Aer Monitor

User's Manual

Version-0.1

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Record of Revision

Date	Specs Ver.	Description	Note
2013.2.4	V0.1	Initial	

Safety and Warranty

1. Read these safety instructions carefully.

2. Keep this user's manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.

4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.

12. Never pour any liquid into an opening. This could cause fire or electrical shock.

13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

14. If any of the following situations arises, get the equipment checked by service personnel:
a. The power cord or plug is damaged.
b. Liquid has penetrated into the equipment.
c. The equipment has been exposed to moisture.
d. The equipment does not work well, or you cannot get it to work according to the user’s manual.
e. The equipment has been dropped and damaged.
f. The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.

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Chapter 1

Introduction

AerMonitor (AM-1015) Introduction

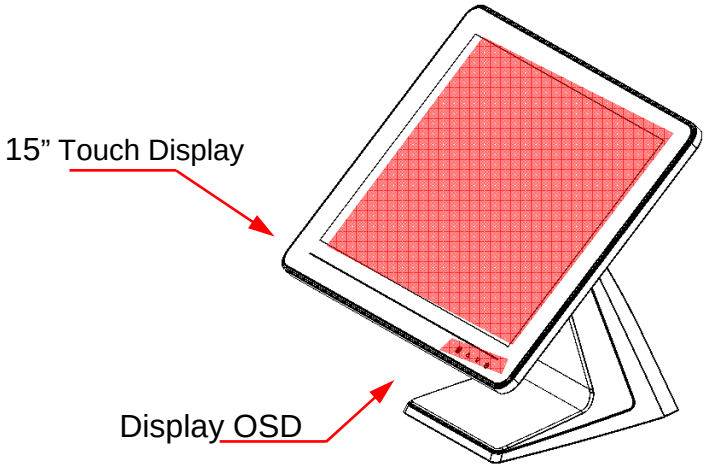
AerMonitor is a 15 inch bezel free monitor that is slim, compact, but tough and durable enough for any environment. With easy accessed on screen display controls, users can adjust brightness and display is a compatible component and can be easily removed and installed on the FEC AerPOS Terminal Series.

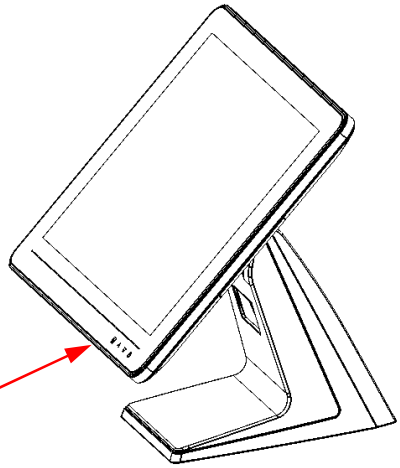
Main Features:

- Reliable Tempered Glass ; Bezel Free Design
- The high quality of resistive touch or durable tempered glass of projective capacitive touch both are IP65 front panel compliant.
- Space Efficiency; Compact Size; Small Foot Print - Fits for any kinds of POS applications
- Various peripheral devices support and sufficient I/O connectivity requirements.
- Integrated VFD and the 2nd 15” LCD display.

AM-1015

A Quick Tour for AM-1015





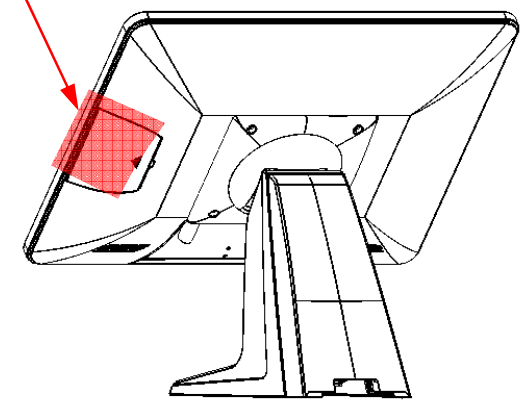
Power Switch / Status
Blue LED: Power ON
Red LED: Power Off / Standby

Menu item up select, item value increase and auto tune

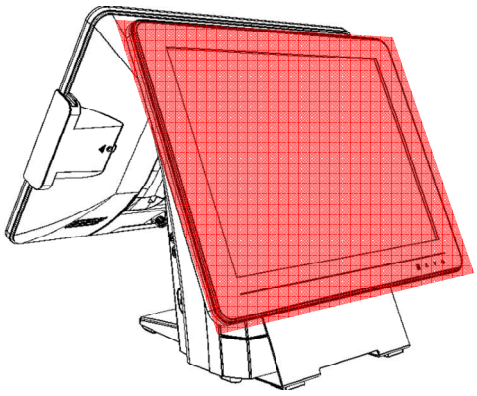
Menu item down select and item value decrease

Display OSD menu and enter Next page

MSR
Finger Print Receiver
RFID
i-Button



15” 2nd Display



AM-1015 Dimension

Rear I/O Panel Connectivity

- Stand Type

I/O Port	Connector Type	Description
DC IN	DC IN connector	Connect the 12V power adaptor to this port
USB	B Type	Connect to touch screen
VGA	D-Sub 15	Connect LCD screen
USB	A Type	Connect to standard A type USB devices
Line in	Phone Jack Connector	Connect the Audio Devices to the ports

- Bracket Type

I/O Port	Connector Type	Description
DC IN	DC IN connector	Connect the 12V power adaptor to this port
USB	B Type	Connect to touch screen
VGA	D-Sub 15	Connect LCD screen
DVI	D-Sub 25	Connect LCD screen
Line in	Phone Jack Connector	Connect the Audio Devices to the ports

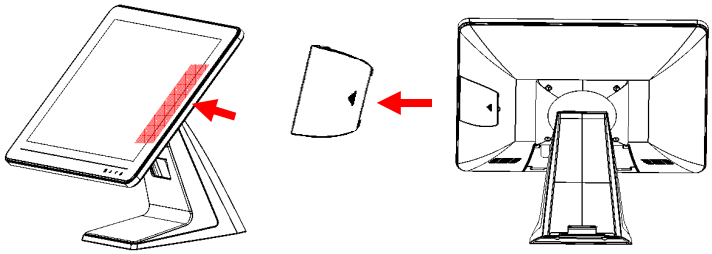
Aer Monitor AM-1015 Packing List

Standard		Optional & Peripherals	
1	15” AM-1015 Aer Monitor Touch Terminal	**1**	MSR / RFID / Finger Print Receiver I-Button
2	12V 50W Power Adaptor	**2**	20x2 VFD / 20x2 LCM / 240x64 LCM
3	AC Cord	**3**	15” 2nd Display Bracket
4	Stand base		

