

# **Face Recognition With Palm Vein&QR Code User Manual**

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## Chapter 1 Product Overview

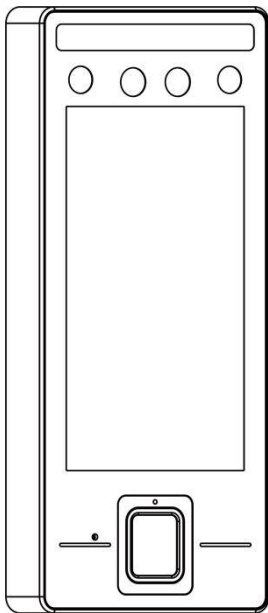
The facial palm vein machine is an access control device based on the LINUX operating system, mainly suitable for application such as office gates, high-end office building lobby channel management systems, various club member management systems, on-site labor real name system, smart community pedestrian channel system, and scenic area ticket system.

### 1.1 Product Introduction

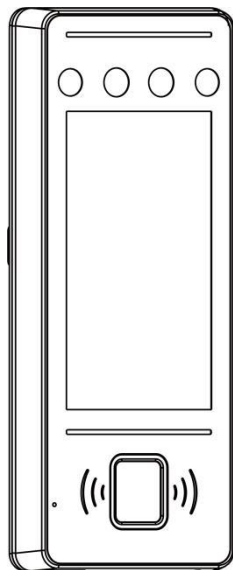
- Support network management and standalone running.
- Multiple door opening methods such as Mifare card reading, facial recognition, QR code, palm vein, etc.
- Adopting a multi-core ARM processor, integrating massive memory.
- Wide dynamic strong light suppression technology, suitable for outdoor use.
- 2 million high-definition pixel binocular camera with high speed recognition and high accuracy, supporting liveness detection.
- The capacity can reach 20,000 users, 20,000 faces, 10,000 palm veins, 20,000 QR codes, 20,000 cards, 20,000 passwords, 50,000 photo logs, and 1 million attendance logs.
- TCP/IP and WIFI networking
- 1 set of door opening relays, 1 set of door magnets, and 1 set of alarm outputs
- LAN, cloud system, and mobile App management

- Multiple national languages and OEM/ODM, including Simplified Chinese, Traditional Chinese, English, Portuguese, Spanish, Russian, French, Japanese, Korean, Thai, and Arabic.

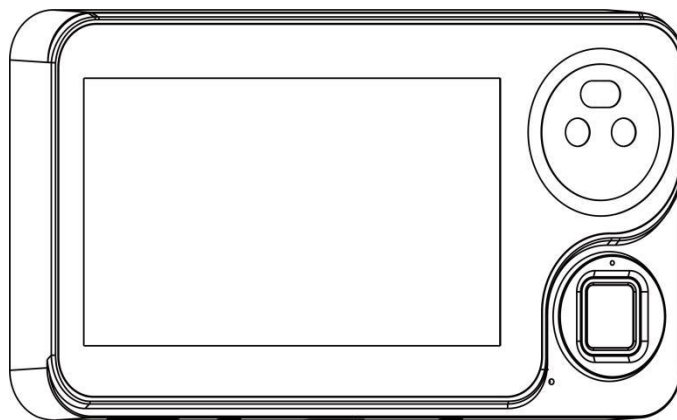
Following are the product models:



A Type



B Type



C Type

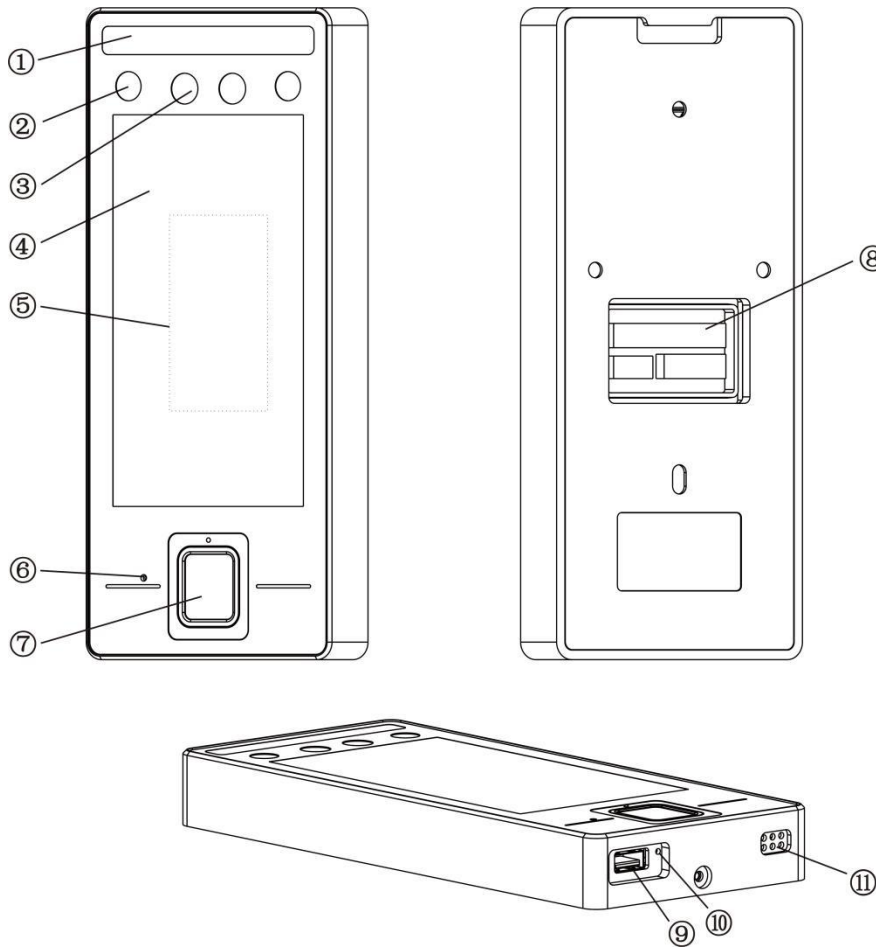
## 1.2 Technical Parameters

MODEL	A Type	B Type	C Type
<b>Name</b>			
<b>Material</b>	Metal+ABS Housing,tempered glass panel	Metal+ABS Housing,tempered glass panel	
<b>Weight</b>	0.6KG		
<b>Size</b>	205×88×25mm	186×81×24mm	236×131×29mm
<b>Display</b>	5.5-inch	4.5-inch	7-inch
<b>Camera</b>	Wide dynamic binocular 2 million high-definition pixel camera		
<b>Working Voltage</b>	DC12V(9-14V)		
<b>Working Current</b>	2000mA		
<b>Working Environment</b>	Temperature:-10 to 65℃; Humidity: 10-90%,non condensing		

<b>WIFI</b>	Can be customized
<b>USB</b>	Support
<b>Storage Capacity</b>	512M DDR3 memory, 8GB EMMC storage
<b>Operating System</b>	LINUX System
<b>Management Mode</b>	Touch screen, CS system, BS cloud system(Mobile App Management)
<b>Comparison Mode</b>	1: N / 1: 1
<b>Elevator Expansion</b>	Support elevator/cabinet lock control board expansion port
<b>Firmware Upgrade</b>	Support OTA upgrade or USB firmware upgrade
<b>Algorithm Support</b>	Face Recognition, Fingerprint Recognition, Palm Recognition, QR code Recognition
<b>Recognition Speed</b>	≤ 0.3S
<b>Communication</b>	TCP/IP + WIFI
<b>Access Control Interface Protocol</b>	Wiegand26/34/66
<b>Other Interface</b>	Exit Button×1, Door Sensor×1, Fire Alarm×1, Alarm Output×1, Wiegand Output×1, Wiegand Input×1, Lock Control×1, USB×1, RS485×1
<b>Registration Way</b>	Face Recognition, Palm Vein, Password, Mifare Card

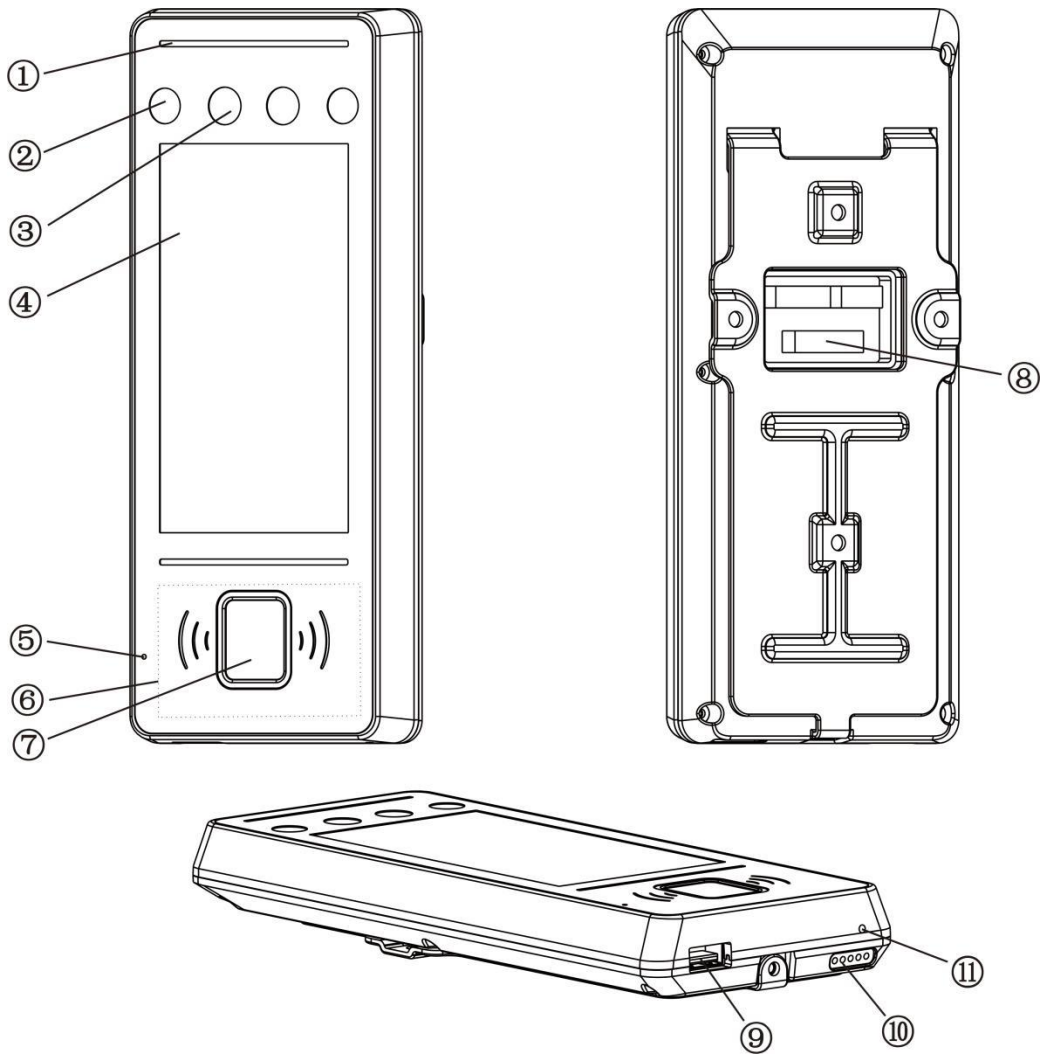
# Chapter 2 Appearance

## 2.1 Appearance Diagram



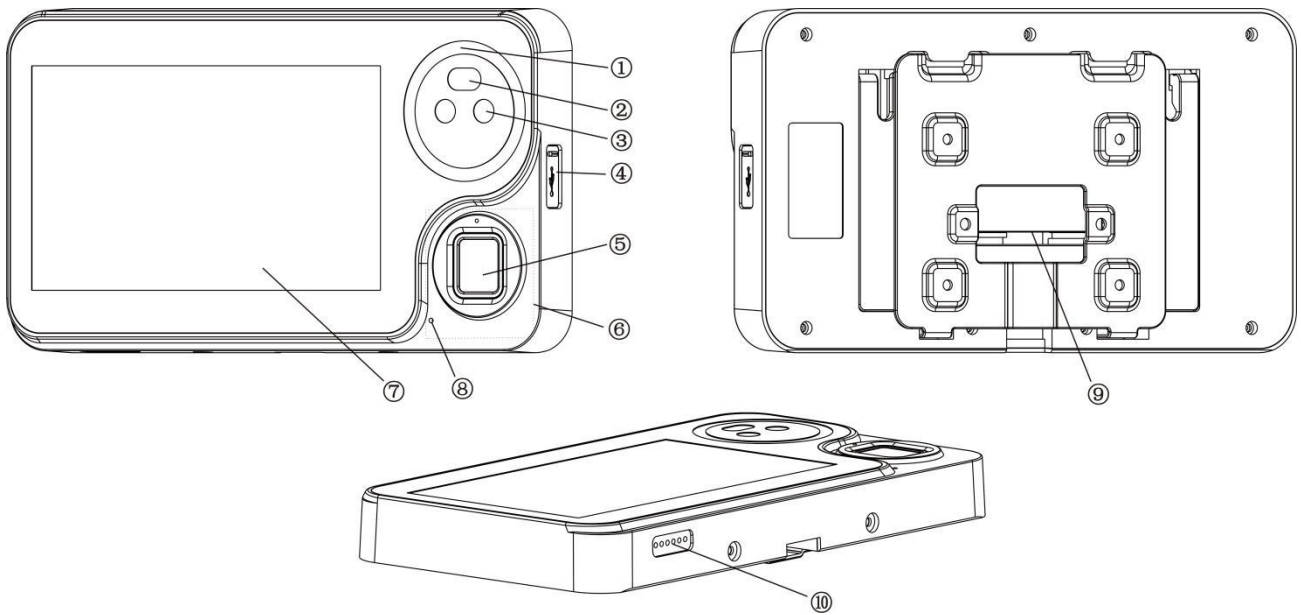
Appearance diagram of model A

- ① Intelligent Light
- ② IR Supplement Light
- ③ Camera
- ④ Touch Screen
- ⑤ Card Area
- ⑥ Microphone
- ⑦ Fingerprint Collector
- ⑧ Wiring Ports
- ⑨ USB Port
- ⑩ Reset Button
- ⑪ Speaker



**Appearance diagram of model B**

- ① Intelligent Light
- ② Supplement Light
- ③ Camera
- ④ Touch Screen
- ⑤ Microphone
- ⑥ Card Area
- ⑦ Fingerprint Collector
- ⑧ Wiring Ports
- ⑨ USB Port
- ⑩ Speaker
- ⑪ Reset Key



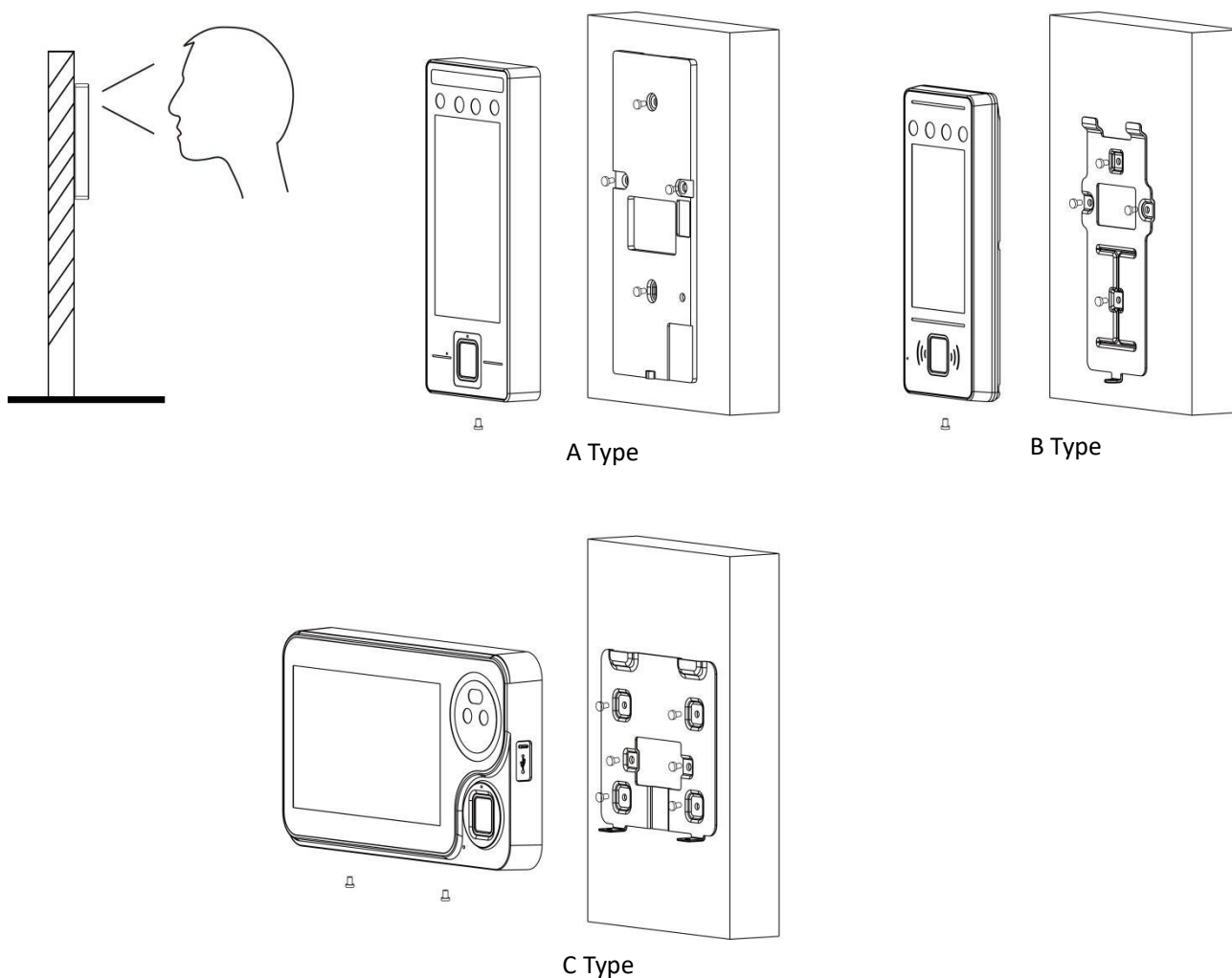
**Appearance diagram of model C**

- ① Intelligent Light
- ② Supplement Light
- ③ Camera
- ④ USB Port+Reset Key
- ⑤ Fingerprint Collector
- ⑥ Card Area
- ⑦ Touch Screen
- ⑧ Microphone
- ⑨ Wiring Ports
- ⑩ Speaker



# Chapter 3 Installation

## 3.1 Installed on Wall



Installation Diagram

**Step 1:** Remove the screw nuts at the bottom of the device and remove the metal fixing plate.

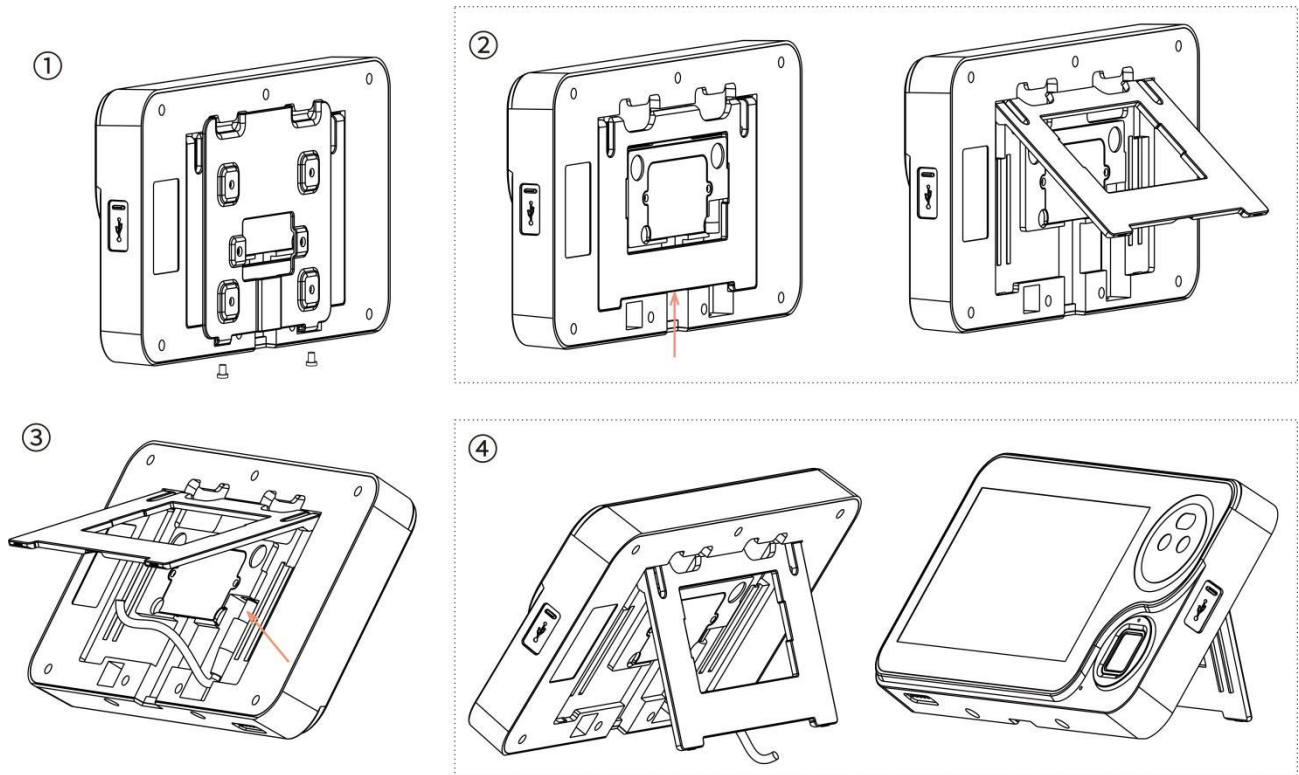
**Step 2:** Drill holes on the wall based on the hole position of the fixed plate, and fix the fixed plate to the wall using expansion bolts (it is recommended to install at the same height as the screen and face for easy identification). After the installation of the fixed plate, ensure that the hanging plate is stable, firm, and free from looseness.

