Manuals+ — User Manuals Simplified.

Shenzhen LS090 Face Recognition Device User Manual

Contents [**hide**]

SHENZHEN

Shenzhen LS090 Face Recognition Device

Introduction

Writing Purpose
This manual is intended for all users of the access control system(Pc), providing references for beginners.

- There is the instruction:
- Choosing a specific theme through the content of the catalog.
- Quickly find and search a term by using indexes.
- We will give you a brief since chapter 1.
- Acronym and terminology will be listed.
- If there are malfunctions or uncertain problems, please contact us:

Product Introduction

Access control system(pc) relies on advanced face recognition algorithms, high precision temperature detection module, with face recognition, temperature detection, masks checking, etc. functions, the aim of designing is to implement contactless employees attendance, contactless pass, and non-contact temperature detection system. It can be widely used in transportation, education, government, etc, and industries, acting on the terminal equipment of the smart gate, the smart access control, and the smart working attendance.

Product Function Overview
This system has many functions such as standalone users registration, batch images registration, user data input export(cross-terminal data sharing), attendance configuration, face identification, attendance matching, record searching, record export, etc, it is available in passing through some public places(airport, train station) working attendance or other circumstances.

Face Identification

The system will automatically enter the locked screen mode after the device is turned on or there is no operation for a long time, the default interface is as follows:
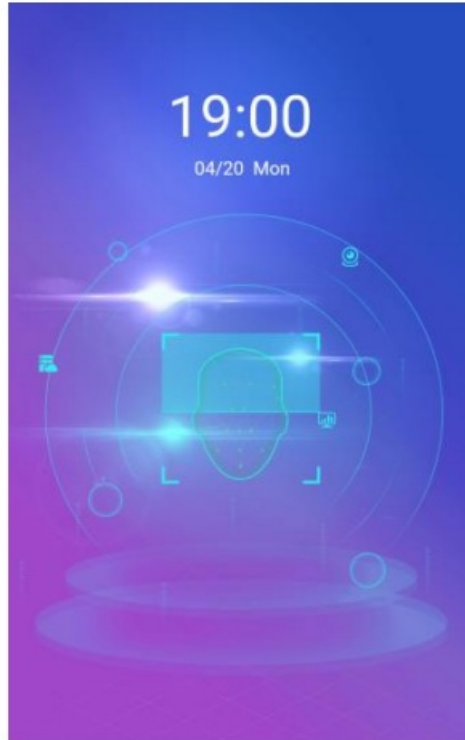
When the camera detects the movement of an object within the recognition range, it enters the facial recognition page. The facial recognition page is divided into attendance mode and face recognition, mask recognition and temperature measurement. Two recognition modes can be arbitrarily selected. The default is attendance mode. For temperature measurement, you can set it in [System Settings-Recognition mode] to Select Recognition Mode. Notice: you can also click the screen or exit the screen locked mode with the mouse to enter the identity verification page. After entering the identity authentication page, the page displays the camera preview screen. In order to improve the accuracy of face recognition and body temperature detection, please follow the on-screen instructions as close to the attendance machine as possible. When the face is in the humanoid preview frame, keep your posture and wait. The screen prompts the verification result. The selected recognition mode must meet the conditions at the same time to pass the verification: Face recognition: Compare whether the captured face is consistent with the user's face data. When there is no user's face data matching, the voice prompt: Authentication failed; Mask recognition: Determine whether to wear a mask, and when it is detected that the passer-by is not wearing a mask, the voice prompt: Please wear a mask; Temperature measurement: to detect whether the body temperature is normal, and when an abnormal temperature of the passer-by is detected, the abnormal temperature will be alarmed.

Please face the Temperature measurement box
19:28:23
04/20 Mon
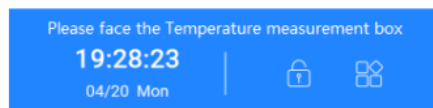
- **Successful verification(period of attendance):**
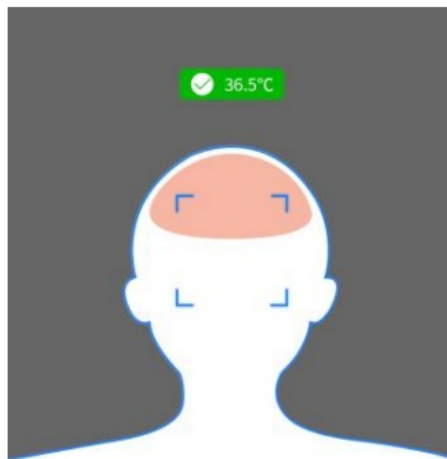
36.5℃

Verify successfully
Lily   S10001
09:30:35   Clock in

Display: name, job number, punch time, attendance event name; voice announcement: verification result; open gate/door.

