

# **ZT889 SERIES FINGERPRINT TERMINAL**

## **HARDWARE INSTRUCTION MANUAL**

**Rev 1.0**

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## 1. Introduction

### 1.1. Supplied Part List

- |                                      |                                   |
|--------------------------------------|-----------------------------------|
| 1. Color Screen Fingerprint Terminal | 1 pc                              |
| 2. 12V/2A Power Supply               | 1 pc (only for pure T&A terminal) |
| 3. Underlay                          | 1 pc                              |
| 4. Installation screws               | 1 bag                             |
| 5. Mounting Panel                    | 1 pc                              |

### 1.2. About

ZT889 color screen touch keypad fingerprint terminal is a flexible and reliable design to meet the market requirement for a robust and secure biometric Time & Attendance solution at a reasonable cost. And it allows registering a standard of 3,000 fingerprints, 3000 passwords and 80,000 records.

### 1.3. Hardware Specification

Fingerprint Template Capacity	3,000
Record Capacity	80,000
Verification Mode	1:1 or 1:N
Communication	USB link, U-disk upload/download TCP/IP (optional), RS485(Optional)
Color LCD Display	240*320 Dots 2.8 inch Color LCD
Power Supply (Not for access control models)	For ZT889-TU & ZT889-TUK: Terminal input:12V @1A Wall adapter input: 100-240, 50-60Hz
Identification speed	<=0.7 second
FRR (False Rejection Ratio)	<=0.01%
FAR (False Acceptance Ratio)	<=0.001%
Operating Environment	Temperature: 0°C – 40°C Humidity: 20% – 80%
LCD menu Language Support	Chinese, English, Spanish, Turkish, Arabian, Japanese, Korean and other languages (Voice prompt supports Chinese and English and others need to be customized)
Dimension	199(L) x 134(W) x 30(D) mm

### 1.4. Precaution

Don't install the device under direct strong sunlight. Strong sunlight affects collecting of fingerprint and it may cause failure on the fingerprint authentication.

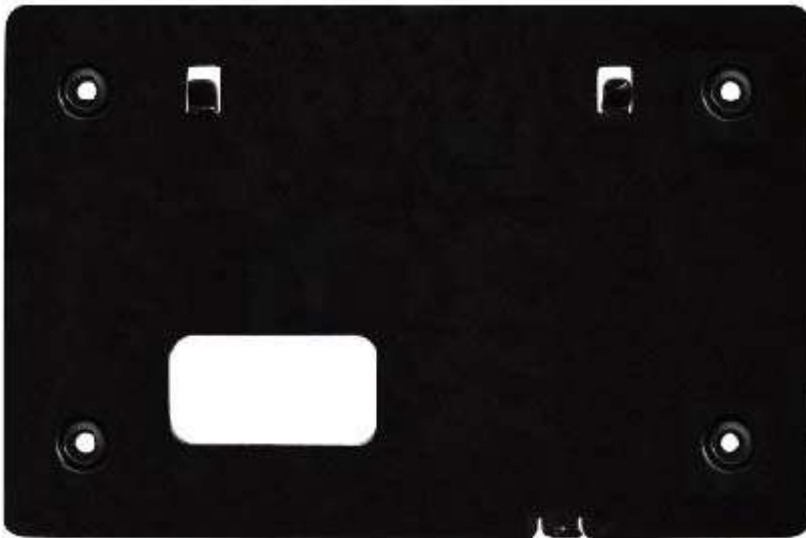
During summer it's highly recommended not to use outdoors. The device working temperature scope is 0-40°C. Long time using outdoors plus the heat of device itself may lead to slow reaction of device and less pass rate. Once it's necessary to use outdoors, a sunshade and a set of cooler radiation are recommended.

As the fingerprint identification will be affected by the weather, dry climate will not facilitate the fingerprint identification. So in dry weather conditions, it will be recommended to blow at the finger to moisten the fingerprint, which can help to enhance and ensure the identification result in dry climate.

### **Wall mounting of the ZT889 Terminal**

The wall mounting method has to follow below steps:

(A) Mark 4 holes' location on the mounting wall according to the screw holes on the supplied iron cover and then uses tool to drill the 4 located holes to proper size.



(B) Insert wall plug into the drilled holes, place the iron cover properly, and then drive the screws into holes and tighten.



(C) Hang the ZT889 terminal onto the iron cover from top to the bottom. On the bottom of the machine, there is a screw hole, plug a screw into it to fix the machine on the iron cover.

The specially designed fixing socket fix all cables' position well and make them can not be easily pulled out.



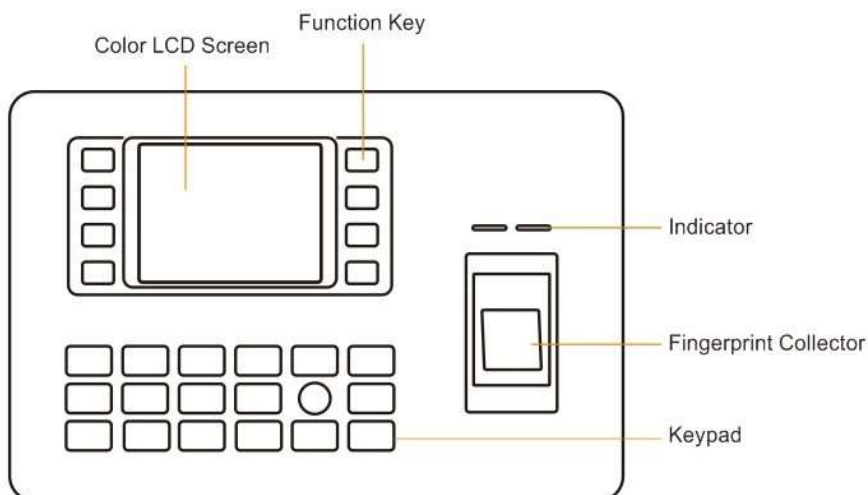
## 2. Product Overview

### 2.1 Power On & Communication

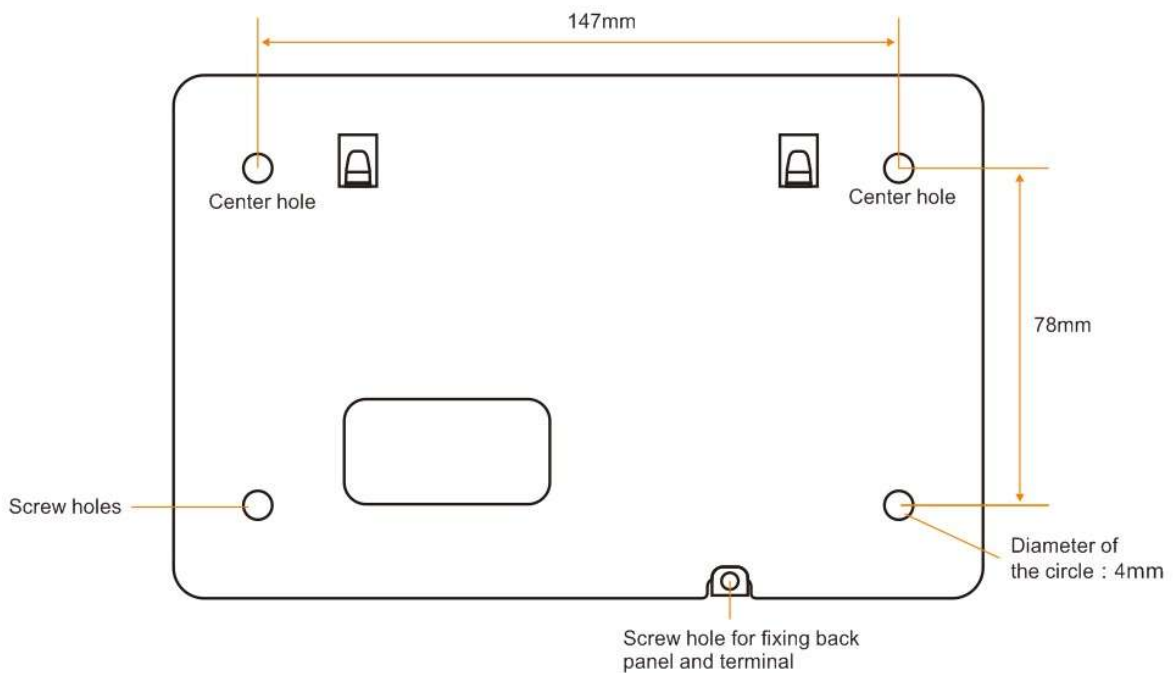
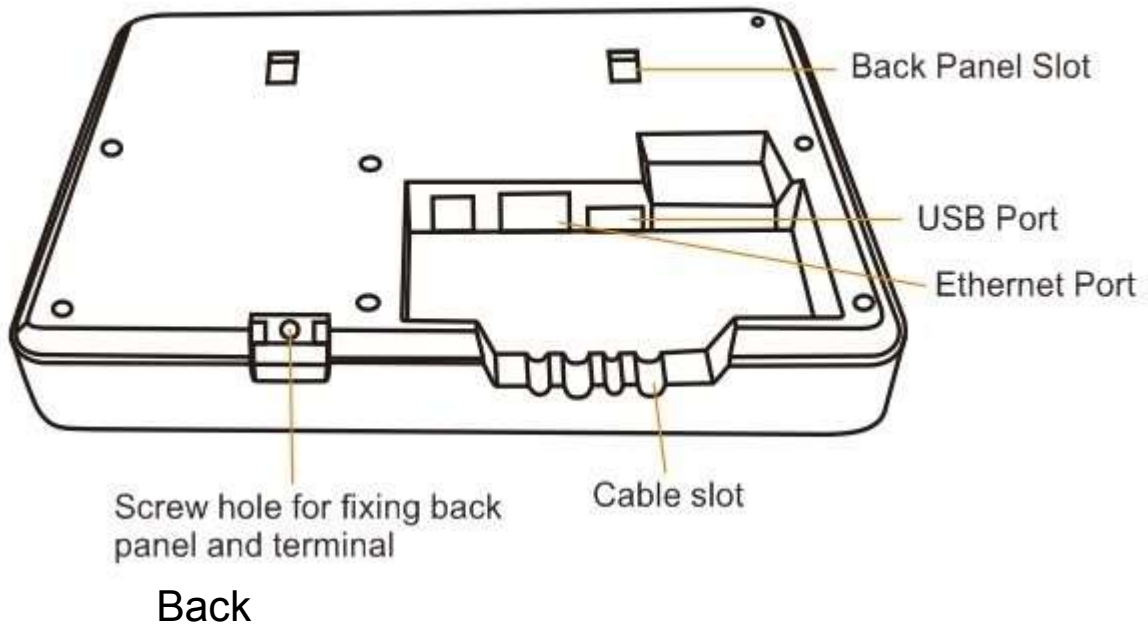
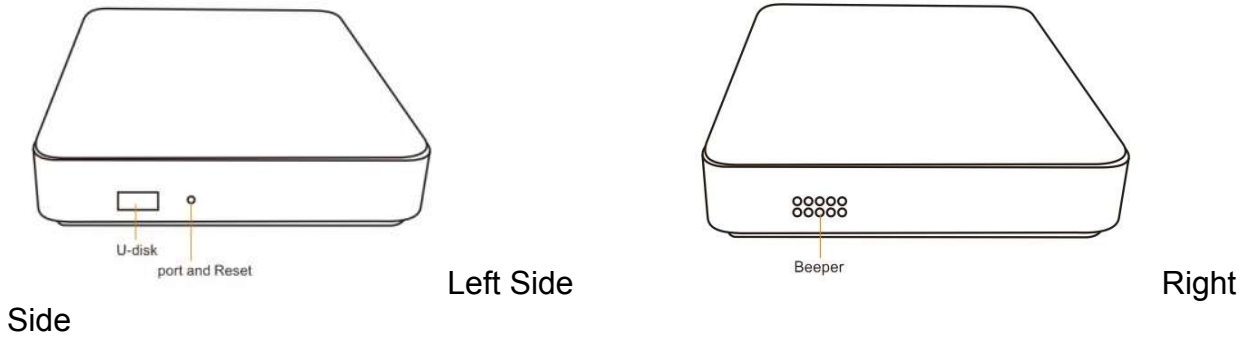
When it's powered on the terminal, a color screen will be displayed. When it is not operated for 30 minutes, the terminal will enter into idle mode for power saving purpose. Please feel free to touch keypad to activate the terminal when it's required.

