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# MousePort Controller and TouchWare 3.3/MP

## *Addendum*

This addendum provides an update to the *TouchWare User's Guide* and the *Touch Controllers Reference Guide*.

It describes the software and hardware required to use the MousePort touchscreen controller and the TouchWare 3.3/MP software.

Additionally, this addendum describes how to complete the following tasks:

- Connect a MousePort controller
- Install and use the TouchWare 3.3/MP (MousePort) software
- Use Microcal with a MousePort touchscreen controller

## Overview of the MousePort Touchscreen Controller

The MousePort touchscreen controller is a PS/2-compatible controller. The controller, which is enclosed in a case, is externally mounted to the back of your monitor.

The controller cable has a 6-pin DIN male connector. You plug this cable into the PS/2 mouse connector on the back of your PC.

If you are using MicroTouch capacitive touchscreen technology, the MousePort controller offers an alternative plug solution. If you do not need a mouse in your system, you can take advantage of the mouse port for the touchscreen. You can then use the serial ports and bus slots for other peripheral devices.

## System Requirements for the MousePort Controller

The hardware and software requirements for using a MousePort touchscreen controller are as follows:

- PC with an available PS/2 mouse port connector
- Microsoft Windows, version 3.1, if you want to use the Windows touchscreen driver
- MS-DOS, version 3.3 or later, if you want to use the DOS touchscreen driver

## Connecting a MousePort Touchscreen Controller

The MousePort touchscreen controller is mounted to the back of your touch monitor. The controller has an attached PS/2 communication cable with a 6-pin DIN male connector.

- ☑ To connect a MousePort controller, plug the controller cable into the PS/2 mouse connector on the back of your PC.

## Supplying Power to the MousePort Controller

The mouse connector on the back of your computer cannot supply enough power to the touchscreen controller. Therefore, power to the MousePort controller must be supplied from a source inside the monitor.

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**Note:** The connector on the end of the MousePort controller cable does not have a built-in power plug. You cannot use an external power supply or a keyboard power tap to power the MousePort controller.

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## Testing the MousePort Controller

To verify and test that the MousePort controller is operating properly, you can use the Microcal Diagnostic utility. For more information, refer to Chapter 4 of the *TouchWare User's Guide*.

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**Note:** Remember that a MousePort touchscreen controller does not connect to a serial port. Therefore, you cannot use standard communication programs (for example, ProComm, Telex, or Windows Terminal) to verify that the MousePort controller is operating properly.

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## Installing TouchWare for the MousePort Controller

A new version of TouchWare, called TouchWare 3.3/MP, is available for use with the MicroTouch MousePort touchscreen controller **only**.

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**Note:** The TouchWare Setup program has been modified to operate with the mouse port. It assumes you are setting up a touchscreen with a MousePort controller. You cannot use this version of the Setup program to install a controller that connects to a serial communication (COM) port or to a PC Bus touchscreen controller. Use TouchWare 3.3/MP only if you are using a MousePort touchscreen controller.

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### Installing TouchWare 3.3/MP from Windows

You can use the Setup program to install TouchWare 3.3/MP from Windows. When you install from Windows, the Setup program copies all touchscreen files for both Windows and DOS to your hard disk.

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**Note:** If you want to load only the DOS touchscreen files, run the Install program from DOS. Refer to “Installing TouchWare 3.3/MP from DOS” later in this section for more information.

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- ☑ To install TouchWare 3.3/MP from Windows:
  1. Start Windows 3.1. Make sure no other applications are open.
  2. Insert the TouchWare 3.3/MP (*for Windows and DOS*) diskette into a disk drive.
  3. Access the Program Manager.
  4. Open the File menu and choose Run. In the Command Line box, type the following command:  
**A:\SETUP** (or **B:\SETUP**, depending on your diskette drive)

5. Select OK.
6. Follow the instructions displayed on the screen. If you need more information on the installation dialog boxes, refer to the online help or to the *TouchWare User's Guide*.

### **Installing TouchWare 3.3/MP from DOS**

If you do not plan to use any of the touchscreen files for Windows, you may want to install just the DOS touchscreen files. When you install TouchWare from DOS, the Install program only loads the touchscreen files specific to DOS.

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**Note:** You can skip this section if you previously installed the DOS touchscreen files using the Setup program from Windows.

