



## V-AX27

Fingerprint Time Attendance and Access Control

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# 1 Notice For User

## 1.1 Security Considerations

Please read carefully before using the manual:

1. Please read it carefully first of all;
2. Don't install the terminal under direct light, humid, dusty or sooty environment;
3. Don't install the terminal near the magnetic field;
4. Don't install the terminal near the calefaction device;
5. Don't sprinkle the liquid (water, drink, chemistry) on the terminal;
6. Always keep the surface of the terminal clean;
7. Clear the terminal by towel when there is water on the surface;
8. Don't break the terminal;
9. Don't press two keys at the same time;
10. Don't take down, repair or change the terminal without authorization;
11. Don't allow children to touch the terminal;
12. This terminal is only used for fingerprint verification, don't use it for other purposes;
13. If in doubt, please contact the local distributor.

## 1.2 Illustration for Pressing Fingerprint

**Correct method:**



Place the center of the finger on the center of scanner window.

**Wrong method:**



Too less valid area    Too left    Too right    Defluxion    Too down

**Note:**

1. It is better for each user to register two finger prints in case of one finger can't work.
2. Place finger flat and make sure the center of the finger is on the center of scanner window and press a little hard on scanner so it can scan as large finger area as possible to extract enough minutia.
3. Keep the angle and direction of finger the same each time placing on scanner.
4. If your finger has sweat or water, please dry it first and then register the finger.
5. If your finger is too dry, make it a little wet or touch the forehead to increase the wetness of the finger, press a little hard on scanner. (The dry finger can cause the finger image not coming out clear enough.
6. Avoid the callus, peeling, or injury of the finger to ensure the register and identification successful.
7. You can register the thumb first, and then index finger or middle finger to increase the precision.

## Chapter2 Introduction

The main theme of this chapter is the feature of this T&A product, as well as the function introduction.



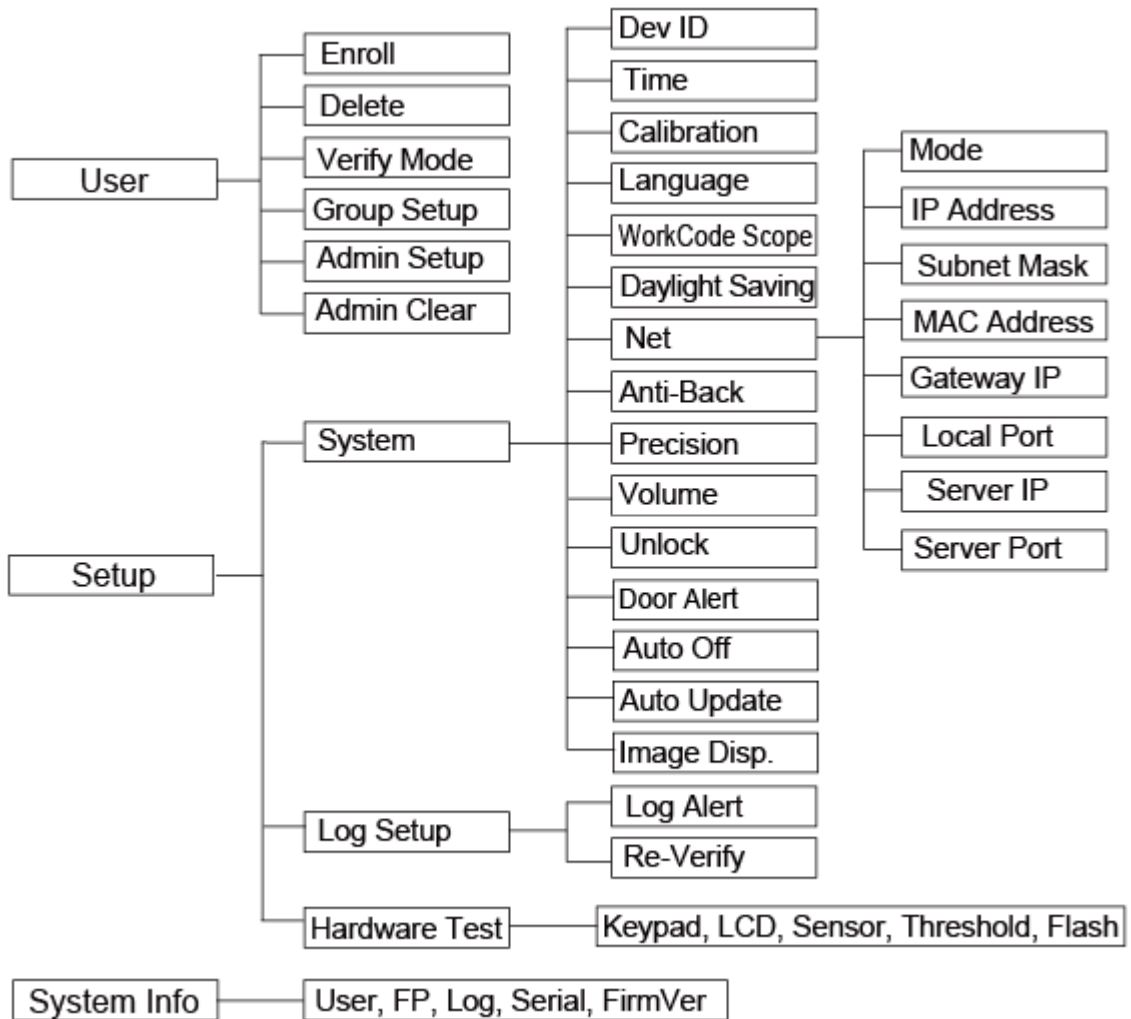
## 2 Introduction

### 2.1 Menu List

Press [M] key to enter system management menu.