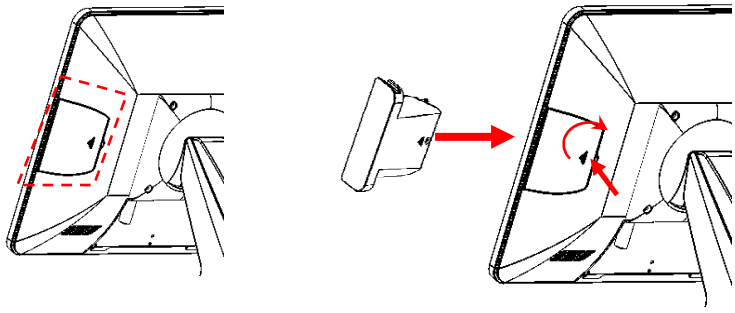
Chapter 2

MSR / Finger Print Reciever / RFID / i-Button Installation

1. **Remove the plastic cover at the back of Touch Display Module**



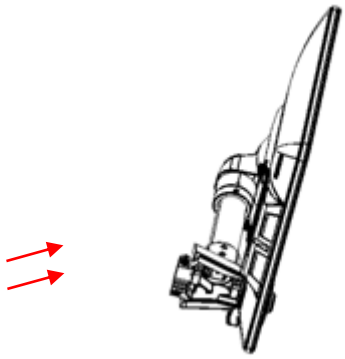
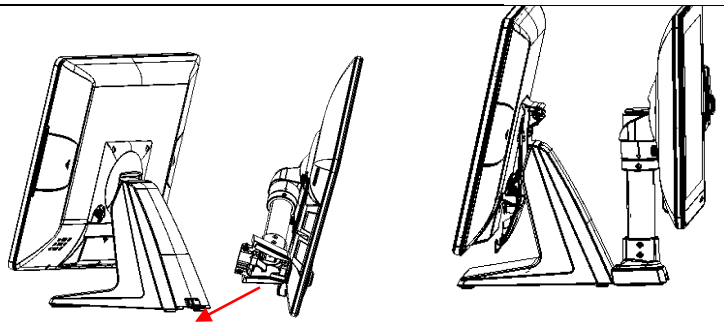
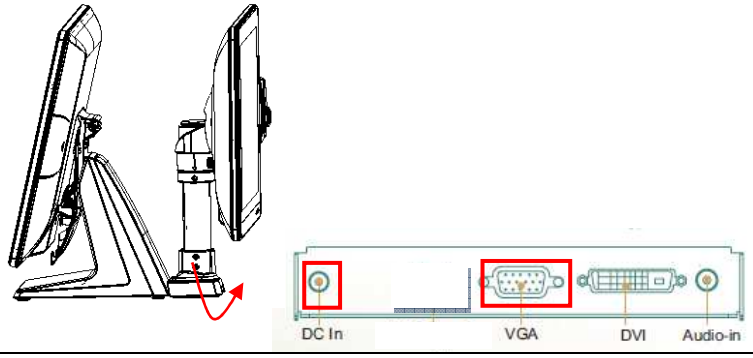
2. **Insert the MSR / RFID / Finger Print Receiver / I-button Module into USB A-Type Connector. Fix the Touch Display Module with one screw.**



3. **Make sure the USB connected and screw is fastened well.**

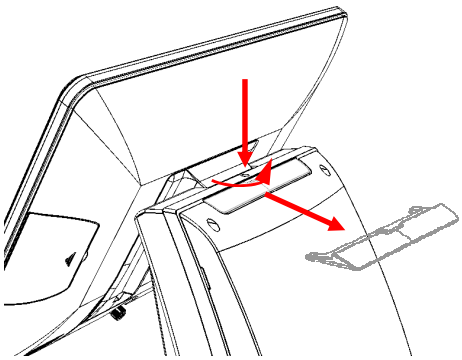
4. **If you are looking for the detail Utility of MCR, Finger Print Reader, I-button Reader, RFID Reader, please contact FEC's FAE.**

Pole Type VFD / LCM Installation

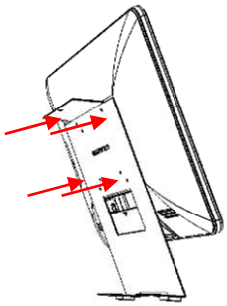
1. **Assemble the 2nd screen with pole type with 2 screws**	
2. **Assemble the 2nd Screen with pole type to Terminal.**	
3. **Plug in VGA and DC 12V cables**	

15” 2nd Display Installation

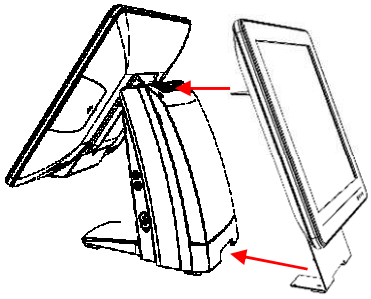
1. **Remove the VFD plastic cover**



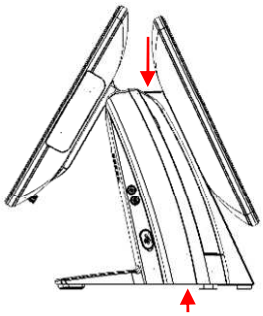
2. **Assemble the 2nd screen with bracket with 4 screws**

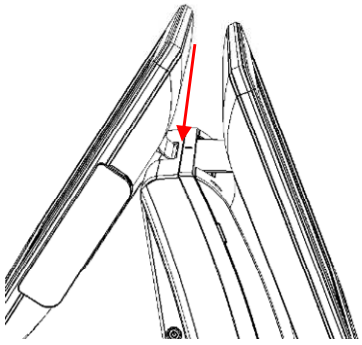


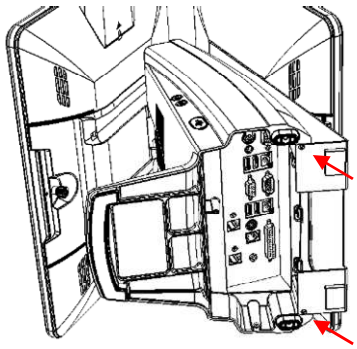
3. **Assemble the 2nd Screen with bracket to Terminal.**



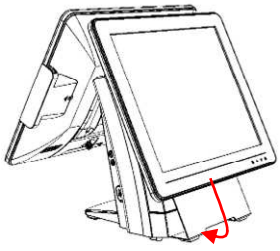
4. **Fasten 3 screws**
   (1 on top, 2 underneath)

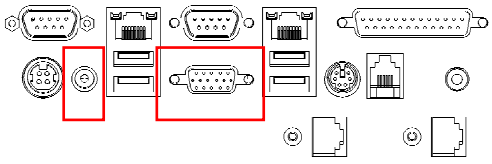




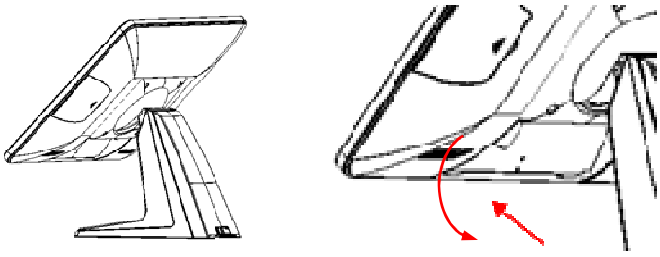
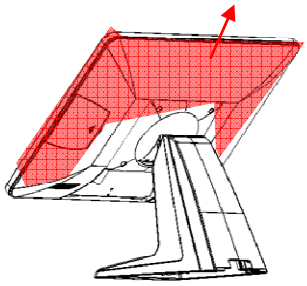
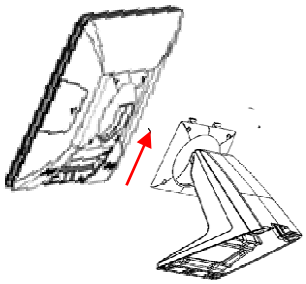
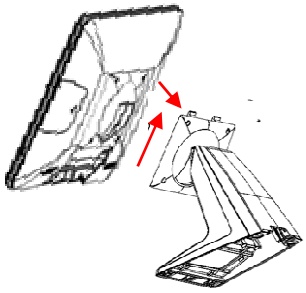


5. **Plug in VGA and DC 12V cables**





15” 1st Touch Display Installation & Swapping

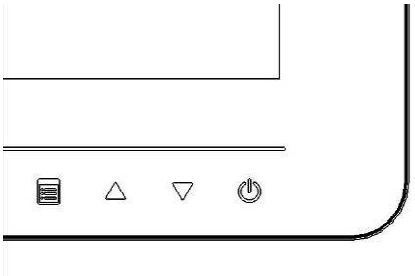
1. Release 2 thumb screw at the back side of Display	
2. Lift the Display Module up to disassemble from the main unit of terminal	
3. Display and main body units are separated.	
4. Reverse the process can assembly back the Touch Display Module. ** please make sure the touch display module is firmly connected to the docking slot **	

Note

During the process of disassembly and installation, please ensure the terminal is “Power Off” and remove AC. “Hot Swap” could activate internal protection to block touch display functionality.

