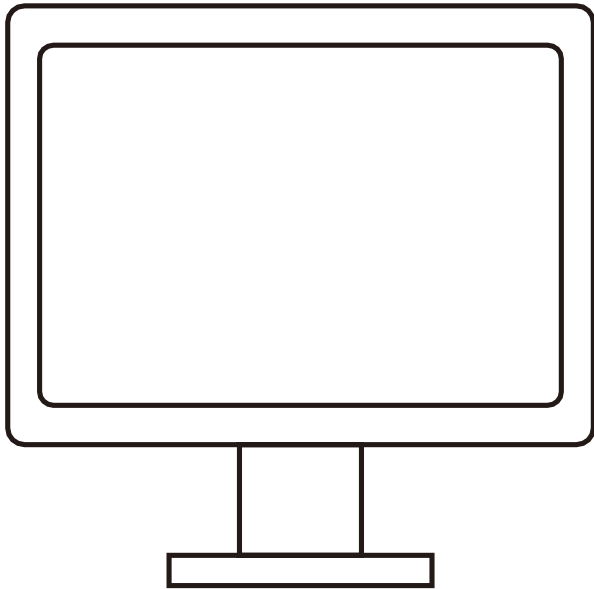


# RESISTANCE TOUCH SCREEN MANUAL

## TOUCH SCREEN PRODUCTS



### FEATURES

- Screens serve as POS, PC Monitor, Portable TV for Video in RV, Car, Boat, etc.
- Perfect for use in retail, point-of-sale (POS), VOD system, Juke Box and many other hospitality applications.
- Sensitive touch screens recognize touch input from stylus, finger, gloved hand, pen or tool.
- Exceptional and durable touch screen monitor at an excellent value.

Support touch, Can replace mouse and keyboard operation.  
 Can work with the laptop and etc in VGA, HDMI, AV, BNC mode.  
 Compatible with Windows XP, Windows 7/8/10, Linux and etc.  
 Option for backlight adjustment with menu or knob.  
 The drivers require installation

	19 Inch Pos Touch Screen Monitor	17 Inch Pos Touch Screen Monitor	15 Inch Pos Touch Screen Monitor	10.4/12.1 Inch Pos Touch Screen Monitor
Screen size	19"	17"	15"	10.4" /12.1"
Display Type	Touch Screen	Touch Screen	Touch Screen	Touch Screen
Display Format	4:3 Standard LCD	4:3 Standard LCD	4:3 Standard LCD	4:3 Standard LCD
Maximum Resolution	1280X1024	1280X1024	1024X768	800X600/1024X768
Contrast Ratio	1000:1	1000:1	700:1	350:1
Brightness	300cd/m <sup>2</sup>	300cd/m <sup>2</sup>	300cd/m <sup>2</sup>	250cd/m <sup>2</sup>
Response Time(typical)	5ms	5ms	8ms	12ms
Horizontal Viewing Angle	170 degrees	170 degrees	140 degrees	90 degrees
Vertical Viewing Angle	170 degrees	160 degrees	125 degrees	60 degrees
Power Consumption	<48W	<48W	<31.2W	<31.2W
Power Supply	100-240 VAC/50-60Hz	100-240 VAC/50-60Hz	100-240 VAC/50-60Hz	100-240 VAC/50-60Hz
Stand	Metal with plastic cover	Metal with plastic cover	Metal with plastic cover	Plastic
Touch Screen Type	4 wire resistance touch	4 wire resistance touch (optional 5-wire)	4 wire resistance touch (optional 5-wire)	4 wire resistance touch (optional 5-wire)

Remark: manual is suitable use for other sizes.

## Troubleshooting

### Problem:Screen has no picture

If LED indicator is off:Check whether the cable is connected firmly. If LED indicator is red:Check whether the connection of the video. cable is firm and check whether the computer is turned on.

If LED indicator is green:Check whether horizontal synchronization exceeds the range.

### Problem:Picture unstable(miscellaneous waves,shake etc.)

Check whether the video of computer matches with monitor?

## Important notice

### Cleaning important notice

1. Please use a soft cloth to clean the LCD Screen,in order to remove dust and particles from screen.
2. Do not exert excessive pressure on the LCD screen when cleaing.
3. Please don't use water or chemicals to clean the surface of the LCD screen as these may cause damage.

### Cleaning Important Notice

BEFORE USE, PLEASE READ THE FOLLOWING PRECAUTIONS IN DETAIL, AND KEEP IT FOR FUTURE PEFERENCE

1. Do not obstruct or block heat dissipation hole under machine, so as not to hinder the ventilation and heat dispersion.
2. Do not use the sharp objects, metal or liquid to make contact with signal terminal or heat dissipation hole, to avoid damaged.
3. If product is not to be used for long periods, remove the power cable from the device.
4. Do not attempt to dismantle the product yourself to prevent injury and/or damage to the product,doing so voids the warranty.
5. Do not touch screen surface with sharp objects, this may damage the screen surface in this way, and very difficult to drive out if oil of skin stay at screen.
6. Do not exert excessive pressure to LCD screen to prevent damage .
7. Please pul out Power Supply Cable of this product in the following situations:
  - A:If you will not used the product for an extended period.
  - B:If the cable or and/or plug are damaged.