**Step 3:** Connect the wires according to the wiring instructions.

**Step 4:** Hook the facial palm vein machine onto the mounting plate from top to bottom, and use an Allen wrench to tighten the fixing screws at the bottom to complete the installation.

● Please refer to Appendix 1 for installation precautions

### 3.2 Installed on Desk ( Only suitable for C type )



Installation Diagram

- Step 1:** Remove the screw nuts at the bottom of the device and remove the metal hanging plate.
- Step 2:** Push up with your hand (at the arrow in the figure) and then pull out the bracket outward.
- Step 3:** Insert the DC power cable into the device (at the arrow in the figure).
- Step 4:** After the installation of the connecting cable, place the device on a stable surface.

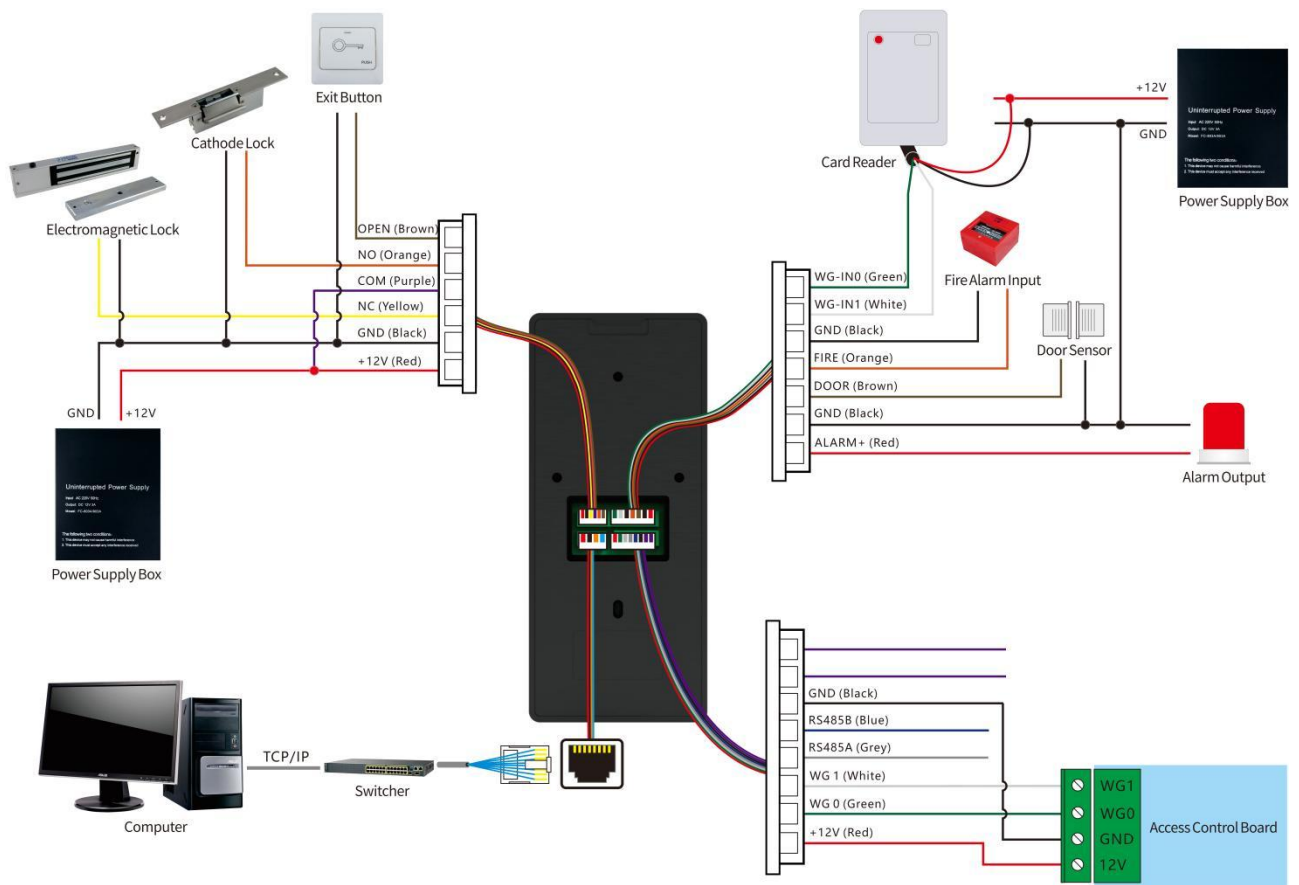
- Installation precautions are detailed in Appendix 1

# Chapter 4 Wiring Instructions

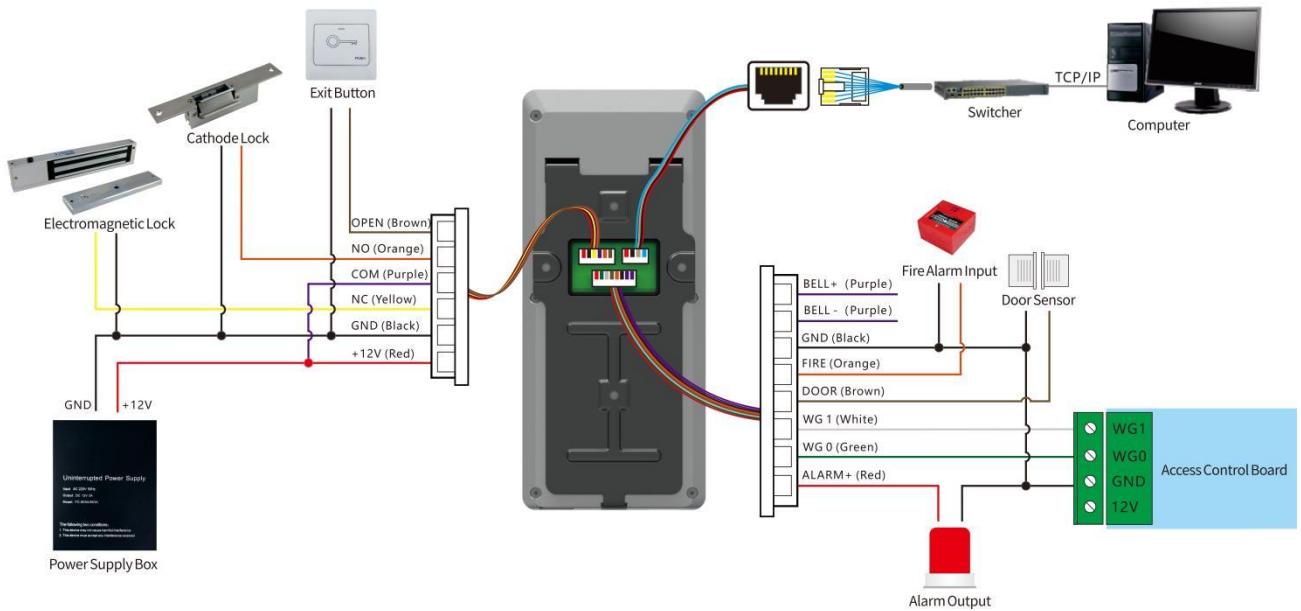
## 4.1 Wiring Diagram

Before wiring, it should be ensured that the power supply of the equipment has been disconnected. Connecting the wrong wire while powered on will cause serious damage to the equipment. Please connect the device according to the wiring diagram below, as shown in the following figure.

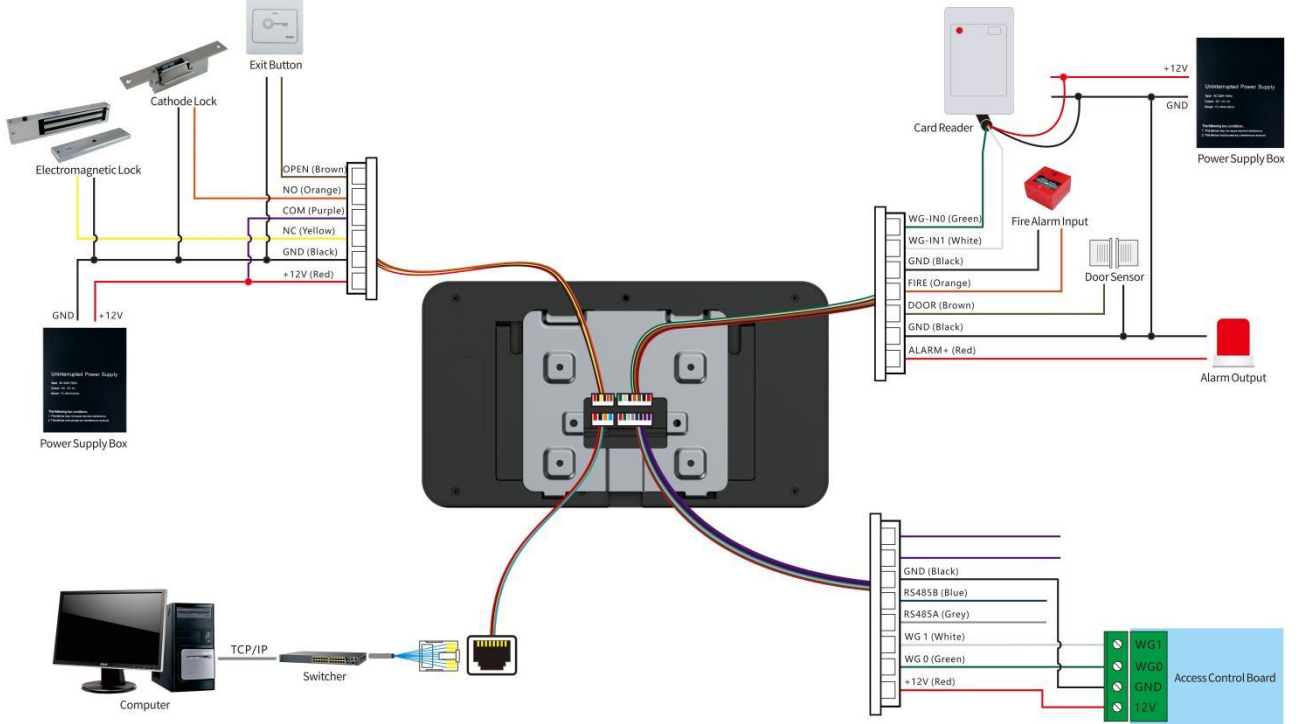
Wiring diagram for model A



Wiring diagram for model B



**Wiring diagram for model C**



**● Wiring Requirements:**

- 1) **AC220V AC Power Cable:** Using 3X1.0MM (or above) wire to prevent leakage, and it is recommended to connect the ground wire of the power cable
- 2) **Electric Lock Cable:** Using 2X1.0MM (or above) wire, the maximum length of the cable should not exceed 20 meters.
- 3) **TCP/IP Communication Cable:** Please use standard network cables, and the maximum length of

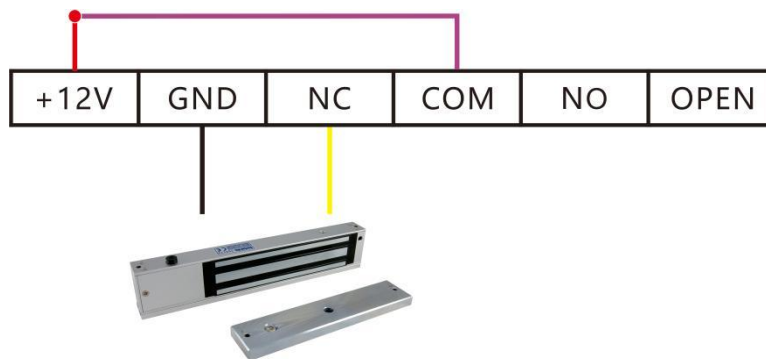
the cable should not exceed 100 meters

- 4) **Door Sensor or Exit Button Cable:** Using 2X0.5MM (or above) wire, the maximum length of the cable should not exceed 100 meters.
- 5) **Wiegand Signal Cable:** Using 4X0.5MM (or above) wire, the maximum length of the line should not exceed 80 meters.

## 4.2 Wiring Connection

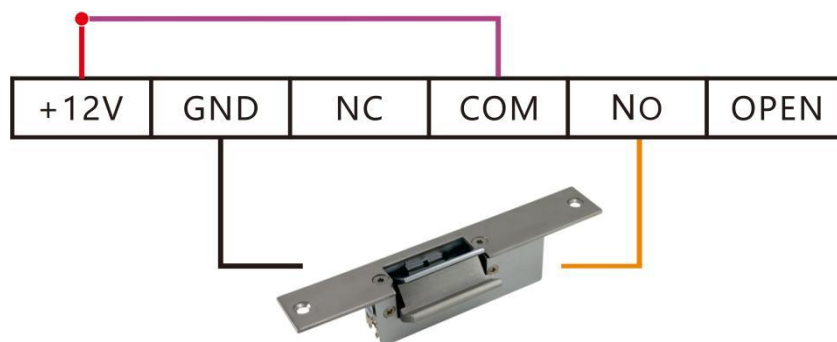
### ① Connect the electric lock

**Wiring of powered off unlocks (such as electric bolt locks or electromagnetic locks):** The positive pole of the electric lock is connected to the NC of the facial terminal, the negative pole of the electric lock is connected to the GND of the power supply, and the COM of the facial terminal is connected to the +12V output of the power supply.



Electromagnetic Lock

**Wiring of powered on unlocks (such as electric control locks or electric strike locks):** The positive pole of the electric lock is connected to the NO of the facial terminal, the negative pole of the electric lock is connected to the GND of the power supply, and the COM of the facial terminal is connected to the +12V output of the power supply.

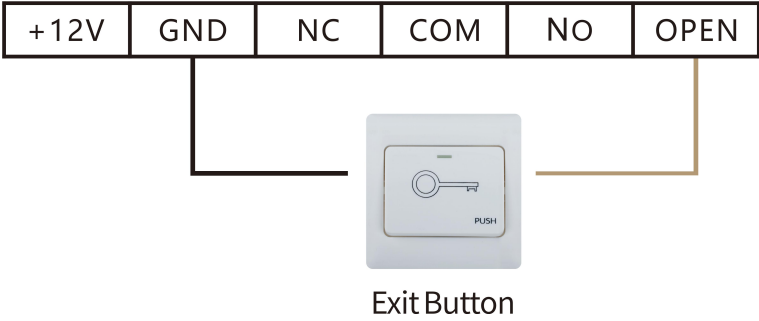


Cathode Lock

### ② Connect the exit button

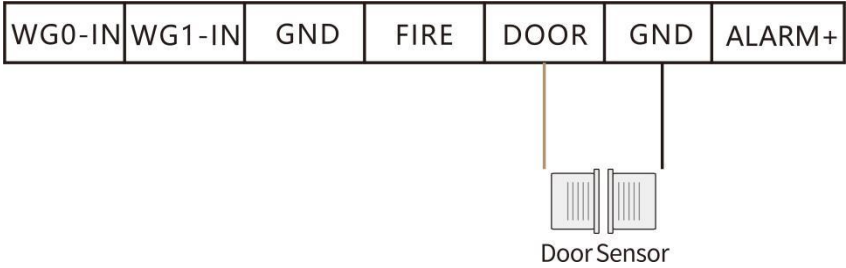
Connect the two wires of the exit button to the OPEN (brown wire) and GND (black wire)

corresponding to the facial terminal. The cable length of the exit button should not exceed 100 meters.



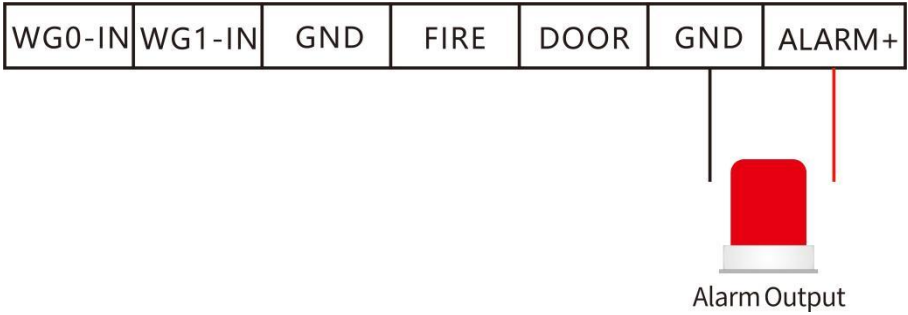
**③ Connect the Door Sensor**

The two wires of the door sensor are connected to the corresponding DOOR (brown wire) and GND (black wire) of the facial terminal. The cable length of the door sensor should not exceed 100 meters.



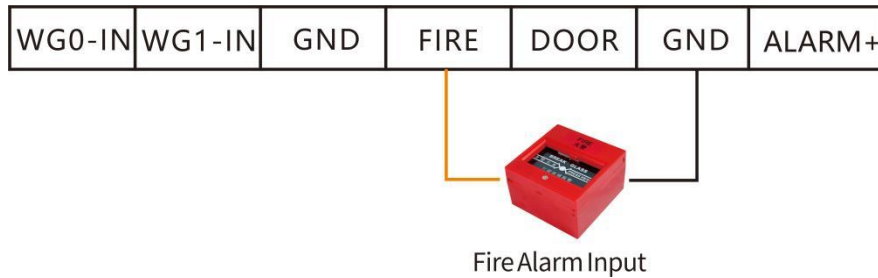
**④ Connect the Siren**

The two wires of the alarm are connected to the corresponding ALARM (red wire) and GND (black wire) of the facial terminal. The cable length of the siren should not exceed 50 meters.



**⑤ Connect the Fire Alarm Input**

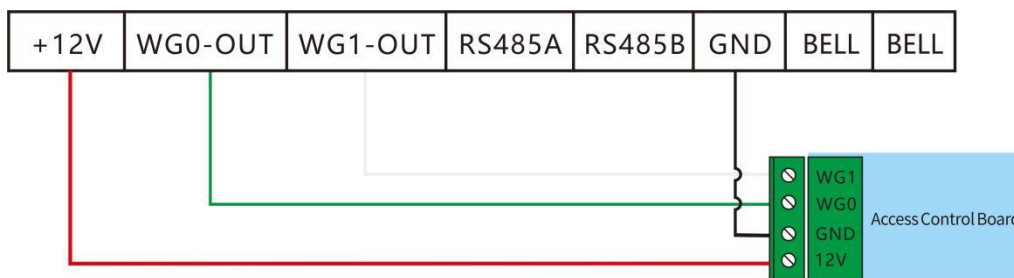
The fire input signal is connected to the FIRE (orange line) and GND (black line) corresponding to the facial terminal.



