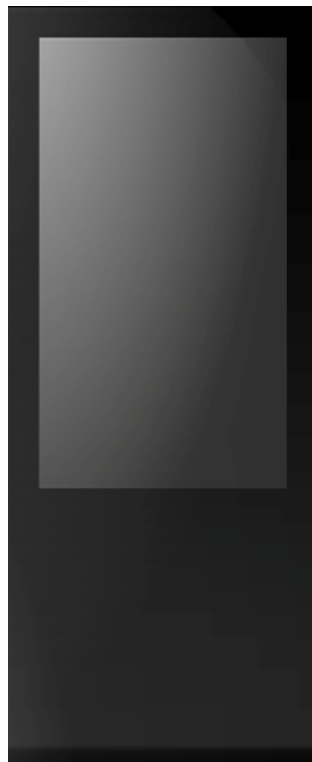


Freestanding Infrared Multi Touch Screen Display

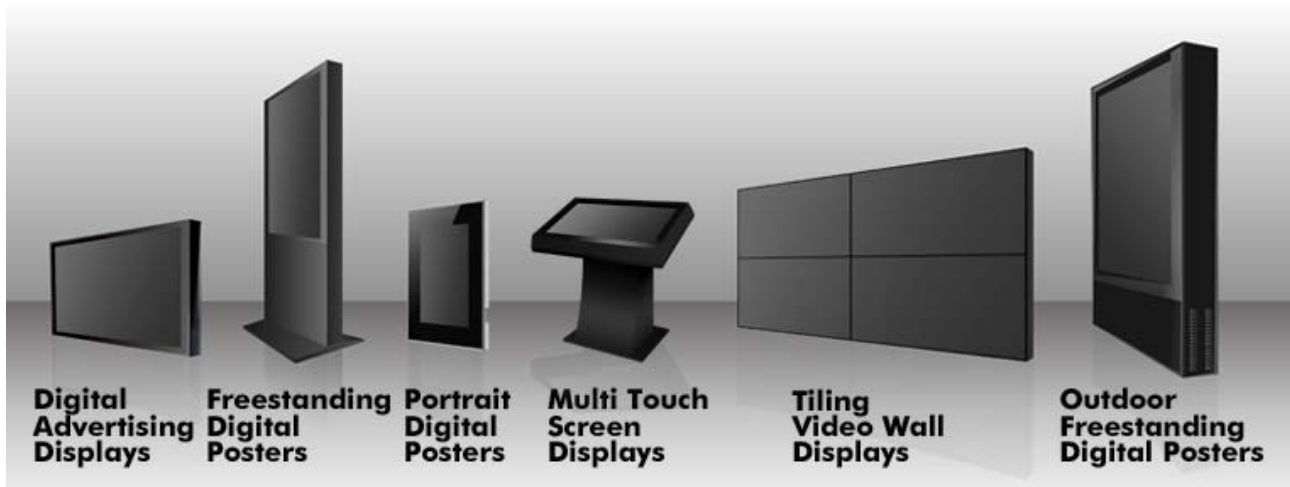
User's Manual



Manual Version LHD-T1.0



Our Full Product Range



Safety Instructions



- Please keep the display away from any heat sources such as radiators or direct sunlight. Place the display in a stable and well-ventilated place.
- Please handle with care as product contains glass.
- The holes or openings on the display are designed for ventilation. Do not cover or block the ventilation holes or openings.
- Remove protective covering from the screen before you use the display.
- As the display surface is vulnerable to scratches, avoid touching the surface with sharp pen point.
- Shut off the power supply before cleaning. Use a soft lint-free cloth instead of a tissue to wipe the screen.
- You may use a glass cleaner to clean the product as required. However, never spray the cleaner directly onto the display surface.
- Do not attempt to repair this product yourself! Improper disassembly of the product will invalidate the warranty and could be dangerous.

If you have a problem that cannot be solved using the "Troubleshooting" guidelines, please contact your supplier.

Quick Start Guide

This section of the guide allows quick setup and use of the unit. Please refer to the main part of the User Guide for full information on use of the unit.

Please follow the steps detailed below:

1. Unpack unit and place in desired location, open rear door and place PC inside.
2. Connect the screen to the PC via the VGA Cable and link the screen's Infrared touch sensors to the PC via the USB cable (as shown below).

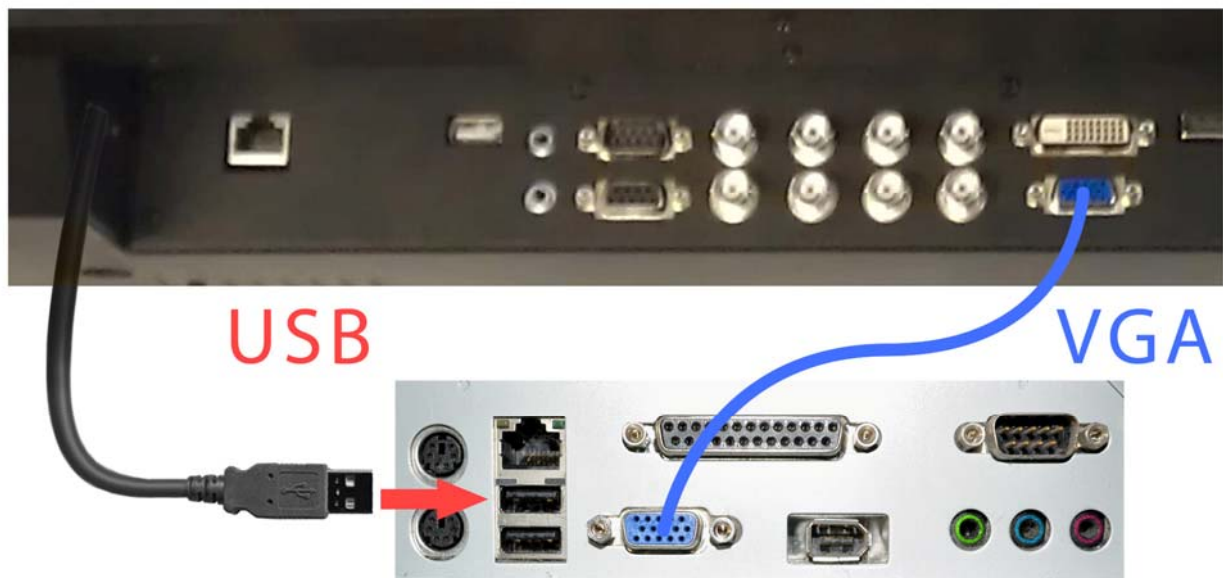


Figure 1 Screen to PC Connections

3. Power ON the PC.
4. Take the screens power lead and connect to mains outlet. The unit will power ON automatically.
5. Insert the CD included into the PC then access the CD-ROM drive and open the file inside called TouchControl.msi. Follow the "TouchControl Setup Wizard" to install the software.
6. Restart the computer
7. Re-launch the software then click "Calibration" to configure touch sensor points on the touch screen.
8. The screen should now be acting as a monitor and allowing you to use your finger as a mouse on the screen displaying the PC's contents.

Contents:

1.	Introduction	6
1.1	Box Contents	6
1.2	Product Overview.....	7
1.3	Remote Control	8
1.4	Replacing the Remote Control Battery	9
1.5	Menu Operation.....	10
1.6	Inputs	12
2.	Set Up.....	13
2.1	Connecting to PC.....	13
2.2	Installing the touch screen driver	16
2.2.1	Windows Driver Installation (32-bit & 64-bit)	16
2.2.2	Changing your display to portrait mode	22
3.	F.A.Qs and Troubleshooting Guide	25
3.1	My Touch Screen is not displaying what is on my PC.....	25
3.1.1	Input Source	25
3.1.2	Display/monitor button on keyboard	25
3.2	My display turns itself OFF when it's not connected to my PC.....	25
3.2.1	Power saving function.....	25
3.3	My screen is displaying video signal but touch function is disabled	26
3.4	My TouchControl software is not launching	26
3.5	My driver won't reinstall on Windows XP	27
4.	Full Range Specifications	32

Table of Figures

Figure 1 Screen to PC Connections	3
Figure 2 Product Overview.....	7
Figure 3 Screen Inputs	12
Figure 4 Screen to PC Connections	13

1. Introduction

Congratulations on your purchase of our product. Please read carefully and follow all instructions in the manual before first use.

The product should not be exposed to liquids dripping or splashing and no liquid filled objects, such as vases, should be placed on the product.

For user convenience, a number of operations can be performed through the remote control.