- **Successful verification(other time):**
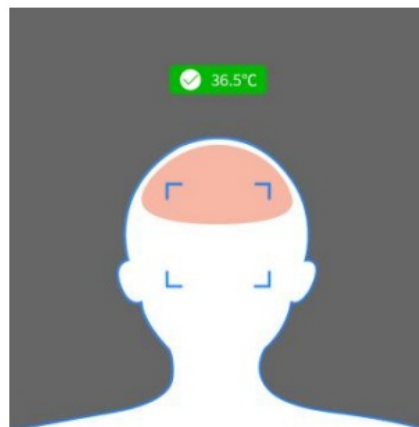
Display: name, job number, punch time, attendance event name; voice announcement: verification result; open gate/door.
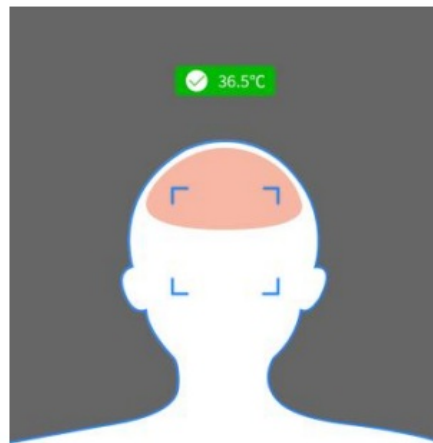
- **Failed verification-blocked list**

Display: name, job number, punch time, attendance event name; voice announcement: verification failed; close gate/door.(if the gate/door opened, close automatically)

- **Failed verification- unregistered**

Display: unregistered, punch time, attendance event name; voice announcement: verification failed; close gate/door.(if the gate/door opened, close automatically).
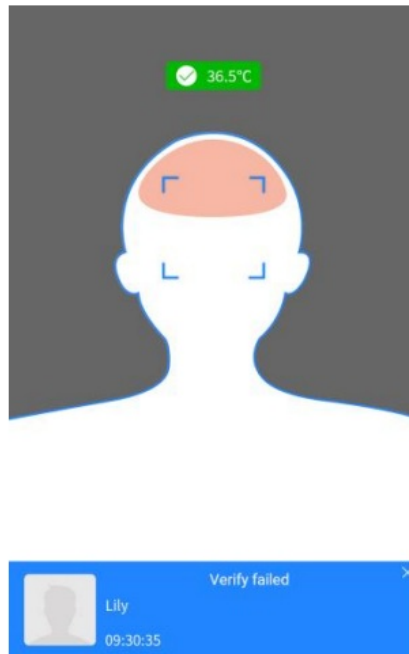
Notice: After the high-temperature alarm is turned on if the body temperature exceeds the set high-temperature threshold (you can set it in the system setting-body temperature setting), an abnormal body temperature alarm will be issued.
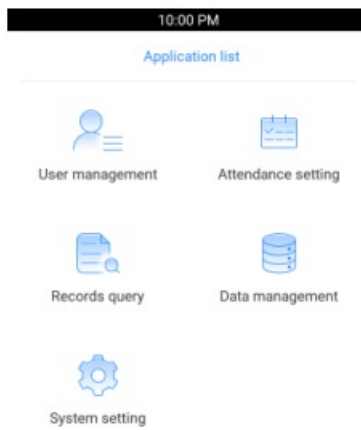
Application List