(This requires the administrator authorization if there is admin registered in the system.)

Menu List:



### 2.2 Features

- High Precision OLED Display
- Touch Keypad&Sensor
- Optical fingerprint scanner, wear-resistant, against spoiling long life
- Power Over Ethernet provide device network communication and the power is enough for both device and lock working
- Multi-identification: Fingerprint, Card, ID + fingerprint, ID + Password, Card + fingerprint and Card + Password

- Support Low-frequency card : EM Card and other compatible card(125kHz)
- Support TCP/IP, RS485, Mini USB Slave, Wiegand Out & In
- Can be connected with the SC011 access controller system to achieve split security
- Registration capacity: 3000 Fingerprints and 50000 Records

## 2.3 Technical Parameters

Item	Description
Comparison Time	<0.5 sec
Recognition Mode	Fingerprint, Password, Card
The area for the fingerprint collection	22mm*18mm
Image Resolution	500DPI
FRR	0.001%
FAR	0.00001%
Standard Interface	RS485, TCP/IP, Mini USB Slave, Wiegand Input and Output
Operating Voltage	DC12V
Relay	Relay Output (COM, NO, NC or Direct Lock Control)
POE	Nominal Power less than 13W
Operating Temperature/ Humidity	-25°C-70°C / 0%-90%
Material	ABS Engineering Plastics
Size	54(W)×170(H) ×41(D)mm
Color	Black

## Chapter3 Operation Guide

This section explains terminal appearance, and operation. (Including how to add and remove users and how to set system parameters, etc.)



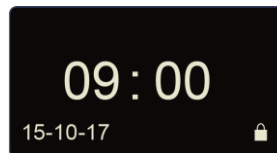
### 3 Operation Guide

#### 3.1 Keypad Instruction

Keypad	Funciton	Keypad	Funciton
Fn	Work Code	C	Exit/Cancel Key
<	State Key(Clock In)/Up	0-9	Num. Keys
>	State Key(Clock Out)/Down	OK	Confirm Key/Power Key
M	Menu		

#### 3.2 Time Attendance Status

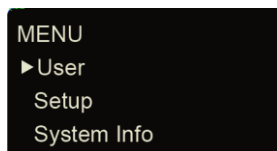
Standby status we can run: time attendance, status setting, entering management mode and power off operation.



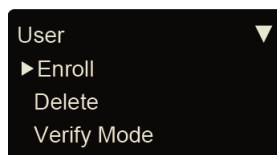
#### 3.3 User

Employee info management includes user registration, user deletion; verify mode, group setting, manager setup and deletion.

Press [M] to enter system management mode. Select [User] option.

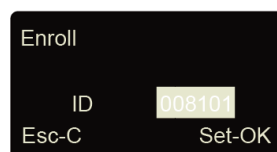


Press [OK] button to enter the sub-menu.

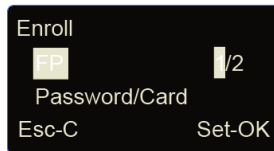


##### 3.3.1 User Enroll

Select [Enroll] option and press [OK] to enter user registration interface. Input user ID, i.e. 8101.



Press [OK] to continue.



**Fingerprint registration:**

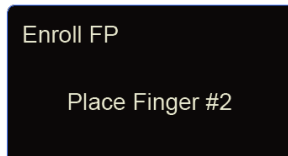
Press [**<**] or [**>**] key to select 1 or 2, 1 is to register the 1st FP, 2 is for 2nd FP. Press [**OK**] to continue.



Place the finger on sensor scanner. Please follow the screen prompts to register the fingerprint.



Remove finger, the system will prompt.



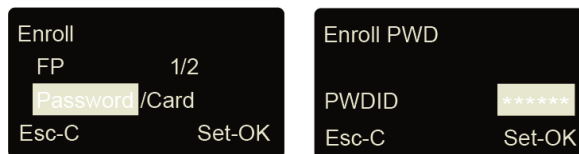
Place the same finger on sensor scanner again. After scanning successfully, the system will prompt as follow:



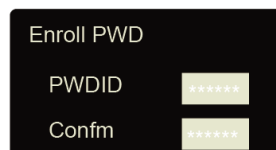
Press [**OK**] to save fingerprint. Press [**C**] back to user registration interface. The 2nd finger registration as the same steps as above.