ZT889 series of terminals have USB link and U-disk upload/download communication interfaces. Some models are extended with TCP/IP and RS485 function.

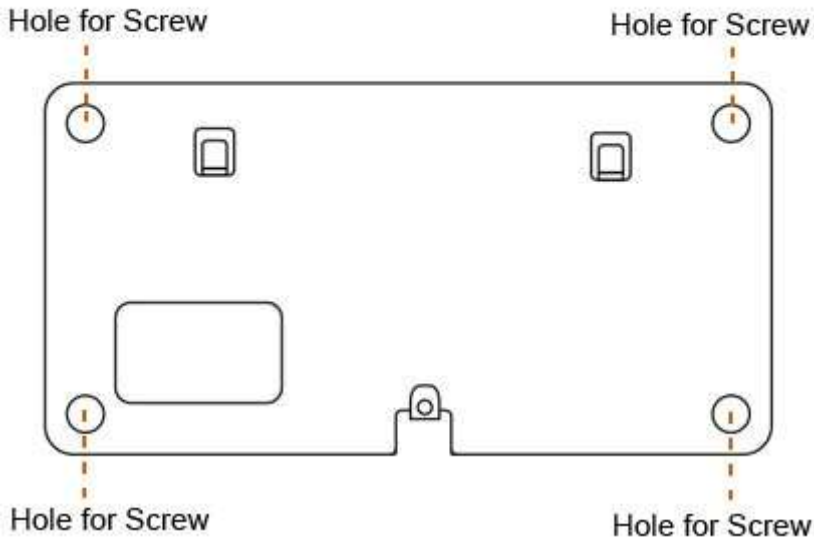
### 2.2 ZT889 Illustration



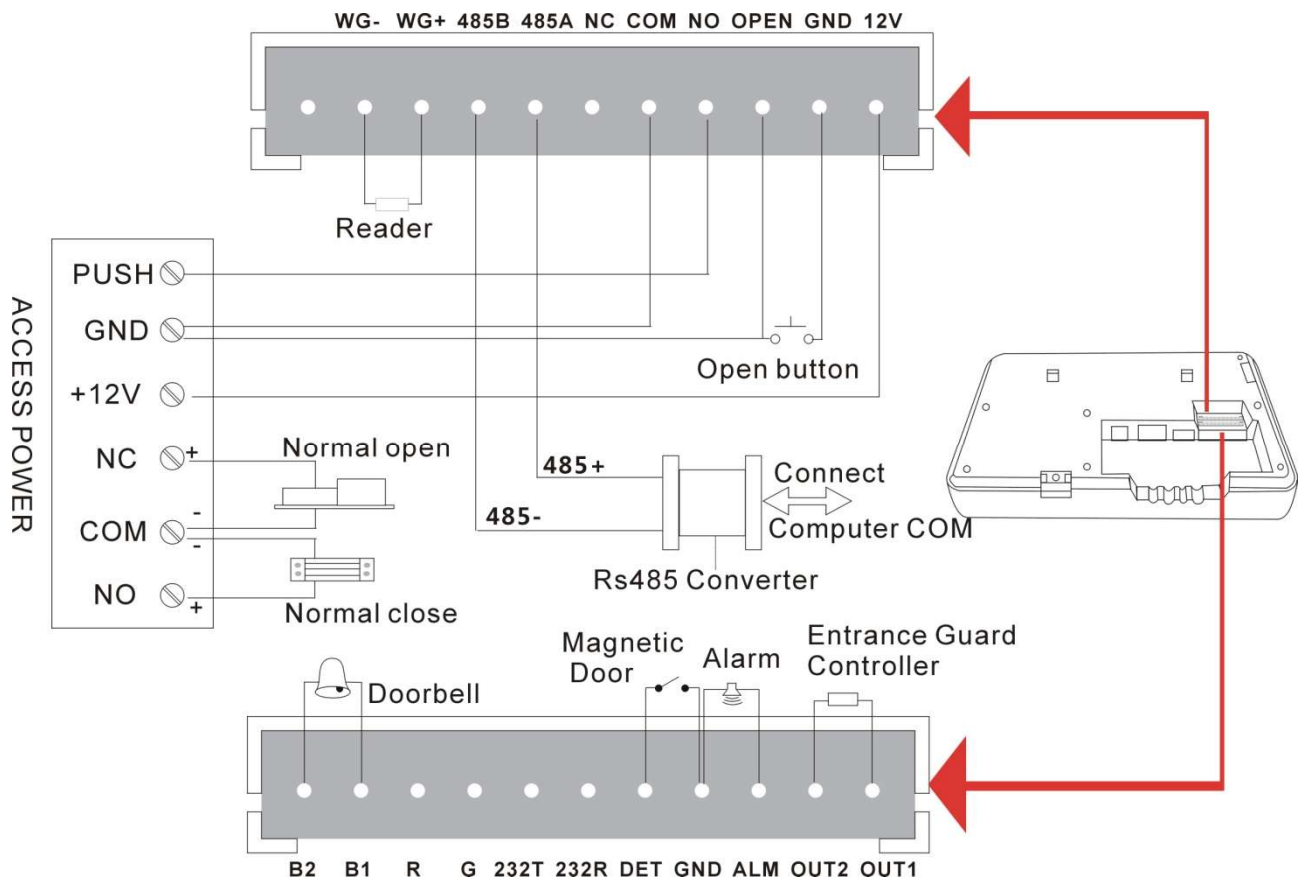
Front



## Mounting Panel



Connection diagram (Access control part only for model name with alphabet "D" )



## 2.3 User Management

Two user roles are defined: namely manager or normal user.

- Normal users can clock on the device but can NOT access the settings.
- Managers can clock on the device as well as run system management:
  1. Register/delete normal users' fingerprints and passwords.
  2. Browser attendance records as well as other system information.
  3. Set up system configurations

## 2.4 User Enrollment

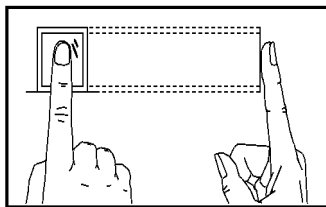
Enrollment is the process of creating an ID, assigning a password and scanning a user's fingers to create the fingerprint templates. All these associated information are stored in the device.

During user verification, the stored fingerprint templates are compared to the current scanned fingerprint to confirm the user's identity.

Enrollment takes approximately 2 seconds for each user. Up to 3 fingers can be enrolled for the same ID number. Ideally, at least one finger on each hand should be enrolled in case of injuries.

