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MicroTouch



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For Help on Help, Press F1



The **MicroTouch touchscreen** is the most intuitive pointing device available for the PC series of computers and monitors. Touchscreens make using computers as simple as touching the screen.

Touchscreens are ideal for a variety of applications, including gaming, training systems, information and self-service kiosks, point-of-sale, factory automation, laboratory and medical instrumentation, interactive selling demonstrations, and educational programs.

The software that lets your touchscreen work with your computer is the touchscreen driver. The MicroTouch Setup program diskette contains the touchscreen drivers for your operating system. TouchWare is the software that provides full touchscreen functionality for all software applications running under your operating system.

Like a mouse, TouchWare lets you select, launch, and drag objects using the touchscreen. TouchWare includes:

- Control Panel for customizing the touchscreen
- Pen Configuration utility for setting pen or finger modes
- Microcal Diagnostic utility to test the operation of the touchscreen

After you install the touchscreen driver, run the MicroTouch demonstrations or open an application. To make a selection, touch the screen. It's that simple and that natural – touch to select.



Setting the Control Panel

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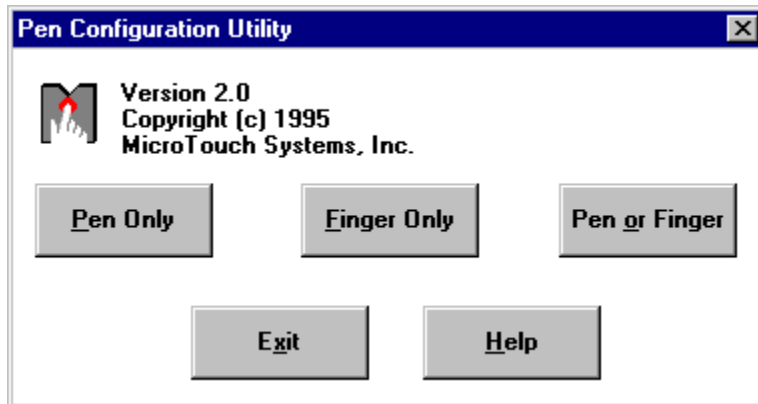
[Saving the Settings](#)



Configuring the Pen

Use the Pen Configuration utility to set the pen mode. If your system has a TouchPen controller, the **pen mode** defines whether the touchscreen recognizes input from both a pen and a finger, from a pen only, or from a finger only. The default pen mode is Pen or Finger mode, which means that you can use both your finger or your pen to select options.

For details about a particular pen mode function, select the appropriate button below.



To select a pen mode:

- Select one of the pen mode buttons using the mouse, a pen, your finger, or the appropriate [accelerator key](#). The pen mode is immediately active.
- For example, if you select Pen Only, the system recognizes only the pen as a touch device. You cannot use your finger or finger touch to make a selection. You can still use accelerator keys or the mouse to select utility buttons.
- The system saves the pen mode so that the next time you power up the system, the pen mode is active.

[Performance Considerations for the Pen](#)

Pen Only

The system recognizes pen touches on the screen. The system ignores finger touches on the screen.

Finger Only

The system recognizes finger touches on the screen. The system ignores pen touches on the screen.

Pen or Finger

The system recognizes pen and finger touches on the screen. If the system detects both pen and finger touches at the same time, it gives the pen higher priority and acknowledges only the pen touches. This priority prevents accidental touches from your finger or hand as being interpreted as input.

If you are using the pen and you lift the pen from the screen, the system does not recognize finger (or hand) touch until after a specified time delay. If a finger or hand is on the screen when the pen lifts off, the system ignores the finger or hand until you lift off and touch the screen again.

For example, if you rest your hand on the screen while you write with the pen, you can lift the pen up and put it back again without your hand touch being acknowledged. Pen or Finger mode is the default mode for TouchPen controllers.



Note

Changing the pen mode setting can optimize the performance of the touchscreen. In Pen or Finger mode, the TouchPen controller checks for input from either a pen or a finger. The controller always gives priority to the pen. If you are not currently using the pen for your touch application, use Finger Only mode for optimum system performance.

Exit

Select Exit to close the Pen Configuration utility.

Help

Select Help to obtain information on configuring your touch pen. For details about a pen or finger option, click on the appropriate button.

For example, to get information about the **Finger Only** option, click on the **Finger Only** button.



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Touch Mode

Topics

Use the Touch Mode options to specify the touch actions that equate to mouse click, double-click, and drag events. You can select desktop mode, drawing mode, or button mode.

For details about a particular touch mode, click on the interested touch mode button. For example, to get more information about desktop mode, click on the Desktop button.

Touch Mode

<input checked="" type="checkbox"/>	Desktop
<input type="checkbox"/>	Drawing
<input type="checkbox"/>	Button



[Comparison of Touch Modes](#)

Note

To describe the touch modes:

- Touch means to place your finger or pen on the screen.
- Tap means to touch the screen and quickly lift your finger or pen off the screen.

