

Fingerprint Machine Hardware User Manual

Version: 1.1

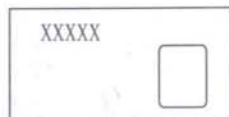
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Introduction

This manual is to teach user how to use fingerprint machine T6. T6 has icons in its display. It helps the easiness of using the menu.

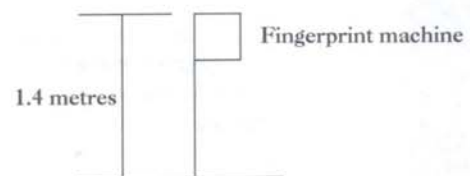
In the front of the device, there is a logo.



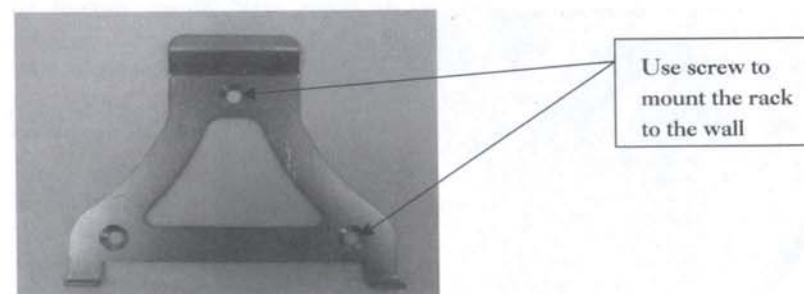
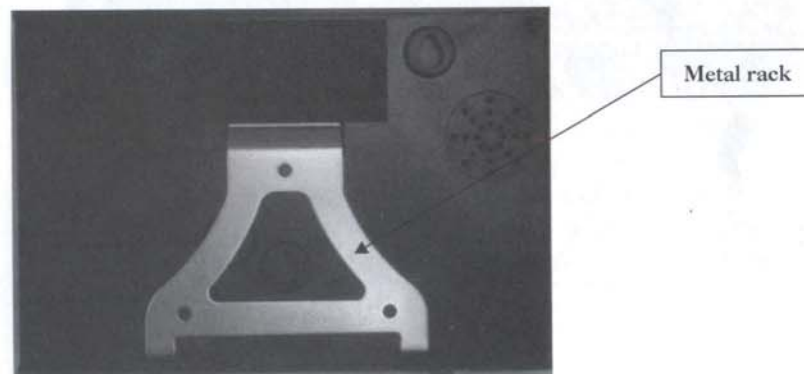
Installation

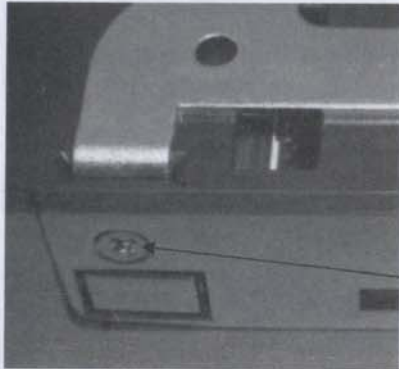
We used to install T6 in the wall. It is because it can avoid strong light shining on the fingerprint optical sensor. It will seriously affect the recognition ability of the fingerprint device.

Normally, we will mount the device to the wall in about 1.4 metres high.



The back of the fingerprint device has a metal rack which can be used to mount the fingerprint device to the wall.