## 2.5 The Pressing Method of Fingerprint

### 2.6.1. Illustration of Correct Fingerprint Pressing

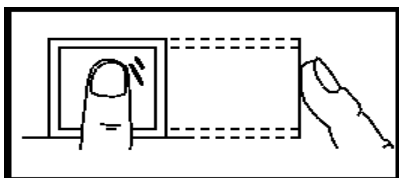


Flatly press fingerprint on U fingerprint scanner

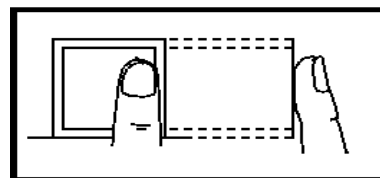
Try to press fingerprint center to the middle or a little upper of U scanner

### 2.6.2. Wrong Pressing Method

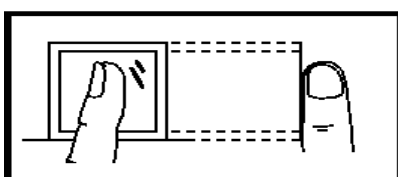
#### Vertical



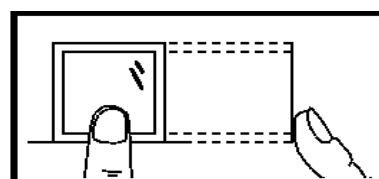
#### Too partial



#### Slant



#### Too lower



**Note: Please adopt correct fingerprint pressing method, and we don't undertake the possible less identification result caused by user's improper operation and we reserve all rights of final explanation and amendment**

### 3. Basic Settings

#### 3.1. System Settings

##### 3.1.1. Total Number of Administrators

Setting	Description
1 -10	set total number of administrators in
Factory Default	5

##### 3.1.2. Machine Number

Setting	Description
1 -255	set an unique address ID to network with multiple machines
Factory Default	1

##### 3.1.3. Baud Rate

Setting	Description
9600	Set the communication speed to 9,600 bps (Bit Per Second)
19200	Set the communication speed to 19,200 bps
38400	Set the communication speed to 38,400 bps
57600	Set the communication speed to 57,600 bps
115200	Set the communication speed to 115,200 bps
Factory Default	38400

\* Speed setting should be the same with PC, otherwise communication shall fail.

##### 3.1.4. Menu Language

Setting	Description
English	Set all display information in English
Other	Set all display information in English, Spanish, Japanese, Arabic, French, German, Portuguese, Polish, Chinese, etc

Factory Default	English
-----------------	---------

### 3.1.5. Auto Power Off

Setting	Description
NO	auto power off function is disabled
1 - 255	Auto power off when there are no activities on the device.
Factory Default	NO

### 3.1.6. Voice Indication

Setting	Description
YES	Activate the voice indication
NO	Inactivate the voice indication
Factory Default	YES

### 3.1.7. Restore Factory Default

If OK key is pressed, all the current settings will be deleted and restore to the factory default settings.

### 3.1.8. Lock Time-delay (only for model with access control function)

Setting	Description
YES	Output electric lock control signal after successful confirmation
NO	Do not output electric lock control signal after successful confirmation
Factory Default	Yes, 5 seconds delay

Only after successful comparison message shown plus lock control signal to be set up in advance, there will be lock control signal.

**Remark: For those fingerprint terminals without access control function, this lock control signal is for controlling green indicator.**

## Event Settings

### 3.2.1. Administrative Event Full Warning

The machine will give a “FULL” warning signal when the administrative event buffer is below the set limitation.

Setting	Description
NO	There's no warning if there's no administrative event buffer left, and no further administrative events will be logged.
1 - 255	
Factory Default	100

### 3.2.2. Attendance Event Full Warning

The machine will give a “FULL” warning signal when the attendance event buffer is below the set limitation.

Setting	Description
NO	There's no warning if there's no attendance event buffer left, and no further attendance events will be logged.
1 - 1500	
Factory Default	1000

### 3.2.3. Valid Attendance Time Interval

If this time interval is set, only ONE attendance event will be logged if there are multiple attendance events within this time interval for the same user.

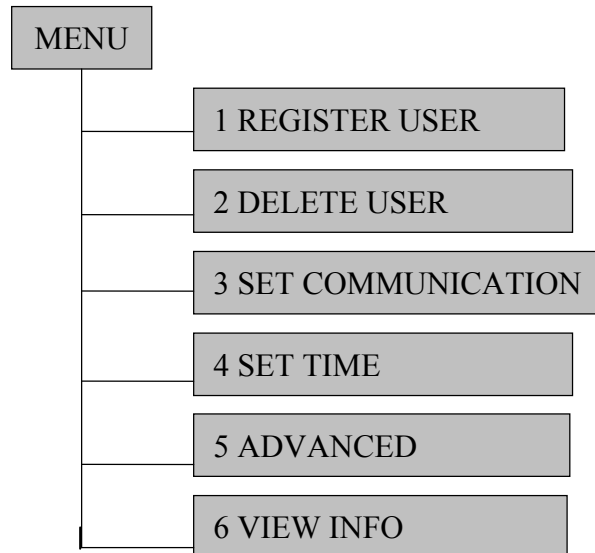
Setting	Description
NO	All attendance events will be counted as valid one.
1 - 255	
Factory Default	NO

## 3.2. Menu Level Structures

There are three kinds of menus:

1. Operation Menu
2. Setting Menu
3. Status Menu

The first level menu items show up when MENU key is pressed if there's no available administrators, affirmation will be done otherwise.

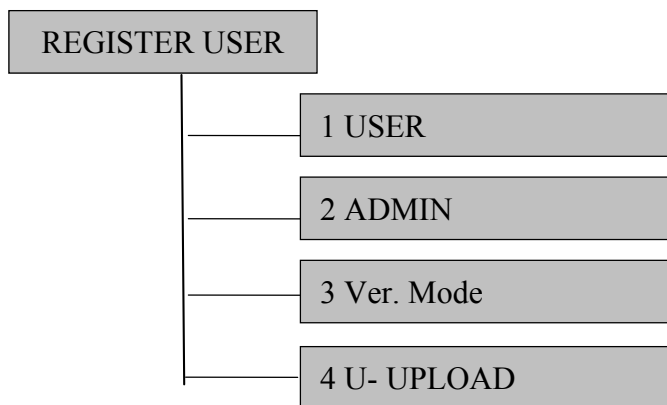


**Remark:** Because of the limitation of bits, those long menu items can not display fully, so they will be abbreviated. But all the abbreviated menu items will be detailed illuminated in this instruction manual.

### 3.3.1. Register User

The Item “Register User” includes 4 Sub Items which are “User”, “Admin”, “Ver. Mode” and “U-upload”

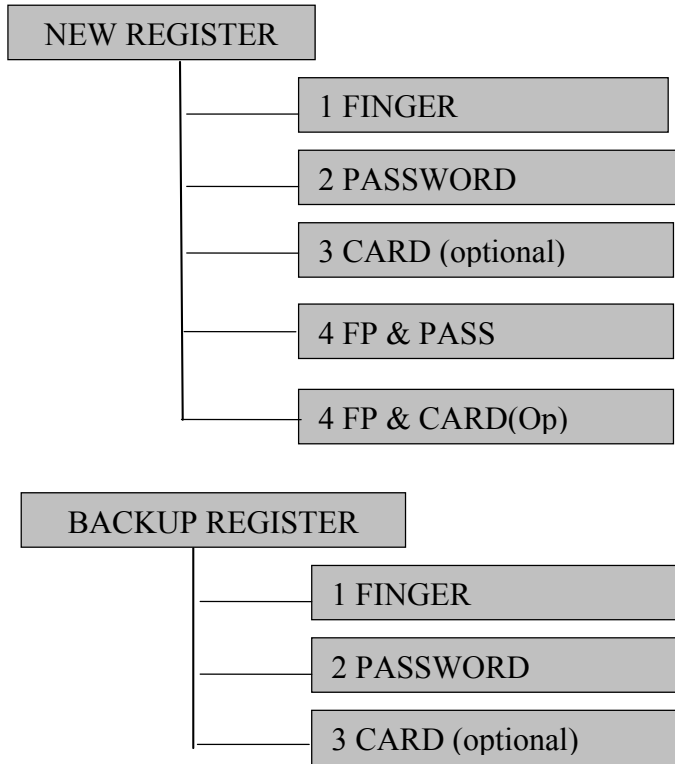
The Sub Items will show up after user select “Register User”, which under the first level menu, and Press “OK”.



#### 1) User / Admin

Select the level of user registration (User / Admin) and Press “OK”. The Third Level Menu Items show up as the figure below. “New Register” is for new user registration. “Backup Register” is for enrolling \* “Backup Record” of registered user. (\*p.s.: “Backup Record” means the 2<sup>nd</sup> or 3<sup>rd</sup> Finger Print template, Password and ID card (optional)).

The registration method shows up after “New Register” or “Backup Register” is selected.



**Remark:**

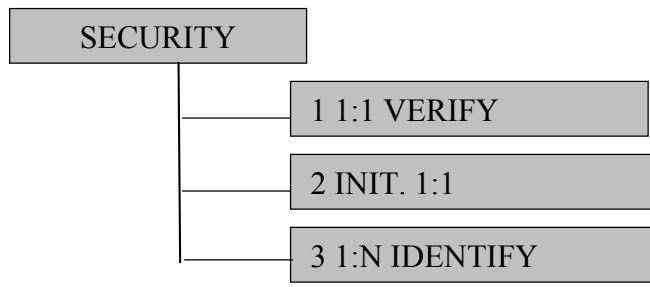
“Fingerprints” abbreviated to “FP”  
 “Password” abbreviated to “PASS”

**2) Verification Mode (Security Level)**

There are 3 options under “Security Level” which are “1:1 Verify”, “Init. 1:1” and “1:N Identify”

“1:1 Verify” - Compare the user’s fingerprint and the fingerprint template stored in card. (Optional Setting depends on the model)

“1:N Identify” – Compare the user’s fingerprint with the fingerprint template of all registered user stored in machine.

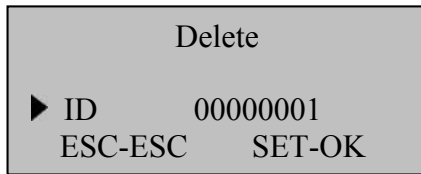


**3) U- Upload (U-flash disk upload)**

The backup of attendance record and registered data can be uploaded from USB storage device to the Fingerprint Machine. (Optional Setting depends on the model)

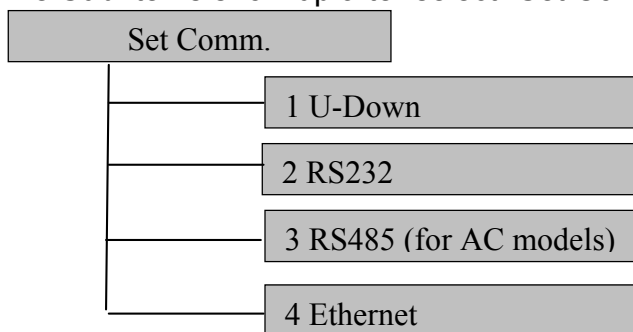
### 3.3.2. Delete User

The “Delete Menu” shows up after selecting “Delete User” under the First Level Menu and pressed “OK”. Enter the User ID by number or direction key. Press “OK” to confirm the deletion.



