

## Customer Record

Serial No:	Model No:
Dealers Name:	
Dealers Telephone No:	
Date of Purchase:	

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## Contents

<b>CHAPTER 1 - INTRODUCING THE DISPLAYMATE FOR WINDOWS 3.1 &amp; WINDOWS 95</b>	<b>3</b>
Introduction	3
Features	3
<b>CHAPTER 2 - BEFORE YOU START</b>	<b>4</b>
System Requirements	4
Technical Support	4
<b>CHAPTER 3 - CONTROLLER INSTALLATION</b>	<b>5</b>
Introduction	5
Touch Screen System Basics	5
Unpacking your DisplayMate	5
Connecting the DisplayMate controller to your system	6
Installing the DisplayMate Drivers	7
Calibrating your Touch Screen	8
Touch Screen Control Panel settings	11
Uninstalling DisplayMate Drivers	12
<b>CHAPTER 4 - TROUBLE SHOOTING</b>	<b>13</b>
Looking after your Touch Screen	14
System configuration diagrams	15

## Chapter 1 - Introducing the DisplayMate for Windows 3.1 & Windows 95

### Introduction

DisplayMate touch screens are state-of-the-art, yet easy to use, input devices used in many different environments by people with little or no computer experience, for whom there is nothing more intuitive than to touch what they see. Many different types of DisplayMate touch screens are available but the end result is the same, you touch the visual images you see and the computer responds.

The touch screen controller allows your DisplayMate touch screen to respond to a touch by interfacing directly with your computer's hardware. This allows you to use a DisplayMate touch screen in conjunction with all liquid crystal, electro-luminescent or CRT projectors.

### Features

The DisplayMate range of touch screens offer the following features:

- Diagonal viewing size 30" to 72"
- Front or Rear projection
- High gain projection surfaces
- Windows 3.11, Windows 95, Windows NT\*, UNIX\* and Macintosh\*
- Optional mobile stands with keystone correction
- User definable touch settings
- Whiteboard functions as FP100/FP130/FP75, allowing images and text to be saved to your computer and printed in colour

*\* Please Note: Separate drivers are required for Windows NT, UNIX and Mac applications. Please ask your dealer for further details.*

## Chapter 2 - Before you Start

### System Requirements

The following are the minimum PC requirements for the DisplayMate touch screen controller and driver software.

- IBM PC, XT, AT, PS/2 or 100% compatible
- 8mb RAM
- MS-DOS version 3.0 or higher
- Free serial communications port

### Technical Support

Interactive Displays Limited has application engineers on staff to answer questions about DisplayMate. Please contact your DisplayMate sales representative for more information.

Before calling for technical support on a problem, please refer to the troubleshooting guide in Chapter 4 of this manual. If you need further assistance please contact your local distributor or Interactive Displays Limited:

Tel: +44 (1491) 835984  
Fax: +44 (1491) 836020

or by post:

Interactive Displays Limited  
5 Thames Park  
Lester Way  
WALLINGFORD  
Oxfordshire  
OX9 5JF  
United Kingdom

When contacting Interactive Displays Limited for technical assistance, please have the following information available:

- The version of DisplayMate software that you are using. This will be found on the application diskette label.
- The version of your Windows operating system.
- The serial number of the touch screen you are using. listed on the touch screen.
- The version of this manual.

## Chapter 3 - Controller Installation

### Introduction

This chapter describes the installation of the DisplayMate serial touch screen controller. This is a separate interface unit that either resides on the back of the FP range of products, or elsewhere on the RP (Rear Projection) products. To facilitate upgrades in the future, the controller has been designed as a separate unit.

### Touch Screen System Basics

The controller is used as the interface between a DisplayMate touch screen and the computer. DisplayMate driver software that runs the computer, converts the touch position data sent from the touch screen controller into mouse type commands that can be used with application programs.

### Unpacking your DisplayMate

Check the contents of the boxes. You should have:

- DisplayMate Touch Screen Controller including serial cable
- DisplayMate Touch Screen
- DisplayMate Application Software - Annotate Live\DisplayMate drivers
- DisplayMate User Guide
- Accessory kit
- Power supply is if running Windows NT or UNIX drivers

If there are any items missing or if the boxes are damaged, please contact your local distributor.

## **Connecting the DisplayMate controller to your system**

### **Step 1**

Turn off the power to your PC.

