

KeeTouch

SAW Touchscreen

User Manual

VER: 2.2

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Please read the manual carefully before installing the touchscreen

KeeTouch Co., Ltd.

www.keetouch.com

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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. You can also visit our website: www.keetouch.com for the latest information or contact your supplier.

1.3 Packing list

- ☆Touchpanel
- ☆Controller
- ☆RS232 cable or USB cable
- ☆Dust-proof stripe
- ☆Double-sided adhesive tape
- ☆The driver C

Chapter 2 Hardware Integration

2.1 Preparation

2.1.1 The component and connection sketch of touch system

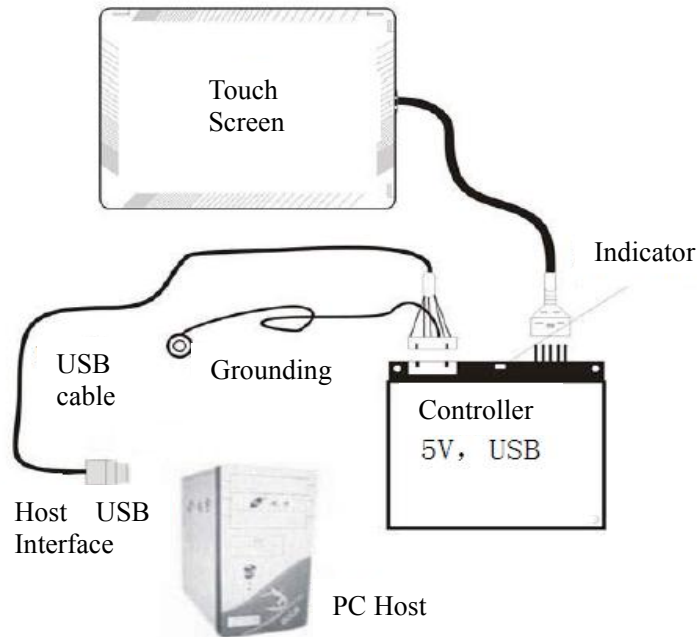
2.1.1.1 The component of touch system

- 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

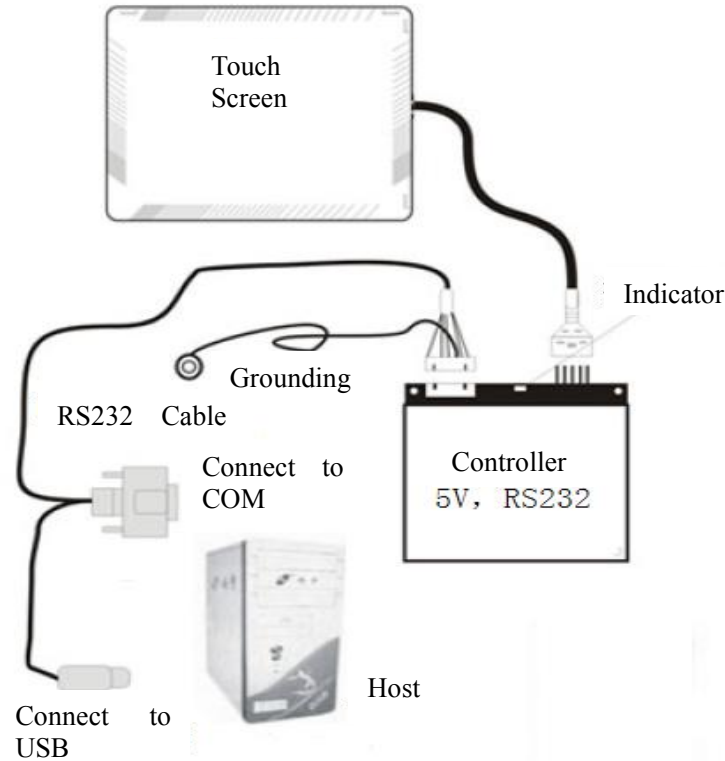
2.1.1.2 The connection sketch

(Two 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:



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 unproperly 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 touch panel 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

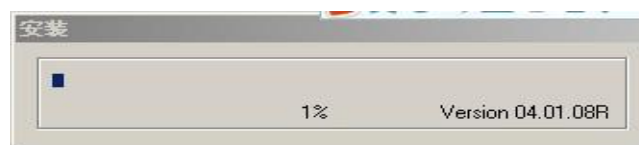
3.1 Install the driver under windows

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 text file; if you install USB driver, please choose “KeeTouch, KCA USB Series, USB”; if you install the infrared touch screen 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:



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” ,when the USB be Connectioned,The fonts(Keetouch,KCA USB series) from red to black