## 19 inch Product Specification

LCD panel type	19 TFT liquid crystal display
Max resolution	1280(Horizanal)x1024(Vertical)xRGB
Display area	376.32(H) × 301.056(V)
Contrast	1000:1
Brightness	300cd/m <sup>2</sup>
Response time	5ms
Viewing angle left/right	+80°~ -80°or +60°~ -60°
Up/Down	+80°~ -80°or +55°~ -55°
Input signal video signal	RGB analogy 0.7Vp-p
Display mode	VGA,SVGA,XGA
Signal connecting cable	15 hole mini model D type
Front panel control button	Power control switch, LED indicator lamp,OSD Option,+/-Adjustment
	button, screen automatic setting, OSD Selecting
Input	VGA,HDMI(DVI Option)
	USB Touch
	DC OR AC.
Power supply transformer	Alternating current input:100-240V      50-60HZ
	Direct current:12V/4A
Operating environment	Temperature 0~50 Humidity 20%~80%
Store environment	Temperature -20~60 Humidity 20%~80%
Security authentication	FCC,CE,ROHS

## 17 inch Product Specification

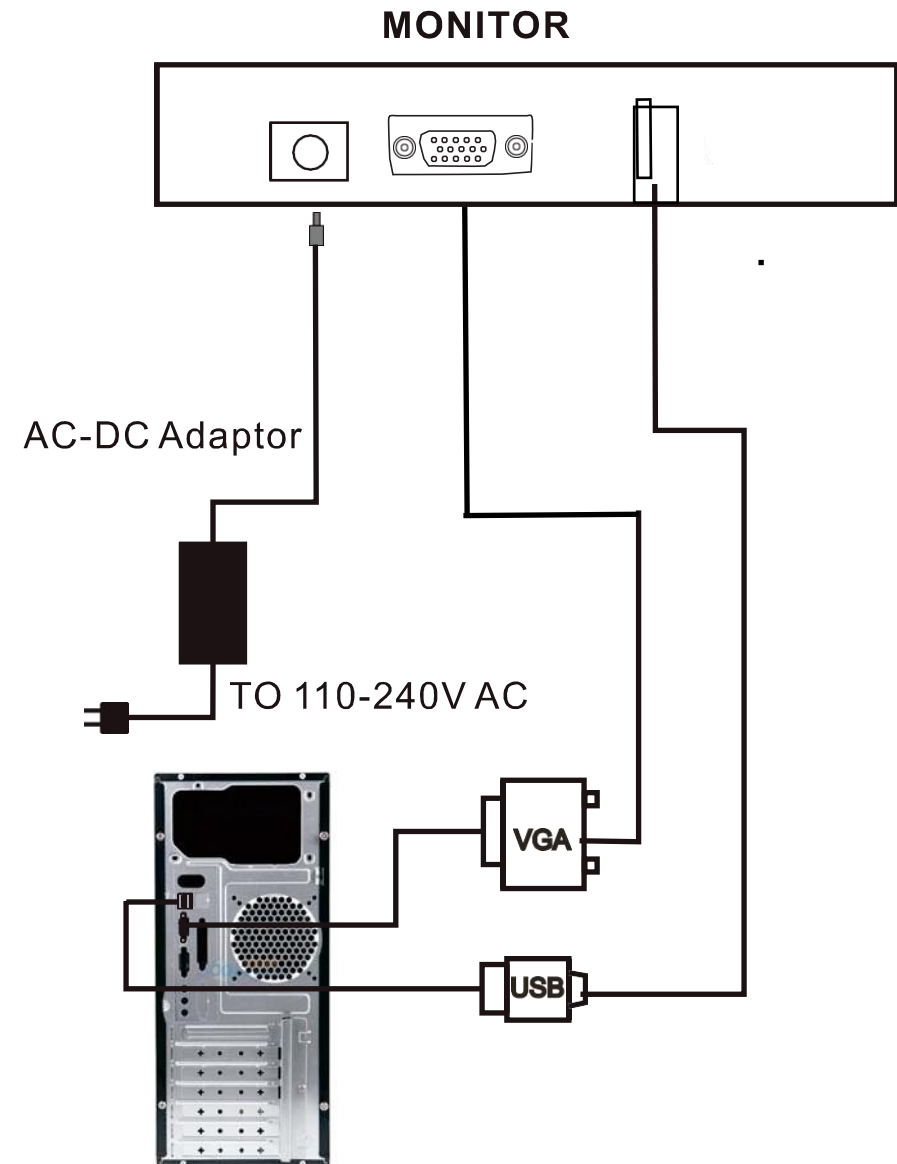
LCD panel type	17 TFT liquid crystal display
Max resolution	1280(Horizanal)x1024(Vertical)xRGB
Display area	337.92(W)x270.336(H) mm
Contrast	1000:1
Brightness	300cd/m <sup>2</sup>
Response time	5ms
Viewing angle left/right	+80° ~ -80° or +60° ~ -60°
Up/Down	+80° ~ -80° or +55° ~ -55°
Input signal video signal	RGB analogy 0.7Vp-p
Display mode	VGA,SVGA,XGA
Signal connecting cable	15 hole mini model D type
Front panel control button	Power control switch, LED indicator lamp,OSD Option,+/-Adjustment
	button, screen automatic setting, OSD Selecting
Input	VGA,HDMI(DVI Option)
	USB Touch
	DC OR AC.
Power supply transformer	Alternating current input:100-240V 50-60HZ
	Direct current:12V/4A
Operating environment	Temperature 0~50 Humidity 20%~80%
Store environment	Temperature -20~60 Humidity 20%~80%
Security authentication	FCC,CE,ROHS

