



# **TC550** Fingerprint & Card Time Attendance and Access Control **User Guide (V1.0)**

## Feature

- USA TI 300MHz high speed processor
- USA BioNano core fingerprint algorithm of high speed and stability
- New generation fully sealed, waterproof and dustproof fingerprint sensor
- User name display and human voice prompt
- Realtime data transfer and WEB online tracking
- Optional access controller for separate type secure access control
- 6-digit work code, 15 groups, 32 time zones, 30 bell schedulers and 50 short messages
- Standard Mini USB, TCP/IP communication, dry contact output, Wiegand26 output
- Standard RFID card reader, optional Mifare/HID card reader
- Identification method: FP, Card, ID+PW, Card+PW, PW+FP, ,Card+FP
- Fingerprint capacity: 2000
- Record capacity: 50000
- Identification speed: <0.5 second
- Size: 126mm(w)\*189mm(h)\*35mm(d)

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## Safety Precautions

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



# Glossary

## ■ Administrator

- It is a special user who has the authorizations of setting the terminal system settings and user information.

The admin can add or delete the users, and the admin also can change the system settings of the terminal.

## ■ 1:1 Identification

- If it is 1:1 identification mode, the user has to input the user ID firstly, then verify the fingerprint or enter the password to make identification.

In this mode, the fingerprint sensor on the fingerprint template will identify with the one of the special user ID.

## ■ 1:N Identification

- Under 1:N mode, the user need not enter any user ID. Just need place the fingerprint on the fingerprint sensor .

The terminal will automatically identify this fingerprint with the ones of all users registered in inside database.

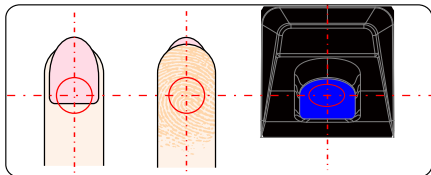
## ■ Fingerprint Enrollment

- It is the process to capture the fingerprint image features got from the fingerprint sensor and save the inside memory into the terminal.

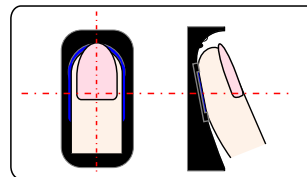
## Illustration for placing fingerprint

### ■ Correct method:

Straighten finger and place it flatly on the sensor, and make the fingerprint maximally cover the sensor.

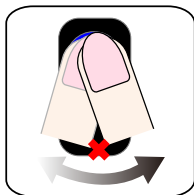


Place finger in the center of the sensor.

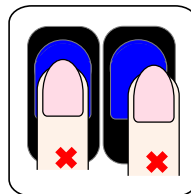


Place finger flatly and smoothly on the sensor.

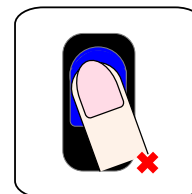
### ■ Incorrect method:



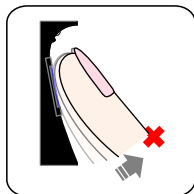
Move finger before the  
backlight of sensor is off.



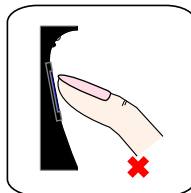
Place finger away from  
the center of the sensor.



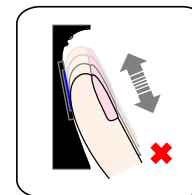
Tilt sensor.



Take off finger during the  
process of fingerprint verification.



Use fingertip.



Slide finger during the process  
of fingerprint verification.

## Packing List



Fingerprint & Card  
Time Attendance and Access Control



USB Cable (1.5 meters)