Desktop Touch Mode

Desktop mode is useful for general-purpose desktop applications. In desktop mode, the initial touch locates the cursor on the screen. Holding your finger or pen steady is equivalent to pressing and holding the mouse button. Lifting your finger or pen is equivalent to releasing the mouse button.

- **To click**, touch the object and then lift your finger or pen off the screen.
- **To double-click**, quickly tap the object twice, in the same location. The two taps must occur within the time defined by the double-click speed in the Touchscreen control panel.
- **To drag**, touch the object and then slide your finger or pen. When you are done dragging, lift your finger or pen off the screen. Lifting your finger is equivalent to releasing the mouse button. In desktop mode, dragging has an additional feature. If you pause at the end of the drag, you can automatically begin to *highlight* objects.
- **To highlight**, touch and pause momentarily until the system generates a button down. Drag your finger to the new location and then lift your finger off the screen.

Drawing Touch Mode

Drawing mode is useful for draw, paint, illustrator, and graphics applications. In drawing mode, touching the screen is equivalent to pressing and holding down the mouse button. Lifting your finger or pen is equivalent to releasing the mouse button.

- **To click**, touch the object and then lift your finger or pen off the screen.
- **To double-click**, quickly tap the object twice, in the same location. The two taps must occur within the time defined by the double-click speed in the Touchscreen control panel.
- **To drag**, touch the object and slide your finger or pen. When you are done dragging, lift your finger or pen off the screen.

Button Touch Mode

Button mode is useful for applications that exclusively use buttons for the controls. In button mode, touching the screen is equivalent to pressing and releasing the mouse button. The action happens immediately. You do not need to lift your finger or pen off the screen for the action to happen.

- **To click**, touch the object.
- **To double-click**, quickly tap the object twice, in the same location. The two taps must occur within the time defined by the double-click speed in the Touchscreen control panel.
- **To drag**, touch the object and then slide your finger or pen. When you are done dragging, lift your finger or pen off the screen.

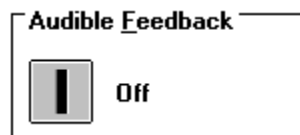
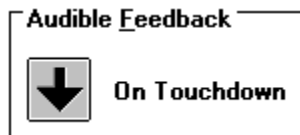


Audible Feedback

Topics

Use the Audible Feedback options to specify whether the system generates a tone when a touch event occurs. Continue to cycle through the available options until you select the desired Audible Feedback option.

For more details on a particular audible feedback option, click inside that option. For example, to find out what the Touchdown audible feedback does, click on the down-arrow button.



On Touchdown

Indicates the system produces a tone when you touch the screen.

On Liftoff

Indicates the system produces a tone when you lift your finger or pen off the screen.

Off

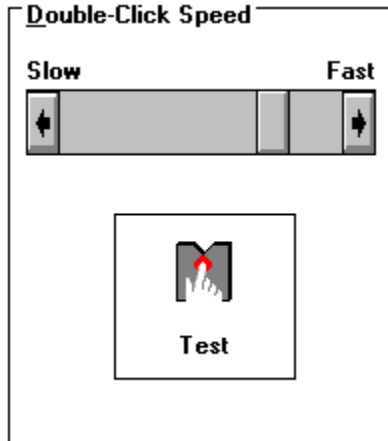
Indicates the system produces no tone when a touch event occurs.



Double-Click Speed

Topics

The Double-Click Speed lets you specify how quickly you must tap or touch the screen for the system to interpret your actions as a double-click. A double-click occurs when you quickly touch the screen twice. When using the touchscreen, **double-click speed** is the time lapse allowed between the first liftoff and the next tap or touch. If the speed of your next touch falls within this time period, then a double-click occurs.



Note

The Double-Click Speed setting in the Touchscreen control panel overrides the Double-Click Speed setting in the Mouse control panel. Altering the double-click speed for the touchscreen also changes the setting for the mouse.

Adjusting the Speed

To adjust the double-click speed, use one of the following options:

- Drag the scroll box toward the Slow or Fast arrows
- Click the Slow and Fast arrows on the scroll box
- Click between the arrow and the scroll box

A faster setting provides rapid tap/touch recognition, while a slower setting allows for more sedate movements. If the setting is very fast, and you tap slowly, the application will see two successive taps as two single clicks, rather than as a double-click.

Test

To test the current setting for the double-click speed, quickly tap the MicroTouch icon twice in the same location. When the MicroTouch icon changes color, the system has recognized your action as a double-click. You can adjust the double-click speed as necessary.