**⑥ Connect the access control panel**

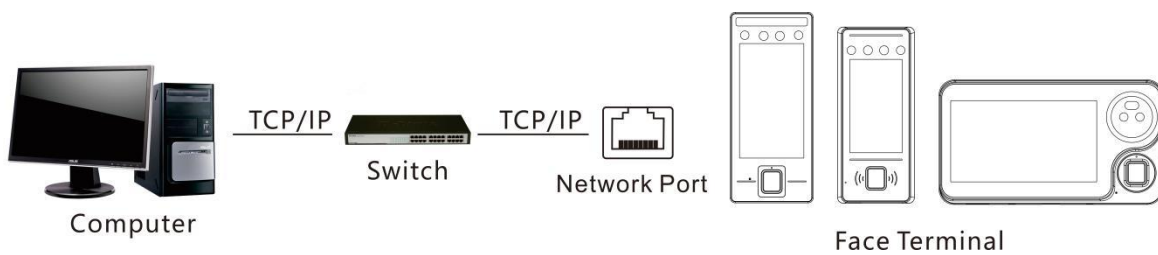
The facial terminal +12V (red line) is connected to the access control board +12V, the facial terminal WG0 OUT (green line) is connected to the access control board WG0, the facial terminal WG1 OUT (white line) is connected to the access control board WG1, and the facial terminal GND (black line) is connected to the access control board GND. The facial terminal can be used as a Wiegand reader.

- Note: Regardless of whether the facial terminal is powered from the access control board or not, it is necessary to ensure that the facial terminal and access control board are connected to GND together to ensure stable Wiegand signal transmission.

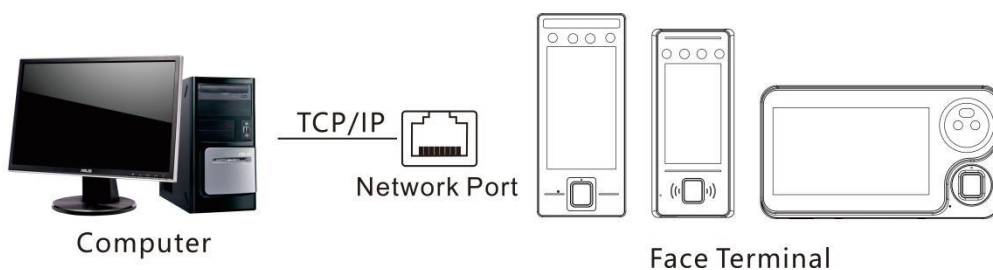


**⑦ Device Networking**

The facial terminal can be directly connected to computers or connected through a switcher, the communication distance should be less than 100M.



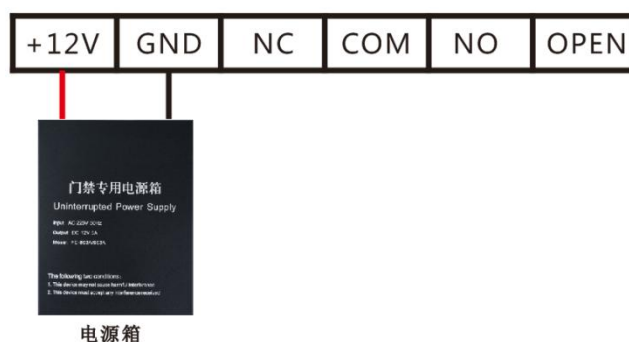
Devices and computers are networked through TCP/IP



Device and computer are directly connected through TCP/IP

### ⑧ Power Supply Connection

If using DC12V 2A or above power supply, please use RVV2 \* 0.75mm or above wire connection.



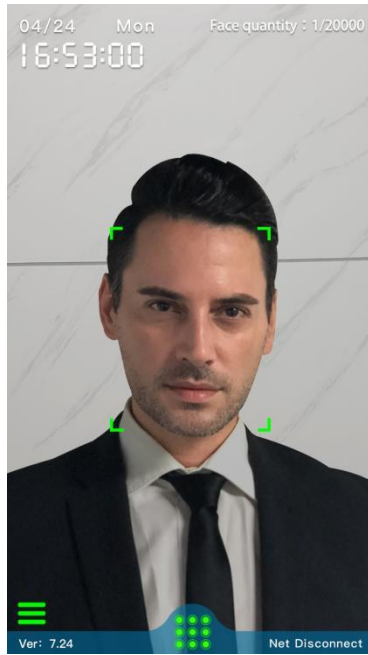
Note: The facial terminal adopts a highly sensitive touch sensing element, and the power requirement is that the output noise of the power supply is less than 100mVpp, otherwise there may be problems such as touch screen interference, insensitive touch, and screen bouncing.

## Chapter 5 User Operating Instructions

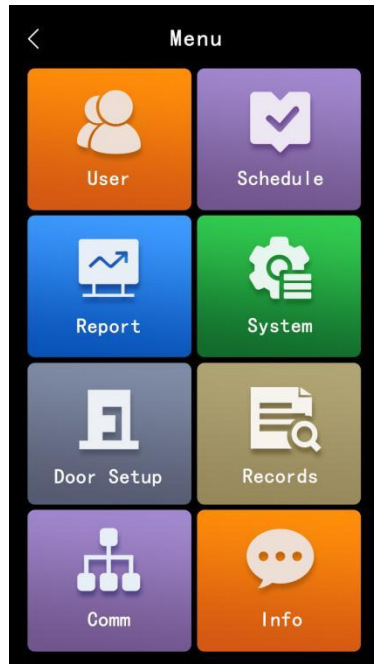
### 5.1 Main Menu

Click on the "**Firmware Version Area**" in the bottom left corner (as indicated by the arrow on the main interface in the following figure) to switch to the "**Administrator Verification**" interface. Verify according to the administrator's registration way (face/palm vein/fingerprint/Mifare card/password) to enter the facial terminal management menu. (Password registration way, you need to click on the middle of keyboard icon, switch to the "**Administrator Verification**" interface, enter the administrator ID and password, and finally click "**Yes**") to enter the facial terminal management menu. (If no password or administrator is set, the system will not require to input it)





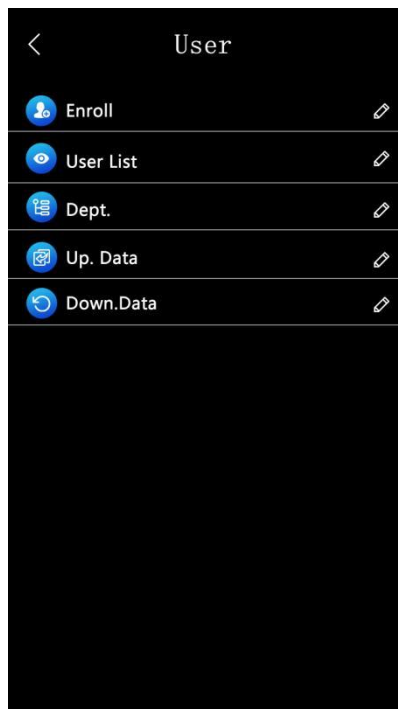
Main interface



Menu Interface

## 5.2 User Management

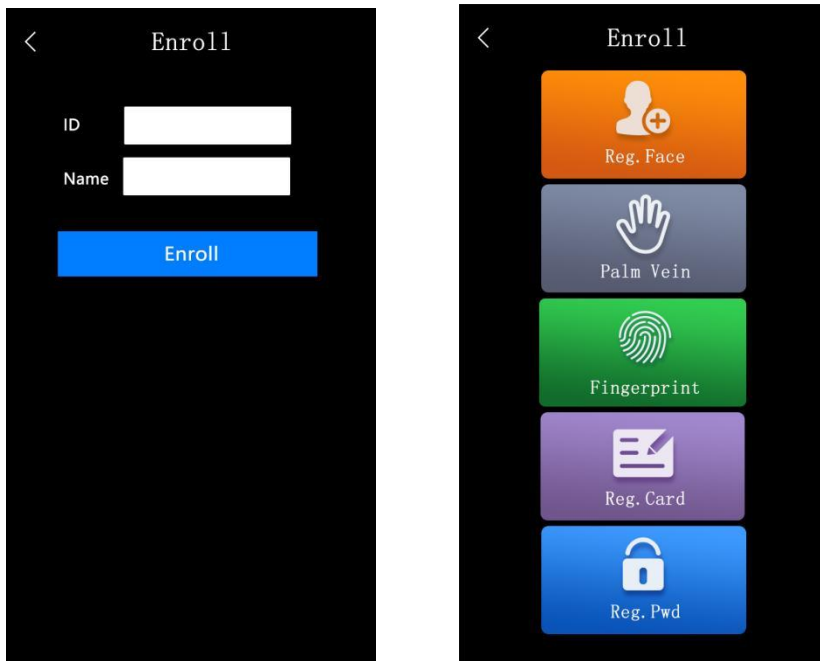
Click on "User Management" under the menu to enter the menu status. Under this menu, you can perform operations such as "Register User", "User Browse", "Department Settings", "Backup User Information", and "Restore User Information".



User Management Interface

## 5.2.1 Registered Users

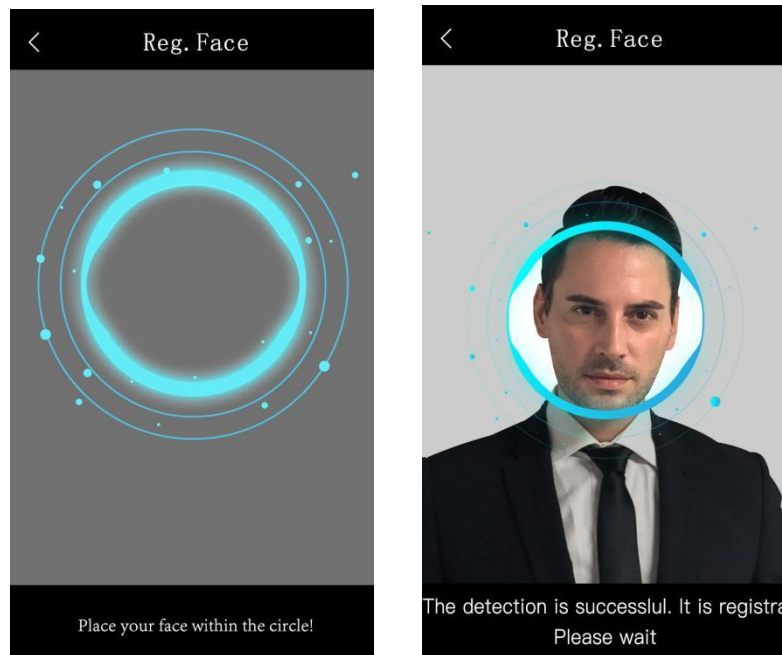
Click on "**Register User**" to start registering a new user, enter the number and name, and then click on the "**Register User**" button to select the registration type: Register Face, Register Palm Vein, Register Fingerprint, Register Card, and Register Password.



Register User Interface

Select the "Register Face" button and follow the facial machine prompts to look at the camera to register a face, as shown in the following figure:

+

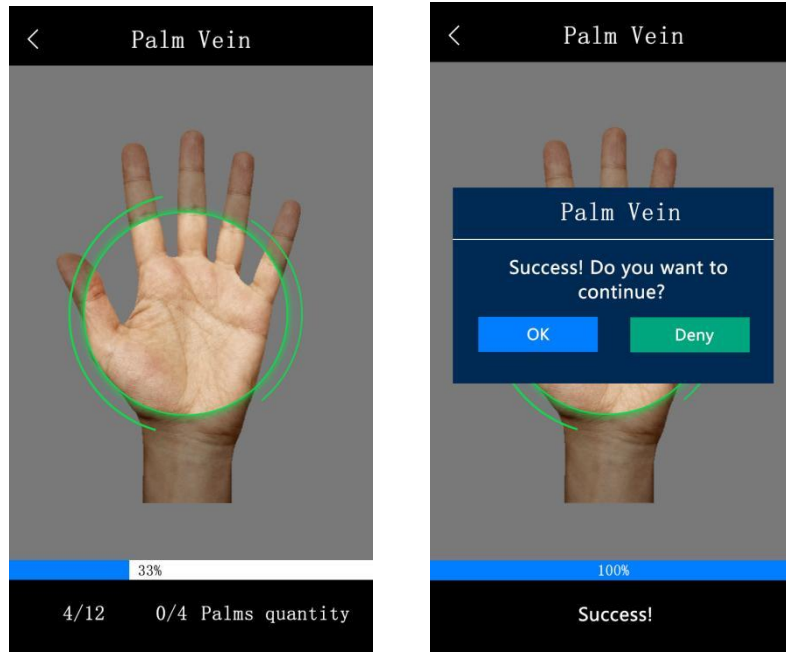


**Register Face Interface**

When registering a face, it is necessary to pay attention to the screen. To ensure the quality and accuracy of facial parameter input, maintain a natural expression during the input process. Do not wear hats, glasses, or other accessories that affect facial feature collection. Do not let bangs block facial features or wear heavy makeup.

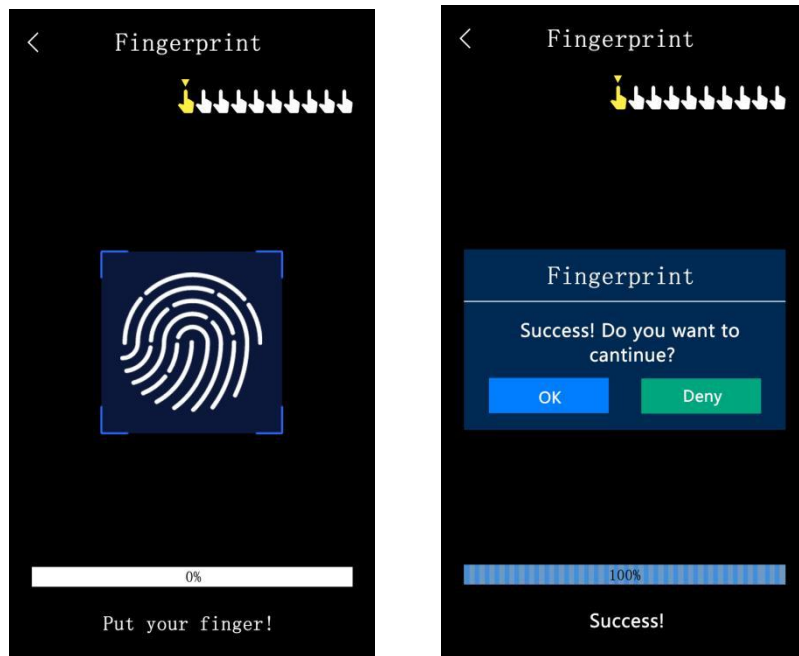
After register the face and successfully registering, you can continue to choose other registration methods for the device.

Select to register the palm vein, turn your palm towards the camera, move it to the palm vein extraction box on the screen, wait for the palm vein input to be completed, and the device will prompt registration successfully. Click "Yes" to continue registering the palm vein of the other hand, or click "No" to complete the palm vein input. As shown in the following figure:



**Register Palm Vein Interface**

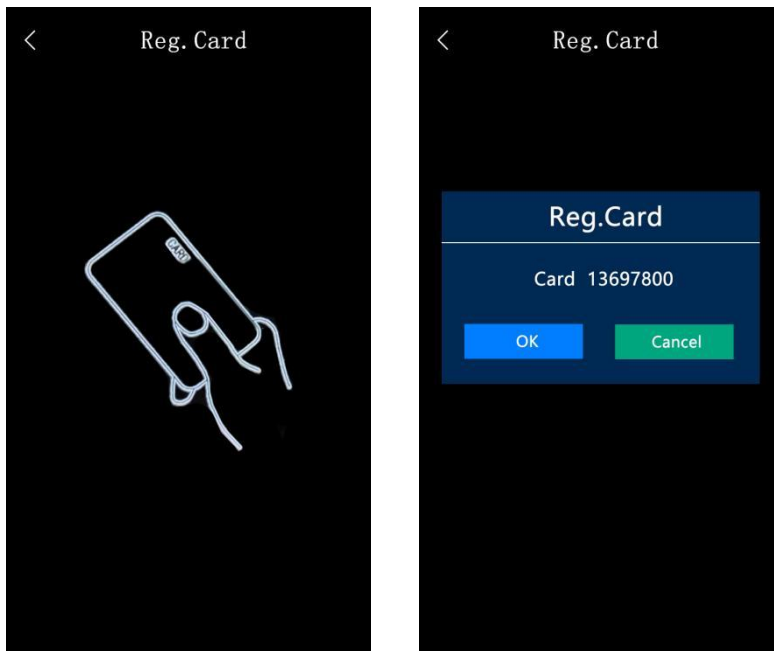
Select and click the fingerprint registration button to enter the fingerprint registration interface, enter the fingerprint according to the prompt, press the same finger repeatedly until the progress bar displays 100%, then, the fingerprint registration is successful, the interface is shown in the following figure:



**Registration Fingerprint Interface**

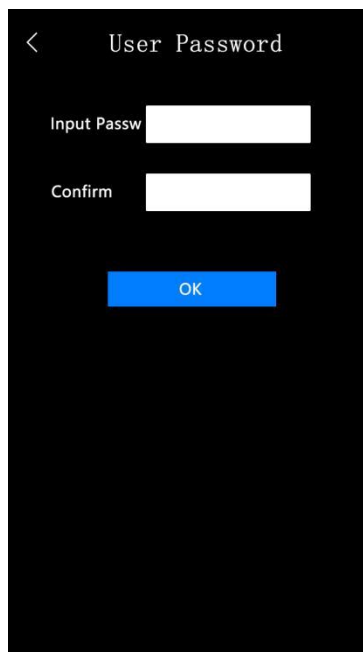
Select the registration card, and the device will prompt you to read the card. At this time, please swipe the card in the card swiping area of the device.

The facial recognition terminal will recognize the card number, as shown in the following figure. Click "Yes" to complete the registration of the card.



**Register Card Interface**

Select the registration password, pop up the password input box and numeric keypad, enter the password (password length within 1-8 digits), click "OK", enter it again, confirm the password, click "Yes" to complete password registration, as shown in the following figure:

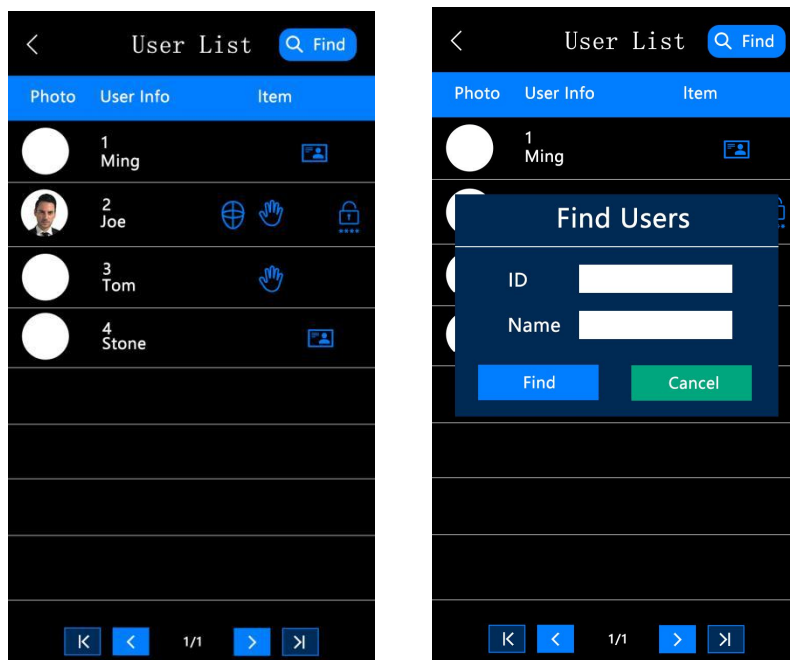


**Register Password Interface**

## 5.2.2 User Browsing

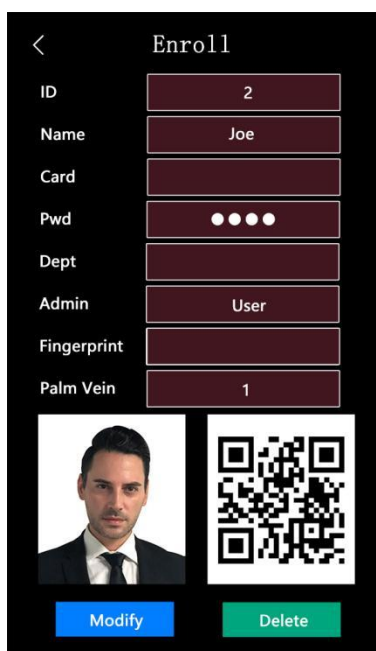
Click "**User Browse**" to check the registered users, which are arranged by default according to

their number size. You can also click on registered users to modify their detailed information. Or can search and display it by flipping the page and clicking on "<" ">" below; and also click below to search for the corresponding registered user by number or name.