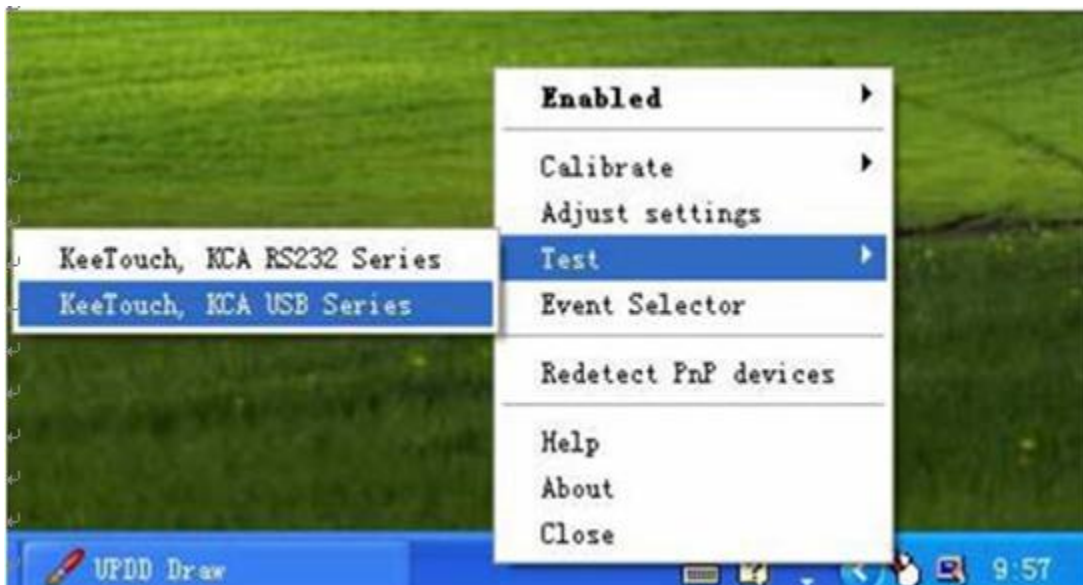


The system will pop-out the screen adjusting interface, then press the "+" on the screen with fingers one by one, as following:

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

3.1.1 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:



3.2 Install the driver under Linux

Important:

- a.) Must have administrator access rights on the Linux machine to install or uninstall the KeeTouch Linux Driver.
- b.) Ensure all earlier KeeTouch Linux drivers are uninstalled from the system.
- c.) Note: If after install drive have a error like “cannot restore segment prot af reloc: Permission denied”, please use “chcon” or disable SELinux.

3.2.1 . Installing the KeeTouch Linux Driver

First enter the terminal, use the following command:

e.g. `sudo -s -H` or `sudo -i`.

Access to the system root directory, then enter the password to obtain administrator privileges;

Step 1:

Copy the KeeTouch Linux driver files from the Driver CD to the computer .

e.g.:

```
mkdir /linuxupdd  
cp ./linuxupdd.tgz /linuxupdd
```

Step 2:

Use “tar” to extract the driver file.

e.g.:

```
cd /linuxupdd  
tar zxvf linuxupdd.tgz
```

Step 3:

Run “setup” script to install.

e.g.:

```
./setup
```

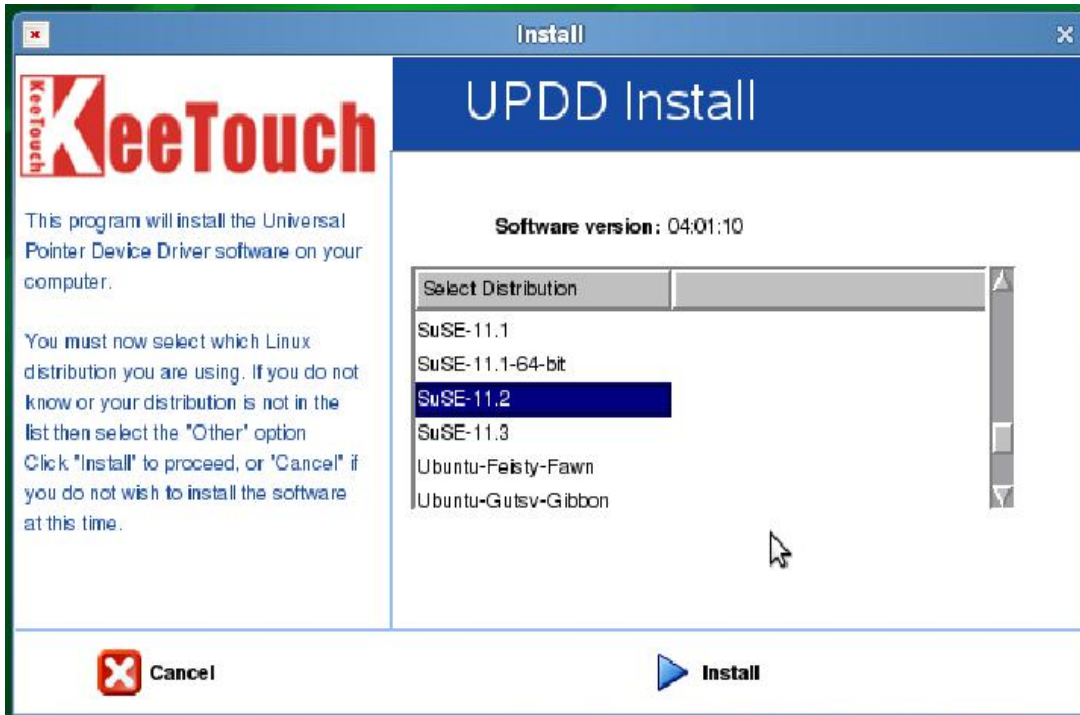
Step 4:

Select the type of controller to install driver, then click “Next” to proceed, or “Cancel” if you do not wish to install the software at this time. (RS232: KeeTouch,RS232 Series,Serial USB:KeeTouch,USB Series,USB)

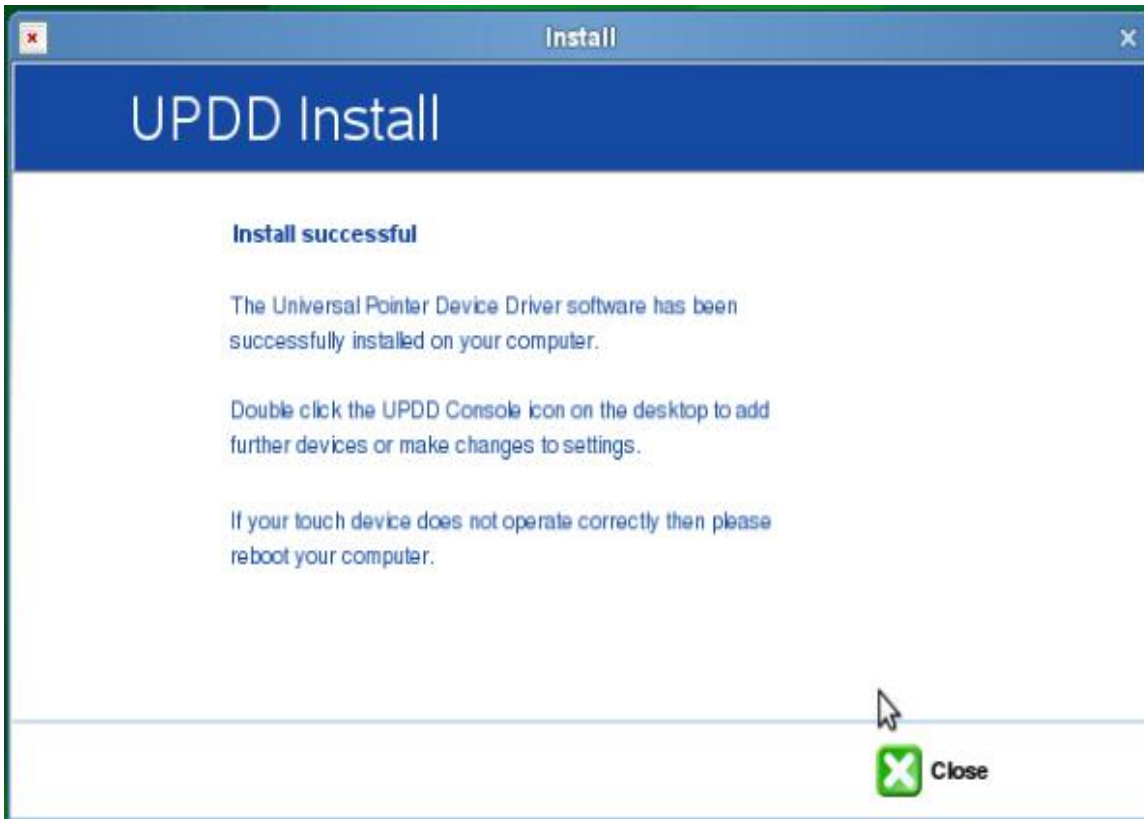


Step 5:

Select which Linux distribution you are using, then click “Install” to proceed, or “Cancel” if you do not wish to install the software at this time.

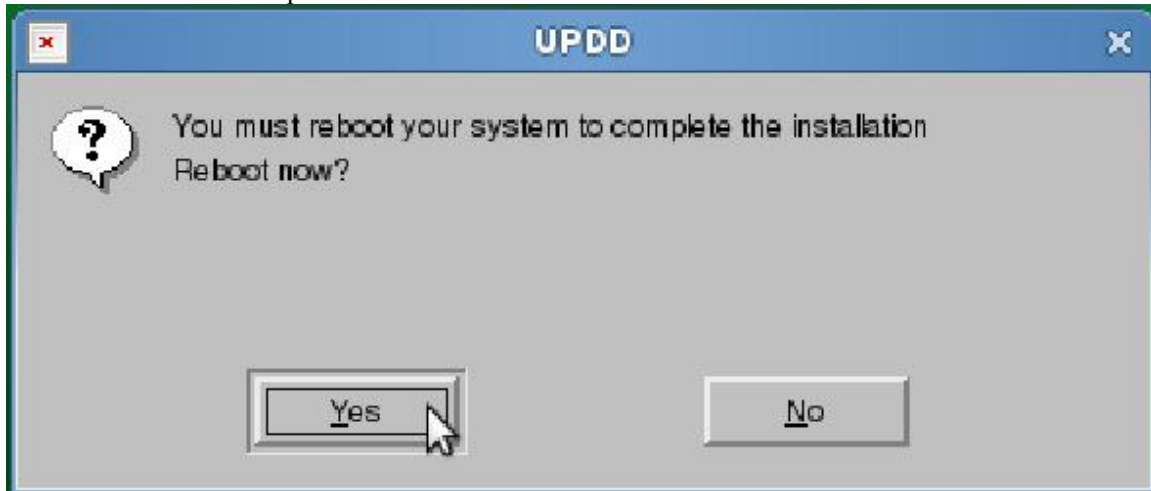


Step 6:
Install successful. Click "Close" to exit this program.