**Password registration:**

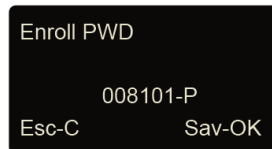
Press [**<**] or [**>**] key to [**Password**] option. Press [**OK**] to continue.



Please Input 1-6 digits as password. Press [**OK**] to confirm and input same password again. The system will prompt:



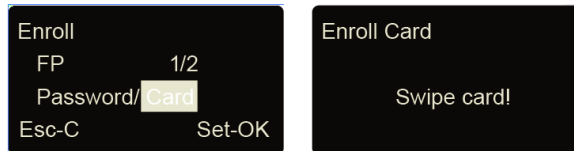
Press [**OK**] to save interface.



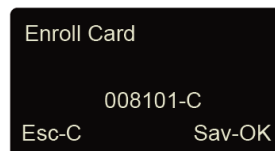
Press [OK] to save password. Press [C] to cancel and exit back to user registration interface.

### Card registration:

Press [<] or [>] key to [Card] option. Press [OK] to continue.



Swipe the ID card on card reader area. The terminal will get card number and enter save interface.

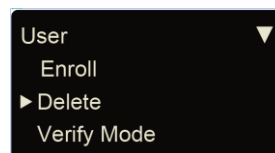


Press [OK] to save, press [C] to cancel and exit back to user registration interface.

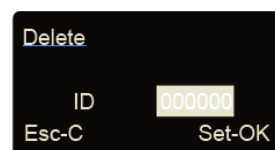
### 3.3.2 User Deletion

When there are employees leaving, we need to delete these employees to free more memory space.

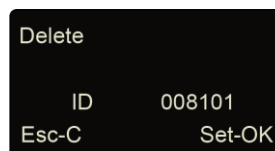
In [User] menu, press [<] or [>] to select [Delete] option.



Press [OK] key to enter user deletion interface.



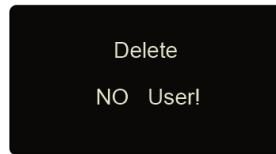
Input employee ID to delete. Press [OK] enter delete confirm interface.



Press [OK] to confirm delete. Press [C] to cancel.

**Note:** Employee deletion will delete all information of the employee and can't be resumed. Please take caution!

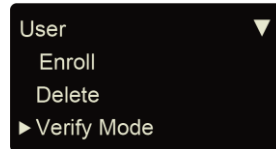
When machine do not have this employee ID, the system will prompt as follow:



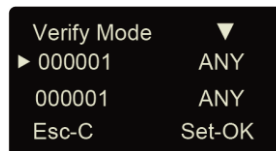
### 3.3.3 Verify Mode

Setting verify mode of the employee, there are four modes: SEPT, RF+PW, PW+FP, and RF+FP.

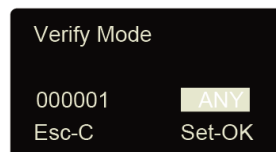
In [User] menu, press [<] or [>] key to select [Verify Mode] option:



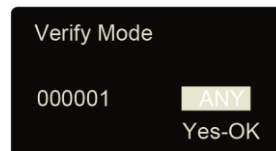
Press [OK] key to enter setting interface:



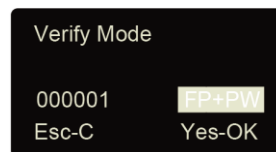
Press [<] or [>] key to select employee's ID or press [OK] to input user ID:



After input user ID, press [OK] to enter setting interface.



Setting employee's verify mode through [<] or [>] key, then press [OK] key to confirm and enter save interface:

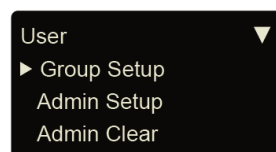


Then press [OK] key to save; Press [C] key to cancel this operation.

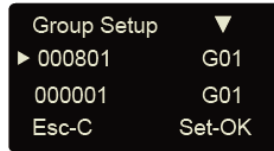
### 3.3.4 Group Setup

Group is based on time zones. One group can set max 4 time zone. There are supply 16 groups. Normally, system will default group 0 as normal close, group 1 as normal open.

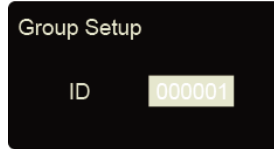
In [User] menu, press [<] or [>] key to select [Group Setup] option.



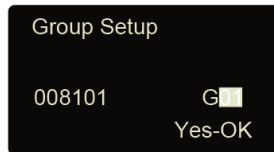
Press [OK] key to enter group setup interface.



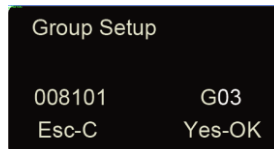
Press [**<**] or [**>**] key to select user ID or press [**OK**] to input user ID manually.



After input user ID, press [**OK**] to enter group interface.



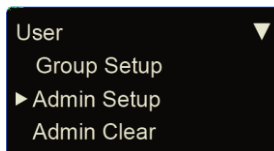
Group number can be input through [**<**] or [**>**] key or number key. (Max group number is 16 ). Press [**OK**] key to confirm and enter save interface.