Attention:

1. Do not change any default settings unnecessarily
2. Keep the product far away from water during installation and use.

1.1 Box Contents

1xFreestanding Infrared Touch Screen Display

1xVGA Cable

1xUSB Cable

1xCD (User Manual and Software Driver)

1xRemote Control

1.2 Product Overview

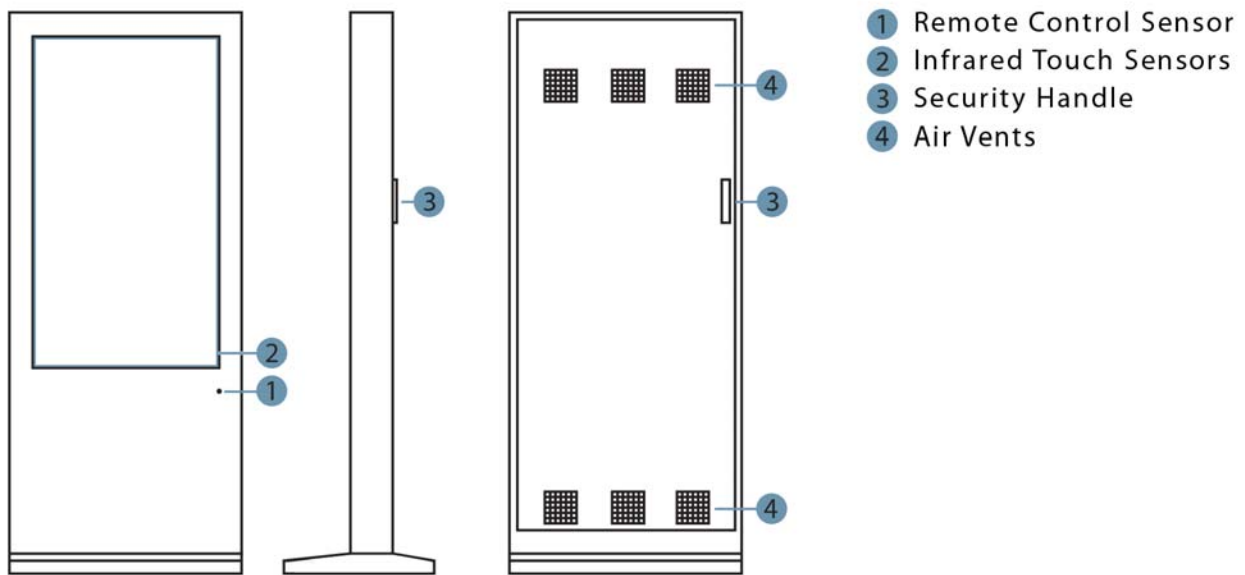


Figure 2 Product Overview

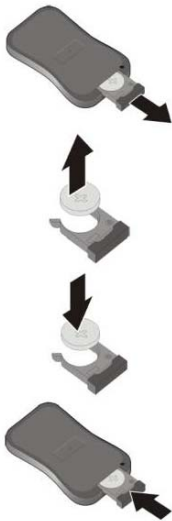
1.3 Remote Control



Button	Function
Power	Power ON or OFF
Mute	Disable audio
0-9	Numbers for time input
-/--	Input multiple numbers
MODE	Signal input select
←	Left navigation button
↑	Up navigation button
→	Right navigation button
↓	Down navigation button
OK	Confirm selection
MENU	Open/close menu settings

1.4 Replacing the Remote Control Battery

1. Open the battery cover
2. Take out the battery box in the right direction as shown in the picture below
3. Remove the used battery
4. Insert the new battery with its terminals corresponding to the indicator
5. Put the cover back in



1.5 Menu Operation

The Menu includes the following sub-menus: Picture, Sound, System, Function and Geometry.

When using the Remote Control please ensure that it is no more than 20cm away from the sensor. This close proximity control feature is to ensure that you only control the desired device if there are others in its vicinity. Press "MENU" to enter Main Menu, press ←→ to select the right sub-menu and ↑↓ to select the desired item, press "OK" to confirm selection. Press → where instructed to confirm section. Press "menu" at any time to go back or exit.

PICTURE	SOUND	SYSTEM	FUNCTION	GEOMETRY
---------	-------	--------	----------	----------

Picture

As with all settings these can be adjusted and changed back to default at any time.

CONTRAST	50	
BRIGHTNESS	50	
COLOR TEMP	<NORMAL>	or WARM/COOL/USER DEFINED
SCALE		
AUTO		
PICTURE MODE	<STANDARD>	or DYNAMIC/SOFT/USER DEFINED

Sound

EQUALIZER	120	50
	500	50
	1.5K	50
	5K	50
	10K	50
BALANCE	0	(LEFT/RIGHT SOUND DISTRIBUTION)
SOUND MODE	<USER>	or STANDARD/MOVIE/MUSIC
SURROUND	<OFF>	or ON

System

Here you can change all of the On Screen Display (OSD) settings such as menu brightness and how long it displays for. This sub-menu also includes the fan settings so you can set what temperature the internal fan activates.

OSD LANGUAGE	<ENGLISH>	or 中文
OSD H-POSITION	50	(HORIZONTAL POSITION OF THE MENU)
OSD V-POSITION	50	(VERTICAL POSITION OF THE MENU)
OSD DURATION	15	(NUMBER OF SECONDS MENU WILL DISPLAY FOR)
OSD HALFTONE	50	(BRIGHTNESS OF THE MENU)
TEMPERATURE	XX	(INTERNAL TEMPERATURE)
FAN ACTIVE	30	(TEMPERATURE AT WHICH FANS BECOME ACTIVE)
RESET	>	(RESETS ALL SETTINGS BACK TO DEFAULT)

Function

TIMER	CURRENT TIME – XX.XX TURN OFF TIME – 00.00 TURN ON TIME – 00.00	<OFF> or ONCE/EVERYDAY
CURRENT X	1	(VIDEO WALL FUNCTION)
CURRENT Y	1	
TOTAL X	1	
TOTAL Y	1	
LEFT EDGE	0	
UP EDGE	0	
RIGHT EDGE	0	
DOWN EDGE	0	

Geometry

H-POSTION
V-POSTION
CLOCK
PHASE

Switching between inputs

One crucial feature that does not appear on the Main Menu is selecting the input source. This is done by first pressing "MODE" and then scrolling down to the desired input source and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

1.6 Inputs

VGA – Video Graphics Array Signal Input (RECOMMENDED)

HDMI – High Definition Multimedia Interface Signal Input

DVI – Digital Video Interface

YPbPr – Component Signal Input

Video In (AV) – Composite Signal Input (X2)

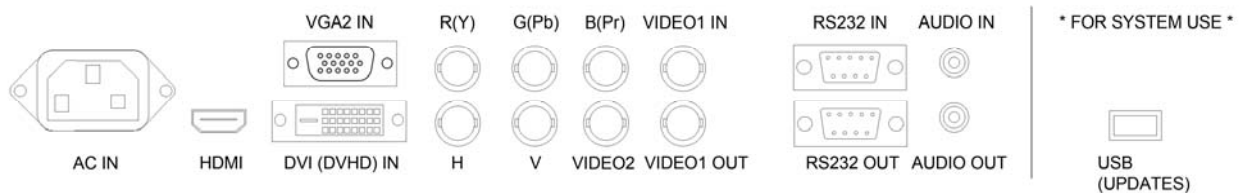


Figure 3 Screen Inputs

2. Set Up

2.1 Connecting to PC

There is space inside the unit for a small form factor PC. The touch screen must be connected to the PC in two ways: visually and interactively. The recommended visual connection is via the VGA Cable (included) meaning that the display acts like a monitor for the PC. The touch function is achieved by linking the Infrared touch sensors around the screen to the PC via the USB Cable inside.

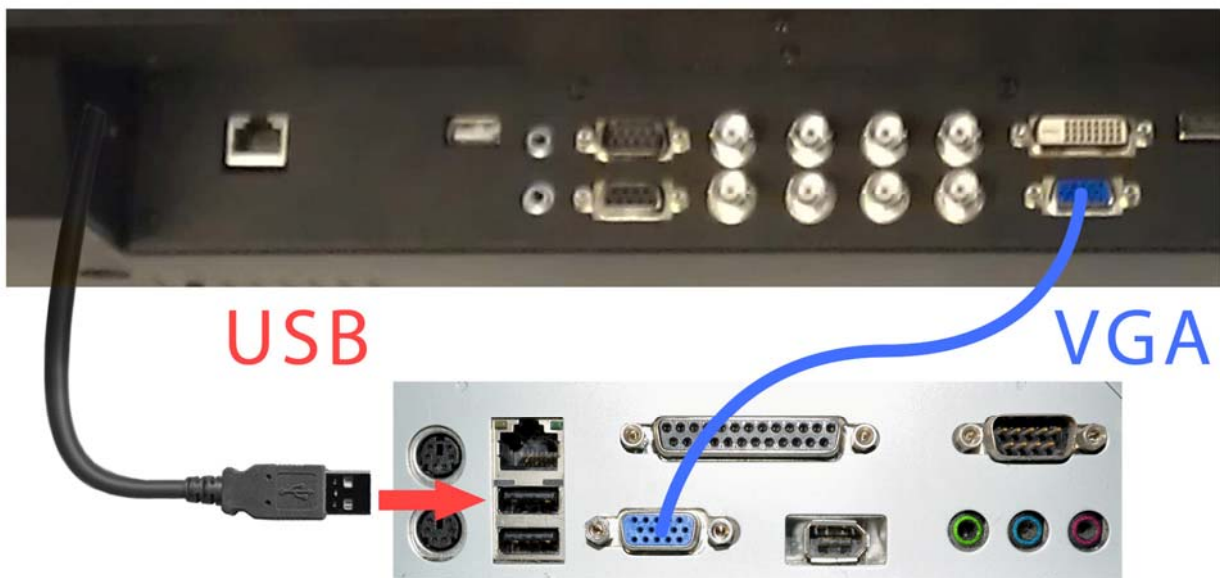


Figure 4 Screen to PC Connections

IMPORTANT: Be sure to connect the PC to the USB port on the side of the input panel and NOT the one adjacent to the other inputs.

