

# KeeTouch

# SAW Touch Screen

# User Manual

VER: 2.0

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**Please read the manual carefully before installing the touchscreen**

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# Chapter 1

## Preface

### 1.1 About KeeTouch

KeeTouch, one of the leader in touch technology, develops, manufactures and markets a complete line of touch screen and touch monitor products. KeeTouch offers the largest selection of touch screen technologies, CRT touch monitors, and LCD touch monitors and carefully designs each product for the demanding requirements of diverse applications, such as industrial, medical, POS, kiosks, retail, hospitality, transportation, office automation, and gaming.

The history of the KeeTouch can be traced back to 1997. In 1997, R&D on SAW touch screen starts as a department of Shenzhen Kingdom Enterprises, Sale of SAW touch screen products starts in 2001 in China, and founding an independent company of Shenzhen Kingdom Stock-holding Enterprises Ltd. in 2005.

KeeTouch is qualified by ISO9001 Quality System and ISO14001 Environmental Management System, our products are certificated by CE, FCC, UL, ETL and RoHS, and our management and staff are experienced and adept at quality control.

### 1.2 About this user manual

This user manual provides you detailed description of integration and installation of SAW (Surface Acoustic Wave) touchscreen hardware and software, and indicated brief trouble distinguish and solving methods.

### 1.3 Packing list

- ☆ Touch panel
- ☆ Controller
- ☆ RS232 cable or USB cable
- ☆ Dust-proof stripe
- ☆ Double-sided adhesive tape
- ☆ The driver CD

# Chapter 2

## Hardware Integration

### 2.1 Preparation

#### 2.1.1 The component and connection sketch of touch system

##### 2.1.1.1 The component of touch system

###### a) Controller:

By Work Voltage: 5V and 12V

By Interface: USB and RS232

###### b) Touchpanel: standard, bevel, water-proof, anti-glare and safe, etc.

###### c) Cable: 5V USB, 5V RS232, 12V USB and 12V RS232 cables

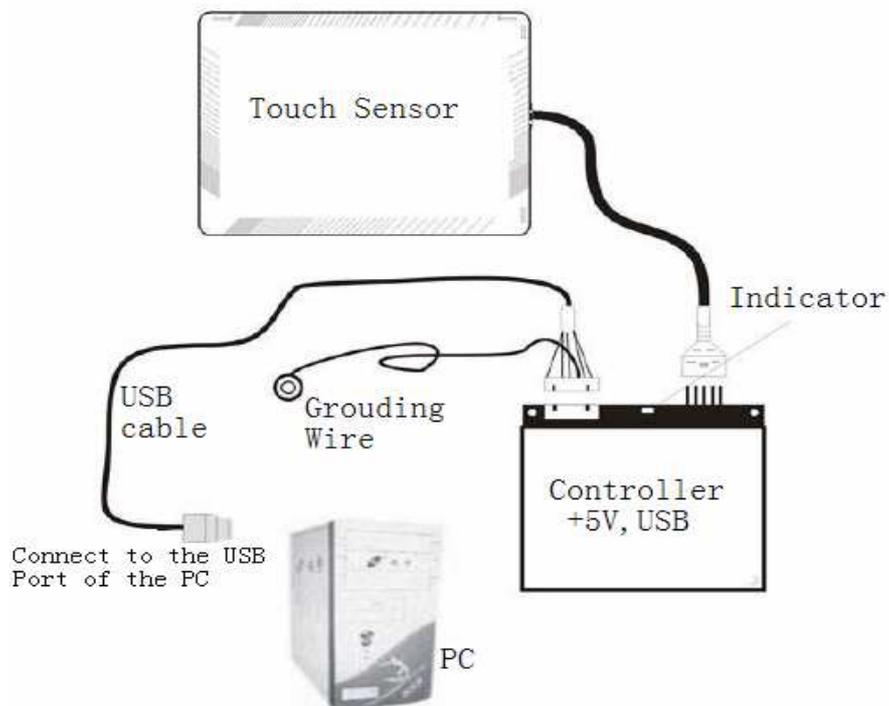
(Supplied according to the controller type)

###### d) Driver

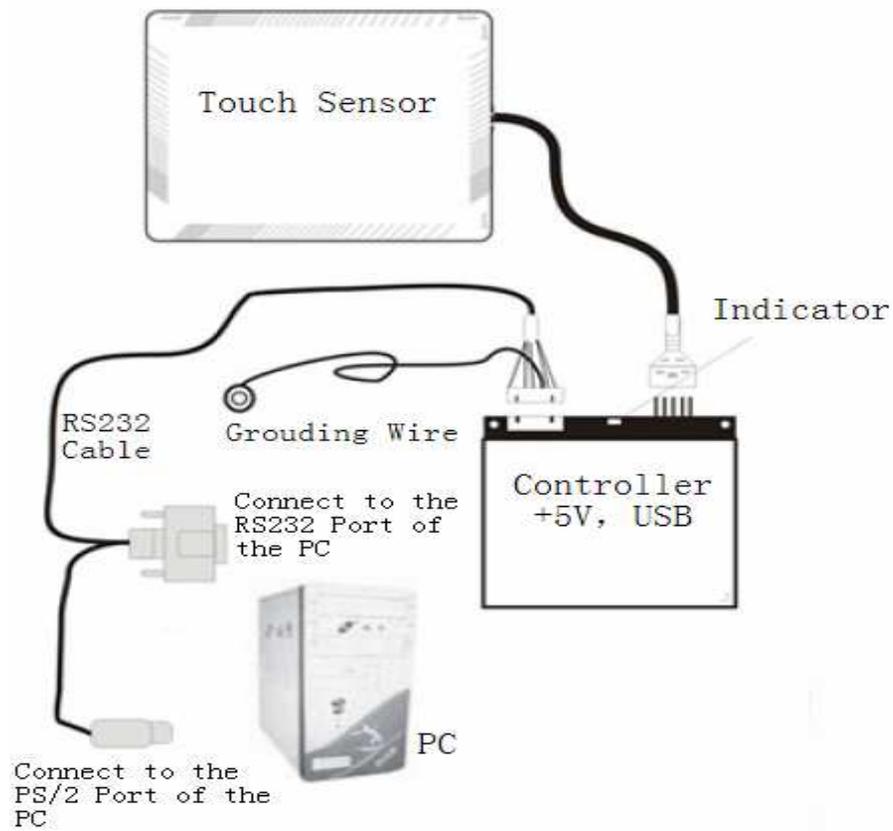
##### 2.1.1.2 The connection sketch

(Four types according to the controller's work voltage and interface)