Screw for fixing the rack to the device

Connections



Power

Connect to computer through USB cable

Startup Screen



Date and Time

Menu Structure

The menu structure of T6 is as follows

1. Enroll
 - user enroll(new enroll,backup enroll)
 - manager enroll(sup manager,log manager)
2. Delete
3. Time set date and time
4. Log View (glog, slog)
5. USB Disk
 - Glog down, slog down,unserinfo down,
 - Userinfo, up, F/W upgrade
6. Settings
 - 6.1 Terminal mach id, language,managers,LCD contrast,voice out, power key, sleep, auto off,sensor adjust
 - 6.2. Attendance Attend. Set,Attendance TZ,Bell Time,Reverify No,Glog Wrn,Slog Wrn, Delete All log
 - 6.3 Information User,Manager,Finger,Password,Card,Glog,Slog, Communication,Manufacture,Soft Version
 - 6.4 Self Test
 - 6.5 Set Default

Enrollment

Menu enroll is used to do the enrollment of user. You will find that just one minute can finish the enrollment of fingerprint, password or proximity card (optional). In enrollment, you need to input a user id before recognizing fingerprint. The user ID is a key for identifying a user. You need to mark down the user ID and input back to the corresponding attendance software for matching the fingerprint in both the device and software system.

1. User Enroll

It is to enroll a normal user to the fingerprint device. You can choose new enroll or backup enroll. New enroll is the first time for a user to enroll fingerprint/card/pin. The backup enroll is for an existing user to enroll second or third fingerprint or pin or card. Normally, a user enrolls three fingerprints for contingency plan. When one fingerprint cannot be recognized, it can turn to another fingerprint.

2. Manager Enroll

In the device, we can set special user which have administration right for changing the configuration of the device. In this model, we have 1 administration grade of users. Manager is the highest graded user. It can change all,configuration of the device. When a manager has been defined, you need this manager,

fingerprint/card/pin for accessing the menu.

Log manager is only for downloading general log data (punch transaction record) by usb flash disk and inquiry of log information. It cannot access the other menu items. The role of log manager is mainly for manipulation of punch transactions.

If the device does not have super manager while it has log manager, the role of log manager will be equal to the super manager. On the other hand, if there are no super manager and no log manager, you can access the menu without any control.

Delete Enrollment

This menu item is delete enroll information. The device will ask for the deletion of user ID first.

| | |
|----------|-------|
| Delete | |
| ID 00001 | |
| Esc | Enter |

Change the user ID to the deleted one and press <ok> to accept the user ID.

After that, you are asked to confirm again the delete action.

| | |
|-------------|-------|
| Delete | |
| ID 00001-0 | |
| Sure Delete | |
| Esc | Enter |

The zero beside the user ID is to show you the fingerprint number. 0 means the first fingerprint, 1 means the second fingerprint and 2 means the third fingerprint. If it shows "P", it means the password of the user. And, if it shows "C", it means the card number of the user.

Time Set

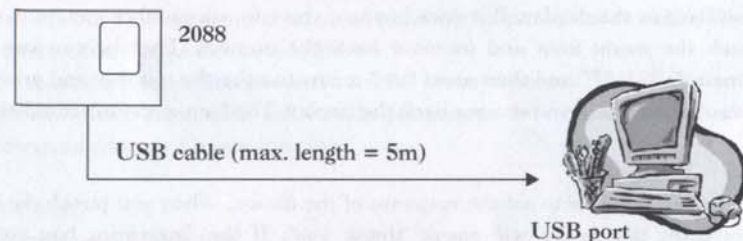
Time set is used to set the device and time of the device. After a period of time, the device time may be varied from the actual time. Using this menu item can correct the time. The attendance software will synchronize the time of the device when you download data. It guarantees the accuracy of each device when there are many devices in a network.

Log View

The log information is to check the transaction record and supervisor log of action in the device. GLOG means general log. It is the punch transaction in the device. SLOG is the log of changing the menu item by supervisor or normal user. For example, if an administrator changes the device language from English to Chinese, the SLOG count will be incremented by one.

USB Disk

This item allows you to download both enroll and transaction records into USB disk. For transaction record, the USB disk will be taken to computer for importing to the system.



Settings

The setting is divided into terminal, attendance, Information, Self Test, Set Default.

1. Terminal Setting

1.1 Machine ID

In terminal setting, you can set the device ID of the machine. If you have more than one device in your network, you need to have unique device ID. If three devices in a network, we need to set those device ID to 1,2 and 3 differently.