## 15 inch Product Specification

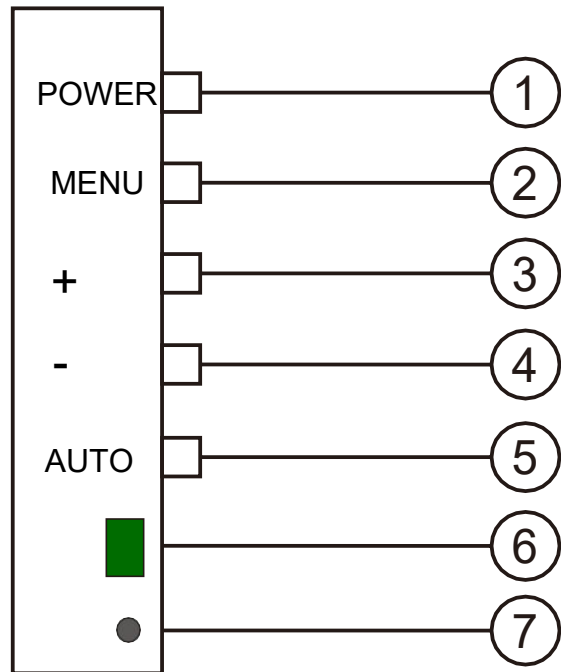
LCD panel type	15.1 TFT liquid crystal display
Max resolution	1024(Horizanal)x768(Vertical)xRGB
Display area	304.128(H) × 228.096(V)
Contrast	700:1
Brightness	300cd/m <sup>2</sup>
Response time	8ms
Viewing angle left/right	+70° ~ -70° or +60° ~ -60°
Up/Down	+70° ~ -70° or +55° ~ -55°
Input signal video signal	RGB analogy 0.7Vp-p
Display mode	VGA,SVGA,XGA
Signal connecting cable	15 hole mini model D type
Front panel control button	Power control switch, LED indicator lamp,OSD Option,+/-Adjustment
	button, screen automatic setting, OSD Selecting
Input	VGA,HDMI(DVI Option)
	USB Touch
	DC OR AC.
Power supply transformer	Alternating current input:100-240V 50-60HZ
	Direct current:12V/2.6A
Operating environment	Temperature 0~50 Humidity 20%~80%
Store environment	Temperature -20~60 Humidity 20%~80%
Security authentication	FCC,CE,ROHS

### 10.4/12.1 inch Product Specification

LCD panel type	10.4/12.1 TFT liquid crystal display
Max resolution	800(Horizanal)x600(Vertical)xRGB/1024(Horizanal)x768(Vertical)xRGB
Display area	210.4(W)×157.8(H)mm 10.4 inch 245.76(H)×184.32(V)mm 12.1inch
Contrast	350:1
Brightness	250cd/m <sup>2</sup>
Response time	12ms
Viewing angle left/right	+45° ~ -45° or +25° ~ -15°
Up/Down	+45° ~ -45° or +25° ~ -15°
Input signal video signal	RGB analogy 0.7Vp-p
Display mode	VGA,SVGA,XGA
Signal connecting cable	15 hole mini model D type
Front panel control button	Power control switch, LED indicator lamp,OSD Option,+/-Adjustment
	button, screen automatic setting, OSD Selecting
Input	VGA,HDMI(DVI Option)
	USB Touch
	DC OR AC.
Power supply transformer	Alternating current input:100-240V 50-60HZ
	Direct current:12V/2.6A
Operating environment	Temperature 0~50 Humidity 20%~80%
Store environment	Temperature -20~60 Humidity 20%~80%
Security authentication	FCC,CE,ROHS

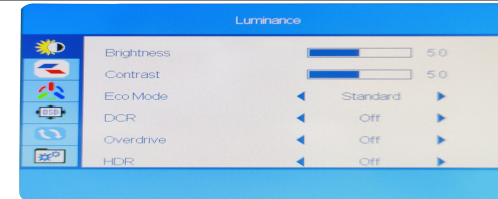


## Front Panel of the Device

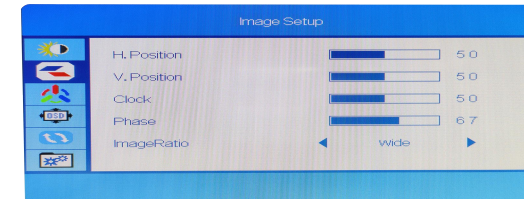


1. Power ON/OFF Turn on or off unit
2. OSD menu, exit the present menu if neter again
3. Icon right  
Project down  
Increase choosing adjustment parameter of OSD
4. Icon left  
Project up  
Reduce choosing adjustment parameter of OSD
5. Automatic setting display paremeter
6. power supply LED indictor: green light repressents work, red light repressents wait condition
7. Remote control window