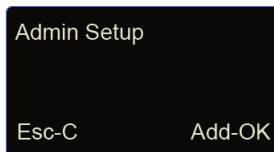
Then press [**OK**] key to save employee' group settings. Press [**C**] key to cancel this operation as well.

### 3.3.5 Admin Setup

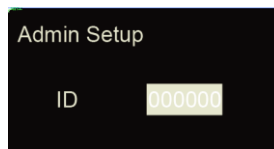
To prevent illegal operation, we need to set device admin to enter menu. In [**User**] menu, press [**<**] or [**>**] key to select [**Admin Setup**] option:



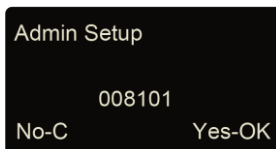
Press [**OK**] key to enter [**Admin Setup**] interface.



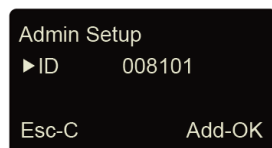
Press [**OK**] to start adding admin.



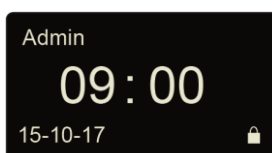
Input the user ID i.e. 8101. Press [**OK**] key to enter admin setup save interface.



Press [OK] key again to confirm saving. After adding completed, exit to admin setup interface.

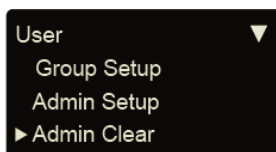


You can press [OK] key to continuously add other admin, and press [C] to exit as well. After adding admin, it needs the verification of the administrator's fingerprint to enter Menu. The interface is as following:

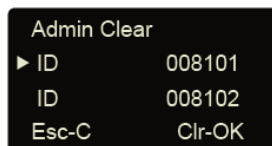


### 3.3.6 Admin Clear

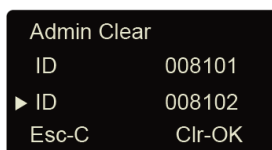
Select [Admin Clear] option in [User] menu.



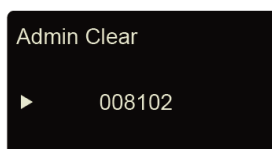
Press [OK] to enter admin clear interface.



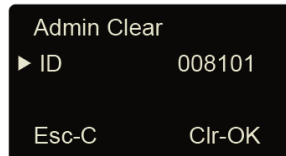
Press [<] or [>] key to choose the admin ID to be deleted, i.e. 8102:



Press [OK] key to confirm the admin ID.

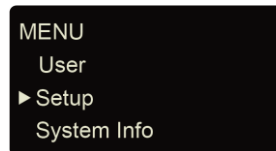


**Note:** in admin clear interface, you can press [OK] key to input admin ID and delete it manually. Press [OK] key again and confirm to delete manager 8102. Then exit to manager clear interface.



## 3.4 Setup

[Setup] menu mainly includes [System], [Log Setup] and [Hardware Test]. Enter management menu, press [<] or [>] key to select [Setup] option.

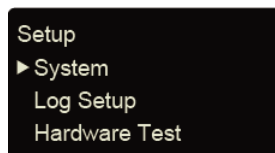


Press [OK] key to enter [Setup] sub-menu. Press [<] or [>] key to shift menu.

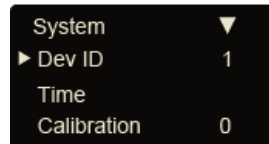
### 3.4.1 System Setup

#### 3.4.1.1 Device ID

In [Setup] menu, press [<] or [>] key to enter [System] setup option.



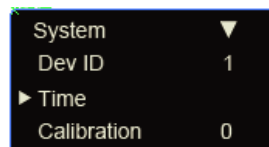
Press [OK] key to enter system setting sub-menu.



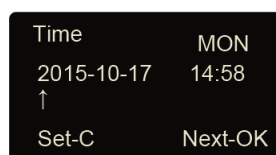
Note: Device ID range is 0-99999999, and default is 1.(Device ID must enter as same as in the communication software), When the device as -0 || , must use the lasted 8 digit of the serial number to communication with software.

#### 3.4.1.2 Time

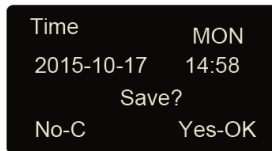
In [Setup] menu, press [<] or [>] key to enter [System] setup option.



Press [OK] key to enter time setting interface.



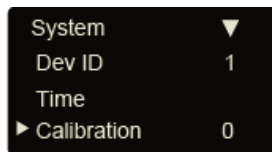
You can press the [OK] key to move the cursor to shift the year, month, day. And use number and [<] or [>] key adjust the time. After setting completed, press [C] key and enter system time save interface.



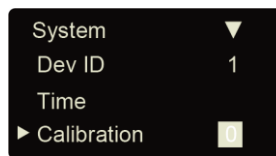
Press [OK] key to save system time. Press [C] key to cancel and exit to upper menu.