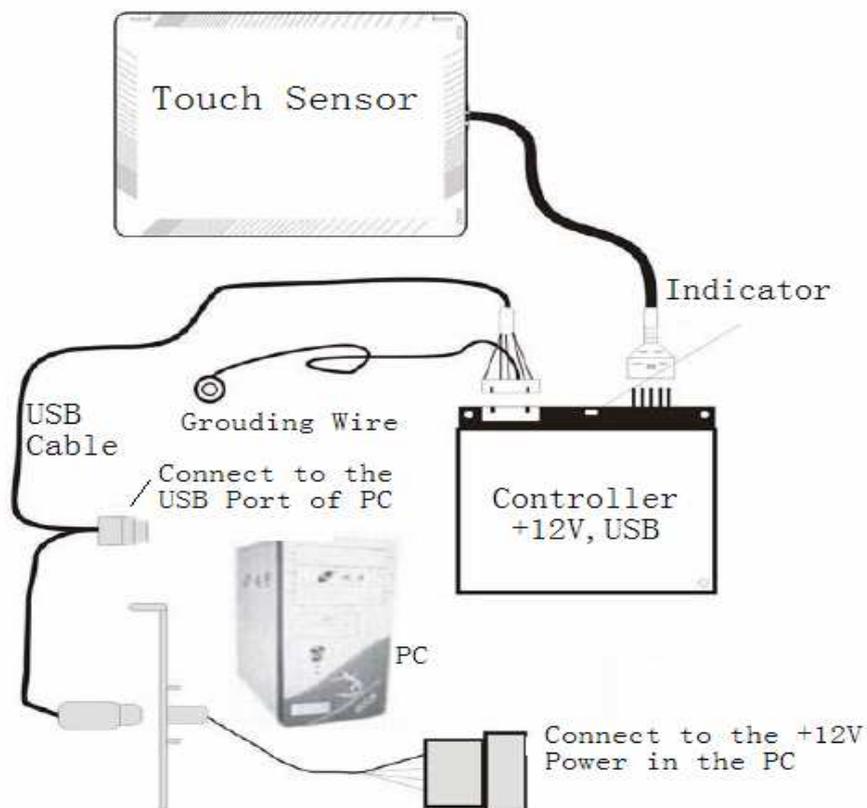
###### a) The connection sketch of 5V USB controller:



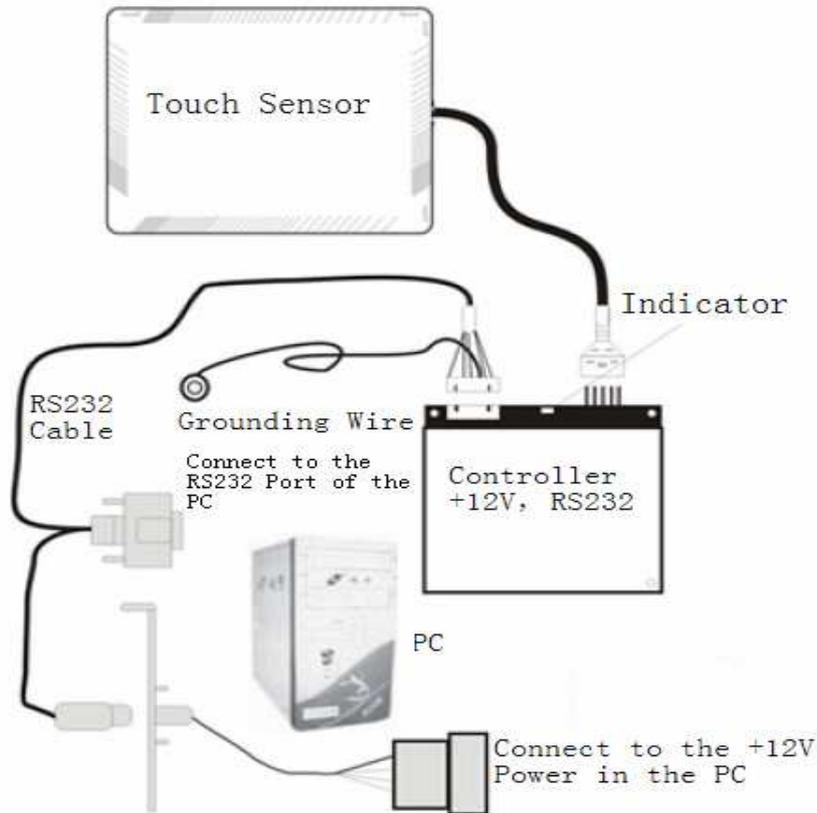
b) The connection sketch of 5V RS232 controller:



c) The connection sketch of 12V USB controller:



d) The connection sketch of 12V RS232 controller:



### 2.1.2 Check every part by packing list

- Open the box and check the every part, then see whether they are corresponding with those in the packing list.
- Check the “Rating” of the label on the controller, to see whether the work voltage and interface on the “Rating” meet your demands.
- Check the sign of packing bag of connecting cable, it must matches with controller.
- Check the touch panel, to see whether it is broken, and the signal cable breaks off.