OSD Function and Adjustment

OSD function and adjustment



Back Light Power (finger touch for 5 seconds)
Back Light Power On – Blue LED indication
Back Light Power Off – Red LED indication

Menu item up select, item value increase and auto tune

Menu item down select and item value decrease

Display OSD menu and enter
Next page

Menu Function Introduction

Menu	Function
1) AUTO SETUP	auto tune
2)BRIGHTNESS	brightness adjustment
3)CONTRAST	picture contrast adjustment
4)DISPLAY ADJUST	picture parameter adjustment
5)COLOR TEMPERATURE	color temperature adjustment
6)LANGUAGE	multi-language setup
7)OSD DISPLAY	OSD parameter setup
8)VGA/DVI	VGA/DVI signal setup
9)AUDIO	audio function adjustment
10)RECALL	reset all menu item value to default setting
11)EXIT	exit OSD menu

Chapter 3

Software Installation and Setup

AM-1015 comes with a variety of drivers for different operating systems.

You can download all the necessary drivers and utilities from http://www.fecpos.com.

FEC AUO Project–Capacitive Touch Utility(Raydium controller)

FEC Projective – Capacitive Touch Utility Introduces:

1. **Mode of FEC Capacitive Touch Panel and default settings**
2. **Capacitive Touch Sensitivity**
3. **Right Click Function Setting**
4. **Double Click Function Setting**
5. **F/W Reading or F/W Update**

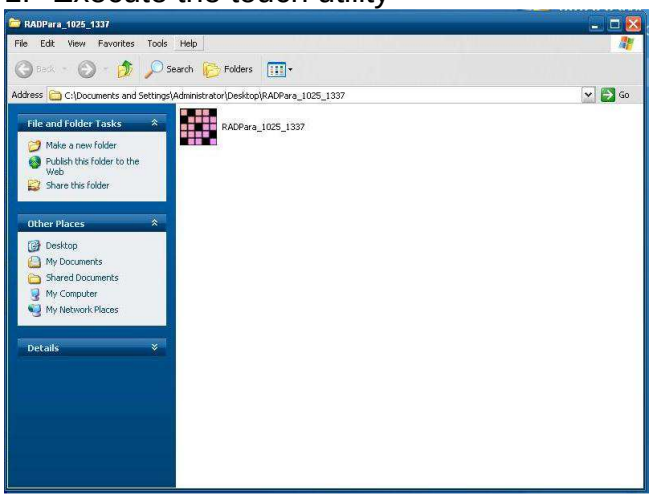
Mode of FEC P-Capacitive Touch Panel and Default Settings

The default setting of FEC P-CAP touch will be always “Mouse Mode” with Single Touch as the factory default setting. If the application requires Multi Touch (Dual Touch), FEC P-CAP touch can also be accordingly set as “Touch Mode” (Dual Touch with two fingers) via Touch Utility, but it has to be in Win7 or POS Ready 7 OS environment.

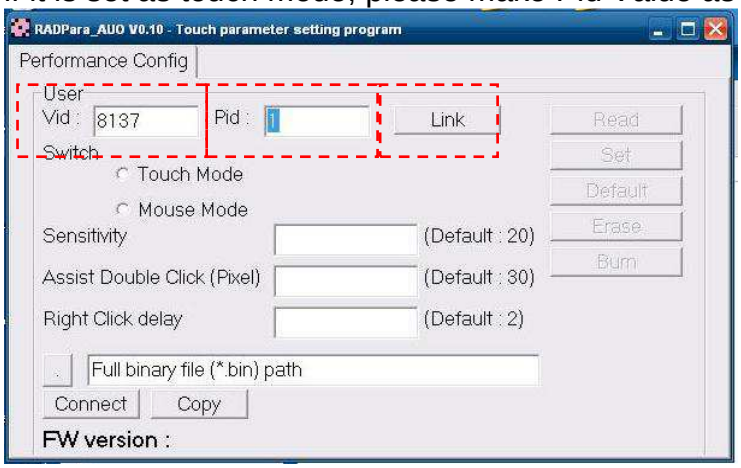
	Win XP, POS Ready 2009	Win7, POS Ready7
Mouse Mode	Yes No Driver Needed	Yes No Driver Needed
Touch Mode	N/A	Yes No Driver Needed

Mode setting can be done in the utility:

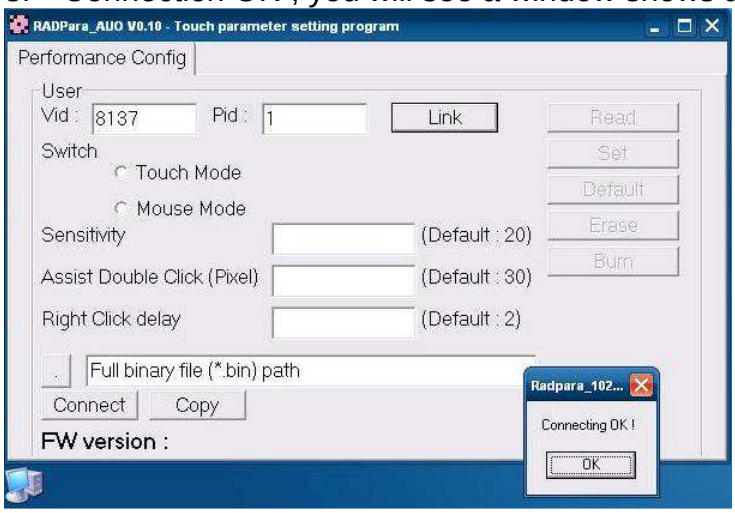
1. Execute the touch utility



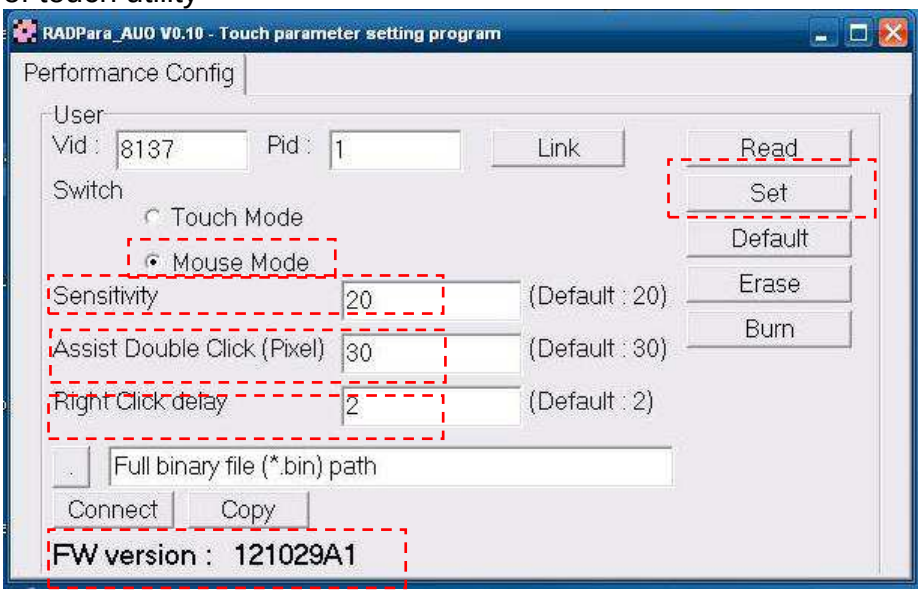
2. Keep the Value of Vid as “8137” ; Value of Pid as “1”, then Click “Link” Button (before it links, if it is factory default setting Mouse Mode, please keep Pid Value as “1”; if it is set as touch mode, please make Pid Value as “3”)