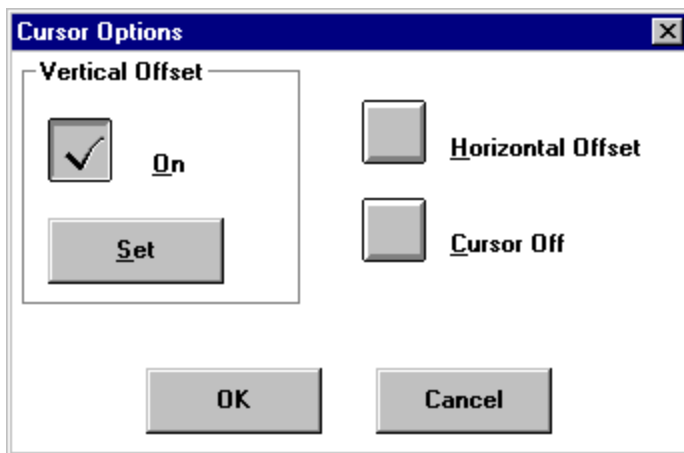


Cursor Options

Topics

After you calibrate the touchscreen, the cursor should be located directly underneath your finger or pen when you touch the center of the screen. However, you may prefer to offset the cursor slightly above your touch so you can point more easily and precisely. You can set the following options for the cursor:

- Define the distance between your touch and the position of the cursor on the screen
- Adjust the cursor movement on the horizontal axis
- Specify whether to display or hide the cursor

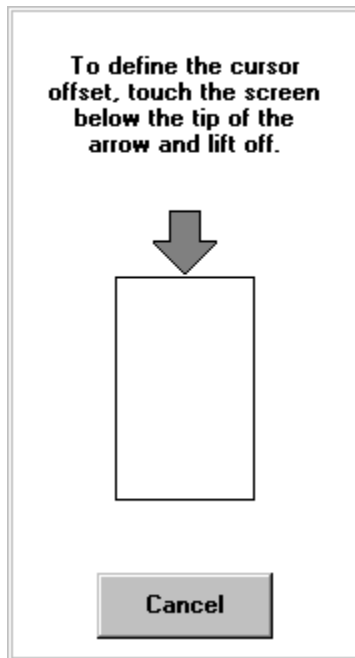


Vertical Offset

The Vertical Offset option lets you define the distance between your touch and the position of the cursor on the screen. Offsetting the cursor is helpful when selecting small items, such as single letters in word processing, check boxes, or radio buttons.

To specify a vertical offset for the cursor:

1. Select the On option in the Vertical Offset box.
2. Select Set. The following screen appears:



Touch the screen at the desired distance below the tip of the arrow, within the rectangular space provided. The distance between your liftoff position and the tip of the arrow is the offset distance.

Thereafter, the cursor will be positioned above your finger or pen by a distance equal to the offset distance. As your finger or pen approaches the bottom edge of the screen, the cursor offset decreases so you can touch items in this area.

Horizontal Offset

The Touchscreen control panel has a Horizontal Offset option for adjusting cursor movement on the horizontal axis. Sometimes the screen image extends completely to the left and right edges of the screen, beyond the edge of the monitor bezel. In these cases, it may be difficult to touch items at the left and right edges of the screen. If you select the Horizontal Offset option, the Touchscreen software automatically offsets the horizontal position of the cursor near the edges, so you can easily reach the edges of the screen image.

Cursor Off

This option is for users who do not want to display the cursor when working with a touch application. By default, the touchscreen driver displays the cursor in your Windows application.

To hide the cursor for your Windows applications:

- 1.** Open the Touchscreen control panel.
- 2.** Select Cursor to display the Cursor Options dialog box.
- 3.** Select the Cursor Off option.

OK

This option saves the current selection(s).

Cancel

This option does not save the current selection(s).



Calibration

Topics

Calibration defines the dimensions of the image area of the screen, determines the edges of the screen image, and locates the center of the touchscreen. You usually do not need to recalibrate the touchscreen. However, you may need to calibrate the touchscreen if the cursor does not follow the movement of your finger or pen, or if you need to adjust the size of the video image. When you calibrate the touchscreen, the controller stores the touch points in non-volatile memory. Therefore, you do not need to calibrate the touchscreen each time you start your system.

If you are using both a touch pen and your finger as touch devices, calibrate the screen twice:

- Select **Finger Only** mode and calibrate with your finger.
- Select **Pen Only** mode and calibrate with your pen.

[Calibrating the Touchscreen](#)

[Testing the Calibration](#)

Calibrating the Touchscreen

1. Open the Touchscreen control panel.
2. Select either desktop mode or drawing mode.
3. Select Calibrate. A calibration target appears in the lower left corner of your screen.



4. Touch the target as instructed.
 - Perform the calibration in the position (sitting or standing) you expect to use the touchscreen.
 - Touch the calibration targets slowly and accurately.
5. Touch the target in the upper right corner.

