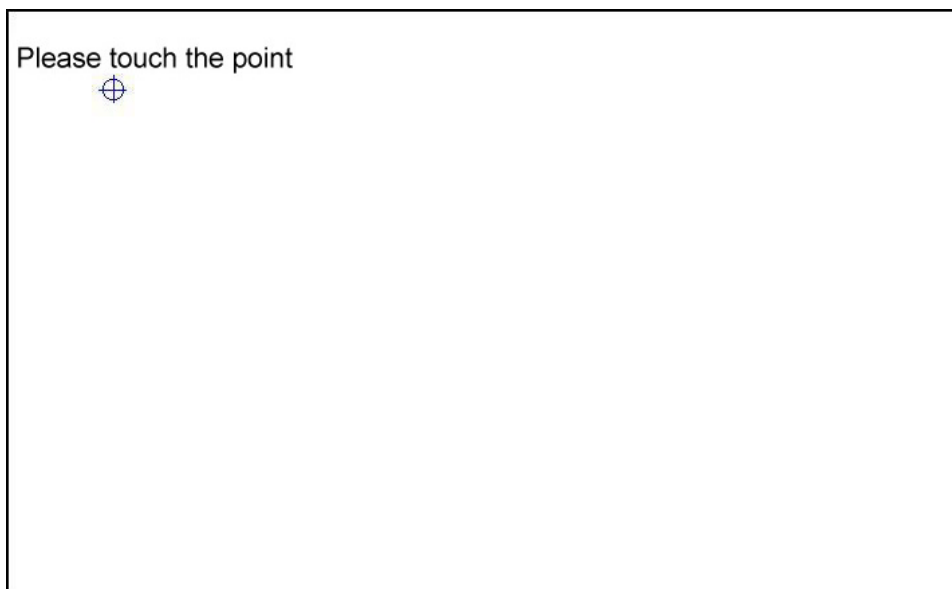
ATI Display Driver Rotate Function

nVidia Display Driver Rotate Function

SMI Display Driver Rotate Function

How to operate the rotate function:

1. Install the rotate software first.
2. Chose the rotate function, and then you will see the calibration point, please touch that point, and cursor will map the rotation itself.



How to uninstall PenMount Windows 98/Me driver

Before you uninstall PenMount Windows 98/Me driver, please 'EXIT' 'PenMount Monitor' that is in menu bar first.

From 'PenMount Utilities' of 'Programs', select 'Uninstall' utility, computer will ask you "are you sure you want to completely remove 'PenMount Utilities' and all its components"? Select 'Yes' to remove PenMount Windows98/Me driver.