### **Step 2**

Assemble the DisplayMate touch screen as per the instructions supplied.

### **Step 3**

Connect the controller serial cable (RS232) directly into a 9 pin serial communications port on the back of your PC. You may require a 9 to 25 pin adapter. Make sure you know which com port you have selected.

Connect the other end of the controller serial cable to the controller 9 pin female serial communications port.

### **Step 4**

Connect the touch screen to the controller using the supplied connecting cable. The 8 pin male end of the cable connects to the touch screen socket. This is found on the bottom right hand corner of the frame at the rear.

### **Step 5**

Turn the power on to the PC.

## Installing the DisplayMate Drivers

Installing the DisplayMate touch screen driver software for Windows will allow you to use your touch screen with any Microsoft Windows 3.1 or Windows 95 software application, in conjunction with or in place of your mouse. **These disks automatically detect which version of Windows you are using.** To install the software, please follow these steps.

### Step 1

To install device drivers for Windows on your machine, you must have Microsoft Windows running. Once you are in Windows 3.1 select File - Run. *Windows 95 - Select Start and then select Run.*

### Step 2

Insert the application diskette into either your a: or b: floppy drive.

### Step 3

A window will appear asking for the location of the touch screen driver files. Type either **a:\setup** or **b:\setup**, depending on which drive the disk is in, to run the SETUP utility program on the DisplayMate application disk.

### Step 4

Follow the on-screen instructions to complete the installation.

## Calibrating your Touch Screen

After loading the DisplayMate touch screen drivers, you will need to calibrate your DisplayMate to the specific display size projected on the screen. Each time you move or resize the image this procedure is required to provide accurate finger to mouse co-ordination

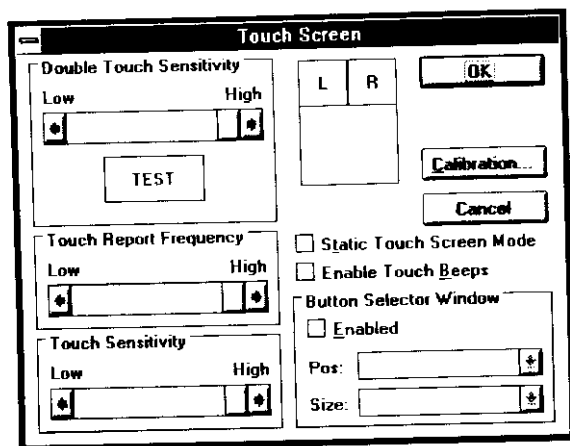
### Step 1

**If you have just installed the drivers, please reboot your computer to initialise the newly added software.**

Start your computer and find 'Control Panel', here you will find a new icon called Touch Screen. (Windows 95 - via Settings, double click on mouse, select general and then options to find Control Panel)

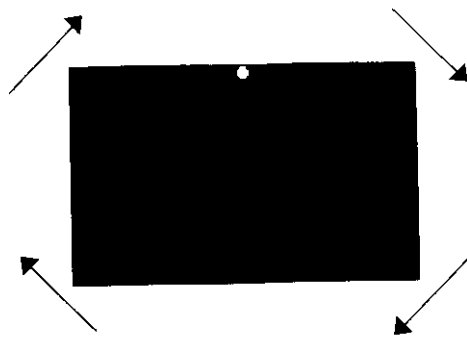
### Step 2

Having selected Touch Screen or options (Windows 95) the touch screen control panel will appear as follows:



If you have not previously calibrated the screen for your current image size, select calibration on the Touch Screen control panel. Four calibration points should appear in order on the screen (these are white dots on a black background) as follows:





These appear one after the other starting at the top centre of the screen. If your projector is not adjusted correctly for the computer signal, use the horizontal and vertical shift to move the image around the touch screen. Also, whilst calibrating, ensure the image is within the bezel of the touch screen.

#### Step 4

Now touch firmly the top white dot with the arrow pointing to it, and move clockwise until four dots have been touched. A beep will be heard each time you press a calibration point. The accuracy of your touch will determine the closeness of your mouse to your finger or stylus.

The program will return to the Touch Screen control panel. Select 'OK' and the software will now return to Control Panel (or 'Mouse' in Windows 95, select OK again if in Windows 95). NB. In Windows 95 do not select change mouse as this will de-install the DisplayMate driver.