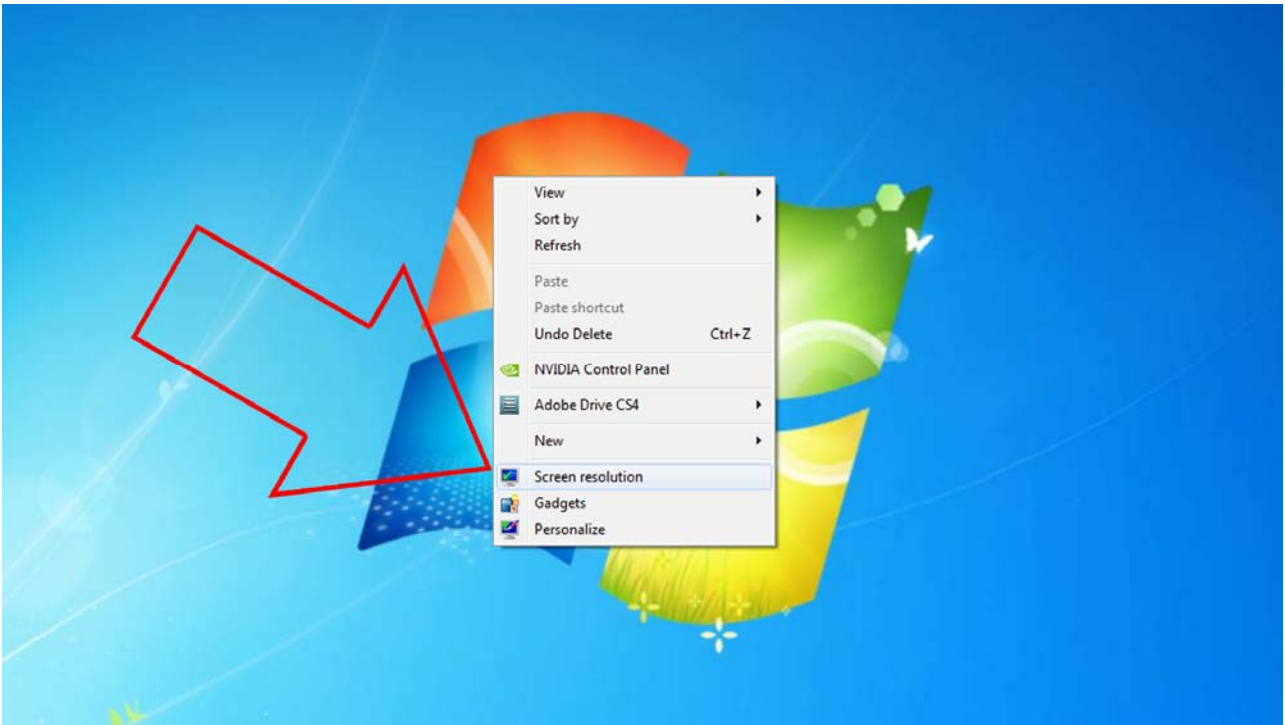
Computer	Touch screen	Description
VGA Output	VGA input	Computer drives the video display on the monitor
Touch Input (USB)	Touch Output (USB)	Feedback from the touch monitor to the PC on where has been touched on the screen

Connect the screen to the PC via the VGA cable and USB Cable (as shown above). Once these connections have been made and the PC powered ON take the power lead and insert it into the screen and connect to mains outlet. The unit will power ON automatically. Before taking any more steps ensure that the screen is sourcing its display from the PC. This is done by first pressing "MODE" and then scrolling down to the desired input source (PC) and select by pressing "→".

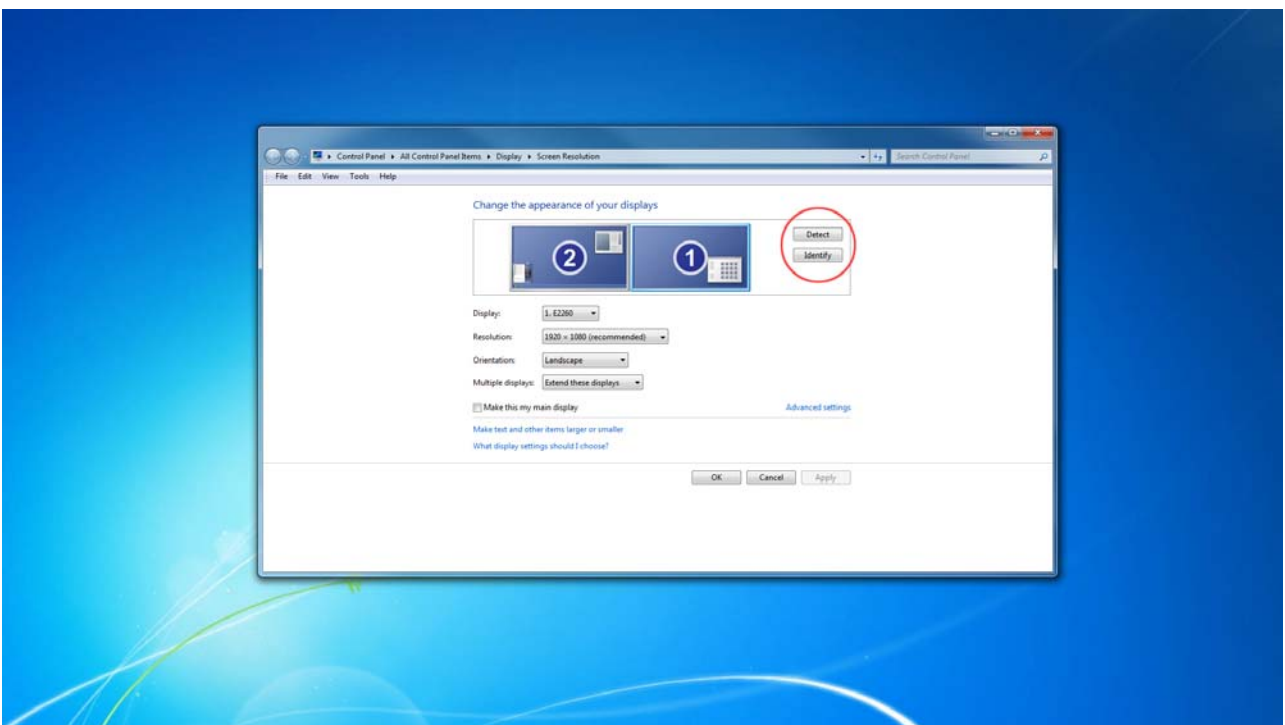
PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

IMPORTANT: If the Touch Screen is the only monitor connected to your PC DO NOT take the following step. Only proceed with the following if you are using a laptop or another monitor is connected to your PC.

Access the display options from your Control Panel or right-click on your Desktop and choose "Properties" (then "Settings") or "Screen resolution".



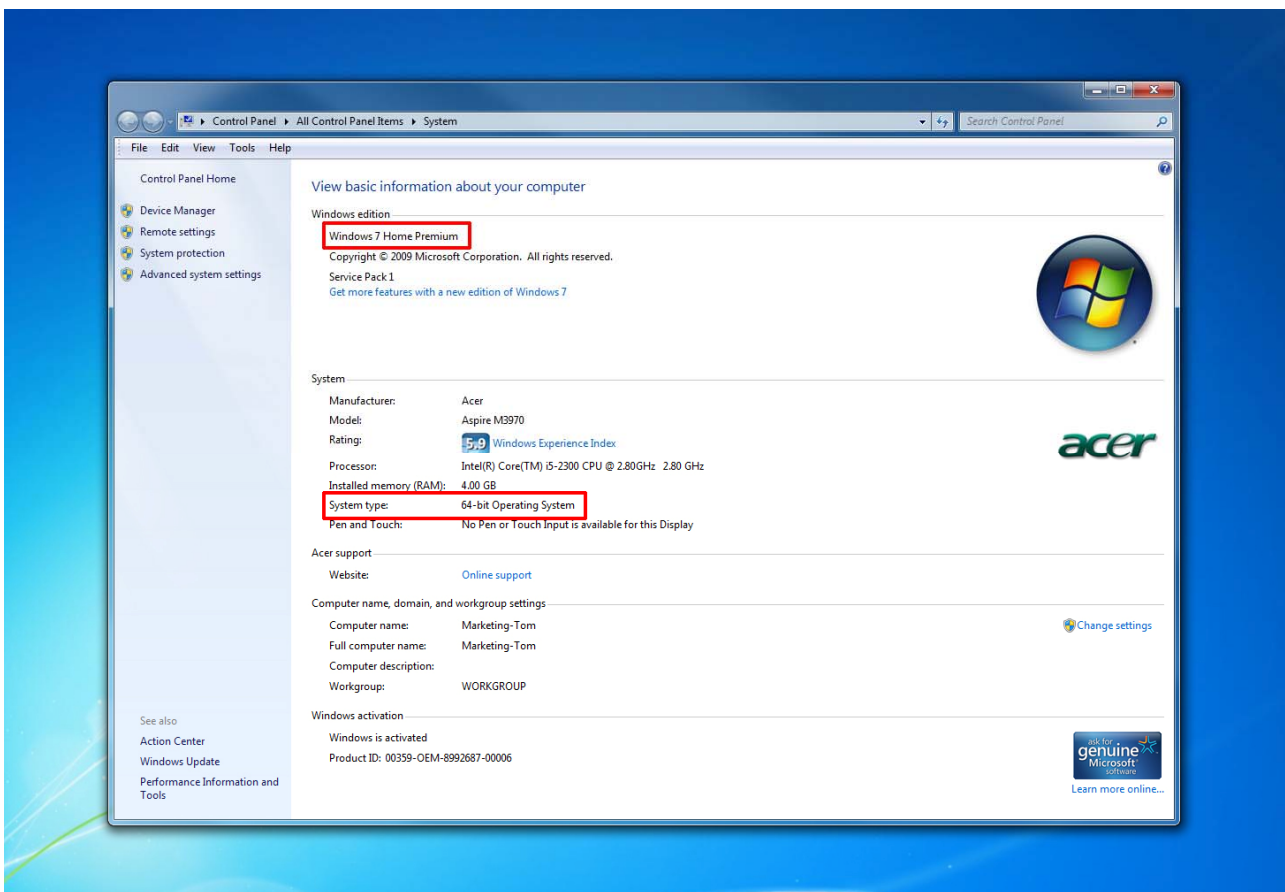
You should now click “Detect” to allow the PC to discover the Touch Screen display then “Identify” to establish which display is the touch screen.