USB Power Adapter



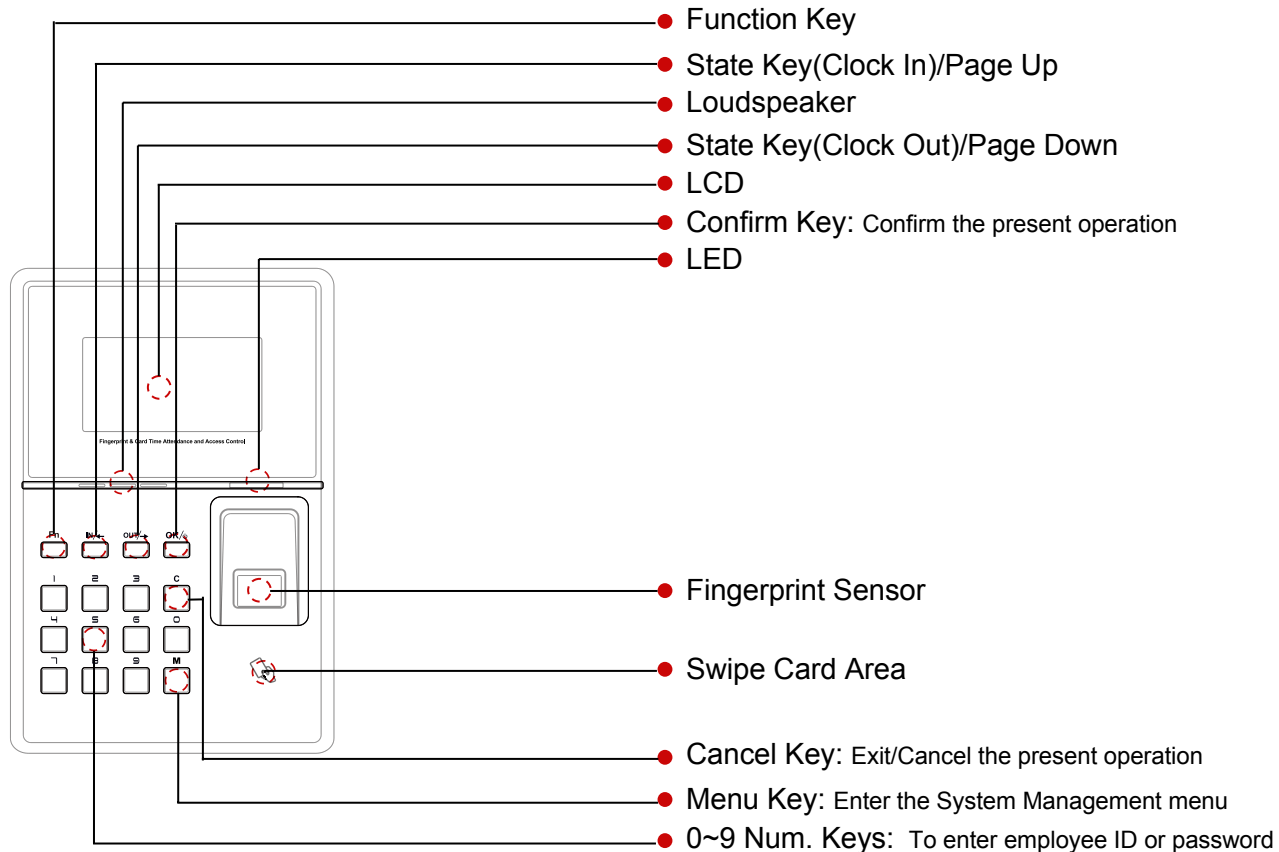
Software CD



Quick Guide

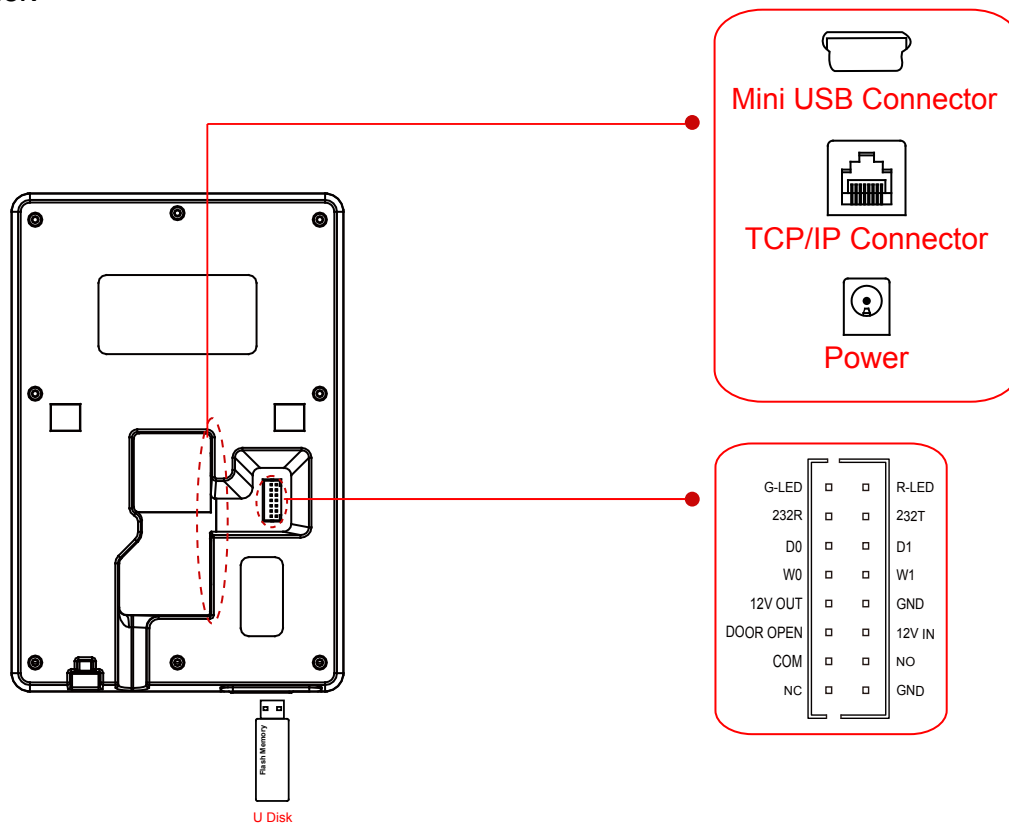
# Appearance

## ■ Front



## Appearance

### ■ Back



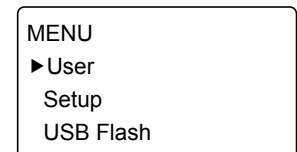
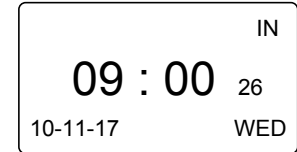
## For Administrator——Basic Functions



Manage employees' information.  
Main functions:  
Register users, delete users,  
add/delete admin and so on.

## System Menu

- Please press [M] to enter system management menu under initial state.
  - Since anyone can enter the terminal's management menu under initial state by pressing [M], we suggest you set the admin shortly after installation of the terminal.
  - The method of registering admin is the same for common employees. Please refer to "User Enrollment" and "Admin Setup" instructions.
- Verify the admin to enter the system management menu.
  - There are three ways to verify admin:
    1. Fingerprint verification: Let the person who is expected to be the admin place his/her finger on the sensor to verify.