Your touch screen should now be calibrated and the mouse should follow your finger.

If you are not happy with the accuracy, return to Touch Screen control panel and re-calibrate.

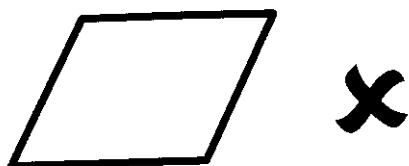
Note: The calibration program selects the outer limits of the touch screen. It is **important** to ensure a square projected image to obtain best results.

## Image Setup

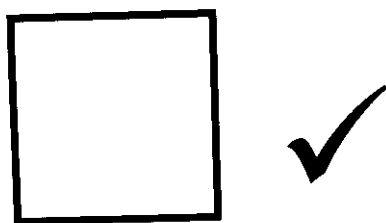
Keystone image will create poor accuracy in corners and sides of touch screen



An off square image will produce poor over all accuracy.



A reasonable square image ensures good calibration mapping with your projected image



Adjustments on your RP100T and FP100 will allow keystone adjustment. Images that are not square can be adjusted by movement of the projector relative to the screen

Please consult your RP100T, FP100 and projector manuals concerning adjustments

## Touch Screen Control Panel settings

Double Touch Sensitivity	This varies the speed of the double touch.
Touch Report Frequency	Adjust the speed of the mouse. Set high gives fast image speed for drawing, slower setting will cause the image to be less responsive.
Touch Sensitivity	Varies the amount pressure needed when touching the screen.
Static Touch Screen Mode	When applied will only give the first touch position, no mouse movement allowed until touched again.
Enable Touch Beeps	Audio feedback from PC on touch.
Button Selector Window	When this is enabled a mouse click icon can be selected to switch between left and right hand mouse clicks. There are four selectable positions available and various sizes.

**Important - Ensure the mouse click icon is not when in whiteboard mode, as it can cause confusion.**

## Uninstalling DisplayMate Drivers

DisplayMate software comes with an un-install facility, please see below for instructions on how to remove the DisplayMate drivers from your system.

### Windows 3.x users



DisplayMate  
Uninstall

1. From the Windows 3.x desktop DisplayMate program group select 'DisplayMate Uninstall' then Yes.
2. The DisplayMate Uninstall program will be launched. When complete click on 'OK' to continue.

**You must now reselect your original mouse driver as follows:**

3. From the Windows 3.x desktop main program group select 'Windows Setup' then 'Options' then 'Change Systems Settings'.
4. Select pulldown menu for 'Mouse' then select your original mouse from the list or insert a device driver diskette.
5. Select 'OK' then 'Close'.
6. Select 'Restart Windows'.

### Windows 95 users

1. From the Windows 95 desktop select 'Start' then 'Settings' then 'Control Panel'.
2. Select 'Add/Remove Programs'.
3. Highlight 'DisplayMate Software' in the list of software and select 'Add/Remove'.
4. Select 'OK' and click on 'Yes'.
5. The DisplayMate Uninstall program will be launched, when complete click on 'OK' to continue.

**You must now reselect your original mouse driver as follows:**

6. Select 'Mouse' then 'General' then 'Change'.
7. Select your original mouse from the list or insert a device driver diskette.
8. Select 'OK' then 'Close'.
9. Select 'Restart'.

### **Important Note**

As a precaution against creating invalid system configuration(s) the DisplayMate Drivers will be de-activated if the user selects 'Add New Hardware' and allows the system to search for new hardware from within the Windows 95 Control Panel. To restore the DisplayMate Drivers please follow the instructions for 'Removing DisplayMate Software' and then re-install the DisplayMate software from the distribution diskettes.

## Chapter 4 - Trouble Shooting

Problem: Touch Screen does not respond when touched

- Solutions:
- Check all cables and connectors.
  - Ensure touch screen driver is present and invoked on computer boot up.
  - Check com port configuration in config.sys. Please refer to Appendix.
  - Is a remote mouse driver present? If so, uninstall it, then uninstall the DisplayMate driver and then re-install.
  - Check R H mouse button is not selected. (see touch screen control panel - Button selector window).

Problem: Touch Screen seems inaccurate.

- Solutions:
- Make sure the projected image is as near to square as possible. Any deviance from this induces inaccuracy.
  - If the projected image is bowed due to optical lens characteristics, try moving up or down, left or right your touch point when calibrating with your finger. This can compensate for non-perfect projector lenses.
  - Make sure all calibration dots are visible during calibration. If not, adjust your projector accordingly.