**User Browsing Interface**

Find the user who needs to be modified, click on the user to view their detailed information. The name, card number, password, department, and permissions of personnel can be modified. For those who have not registered their fingerprint or palm vein, they can click to re-enter the user's fingerprint or palm vein, re record faces or directly delete users. Users can be set as administrators through permission modification.



**Modify User Interface**

### 5.2.3 Department Settings

Click on "**Department Settings**" to query or add department information by clicking on the icon in the upper right corner, in order to manage personnel information by department.



Department Setting Interface

### 5.2.4 Backup User Information

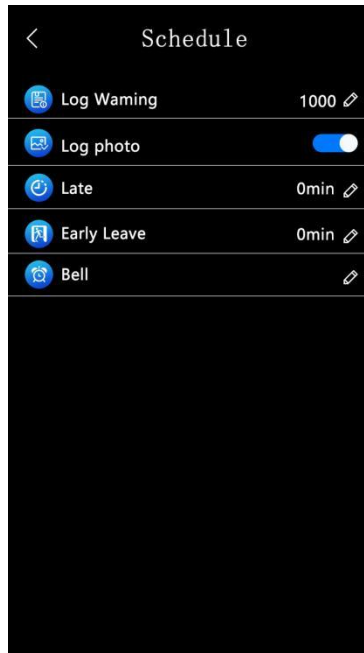
Click "**Backup User Information**" to back up the registered personnel information to a USB drive for saving.

### 5.2.5 Restore User Information

Click "**Restore User Information**" to restore the personnel information saved in the USB flash drive to the facial terminal.

## 5.3 Attendance Rules

Click on "**Attendance Rules**" under the menu. Attendance settings can be set on this menu.



#### Attendance Rules Interface

Attendance record warning: Before the storage capacity is about to be full, you can set how many remaining record capacities are left, and the device will start alarming (default is 1000 records).

Number of recognized photos: Can be set to save photos taken by the device in real-time when legal verification is passed

You can set the allowed late time and allowed early leave time, max can be set to 120 minutes.

Click on the timed bell setting, total support 24 sets of bell times. Click on the time section in the timed ringer group to modify the specific time for setting the ringer. Click on "**disable**" to set the ringer duration (0 seconds is the default disabled state, with a maximum setting of 255 seconds), as shown in the following figure:



Bell		
1	00:00	You disabled! ✎
2	00:00	You disabled! ✎
3	00:00	You disabled! ✎
4	00:00	You disabled! ✎
5	00:00	You disabled! ✎
6	00:00	You disabled! ✎
7	00:00	You disabled! ✎
8	00:00	You disabled! ✎
9	00:00	You disabled! ✎
10	00:00	You disabled! ✎
12	00:00	You disabled! ✎
13	00:00	You disabled! ✎

**Timed Ringer Interface**

## 5.4 Report Management

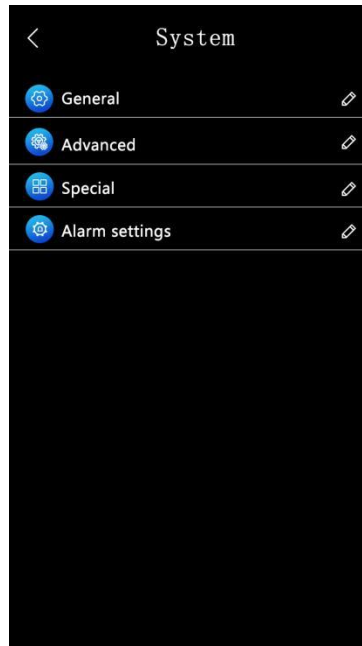
Click on "Report Management" under the menu to enter the report management menu. The "Company Name" display in the attendance report can be modified, and the shift schedule and attendance table can be imported and exported through a USB flash drive.

Report		
Company		✎
Dwnld Shift		✎
UpId Shift		✎
Dwnld Report		✎
Dwnld File		✎

**Report Management Interface**

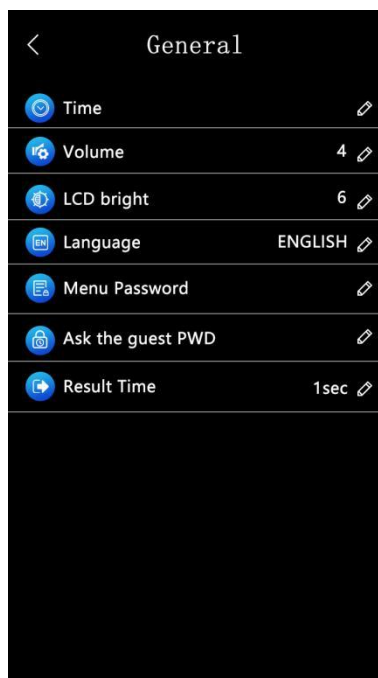
## 5.5 System Settings

Click on "System Settings" under the menu, which includes general settings, advanced settings, recognition settings, and alarm settings.



System Setting Interface

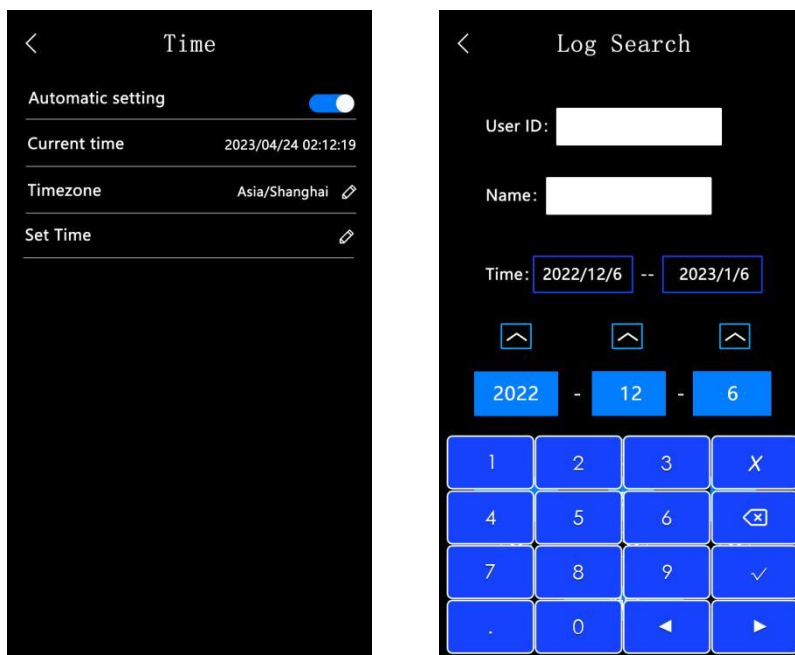
### 5.5.1 General Settings



General Setting Interface

The device's clock, sound volume, screen brightness, language, menu password, visitor root password, and interface return time can be set.

The clock can be automatically set for networking or manually, as shown in the following figure.



**Clock Setting Interface**

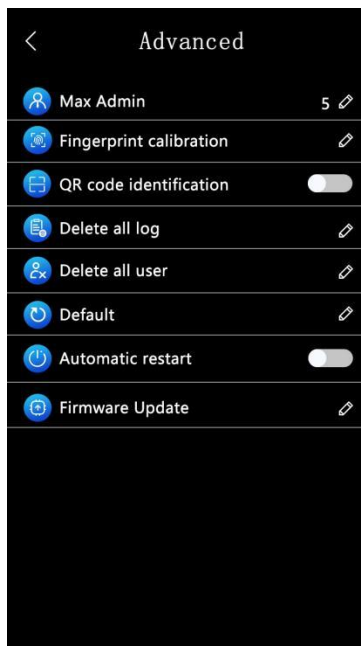
The sound volume and screen brightness maximum can be adjusted to 10.

Language include Simplified Chinese, Traditional Chinese, English, Portuguese, Spanish, Russian, French, Japanese, Korean, Thai, and Arabic.

The menu password and visitor root password of the device can be set.

The maximum interface return time can be set to 60 seconds (default is 1 second).

## 5.5.2 Advanced Setting



**Advanced Setting Interface**

The total number of administrators can be set, maximum is 255 administrators

**Fingerprint Calibration:** Clean the fingerprint head first, then click on sensor calibration to make fingerprint input and recognition more sensitive.

After enabling QR code recognition, you can use the QR code to open the door.

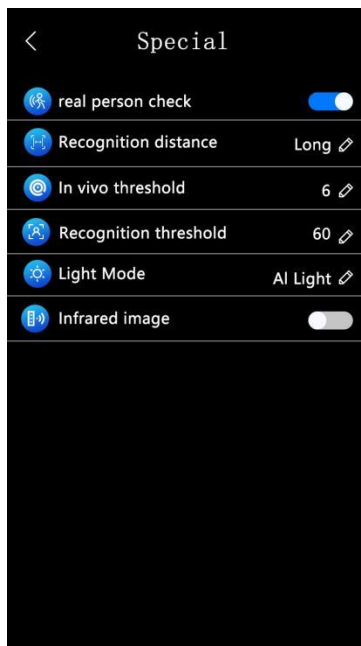
All recorded data and user data in the device can be deleted.

The device can be restored to factory settings.

The automatic restart function can be enabled to set the automatic restart time of the device.

You can upgrade the device firmware through a USB flash drive.

### 5.5.3 Recognition Settings



Recognition Setting Interface

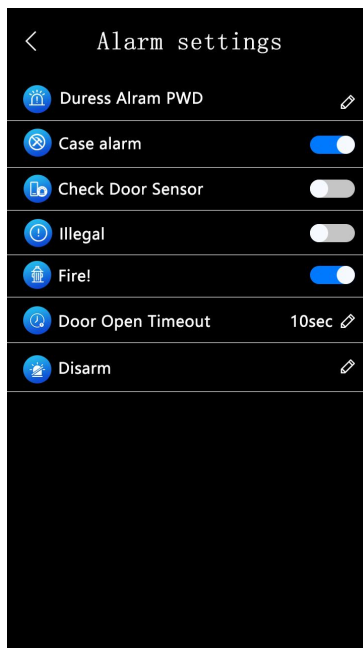
The device's liveness threshold and recognition threshold can be modified, maximum setting is 99. The higher the threshold, the higher the recognition accuracy, but the higher the requirement for registered photos.

The recognition distance of the device can be adjusted (near, middle, and far).

Liveness detection and infrared image display can be turned on or off.

**Supplement Light Mode:** The supplement light can be set to three modes: off, always on, and automatic. When set to automatic mode, it will automatically light up when someone recognizes it, and automatically turn off when no one recognizes it.

## 5.5.4 Alarm Settings



Alarm Setting Interface

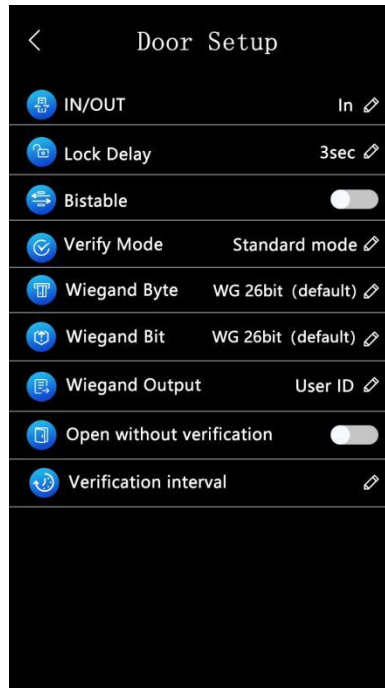
The tamper alarm, door sensor alarm, illegal verification alarm, and fire alarm of the device can be turned on or off.

The password of force alarm and door opening of device timeout can be set.

Turn off Alarm: Turn off all alarm prompts.

## 5.6 Access Control Setting

Click on "**Door Access**" under the menu, as shown in the following figure:



**Access control setting interface**

Entry and exit mode: Can select entry and exit types are either entry or exit;

The lock hold time can be set from 0 to 65535, (0 represents 0.5 seconds, 65535 represents normally opening after verification)

Bistable state: on/off, (the function of opening the bistable state is to legally recognize once open, then legally recognize once again to close, and switch back and forth to open this function);

Verification Mode: Can be set to standard mode, face+password, card+face, and fingerprint+face according to user needs;

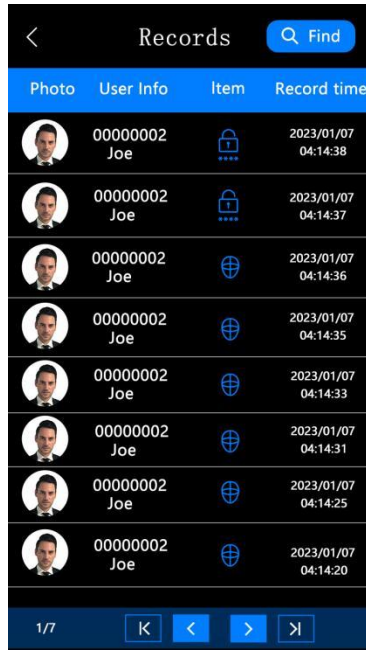
The card reading byte and WG output mode can be modified to Wiegand 26 (two bytes, three bytes), Wiegand 34 (four bytes), and Wiegand 66 (eight bytes);

The output content of WG can be modified to number output or card number output;

Can set the door opening of non-registered verification and verification interval.

## 5.7 Record Viewing

Click on "**Record Viewing**" under the menu. Click on "Search" and enter the number and name to search for all entry and exit records of the personnel with this number from the start time to the end time. As shown in the following figure:



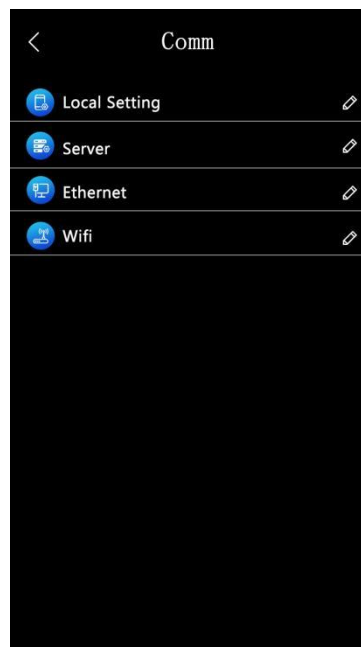
Record viewing interface



Attendance Record Search Interface

## 5.8 Communication

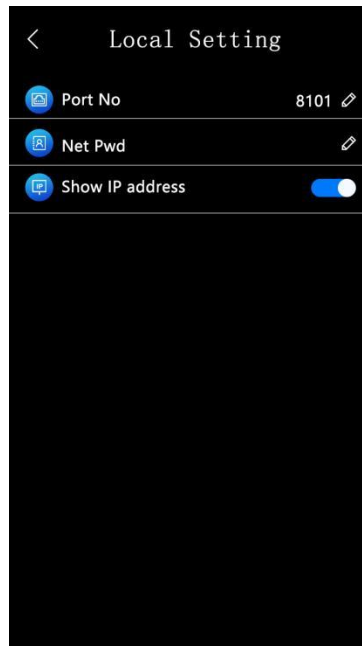
Click on "Communication Settings" to enter the communication settings menu. The device port, password, server settings, wired settings, and wireless settings can be modified, as shown in the following figure:



Communication Settings Interface

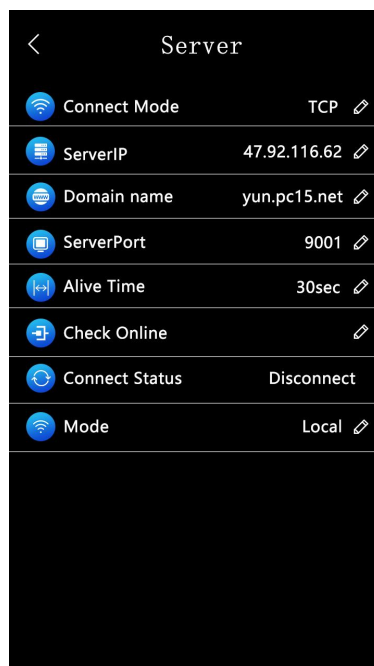


**Port/Password:** You can modify the device's port number (default is 8101), communication password, and enable or disable the main interface display IP address function, as shown in the following figure:



**Port Password Interface**

**Server Settings:** When installing this device through our desktop software and selecting real-time monitoring of this device, the software will automatically fill in the settings here, as shown in the following figure:



## Server Settings Interface

**Wired Settings:** The TCP/IP parameters of the machine can be modified. As shown in the following figure:



### Wired Settings Interface

The default IP address is 192.168.1.150;

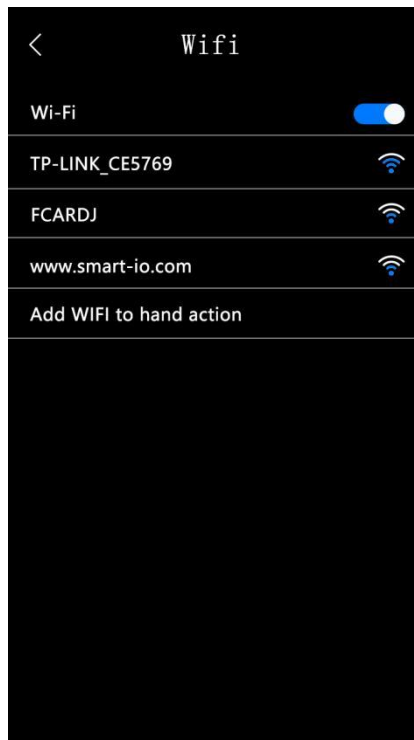
The subnet mask defaults to 255.255.255.000

The default gateway is 192.168.1.1;

The DNS server IP defaults to 192.168.1.1;

The MAC address is fixed and unique.

**Wireless Settings:** You can enable the search to connect to the network, select the wireless network you want to connect to, and click to enter the password to complete the WIFI connection, as shown in the following figure:



WIFI Setting Interface

## 5.9 Device Information

Click on "**Device Information**" under the menu to query the registration information and device information

The registration information includes: number of administrators, number of user registrations, number of facial registrations, number of fingerprint registrations, number of palm vein registrations, number of Mifare card registrations, number of password registrations, number of attendance logs, and number of identification photos. The number on the left represents the amount of information already in the device, while the number on the right represents the maximum capacity of device registration information, as shown in the following figure:

The screenshot shows a 'User Info' interface with a list of registration statistics. Each item includes an icon, a label, and a value representing the current count out of a total capacity.

Category	Value
Admin quantity	0/5
Users quantity	1/20000
Face quantity	1/20000
Finger quantity	2/10000
Palms quantity	2/10000
Card registered	1/20000
Password quantity	2/20000
Log quantity	4/1000000
Log photo	4/50000

**Registration Information Interface**

The device information includes: manufacturer, website address, reminder information, serial number, factory date, device name, firmware version, algorithm version, and other information. As shown in the following figure:

The screenshot shows a 'Device' interface with a list of device specifications. Each item includes an icon, a label, and a value.