Select the display that corresponds with the Touch Screen display then check the box “Make this my main display” or “Use this device as the primary monitor”. This will make the Touch Screen display your main monitor.

2.2 Installing the touch screen driver

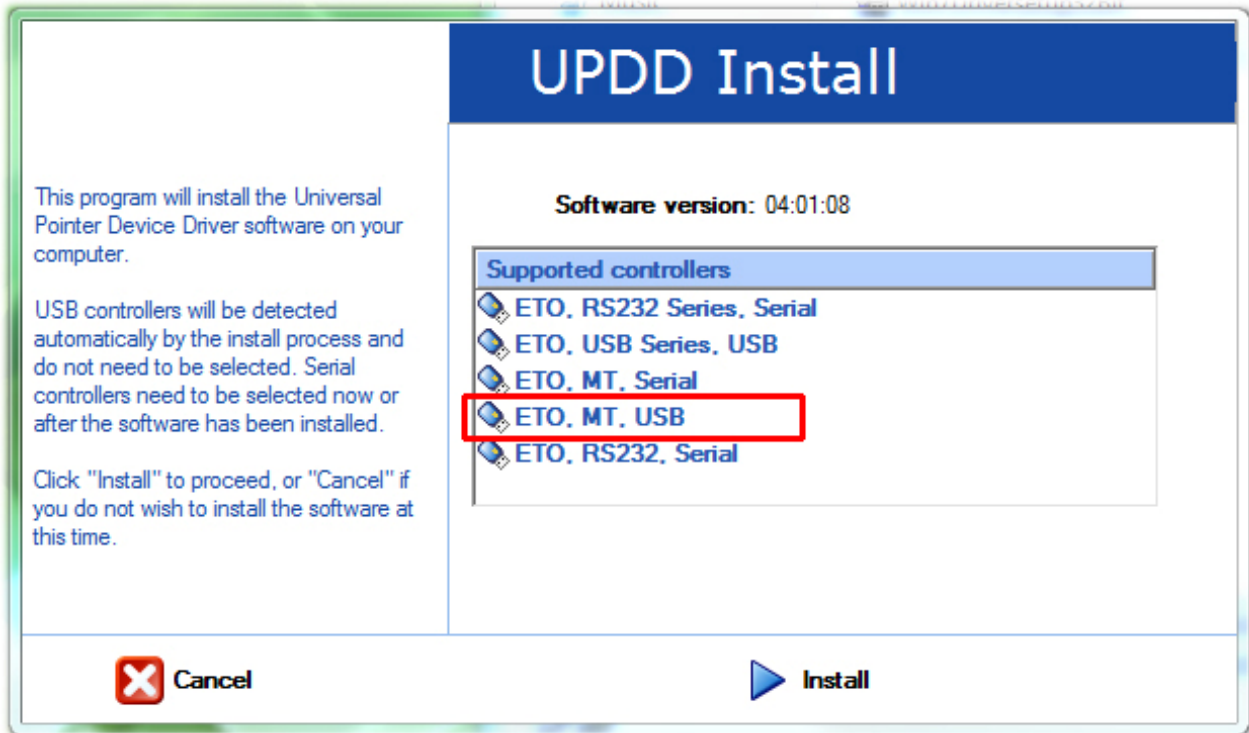
The touch screen driver can only be installed on a Windows Operating System, to utilize multi touch function it must be installed on to a PC that is running Windows 7. All Windows Operating Systems before Windows 7 can support the single touch function. There are separate drivers for Windows PCs, one for 32-bit and one for 64-bit. To find out your operating system and system type click Start>right-click Computer>Properties, which should bring up a window like this:



Once you know your PC's operating system type you will know which driver to install.

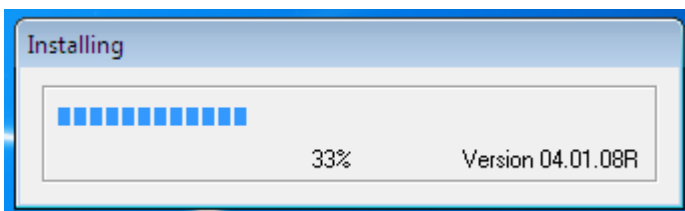
2.2.1 Windows Driver Installation (32-bit & 64-bit)

Insert the CD into the CD-ROM drive on the computer. Using Windows Explorer access the CD-ROM drive and open either the file called "WindowsTouchDriver32Bit.exe" (for 32-bit) or "WindowsTouchDriver64Bit.exe" (for 64-bit). This will prompt the installation of the touch screen driver that allows you to use your finger like a mouse on the monitor. You will first be asked what kind of installation you require, you will be given the following options.

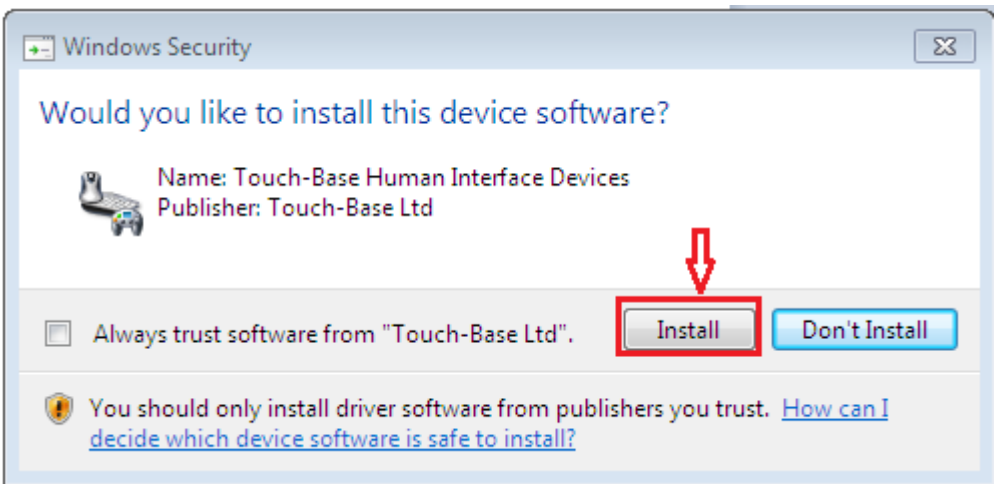
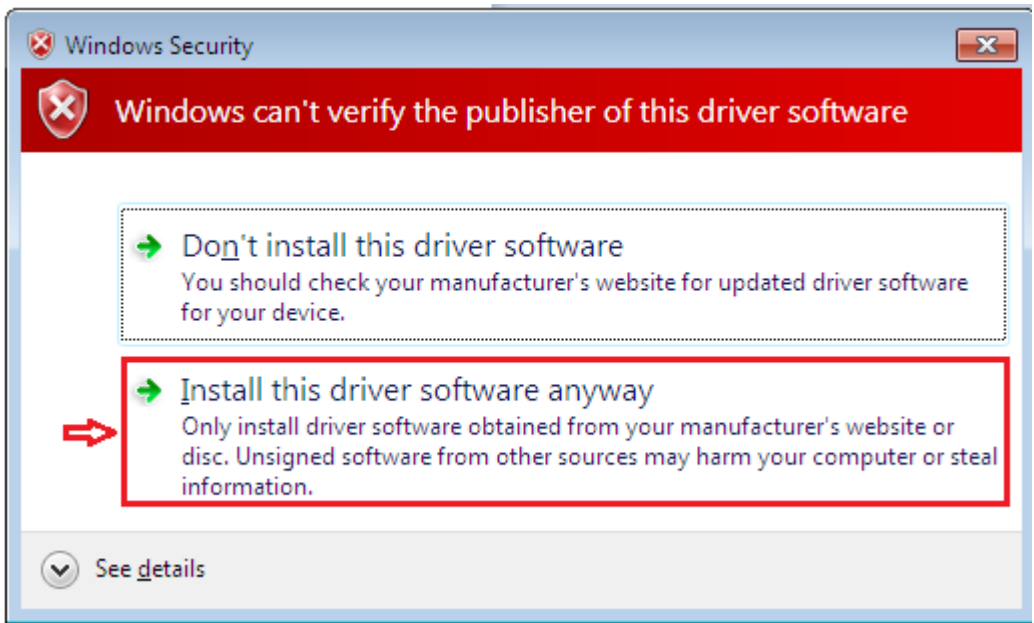