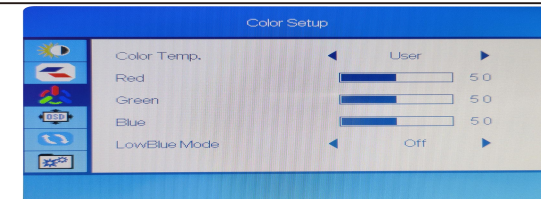
## Basic operation



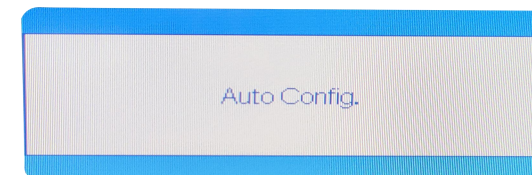
Press MENU button to show the follow menu. Press MENU button again to enter into luminance mode, press UP/DOWN button to choose the item, and press MENU button to confirm, then press UP/DOWN button to adjust.



Press MENU button to show the follow menu. Press MENU button again to enter into Image Setup mode, press UP/DOWN button to choose the item, and press MENU button to confirm, then press UP/DOWN button to adjust.



Press MENU button to show the follow menu. Press MENU button again to enter into Color Setup mode, press UP/DOWN button to choose the item, and press MENU button to confirm, then press UP/DOWN button to adjust.



Press Auto- Automatic setting display paramater

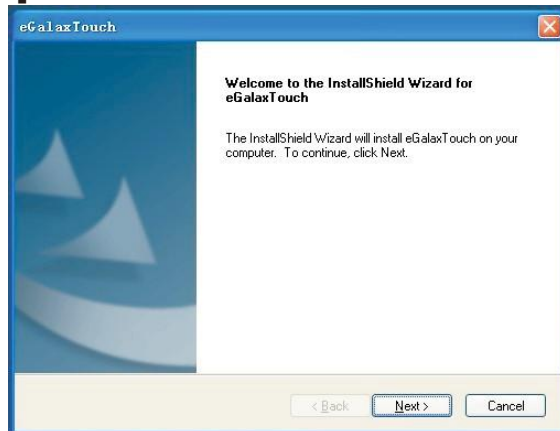
**TouchKit** is software, which contains of the touch panel controllers for the specified communication connectors, RS232, PS/2 and USB, and another

## ● Configuration support

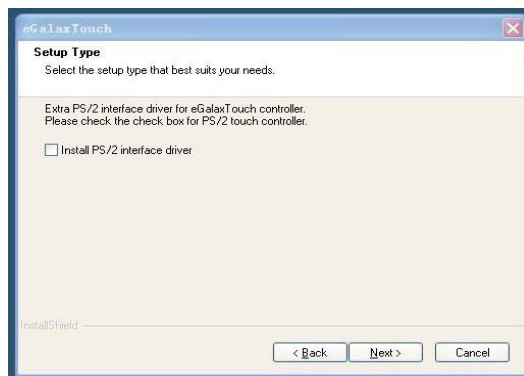
The calibration and draw test of touch panel are done by this utility. Besides, users can add or new RS-232 touch panel device.

Follow these steps to install **TouchKit**.

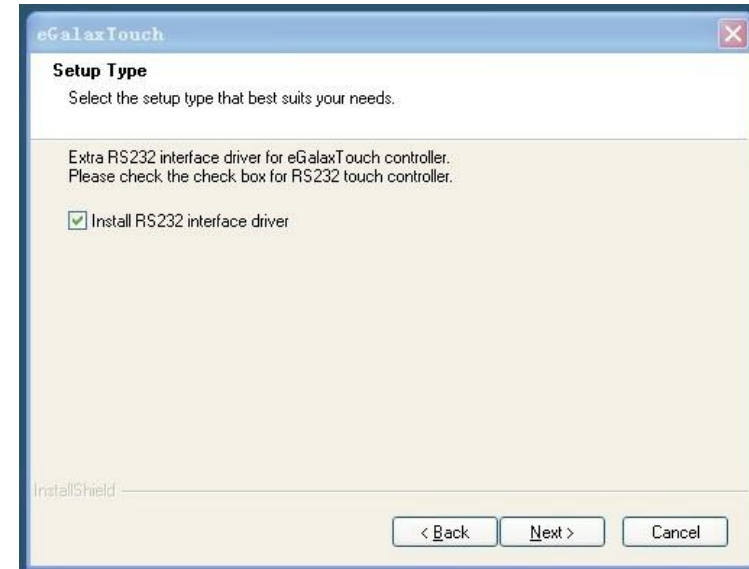
1. Put the **TouchKit** CD to CD-ROM.
2. Open the **Win2000\_XP** directory.
3. Double click the **Setup.exe**, then windows starts to run the installation program.
4. Just click **[Next>]** button to continue installation.