Step 7:

Please restart your computer to complete the installation. Click “Yes” to restart computer now ,or click “No” to restart computer later.

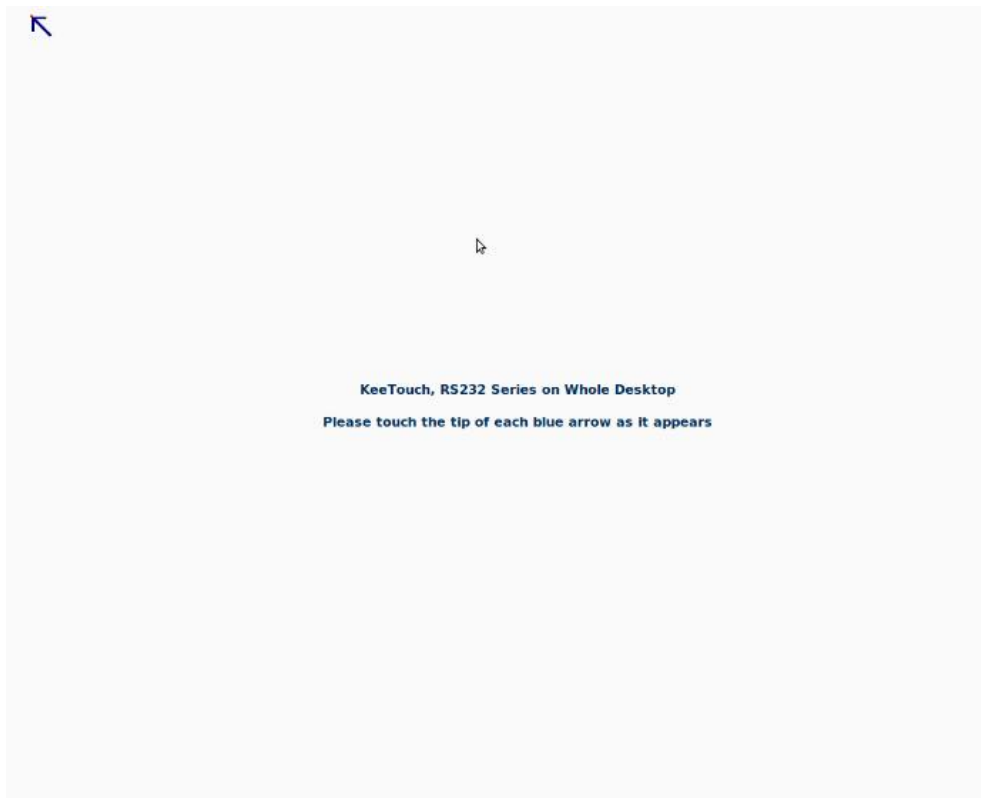
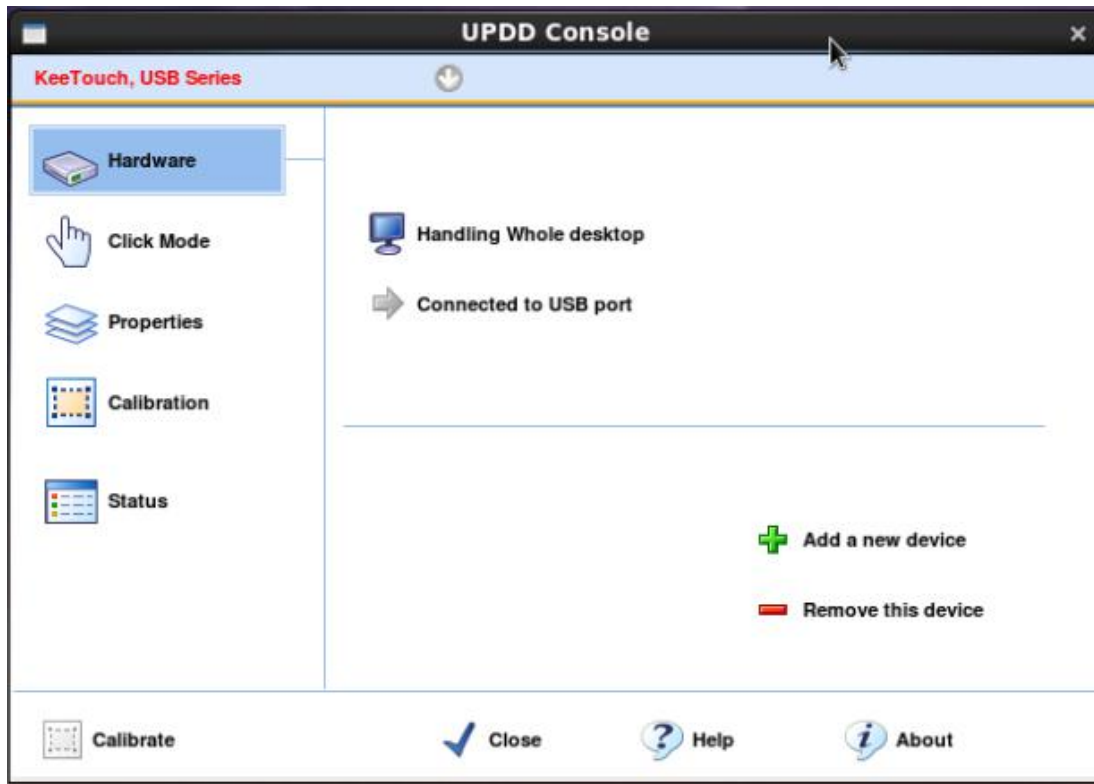