- ETO, RS232 Series, Serial - Single touch via Serial Port
- ETO,USB Series, USB - Single touch via USB Port
- ETO, MT, Serial - Multi touch via Serial Port
- ETO, MT, USB - Multi touch via USB
- ETO, RS232, Serial - Single touch via Serial Port

If you require the multi touch function (ability to use two touch points on the display) then please select “ETO, MT, USB” as shown above. Please note that this function is only possible on Windows 7 however you must still select this option when using any other version. Then click “Install” and the following progress box will appear:



At this stage you may be warned by Windows, or other software, that the publisher of the software cannot be verified, this is nothing to worry about it is simply because the software is unbranded and has no author signature. Proceed by installing the software regardless of any warnings.



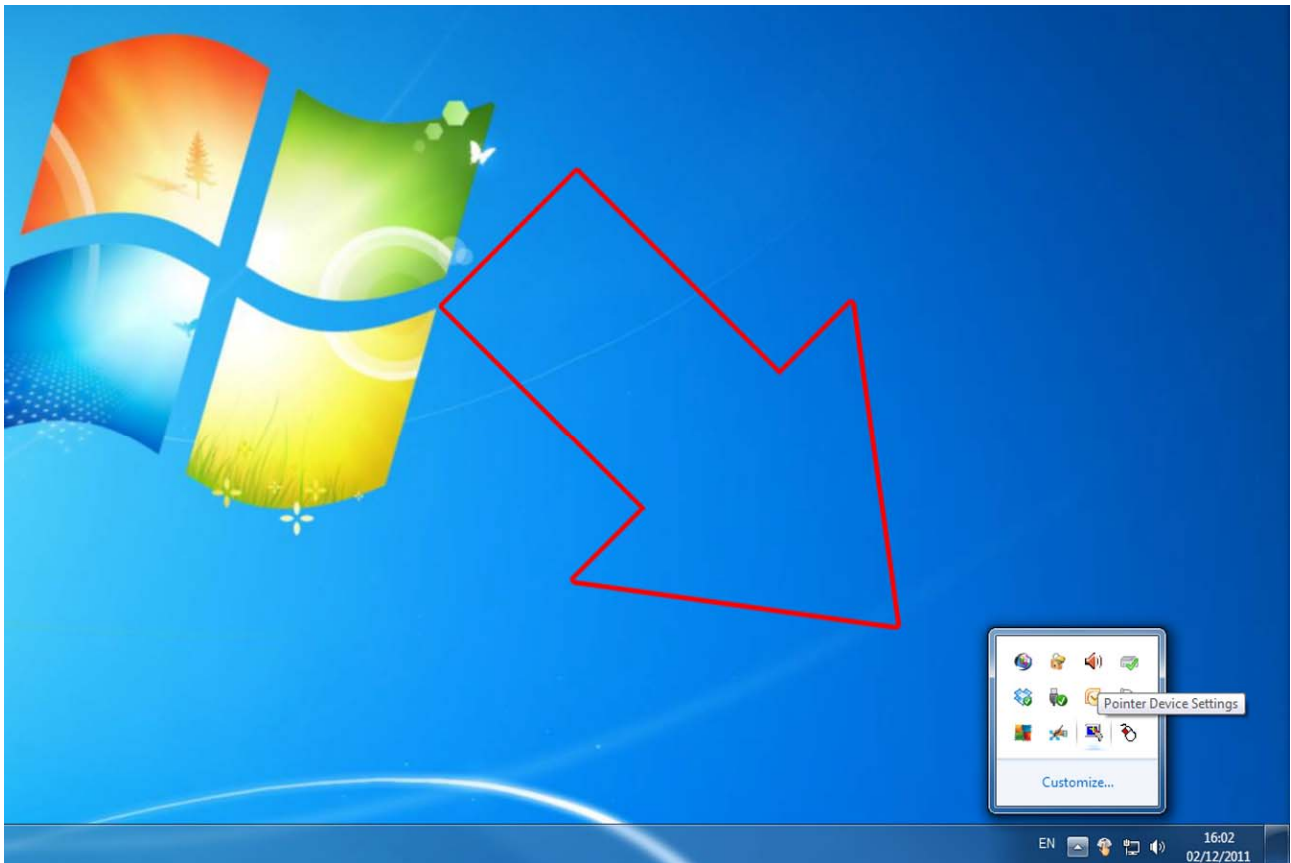
Once installation is complete this box will appear:



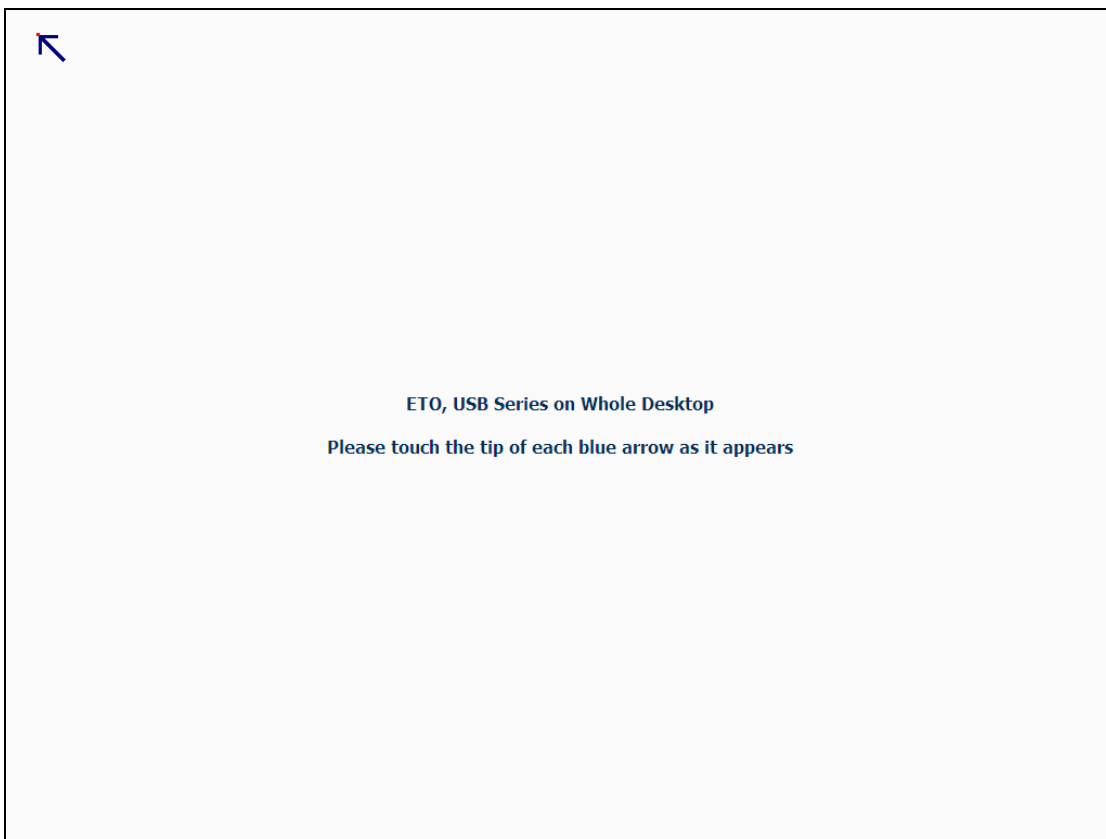
Click "Close".

IMPORTANT: Restart the computer.

Once your PC starts back up, still using your mouse, access the "Pointer Device Settings" found in the bottom right-hand corner of the taskbar (under the hidden icons section). From here you can access all of your touch screen settings, including a Help section for more details on the system.