### 3.3.3. Set Comm.

The Sub Items show up after select “Set Comm.” of user First Level Menu



**Remark:**

“Communication” abbreviated to “Comm”  
“Download” abbreviated to “Down”

#### 1) USB Download

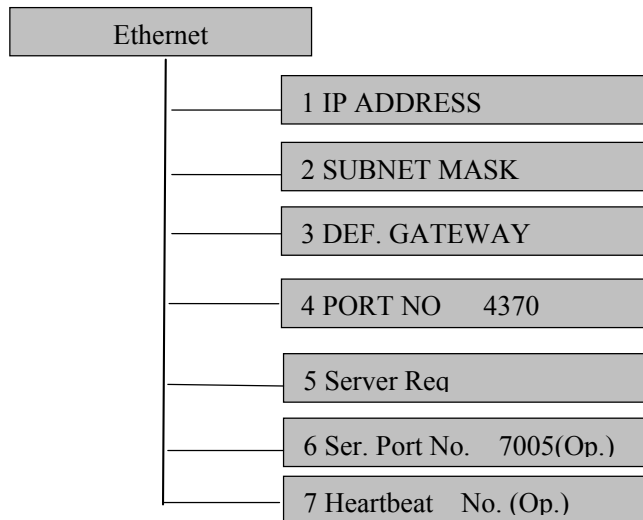
There are five options under the “USB Download”, which are “GLog &Del” and “All Glog” , “SLog &Del”, “All Slog” and “Enr. Data”.(Optional Function depends on the model)

‘Glog&Del”	Attendance Unread Record Download
“All Glog”	Attendance Read & Unread Record Download
‘Slog&Del”	System Unread Record Download
“All Slog”	System Read & Unread Record Download
“Enr. Data”	All Enrolled Data

**Remark:**

“General” abbreviated to “G”  
“System” abbreviated to “S”  
“Delete” abbreviated to “Del”  
“Enroll” abbreviated to “Enr.”

#### 2) Ethernet

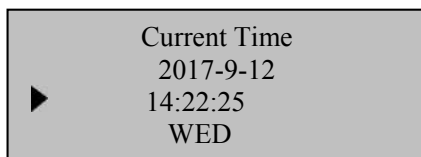


**Server Req. (Optional)**

This setting is only be activated for those devices with additional charge for remote real-time monitor function. (**Server Req. setting is for Remote Real-Time Monitor function.**)

**3.3.4. Set Time**

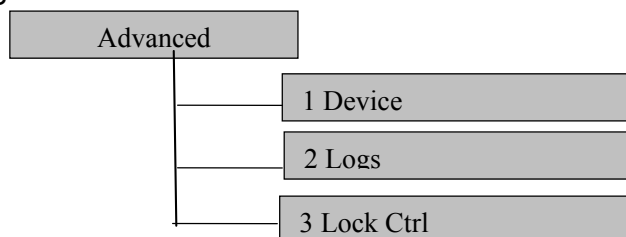
The Set Time Menu shows up after select “Set Time” under the First Level Menu and pressed “OK”.



Move the cursor location by direction key. Enter the correct value by arrow key. (The weekday value is generated by machine automatically).

**3.3.5. Advanced (Setting)**

There are three items under “Advanced”, which are “Machine Setting” , “Record Setting” and “Door lock out”.



“Device” configures the settings of machine operation.

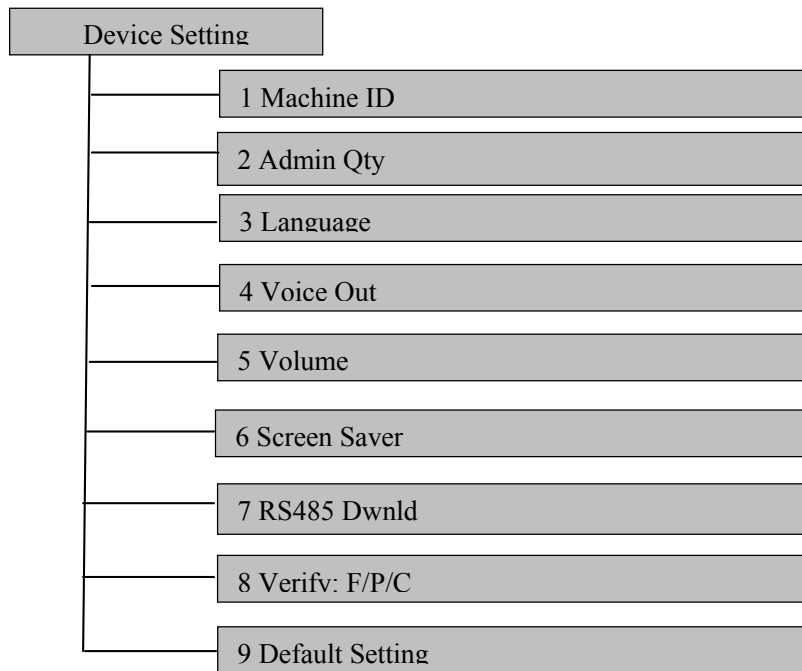
“Logs” configures the settings of data logging

“Lock Ctrl” is the settings for Access Control unlock time and purview to the users already enrolled.

**Remark:**

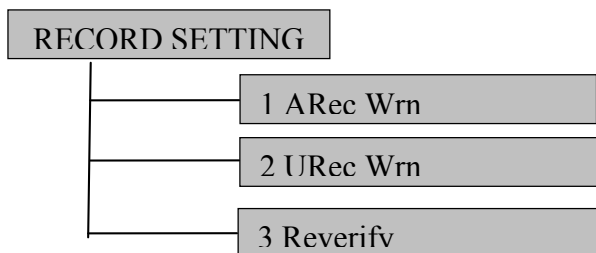
“Control” abbreviated to “Ctrl”

**1) Device**



- Machine ID: The Unique ID of the machine on the same communication channel.
- Admin Qty.: The maximum number of machine administrator.
- Language: The language of operation menu. It supports multiple languages.
- Voice Out: Enable or disable the function of voice indication.
- Volume: The voice volume adjustment.
- Screen Saver: The machine will shut down after a certain idle time.
- RS485 Dwnld: Download of RS485 enable/disable.
- Verify: Choose verification mode.
- Default Setting: Restore all settings to factory default setting.

**2) Logs**

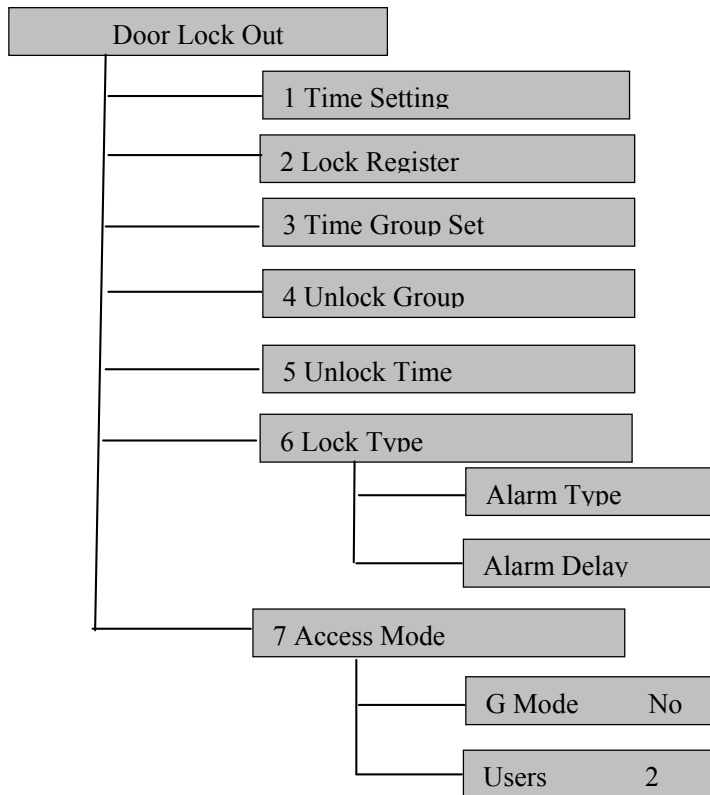


- Arec wrn (Slog Wrn): To set the limit of remaining system log memory. If the number of remaining system log memory reach the limit. Warning occurred. (All administrators' operation is record as system log.)
- Urec wrn (Glog Wrn): To set the limit of remaining attendance record memory. If the number of remaining attendance record memory reaches the limit. Warning occurred. (All users' attendance activity is record as Glog.)
- Reverify: The duration of 2 successful attendances which from the same fingerprint. All duplicate attendance record doesn't be recorded. For any successful recognition, "Thank you" is heard for the first time and "Re-verified" is heard for the rest time of this verified period duration.

**Remark:**

“Record” abbreviated to “Rec”  
“Warning” abbreviated to “Wrn”

### 3) Lock Ctrl



Lock Ctrl settings are for setting the access control. All the settings can be set from the ACCESS CONTROL module of software and then upload into the device, or can be directly set on the individual device.

**Time Setting:** Time setting from hardware, which is only for one separate device, and it can also be set from software access control part and then upload to 1 or multiple devices.

**Lock Register:** Set lock register of different ID number. It can also be set from software.

**Time Group:** Time Group setting from hardware, which is only for one separate device, and it can also be set from software access control part and then upload to 1 or multiple devices.