    2. Password verification: Enter the admin's ID and password, press [OK] to confirm.  
Enter the system management menu after the admin verification is successful.
    3. Card verification: Swipe the admin's card to enter the system management menu.
- If the admin verification is OK, it will enter the system management menu.



# System Menu

## Menu list:

- User: for example: [Enroll], [Delete], [Verify Mode], [Admin Setup], [Admin Clear].
- Setup: [System], [Log Setup] and [Hardware Test].

[System] includes: Dev ID, system time, language, Workcode Scope Net, Precision, Volume, Unlock/Ring, Auto Off, Auto Update

[Log Setup] includes: clock in/out records storage alarm and fingerprint repeat clock in/out time periods

[Hardware Test] includes: keypad, LCD, voice, fingerprint sensor, flash test.

USB Flash: Use the U disk for communications.

- include: [New Rec. Backup], [All Rec. Backup], [User Backup] and [User Recovery].

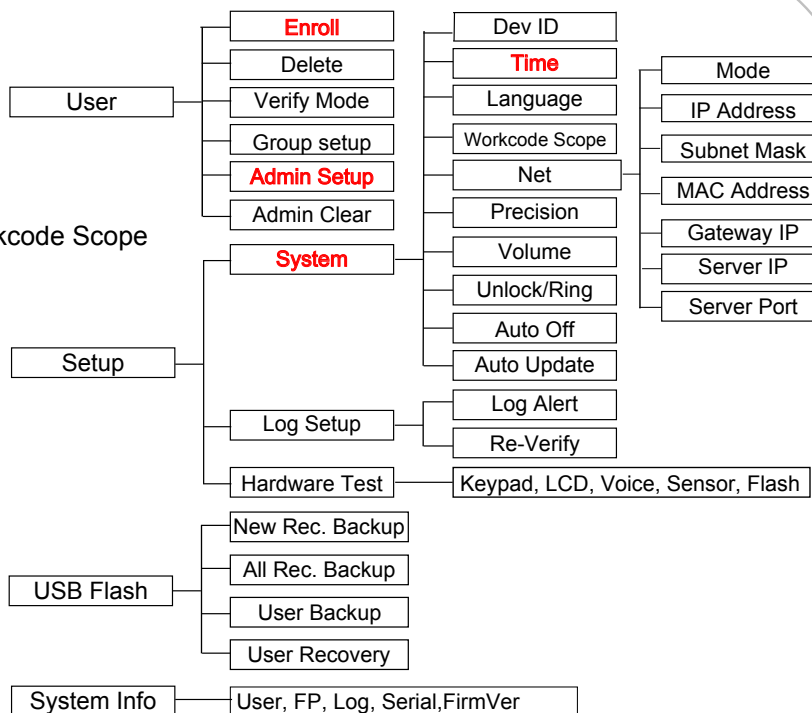
System Info: Show existing users amount,