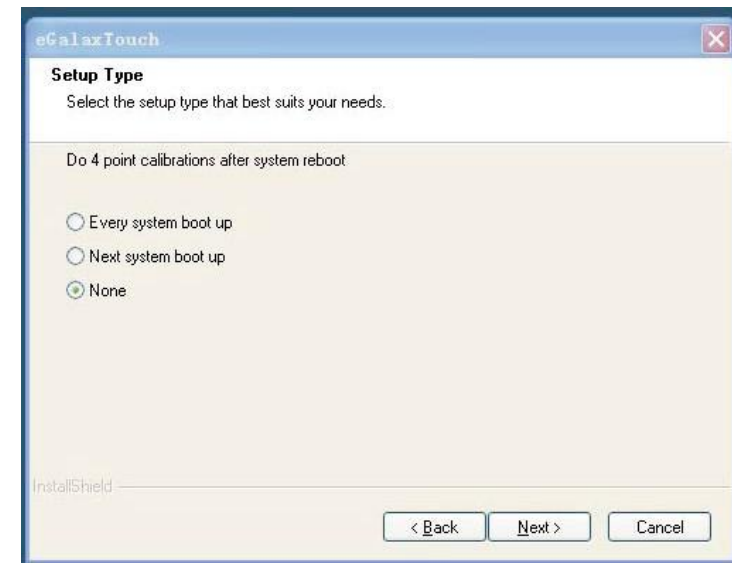
5. Check the check box if PS/2 touch controller is to be installed. The default setting is unchecked. Then Press **[Next>]** to continue installation.



6. Choose the setup type that best suits your needs. There is a **TouchKit** accessory utility for choosing, **Auto 4Pts Calibration Utility**. Users can install the utility they want by checking the box. Then Press **[Next>]** to continue installation.



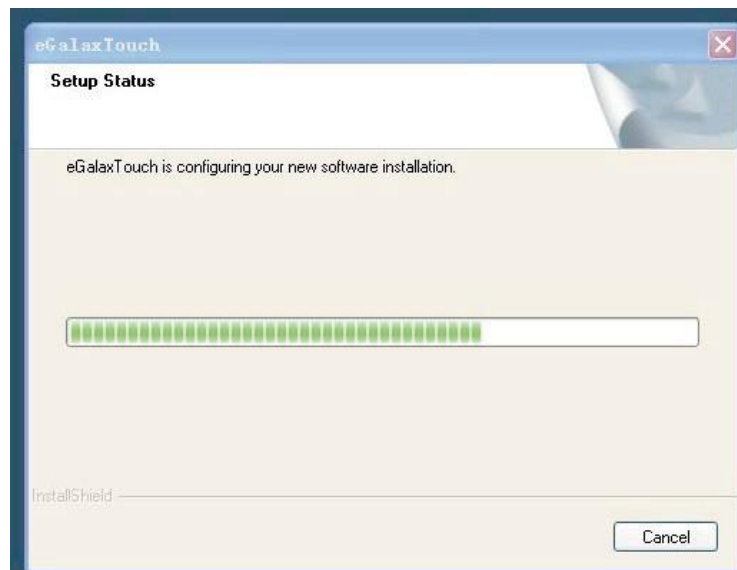
7. Please select 4 points calibration mode when system start. Then Press **<Next>** to continue installation.



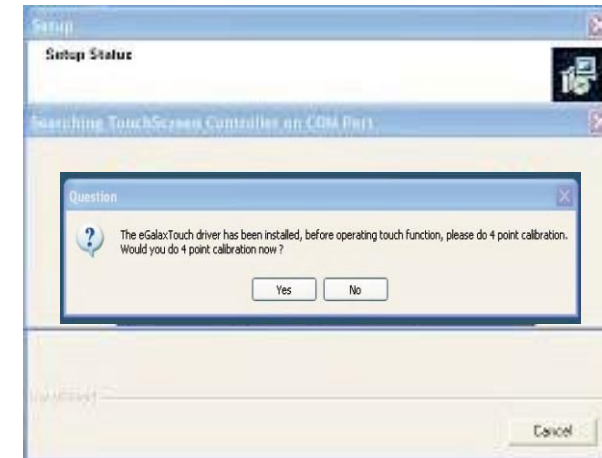
8. To choose your special software install path, please press “Browse” button.