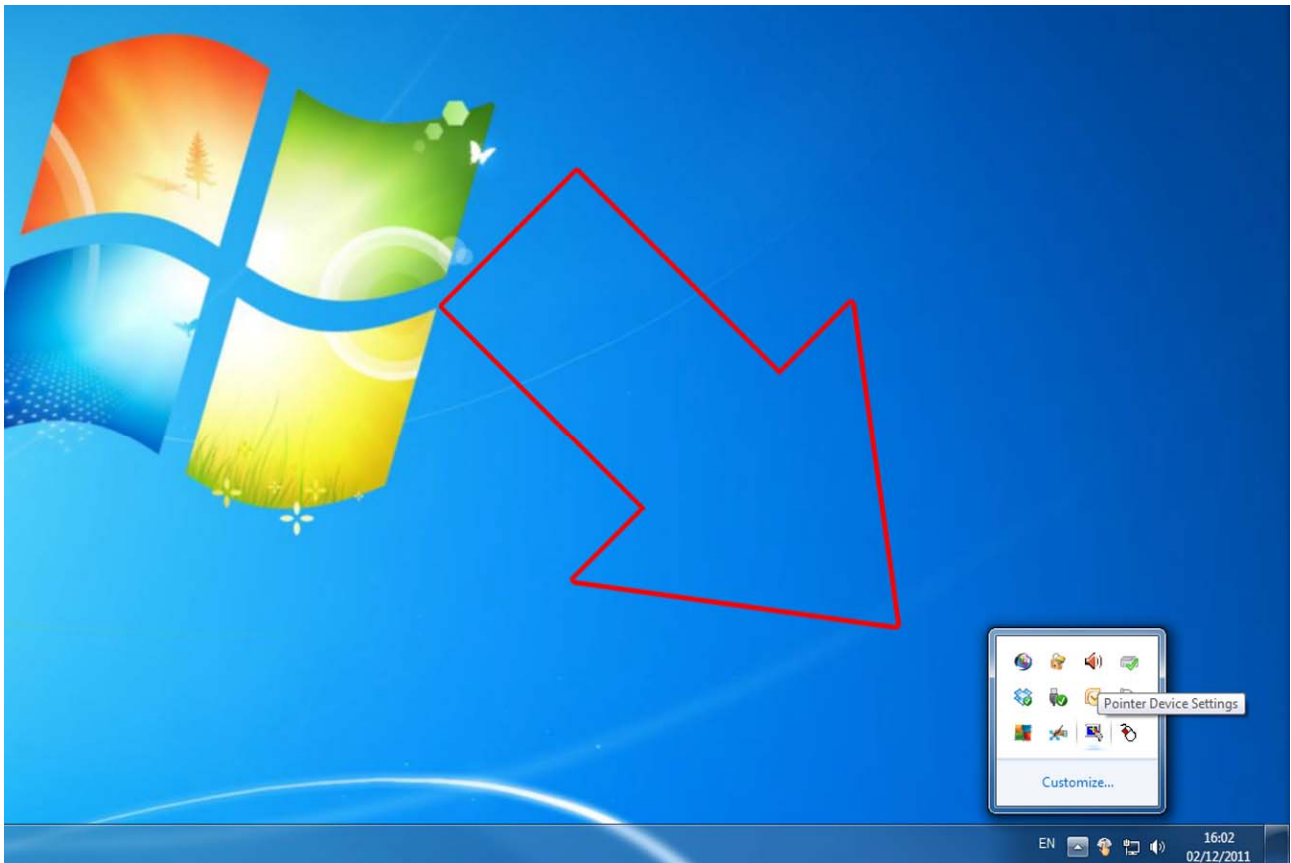
Next you must calibrate your screen. Access the Pointer Device Services from the hidden icons and select Calibrate>UPDD>Calibrate. This will turn the screen white apart from a blue arrow; touch the screen on the point of the blue arrow. You will need to do this 4 times to allow the infrared sensors to calibrate.



IMPORTANT: Restart the computer again.

The screen should now be connected and fully operational.

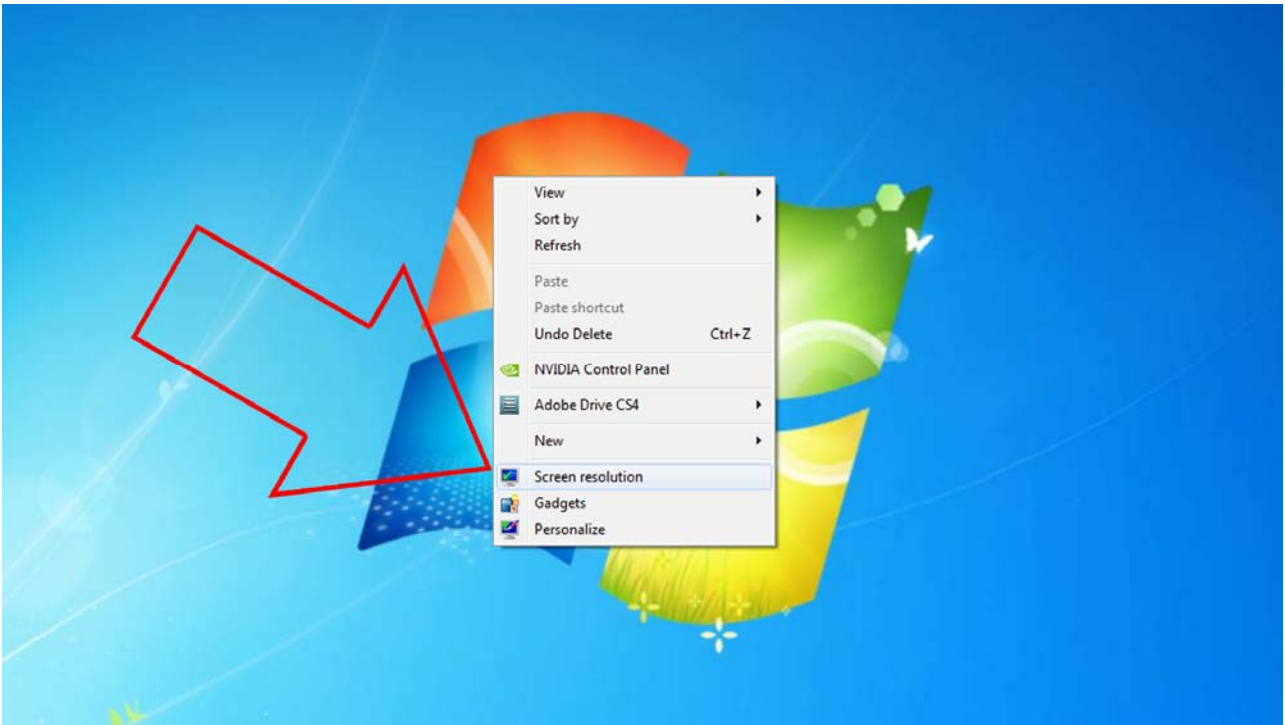
To make further changes or re-calibrate the screen simply open Pointer Device Services at any time, it can be found in the bottom right-hand corner of the taskbar (under the hidden icons section).



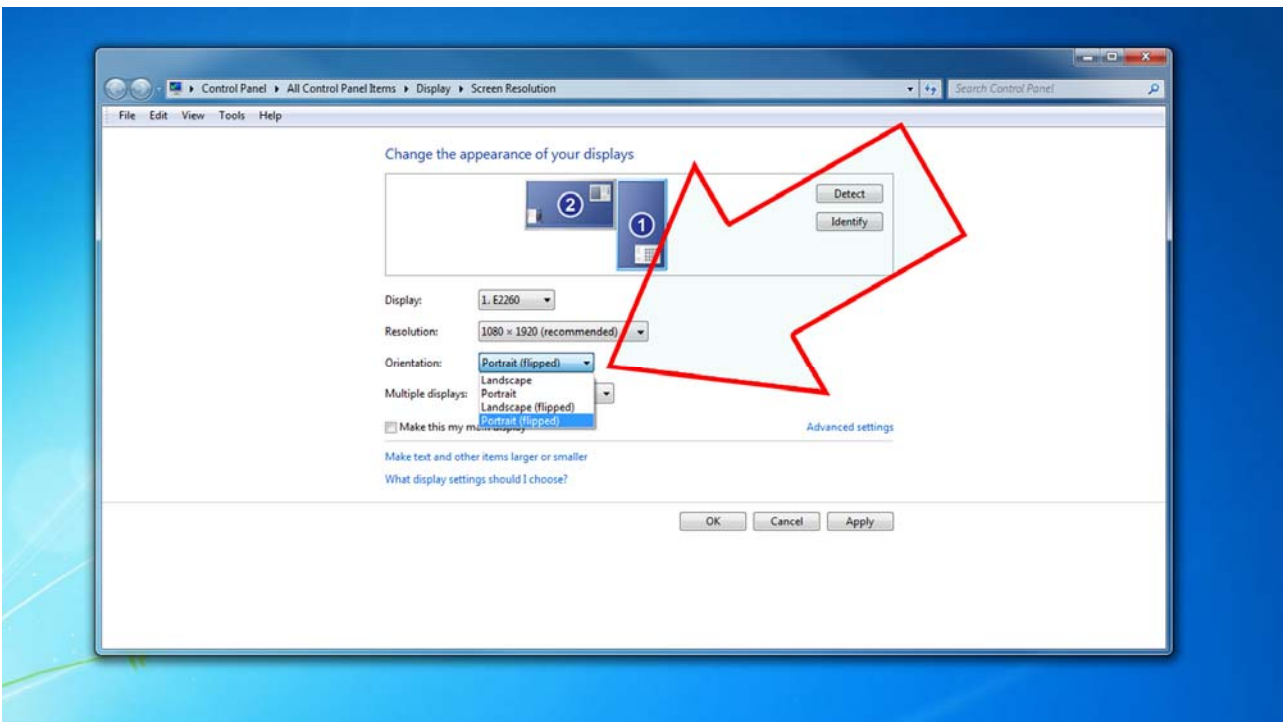
2.2.2 Changing your display to portrait mode

IMPORTANT: If you require your content to display in portrait you must first calibrate your screen in landscape orientation before switching it to portrait orientation.