Category	Value
Manufacture	
Web Site	
Reminder	
SN Serial Num	8255H66244654
Released	2023/04/14 16:45:15
Model	
Firmware	7.24
Engine	Ver600.5000.001
Import language(test)	

**Device Information Interface**

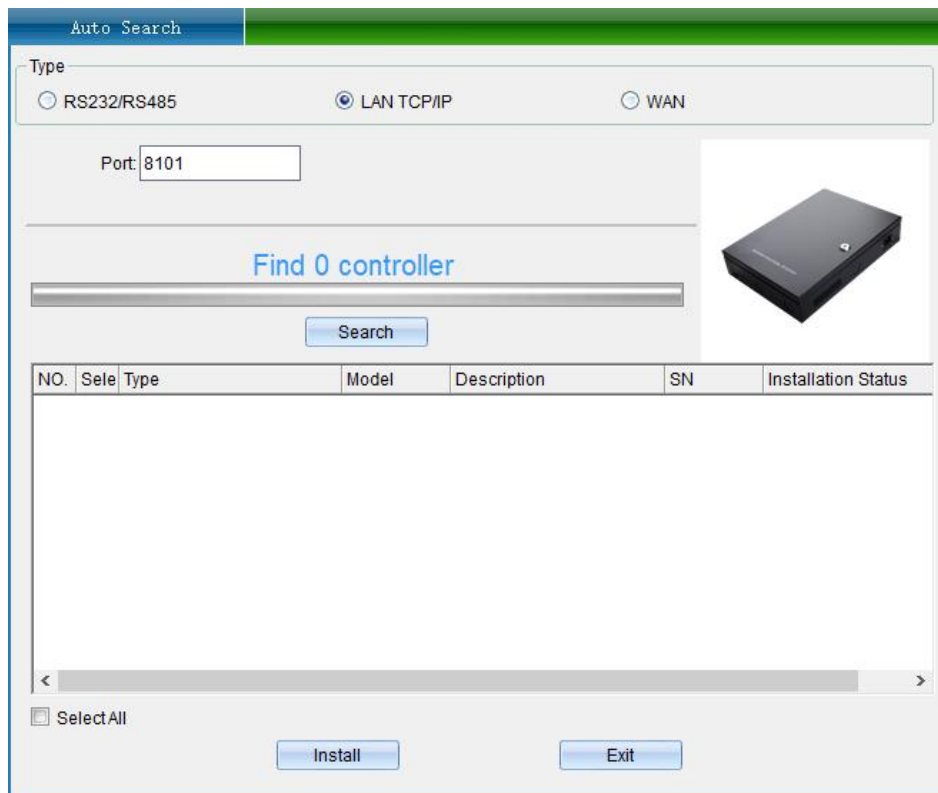
# Chapter 6 Instructions for using the client

## 6.1 Facial machine installation and settings

By using software to automatically search for devices, all online access controller and facial recognition terminals can be automatically discovered, making it convenient for devices to join the software system. Click on “**Automatic Search**” from the 'Install Device' drop-down menu on the main interface, as shown in the following figure



Click on “**Automatic Search**” to enter the interface shown in the following figure:



TCP/IP LAN Mode: First enter the network port, which defaults is **8101**, and then click **[Start Search]**. (Note: The device must communicate with the computer through a switch), as shown in the following figure:

Auto Search

Type

RS232/RS485     LAN TCP/IP     WAN


Port:

7 Controller(s) Searched

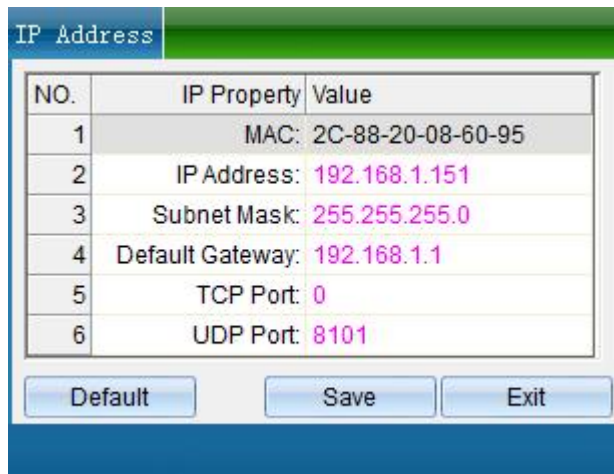
  

NO.	Sele	Type	Model	Description	SN	Installation Status
1	<input type="checkbox"/>	IP:192.168.1.60:8101		Face Controller	22122202	No (Double-Click)
2	<input type="checkbox"/>	IP:192.168.1.120:8101		Face Controller	23034072	No (Double-Click)
3	<input type="checkbox"/>	IP:192.168.1.116:8101		Face Controller	23034065	No (Double-Click)
4	<input type="checkbox"/>	IP:192.168.1.119:8101		Face Controller	23034080	No (Double-Click)
5	<input checked="" type="checkbox"/>	IP:192.168.1.132:8101		Fingerprint Face Controller	66244654	No (Double-Click)
6	<input type="checkbox"/>	IP:192.168.1.157:8101		Face Controller	23034078	No (Double-Click)
7	<input type="checkbox"/>	IP:192.168.1.214:8000		QR Code Access Control	22080060	No (Double-Click)

Select All       

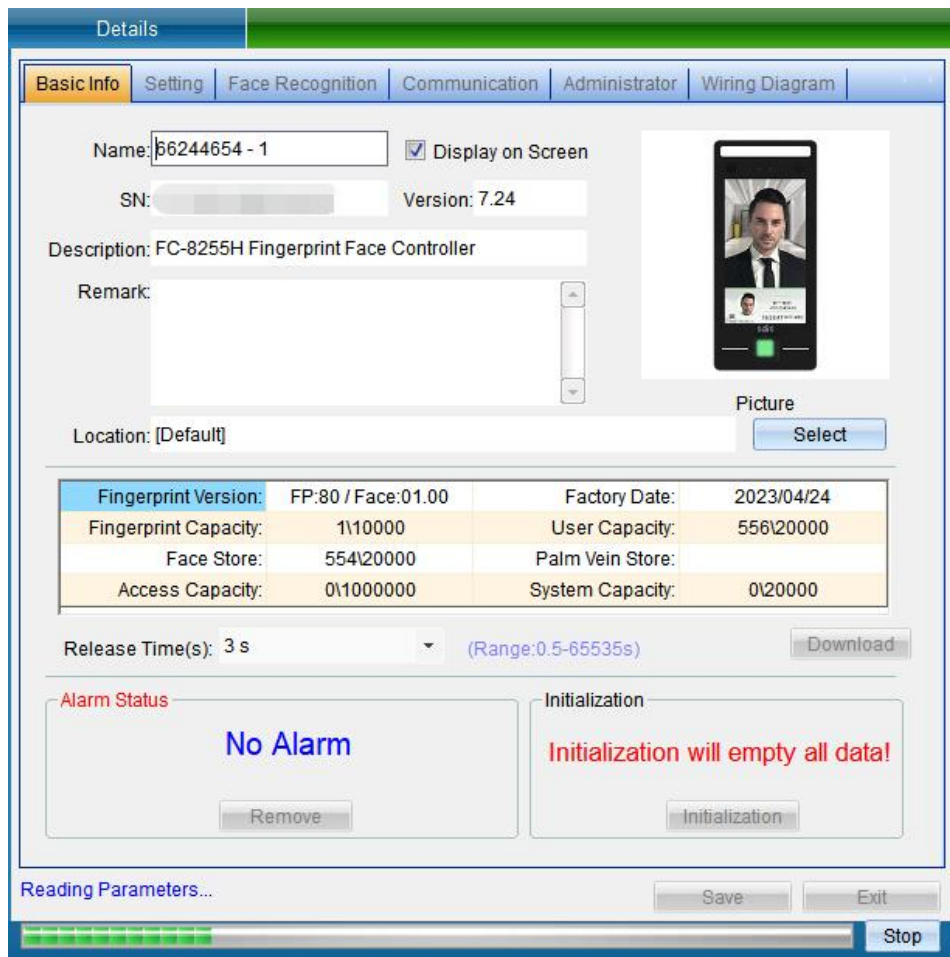


If the user's device uses TCP/IP communication mode, the device IP address needs to be modified. (When installing the device, the user needs to modify the device IP address and check the device communication password. If device has already changed the communication password, the correct password needs to be entered to allow the IP address to be modified, to prevent others from modifying the device IP through installation software and causing the original user to not communicate.) You can double-click the facial recognition terminal searched and the TCP connection parameter interface will pop up:



(Note: This system can search for facial recognition terminal in different network segments from this computer. Before normal communication, the user needs to modify the IP address to the same network segment address as the computer. If the router used by the user supports multi segment mapping function, then the system software can directly communicate with access controllers in other network segments.).

Double click the IP address, subnet mask, and gateway address to change them to the parameters matching the same network segment as the computer IP, click **"Save"** to return to the installation interface, click **"Install Equipment"**, click **"Door Access Control"** on the left column after installation, select the equipment, and click **"Properties"** to pop up the following figure:

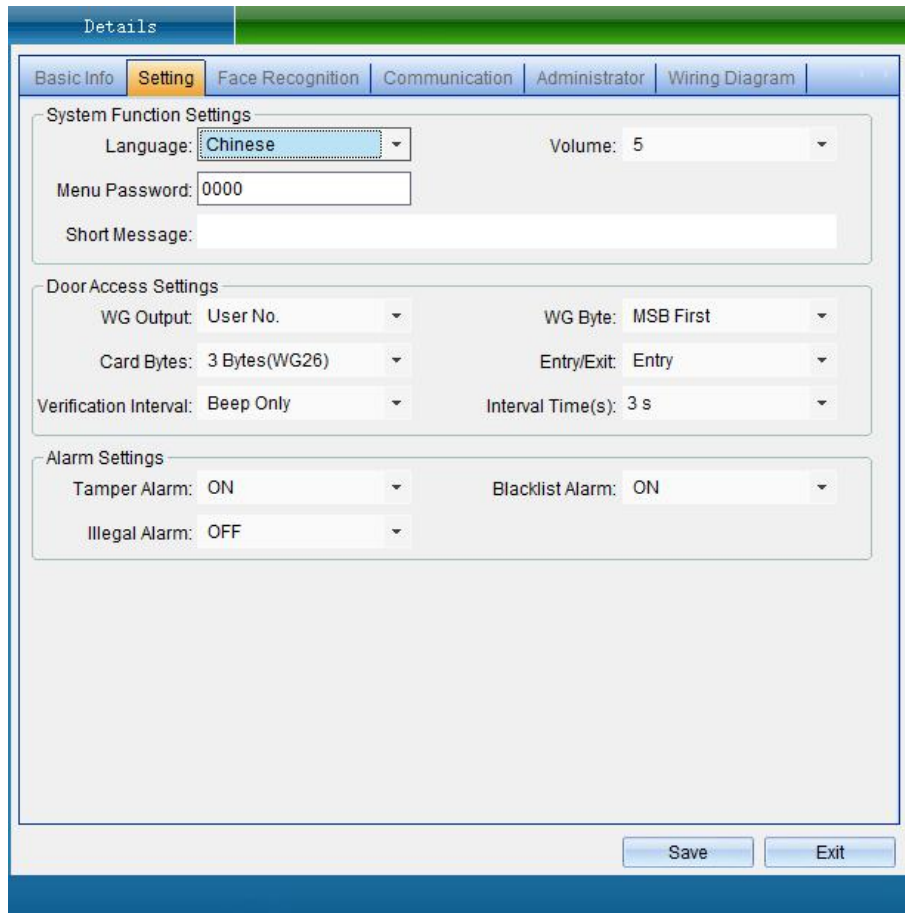


**Name:** Can be modified according to needs

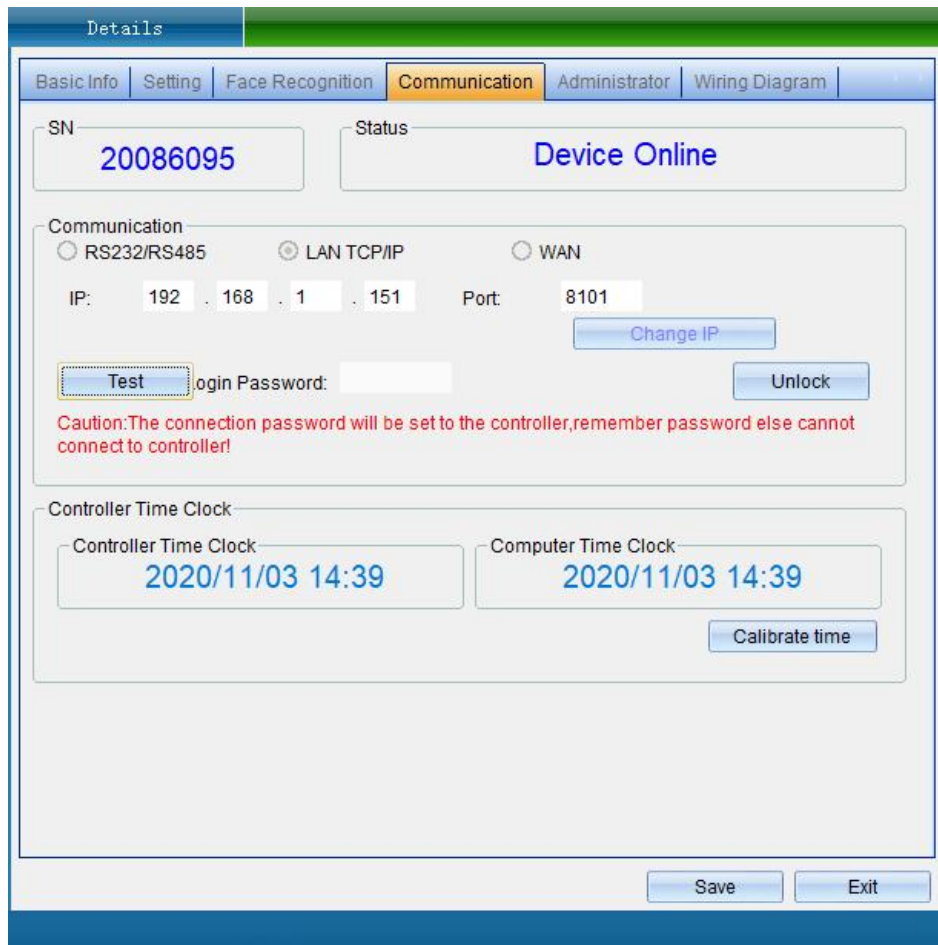
**Unlock Holding Time:** can be adjusted according to demand (default is 3 seconds)

Select **“Function Settings”** in the **“Device Details”** interface to set the system functions, access control functions, and alarm functions of the facial terminal. System function settings include language, volume, and menu management passwords; The access control function settings include WG output type, card number byte, entry and exit type, and verification interval. The alarm function settings include tamper alarm, illegal verification alarm, fire alarm, and blacklist alarm. As shown in the following figure:



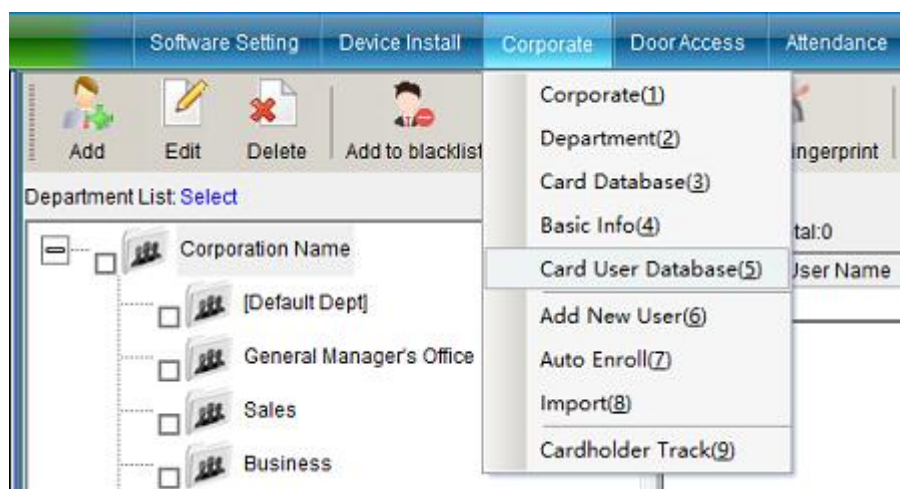


Select **“Communication”** in the **“Device Details”** interface, as shown in the following figure:

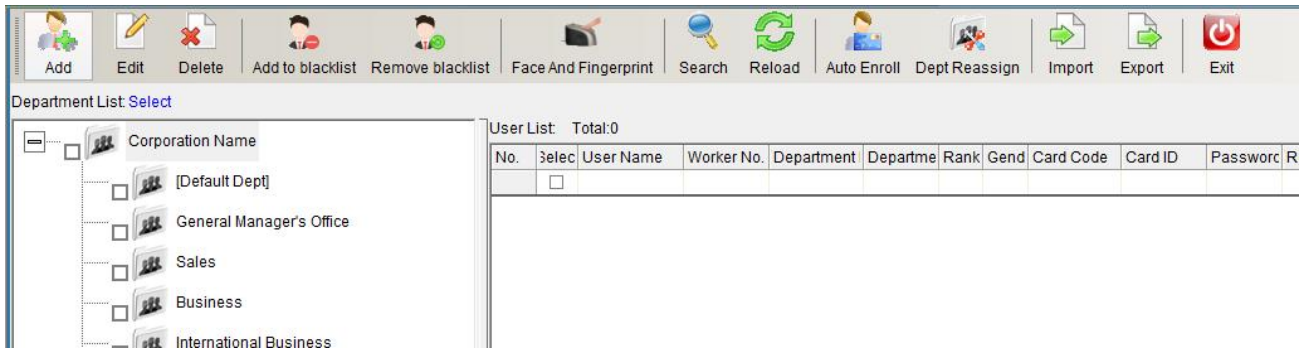


## 6.2 Adding Face and Authorizing

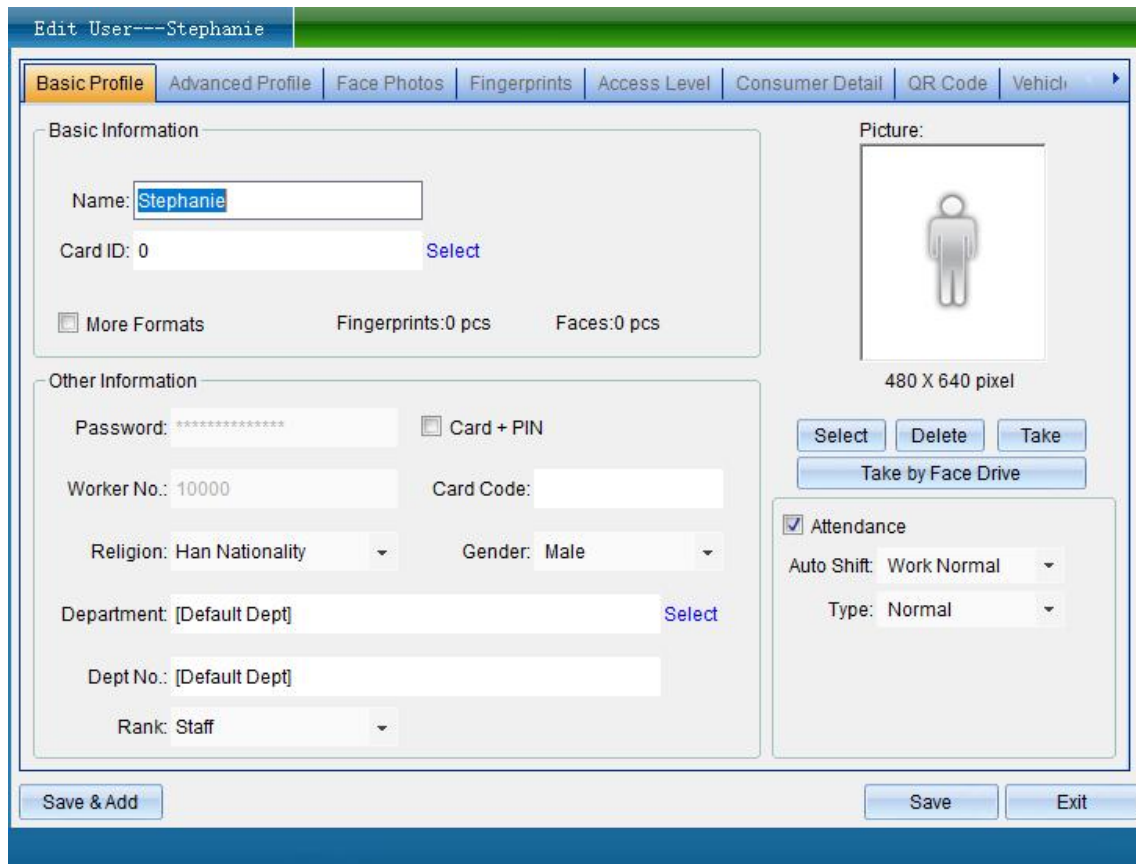
In [Corporate]-[Card User Database], as shown in the following figure