The identify mode has combination of "or" or "and". For "or" combination, it means either one identify mode can be accepted. For "and" combination, it means the identify mode must be both passed for successful punch.

3 options can be selected.

They are Fp/pwd/card (optional). The first option allow user to use either one of the identify mode (fingerprint, password, card) to do the punch. The stroke "/" in between represents "or" combination.

1.2 Language

You can also set the language of the device. The default language allowed are English, Traditional Chinese and Simplified Chinese. Customer can request for making another language such as Thailand or Spanish.

1.3 Managers

The default manager that you can set is 5. It means that you can set 5 managers. When you press 'menu', a manager fingerprint/pin/card need to confirm the access of menu first. If you increase the number, more managers can be allowed.

1.4 LCD Contrast

This menu item is to set the LCD display contrast. The smaller number will cause the LCD display to be dim. If you set it to 1, you almost cannot see anything in the display. If it does happen, you can use number system to access back the menu item and increase back the number. That is, you can press "menu", "5", "7" and then press "up" arrow to raise the number and press "ok" to confirm. Then, you can see back the display. The factory default number is 47.

1.5 Voice out

Voice out on/off is to set the response of the device. When you punch the device correctly, the device will speak 'thank you'. If the fingerprint has not been enrolled or the identification fails, the device will speak 'press again!'. If you off the voice out item, the device will not say anything.

When the punch is authorized, it will just give 3 short beep sounds. If it fails, it will give a long beep sound and the display will show "Press again".

The voice is located in a sound chip in the mainboard. The sound chip can only store one language of voice. So, before leaving the factory, customer need to specify which language of voice they need.

1.6 IP Address

To configure anything related to the TCP/IP connection.

Press the <MENU> key on the T6 until IP address displayed on the screen. Then press <OK> key to enter the configuration of the IP address of T6. The default IP address of T6 is 192.168.1.224. You may change the IP address of the T6 if needed. This IP address is the identity of the fingerprint device in the network.

You may also set the subnet mask of T6 if needed. The default is 255.255.255.0. Depending on the IP address, the subnet mask must be matched with the IP address. If the IP address you set is class C, the subnet mask is 255.255.255.0. If

you change the IP address to class B, the subnet mask should be 255.255.0.0. If the IP address is in class A, the subnet mask should be 255.0.0.0.

Finally, we can set the default gateway of the device. It is the gateway between device and external computer or switch. It should have "1" in the last entry. For example, if the IP address is 232.168.16.224, the gateway should be 232.168.16.1.

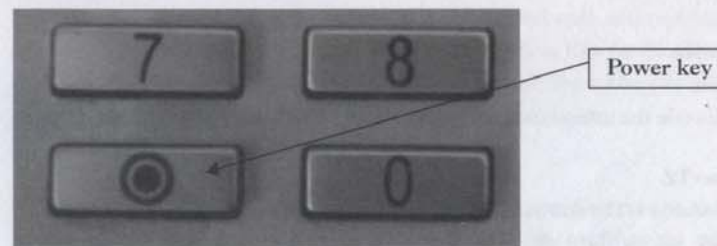
For the successful communication by Ethernet, we need the parameter of mac address, port number and communication password also. Mac address is the physical address of the device. It has 6 hexadecimal number. Before the network can communicate it with the IP address, it uses the mac address first.

The port number is a number listening to incoming communication calls. The default port number in the device is 5005.

Finally, we need a communication password for communication. It is to prevent other person to use the similar software to connect to the device. The default communication password is one zero (0).

1.7 Power Key

It is to disable power off button.