After you touch the second target, a dialog box prompts you to test the calibration by moving the cursor with your finger.

Testing the Calibration

1. Touch the center of the screen and check that the cursor is located underneath your finger.
2. Drag your finger across the screen and check that the cursor follows your movements.
3. Move your finger to each corner and edge of the screen. Check that the cursor follows your finger and reaches the edges of the screen image.

If you are using a TouchPen controller and pen, repeat the calibration procedure and test with the pen. Make sure that Pen Only mode is selected.

If you cannot reach the edges of the video image or the cursor is not located underneath your finger, select No and recalibrate the screen.



Note

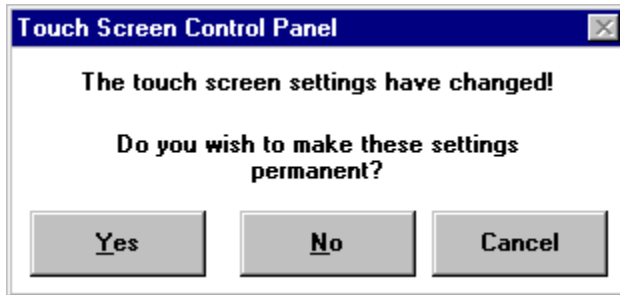
If any part of the calibration test fails, recalibrate the touchscreen. Make sure to touch the targets carefully. It is possible that one of your touches did not register properly, or you accidentally touched the screen in the wrong place during calibration. For example, if you touch beyond the targets or into the black non-image area, you will distort the touchscreen calibration.



Saving the Settings

Topics

If you made changes, the system prompts if you want to save the changes and make them permanent.



Select one of the options:

- **Yes** to make your changes permanent until you change them again.
- **No** to make your changes active for this session only.
- **Cancel** to return to the Touchscreen control panel and continue to make changes.



Common Problems

Topics

Here are some tips and strategies for problems that you may encounter with the touchscreen either during installation or normal use.

[Cannot activate items by tapping the touchscreen](#)

[Cannot operate two serial devices](#)

[Cursor does not display on the screen after starting Windows](#)

[Cursor does not reach out to the edges of the screen](#)

[Cursor jumps or bounces suddenly across the screen](#)

[Windows does not run after installing the TouchWare software](#)



Error Messages

Topics

Here are some error messages that you may receive when installing the Touchscreen software or using the Touchscreen control panel.

[Invalid touchscreen destination path](#)

[Unable to communicate with touchscreen on COMx, IRQx](#)

[Sorry, Windows is running in 386 Enhanced mode. **** Driver not loaded ****](#)

[Pen controller not found](#)



Controller Status Lights

Topics

Some touchscreen controllers have a light-emitting diode (LED) that provides the status of the touchscreen unit and monitors several diagnostic features in the unit. If you are experiencing problems with the touchscreen, be sure to check the LED for status information.

[Bright](#)

[Continuously Dim](#)

[Blinking](#)



Defining the Touchscreen Driver Settings

Topics

You can define settings for the touchscreen by using the Touchscreen control panel. MicroTouch stores the touchscreen settings in an initialization (.INI) file. Files with a .INI extension contain information that defines your working environment. Windows, DOS, and software applications use the information stored in these files.

Whenever you save your changes to the Touchscreen control panel, the system records the new settings in the appropriate .INI file. The system saves all changes, except double-click speed, in the SYSTEM.INI file. The system saves the double-click speed setting in the WIN.INI file.



All .INI files are text files that you can open, view, edit, and save using any editor or word processor that reads ASCII text files. The operating system reads the settings when the driver loads into memory.

[Settings in the WIN.INI File](#)

[Settings in the SYSTEM.INI File](#)



Defining the Base Address Settings

Topics

The Base Address (BaseAddr) setting overrides the standard address location at which the touchscreen driver expects to find the communication port specified by the CommPort setting. The following information lists the standard base addresses for each COM port. You can also specify a non-standard address if used by your configuration.



Standard Base Addresses

COM Port	Decimal Address	Hexadecimal Address
COM 1	1016	3F8
COM 2	760	2F8
COM 3	1000	3E8
COM 4	744	2E8
COM 5	736	2E0
COM 6	752	2F0
COM 7	992	3E0
COM 8	1008	3F0