3. “Connection OK”, you will see a window shows about the connection OK



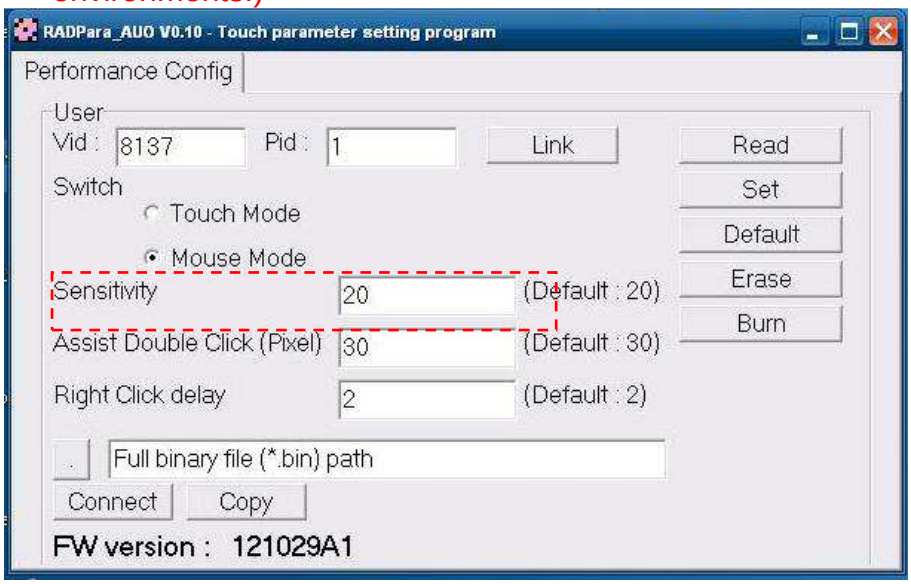
4. after the successful connection, Click “Read” button, it will show some default status of touch utility



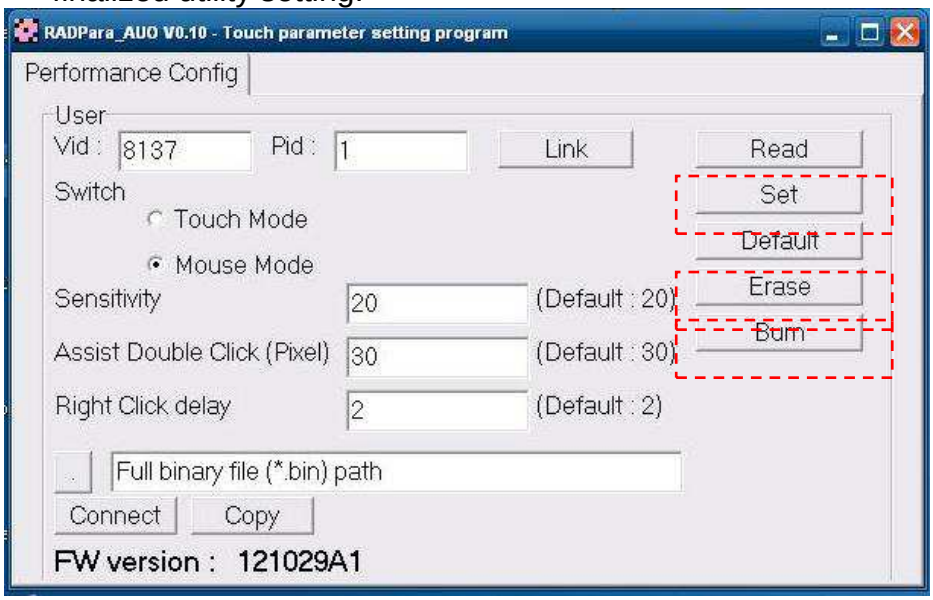
P-Capacitive Touch Sensitivity

The P-Capacitive Touch Sensitivity is relating to humidity of environment, humidity of finger tips or touching area size of finger tips. Thus, if the application requires more or less touch sensitivity, it can also be adjust by utility.

1. After the successful linked connection with touch controller, you might key in the value to adjust the touch sensitivity. (the value is form “0” ~ “100”, “0” means the highest sensitive “100” means the lowest sensitive) (Before the adjustment, please note the default factory setting “20” is the most optimized to fit with the majority of POS environments.)



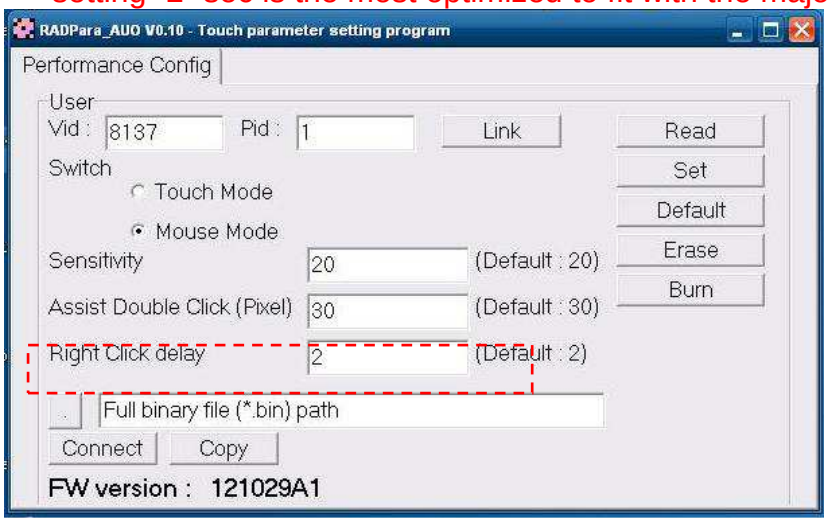
2. After key in a proper Value, Click “Erase” → “Set” → “Burn” step by step, then the certain value of sensitivity is applied into touch controller. Reboot the system to finalized utility setting.



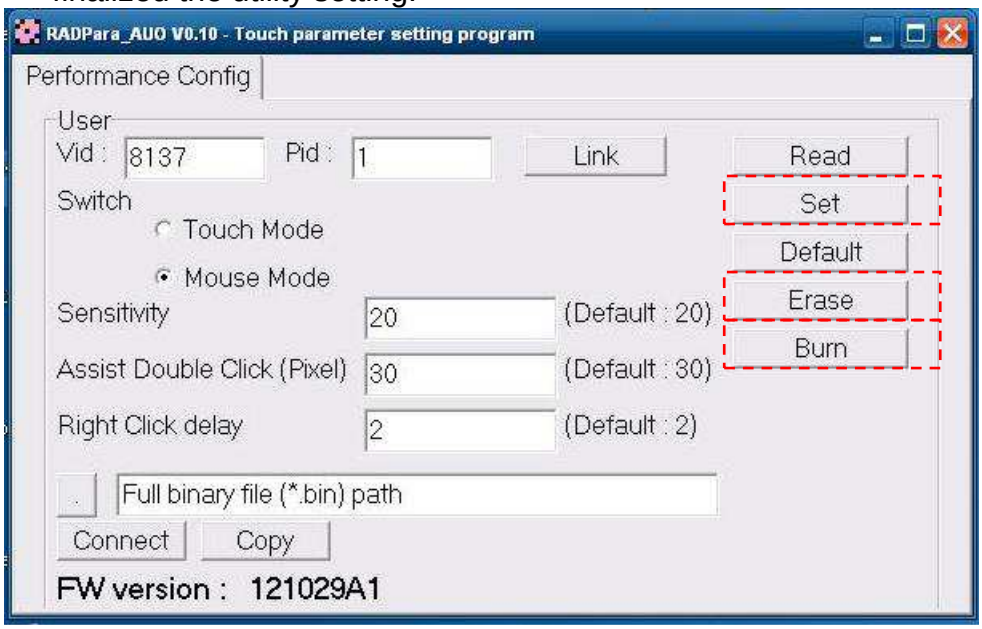
Right Click Function Setting

The FEC P-CAP touch is simulating a USB mouse; therefore it has also the right click function of normal mouse. When finger tip stays on the touch glass for more than 2 seconds (factory default setting is 2 sec), right click will occur. If the application require longer times for right click function, it can be adjusted via the utility.

1. After the successful linked connection with touch controller, you might key in the value of Right Click delay. (Value unit is second. it means the bigger value you key in, the longer delay second it will be.) (Before the adjustment, please note the default factory setting “2” sec is the most optimized to fit with the majority of POS environments.)



2. After key in a proper Value, Click “Erase” → “Set” → “Burn” step by step, then the certain value of sensitivity is applied into touch controller. Reboot the System to finalized the utility setting.