Click the button on the face recognition page to enter the application list page. If an administrator user already exists in the system, you need to verify the administrator's identity before entering. Non-admin users do not have permission.
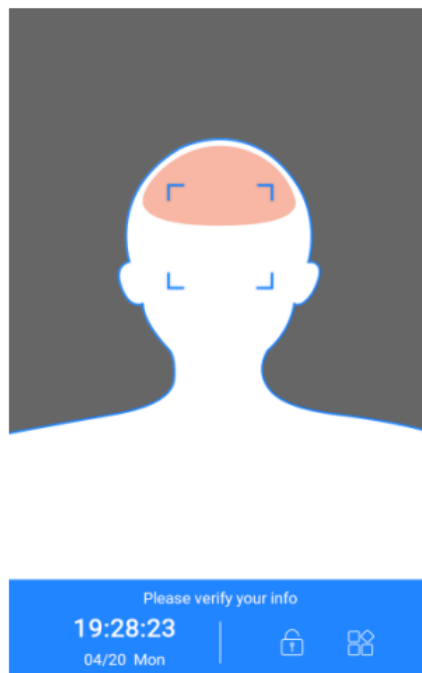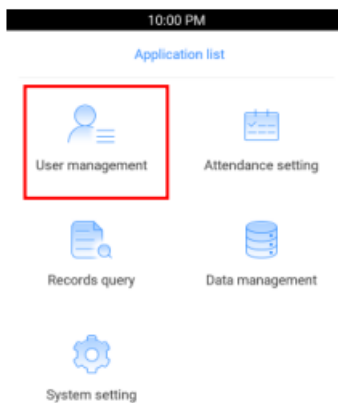

Administrator authentication
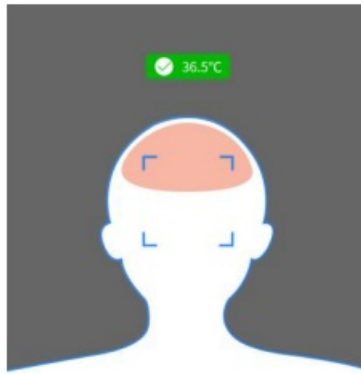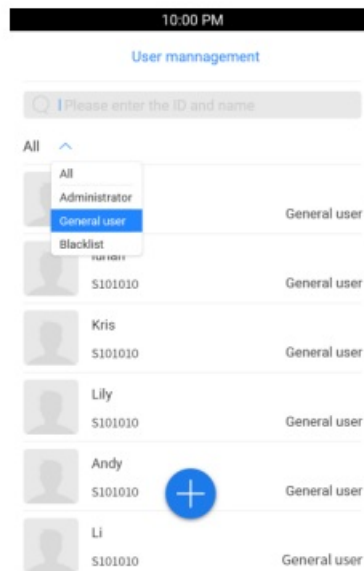
Administrator authentication failed

Application List

User Management

Click application list>user management to enter the user management page, you can view all existed users in the system. You can also filter the users through roles.

New User Add

Click the button, go into the user add a page, proceeding the face import after filling in the user's basic information to complete the user add function.

Basic information
Please enter your ID info

Please enter your name

Please enter your job ID

Please enter password

Cancle   Next

Please place your face in the center of the screen
Don't move when recognition

Previous   Save

Notice:

1. User ID cannot be repeated.
2. 'name' 'ID number ''permission' 'password' must be filled in.
3. Name and ID number should be no more than 20 characters, password should be no more than 10 characters.
4. ID number is limited to letters and numbers, passwords are limited to Arabic numerals.
5. During the face import, please move the face to the center position preview frame and hold the posture, waiting for the system to remind the import is complete.
6. The first user is the manager administrator by default, and a password is required. Please confirm and keep the password

Users Edit
Click users to view the user detail, you can re-edit user information in the user detail.

Users Delete

Long press any user on the user list page to enter the selection mode, you can select users to delete. To delete all users, please select all or proceed in data management>user data.

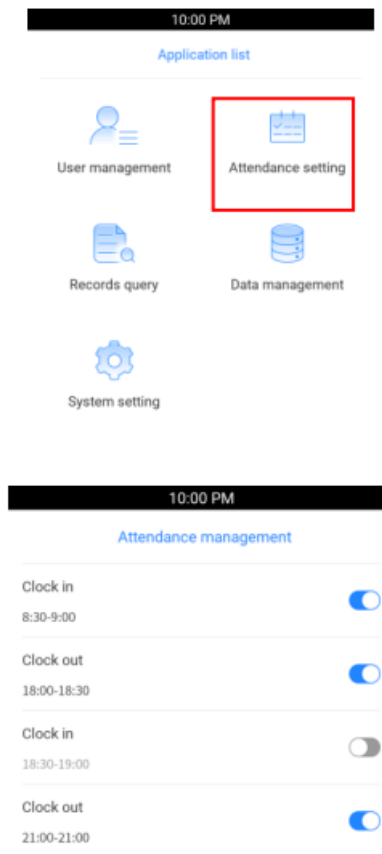**Notice:** the deleted user can not be recovered, please operate carefully.