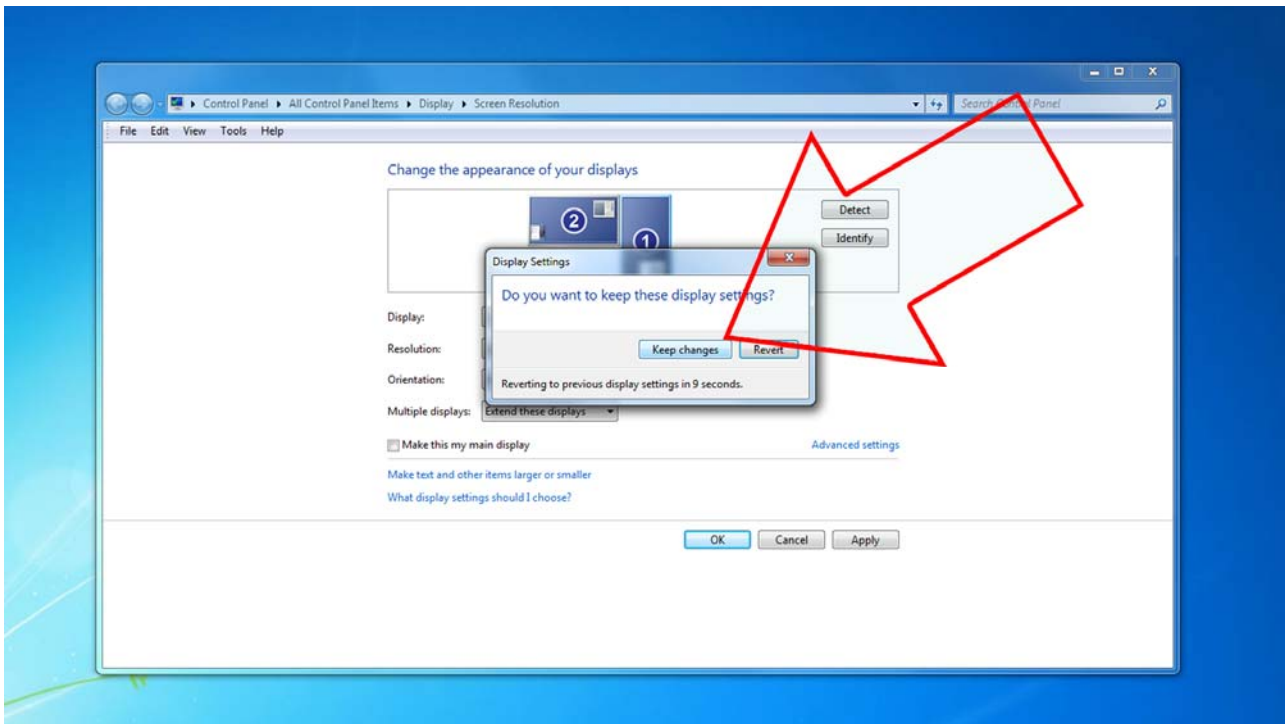
Access the display options from your Control Panel or right-click on your Desktop and choose "Properties" (then "Settings") or "Screen resolution".



Select the “Orientation” dropdown menu then click on “Portrait (flipped)”.



Click “OK” and your screen contents and operations will now be rotated 90° clockwise.
You may be asked “Do you want to keep these display settings?” click on “Keep changes”.



3. F.A.Qs and Troubleshooting Guide

3.1 My Touch Screen is not displaying what is on my PC

3.1.1 Input Source

Your Touch Screen may be sourcing its display from another input. First connect the Serial Control Box to the screen via the CAT5 port (marked REMOTE KEY BOARD on "Inputs" diagram Figure 2). When using the Remote Control please ensure that it is no more than 20cm away from the sensor on the Serial Control Box. This close proximity control feature is to ensure that you only control the desired device if there are others in the area. Press "MODE" and then scroll down to the desired input source and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

3.1.2 Display/monitor button on keyboard

Your keyboard may have a display/monitor button on it, especially if you are using a laptop. If your Touch Screen does not display the content of the PC try hitting this button before contacting your supplier.

3.2 My display turns itself OFF when it's not connected to my PC

3.2.1 Power saving function

If your Touch Screen display is powered ON without being connected to a PC via a visual signal (e.g. VGA, DVI etc.) it will automatically power OFF within a few minutes. If your Touch Screen display

is not being supplied with a video signal it will power OFF so ensure that video signal connection is connected properly. Also you must ensure that the Touch Screen is accessing the correct input. To do this you must first connect the Serial Control Box to the screen via the CAT5 port (marked REMOTE KEY BOARD on "Inputs" diagram Figure 2). When using the Remote Control please ensure that it is no more than 20cm away from the sensor on the Serial Control Box. This close proximity control feature is to ensure that you only control the desired device if there are others in the area. Press "MODE" and then scroll down to the desired input source and select by pressing "→".

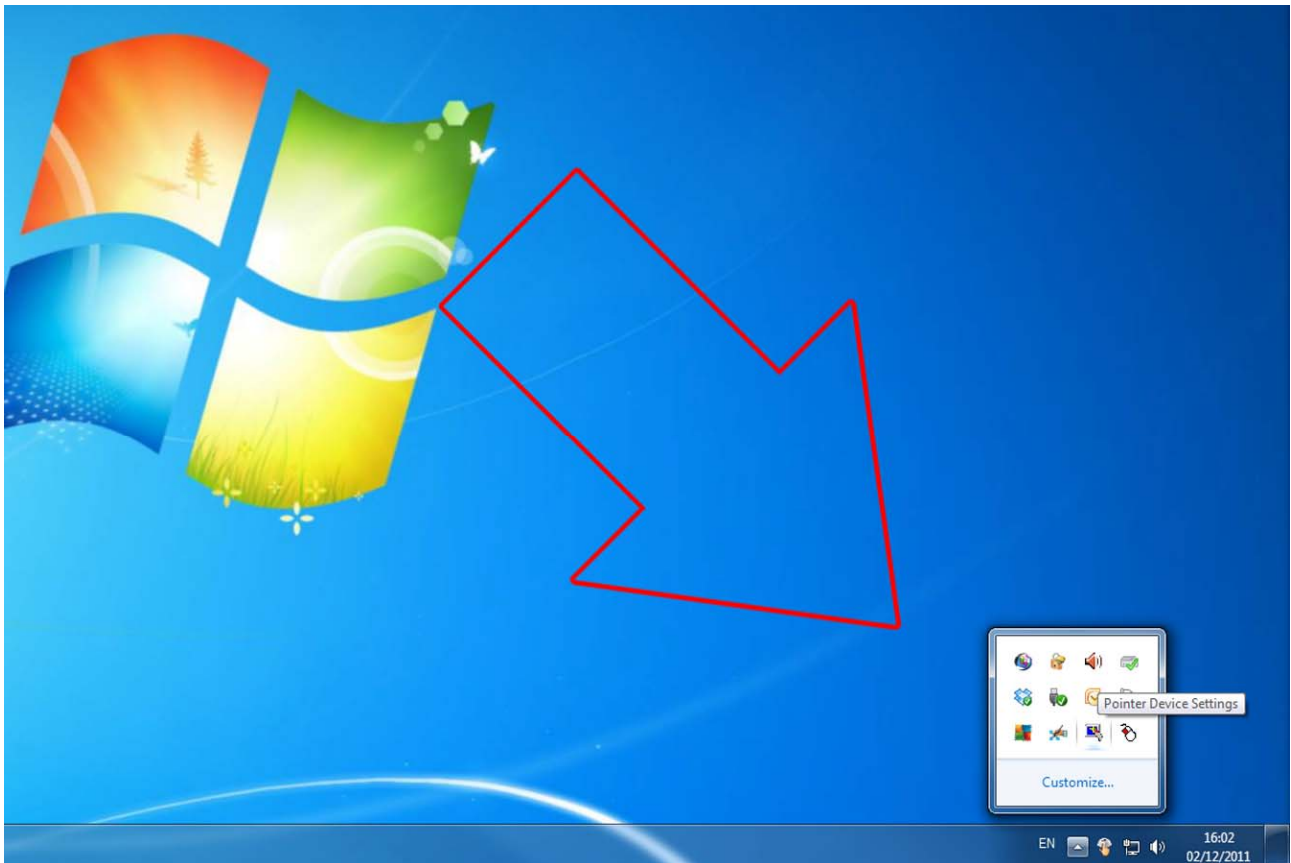
PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

3.3 My screen is displaying video signal but touch function is disabled

Please ensure the Touch Screen is connected to the PC via the USB Cable. Go through the steps in Section 2.2 to do this correctly.

3.4 My TouchControl software is not launching

You may wish to re-calibrate your screen or change some touch settings. If you are trying to open your driver software (TouchControl) and it will not launch it may be because it is already open. This software will launch every time on start up of the PC and run in the background constantly. It can be found in the bottom right hand corner of the screen in the hidden icons section.