Click the “Card User Database”, as shown in the following figure



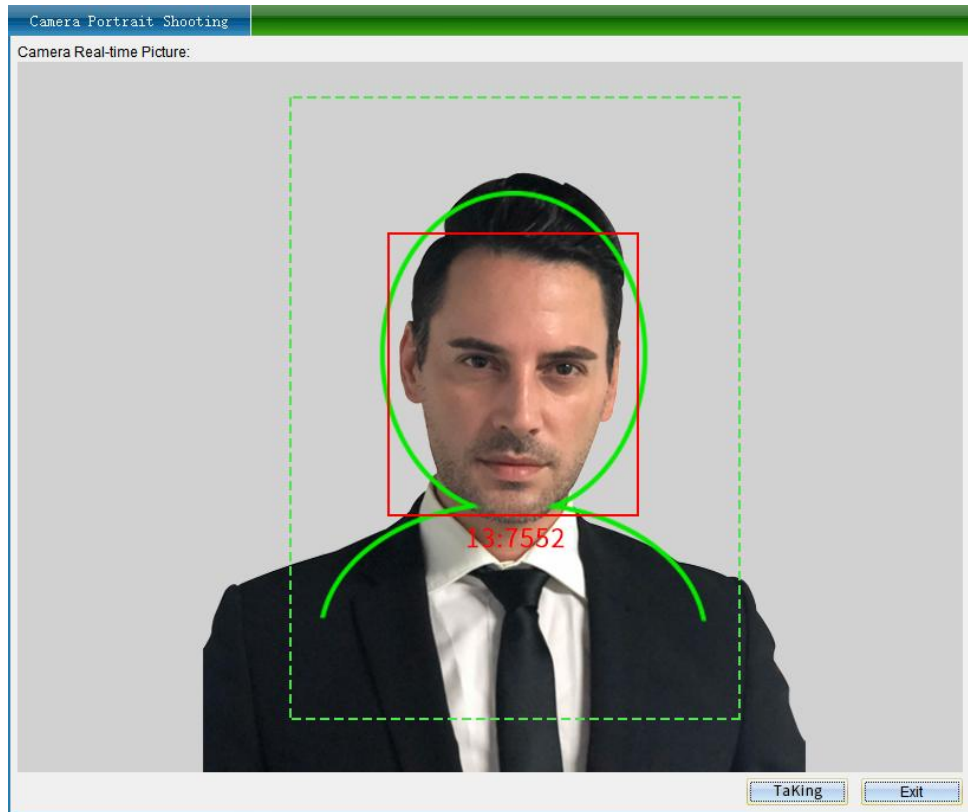
Click **“Add New User”**, as shown in the following figure



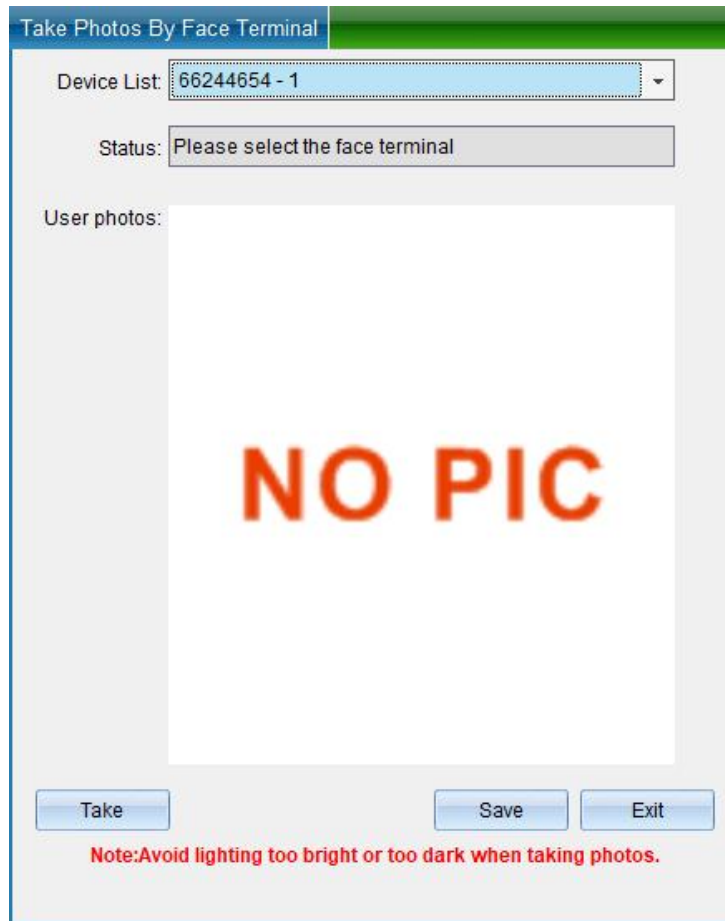
After filling in the user info, you can click “Select” and add the photo uploaded from the local computer to save as a personal photo. And then click “Save”.

Photos require a resolution of 480 \* 640 or above (file size: <300KB), clear and unobstructed facial photos (without glasses, masks, or hats), formal, and naturally expressive color photos.

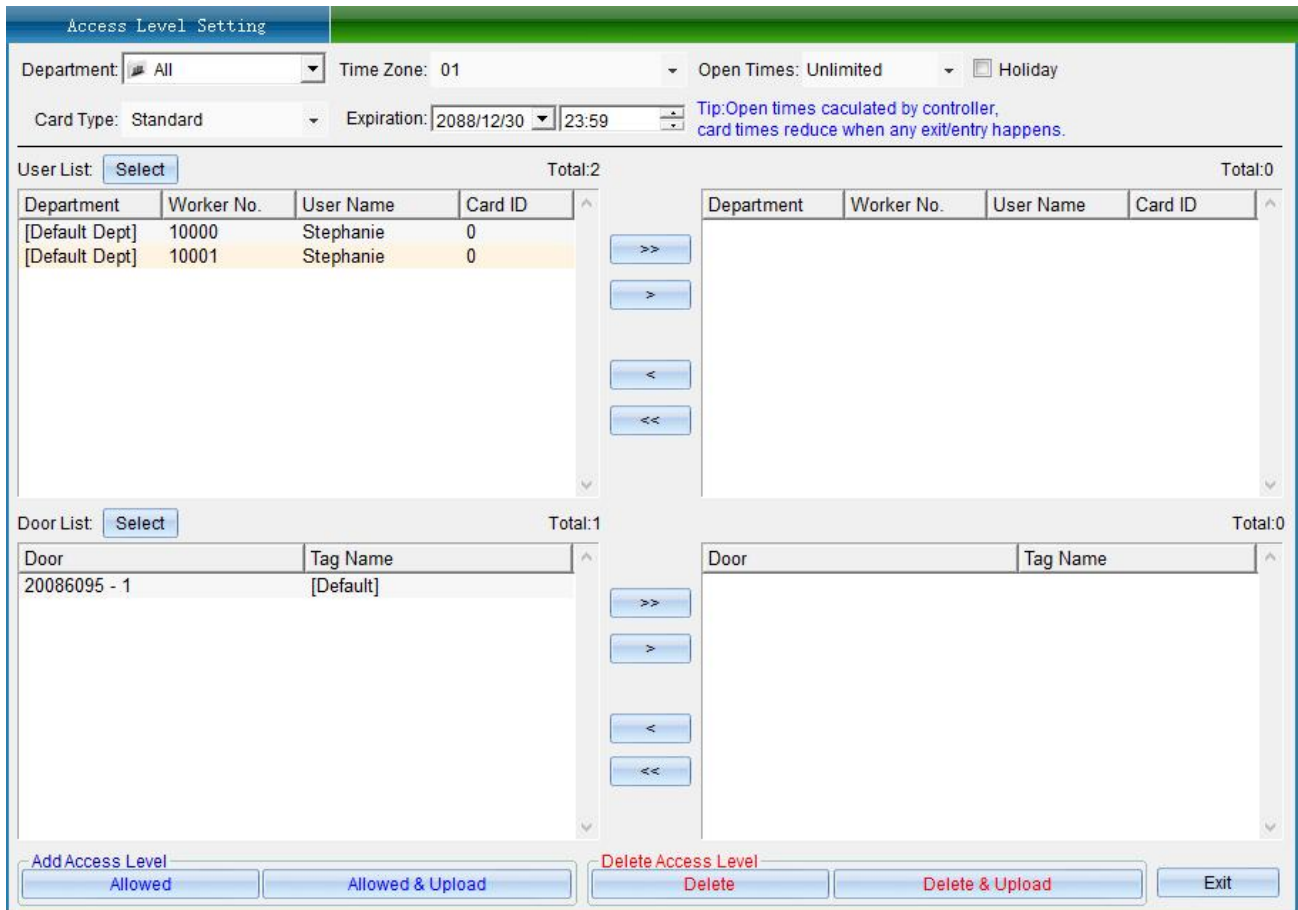
You can also connect an external camera device (traditional USB computer camera) to take photos directly and save them. Click "Take a Picture" to pop up the following page, and click "Take a Picture" to complete. (Note: The face needs to be aligned with the prompt outline for the photo button to display), as shown in the following figure:







Click on "Use a facial terminal to take photos" and the following page will pop up. Click on "Start taking photos" and enroll the face according to the facial terminal prompts. After clicking on "Save", you will return to the add person information page. Editing the information completely, click "Save" again.



Access Level Setting: click **“Door Access”** - **“Access Level Setting”**, as shown in the following figure



Select personnel to set the access level, select time zone and opening times, expiration date and doors. After selection, click **“Allowed & Upload”**.

-  Select all **“Users”** or select all **“Optional Doors”**
-  Select single **“User”** or select single **“Optional Door”**
-  Delete single **“Selected User”** or single **“Selected User”**
-  Delete all **“Selected Users”** or all **“Selected Doors”**

**【 Delete 】** Delete the specified user access level to the selected door, must be in the synchronization of data upload settings, and deleted access level successfully.

**【 Delete & Upload 】** Delete the access level of the user to the selected door and upload it to the controller, and no need to upload to the synchronous data.

**【 Allowed 】** Add the specified user to the selected door access level, must be in the synchronization data upload settings, and added access level successfully.

**【 Allowed & Uploaded 】** Add the access level of the specified user to the selected door and

upload it to the controller at the same time, and no need to upload to the synchronous data.

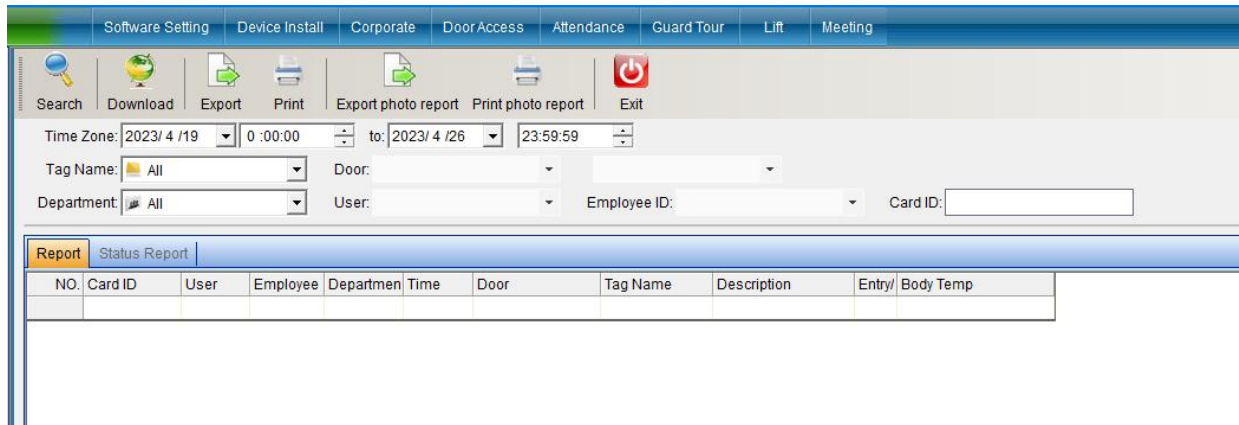
After all permissions are set, uploading the information to the facial machine will take effect.

## 6.3 Record Collection and Viewing

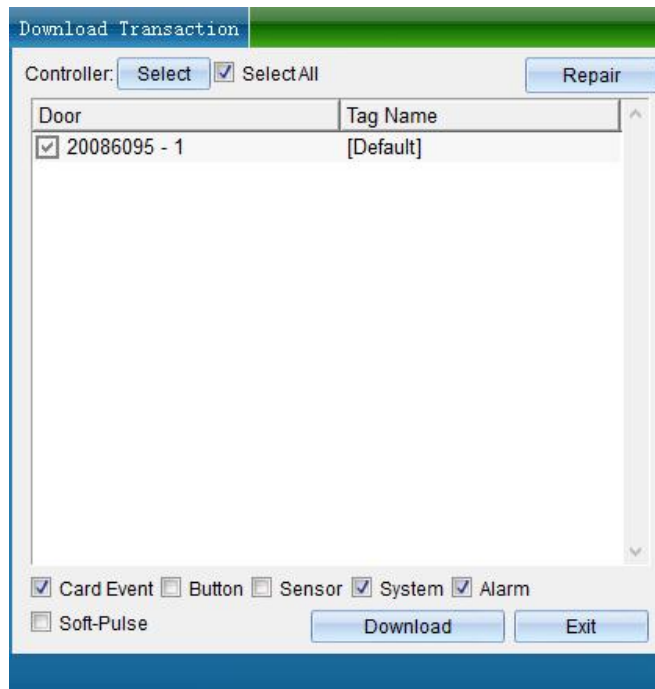
### 6.3.1 Record Collection

The system has a memory storage function, and each facial terminal can store offline records (even if not connected to the computer, it will automatically store them. Records will never be lost after power off.) Users can choose to extract data to the computer through a USB flash drive.

Click on the "Door Access" drop-down "Download Transaction" and enter the interface shown in the following figure:

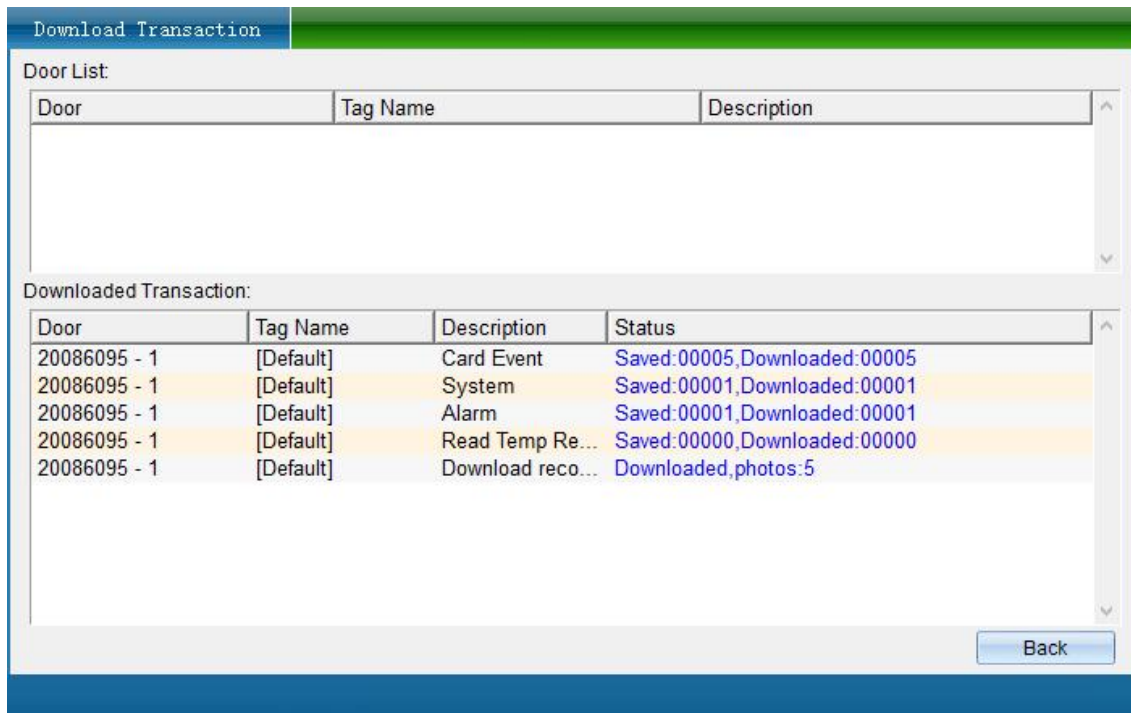


Click on the collection record icon to enter the interface shown in the following figure:





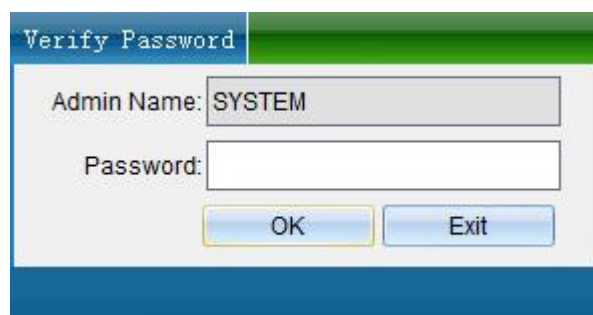
After selecting the facial recognition terminal and record type to be collected, click **[Download Transaction]** and a window will pop up as shown in the following figure:



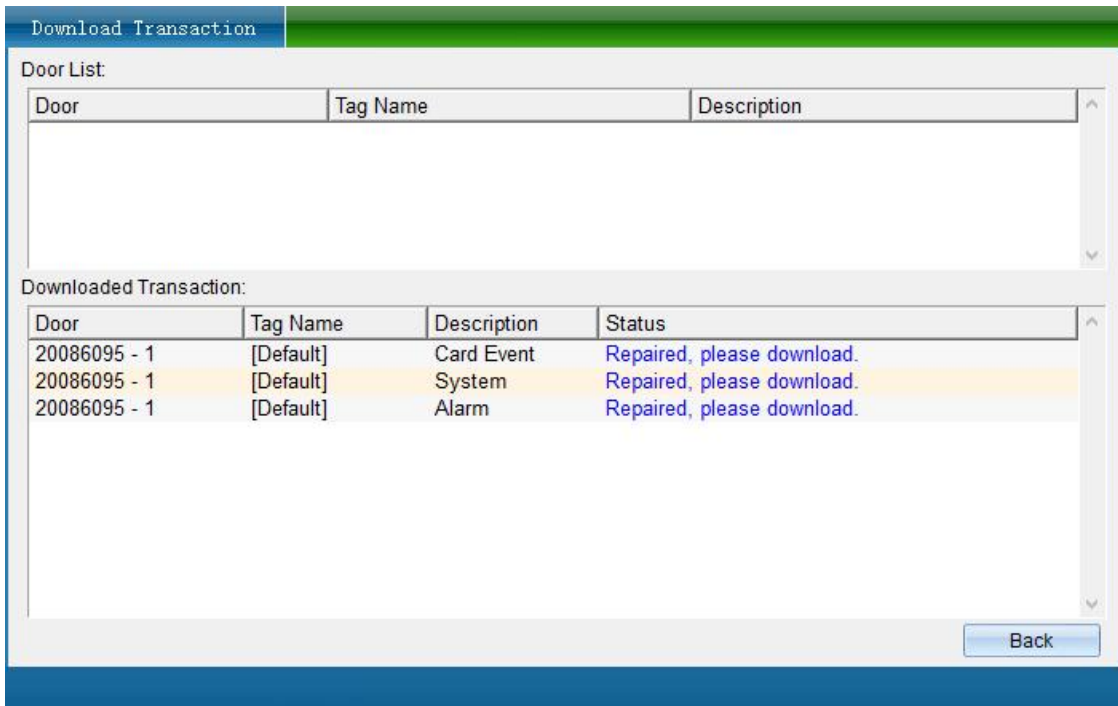
Collection completed, click **"Back"**.

If you have already downloaded reading card transaction, you can get all the transaction by **"Repair Transaction"**.