**Unlock Group:** Unlock setting of time group. It can also be set from software.

**Unlock Time:** Unlock time delay and it counts by second. It can also be set from software.

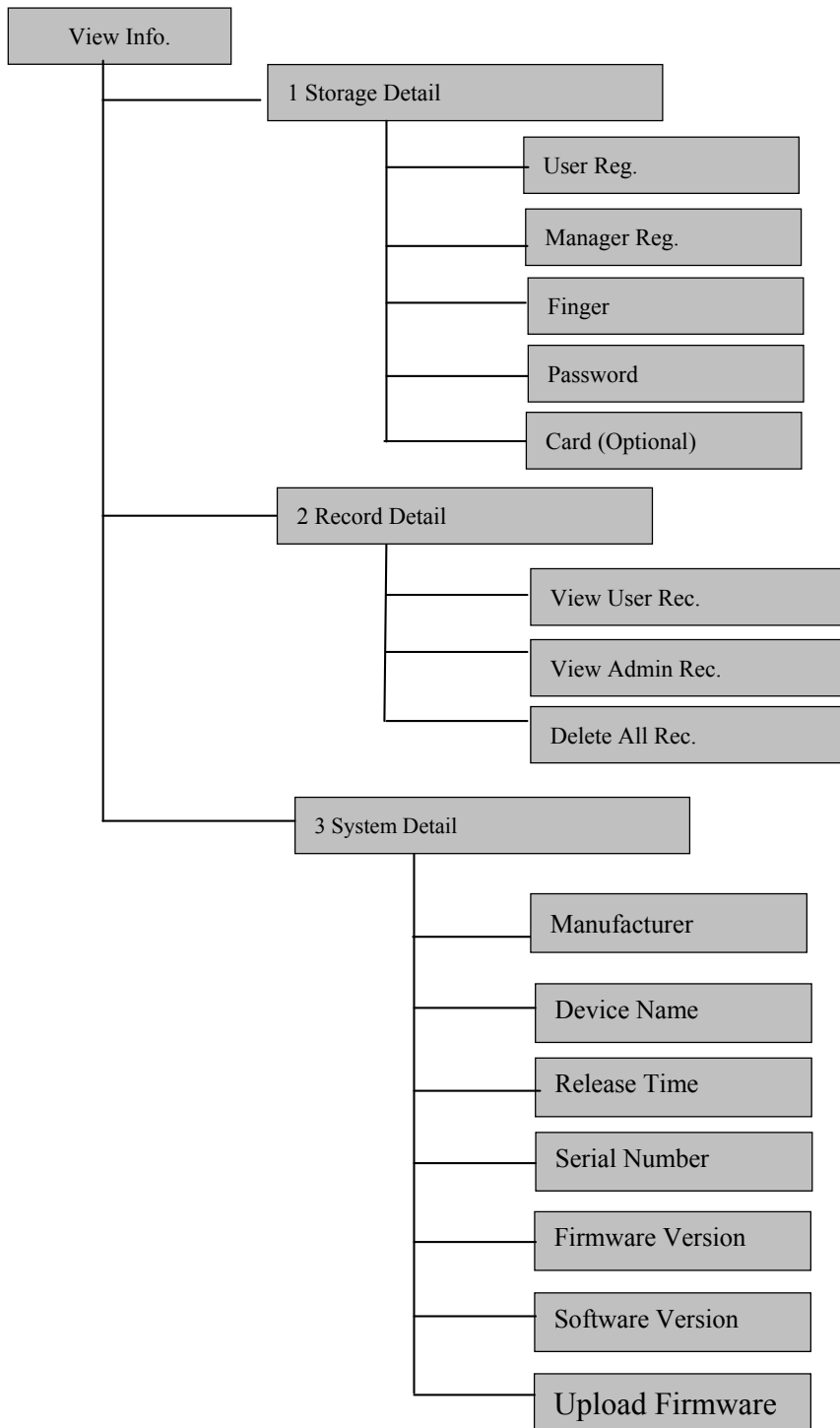
**Lock Type:** A. Alarm type: NG for none, NO for Normal Open, NC for Normal Close.  
B. Alarm Delay: Alarm time delay and it counts by second.

**Access Mode:** It includes G Mode & Users. G Mode is defaulted as NO, if it's changed as Yes, and Users qty is "2", it means it need any 2 person who have already registered on site to open the door together.

#### 3.3.6. View Info.

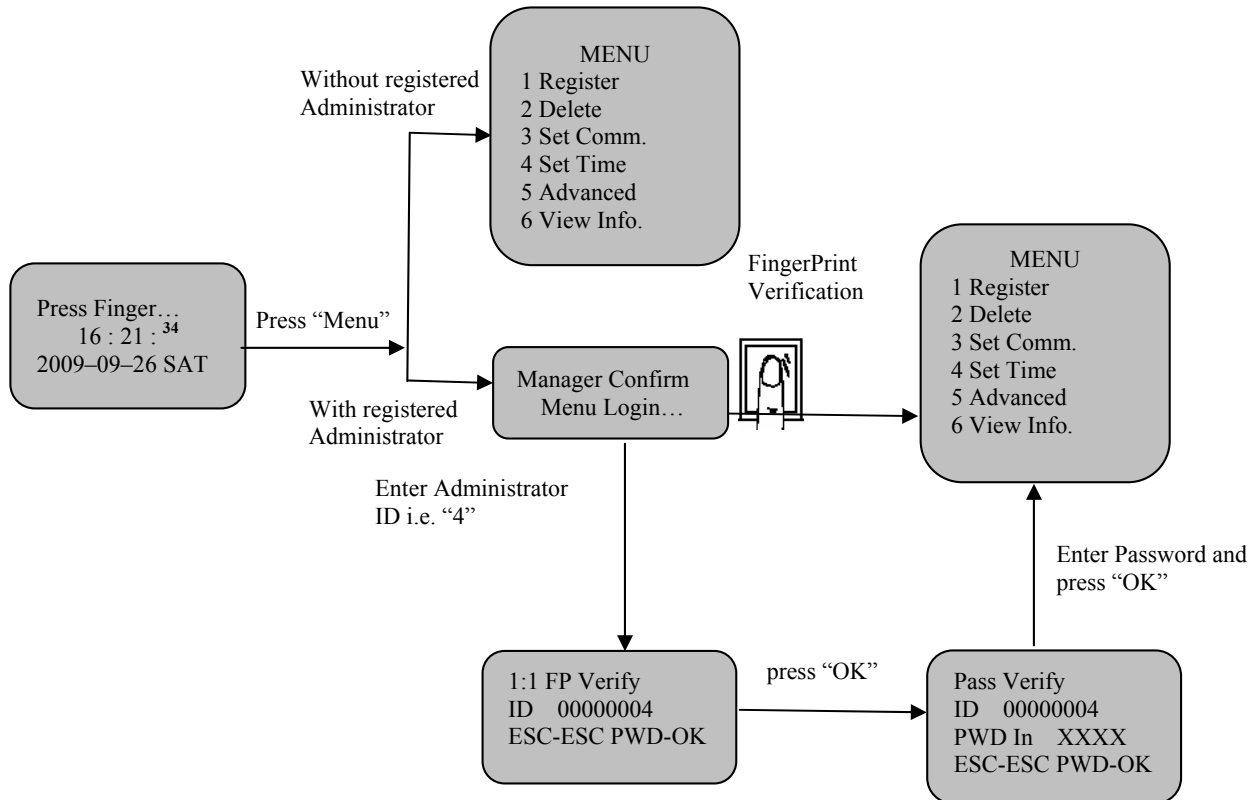
“View Info.” shows the storage detail, records, manufacturer and firmware version. The sub items are shown below.

- Reg. Data: To show the information about user registration such as the number of registered user, number of registered administrator, number of fingerprint template, number of registered password and number of registered Card.
- Records: To show or operate the machine record such as number of user record, number of administrator record, attendance record of user, system log of administrator, and delete all record.
- Product: To show hardware information which includes Manufacturer, Machine Name, Release Date,. Serial Number, Engine Version and Soft Version.



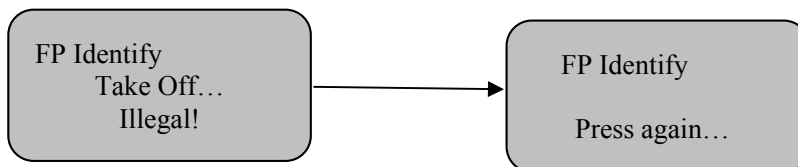
## Machine Operation for Administrator

### 3.4.1. How to show the First Level Menu



If the “manager confirm” is requested on the operation and the user didn’t enroll any administrator, please shut down the machine and contact with retailer.

If confirmation is failed, “Illegal” is shown and request the reconfirmation.

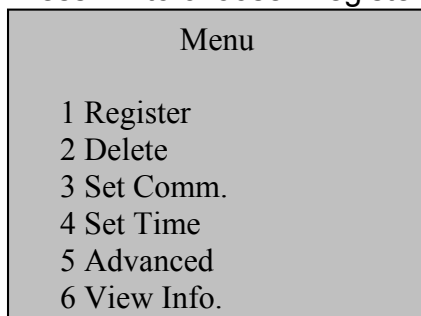


### 3.4.2. Machine Management

#### New User Registration / New Administrator Registration

Step 1 Enter the First Level Menu (Refer to Page 10.)