### 3.4.1.3 Calibration

In [System], press [<] or [>] key to select [Calibration] option.



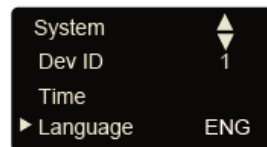
Press [OK] key to enter the time setting (Time unit: second).



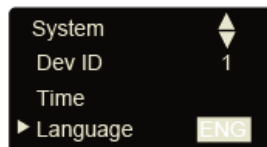
You can press [<] or [>] key to get the calibration time you need. And press [OK] to confirm. Then you can continue to do other function settings.

### 3.4.1.4 Language

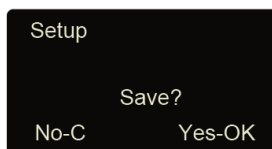
In [System], press [<] or [>] key to select [Language] option.



Press [OK] key to enter language setting interface.



You can press [<] or [>] key to switchover the language. And press [OK] to confirm. Then you can continue to do other function settings. And press [C] key to enter setting save interface.

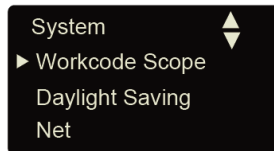


Press [OK] key to save system setting. Press [C] to cancel and exit to upper menu.

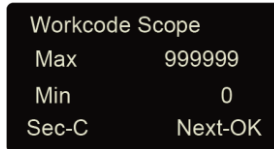
### 3.4.1.5 WorkCode Scope

Work code is a code for different work. Use for device supply a parameter to label an attendance record as which kind of the work. It is easy for count attendance time for different work. The scope of the work code is: 0-999999. It is an invalid when over this scope.

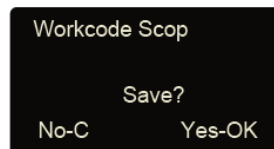
In [System], press [<] or [>] key to select [Work code scope] option.



Press [OK] key to enter work code scope interface.



When you finish setting, press [C] key enter save interface.

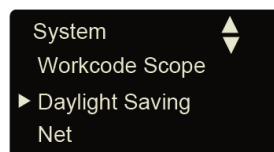


Press [OK] to confirm and save.

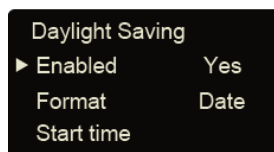
### 3.4.1.6 Daylight Saving

Automatically switch daylight saving time base on week or date.

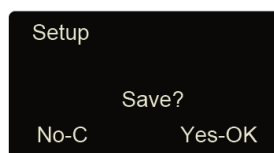
In [System], press [<] or [>] key to select [Daylight Saving] option.



Press [OK] key to enter Daylight Saving interface:



When you enable 'Daylight Saving' function you need select week or date format first. Then you need set the time point for 'Daylight Saving' start time and end time. And press [C] key enter save interface.

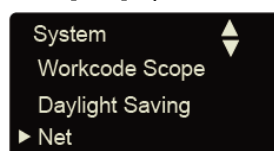


Press [OK] to Confirm and save.

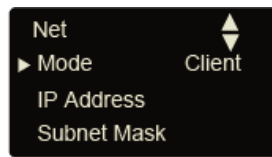
### 3.4.1.7 Net

Network setting main includes [IP Address], [Subnet Mask], [MAC Address] and [Gateway IP] settings.

In [System], press [<] or [>] key to select [Net] option.



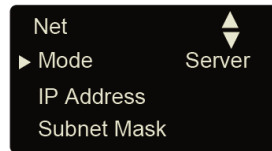
Press [OK] key to enter net parameter interface.



**Mode:**

There are two modes for networking.

Press [<] or [>] key to select [Server] or [Client].

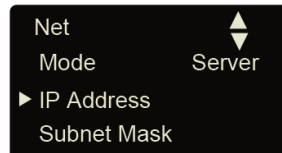


Server: Normal net mode;

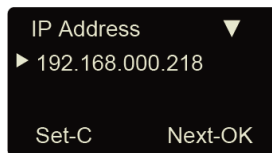
Client: Only communication with the PC which has server IP.

**IP Address**

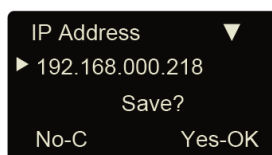
Press [<] or [>] key to select [IP address] option:



Press [OK] key to enter IP address setting interface:



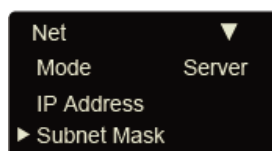
Press [<] or [>] key or number key to input IP address. Press [OK] key to shift between the 4 segments. After set is completed, press [C] key to enter IP address save interface.



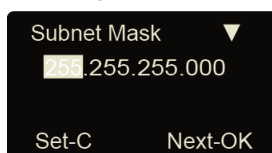
Press [OK] key to save the modification. Press [C] key to cancel.