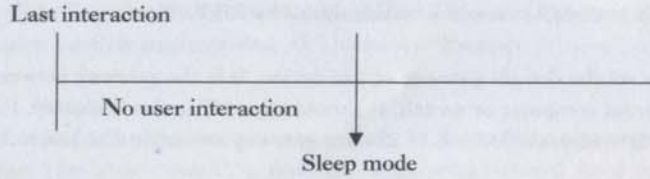
1.8 Sleep

This menu item sets an idle interval for going into sleep mode. For idle interval, we mean the time in which there is no user interaction. If the device is in sleep state, the backlight of LCD, sensor LED and the backlight of keyboard will be turned off. The device will go back to normal state when the following event occurs

1. any key is pressed
2. door is opened
3. exit button is pressed
4. tamper is detected.

The available range is from 0 to 255 minutes while the default is 0 in minutes. If

the value is 0, sleep function will be disabled.



1.9 Auto Off

This menu item sets an idle interval for auto switching off the machine. For idle interval, we mean the time in which there is no user interaction.

1.10 Sensor Adjust

This menu item adjust the brightness of the sensor. You need to do the adjustment when one of the following case happens

1. after manufacturing of the device
2. changing of the optical sensor
3. upgrading of the firmware in the device

While adjustment, you must keep dark environment of the sensor and clean the sensor.

2. Attendance

2.1 Attend. Set

Enable or disable the attendance TZ (time zones) function

2.2 AttendanceTZ

Attendance status is the status assigned to a period of time. For example, 08:00 to 11:00 can be set as duty on. Another example, 19:00 to 21:00 can be set to overtime on. T6 allows you to set the attendance status for a time period. The available status are as follows

1. duty on
2. duty off
3. overtime on
4. overtime off
5. in
6. out

You can define 10 attendance status time zones and each zone consists of start time (hour, minute), end time (hour, minute) and attendance status. The device will change its attendance status according to the time zones automatically.

The following is an example

| Time zones number | Start time (hour,min) | End time (hour,min) | Attendance status |
|-------------------|-----------------------|---------------------|-------------------|
| 1 | 08,0 | 11,0 | In |
| 2 | 17,0 | 19,0 | Out |
| 3 | 19,1 | 20,0 | Overtime on |
| 4 | 21,0 | 23,0 | Overtime off |

2.3 Bell Time

It is set time to turn on the bell loudly. For example, 09:00 and 18:00.

You can set minimum 1 time zone or maximum 12 time zones.

2.4 Reverify no.

This menu item is to set the number of seconds to prevent duplicate punch of the same user identifier. The default is zero. It means you can punch many times without control. It will waste the space of the device in storing useless records. So, customer can set this figure to a number of seconds. The maximum number of seconds allowed to be set is 255 seconds.

2.5 Glog Wrn

Glog Wrn means the general log warning threshold. General Log means the punch transaction. Each in represent one record and each out represent also one record. When the remaining space can store less than this figure, the display will show error message. You are supposed to download the transaction immediately or you will loss the previous punch records.

2.6 Slog Wrn

Slog Wrn means Super Log warning threshold. Super Log means the record for changing the menu items. It is to set the number of record space remaining for giving warning message. The default threshold is 100. That is, when the remaining space can only stores 100 records, the display will show warning message for you to download the super log records or to clear them.

2.7 Delete All Log

All glog and slog records will be deleted.

3.Information

The item in Info View is the system info. It is to check the configuration of the device. In this item, you can check the Manufacturer

| | | |
|--------------|----------------------------|--------------|
| Machine name | Release time of the device | |
| Serial No. | Engineer Version | Soft Version |

Engineer version and soft version are very useful in getting support from vendor. Vendor needs to know the version in order to provide right support.

4. Self Test

System checking, include: Keyboard, Sound, Sensor, Flash, LCD, Bell and Weigand in.

(Swipe card is optional in T6)

5. Set Default

The device return to original setting.