3.2.2 Calibration


When after restart , Run the terminal again 。 Into/opt/tbupddl/ Folder run./updd console, as following picture, or Double click UPDD Calibrate icon on the desktop to Calibrate the KeeTouch touchscreen.

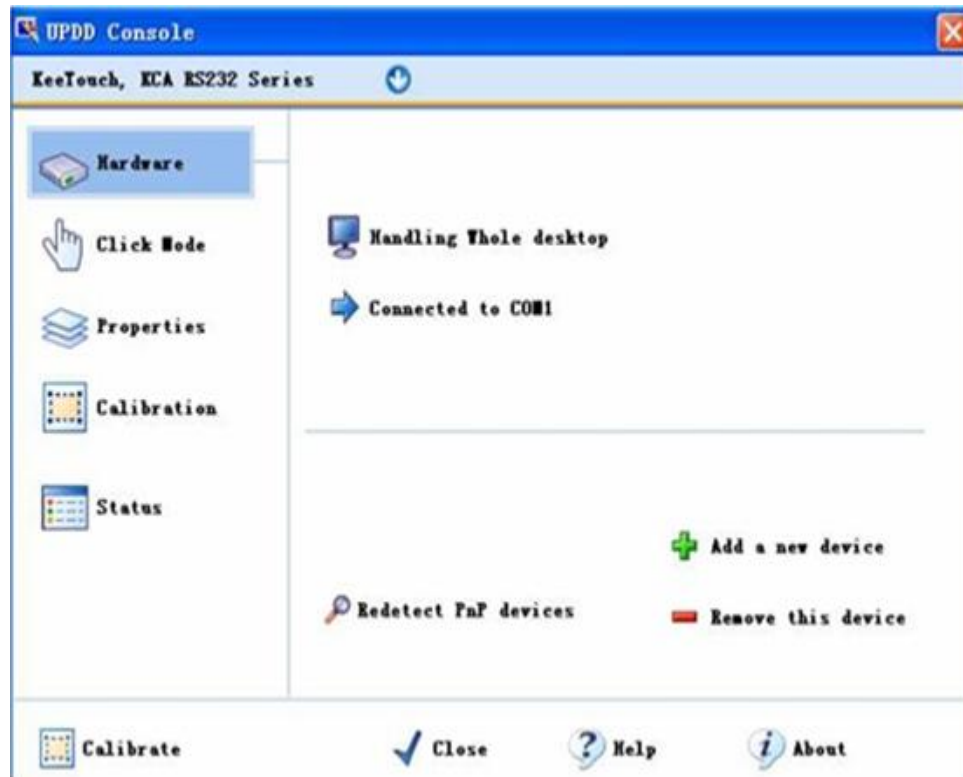


You can double click the UPDD Console icon on the desktop to add further devices or make changes to settings.