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- ☑ To install TouchWare 3.3/MP from DOS:
  1. Make sure the touchscreen is connected. If not, the Install program cannot properly configure the touchscreen.
  2. Close all applications.
  3. Exit from the Windows operating system.
  4. Insert the TouchWare 3.3/MP (*for DOS only*) diskette into a disk drive.
  5. Access the DOS command line prompt.
  6. Change to the drive that has the TouchWare diskette. For example, enter **A:** if you inserted the TouchWare diskette in Drive A.

7. Type **INSTALL** followed by the source disk drive, the destination drive, and the destination directory.

For example, the following command copies the files from Drive A (source drive) to Drive C (destination drive) and the \MTS\TOUCH directory:

**INSTALL A: C:\MTS\TOUCH**

8. Press Enter. The system reports that it is about to copy the DOS touchscreen files and prompts for confirmation that you want to continue.
9. Type **C** to start the installation.
  - First, the Install program copies all DOS touchscreen files from the TouchWare diskette to the specified destination drive and directory.
  - Next, the Install program automatically searches through the system and configures the touchscreen to the proper COM port, interrupt, and communication rate.
  - Finally, the Install program prompts if you want it to automatically modify your AUTOEXEC.BAT file.

If you let the Install program modify your AUTOEXEC.BAT file, the system automatically loads the DOS touchscreen driver whenever you start your computer.

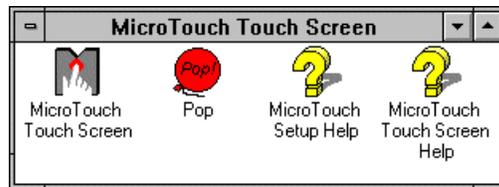
If you do not let the Install program modify the AUTOEXEC.BAT file, you must load the DOS touchscreen driver before using a DOS touch application.

For more information on loading and unloading the DOS touchscreen driver, refer to the *TouchWare User's Guide*.

## Accessing TouchWare 3.3/MP

When the TouchWare 3.3/MP installation is done, remove the Setup diskette and restart your computer.

During the installation, the Setup program creates a MicroTouch Touchscreen program group. This group includes the Touchscreen control panel, the Pop demonstration, and the online help.



- ☑ To open an item in the MicroTouch Touchscreen program group, double-click on the icon.

### Touchscreen Control Panel

Select MicroTouch Touchscreen to open the control panel and set your preferences for touch mode, audible feedback, and double-click speed. You can also use the control panel to calibrate the touchscreen.

For information on the control panel, refer to the online help or to Chapter 2 in the *TouchWare User's Guide*.

### Pop Demonstration

Select Pop to run the MicroTouch demonstration and try out your touchscreen. Follow the instructions displayed on the screen to play the game.

### Online Help

Select MicroTouch Setup Help or MicroTouch Touchscreen Help to browse through the online documentation.

## Using Microcal with a MousePort Controller

The Microcal Diagnostic utility, version 5.9, supports both the mouse port and the serial communication ports.

Microcal is a DOS-based diagnostic utility you can use to test the touchscreen. You do not need to run Microcal unless you are experiencing problems with your touchscreen.

When you install TouchWare, the Setup program automatically copies the Microcal Diagnostic utility and associated files to the hard disk. By default, the Setup program copies Microcal into the following MicroTouch Systems (MTS) directory:

**C:\MTS\TOUCH**

Before running Microcal, you must exit from Windows. You cannot run Microcal from a DOS session within Windows. Additionally, you cannot test the touchscreen while other applications are in use.

### Microcal Enhancements

The following list highlights the enhancements to Microcal for the MousePort touchscreen controller:

- The Find Touchscreen menu now includes a **Search MousePort** option to specifically search for a touchscreen controller connected to a mouse port.
- If you select the **Search All Ports** option, Microcal scans the mouse port and the communication ports (COM1 – COM7) trying to find a touchscreen controller.
- A command line option for the MousePort controller (**/M**) is available when running Microcal. Refer to the next section for more information.

- The Main menu does not include an option for changing the baud rate if you are using a MousePort controller. Baud rate is not relevant to the communication protocol used by the mouse port.
- The **Port Active** field in the Status box displays **Mouse** when a MousePort controller is found.
- The **Status** box does not display baud rate or parameter information if you are using a MousePort controller.

For complete information on using Microcal with a MousePort controller, refer to Chapter 4 in the *TouchWare User's Guide*.