- fingerprints amount, records amount, serial number, firmware version.

■ Press [IN/←] or [OUT/→] to select a corresponding submenu and press [OK] to confirm.

■ Enter submenu, press [IN/←] or [OUT/→] to select different options for setup.

- After setup, press [C] turn to save submenu. Press [OK] to save, or press [C] to cancel, and either of the operation will return to the previous menu.





## System Menu

- Press [C] to exit the system management menu.
  - To ensure safety, the system management menu will automatically return to the default menu if no operations in a certain period.

## User--Enroll (Fingerprint)

- Enter the system management menu. Select [User]-[Enroll]. Press [OK] to enter the enroll menu. Enter employee's ID and press [OK] to register employee.
  - Press [OUT/→] to select [FP 1] or [FP 2]. Press [OK] to start fingerprint enrollment. Press [OK] to save and return to the enroll menu.
- Place finger on the sensor correctly. Please refer to <The way to enroll a fingerprint>.
  - You need to enroll one fingerprint twice. Please enroll fingerprints according to LCD prompt.
  - If the second fingerprint enrolled is different from the first one, or the way you place finger is incorrect, it will prompt "Please try again".
  - If the fingerprint is existed, it will prompt "Fingerprint repeated". Please enroll another fingerprint.
- You can continue to enroll employees one by one. Or press [C] to exit.

User	▼
►Enroll	
Delete	
Verify Mode	

Enroll	
ID	008101
Esc-C	Set-OK

Enroll	
FP	1/2
Password/Card	
Esc-C	Set-OK

FP Enroll	
Place Finger #1	

FP Enroll	
008101-1	
Cancel-C	Sav-OK

## User--Enroll (Psssword)

- Enter [Menu], select [User] and press [OK] to [Enroll] interface.  
Input employee's ID and press [OK] to register employee.
  - Press [OUT/→] to select [Password], and press [OK] to enroll.
  - Input password(1 to 6 numbers) and press [OK] to confirm.
  - Input password again,and press [OK] to confirm.
  - Press [OK] to save password.
- Press [C] to exit to [Enroll] interface to continue, or press [C] to back to defult interface.

Enroll	
ID	008101
Esc-C	Set-OK

Enroll	
FP	1/2
Password	/Card
Esc-C	Set-OK

Pass Enroll	
PWDID	*****
Esc-C	Set-OK

Pass Enroll	
PWDID	*****
Confm	*****

Pass Enroll	
008101-P	
Cancel-C	Sav-OK

## User--Enroll (Card)

- Enter [Menu], select [User] and press [OK] to [Enroll] interface.  
Input employee's ID and press [OK] to register employee.
  - Press [OUT/→] to select [Card], and press [OK] to enroll.
  - Swipe the employee's card, and the system will get card number and enter save interface.
  - Press [OK] to save password.
- Press [C] to exit to [Enroll] interface to continue, or press [C] to back to default interface.

Enroll	
ID	008101
Esc-C	Set-OK

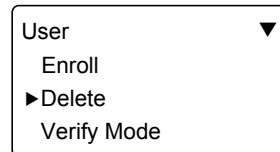
Enroll	
FP	1/2
Password/Card	
Esc-C	Set-OK

Card Enroll	
Punch Card!	