Defining Values for Touchscreen Settings



Setting	Description	Allowable Values
CommPort	Sets the communication port.	1 (default) – 8
CommIRQ	Sets the number of the interrupt request (IRQ) channel that handles interrupts from the COM port.	2, 3, 4 (default), 5, 10, 11, 12, 15
BaudRate	Sets the communication rate.	1200, 2400, 4800, 9600 (default), 19200
TouchMode	Sets the touch mode.	0 = Button, 1 = Desktop, 2 = Drawing (default)
AudibleClick	Sets whether to generate a tone when a touch event occurs.	0 = Off, 1 = On touchdown (default), 2 = On liftoff
XOffsetOn	Sets whether the horizontal offset is on.	0 = No (default), 1 = Yes
YOffsetOn	Sets whether the vertical offset is on.	0 = No, 1 = Yes (default)
CursorOffset	Defines the vertical distance	0 – 512 (units in 2048ths); default

	between your touch and the position of cursor on the screen.	is 50
XOffsetOn	Sets whether the horizontal offset is on.	0 = No (default), 1 = Yes
YOffsetOn	Sets whether the vertical offset is on.	0 = No, 1 = Yes (default)
CursorType	Sets whether to display the cursor on the screen.	0 = Display the cursor (default) 1 = Do not display the cursor
ClickArea	Defines the tap area for touch modes.	Optional, must be added manually to SYSTEM.INI file. 0 – 512 (units in 2048ths), default is 175
SteadyCount	Defines the delay for desktop mode.	Optional, must be added manually to SYSTEM.INI file. 0 – 100 (units in points), default is 24
TouchRange	Defines the amount of monitor interference filtered from the touch values. You may want to adjust this setting if the cursor is unsteady.	Optional, must be added manually to SYSTEM.INI file. 0 – 15 (units in 2048ths), default is 4
BaseAddr	Overrides the expected base I/O address of the serial communication (COM) port.	Optional, must be added manually to SYSTEM.INI file. Must specify as a decimal value. See Defining the Base Address Settings for a list of standard addresses.
PenMode	Sets the pen mode.	1 = Pen Only, 2 = Finger Only, 3 = Pen or Finger (default)

Touchscreen System Files

Topics

The following list includes the touchscreen files. By default, the Setup program copies the touchscreen files into the C:\MTS\TOUCH directory. There are three sets of touchscreen files - Windows 95, Windows, and Pen Windows.

[For Windows 95 Users](#)

[For Windows Users](#)

[For Pen Windows Users](#)

For Windows Users

File Name	File Description
DOSPANEL.EXE	Touchscreen control panel for DOS
DOSPANEL.HLP	Help file for the DOS touchscreen control panel
DOSPEN.EXE	Pen Configuration utility for DOS
DOSTOUCH.EXE	Touchscreen driver for DOS
DOSTOUCH.INI	Initialization file for the DOS touchscreen driver
DOSTOUCH.OVL	DOS touchscreen driver overlay
MCAL.OVL	Microcal Diagnostic utility overlay
MICROCAL.EXE	Microcal Diagnostic utility
MICROCAL.HLP	Help file for the Microcal Diagnostic utility
MTCONFIG.EXE	Touchscreen Configuration utility
MTPEN.ICO	MicroTouch Pen icon
MTSETUP.HLP	Windows help file for the MicroTouch Setup program
MTS.ICO	MicroTouch Systems icon
MTSMOUSE.DRV	Cursor display driver for Windows
MTSPOP.EXE	Introductory menu for the Pop demonstration program
MTTOUCH.HLP	Windows help file for the Touchscreen control panel
POP.EXE	Touchscreen demonstration program
QCAL.OVL	Microcal Diagnostic utility overlay
QUICKCAL.HLP	Help file for the Microcal Diagnostic utility
READ.ME	Product information, release notes
TOUCH.386	Touchscreen driver for Windows enhanced mode
TOUCHDLL.DLL	A library of functions used by the Windows Touchscreen control panel
TOUCH.DRV	Touchscreen driver for Windows
WINPANEL.EXE	Touchscreen control panel for Windows
WINPEN.EXE	Pen Configuration utility for Windows

For Windows 95 Users

File Name	File Description
MCAL.OVL	Microcal Diagnostic utility overlay
MICROCAL.EXE	Microcal Diagnostic utility
MICROCAL.HLP	Help file for the Microcal Diagnostic utility
MTCONFIG.EXE	Touchscreen Configuration utility
MTPEN.ICO	MicroTouch Pen icon
MTSETUP.HLP	Windows Help file for the MicroTouch Setup program
MTS.ICO	MicroTouch Systems icon
MTSMOUSE.DRV	Cursor display driver for Windows
MTSPOP.EXE	Introductory menu for the Pop demonstration program
MTTOUCH.HLP	Windows Help file for the Touchscreen control panel
POP.EXE	Touchscreen demonstration program
QCAL.OVL	Microcal Diagnostic utility overlay
QUICKCAL.HLP	Help file for the Microcal Diagnostic utility
READ.ME	Product information, release notes
TOUCH.386	Touchscreen driver for Windows enhanced mode
TOUCHDLL.DLL	A library of functions used by the Windows Touchscreen control panel
TOUCH.DRV	Touchscreen driver for Windows
WINPANEL.EXE	Touchscreen control panel for Windows
WINPEN.EXE	Pen Configuration utility for Windows