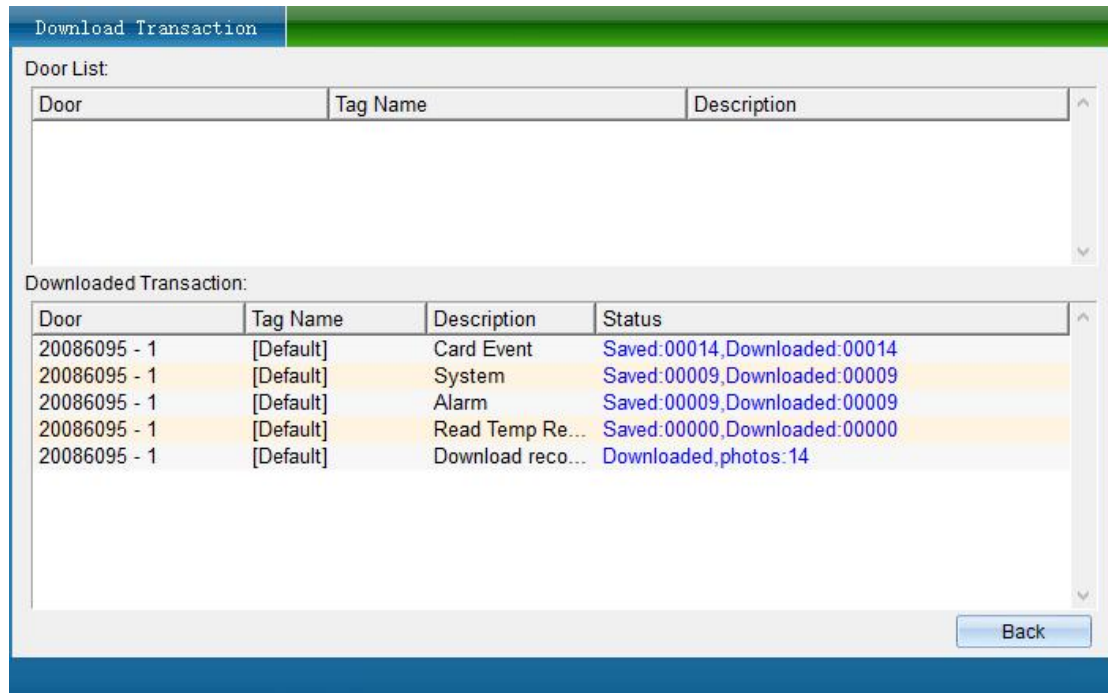
Click **【 Door Access 】 - 【 Download Transaction 】 - 【 Repair 】** , and then pop-up verification window and enter password "0000"(Default Password), as shown in the following figure







After the repair is completed, click **[Complete]** to return to the collection access control record interface. Select the door to extract the card reading record and the data to be collected, and then click **[Download Transaction]**. After a while, the collection will be completed. At this point, all records in the controller will be collected into the computer, as shown in the following figure:

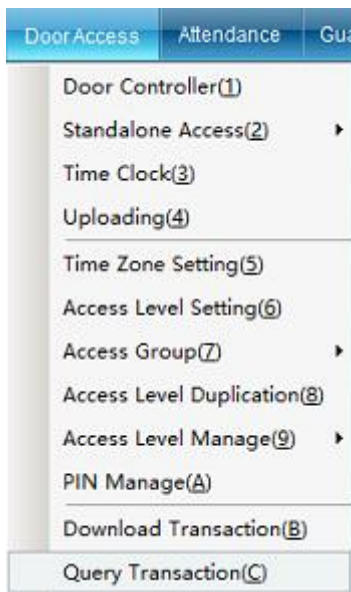


Until the collection is completed and click **[Back]**. After the collection of records is completed, then can query the records.

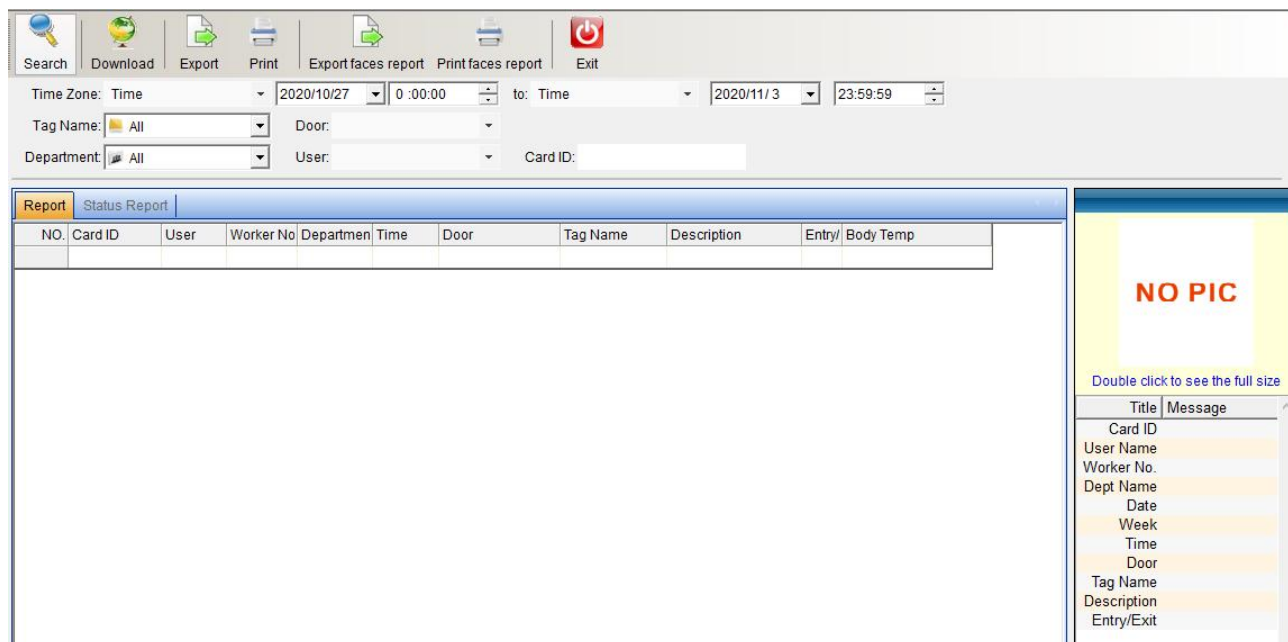
### 6.3.2 Record Viewing

Please collect records before query records

Click on the software menu **[Door Access]** drop-down menu **[Query Transaction]**, as shown in the following figure:



Click on **[Query Transaction]** to enter the interface shown in the following figure:



First collect records, click on **"Collect Records"**. After collecting records, you can query them as needed and enter query criteria. The query criteria can be based on **"Time Range"**, **"Name"**, **"Personnel Number"**, **"Card Number"**, **"Department"**, **"Location"** to search for relevant records.

Then, click on the "search" icon to find the entry and exit records of relevant personnel, or directly click "search", It is possible to query the entry and exit status of everyone, as shown in the following figure:

The screenshot shows a software interface for managing personnel records. At the top, there is a menu bar with icons for Search, Download, Export, Print, Export faces report, Print faces report, and Exit. Below the menu is a search filter section with the following fields:

- Time Zone: Time
- Time: 2020/10/27 0:00:00 to Time: 2020/11/3 23:59:59
- Tag Name: All
- Door: [Dropdown]
- Department: All
- User: [Text Field]
- Card ID: [Text Field]

The main area displays a table of search results with the following columns: NO., Card ID, User, Worker No, Department, Time, Door, Tag Name, Description, and Entry/Body Temp. The table contains 16 rows of data, including entries for Face, Fingerprint, Power on, and Connect/Disconnect LAN.

On the right side, there is a sidebar with a profile picture and a message box. The message box contains the following information:

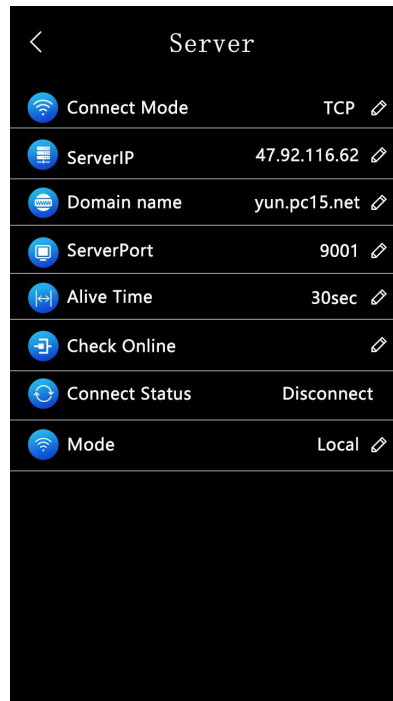
- Title: Message
- Card ID: 000000001
- User Name: -
- Worker No: 1
- Dept Name: -
- Date: -
- Week: -
- Time: 2020/11/03 14:51
- Door: 20086095 - 1
- Tag Name: [Default]
- Description: Face
- Entry/Exit: Entry

You can also export the queried records and click "Export" to export personnel entry and exit records.

# Chapter 7 Cloud System Operation Instructions

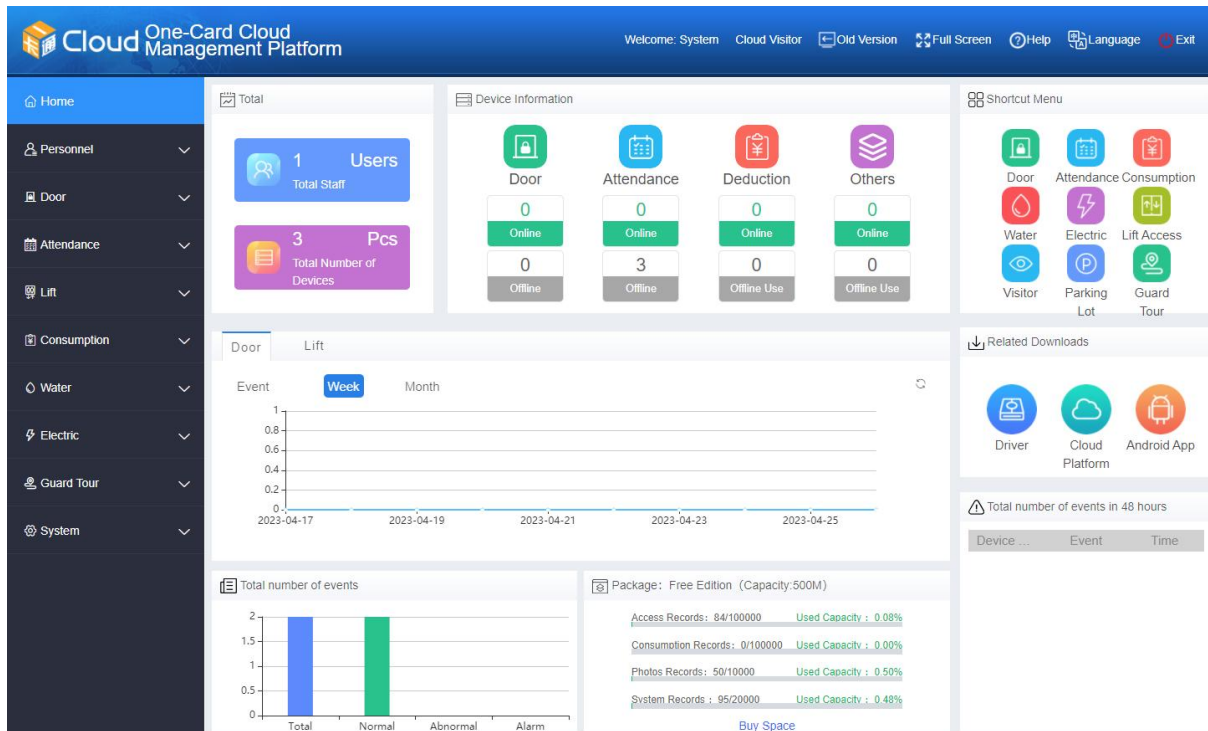
## 7.1 Installing Facial Terminal

Firstly, set the communication parameters of the facial terminal. Select [**Communication Settings**] from the main menu of the facial terminal, and then select [**Server Settings**] to set the corresponding parameters. The reference settings are shown in the following figure:

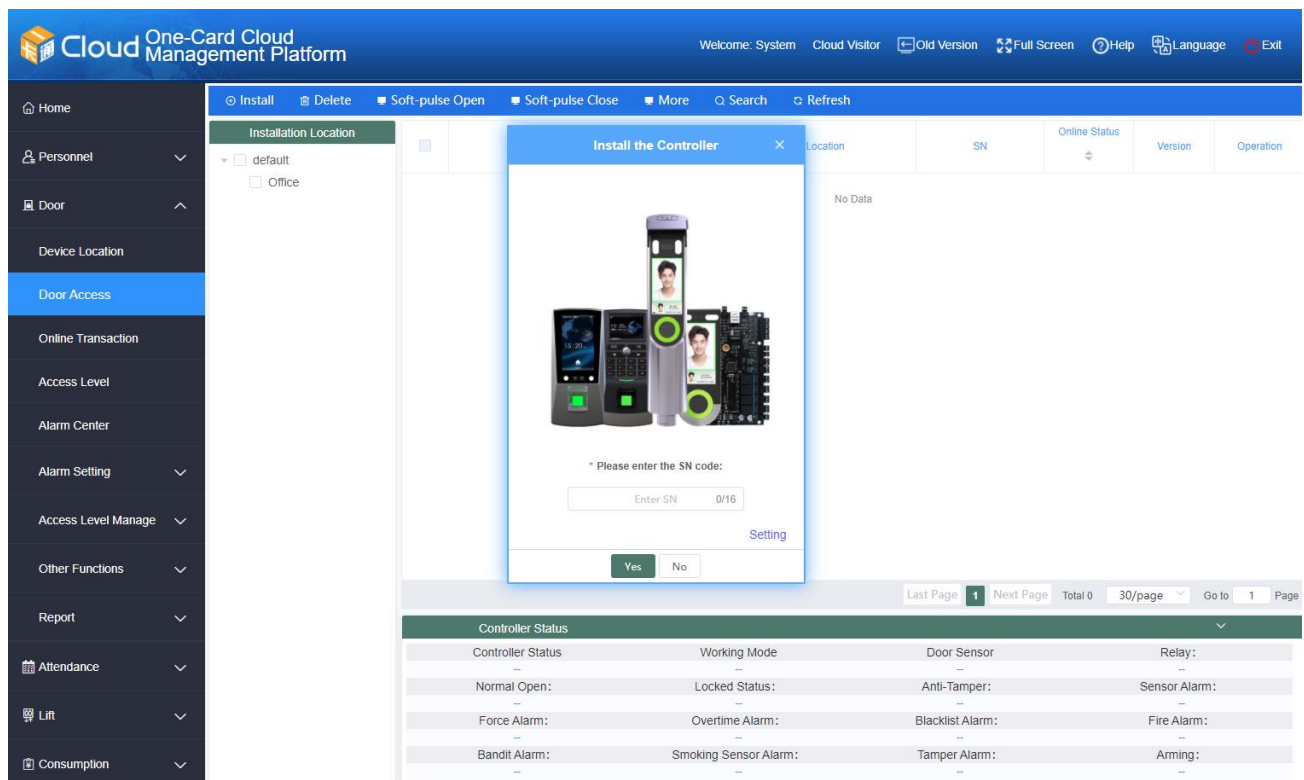


Connect to the network, configure the parameters, click Test Connection, and the prompt "**Success**" indicates that the connection is complete.

PC search website: **yun.pc15.net**, log in the cloud platform account of the One Card Management Platform, as shown in the following figure:



Click on the **[Door Access] - [Install]** pop-up interface in the directory bar, enter the SN code of the device to be installed, and click “Yes”, as shown in the following figure:



In the pop-up installation interface, the installation interface is shown in the following figure. Select the location to install, select the basic parameters of the device, and then click **[Install]** in the


bottom of right corner. At this time, the device installation will be successful.

**Device Installation** ✕

Installing:

FC-8255H

Processing :



Controller SN:

Please enter the door name of con Installation Location:

troller :

default ▼

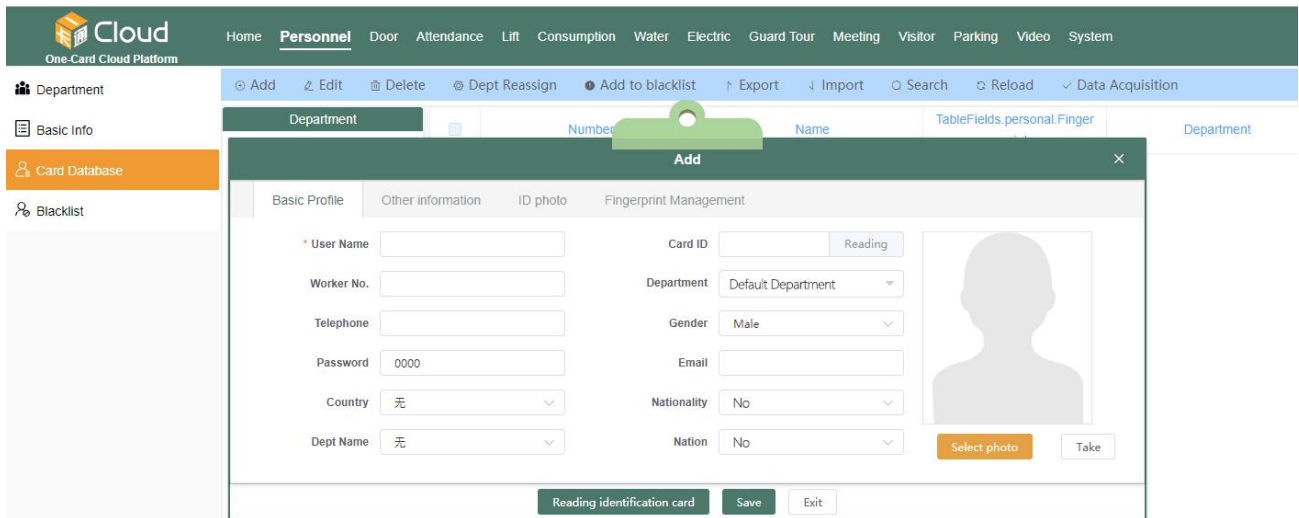
▼ Parameter

Change the communication password  Initialize Install No

## 7.2 Add personnel and authorization

### 7.2.1 Add User

Click **[Personnel]** - **[Add]** to open the **[Card User Database]** interface, enter the personnel information to be added, and click OK, as shown in the following figure:



## 7.2.1 User Authorization

Click **【Door】-【Access Level】**, select the personnel who need to set access control permissions, and then click on “Next”, as shown in the following figure:

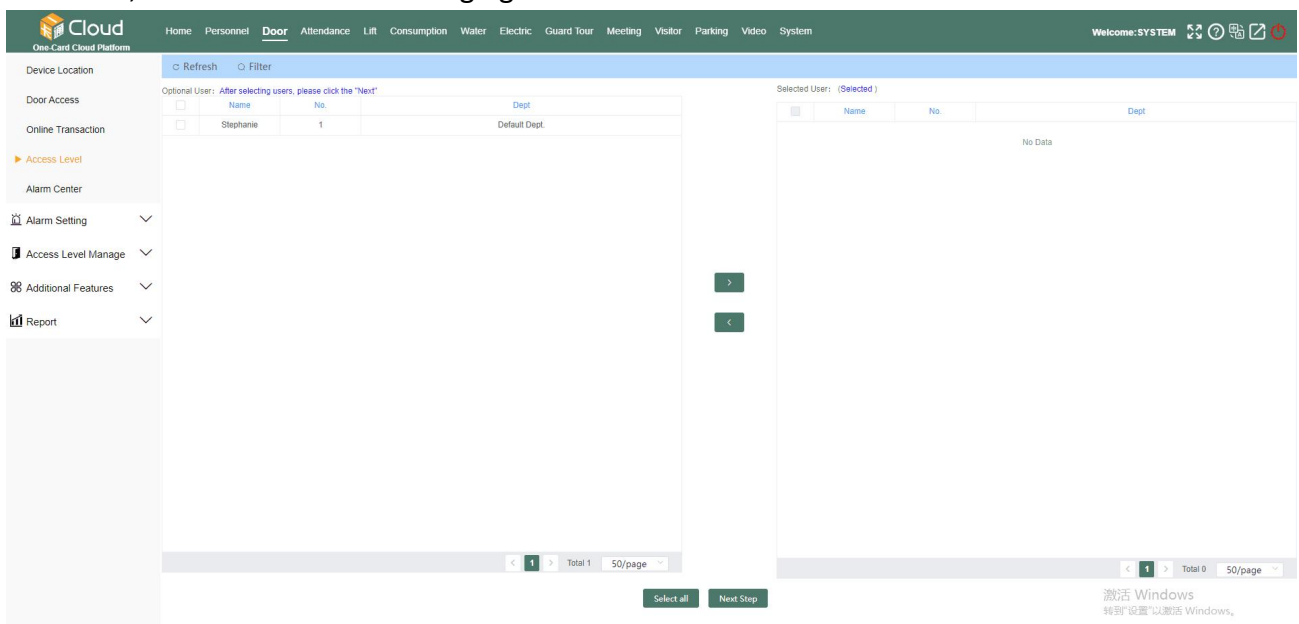
**【>】** : Select “User”