9. Select the appropriate folder where setup files will be installed. Then press [Next>] to continue installation.

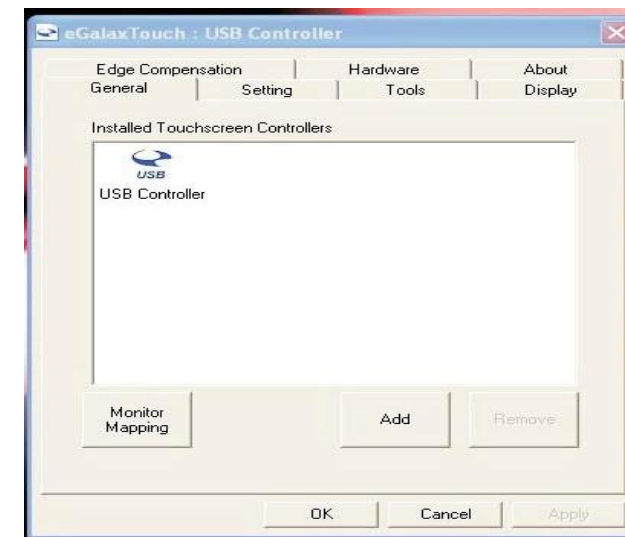


10. During installation, the setup program will scan Com port for Rs232 **TouchKit** controller. Once the controller was scanned, the setup program will display a dialog a dialog as.



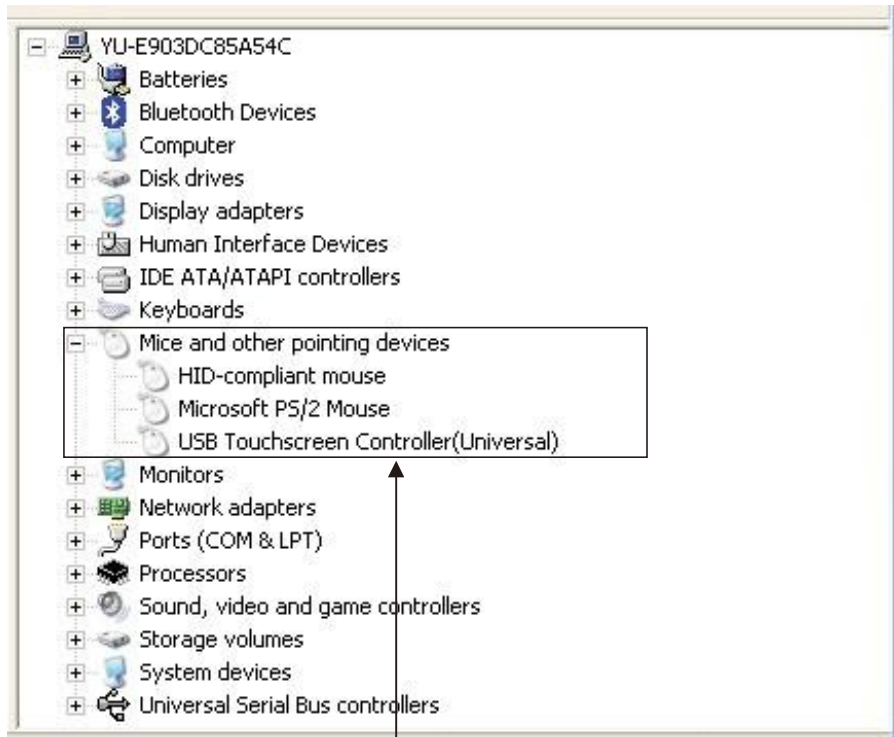
Click Yes to add the controller on the specified COM port automatically

11. Setup is complete. After **TouchKit** installation, the USB device will be found automatically as soon as it was Plugged into the computer. Then users can see the application program window.



## Setup of the Device

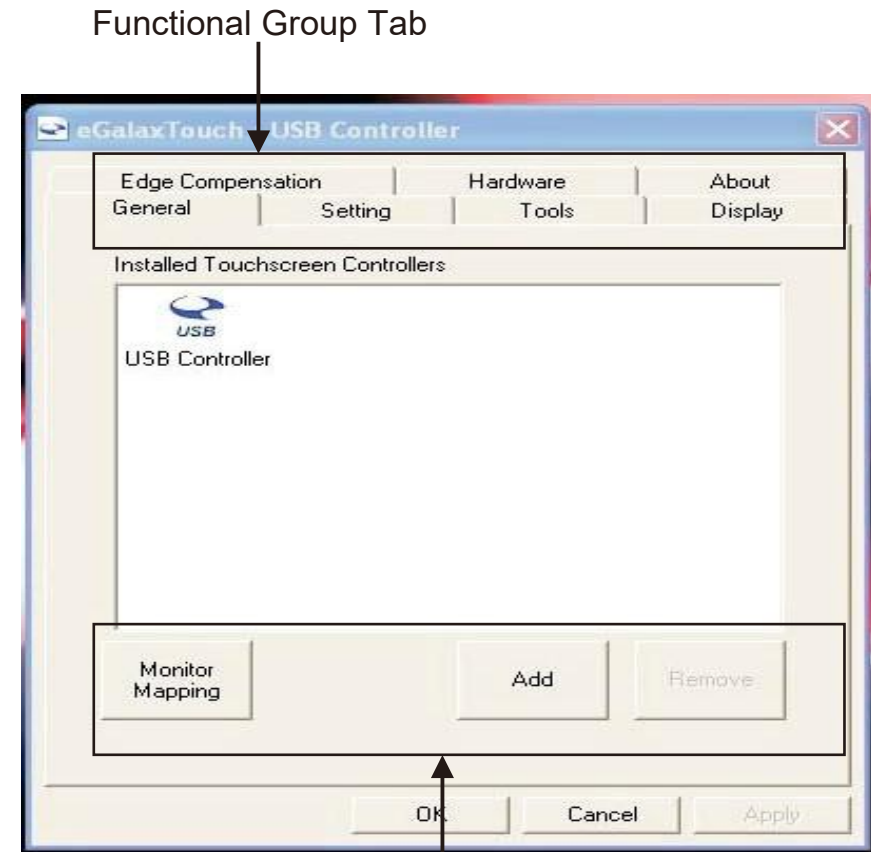
12. Users can check the situation of controllers in Device Manager. If the controller is set up well, there will be messages as the following picture.