Attendance Configuration

Click application list>attendance configuration to enter the page. Attendance events are only available after opening, clicking the button, enabled/forbidden attendance events.

Attendance Events Add

Click the button to enter the attendance events add a page, you need to input the name of events, and select the timing range, time cycle, and recording methods. Attendance timing is the period when the event worked, the time should not have a conflict with other attendance events, which is one specific time corresponding to one specific attendance event. (Attendance cycle is the effective date range of the attendance rules, select all by default, and you can click on the day of the week or a specific date to cancel or select. For example: under the default situation, click the button, cancel all attendance events on Saturday; click the button, select not to participate in attendance events on the 6th of the month. Recording method: select saving all when repeat attendance happens, all of the records will be kept; select repeat attendance events saved to the newest, and the newest record of the period will only be saved. Select to save the first record, the system will save the latest record of the attendance period

Attendance Events Delete

Long press attendance events on the attendance events list page to enter the selection mode, you can select events to delete manually, if you need to delete attendance events, you can select all manually or proceed in the data management>attendance configuration

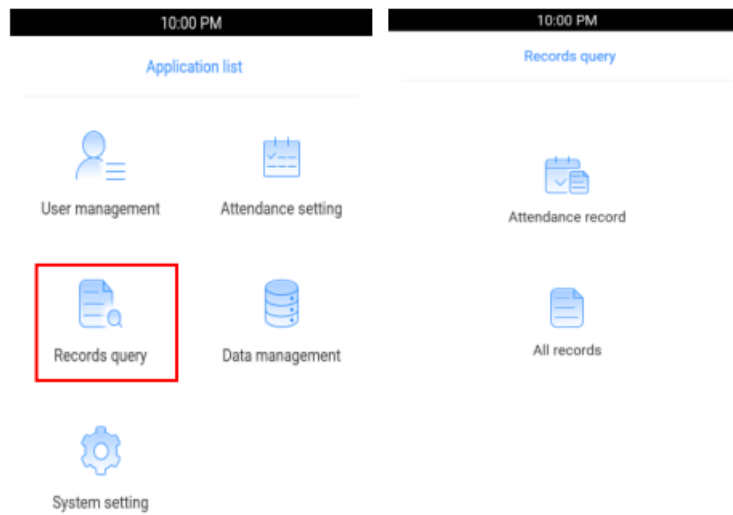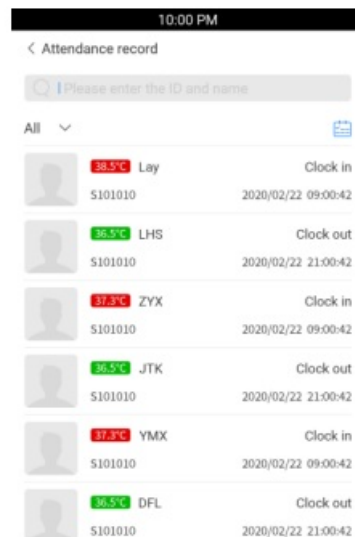**Notice:** the deleted records can not be recovered, please operate carefully.

Records Search

User management   Attendance setting

Records query

Data management

Attendance record

All records

System setting

Attendance records Search

The attendance record search page displays all attendance event records, the information like the attendance time, attendance events, employees information, temperature information, etc can be checked. You can select attendance events, dates to narrow the scope by searching the name/ID number

10:00 PM

< Attendance record

| Please enter the ID and name

All ∨

38.5°C	Lay		Clock in
	S101010		2020/02/22 09:00:42
36.5°C	LHS		Clock out
	S101010		2020/02/22 21:00:42
37.3°C	ZYX		Clock in
	S101010		2020/02/22 09:00:42
36.5°C	JTK		Clock out
	S101010		2020/02/22 21:00:42
37.3°C	YMX		Clock in
	S101010		2020/02/22 09:00:42
36.5°C	DFL		Clock out
	S101010		2020/02/22 21:00:42

**Recognition Records Search**
All records search pages display all pass records, the information like transit time, the name, and body temperate of passerby can be checked. You can also select user type and transit time to narrow the scope by searching the name/ID number.