**Subnet Mask**

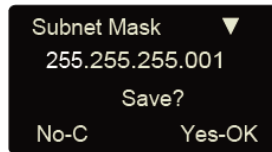
Press [<] or [>] key to select [Subnet mask] option.



Press [OK] key to enter subnet mask setting interface.



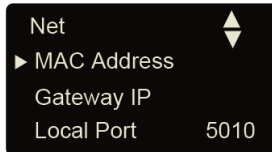
Press [ $\leftarrow$ ] or [ $\rightarrow$ ] key or number key to input subnet mask. Press [OK] key to shift between the 4 segments. After set is completed, press [C] key to enter subnet mask save interface.



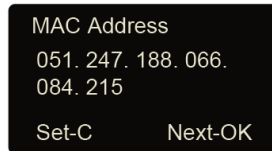
Press [OK] key to save the modification. Press [C] key to cancel.

**MAC Address**

Press [ $\leftarrow$ ] or [ $\rightarrow$ ] key to select [MAC Address] option.



Press [OK] key to enter MAC address setting interface.

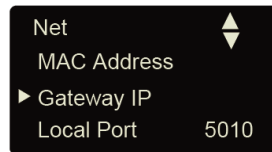


Please do not change the MAC address for device.

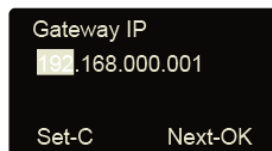
Press [OK] key to save the modification. Press [C] key to cancel.

**Gateway IP**

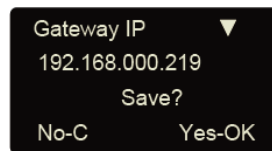
Press [ $\leftarrow$ ] or [ $\rightarrow$ ] key to select [Gateway IP] option.



Press [OK] key to enter gateway IP setting interface.



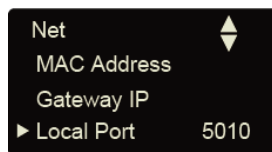
Press [ $\leftarrow$ ] or [ $\rightarrow$ ] key or number key to input gateway IP. Press [OK] key to shift between the 4 segments. After set is completed, press [C] key to enter gateway IP save interface.



Press [OK] key to save the modification. Press [C] key to cancel.

**Local Port:**

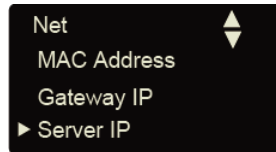
Press [ $\leftarrow$ ] or [ $\rightarrow$ ] to select [Local Port] option:



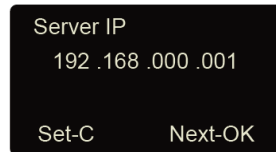
Press [**<**] or [**>**] key or number key to input port. After set is completed, press [**C**] key to enter save interface.

**Server IP address**

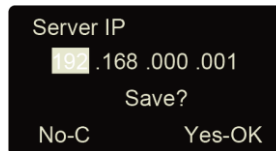
Press [**<**] or [**>**] to select[Server IP]option:



Press [**OK**] key to enter Server IP setting interface.



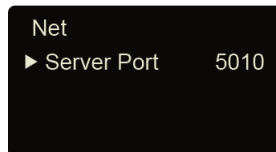
Press [**<**] or [**>**] key or number key to input server IP. After set is completed, press [**C**] key to enter save interface.



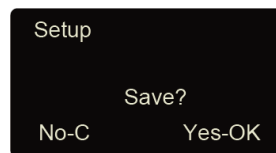
Press [**OK**] key to save the modification. Press [**C**] key to cancel.

**Server port**

Press [**<**] or [**>**] to select [Server port] option:



Press [**<**] or [**>**] key or number key to input server port. After set is completed, press [**C**] key to enter save interface.

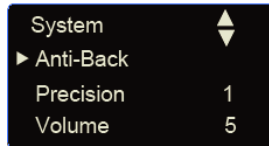


Press [**OK**] key to save the modification. Press [**C**] key to cancel.

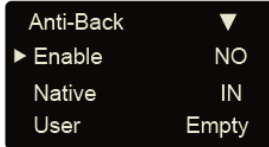
**3.4.1.8 Anti-Back**

The anti-back feature is designed to prevent misuse of the access control system. The anti-back feature is most commonly used at parking gates and employee entrance doors, where there is both an 'in' reader at the entry gate and an 'out' reader at the exit gate. The anti-back feature requires that for every use of a card at the 'in' reader, there be a corresponding use at the 'out' reader before the card can be used at the 'in' reader again. P7 must work with T5s to realize anti-back function.

Via [**<**] or [**>**] select [Anti-Back] option:



Press [OK] to confirm enter 'Anti Pass Back' menu.



Enable: Enable or Disable anti-back function.

Native: Setting device always as 'In' or 'Out' states.

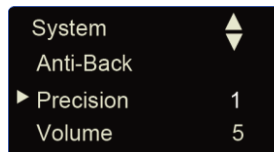
Empty User: Clear all the stranded user records which have been accessed in.

Press [<] or [>] key to setting the anti-back function and press[OK]to confirm, then press[C]save and exit.