TouchKit controllers works well

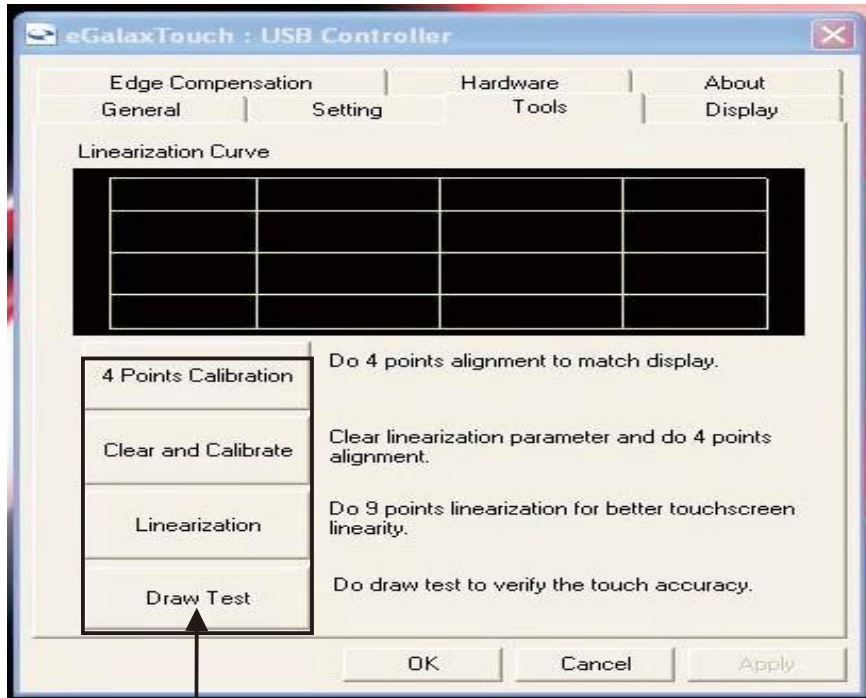
## Configuration Utility

There are three property pages in **TouchKit** utility, and they **General**, **Monitors** and **About**. Each property page contains different functions to do the adjustments. Therefore, users can easily manage all the **TouchKit** controllers through **TouchKit** Utility.



General Function

General property page contains the functions of **devices Add/Remove Draw Test** and **4 Points Calibration/Clear Calibration/Linearization**



Geaeral Function

## <4 Points Calibration>

Correct 4 point lacations on screen with the panel. Press **[4 points Calibration]**, screen displays as follows



Touch the blinking symbol on panel until beep or stop blinking.

## <Draw Test>

Test the drawing position related to the display screen on panel. Click on the **[Draw Test]** button. There will be a squared blue display



In drawing test window, users can click **[Clear]** button to clear the window. Also, users can click [Quit] or press mouse right button to quit from the drawing test.

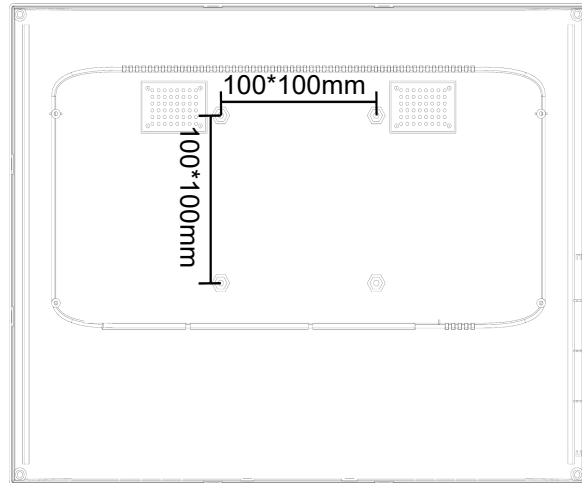
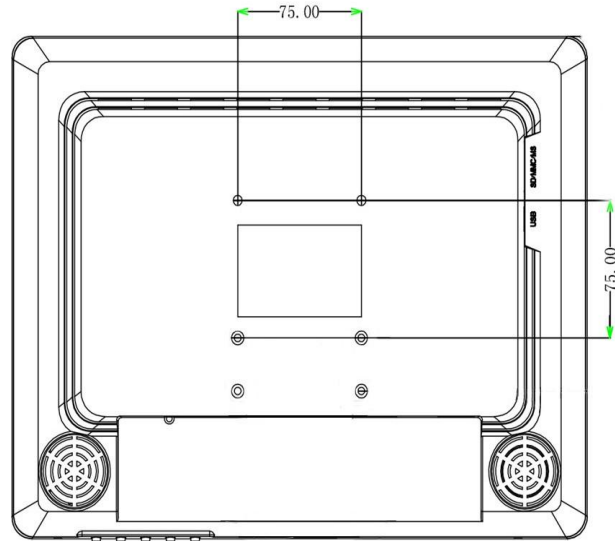
In drawing test window, users can verify the panel linearity, calibration capability, and drawing line quality.