Data Management

Click application list>data management to enter the data management page. It includes user data, attendance configuration data, and recognition record data, and click to enter the specific function page. Click 'clear all data' to delete all users, attending events, and recognition records in the system.
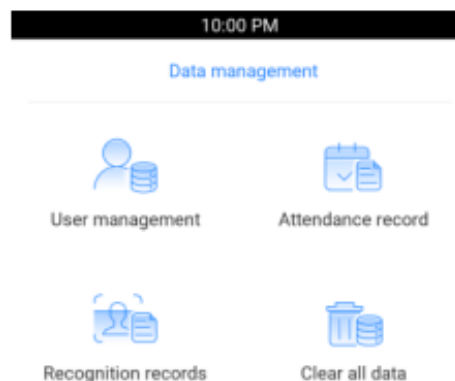
Notice: You need to insert a USB to enter every function page.

Users Data

User data management includes importing users, users backup, recovering the backup and deleting all users.

User Import

Before importing users, you need to store the created import files to the USB root directory in advance according to the import instruction, click import, and the process will be conducted. In order to import successfully, you need to ensure the user's facial image is clear, and users information meets the filling rules

Notice: Scanning QR code to check the user import instruction. For the English version, please contact us to get user import instructions.

User Backup
You can manually select the types of users that need to be backed up. All are selected by default. After confirming, click the Backup button to back up
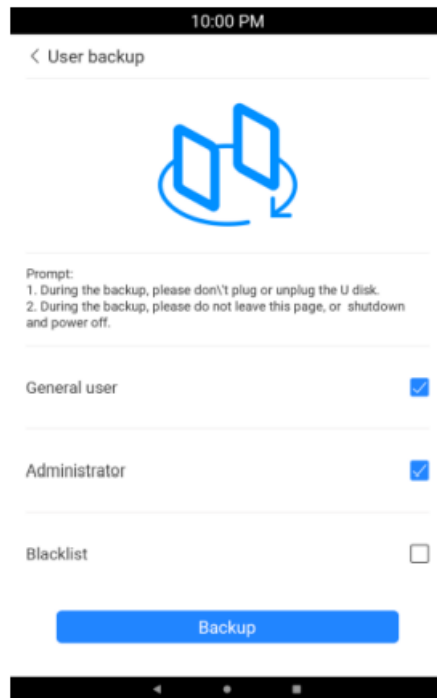
Notice:

1. During the backup process, please do not plug or unplug the U disk.
2. During the backup process, please do not leave this page or perform operations such as shutdown or power failure.

Backup Recover
When recovering the backup, please make sure that the backup files exist in the USB, after selecting files that need to be recovered, click recover.

Notice:

1. During the recovery process, please don't insert/extract the USB.

2. During the recovery process, please don't leave the page or power off.

3. Restoring the backup will overwrite the current face database.

Delete All Users
Click 'delete all users', this will clear the local face database.

Notice: The deleted records can not be recovered, please operate carefully.

Attendance Configuration Data
Attendance configuration data management includes attendance data backup, recovery a backup, and clearing all of the attendance configurations.
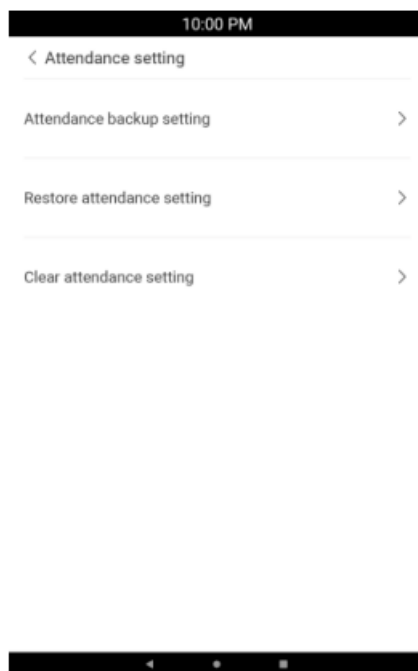
Attendance Configuration Backup
You can manually select attendance events that need to be backed up, the default is 'select all', click the 'backup' button to backup after confirming
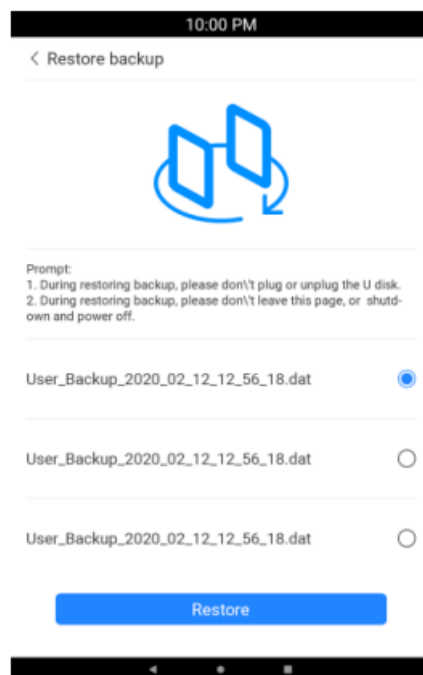
Notice:

1. During the backup process, please do not insert/extract the USB.
2. During the backup process, please do not leave the page or power off.

Attendance Configuration Recover
When recovering the backup, please make sure that the backup files exist in the USB, after selecting files that need to be recovered, click recover.

Notice:

1. During the backup process, please do not insert/extract the USB.
2. During the backup process, please do not leave the page or power off.
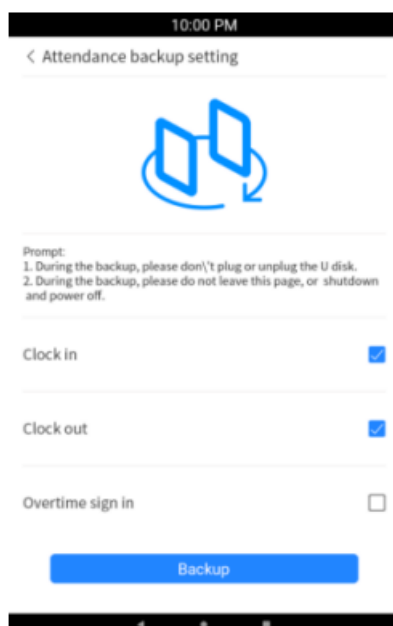3. Restoring the backup will overwrite the current attendance rules.

Clear All Of Attendance Backup
Click 'delete all users', this will clear the local face database.

Notice: the deleted records can not be recovered, please operate carefully.

Recognition Recording Data
Identification record data management includes export records, backup records, restore records, delete records, clear all records, and save

Data Export

You can manually select the data type that needs to be exported, the default is 'select all, you can select attendance record and all records. When selecting attendance records, you can further select the type of events to be exported, when a non-attendance record is selected, the event type, general verification, block list, and unregistered records can be further selected. Click the 'export' button to export after confirming the time range that needs to be exported. The exported file is the excel file, you can use your office software on your laptop to open and view it.
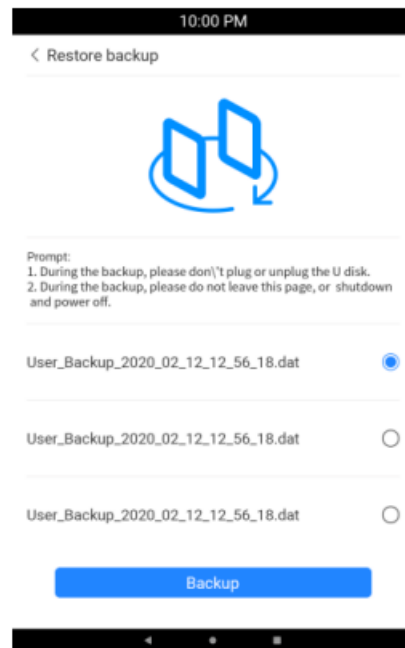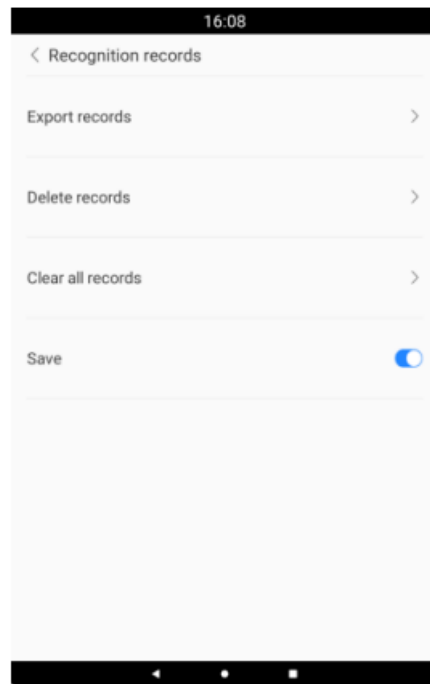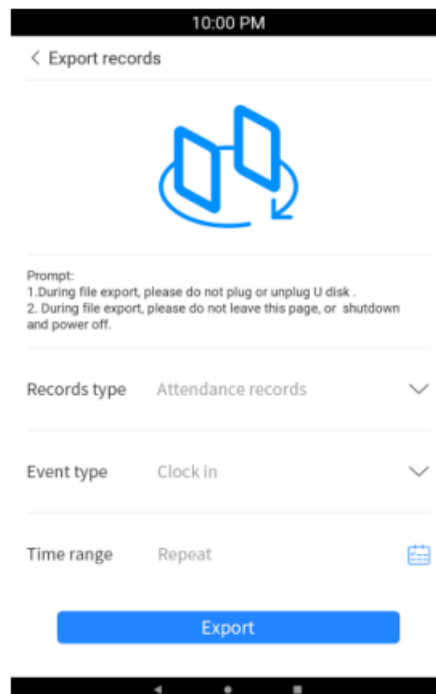