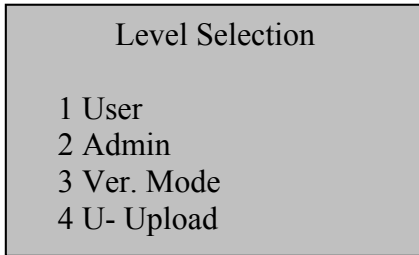
Step 2 Press “1” to choose “Register User”



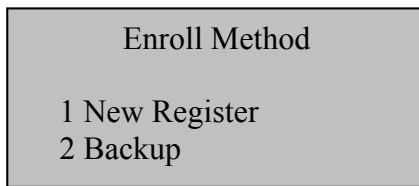
Step 3 Press “1” to choose “User” for normal user registration

Or

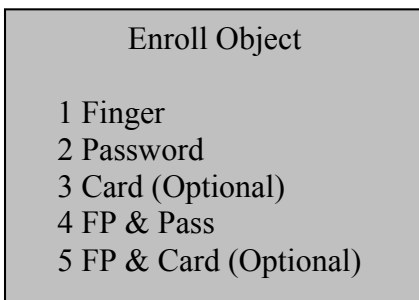
Press”2” to choose “Manager” for administrator registration



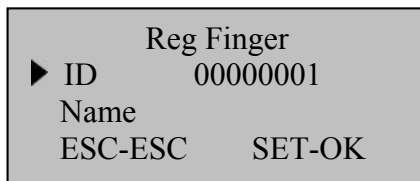
Step 4 Press “1” to choose “New Register”



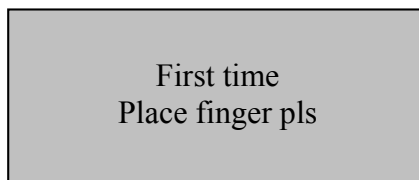
Step 5 Press “1” to choose “Reg. Finger” for Fingerprint Enrolling.



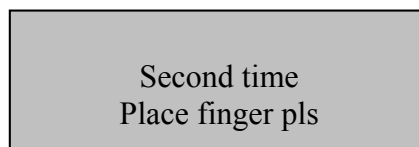
Step 6 Enter the User ID (i.e) 00000001 and Press “OK”.



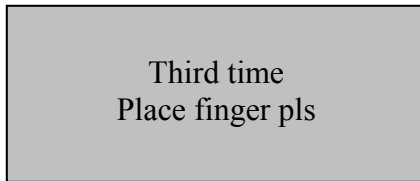
Step 7. Flatly press fingerprint the first time on U fingerprint collector



Step 8. Flatly press fingerprint the second time on U fingerprint collector

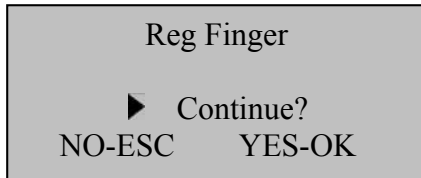


Step 9. Flatly press fingerprint the third time on U fingerprint collector



With two beeps heard, successful registration

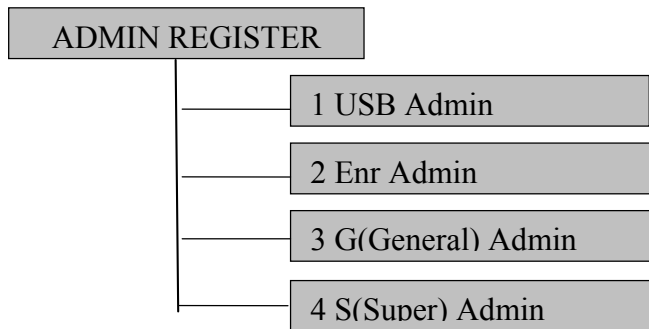
Step 10 Press "ESC" to quit the registration process.



**Enrolled User Registration (Backup Register)**

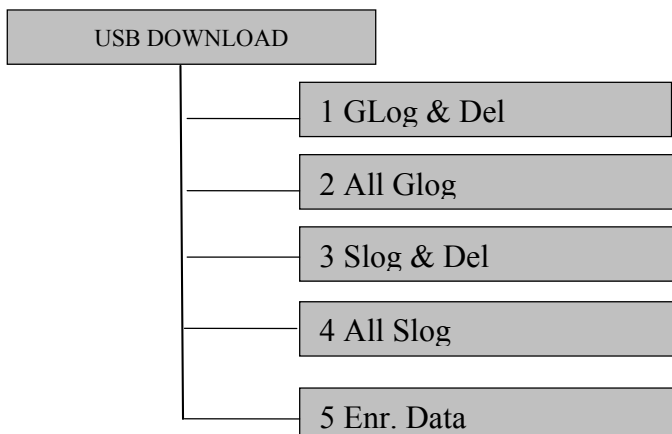
It allows administrator enroll 2 more fingerprint temple, password and Card for the same user as Backup.

**4 Level Administrator Registration**



- S Admin** - Have the full access of the machine. "S. Admin" should be enrolled firstly before enrolling other "Admin" user.
- G Admin** - Have not the full access of the machine ,but just one lower level access than "S. Admin and enroll, download data or delete normal user, but can not delete Admin user.
- Enr Admin** - Only have an access for Enrollment of general users, can not enroll Admin users.
- USB Admin** - Only have an access for downloading data to USB flash disk.

Only when enrolled USB Admin, press fingerprint to download data from the device to the USB sticker, the sub menu will display as below:



- Glog & Del** - Unread general log
- All Glog** - All read and unread general log
- Slog & Del** - Unread administrator log (same as the “M-log” in the software.)
- All Slog** – All read and unread administrator log.
- Enr. Data**– All registered data.

### 3.4.3. Password Registration

Step 1 Enter the Menu “Enroll Object”

Step 2 Press”2” to choose “Reg Password”

Enroll Object

1 Finger  
2 Password  
3 Card (Optional)  
4 FP & Pass  
5 FP & Card (Optional)

Step 3 Enter the User ID (i.e) 00000001 and Press “OK”.

Reg Password

▶ ID        00000001

Name

ESC-ESC    SET-OK

Step 4 Enter the Password (Max. 8 digits) and Press “Enter”

Reg Password

ID        00000001

Name

PWD In    XXXX

ESC-ESC    SET-OK

Step 5 Re-enter the password to confirm.

Reg Password

ID        00000001

Name

PWD In    XXXX

PWD In    XXXX

ESC-ESC    SET-OK

With two beeps heard, successful registration

Step 6 Press ”ESC” to quit the registration process.

Reg Password

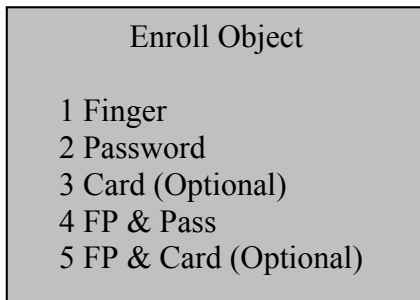
▶ Continue?

NO-ESC    YES-OK

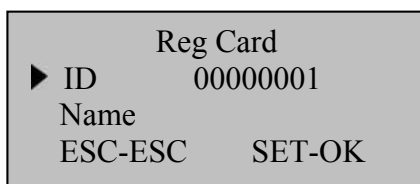
### 3.4.4. Card Registration (Optional function for model with alphabet “K” or “M”)

Step 1 Enter the Menu “Enroll Object”

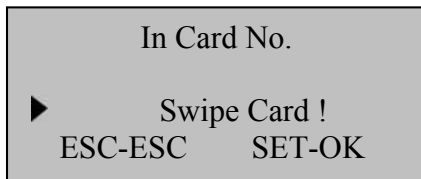
Step 2 Press “3” to choose “Reg Card”



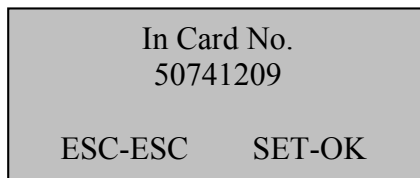
Step 3 Enter the User ID (i.e) 00000001 and Press “OK”.



Step 4 Please swipe card on the detecting area.

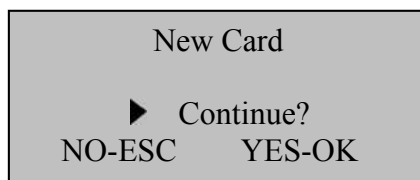


Step 5 Card ID is shown on the screen and Press “OK” to confirm.



Successful Card Registration

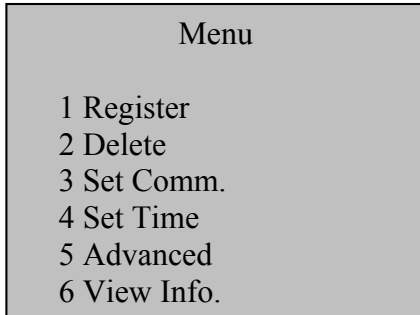
Step 6 Press “ESC” to quit the registration process.



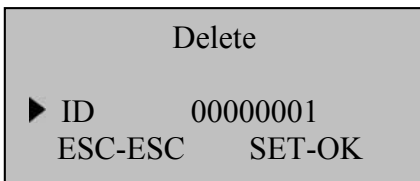
### 3.4.5. Delete (User)

Step 1 Enter the First Level Menu (Refer to Page 12.)

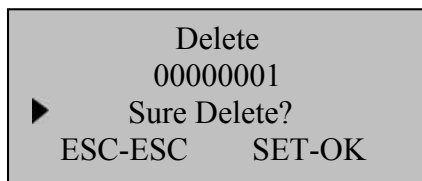
Step 2 Press “2” to choose “Delete”



Step 3 Enter the User ID and Press “OK”

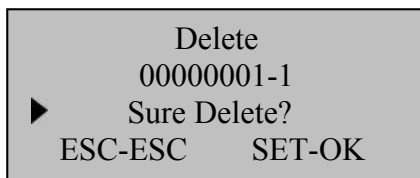


Step 4 Press “OK” to confirm



Successful Deletion

If any backup record belong the deleted User ID, the alert of deletion of backup record will show on the screen.



The type of record is indicated by the last digit.