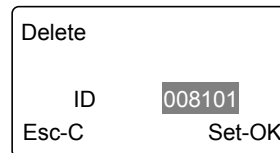
Card Enroll	
008101-C	
Cancel-C	Sav-OK

## User--Delete

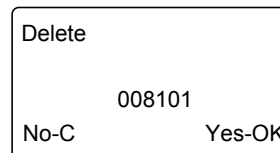
- When employees resign, we need delete the employee's information in the terminal. Enter the management menu.  
Select [User]-[Delete] press [OK].
  - Enter the employee's ID and press [OK], the system will prompt again whether to delete, press [OK] again to confirm delete the employee information.
  - Continue to delete other employees after deleting successfully, or press [C] to back to the default interface.
- Notice: Please caution with the action. All deleted information including employee's fingerprint, password, attendance records can not be recovered.
  - If deleted by mistake, please connect with the PC and upload the employee information which has been backed up before to recover the employee information.



```
User ▼
  Enroll
  ►Delete
  Verify Mode
```



```
Delete
      ID  008101
Esc-C           Set-OK
```



```
Delete
                        008101
No-C                     Yes-OK
```

## User--Verify Mode

- Enter the management menu. Select [User]-[Verify Mode] press [OK] to enter the setting interface.
  - Press [OUT/→] to select employee or press [OK] to input user ID.
  - Press [OK] to enter setting interface.
  - Set employee's verify mode through [OUT/→], there are three modes: [ANY], [CARD+PW], [PW+FP] and [CARD+FP].
  - Then press [OK] to save this setting.

User ▼  
Enroll  
Delete  
▶Verify Mode

Verify Mode ▼  
  
Esc-C Set-OK

Verify Mode  
  
ID 008101  
Esc-C Set-OK

Verify Mode  
  
008101 PW+FP  
Yes-OK

Verify Mode  
  
008101 PW+FP  
Cancel-C Sav-OK

## User--Group Setup

- Group is based on time zones. One group can set max 4 time zones, so max 32 time zones can be set. Normally, system will default group 0 as normal close status group, group 1 as normal open status group.
- Enter the management menu. Select [User]-[Group Setup] press [OK] to enter the setting interface.
  - Press [OUT/→] to select employee or press [OK] to input employee ID.
  - Press [OK] to enter setting interface.
  - Set employee's group through [OUT/→].
  - Then press [OK] to save this setting.

User ▼  
►Group Setup  
Admin Setup  
Admin Clear

Group Setup ▼  
►008101 G00  
008102 G01  
Esc-C Set-OK

Group Setup  
ID 008101

Group Setup  
008101 G01  
Yes-OK

Group Setup  
008101 G01  
Cancel-C Sav-OK

## User--Admin Setup

- In the management interface, select [User]-[Admin Setup] press [OK].
  - Press [OK] to enter the admin user ID and press [OK] to confirm, the system will prompt whether to set user as admin. Press [OK] to confirm and press [C] to cancel.
- It asks for the admin verification before entering the system management menu if you set a admin in the terminal.

User ▼

- Group Setup
- Admin Setup
- Admin Clear

Admin Setup

Esc-C Add-OK

Admin Setup

ID 008101

Admin Setup

008101

No-C Yes-OK

Admin Setup

► ID 008101

Esc-C Add-OK



## User--Admin Clear

- In the management interface, select [User]-[Admin Clear] press [OK].
  - Press [OUT/→] to select the admin ID press [OK] to confirm.
  - The admin ID will be showed on the LCD press [OK] to confirm.
  - The system prompt whether delete the admin. Press [OK] to confirm deletion.  
Press [C] to cancel.
- Notice: In the admin delete interface, press [OK] to enter the user ID interface directly, then enter the ID to delete admin.

User ▼  
Group Setup  
Admin Setup  
►Admin Clear

Admin Clear  
ID 008101  
►ID 008102  
Esc-C Clr-OK

Admin Clear  
ID 008102

Admin Clear  
008102  
No-C Yes-OK

Admin Clear  
►ID 008101  
Esc-C Clr-OK

## For Administrator---Advanced Functions



Set the terminal parameters,  
include:  
System Setting, Record Setting  
Hardware Test and so on

## Setup--System

- In the management interface, select [Setup]-[System], then press [OK] to enter the sub-menu.

### Dev ID

- Terminal's serial number.

### Time

- Set system time, time format displays as "YY-MM-DD H:M".
- Select [Time], then press [OK].
- Press [OK] to change the date and time one by one.
- Press [C] to enter save interface and press [OK] to confirm.