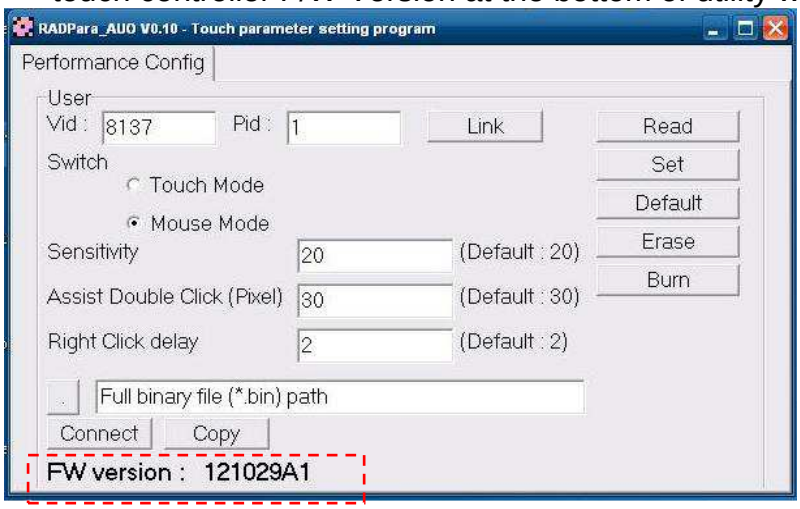
Double Click Function Setting

Due to the application and user preference, the timing of double click is always required differently. However, FEC P-CAP touch is a simulate device as USB mouse, therefore the sensitivity of double click can be easily adjust by default mouse utility in any of windows OS.

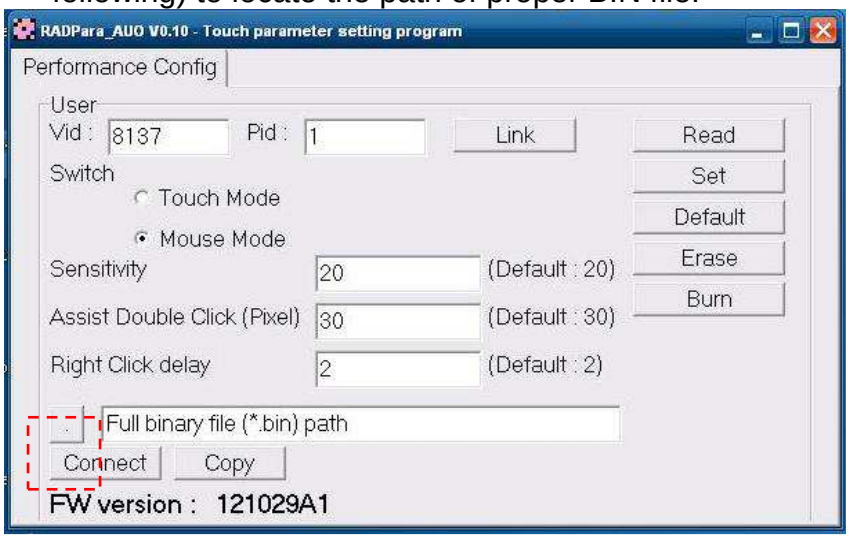
F/W Reading and F/W Update

The touch F/W can be updated by the utility.

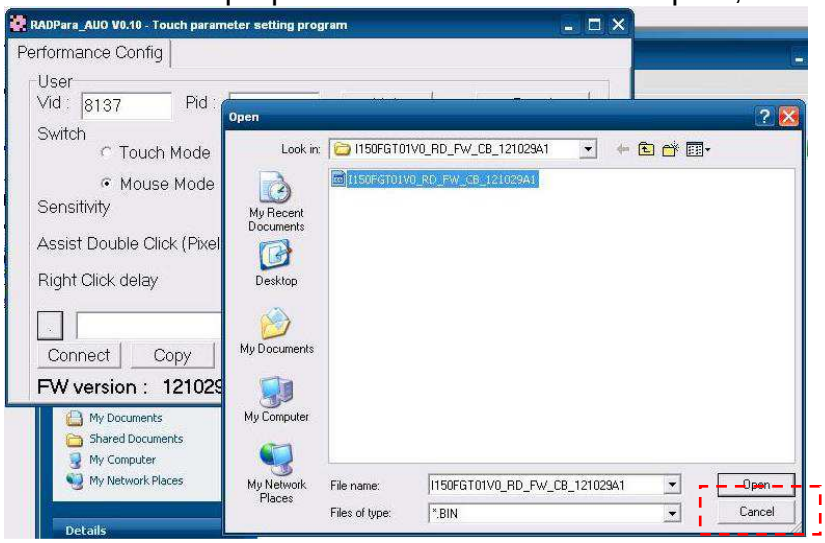
1. F/W current Status Reading, after a successful linked connection. It will show the touch controller F/W Version at the bottom of utility window.



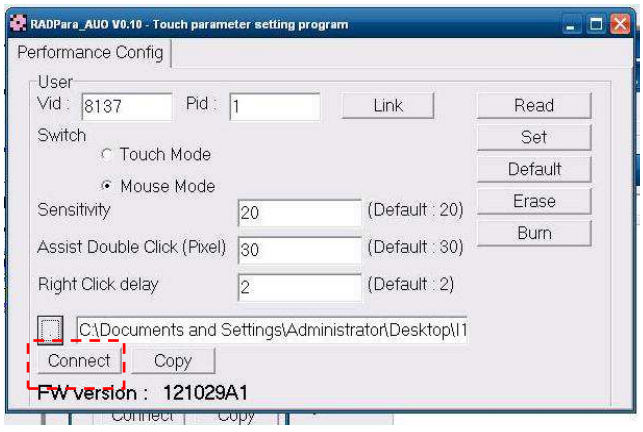
2. However, if F/W needs to update, first Click the square button (circled in red as following) to locate the path of proper BIN file.



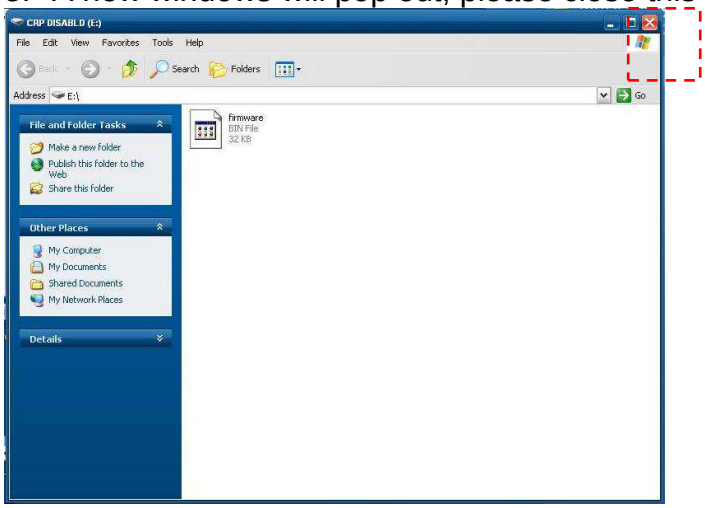
3. Choose the proper BIN file from the correct path, then “open”



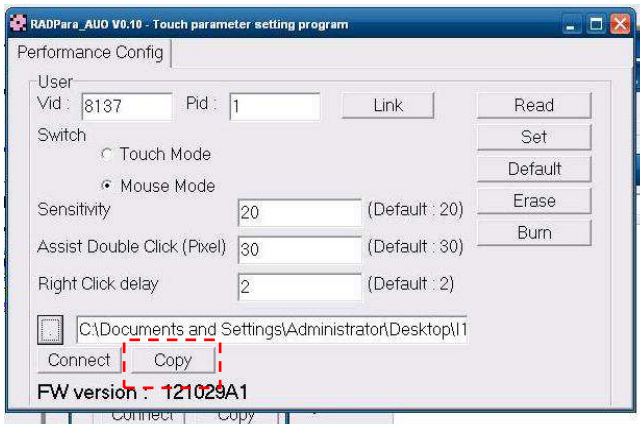
4. Then Click “Connect” button for further step