For Pen Windows Users

Topics

File Name	File Description
DOSPANEL.EXE	Touchscreen control panel for DOS
DOSPANEL.HLP	Help file for the DOS Touchscreen control panel
DOSPEN.EXE	Pen Configuration utility for DOS
DOSTOUCH.EXE	Touchscreen driver for DOS
DOSTOUCH.OVL	DOS Touchscreen driver overlay
DOSTOUCH.INI	Initialization file for the DOS Touchscreen driver
MCAL.OVL	Microcal Diagnostic utility overlay
MICROCAL.EXE	Microcal Diagnostic utility
MICROCAL.HLP	Help file for the Microcal Diagnostic utility
MTCONFIG.EXE	Touchscreen Configuration utility
MTPEN.ICO	MicroTouch Pen icon
MTSETUP.HLP	Windows Help for the MicroTouch Setup Program
MTS.ICO	MicroTouch Systems icon
MTSAPP.ICO	MicroTouch Application icon
MTSCAL.EXE	Calibration test for DOS
MTSPOP.EXE	Introductory screen and menu for the Pop Demonstration program
MTTOUCH.HLP	Windows Help file for the Touchscreen control panel
PENPANEL.EXE	Pen Control Panel for Pen Windows
POP.EXE	Pop demonstration program
QCAL.OVL	Microcal Diagnostic utility overlay
QUICKCAL.HLP	Help file for the Microcal Diagnostic utility
READ.ME	Product information, release notes
TOUCHPEN.386	TouchPen screen driver for Windows enhanced mode
TOUCHPEN.DRV	TouchPen screen driver for Windows
TPMODE.EXE	Touch Pen Mode Select utility

Accelerator Key

An accelerator key is a keyboard abbreviated method for alternately accessing the same function as you would with a mouse, pen, or finger. An accelerator key is indicated by an underline. The accelerator keys for the Pen Configuration utility are:

- P** = **P**en Only
- F** = **F**inger Only
- O** = **P**en **o**r **F**inger
- H** = **H**elp
- X** = **E**xit

Topics

MicroTouch Bulletin Board System

You can access the MicroTouch Bulletin Board System 24 hours a day, 7 days a week. By using the BBS, you can:

- Download updates of the latest drivers
- Obtain regularly updated technical information on MicroTouch products
- Leave questions for Technical Support

You can reach the MicroTouch BBS at the following numbers:

Telephone Numbers	Supported Communication (Baud) Rates
508-659-9250	2400, 4800, 9600, or 14400
508-683-0358	2400, 4800, or 9600

To connect to the BBS, you need a 2400, 4800, 9600, or 14400 baud modem and standard communication software. You must set the communication parameters as:

- No parity
- 8 data bits
- 1 stop bit

Once you establish a modem connection with the BBS, the system prompts you to log in using your name. You can register with MicroTouch the first time you log in to the BBS. The menu of available options is self-explanatory.

Topics

MicroTouch Technical Support

When you call Technical Support, please have the following information ready:

- Serial number from the MicroTouch label on your monitor or touchscreen controller
- Version number of the MicroTouch firmware
- Make and model of your computer
- Type and version of your operating system
- Type and version of your MicroTouch software
- List of peripherals connected to your computer
- Type and version of the application software in use

[United States](#)

[Australia](#)

[France](#)

[Germany](#)

[Japan](#)

[Taiwan, R.O.C.](#)

[United Kingdom](#)

United States



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300 Griffin Brook Park Drive
Methuen, MA 01884



508-659-9000



508-659-9100, 508-659-9300, 508-659-9400

Technical Support Hot Line: 508-659-9200
World Wide Web: <http://www.microtouch.com>
Bulletin Board System: 508-659-9250, 508-683-0358
E-Mail: touch@mts.mhs.compuserve.com

Australia



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Mulgrave Victoria 3170



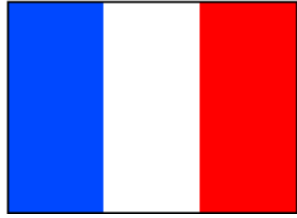
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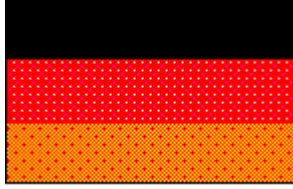


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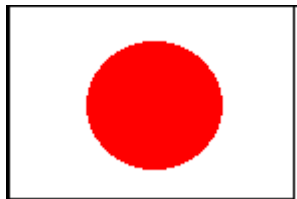


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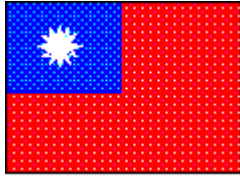


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Cannot activate items by tapping the touchscreen

Use the Touchscreen control panel to reset the double-click speed. If you tap slowly, be sure to set the double-click speed to slow in order for the second tap to register with the system.