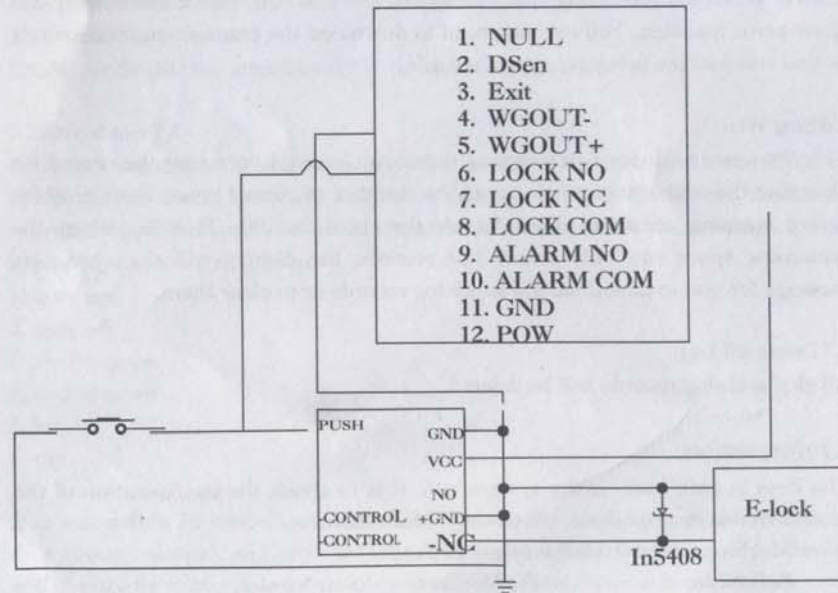
6. RJ45 Socket Pin Definition

Pin Function

| | |
|---|-------------------|
| 1 | TCP--TX+ |
| 2 | TCP--TX- |
| 3 | TCP--RX+ / RS485A |
| 4 | RS485B |
| 5 | GND |
| 6 | TCP--RX- |
| 7 | NC |

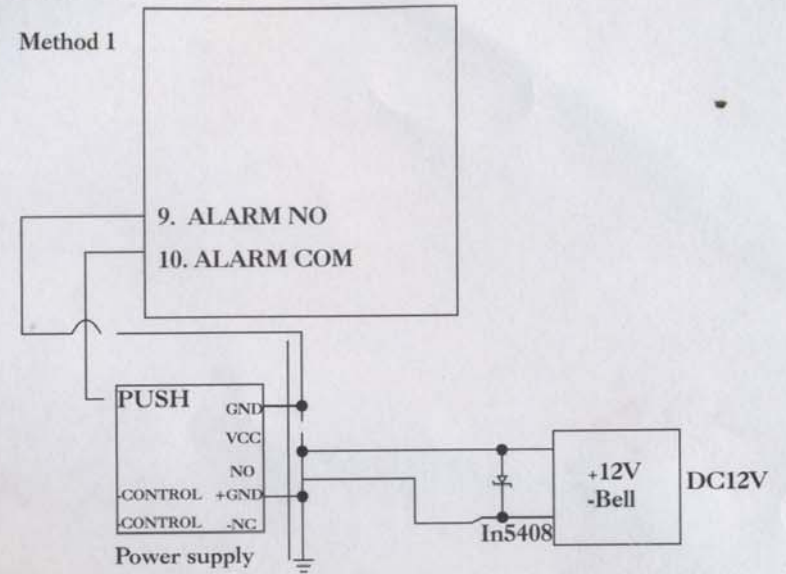


7. Electric Lock Connection

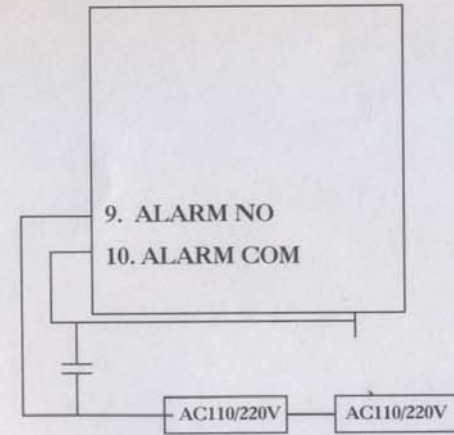


External Bell Connection

Method 1



Method 2



*** The End ***