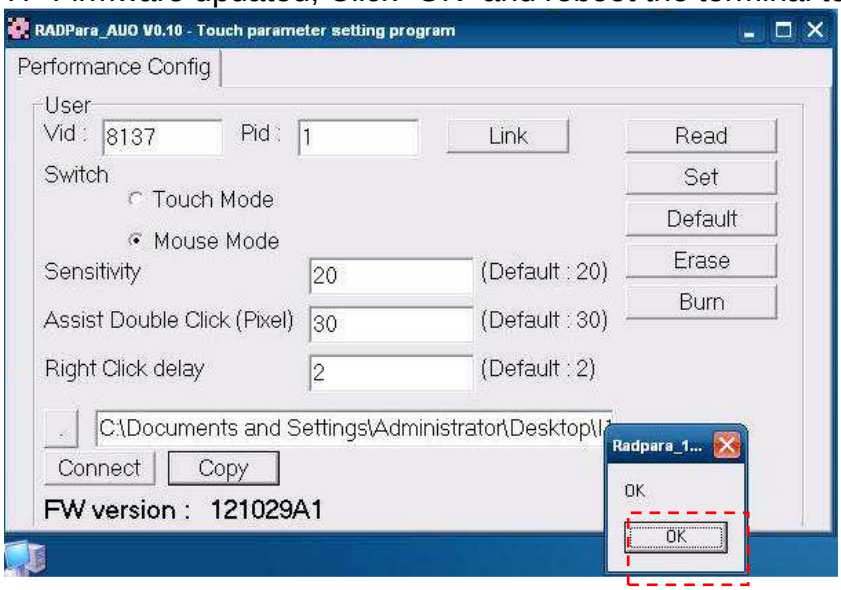
5. A new windows will pop out, please close this pop out windows and back to the utility.



6. Click “Copy” and wait for 1 minute for the new F/W applies into the controller and re-calibration.



7. Firmware updated, Click “OK” and reboot the terminal to finalized the utility setting.



FEC-AUO Capacitive Touch Calibration

This Capacitive Touch has auto calibration controller via USB interface. There are two different methods which can initiate the touch auto calibration: (1) Reboot the Terminal. (2) Switch Off the Display Module then Switch On Again

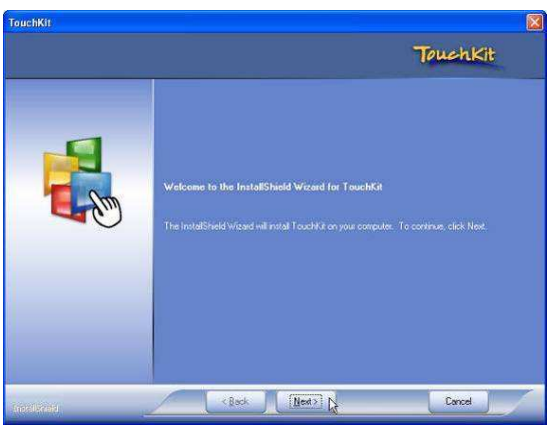
Note Capacitive touch screen will not operate with either a gloved hand or with a mechanical stylus. It is made of glass, which makes it extremely durable and scratch resistant. Capacitive touch might need the calibration when too many water or liquid stays on the glass during touch operation or the humidity goes too high to meet 80% non density . Thus, FEC recommends users to keep the liquid from the touch glass and calibrate the touch screen.

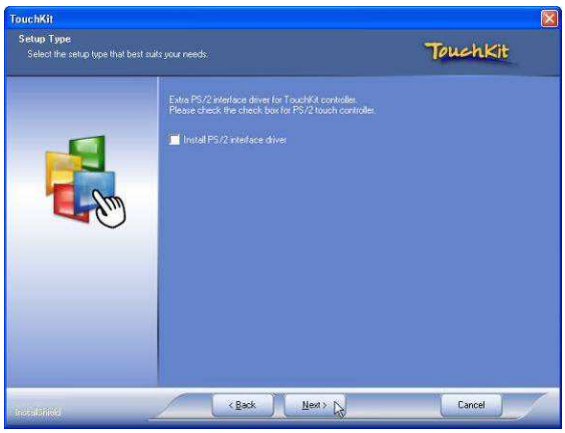
EETI TouchKit Tools Installation

EETI TouchKit Installation for Windows XP

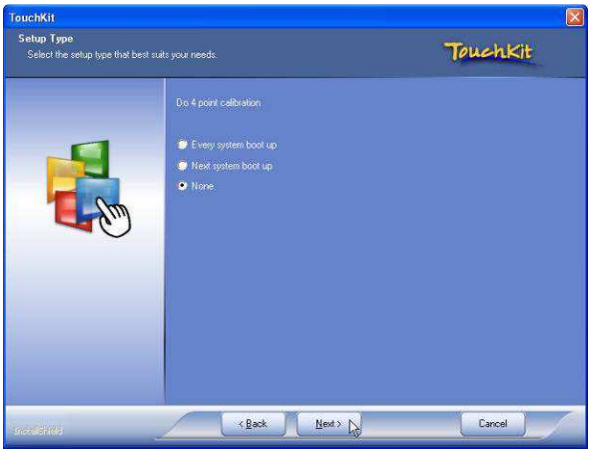
1. Down load Touch Kit for WinXP
2. Execute **Setup.exe**

3. Click **Next**



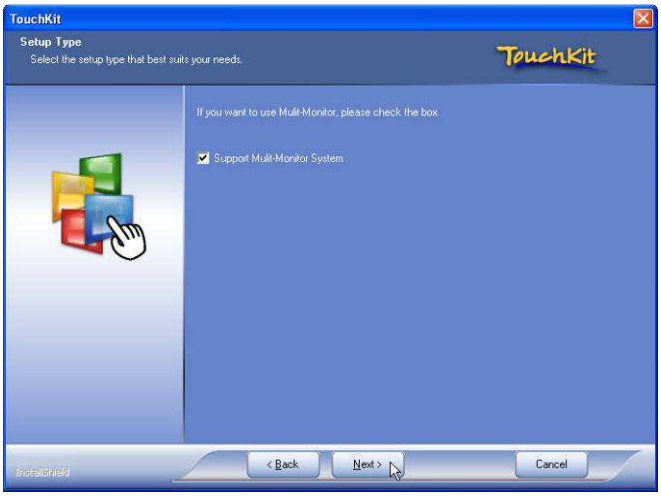


4. Choose **“None”** and Click **Next** for further installation process



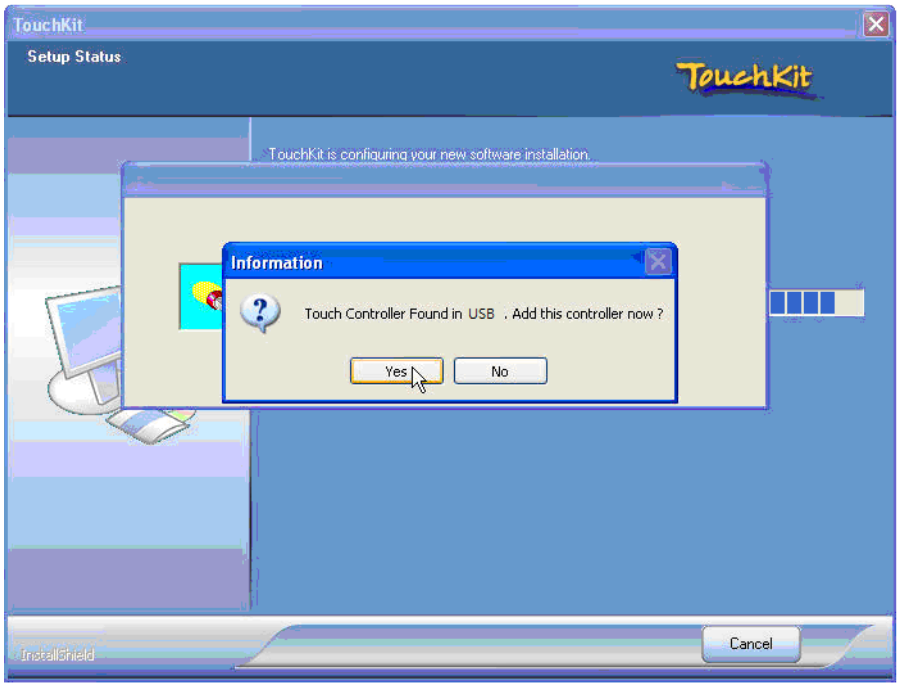
5. Click **OK** to close the pop-up dialog.