Problem: When Annotating or moving, the mouse movement is slow.

- Solutions:
- Check touch report frequency in Touch Screen control panel. Move it to low and back to high and click OK.
  - Check Static Touch Screen mode has not been enabled in Touch Screen control panel.
  - Ensure that secondary mouse drivers are not conflicting with the DisplayMate drivers, if so remove them. This can be common with remote pointing devices and MouseWare software sometimes shipped or installed on PC's (especially laptops).

If any problems you have persist, please contact your local dealer or distributor.

## Looking after your Touch Screen

1. For FP100/FP130/FP75 touch screens, clean using any whiteboard cleaning kit  
Always use a dry cloth to ensure any moisture is removed before re-using the screen with dry marker pens.

Always use dry marker pens on the DisplayMate surfaces

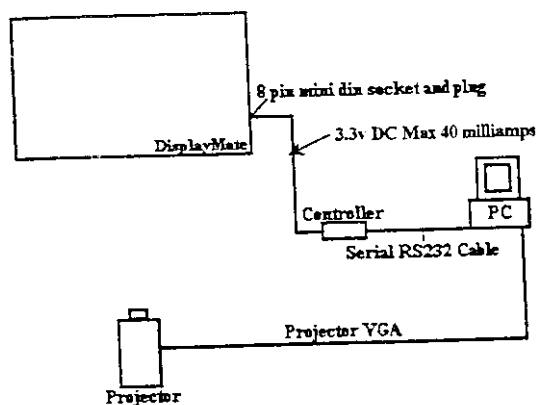
For RP100T/RP130T/RP75T touch screens, use a paper towel with glass cleaner. The paper towel need only be damp enough to remove grease marks and should be dried with a clean paper towel to remove any residue

Do not use dry markers on the rear touch screens as this may prove difficult to remove

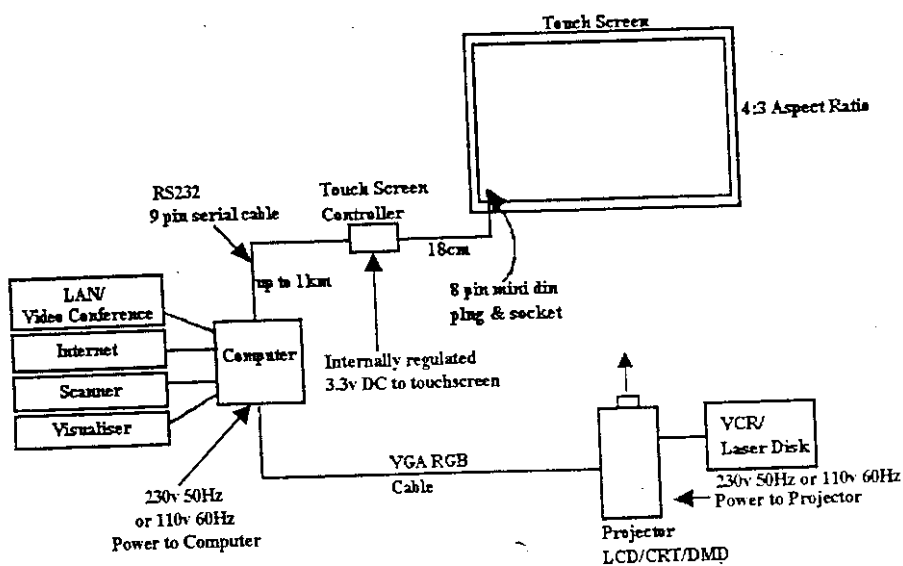
The FP100/FP75 touch screens are supported by an aluminium backing board and should be protected from any direct impact that may deform or damage the touch screen surface. Always store the screen with maximum protection provided for the front surface

The RP100/RP75 touch screens are supported by a toughened glass backing. This supports the lens and touch screen handling should consider impacts which may shatter glass. The surface of the screen has been designed to be scratch resistant, however, very sharp objects may leave a mark.

# System configuration diagrams



DisplayMate™ Touchscreen System  
System diagram for use with projection source - FP & RP range



Rev: A  
Date: 29/9/98  
By: MSB

DisplayMate™ FP Whiteboard/Copyboards configuration  
Block Diagram