**【<】** : Delete “The Selected User”

**【>>】** : Select “All Users”

**【<<】** : Remove “All Selected Users”

Select the personnel who need to set access control permissions, and after selecting them, click Next, as shown in the following figure:

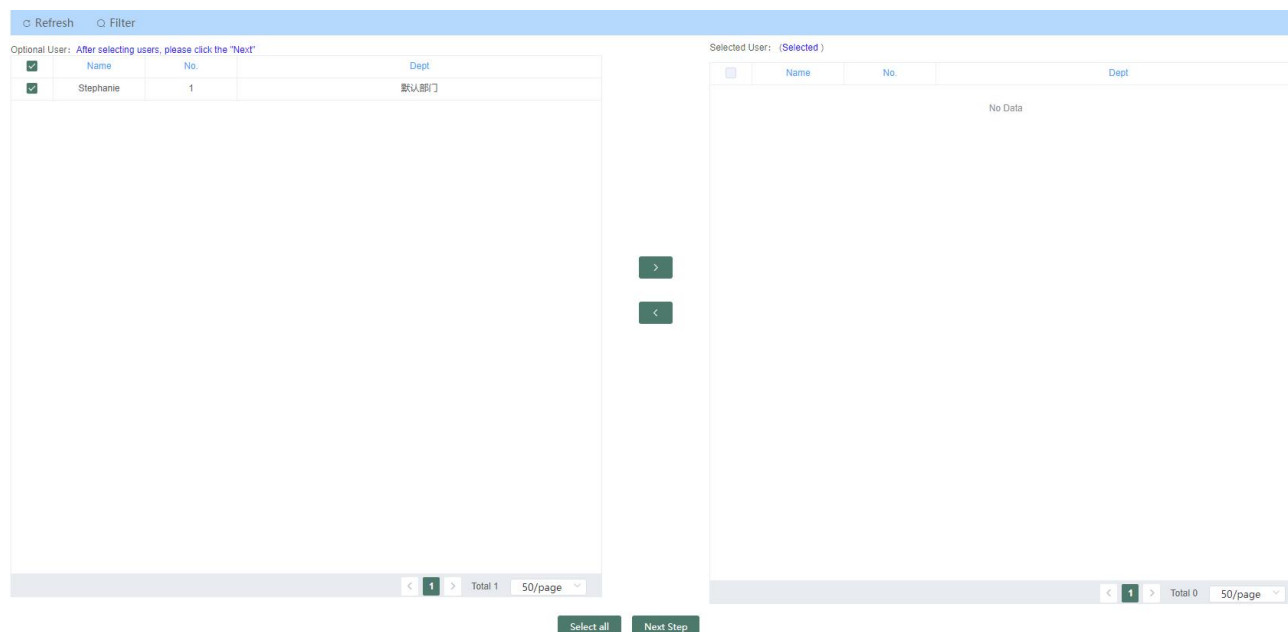


According to actual needs, select parameters such as opening time zone, opening times, validity period, door name, installation location, etc., and select the door for authorization, as

shown in the following figure:

**【Delete】** : Delete the specified user's access level of the selected door.

**【Allow】** : Add the specified user's access level of the selected door.

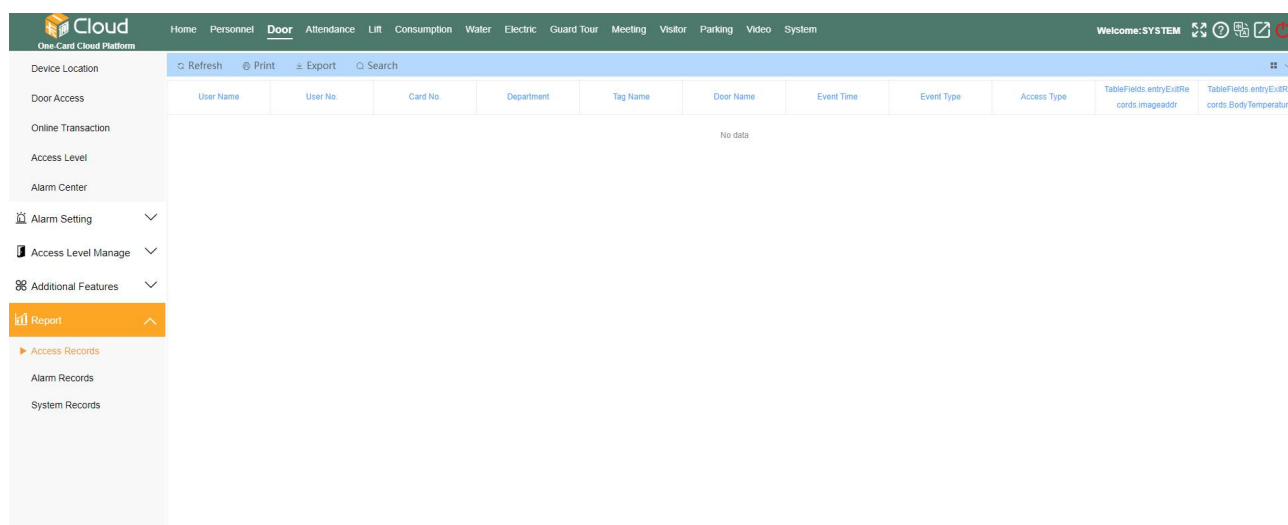


## 7.3 Record Viewing

Click on **[Door Access]** in the left column of the **[Access Report]** page, select the records you want to view or export, including access records, alarm records, and system records.

Click the search button to filter the records of the facial terminal you want to view according to the requirements, as shown in the following figure:

Click the export button on the left side of the search button to export the Excel table for the required records.





## Appendix 1 Precautions for Installation Process

1. Before and during installation, please ensure that the power is turned off. If operated with power, it may damage the equipment circuit.
2. After the wiring is completed, please wrap the excess wire ends to avoid short circuits.
3. In areas with severe static electricity or in winter, please connect the ground wire before installation to prevent excessive instantaneous static electricity from damaging the equipment.
4. Please connect other cables before connecting the power cable. If you find that the device cannot operate properly, please disconnect the power cable first and then conduct necessary inspections.
5. Please test the door switch when there is someone outside the door to avoid accidental issues that may cause it to be locked inside the door.
6. The rated working voltage of this device is DC 12V and the rated current is 2A. The power supply should also consider the current requirements of accessories such as the electric lock, to avoid problems such as unsuccessful startup of the facial terminal or weak electric lock drive caused by abnormal power supply if the power supply does not meet the requirements.
7. If the facial terminal power is provided by the access control board, please refer to whether the power output of the access control board meets the power requirements of the facial terminal.
8. Please ensure that the camera area of the facial terminal is always in a clean state to avoid stains affecting facial recognition.
9. If the distance between the power supply and the device is relatively long, do not use network cables or other types of cables to replace the power cable. When selecting a power cable, consideration should be given to voltage attenuation caused by excessive transmission distance.
10. Avoid direct exposure to strong light on the face terminal lens, as strong light can lead to poor recognition ability.
11. In a strong backlight environment, if the face recognized by the facial terminal is too black and recognition is affected, please increase the supplement light to increase the brightness of the face,

which can improve the recognition effect.

12. Use high-quality power supply to avoid the impact of poor quality power supply on facial recognition and touchscreen insensitivity. (Poor quality power supplies may burn out the motherboard due to leakage)

13. If installed on strong current equipment such as a turnstile gate, please connect the ground wire to avoid strong current leakage or motor interference affecting the effectiveness of the facial terminal.

## Appendix 2 Introduction to Face Enroll and Usage

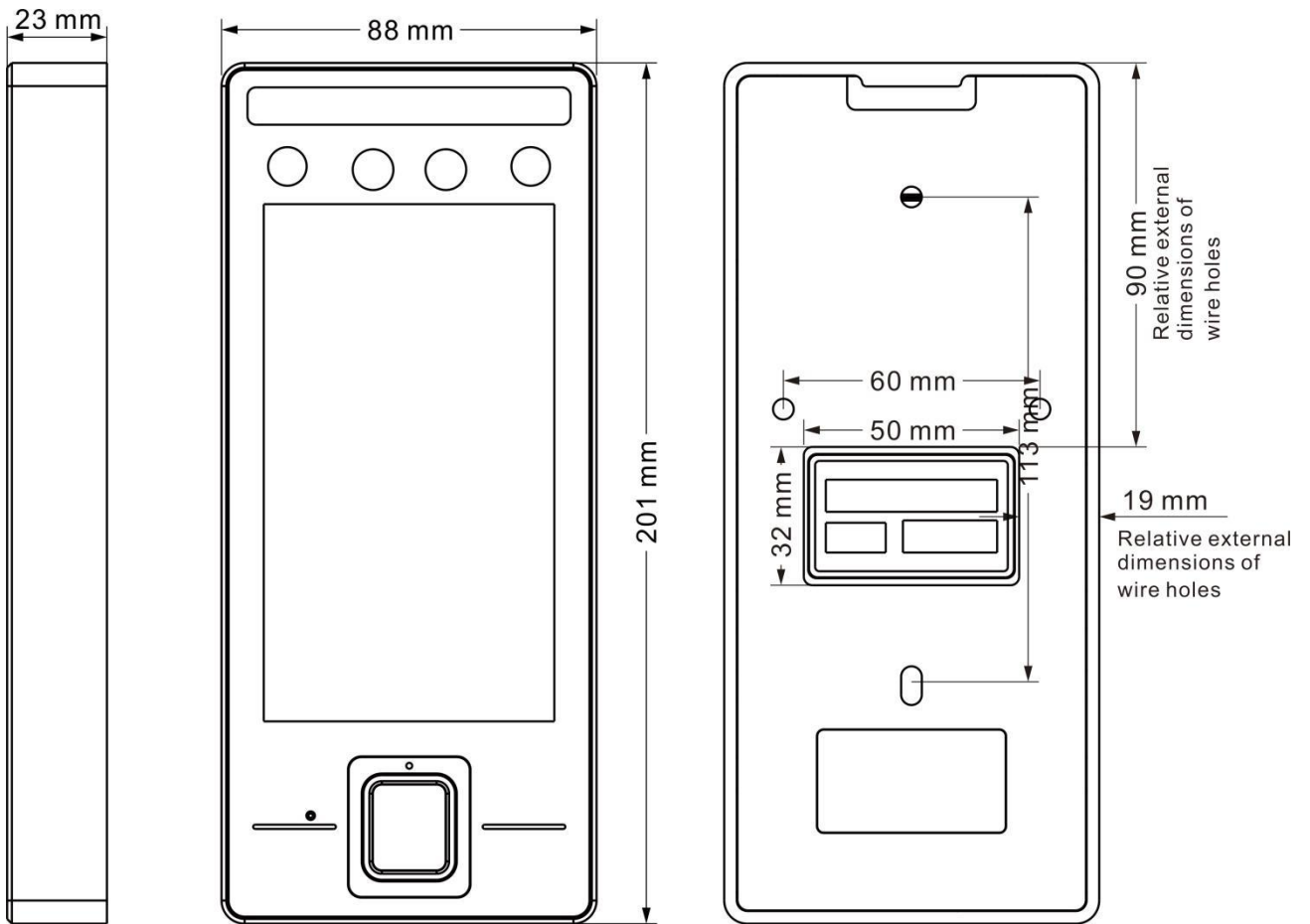
The schematic diagram for adjusting the size of face enroll is shown in the following figure



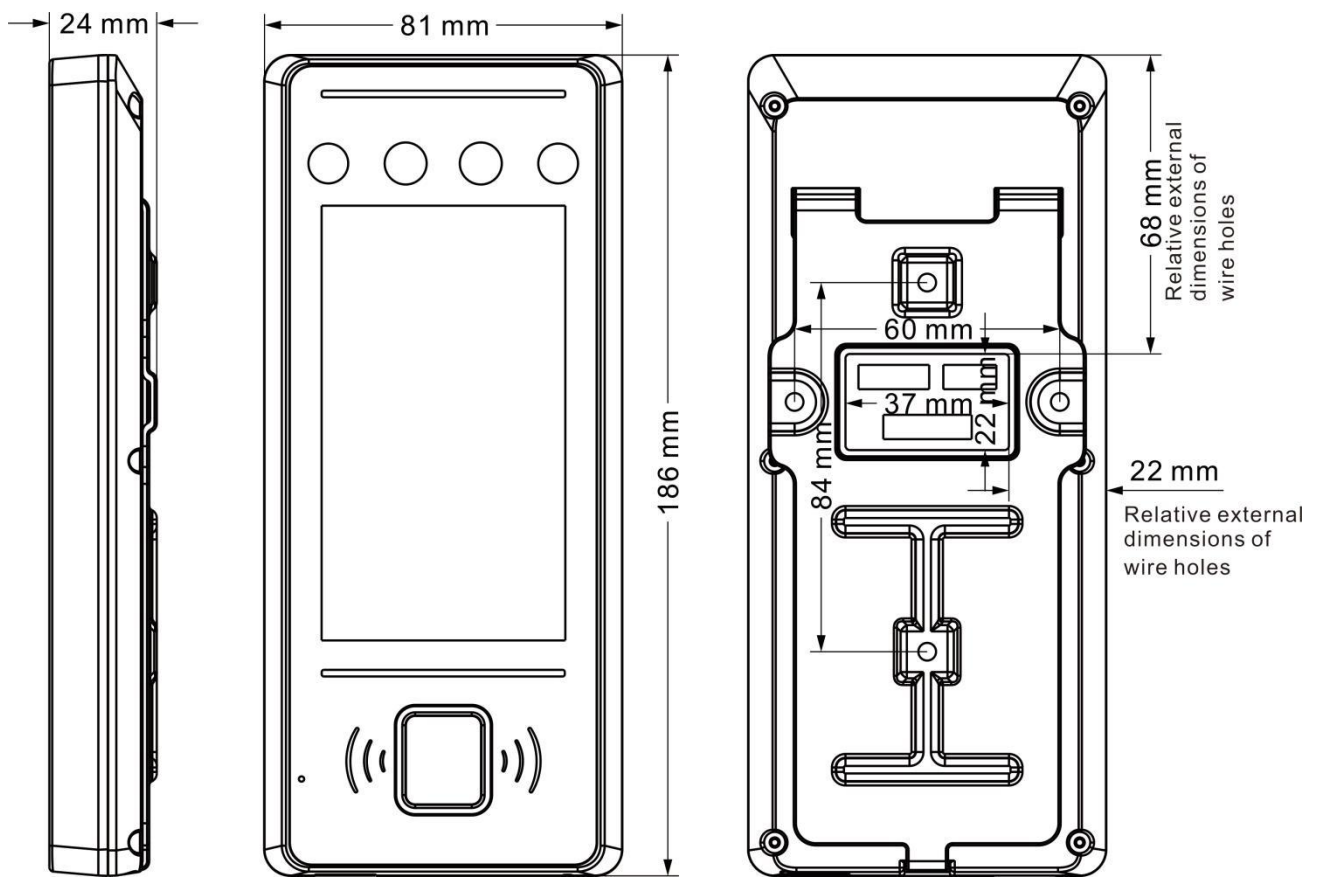
In order to ensure the quality and accuracy of the parameter enrolled of the face terminal, keep a natural expression during the enroll process. Please do not wear a hat, glasses and other factors to affect the face enrolled, do not let the bangs cover the face, and do not wear heavy makeup. Please try to put your face in the center.

When using face terminal, you should pay attention to the camera and avoiding excessive coverage of eyes, hats, and masks.

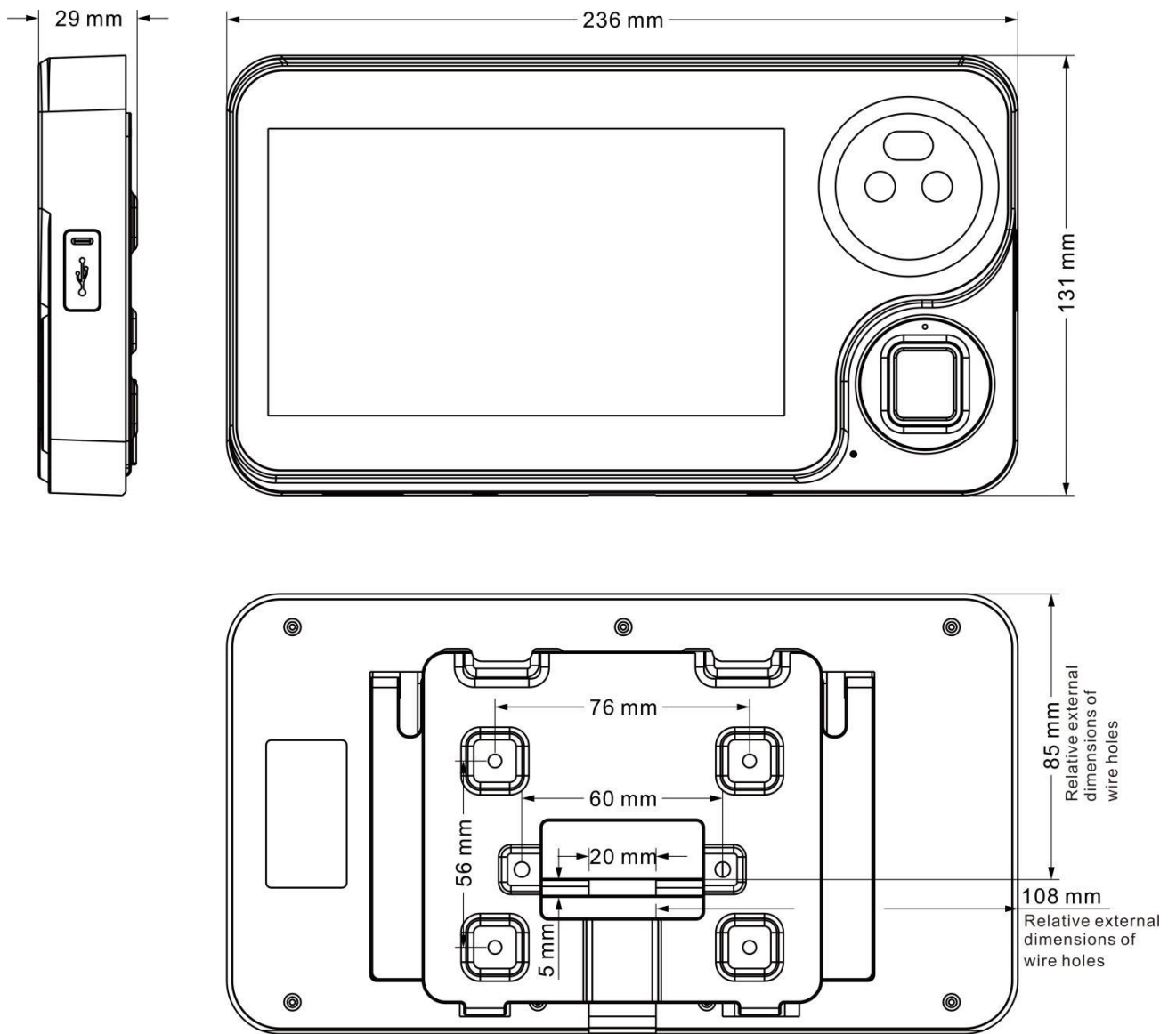
# Appendix 3 Device Dimension



Dimensional Diagram of Model A



**Dimensional Diagram of Mode B**



**Dimensional Diagram of Mode C**