Cannot operate two serial devices

If you have two serial devices operating together, such as a touchscreen and a mouse, be sure each device uses a unique COM port and IRQ number. For example, the mouse can use COM1/IRQ4 and the touchscreen can use COM2/IRQ3. Using the same COM port or IRQ creates device conflicts.

Cursor does not display on the screen after starting Windows

May indicate that some files are corrupted or altered, or that the setup was changed. Possible explanations include:

- Check that the TOUCH.DRV file (that is, the touchscreen driver for Windows) has not been moved from the directory used at installation.
- Review how you installed the software for the Windows touchscreen driver. If you selected **Yes** in the **Support for Another Pointing Device** dialog box, but do not have a mouse connected to your computer, the cursor will not display on the screen. You can either connect a mouse or load the MTSMOUSE.DRV file from the TouchWare diskette.
- Open the Windows Touchscreen control panel and make sure the Cursor Off option is not selected.
- If the Touchscreen control panel does not function, open the Properties dialog box and make sure the WINPANEL.EXE file is specified in the Command Line box.
- Review the Windows Setup before starting the program and make sure the MicroTouch touchscreen is selected as the mouse device.

Windows Setup	
<u>O</u> ptions	<u>H</u> elp
Display:	Stealth 64 DRAM
Keyboard:	Enhanced 101 or 102 key US and Non US
Mouse:	MicroTouch Touch Screen V3.2
Network:	Novell NetWare (shell versions below 3.21)

Cursor does not reach out to the edges of the screen

Try recalibrating the touchscreen. When calibrating the screen, be sure you touch the center of each target firmly and precisely.

You may also want to check if the Horizontal Offset option in the Touchscreen control panel is on, and if not – turn it on.

Cursor jumps or bounces suddenly across the screen

The touchscreen receives more than one touch simultaneously. When you touch the screen, be sure to point and touch with one finger only. Keep your other fingers away from the touchscreen.

If more than one finger touches the screen, the cursor jumps from one location to the next. In the case of two fingers touching, the cursor moves to a area halfway between the two touch points.

Touch only one location at a time.

Windows does not run after installing the TouchWare software

Indicates there is no MOUSE.DRV file on your PC. This problem may occur when upgrading from TouchWare 3.0 to TouchWare 3.1 or TouchWare 3.2. In TouchWare 3.0, the touchscreen and the mouse work in conjunction with one another. The Setup program defines the mouse driver as MOUSE.DRV in the SYSTEM.INI file. If you are using a different mouse driver, Windows cannot run because it is trying to load the MOUSE.DRV file.

To correct this problem, you can edit the SYSTEM.INI file and specify the correct mouse driver. If you are not using a mouse, enter MTSMOUSE.DRV (the MicroTouch cursor display driver for Windows) in the SYSTEM.INI file.

Example

- Open the SYSTEM.INI file with a text editor like Notepad.
- Locate the **[boot]** section within this file.
- Enter: **mouse.driv=C:\MTS\TOUCH\MTSMOUSE.DRV**

Invalid touchscreen destination path

You used an incorrect format when specifying the destination path. Be sure to include a backslash (\) before a directory name.

Unable to communicate with touchscreen on COMx, IRQx

The touchscreen is not communicating with the controller. Check the following items:

- Make sure the touchscreen controller is connected to the correct port.
- Review the installation procedures and verify all hardware is properly connected.
- Check the serial port and touchscreen cable connections.
- Check that the touchscreen and controller cables do not have any kinks and that connector pins are not bent.
- Check that the PC Bus controller is firmly seated in the expansion bus slot in your computer.
- If your controller has an LED and you can see it, check the controller's LED for power on. If the LED is flashing, refer to [Controller Status Lights](#) for a list of possible errors.
- Reset the touchscreen and its controller. Turn off both the computer and the monitor, wait a few minutes, and then turn on each device again.
- If the touchscreen is still not communicating after checking the hardware, verify that you specified the correct COM port, IRQ number, and baud rate when you install the touchscreen software. This error will occur if you installed the touchscreen on the wrong COM/IRQ during setup. Rerun the Setup program and specify the correct communication settings.

**Sorry, Windows is running in 386 Enhanced mode.
Driver not loaded**

You accessed DOS from within Windows and then entered the DOSTOUCH command. You cannot load the DOS touchscreen driver if Windows is running.

Pen controller not found

You tried to set the pen mode, and either your pen or your TouchPen controller is not properly connected, or you do not have a TouchPen controller in your system. Check the following:

- If you have a pen, make sure that it is properly plugged into your monitor.
- If you have a TouchPen controller in your system, review the installation procedures and verify all hardware is properly connected.