6. Click **“Support Multi-Monitor System”** and then **Next** to continue.



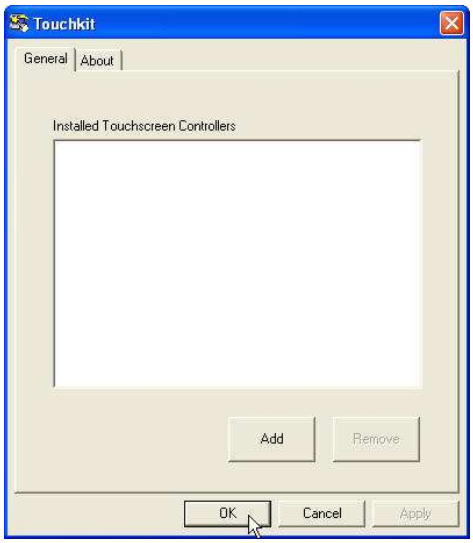
7. Click **Next** and choose a program folder to **“Touch Kit”**, then **“Next”**

8. Touch Controller found in USB, then Click **Yes**



9. Click **OK** and turn off the computer to restart your system again.

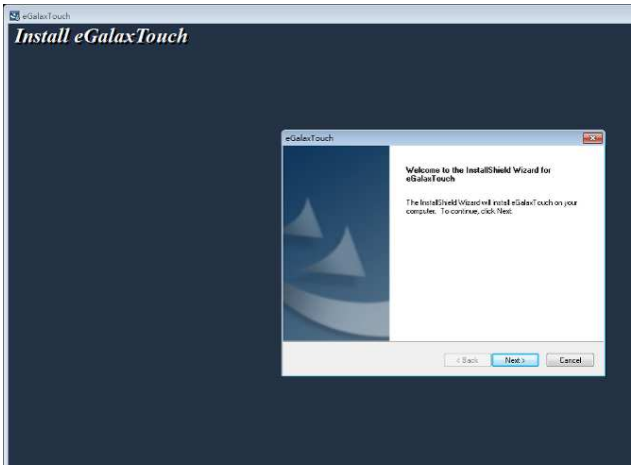
After the system finish rebooting follow the instruction to calibrate the Touch screen.

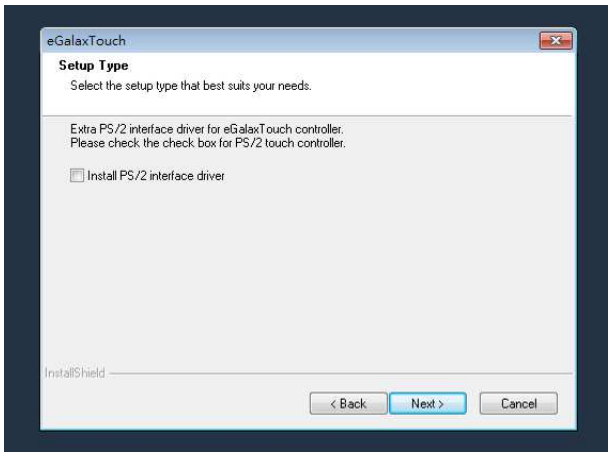


EETI TouchKit Installation for Windows 7

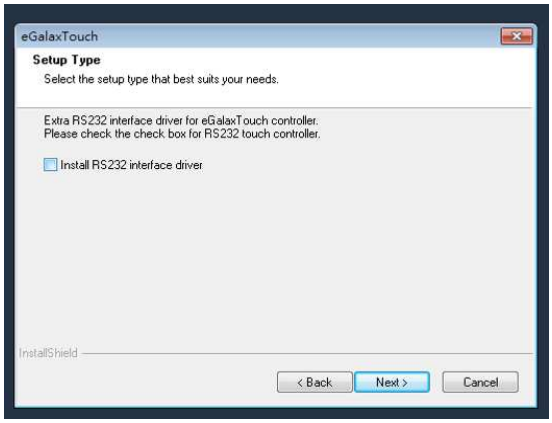
1. Down load Touch Kit for Win 7 (setup.exe)
2. Execute **Setup.exe**

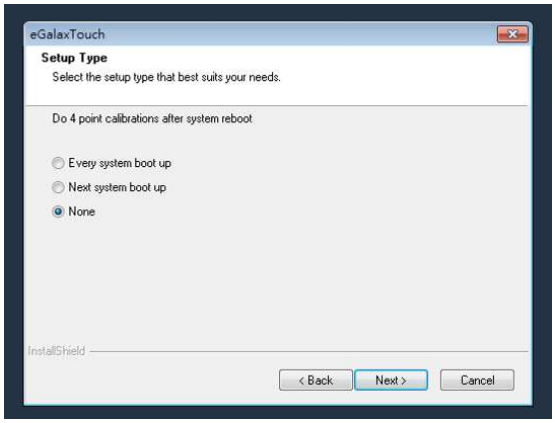
3. Click **Next**



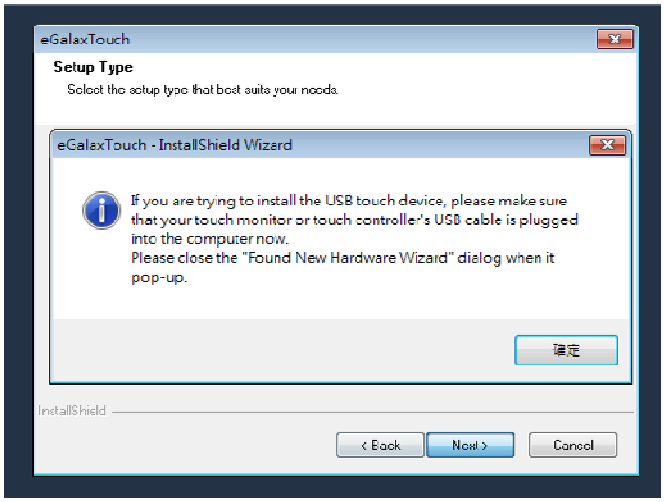


4. Un-tick “Install RS232 interface driver” and Click “Next” to go for further process.

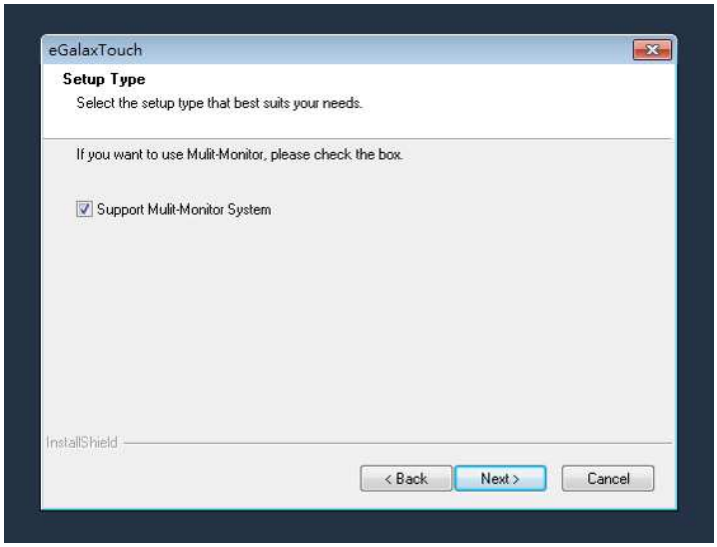




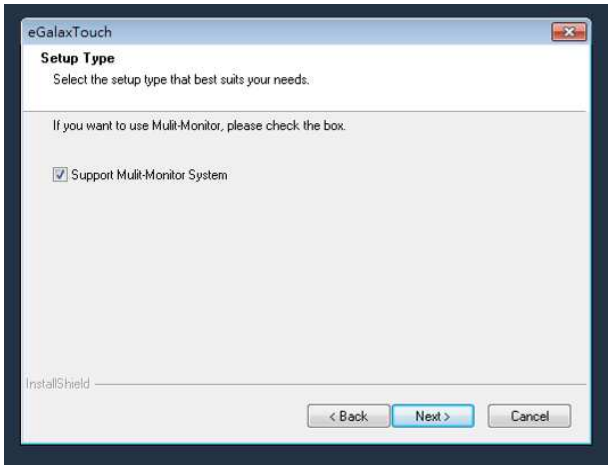
5. Click “Yes” and confirm the USB touch controller is plugged.