### 2.1.3 Work area preparation

Choosing a commodious and bright working area, at least 2 square meters, you need the area to lay some components during integration; put some protective material on the working desk, such as thickness foam, to protect monitor from scratch; prepare several small containers for tiny parts like screws, gaskets, and so forth.

### 2.1.4 Testing the monitor

Running the monitor for 24 hours before disassembling to make sure whether the monitor works well.

**Note:** You also should evaluate whether the size and structure of the touch panel match with the monitor before integration.

## 2.2 Integrate the touch panel in LCD monitor

### 2.2.1 Disassembling the LCD monitor

Disassemble the monitor according to the instruction supplied by the monitor suppliers.

**Note:** put the parts into the container in type when you operate, which could avoid the trouble during integration and improve the efficiency

### 2.2.2 Integrate the touch panel

Step 1: Clean the frontispiece of LCD panel, and make sure there is no dust and other leftover.

Step 2: Glue the double-sided adhesive tape on the metal frame of the LCD panel, and make sure the viewable area of the LCD panel is surrounded with no gap.

Step 3: Clean the touchpanel

Step 4: Glue the back of the touchpanel (the side with no stripe) to the LCD panel by double-sized adhesive tape,

**Note:**

- Keep the transducer on the touchpanel from pressing because it is easy to break for pression.
- The signal cable located on the touchpanel edge should avoid cutting during integration
- It would cause the touchscreen work improperly if the double-sided adhesive tape is glued on the frontispiece (the side with stripe) of the touchpanel.

### 2.2.3 Integrate the controller

Step 1: Find out the location of the controller and the layout of cables in the LCD monitor

Step 2: Fix the controller by screw or double-sided adhesive, and try your best to make sure the controller is far away from other circuit board in the monitor.

Step3: Connect the touchpanel cable plug with the controller

Step 4: Connect the USB cable or RS232 cable with controller

Step 5: Connect the grounding wire of the USB or RS232 cable with metal part of the monitor

### 2.2.4 Re-assembling the monitor

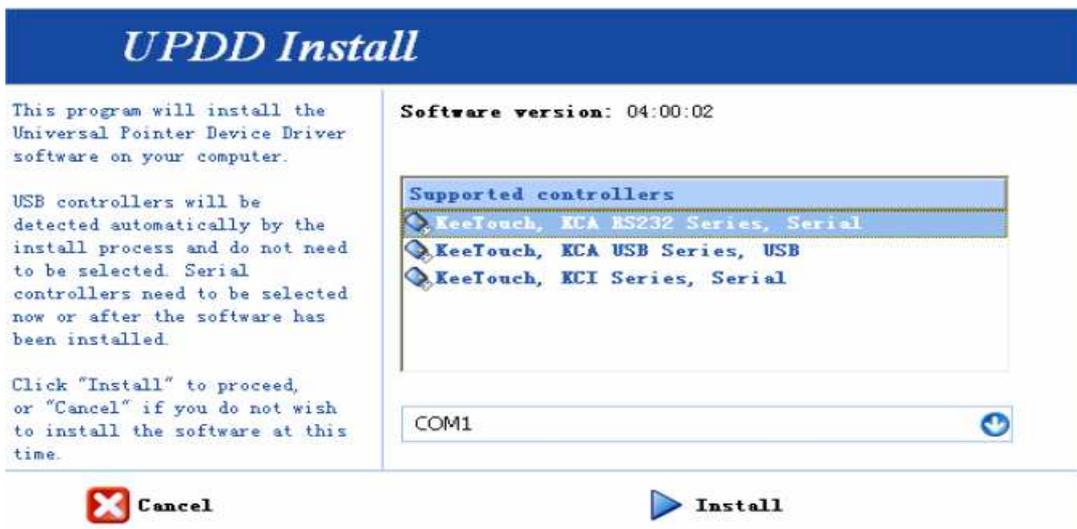
Re-assemble the monitor just needs to overturn the order of the take-down. Pay more attention to connect the cables again and check if there is any leftover in the monitor.

# Chapter 3

## Driver installation

### 3.1 Install the driver

Double click the “setup.exe” in the folder, the system will slip the dialogue box as follow:

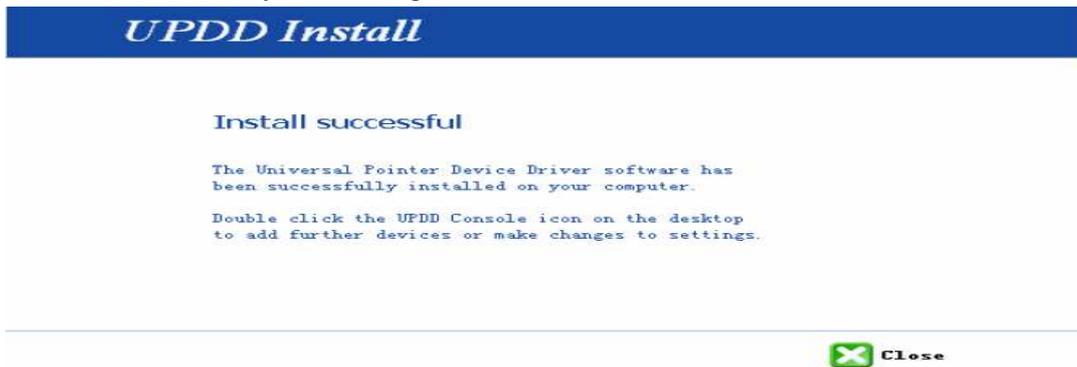


If you install the RS232 driver, please choose “KeeTouch, KCA RS232 Series ,Serial”, then choose the serial port NO in the following textfile; if you install USB driver, please choose “KeeTouch, KCA USB Series, USB”; if you install the infrarad touchscreen driver, please choose “KeeTouch, KCI series, Serial”.