Bright

Indicates one of the following conditions:

- Power was applied to the controller, but communication with the controller was not started.
- Controller was initialized and the sensor was being touched.

Continuously Dim

Indicates the controller received a Reset command. The LED is dim when the sensor is not being touched.

Blinking

Indicates the power-on self-test failed. Possible errors are

- | | |
|--------------------------|---------------------|
| 1 flash per 10 seconds | RAM error |
| 2 flashes per 10 seconds | ROM error |
| 3 flashes per 10 seconds | A/D error |
| 4 flashes per 10 seconds | NOVRAM error |
| 5 flashes per 10 seconds | Analog error |

Note

The following information lists the address in both decimal and hexadecimal. When specifying the address (**baseaddr=decimal**) in the .INI files, you must specify the address as a decimal value.

Settings in the WIN.INI File

When you install the Windows touchscreen driver, the Setup program automatically adds or modifies the following lines in the WIN.INI file:

- DoubleClickSpeed=550
- DoubleClickWidth=32
- DoubleClickHeight=24

Settings in the SYSTEM.INI File

When you install the Windows touchscreen driver, the Setup program automatically adds several lines in the SYSTEM.INI file.

[Boot]

drivers=mmsystem.dll touch (or drivers=touch)

mouse.driv=mtsmouse.driv (Installed if no other pointing device is selected)

[Boot description]

mouse.driv=MicroTouch Touchscreen Vx.x

[386Enh]

device=touch.386

[Drivers]

touch=touch.driv

[Windows Touchscreen]

CommPort=x

CommIRQ=x

BaudRate=x

TouchMode=x

AudibleClick=x

XOffsetOn=x

YOffsetOn=x

CursorOffset=x

CursorType=x

PenMode=x

Added if TouchPen Drivers are installed

BaseAddr=x

Optional, must be manually added to System.ini file

ClickArea=x

Optional, must be manually added to System.ini file (0-512, nits in 2048 ths)

SteadyCount=x

Optional, must be manually added to System.ini file (0-100, default is 24. Time delay for DeskTop Mode)

TouchRange=x

Optional, must be manually added to System.ini file (0-15, default is 4. A filter value units in 2048 ths)

Note

The Double-Click Speed setting in the Windows Touchscreen control panel overrides the Double-Click Speed setting in the Mouse control panel. Therefore, altering the double-click speed for the touchscreen changes the setting for the mouse as well.

Note

The syntax for each setting is the name of the setting, followed by an equal sign (=), and a value for that setting. There are no spaces allowed in the setting names before the equal sign, and settings are not case sensitive.

Examples:

```
CommPort=2  
CommIRQ=3  
BaudRate=9600  
TouchMode=1  
AudibleClick=0  
XOffsetOn=0  
YOffsetOn=1  
CursorOffset=12  
CursorType=0
```

Comparison of Touch Modes

Event	Desktop Mode	Drawing Mode	Button Mode
When the action occurs	A touch positions the cursor. Holding the touch steady is equivalent to pressing and holding the mouse button. Lifting off is equivalent to releasing the mouse button.	A touch is equivalent to pressing and holding down the mouse button. Lifting off is equivalent to releasing the mouse button.	Touching the screen is equivalent to pressing and releasing the mouse button. The action occurs as soon as you touch the screen.
Click	Touch the object. Lift off the screen.	Same as desktop mode.	Touch the object.
Double-click	Tap the object twice quickly at the same location.	Same as desktop mode.	Same as desktop mode.
Drag	Touch the object. Drag the object to a new location. Lift your finger off the screen.	Same as desktop mode.	Same as desktop mode.
Highlight	Touch and pause until the system generates a button down. Drag your finger to a new location. Lift your finger off the screen.	Same as dragging.	Same as dragging.

Performance Considerations for the Pen

Pen Mode Setting

Changing the pen mode setting can optimize the performance of the touchscreen. In Pen or Finger mode, the TouchPen controller checks for input from either a pen or a finger. The controller always gives priority to the pen. If you are not currently using the pen for your touch application, use Finger Only mode for optimum system performance.

Communication Rate

The standard baud rate for MicroTouch controllers is 9600, which is generally acceptable for most applications. However, if you are using a pen, the best baud rate depends on your application and your system.

For example, the 19200 baud rate is intended for use with character recognition systems that require high pen data rates. However, systems that cannot handle the higher data rates seen from the pen may result in degraded pen performance. To improve performance on these systems, select a slower baud rate. To change the baud rate, use the Microcal utility.

Double-Click Speed

The double-click speed defines how quickly you must tap or touch the screen for the system to interpret your actions as a double-click. If you are using Pen or Finger mode, set the double-click speed in the slow to medium range for optimum performance. [To change the double-click speed](#), access double-click speed from the Touchscreen control panel.