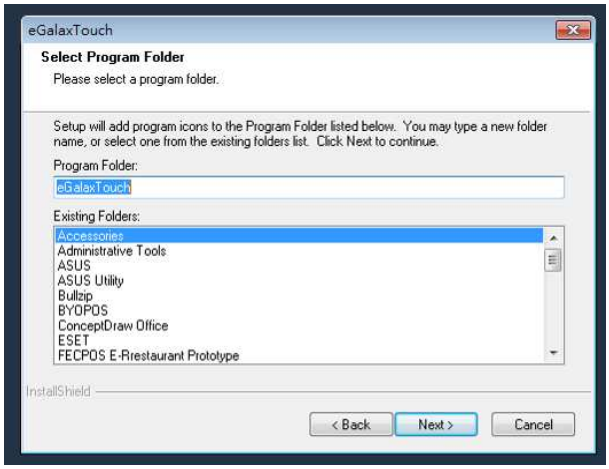


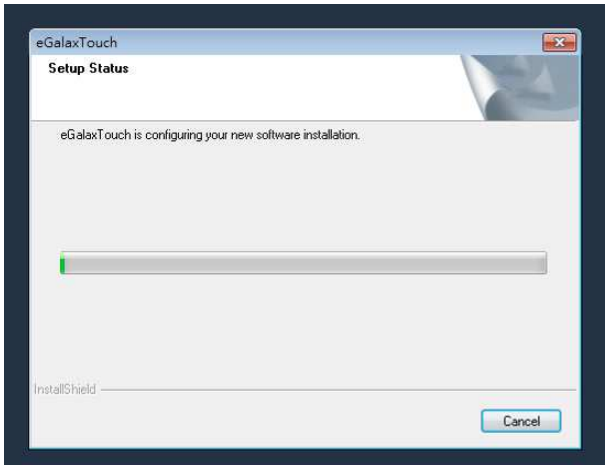
6. Click **“Support Multi-Monitor System”** and then **Next** to continue.



7. Click **Next**







Click **OK** and turn off the computer to restart your system again.

After the system finish rebooting follow the directions to calibrate the Touch screen.

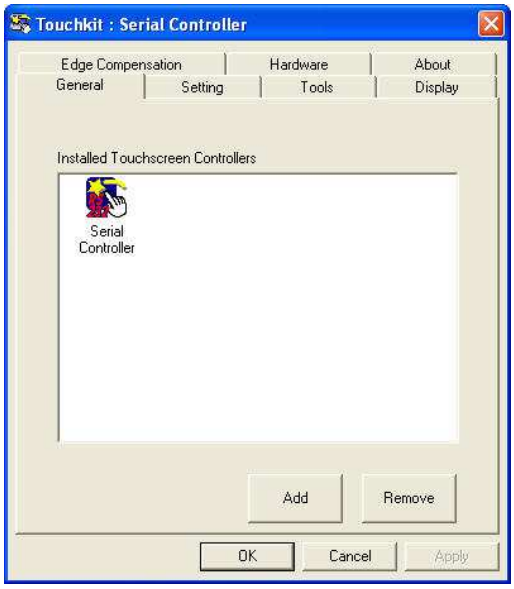
TouchKit Control Panel

This section explains the different options in the TouchKit control Panel.

General tab

The general tab allows you to:

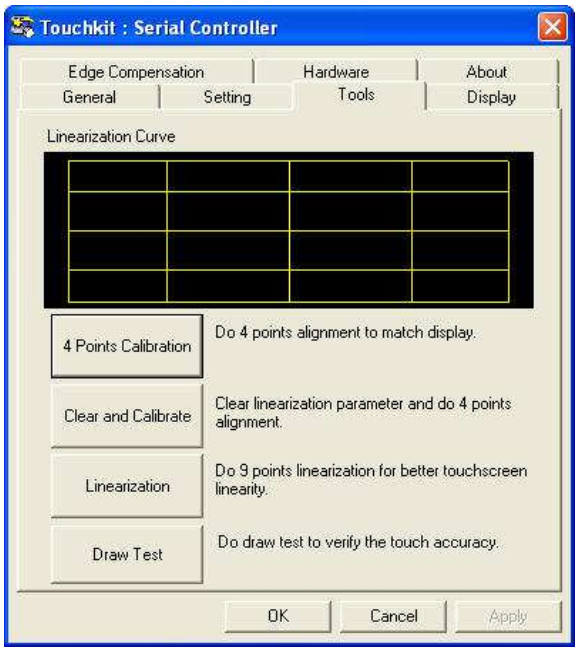
- Manage the touch screen controller you installed.



Tools tab

The tools tab allows you to:

- Calibrate the touch screen with the **4 Points Calibration** button.



Chapter 4

Specifications

AM-1015 Specifications

Aer Monitor			AM-1015 Stand Type			
Main Specifications	LCD Display Size		15”TFT LCD			
	Max. Resolution		1024 x768			
	Max. Color		16.2 M			
	Contrast Ratio		700: 1			
	Touch Screen		Touch		N/A	
			Projective-Capacitive (Tempered Glass	5W Resistive	N/A	
	Panel		LED	CCFL	LED	CCFL
	Brightness		350 nits	250nits	450 nits	250 nits
	On Screen Display (OSD)		Menu, Up, Down, Power			
I/O Ports	Touch Screen Interface		2 x USB Host,1 x USB Slave			
	Video Port		1 x VGA			
	Audio Port		1 x Line in			
	DC-in Port		1 x3.5mm DC jack			
	Finger Print Receiver		Optical Finger Print Receiver, USB interface			
	RFID Reader		13.56M Hz RFID reader , USB interface			
	I - Button Reader		USB interface			
	Pole Type	VFD	20x2 (9mm) Character Mode			
		LCM	20 x 2 Character Mode 240x64 Graphic Mode			
		2nd Display	15” 2nd Monitor			
Others	Power Supply		50W (12V/4.16A) External Power Adaptor / Cable DC			

		PLUG / Power12V USB	
	Dimension	W367 x H326 x D188	
	Mounting	VESA 100 x 100	
Aer Monitor		**AM-1015 Bracket / Pole Type**	
Main Specifications	LCD Display Size	15”TFT LCD	
	Max.Resolution	1024 x768	
	Max.Color	16.2 M	
	Contrast Ratio	700: 1	
	Touch Screen	N/A	
	Panel	LED	CCFL
	Brightness	450 nits	250 nits
	On Screen Display (OSD)	Menu,Up,Down,Power	
I/O Ports	Touch Screen Interface	N/A	
	Video Port	1 x VGA (DB15) / 1 x DVI (option)	
	DC-in Port	1 x3.5mm DC jack	
Built-in Components & Peripherals	MSR	N/A	
	Finger Print Reciever		
	RFID Reader		
	I - Button Reader		

Chapter 5

Troubleshooting

Please note that the following troubleshooting guide is designed for people with strong computer hardware knowledge or Engineers and Maintenance.

Touch Panel Does Not Work

A) Check “Touch Display Module” is connected well with terminal.

B) Check HID USB touch device is detected by OS.

C) (Resistive Touch) Check if the EETI driver or the TouchKit driver has been properly installed. Or try to re-install again (Please refer to the EETI driver and touch kit installation).

D) (Capacitive Touch) Check if the FEC-AUO Capacitive touch is automatically detected by Windows 7, or properly installed the touch driver in Windows XP.

E) Check well cabling between touch panel and touch controller

F) (Capacitive Touch Calibration) Reboot the system, and the Capacitive Touch can be calibrated automatically.

OSD Panel Cannot Work Precisely

A) Please touch each single OSD button for more than two seconds in order to trigger the function.

B) Make sure the finger is not touching more than one button each time.