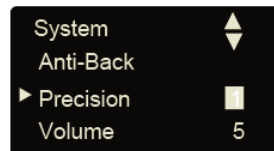
### 3.4.1.9 Precision

There are three fingerprint matching precision levels (0, 1, and 2). 0 is lower precision (Basic) .1 is standard precision (Good). 2 is high precision (Excellent).

Press [<] or [>] key to select [Precision] option.



Press [OK] key to enter precision setting interface.

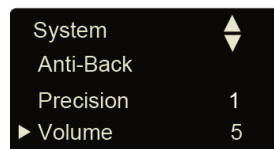


Press [<] or [>] key or number key to adjust the precision. Press [OK] key to confirm. Then press [C] to save the setting.

### 3.4.1.10 Volume

There are five levels for device's volume,0-mute,MAX-5.

In [System] setup, press [<] or [>] key to select [volume] option.

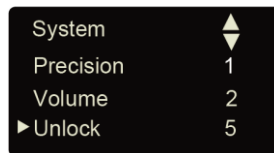


Press [OK] key to enter volume setting interface, Press [<] or [>] key set the volume. Press [OK] key to confirm. Then press [C] to save the setting.

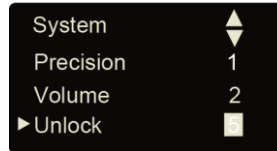
### 3.4.1.11 Unlock

Lock delay is the time range since lock open to close after user access granted. 'No' means no delay and the max delay time is 15 seconds.

Press [<] or [>] key to select [Unlock] option.



Press [OK] key to enter delay time setting interface.

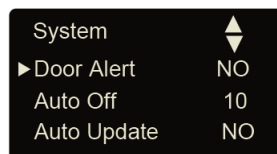


Press [<] or [>] key or number key to input delay time. Press [OK] key to confirm. Then press [C] to save the setting.

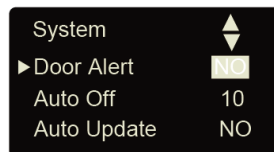
### 3.4.1.12 Door Alert

Door alert use for monitor lock whether door was closed after user access. If lock does not close the device will alarm out. The delay time for door alert is 1-99 sec and 'No' means disable the door alert function.

Press [<] or [>] key to select [Door Alert] option.



Press [OK] key to enter door alert setting interface.

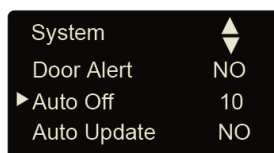


Press [<] or [>] key or number key to input door alert value. Press [OK] key to confirm. Then press [C] to save the setting.

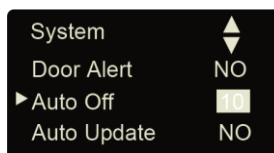
### 3.4.1.13 Auto Off

Auto off is the time period from the last operation on device to coming into dormancy status. Time range is 1-250 minutes. 'No' is no dormancy forever.

Press [<] or [>] key to select [Auto off] option.



Press [OK] key to enter auto off setting interface.

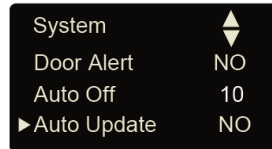


Press [<] or [>] key or number key to input dormancy time. Press [OK] key to confirm. Then press [C] to save the setting.

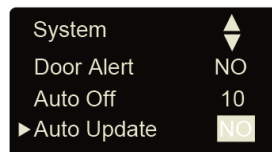
### 3.4.1.14 Auto Update

Update the fingerprint template intelligently: During fingerprint sensor identification process, the sensor replaces the lowest-quality data with new, higher-quality data that it acquired in the matching process. This enables the sensor to maintain high quality data at all times, saving the user from repeated authentication attempts.

Press [**<**] or [**>**] key and shift to [Auto Update] option:



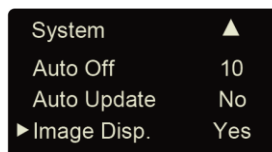
Press [**OK**] key to enter auto off setting interface:



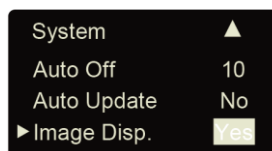
Press [**<**] or [**>**] key to choose 'Yes' or 'No', and then press [**OK**] key to confirm. Then press [**C**] to save the setting.

### 3.4.1.15 Image Disp.

Whether display the fingerprint image on the LCD after user access granted. In [System] setup, press [**<**] or [**>**] key to select [Image Disp.] option.



Press [**OK**] key to enter setting interface:

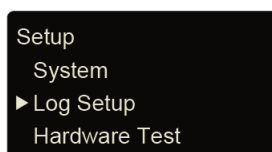


Press [**<**] or [**>**] key to choose 'Yes' or 'No', and then press [**OK**] key to confirm. Then press [**C**] to save the setting.

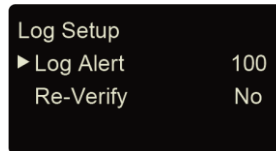
### 3.4.2 Log Setup

Log warning number has the highest limit of 5000. When the available records memory is less than the 'Glog Wrn', system will prompt corresponding operation.