### Language

- Set language.
- Select [Language], then press [OK]. Press [IN/←] or [OUT/→] to select the language, then press [OK].
- Press [C] to enter save interface and press [OK] to confirm.

### Workcode Sope

- Different types of work code,Digital number range 1-999999.

System	▼
► Dev ID	1
Time	
Language	ENG

Time	MON
11-17-2011	12:06
↑	
Set-C	Next-OK

System	▼
Dev ID	1
Time	
► Language	ENG

System	▼
Workcode Sope	
Net	
► Precision	1

## Setup--System

### Precision

- Set terminal fingerprint comparison precision.
- 0-[Low], 1-[Normal], 2-[High].
- Select [Precision], then press [OK]. Press [IN/←] or [OUT/→] to set the precision value and press [OK].
- Press [C] to enter save interface and press [OK] to confirm.

System	▼
Workcode	Sope
Net	
► Precision	1

### Volume

- Set the terminal voice volume. 0-[mute], 5-[Max].
- Select [Volume], then press [OK]. Press [IN/←] or [OUT/→] to set the volume value and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

System	▼
Net	
Precision	0
► Volume	5

### Unlock/Ring

- Set the terminal lock or ring delay time.
- 'No'-No delay time; The maximum delay time is 15 seconds.
- Select [Unlock] or [Ring], then press [OK].
- Press [IN/←] or [OUT/→] to set the delay time and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

System	▼
► Unlock	5
Auto Off	10
Auto Update	No

System	▼
► Ring	5
Auto Off	10
Auto Update	No

## Setup--System

### Auto Off

- Set the time duration from the last operation to the dormant state.
- No-[Not Off], 250-[Max Time].
- Select [Auto Off], then press [OK]. Press [IN/←] or [OUT/→] to set [NO] or auto off time and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

System	▼
Unlock	10
▶ Auto Off	10
Auto Update	No

### Auto Update

- Auto update means the previous lower quality fingerprint template will be automatically replaced by the new higher quality one during fingerprint verification.
- Select [Auto Update], then press [OK]. Press [IN/←] or [OUT/→] to select [Yes] or [NO] and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

System	▼
Unlock	5
Auto Off	10
▶ Auto Update	NO

## Setup--System--Net

- Enter the system management menu, Select [Setup]-[System]-[Net]. Press [OK] to enter the sub-menu.

This function main includes [Mode],[IP Address], [Subnet Mask], [MAC Address] and [Gateway IP] settings.

- Press [OUT/→] to select[Mode]or [IP Address] or [Subnet Mask] or [MAC Address] or [Server IP] or [Server port] . Press [OK] to enter modify interface.
- Press [OK] to select the parameters, and press [IN/←] or [OUT/→] or number key to modify
- Press [C] to enter save interface
- Press [OK] to confirm and return to the [Net] menu.

Net ▼  
► Mode  
IP Address  
Subnet Mask

IP Address  
192 . 168 . 000 . 218  
Set-C Next-OK

Subnet Mask  
255 . 255 . 255 . 000  
Set-C Next-OK

MAC Address  
051 . 247 . 188 . 066  
084 . 215  
Set-C Next-OK

Gateway IP  
192 . 168 . 000 . 001  
Set-C Next-OK

## Setup--Log Setup

- In the management interface, select [Setup]-[Log Setup], then press [OK] to enter the sub-menu.

### Log Alert

- The terminal will alarm when the memory capacity is less than the [Log Alert] value.
- [No]-Not alarm, Max. value 5,000.
- Select [Log Alert], then press [OK]. Press [IN/←] or [OUT/→] to set [NO] or input the warning records value and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

### Re-Verify

- Set a period during which time the system only save the first successful record and do not save the repeated records.
- [No]: Disable the function; Max. value is 250 min.
- Select [Re-Verify], then press [OK]. Press [IN/←] or [OUT/→] to set [NO] or enter the value and press [OK] to confirm.
- Press [C] to enter save interface and press [OK] to confirm.

Log Setup  
► Log Alert 1000  
Re-Verify NO

Log Setup  
► Log Alert 3000  
Re-Verify NO

Log Setup  
Log Alert 3000  
► Re-Verify NO

Setup  
Save?  
No-C Yes-OK

## Setup--Hardware Test

- In the management interface, select [Setup]-[Hardware Test] and press [OK] to test Keypad, LCD, Voice, Sensor and Flash.