## Touch Controller Specification

Power requirements	+5VDC(Maximum 100mA, typical 70mA,50mV peak to peak maximum ripple)
Operating temperature	0° to 50°C
Storage Temperature	-40° to 80°C
Relative Humidity	95% at 60°C
Protocol	Rs232 Model:9600 bauds, None parity,8 data bits and 1 stop bit USB Model: USB 1.1 Low speed PS/2 Model: PS/2 mouse
Resolution	2048X2048
Report rate	Rs232 Model: Max. 160 points/sec USB Model: Max. 160 points/sec PS/2 Model: Max. 140 points/sec
Response time	Resistive: Max. 35ms Capacitive: Max. 20ms
Pin out definition	4 wire model: X+, Y+, X-, Y- 5 wire model: UL, UR, COM, LR, LL 8 wire model: X+, X+ref, Y+, Y+ref,X-, X-ref, Y-, Y-ref
Panel resistance	4,8 wire resistive model:200~900 ohm (5 wire model: UL, UR, COM, LR, LL) 8 wire resistive model: 50~200 ohm (pin to pin on drive layer)
Regulatory Approvals	FCC-B, CE

## Touch Controller Specification

Calibration	Fast full oriental 4 points position
Compensation	Accuracy 25 points linearity compensation
Draw Test	Position and linearity verification
Language	Support 10 languages for Windows
Advanced Feature	1.Support monitor/display rotation 2.Support multiple monitor/display 3.Support QVGA and Half-VGA function 4.Support edge compensation 5.Support constant touch
Controller Setting	1.Support multiple controllers 2.Dynamical add/remove controllers 3.Change Controller interface without reboot
Mouse Emulator	1. Right/Left button emulation 2. Normal/Click on touch/Click on release mode 3.Auto right button
Sound Notification	1.Sound option(No Sound/Touch Down/Lift UP) 2.Frequency adjustment 3.Duration adjustment
Double Click	1.Configurable double click speed 2.Configurable double click area
OS support	1. Windows 95/98/ME/NT4/2000/XP/Windows XP Tablet PC Edition 2. Windows CE 2.12/3.0/.NET 3.Linu(RedHat/Fedora/Mandrake/Suse/YellowDog) 4. iMac. OS9.xOSX 5. MS-DOS: Support display resolution: 320x200,640x200,640x350,640x480,800x600, 1024x768 and 1280x1024
COM port support	1.Support COM 1~COM 256 for Windows and Linux 2.Support COM 1~COM 8 for DOS



The first step in troubleshooting a touchscreen system is to determine whether the problem is related to software, computer hardware or this touchscreen monitor

**Do not confuse computer hardware or software problems with touchscreen problems. The easiest way to verify a computer hardware/software failure is to try the monitor on other computer..**

Hardware problems may be caused by the touchscreen, controller, cabling, power supply, or by the integration of the touchscreen components in the display. Software problems are determined by a basic hardware functionality test. If the hardware transmits coordinates Correctly, then the problem is with the driver or the calibration software.

**Problem: No image appears on screen.**

Check that all the I/O and power connectors are correctly installed and well connected as described. Make sure the pins of the connectors are not crooked or broken. Reconfigure the resolution of your computer to make it less than or equal to 1024 x 768.

**Problem: Partial Image or incorrectly displayed the image.**

Check to see if the resolution of your computer is higher than that of the LCD display. Reconfigure the resolution of your computer to make it less than or equal to 1024 x 768.

**Problem: Image has vertical flickering line bars. Image is unstable and flickering**

Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display.

**Problem: Image is scrolling**

Check and make sure the VGA signal cable (or adapter) is well connected. Check and reconfigure the display mode of the vertical refresh rate of your graphics card to make it compatible with the LCD Display.

**Limited Warranty**

Warranty is one year from the date of purchasing this product. Please ensure you carefully keep original purchase proof with date, and record the Serial Number label on the back of the monitor. It is the only means of identifying your product.

**EXCLUSIONS (WHAT IS NOT COVERED)**

1. Accessories such as power adapter, stylus etc. are not covered under this warranty policy.
2. This warranty does NOT cover freight cost, insurance and any other incidental charges.
3. This warranty becomes void if the monitor shows evidence of having been dropped, impact, sand and/or water damage, mishandling, tampering, battery or chemical corrosion, use contrary to this instruction manual.