Then click “install”, the system will start to install the driver automatically. As following picture:



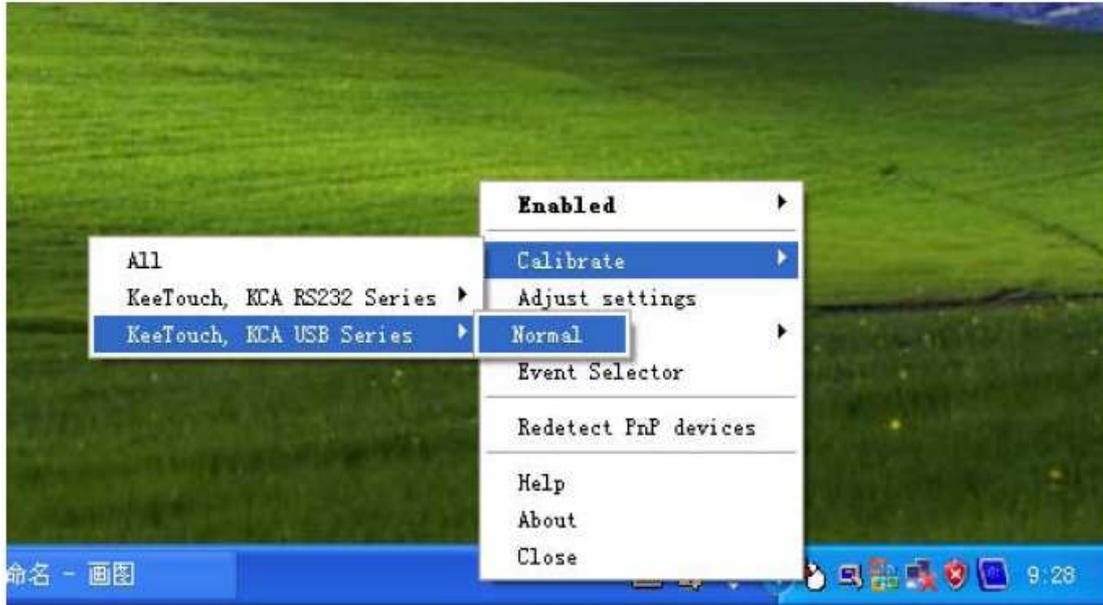
Installation successfully as following:



### 3.2 Calibration

When it is successfully to install, the screen must be adjusted before the normal touch operation.

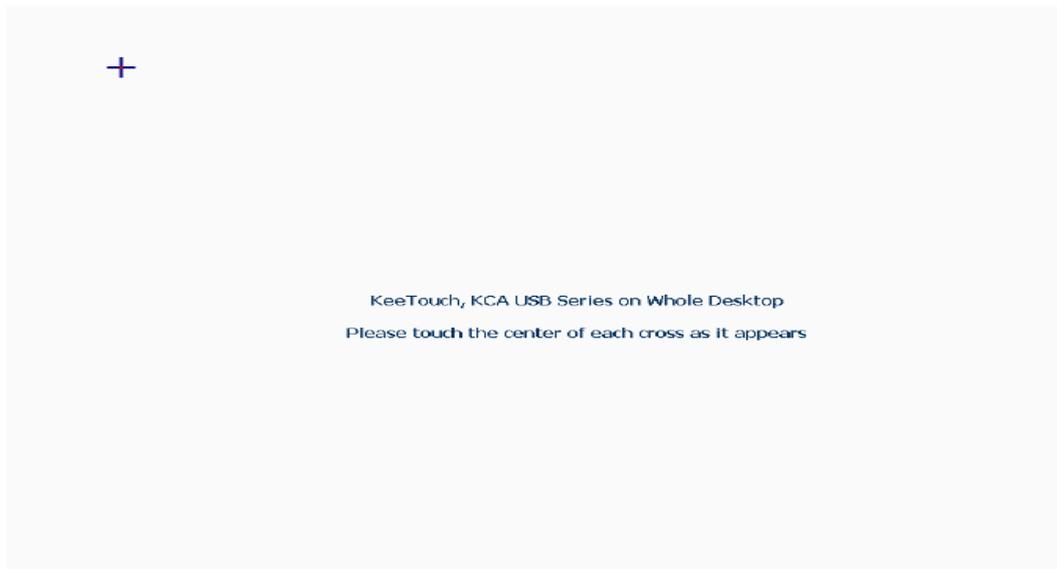
click the sign  on the lower left corner of the desktop, then choose the “Calibrate” in the stretched menu, finally, choose the driver model in its submenu. As following picture:



If you install the RS232 driver, please choose the adjusting model in the “Keetouch,KCA RS232 series”,the default is “Normal”.

If you install the USB driver ,please choose the adjusting model in the “Keetouch,KCA USB series”,the default is “Normal”

The system will pop-out the screen adjusting interface, then press the “+” on the screen with fingers one by one, as following:



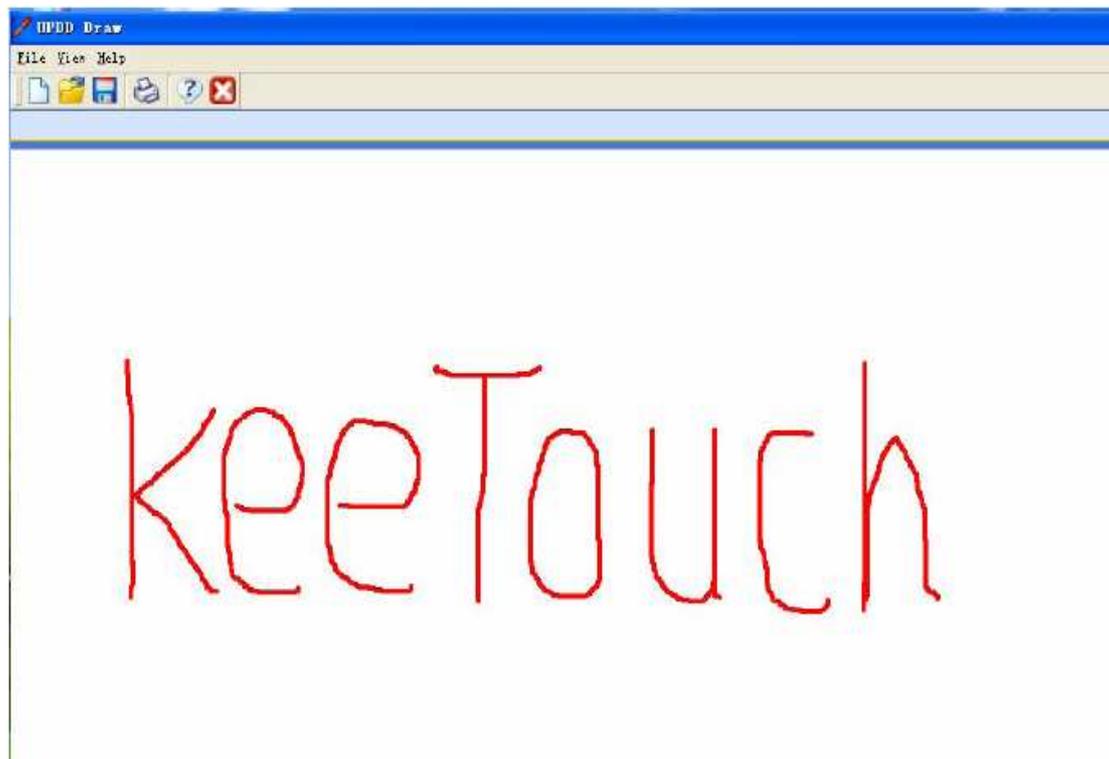
After all the  on the screen are clicked one by one, the screen adjust is finished, and it is available.

### 3.3 Testing

Click the sign  on the lower right corner of the desktop, then choose the “Test” in the stretched menu, finally, choose the driver model in its submenu. As following picture:

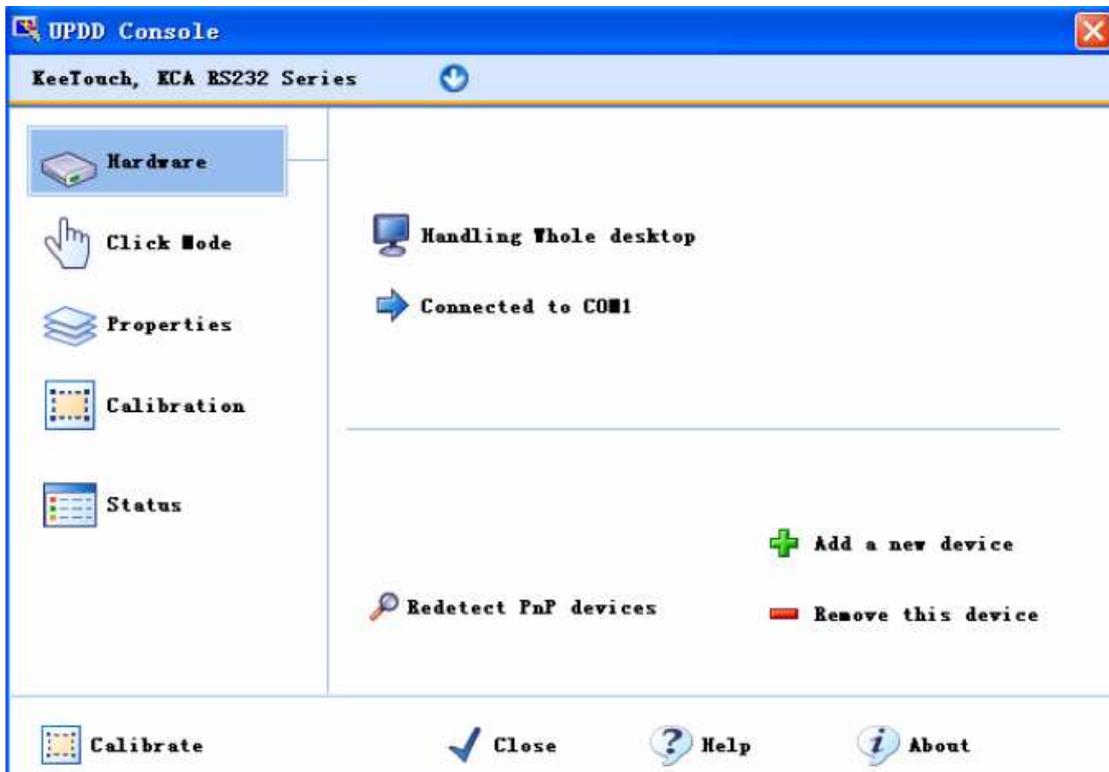
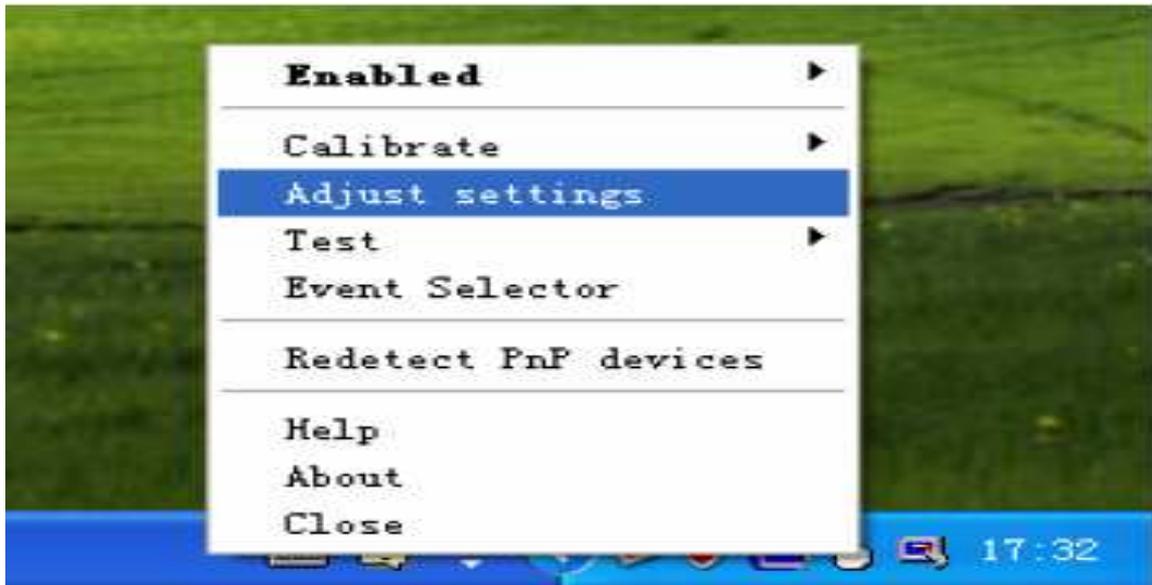