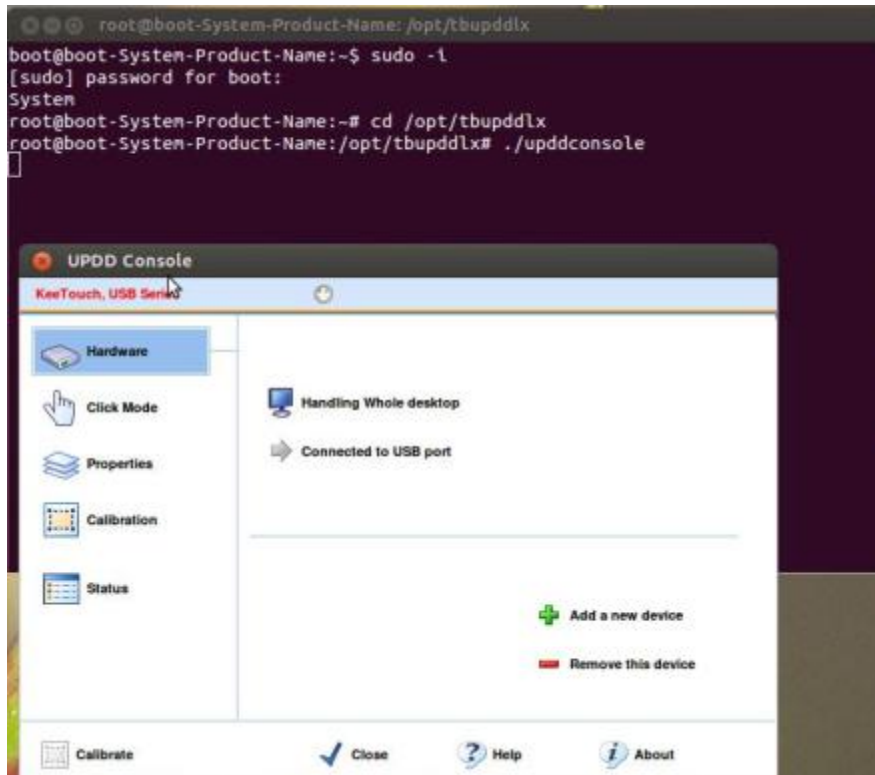



3.3 Settings


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 .




The following picture show how to into the settings under Linux



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

Click the  on the lower right side, then you can get the information of version.


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

The following aspects could be usullly setted:

- Hardware
- Click Mode
- Properties
- Calibration
- Status


3.4 The Hardware setting

3.4.1 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:



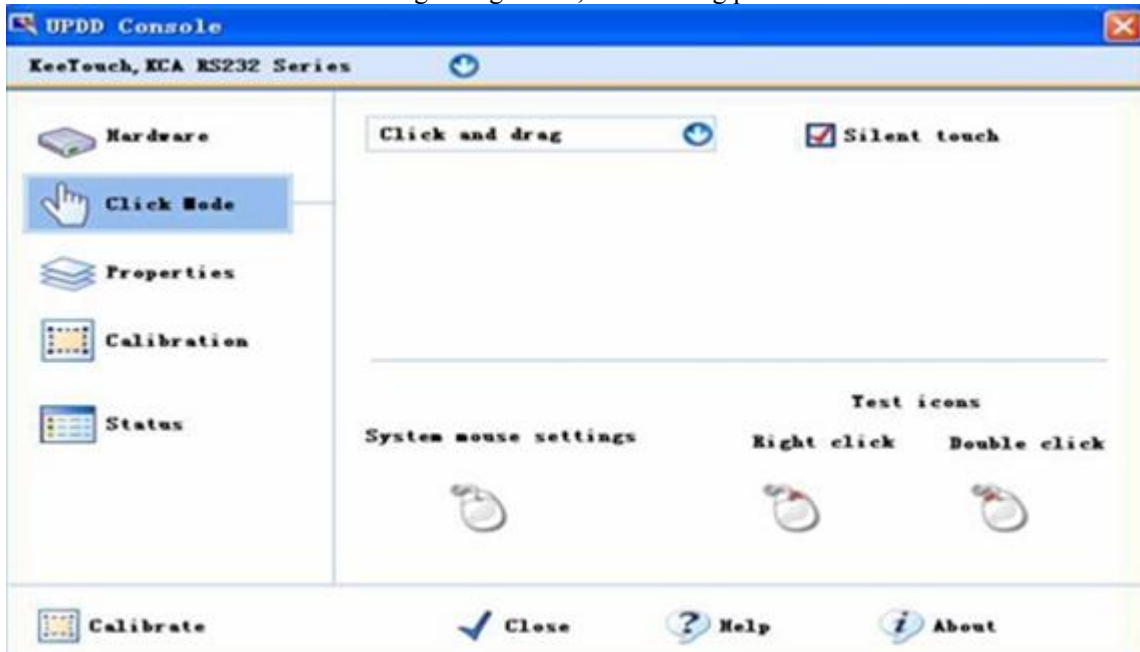
3.4.2 The settings of USB


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

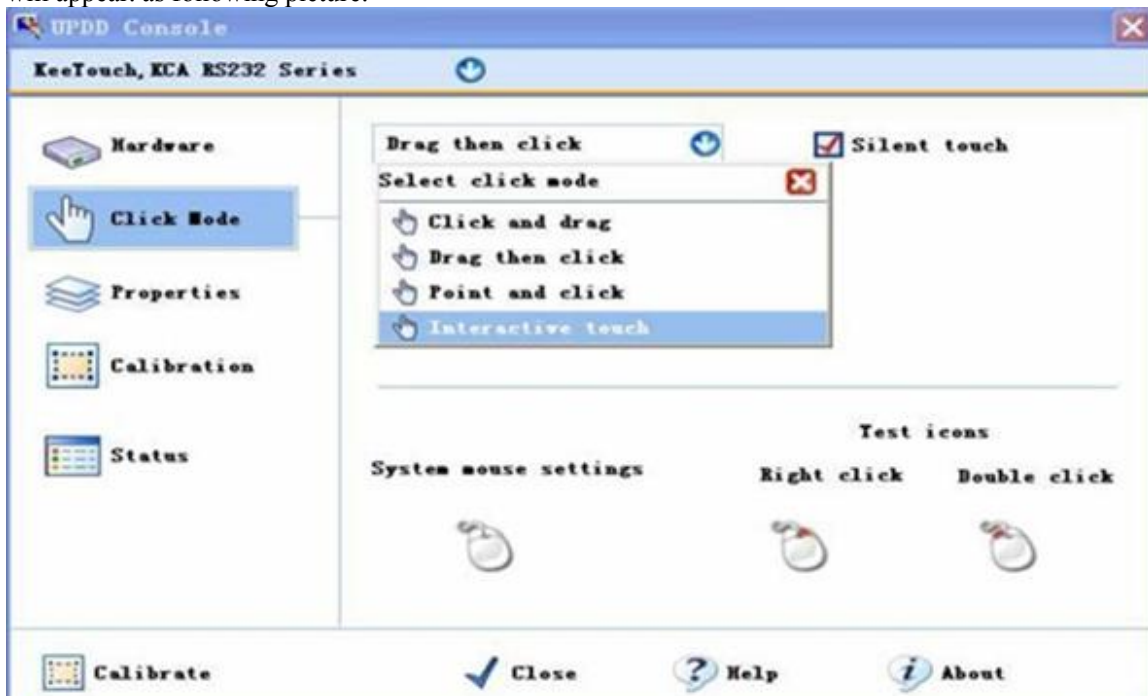


3.4.3 Click Model

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:



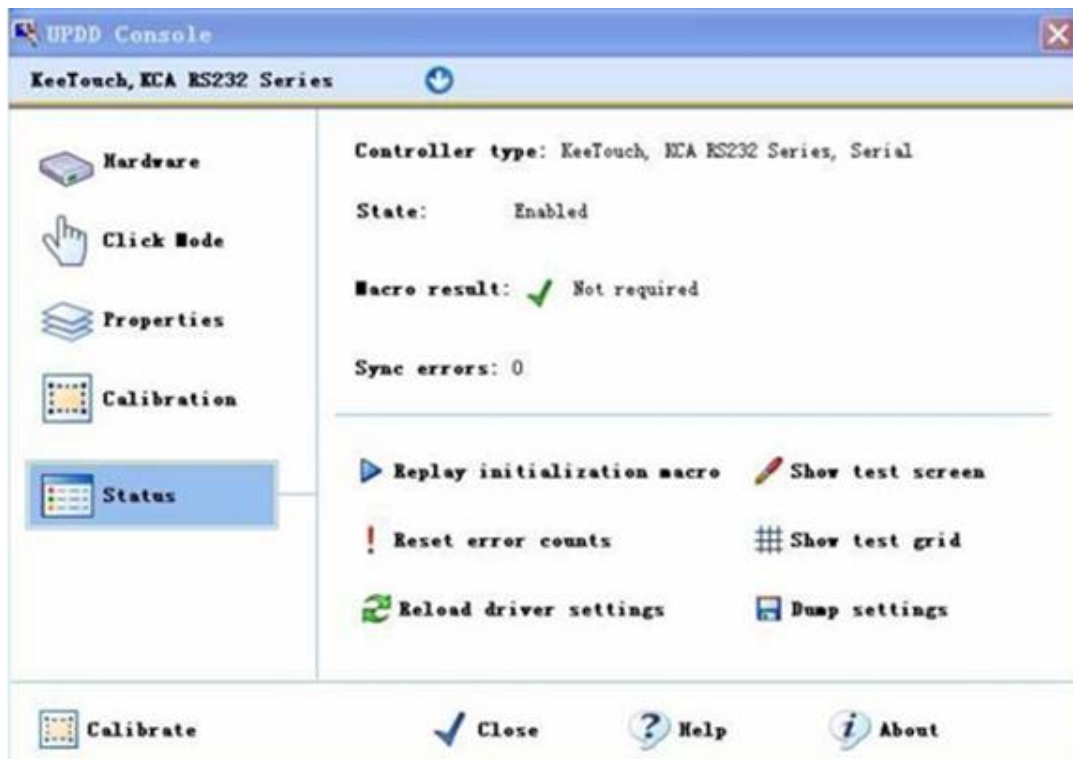
3.4.4 Properties settings

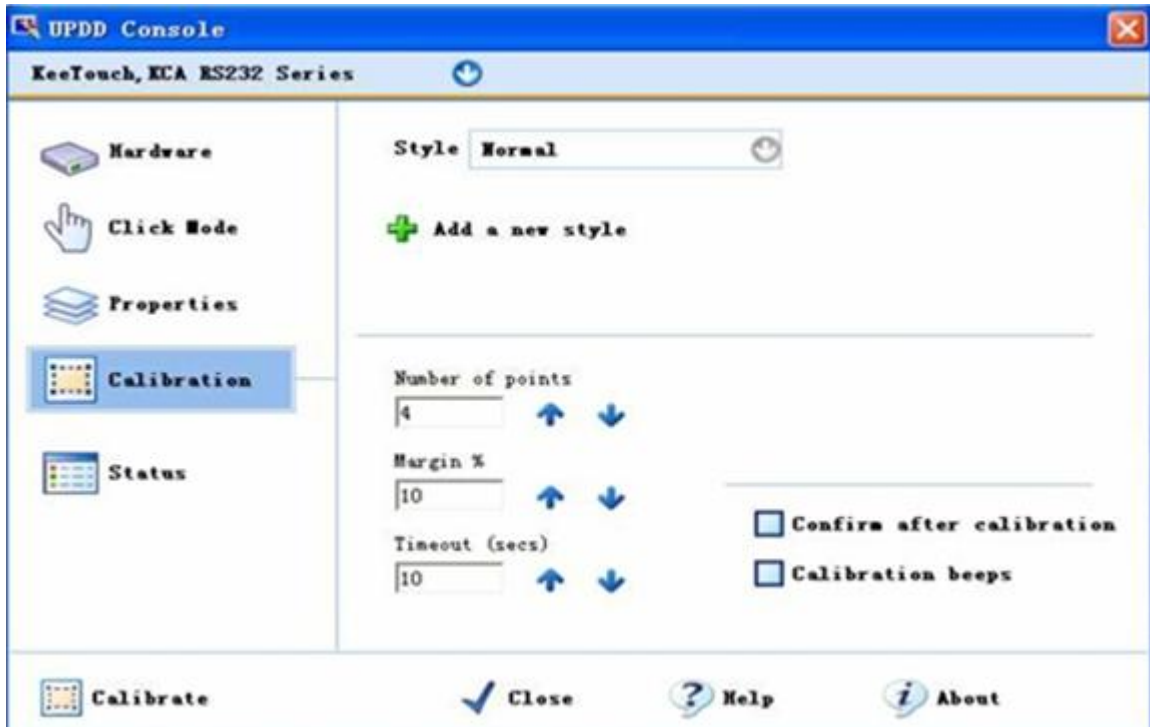
Click the “properties” in the setting dialogue box, as following picture:



3.4.5 Calibration settings

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






3.4.6 Status

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

3.4.7 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.

3.5 Uninstall

3.5.1 Uninstall the diver under windows

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



click "modify/uninstall", the uninstallation frame will be stretched out.



3.5.2 Uninstall the diver under Linux

Step 1:

Enter “/opt/tbupddl” directory.

e.g.:

```
cd /opt/tbupddl
```

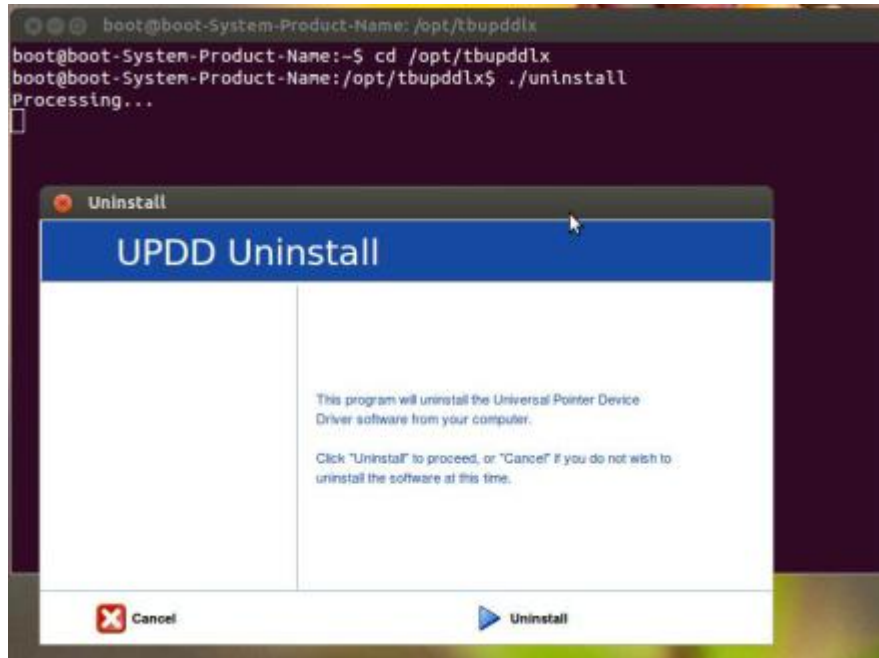
Step 2:

Run “uninstall” script to uninstall.

e.g.:

```
./uninstall
```

Click “Uninstall” to uninstall proceed, or “Cancel” if you do not wish to uninstall the software at this time.



Chapter 4 Brief trouble distinguish and solving method

4.1 Distinguish the trouble

Touchscreen system trouble may 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 cause 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 follow:

Failure Phenomena	Potential Reasons	Solutions
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
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 anew. or you can download the latest version of driver from our website.

Note: If it is RS232 controller, please pay attention that the choice of the COM1,COM2 must be matched 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 anew

Chapter 5 How to contact us

Please be free to contact us at any time. Our contact details:

KeeTouch Co., Ltd.

Add.: 1-4th Floor, Building 9 Luck-King Science & Industry Park
Gongyedong Road, Longhua Baoan, Shenzhen 518109, P.R.China

Tel: +86-755-82599797
+86-755-82599622

Fax: +86-755-82599968

Sales: sales@keetouch.com

Technical support: support@keetouch.com