- “0” means 1<sup>st</sup> Fingerprint template.
- “1” means 2<sup>nd</sup> Fingerprint template
- “2” means 3<sup>rd</sup> Fingerprint template
- “P” means Password
- “C” means Card

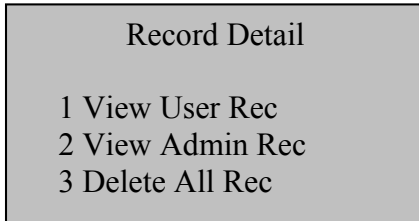
### 3.3. Attendance Log and System Log Management

#### 3.5.1. Query of Attendance Log

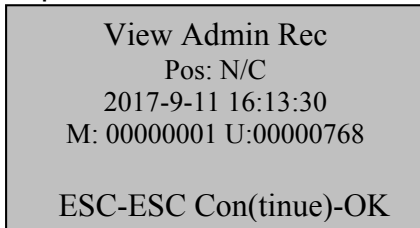
Step 1 Enter the First Level Menu (Refer to Page 10.)

Step 2 Press “6” to choose “View Info”





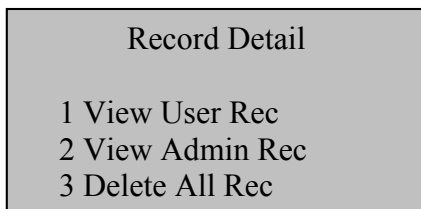
Step 3 Press "OK" to query all system log. (In order by time)  
Or enter the User ID to query a certain user's system log. Press "▲" or "▼" to view the previous or next record.



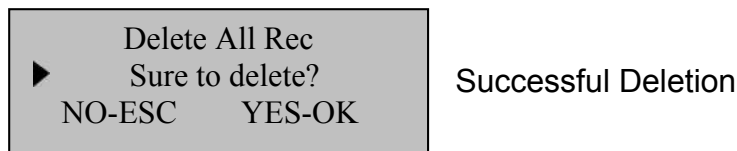
- C → total amount of attendance record  
(C-00022 means there are 22 records)
- N → the sequence of attendance record  
(N-00001 means it is the first record)
- U → Normal user
- M → Administrator

### 3.5.3. Delete all Record

Step 1 Enter the Menu "Records"  
Step 2 Press "5" to choose "Delete All Rec"

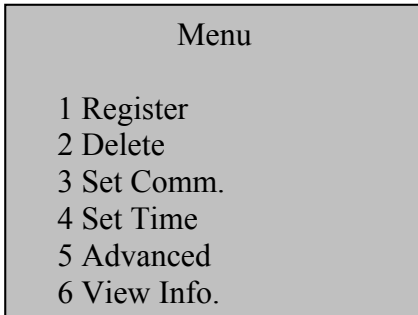


Step 3 Press "OK" to confirm the deletion

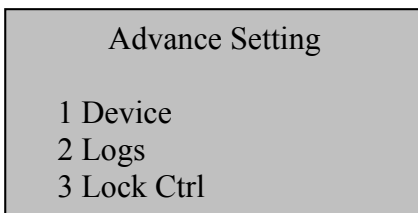


### 3.5.4. Advance d

Follow the steps below to access Machine Setting Menu.  
Step 1 Enter First Level Menu  
Step 2 Press "5" to choose "Advanced"



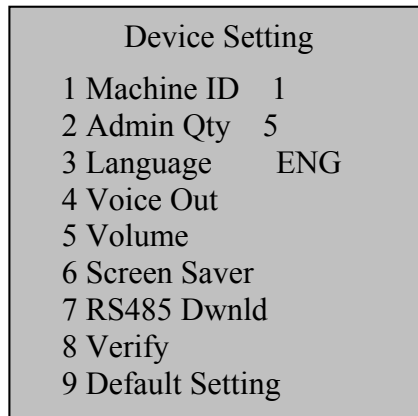
Step 3 Press "1" to choose "Device"



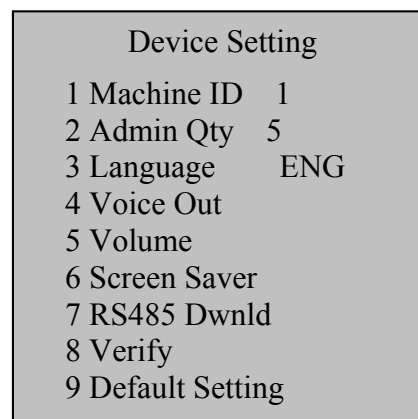
### 3.5.5. Device

The machine ID of each machine on the same channel should be unique. (No matter Using RS485 or TCP/IP protocol).

Step 1 Press "1" to choose "Device"

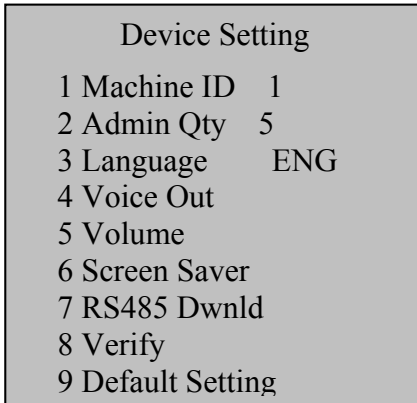


Step 2 Enter the NEW Number with range between 1-255 (i.e "2") and press "OK" to confirm.

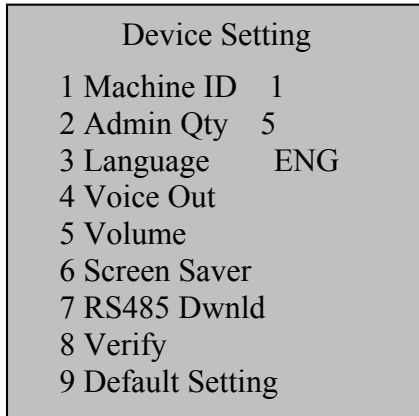


### 3.5.6. Admin Quantity

Step 1 Press “2” to choose “Admin Qty”

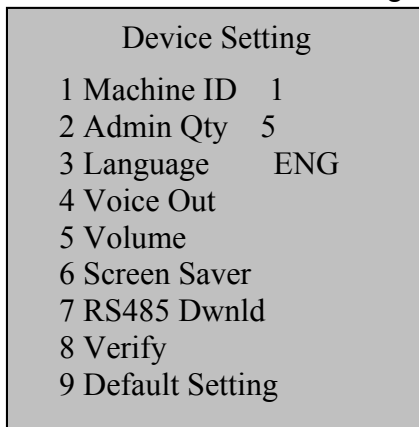


Step 2 Enter the maximum no. of machine administrator (i.e. 5) and press “OK” to confirm.

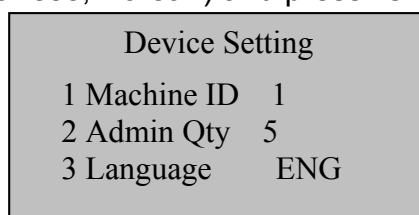


### 3.5.7. Language

Step 1 Press “3” to choose “Language”

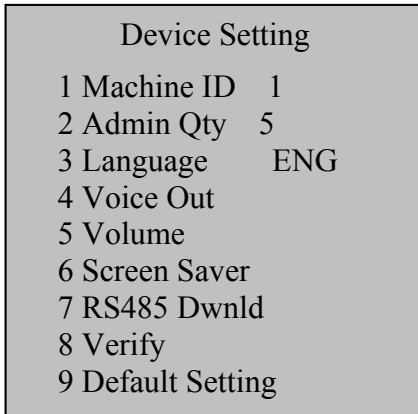


Step 2 Press “▲” or “▼” to choose Language (Chinese, English, Spanish, Turkish, Arabian, Japanese, Korean) and press “OK” to confirm.



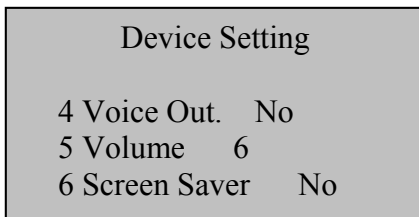
### 3.5.8. Voice Out

Step 1 Press "4" to choose "Voice Out"



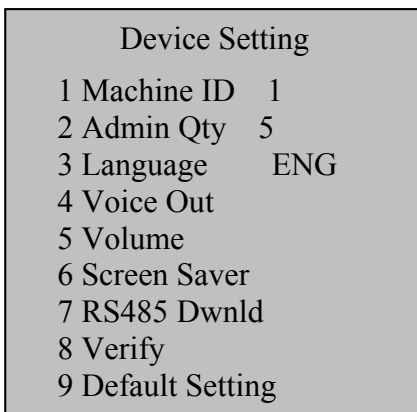
Step 2 Press "▲" or "▼" to enable or disable the function

Yes – Enable  
No – Disable  
Press "OK" to confirm.



### 3.5.9. Volume

Step 1 Press "5" to choose "Volume"



### 3.5.10. Screen Saver

Step 1 Press "6" to choose "Screen Saver"

Device Setting	
1 Machine ID	1
2 Admin Qty	5
3 Language	ENG
4 Voice Out	
5 Volume	
6 Screen Saver	
7 RS485 Dwnld	
8 Verify	
9 Default Setting	

Step 2 Press “▲” or “▼” to change the duration time of screen saver.

### 3.5.11. RS485 Dwnld

Step 1 Press “7” to choose “RS485 Dwnld”

Device Setting	
1 Machine ID	1
2 Admin Qty	5
3 Language	ENG
4 Voice Out	
5 Volume	
6 Screen Saver	
7 RS485 Dwnld	
8 Verify	
9 Default Setting	

Step 2 Press “▲” or “▼” to disable the function of RS485 download

### 3.5.12. Verify

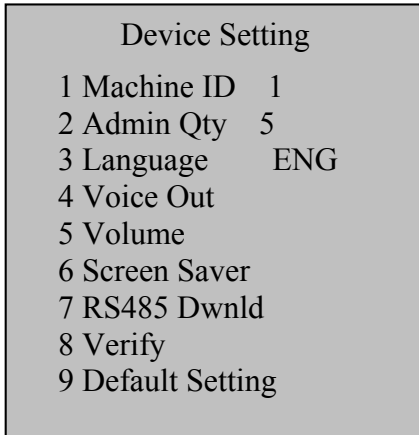
Step 1 Press “8” to choose “Verify”

Device Setting	
1 Machine ID	1
2 Admin Qty	5
3 Language	ENG
4 Voice Out	
5 Volume	
6 Screen Saver	
7 RS485 Dwnld	
8 Verify	
9 Default Setting	

Step 2 Press “▲” or “▼” to change verification mode.