3.5 My driver won't reinstall on Windows XP

You may have uninstalled the touch driver from a Windows XP PC and find that you are having trouble reinstalling it. First make the two connections again between the Touch Screen and your PC (section 2.1). Then reinstall the driver according to the steps in section 2.2.1. Once you have restarted your computer but before you calibrate, unplug the USB cable from your PC the plug it back in again. This will launch the "Found New Hardware Wizard". Highlight the option that says "Install from a list or specific location (Advanced)", like so:



Click "Next".

When the next window appears you must highlight "Search for the best drivers in these locations." and tick the box "Include this location in the search:" and select from the dropdown menu "C:\WINDOWS\inf", like so:



Your PC will then search for the Touch Screen via the USB cable.

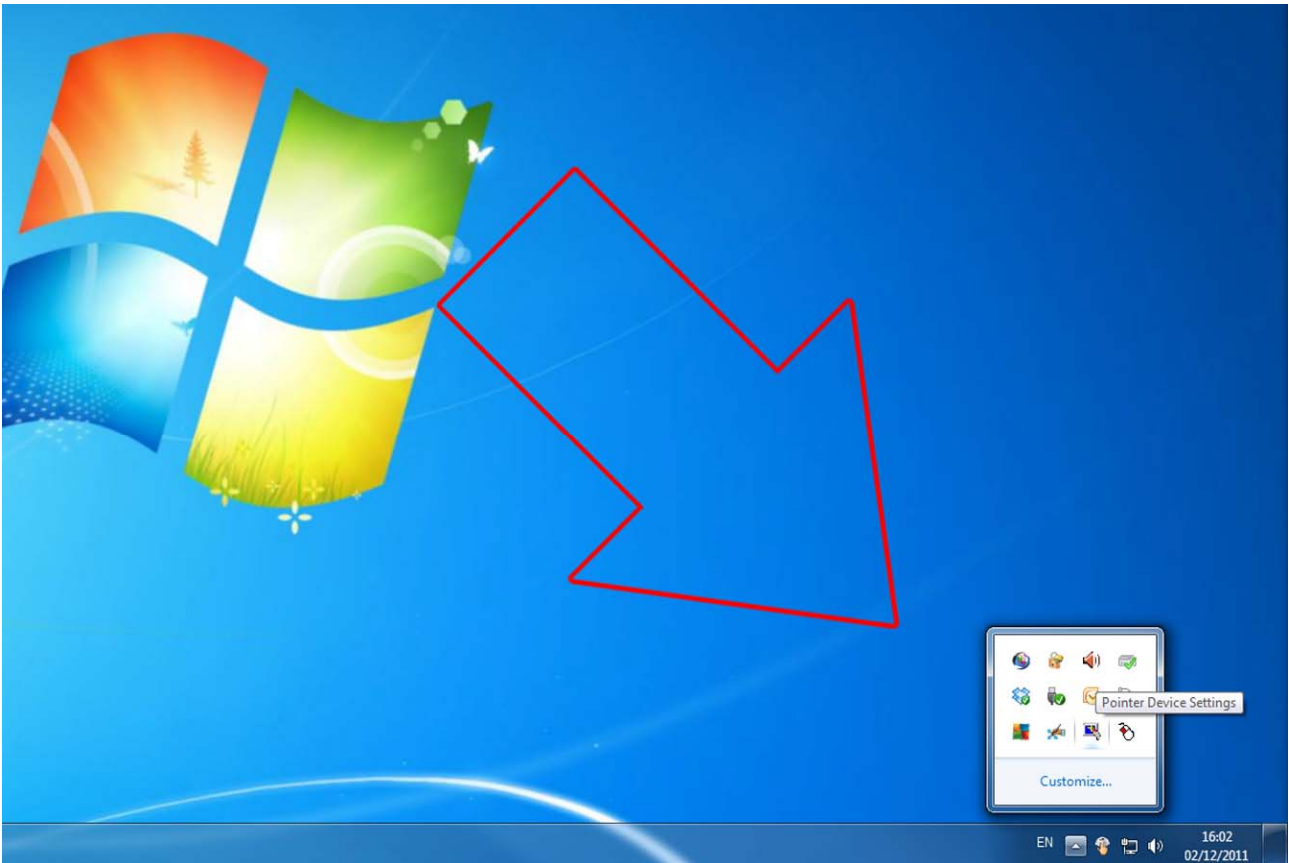


Once your PC has found the hardware and installed the driver you will see this message:

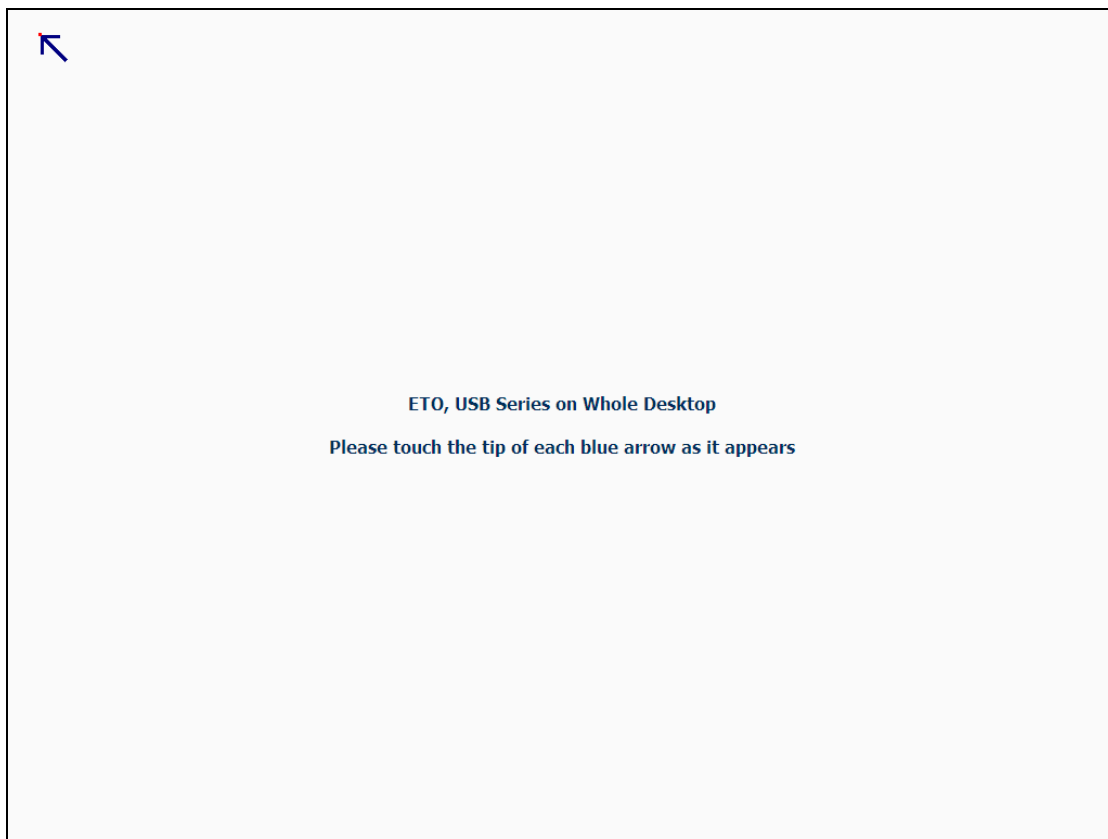


Click "Finish."

Now you must calibrate your screen. To do this access the "Pointer Device Settings" found in the bottom right-hand corner of the taskbar (under the hidden icons section). From here you can access all of your touch screen settings.



Access the Pointer Device Services from the hidden icons and select Calibrate>UPDD>Calibrate. This will turn the screen white apart from a blue arrow; touch the screen on the point of the blue arrow. You will need to do this 4 times to allow the infrared sensors to calibrate.



IMPORTANT: Restart the computer again.

The screen should now be connected and fully operational.

To make further changes or re-calibrate the screen simply open Pointer Device Services at any time, it can be found in the bottom right-hand corner of the taskbar (under the hidden icons section).

4. Full Range Specifications

Freestanding Infrared Multi Touch Screen Displays			
Display Size	40" (Landscape)	46"	55"
Unit Size (WxHxD mm)	1040x1070x630	705x1700x127	830x1950x159
Display Area (mm)	887.17x499.66	562.54x1008.35	676.4x1205.6
Aspect Ratio	16:9	9:16	
Resolution	1080x1920		
Brightness (cd/m2)	500		
Contrast Ratio	5000:1 typ	4000:1 typ	
Viewing Angle	178°		
Colour	16.7M		
Response Time (ms)	8		
Colour Temperature	10000k		
Life Time (hours)	50000		
Power Consumption (W)	240	370	450
Inputs	VGA, HDMI, DVI, YPbPr, Video IN, RGB/HV		
Outputs	Video, Audio		
Touch Resolution (interpolation)	4096x4096		
Operating System	Windows7, Windows2000/XP/2003/Vista/CE		
Response Time (ms)	≤16		
Power	<2W		
Ports (inputs)	USB		
Typical Touch Accuracy (mm)	≥5.2		
Voltage	+4.75VDC-5.25VDC		
Operating Temperature	-20°to 60°		
Storage Temperature	-40°to 70°		
Operating/Storage Humidity	10% ~ 90%RH		