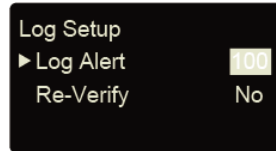
Press [**<**] or [**>**] key to select [Log Setup] option.



Press [**OK**] key to enter sub-menu.



Press [**<**] or [**>**] key to select [Log Alert] option. Press [OK] key to enter log alert setting interface.

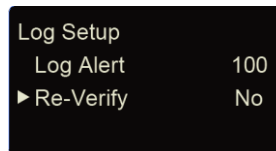


Press [**<**] or [**>**] key or number key to input log warning number. Press [OK] key to confirm. Then press [C] to save the setting.

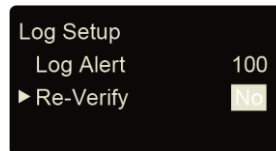
### 3.4.3 Re-Verify Time

The Re-verify time is the time interval in which you make continuous records with the same finger (1-250 minutes), and then the device will only save the first record. If the re-verify value is 'NO', it means that you every record saved in the device.

In [Log Setup] menu, press [**<**] or [**>**] key to select [Re-Verify] option.



Press [OK] key to enter re-verify setting interface.



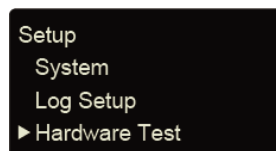
Press [**<**] or [**>**] key or number keypad to input time. Press [OK] key to confirm. Then press [C] to save the setting.

Prompt: If the same finger is identified continuously in re-verify time period, only the first record will be saved in device memory.

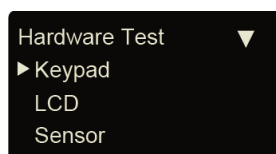
### 3.4.4 Hardware Test

Test the functions of machine keys, LCD, voice, scanner and Flash.

Select [Hardware test] option in [Setup] menu:

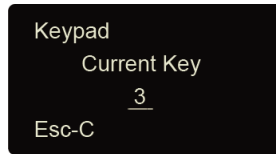


Press [OK] to enter setting interface as following:



Press [**<**] or [**>**] key to choose testing option and press [OK] key to start. Keypad: press [**<**] or [**>**]

key to select [Keyboard] option, and press [OK] to enter keyboard testing interface. Then press any key to start keys testing (i.e. press key 3, if interface shows current key as 3, it indicates the key 3 works.)



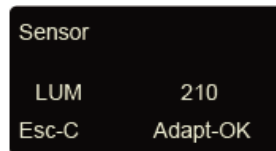
Press 'C' exit the test

LCD: Press [<] or [>] key to select [LCD] option, and press [OK] to enter LCD testing interface.



Press 'C' exit the test

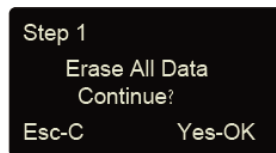
Sensor: Press [<] or [>] key to select [Sensor] option, and press [OK] to enter sensor testing interface.



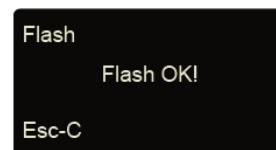
Press 'C' exit the test

Flash: Press [<] or [>] key to select [Flash] option, and press [OK] to enter flash testing interface.

Two steps: 1. Erase all data; 2. Check



After checking completed, the interface will show the checking result.

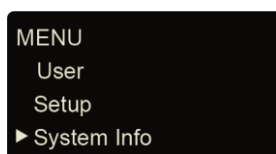


After each test are finished, press [C] key to exit.

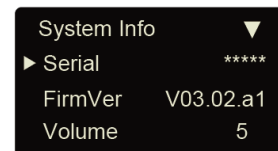
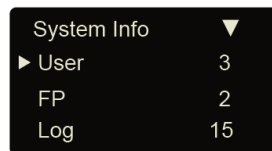
### 3.5 System Info

System info shows the current usage status of device, such as user quantity, fingerprint quantity, records quantity and the firmware version etc.

In management mode, press [<] or [>] key and shift to [System Info] option,



Press [OK] key to enter system info interface, and check info of correct operated device.



User: Registered user number in device.

FP: registered fingerprints number. Select it and press [OK] key and you can check the password and card number.

Log: The number of the attendance record stored in the device.

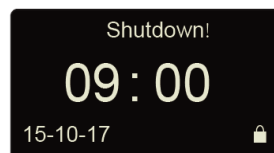
Serial: The unique identifier of the device and cannot be modified.

FirmVer: the firmware version of program which write in EROM or EPROM (Programmable read only memory). So called firmware is firm program saved in integrated circuit firmly, responsible for controlling and dealing with integrated circuit.

After checking completed, click [C] to exit.

### 3.6 Shut Down

In time attendance status, keep pressing [OK] key until interface shows as following.



Then device will shut down.

Notice: If external power is connected, you can press [OK] key to power on device.