### 3.5.13. Default Setting

Step 1 Press “9” to choose “Default Setting” and confirm the restoring.



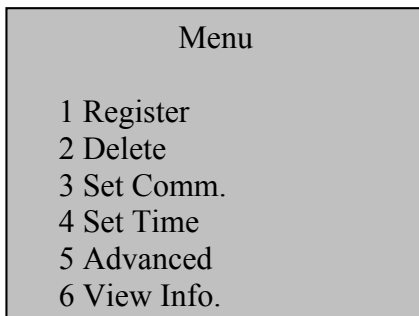
All setting under machine setting will be recovered to default factory setting.  
(Except System Log and Attendance Log)

### 3.5.14. Logs

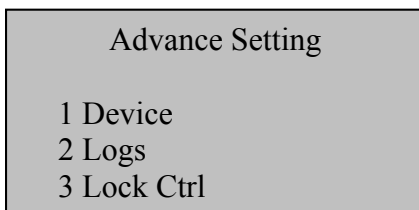
Follow the steps below to access Logs Menu.

Step 1 Enter First Level Menu

Step 2 Press”5” to choose “Advanced Setting”

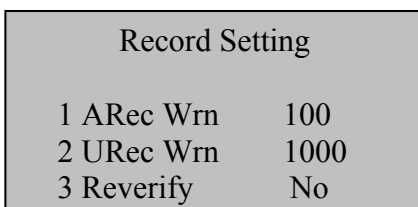


Step 3 Press”2” to choose “Logs”



### 3.5.15. Administrator Record (System Log) Warning

Step 1 Press”1” to choose “ARec Wrn”



Step 2 Enter the number of residue system log memory (1 – 255) before the warning occur.  
And press “OK” to confirm.  
(i.e. “100” means the warning will occur if the residue system log memory reach 100.)

### 3.5.16. User Record (Attendance Log) Warning

Step 1 Press”2” to choose “URec Wrn”

Record Setting	
1 ARec Wrn	100
2 URec Wrn	1000
3 Reverify	No

Step 2 Enter the number of residue attendance record (1 - 1500)before the warning occur.  
And press “OK” to confirm.  
(i.e. “1000” means the warning will occur if the residue attendance log memory reach 1000)

### 3.5.17. Reverify

Step 1 Press”3” to choose “Reverify”

Record Setting	
1 ARec Wrn	100
2 URec Wrn	1000
3 Reverify	No

Step 2 Press “▲”or “▼”to disable the function  
or set the duration between 2 successful attendance (1 –255mins)

### 3.5.18. Records

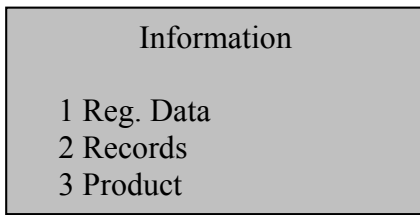
Follow the steps below to access Information Menu.

Step 1 Enter First Level Menu

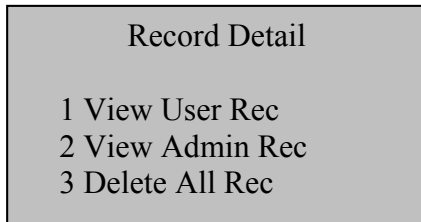
Step 2 Press”6” to choose “View Info.”

Menu	
1 Register	
2 Delete	
3 Set Comm.	
4 Set Time	
5 Advanced	
6 View Info.	

Step 3 Press "2" to choose "Records"



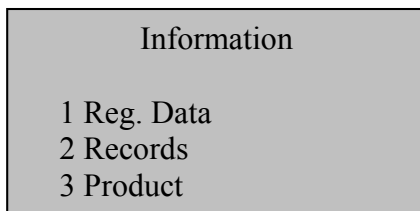
Step 4 Press "ok" to view details



### 3.5.19. Reg. Data

It shows all amount of Enrolled record storage such as the number of enrolled user, the number of enrolled administrator, enrolled fingerprint template, enrolled password and enrolled card.

Step 1 Press "1" to choose "Reg. Data"



Step 2 Press "1" to choose "User Reg"

Storage Detail	
1 User Reg	4
2 Manager Reg	3
3 Finger	1
4 Password	0
5 Card (Optional)	0

## 3.4. Maintenance

### 3.6.1. Clean

Sometimes optical lens, keyboard or screen needs to be cleaned. Due to different outside working environment, it's hard to give an exact cleaning schedule. The below table is a guide that may do some help:

Item	Clean
Keyboard & screen	Whenever it's too dirty and blurry on the surface, it needs cleaning. Details refer to 3.6.2.
Optic Lens	Don't clean too frequently. Lens works better with a little lipid.
	Once the lens is shaded or somewhat affects identification of fingerprint, it needs cleaning. Details refer to 3.6.3.

Tab.5-1 Maintenance Legend

### 3.6.2. Clean keyboard & LCD Screen

Make sure to turn off the device when it needs to do cleaning on keyboard & liquid screen. Use wet duster cloth or other mild detergent and then dry it.

### 3.6.3. Clean Optic Lens

Follow below suggestion when cleaning Optic Lens:

- 1) Once it is with dust or grit, please blow dust off first;
- 2) Use adhesive tape to clean display window.  
Warning: Don't use water or other detergent to clean which may do harm on optic lens.
- 3) Wipe with fine cloth without any fluff and be careful not to hurt lens. Once it has fluff on the lens, blow it off after the lens becomes dry.

## 4. Quick Setup Guide

### 4.1. Hardware

#### 4.1.1. Power on/off

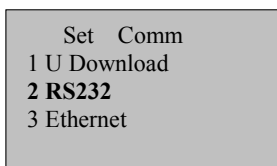
1. Connect the Power Adaptor to a 220V/110V socket.
2. Connect the fingerprint terminal, and then it will automatically power on.

#### 4.1.2. Computer Connection

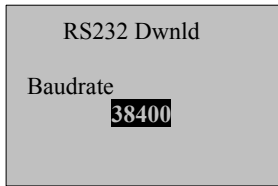
There are four ways to establish the connection with the Computer.

##### A. Through RS232

1. Press "MENU" to enter menu. Press 3>>2>>1



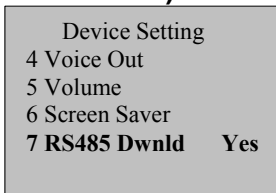
2. Set the baud rate to 38400 by pressing ▲ or ▼ and then press "OK" to save.



3. Power off.
4. Connect RS232 cable to the 9-pin port or connect the bundled RJ45-RS232 cable to the RJ45 port on.
5. Connect the other end of RS232/ RJ45-RS232 cable to computer COM-PORT.
6. Power on.

**B. Through RS485 (For pure attendance model is not available)**

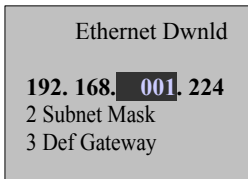
1. Press "MENU" to enter menu. Press 5>1>7
2. Set "RS485 Use" to "On" pressing ▲ or ▼ and then press "OK" to save.  
**(Note: can either enable RS485 connection or TCP/IP connection at the same time)**



3. Power off.
4. Connect RS485 cable to the RJ45 port on. (Note: please refer to **5. RJ45 Port Pin Assignment** for details of the required RS485 cable)
5. Connect the other end of RS485 cable to a RS232/RS485 Converter
6. Connect the other end of RS232/RS485 to computer COM-PORT.
7. Power on .

**C. Through TCP/IP**

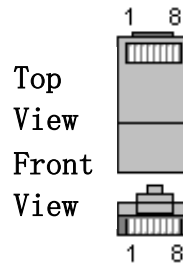
1. Press "MENU" to enter menu. Press 3>>3>>1 to enter IP setup page.



2. Configure the IP according to your network settings. The default IP is 192.168.1.224. Please make sure that the IP of fingerprint terminal is within the same network with your computer. Thus, if IP of your computer is 192.168.001.xxx, then IP of ZT889 fingerprint terminal must be 192.168.001.xxx also.
3. Power off .
4. Connect computer directly with Ethernet 10/100Base-T Crossover Cable, or connect to network Hub/Switch with Ethernet 10/100Base-T Straight Thru Cable.
5. Power on.
6. Pin Assignment refer to below diagram

## RJ45 Port Pin Assignment

Pin	Function
1	TCP---TX+
2	TCP---TX-
3	TCP---RX+4
6	TCP—RX



### D. Through USB

1. From software menu-device management and choose “USB” for communication mode.
2. Connect computer directly with USB cable for direct communication from the device to computer.

## 4.2. Software

### 4.2.1. Fingerprint Registration

1. Connect the Power Adapter to ZT889 fingerprint terminal and power socket, power on.
2. Press “MENU”, and followed by 1>>1>>1>>1 to enter staff finger print registration page.
3. Input the user ID and then place the finger on scanner for three times.
4. Press “MENU”, and followed by 1>>2>>1>>1 to enter admin finger print registration page.
5. Once there is a user registered as Admin, the menu function will be locked. Thus no one can access to menu without manager authentication.

### 4.2.2. Software Installation

1. Put the Software CD-Rom into CD/DVD Drive of Computer.
2. Install the software as per pop-up prompt (C: not recommended) and then click shortcut icon to run software.

### 4.2.3. Software Start-up

Run the software and then login with default User Name / Password: admin/ None (No password).