### **Optimizing the Microcal Search for a MousePort Controller**

By default, Microcal only searches COM1 and COM2 trying to find the touchscreen. If the touchscreen is not found, Microcal then displays a menu option that lets you search all ports. You need to run the search again.

If you are using a MousePort touchscreen controller, you can force Microcal to search the mouse port immediately. To do so, include the `/M` switch when you run Microcal from the DOS command line. For example:

```
C:\MTS\MICROCAL /M
```

In this case, Microcal searches for the touchscreen controller on the mouse port only.

## Firmware Commands for a MousePort Controller

The MousePort controller supports all commands in Firmware Set 2. For a description of each command, refer to the *Touch Controllers Reference Guide*.

The Output Identity (OI) and Unit Type (UT) commands return the following values for a MousePort touchscreen controller:

- Output Identity is Q10210
- Unit Type is QM\*\*\*\*\*00

When referencing the *Touch Controllers Reference Guide*, you can ignore all information about baud rate, communication port, and IRQ if you are using a MousePort touchscreen controller. These parameters are not relevant to the communication protocol used by the mouse port.

## Changes to the System Files

The SYSTEM.INI and DOSTOUCH.INI files contain settings that define how the touchscreen operates in Windows and DOS. The Setup program automatically updates these INI files with information on the MousePort controller.

Appendix A in the *TouchWare User's Guide* describes the lines that the Setup program adds to the INI files. For the MousePort controller, the Setup program modifies the following lines:

CommPort = M

CommIRQ = 12      Not used. The system ignores information defined in this resource for the mouse port.

BaudRate = 9600      Not used. The system ignores information defined in this resource for the mouse port.

Ignore all information about the IRQ and baud rate if you are using a MousePort touchscreen controller. These parameters are not relevant to the communication protocol used by the mouse port.

In addition to the information listed in Appendix A, the Setup program adds the following line to the SYSTEM.INI file if you install the TouchWare 3.3/MP software:

**[386Enh]**

keyboard=mtsvkd.386

The MTSVKD.386 is a MicroTouch virtual keyboard driver that lets Windows and the touchscreen communicate with the mouse port. The MTSVKD.386 file replaces your current virtual keyboard driver.

## TouchWare 3.3/MP Files

Appendix A in the *TouchWare User's Guide* lists the touchscreen files for Windows and DOS.

The following table updates the file information for the TouchWare 3.3/MP software.

| File Name                | Purpose   | Status   |
|--------------------------|---|--|
| MTSVKD.386               | MicroTouch virtual keyboard driver              | New file. Required to support communication between mouse port and touchscreen controller.   |
| DOSPEN.EXE<br>WINPEN.EXE | Pen Configuration utilities for DOS and Windows | Not included. The MousePort touchscreen controller does not support a pen device.  |
| MTCONFIG.EXE             | Touchscreen Configuration utility               | Not included. This utility, which configures touchscreens connected to a <i>serial port</i> , is not needed by the MousePort controller. |

## Specifications for MousePort Controller

|                      |   |
|----------------------|---|
| Power:               | +5V Input: +5 VDC (47 mA typical, 60 mA maximum), +/-5% regulation, 100 mV maximum ripple and noise.<br><br>+12V Input: 8-15 VDC (47 mA typical, 60 mA maximum), 400 mV maximum ripple. |
| Temperature:         | 0 to 55 degrees C.  |
| Relative Humidity:   | 0 to 95% noncondensing.   |
| Circuit Board Size:  | 3.5 x 2.25 inches, 0.3-inch clearance height.   |
| Enclosure Size:      | 3.75 x 2.5 x 0.9 inches, molded plastic with a flammability rating of V0.   |
| Sensor Cable:        | The sensor (touchscreen) cable has a 12-pin (2 x 6) dual row female connector that plugs into the MousePort controller.   |
| Communication Cable: | The MousePort controller has an attached PS/2 communication cable with a 6-pin DIN male connector. This cable connects to a mouse port on your PC.                                      |

## Restrictions

- The MousePort touchscreen controller supports the Windows 3.1 and DOS operating systems only.
- There is no support for both a MousePort touchscreen and another RS-232 pointing device on the same system. Therefore, you cannot connect both a serial port mouse and a MousePort touchscreen controller to your system.
- The MousePort touchscreen controller does not support a pen input device. You can ignore the information in Chapter 3 of the *TouchWare User's Guide* if you are using a MousePort controller.



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