### Keypad

- Test the keypad.
- Select [Keypad] and press [OK].
- Press any key on the keypad. If LCD shows the same, the keypad is good.

### LCD

- Test the LCD.
- Select [LCD] and press [OK].
- Press [OK] to start test.

### Voice

- Test the terminal voice.
- Select [Voice] and press [OK].
- Terminal auto tests 1-17 voices.

### Sensor

- Test the sensor's luminance.
- Select [Sensor] and press [OK] .
- The luminance value will be changed according to the environment.

#### Hardware Test ▼

► Keypad  
LCD  
Voice

Keypad  
Current Key  
3  
Esc-C

Esc-C Next-OK

Voice  
Section 01-17  
Esc-C

Sensor  
LUM 167  
Esc-C



## Setup--Hardware Test

### Flash

- Test the terminal flash memory.
- Select [Flash] and press [OK] .
- Notice: This test will delete all the data in the flash memory and then check it.
- Please backup the data before this operation.

#### Step 1

Erase All Data  
Continue?

Esc-C

Yes-OK

#### Step 2

Check... 100%

#### Flash

Flash OK!

Esc-C

## USB Flash--Record Backup

- Connected U disk to terminal, press [M] to enter the management menu, select [USB Flash] and press [OK].

### New Rec. Backup

- Download new T&A records to U pan drive.
- Press [OUT/→] to select [New Rec. Backup], press [OK] to download the new records.
- After back up process bar shows 100%, press [C] to exit and back to upper menu.
- New record file is BAK.KQ located in G:\00000001. 'G' is the disk name on PC of U pen drive. '00000001' is T&A machine serial number.

### All Rec. Backup

- Download all T&A records to U pan drive.
- Press [OUT/→] to select [All Rec. Backup], press [OK] to download all records.
- After back up process bar shows 100%, press [C] to exit and back to upper menu.
- The record file is BAK.KQ located in G:\00000001.
- Prompt: if you backup new records firstly, recommend to save new record file to local pc. Else it will be replaced with all records file.

USB Flash ▼  
► New Rec. Backup  
All Rec. Backup  
User Backup

New Rec. Backup  
Backup... 0%

New Rec. Backup  
OK! 100%  
Esc-C

All Rec. Backup  
Backup... 0%

All Rec. Backup  
OK! 100%  
Esc-C

## USB Flash--User Backup/Recovery

### User Backup

- Download employee's records saved in device to U pen drive.
- Press [OUT/→] to select [User Backup], press [OK] to download the employee information.
- After backup process bar shows 100%, press [C] to exit and back to upper menu.
- The backup file is BAK.YG and BAK.ZW located in G:\00000001.

### User Recovery

- Upload employee's information saved in U pen drive to terminal.
- There are two ways to recover employee information:
  1. Copy BAK.YG and BAK.ZW to root directory, then plug U pen drive into time attendance machine and start user recovery.
  2. Export employee information to U pen drive through U flash management software, then repeat step 1.
- Press [OUT/→] to select [User Recovery], press [OK] to recovery all records.
- After recovery process bar shows 100%, press [C] to exit and back to upper menu.

USB Flash ▼  
New Rec. Backup  
All Rec. Backup  
►User Backup

User Backup  
Backup... 0%

User Backup  
OK! 100%  
Esc-C

USB Flash ▼  
►User Recovery

User Recovery  
Backup... 0%

User Recovery  
OK! 100%  
Esc-C

## System Info

- In the management interface, select [System Info] and press [OK] to check the terminal information.

### User

- Registered user number. Maximum 2,000 users.

### FP

- Registered fingerprint number. Maximum 2,000 fingerprints.
- Press [OK] to view the number of users who registered a password.

### Log

- The time attendance logs. Maximum 50,000 records.

### Serial

- Machine serial number.

### FirmVer

- The firmware version.

- Press [C] back to the management interface.

#### MENU

► System Info

#### System Info ▼

► User	2000
FP	2000
Log	50000

#### System Info ▼

User	1000
► Password	500
Log	15000

#### System Info ▲

► Serial

FirmVer	b1.15.00
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Invent • Trust

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**Anviz Biometric Tech. Co., Ltd.**

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