The system will stretch out the palette for testing: slip on the screen with fingers, the track of the moving mouse will be left.. you can also store the picture, as following picture:



### 3.4 Settings

Click the sign  on the lower right corner of the desktop, then choose the “Adjust settings” in the stretched menu, the setting frame will be stretched out. As following picture:



Click the  on the upper left corner, then you can choose the driver model that you want to set(RS232 or USB)

Click the  on the lower left side, then you can calibrate the screen according to the new settings.

Click the  on lower right side; you can see related information of the supplier and products.

Click the  on the lower side, you can see the help file.

The following aspects could be usually setted:

- Hardware
- Click Mode
- Properties
- Calibration
- Status

### 3.4.1 The Hardware setting.

#### 3.4.1.1 The settings of RS232

Click the "Hardware" in the setting dialogue box, then click the sign , on the upper left side, choosing "KeeTouch, KCA RS232 Series". As following picture:



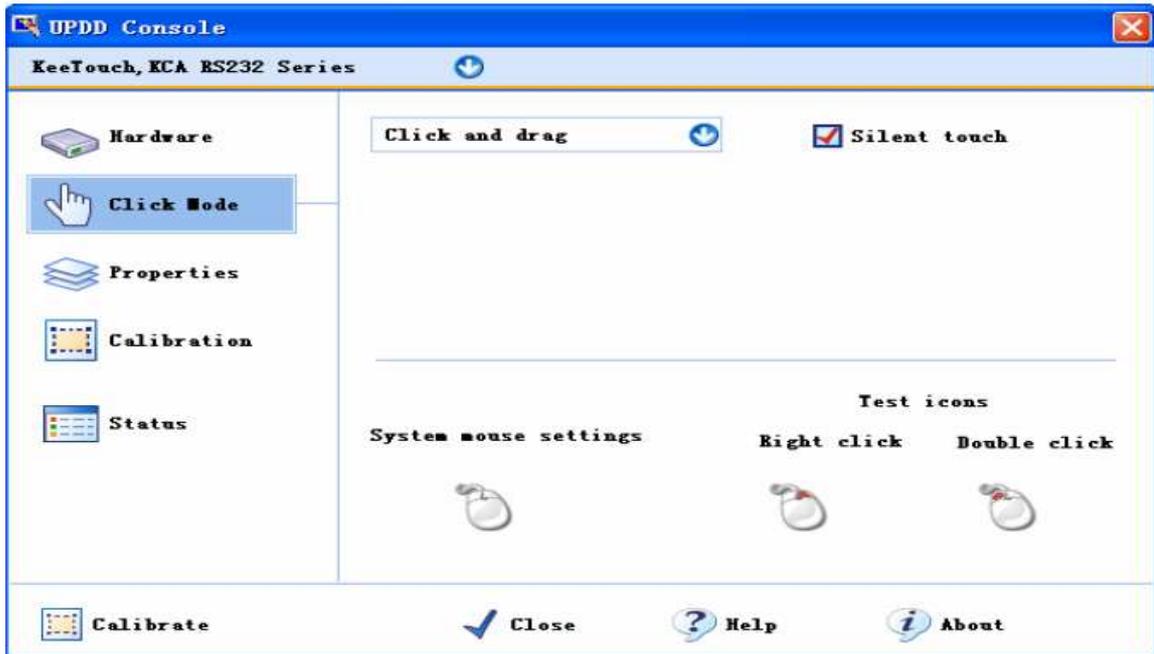
#### 3.4.1.2 The settings of USB

Press the "Hardware" in the setting dialogue box, then press the , on the upper left side, choosing "KeeTouch, KCA USB Series". As following picture:

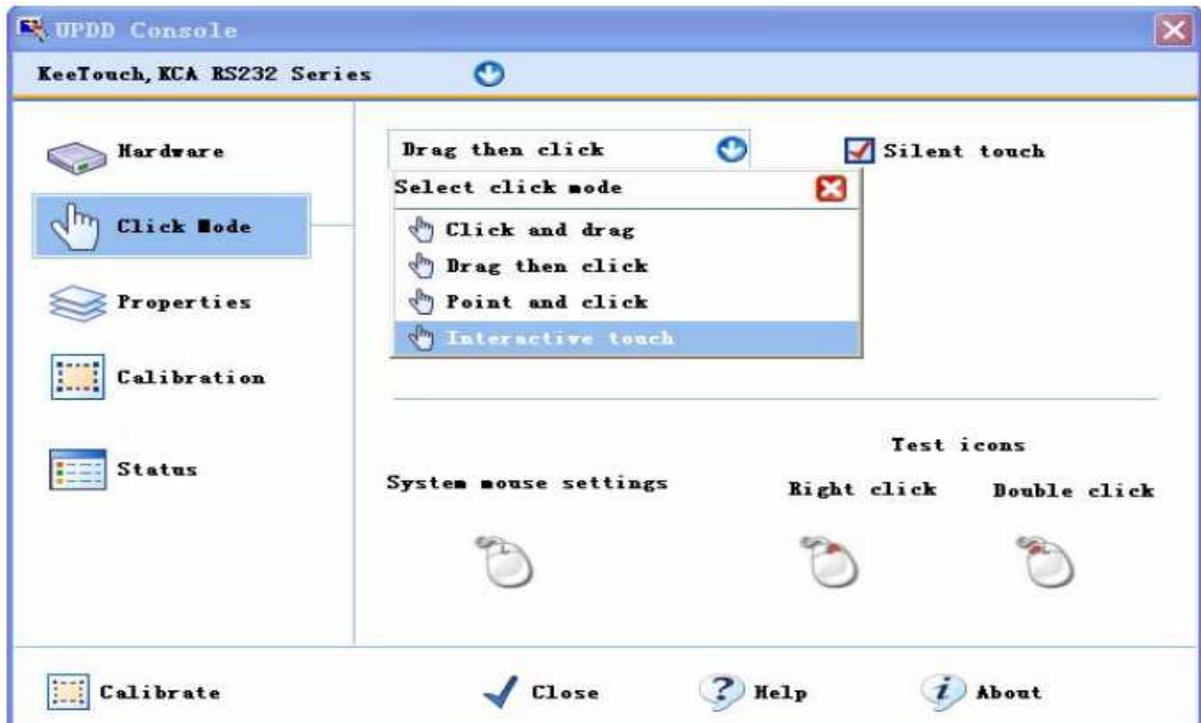


### 3.4.2 Click Model

Click the “Click Mode” in the setting dialogue box, as following picture:



Click the sign  on the left of “Silent touch” dialogue box, then the pressing model frame will appear, as following picture:



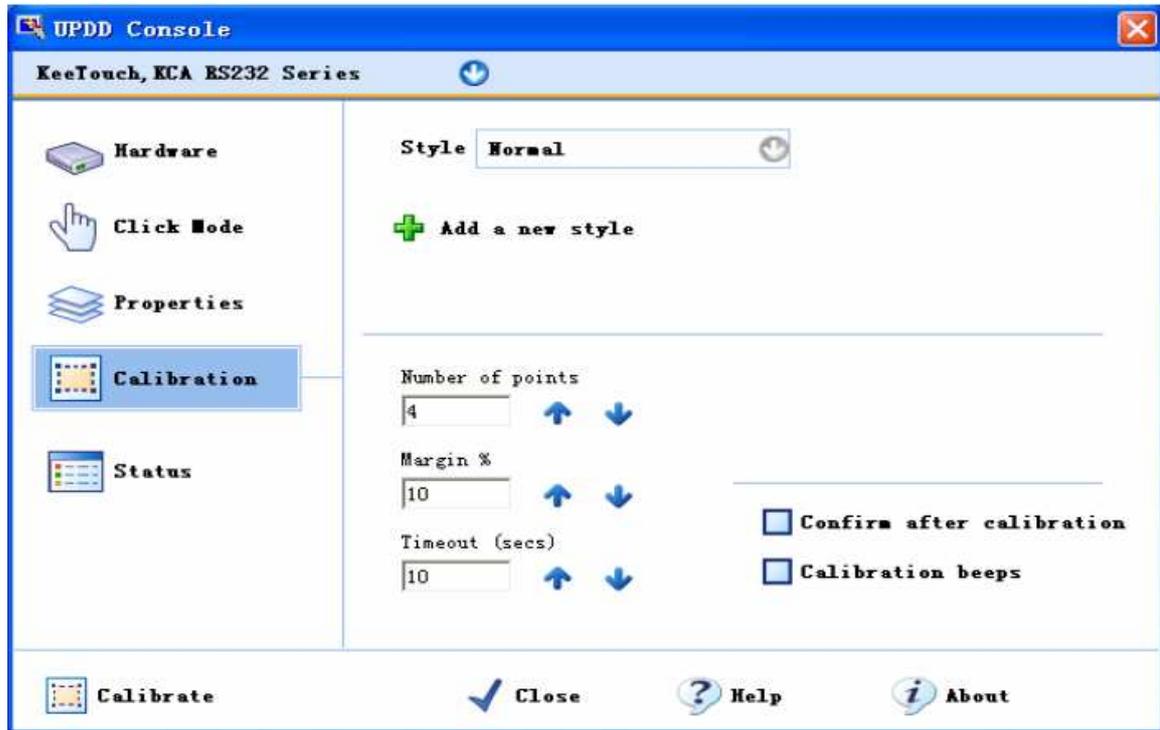
### 3.4.3 Properties settings

Click the “properties” in the setting dialogue box, as following picture:



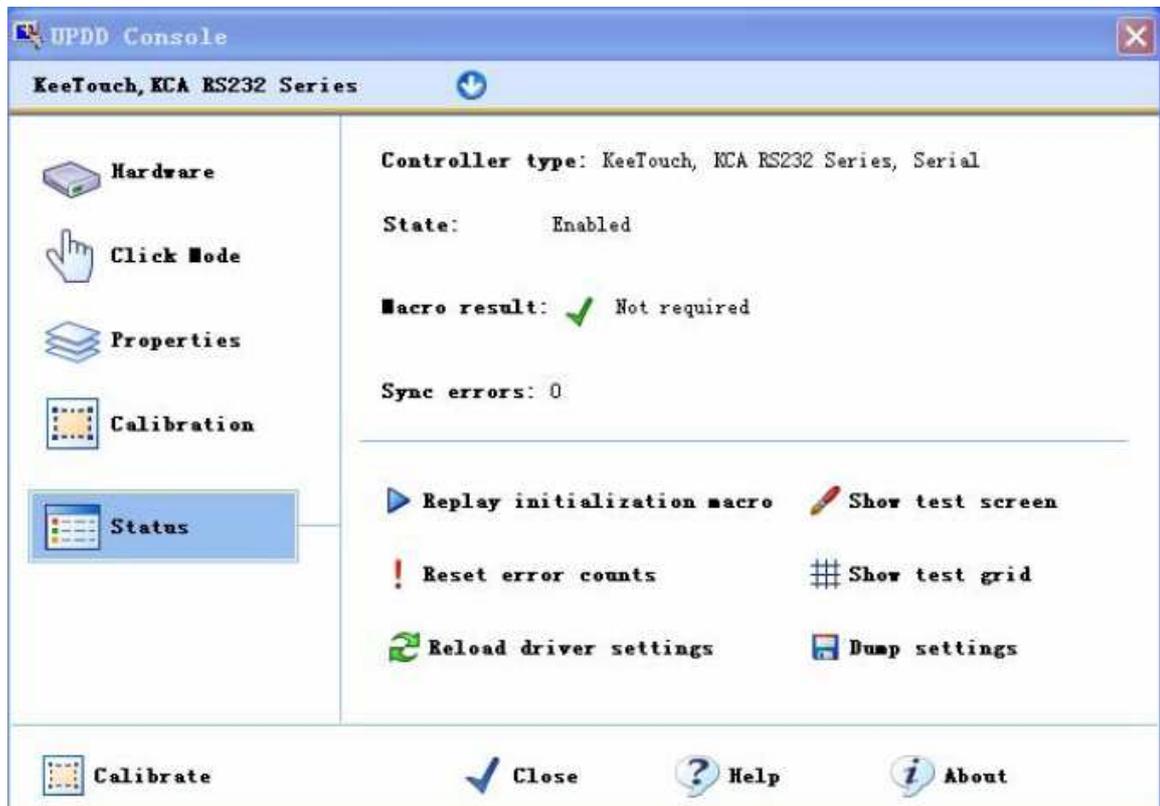
### 3.4.4 Calibration settings

Click the "Calibration" in the setting dialogue box, here you can add new setting style.



### 3.4.5 Status

Click the "Status" in the setting dialogue box, here you can see the status information.



### 3.4.6 The exchange between RS232 driver and USB driver

If you want to exchange the driver model that has already been installed, it is unnecessary to install the driver anew. you just need to connect the device anew, then press the sign  on the control panel, and change the driver model into equipment model.

**Note:** if the operation failed ,please press the "Redetect PnP devices" on the hardware setting interface and detect the device anew.



### 3.5 Uninstall

Please choose the adding/canceling programme on the control panel, then choose



,click "modify/uninstall",the uninstallation frame will

be stretched out.



# Chapter 4

## Brief trouble distinguish and solving method

### 4.1 Distinguish the trouble

Touchscreen system trouble may be caused by hardware problem or software problem. The trouble is distinguished mainly according to the status of the indicator light on the controller

### 4.2 Hardware trouble

The hardware problem may be caused by the touchpanel, controller, cables and power supply, the following are normal status of the indicator light

- ✓ Connect controller with power supply, the indicator light flashes 7 times at the frequency of once every second with nonstop
- ✓ After 7 times flash, the indicator is off after keeping light for 6seconds(the process for the controller to test the touchpanel)
- ✓ Then it flashes at the frequency of once every two seconds, at the moment, the controller starts to work normally
- ✓ In the normal work status, when you touch the screen, the indicator light flashes as the touch of finger

If there is some trouble, the status of the controller indicator light as follows:

<b>Failure Phenomena</b>	<b>Potential Reasons</b>	<b>Solutions</b>
Indicator light always keeps on, but no reflect when touch	The touchpanel and the controller failed to connect	Check the connecting cable
	The touchpanel is damaged	Replace the touchpanel
	The controller is damaged	Replace the controller
The indicator light always keeps off, and no reflect when touch	The controller didn't connect with power supply	Check the cable connection, connect the power supply cable
	The supplied voltage is unstable	Adopt the stable voltage
	The touchpanel and the controller failed to connect	Check the cables
	The controller is damaged	Replace the controller
The touch is not exact	The coordinate is not adjusted	Calibrate anew
	The touchpanel is not cleaned for a long time	Dispart the equipment and clean the touchpanel

The cursor jumps but no touch	The controller or touchpanel is disturbed by the monitor	Keep the controller far away the inverter and AD board
When touch, the cursor jumps at random and the indicator light flashes at random	Some part of the touchscreen or controller is unavailable	Replace the touchpanel or controller

### 4.3 Software Trouble

The software problems could be found by hardware test, if we can judge that the hardware can transfer touch coordinate according to 4.2 and the indicator light is normal, then it is the problem of driver or software.

**Solutions: uninstall the driver, then install a new or you can download the latest version of the driver from our website.**

**Note: If it is RS232 controller, please pay attention that the choice of the COM1, COM2 must match with hardware when you install the driver.**

### 4.4 The problem of Calibration

When you install the hardware and software, and make sure they are available. if the touch is not exact, the following reasons may be the reasons:

- ✧ Exchange the resolution settings
- ✧ Replace the monitor
- ✧ Replace the touchpanel or controller
- ✧ After cleaning the touchpanel

**Solutions: Calibrate a new**