Notice:

1. During the backup process, please do not insert/extract the USB.
2. During the backup process, please do not leave the page or power off.

Records Delete
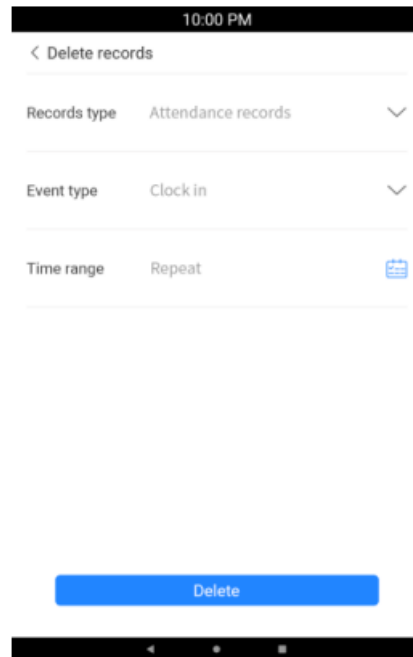
Same as exporting records, you need to confirm the deleted record type, event type, and record range when deleting records. Then click 'delete'.
Notice: the deleted records can not be recovered, please operate carefully.

Clear All records
Click Delete all records, all identification records will be cleared.
Notice: After the user record is deleted, it cannot be restored. Please operate with caution
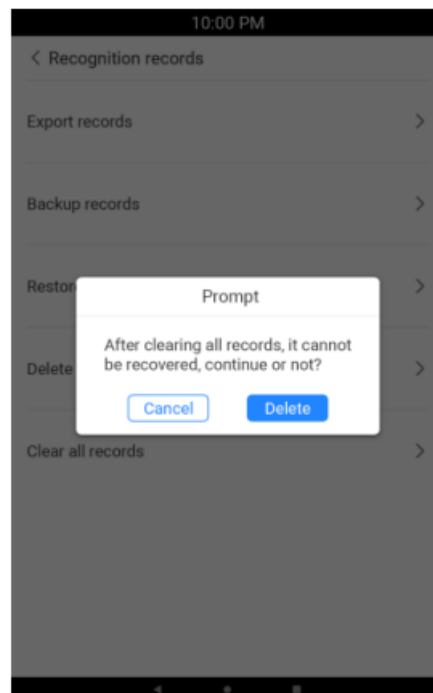
save

After opening, save the identification record; after closing, the identification record will not be saved.

Clear All Data

Click Clear all data to clear all data in the device.
Notice: After the data is cleared, it cannot be recovered, please operate with caution.

System Settings

Recognition Mode

The system presets face detection, mask detection, and forehead temperature detection.

- **[Face]:** Check whether the captured face is consistent with the face database: Accurate face detection: According to the effective d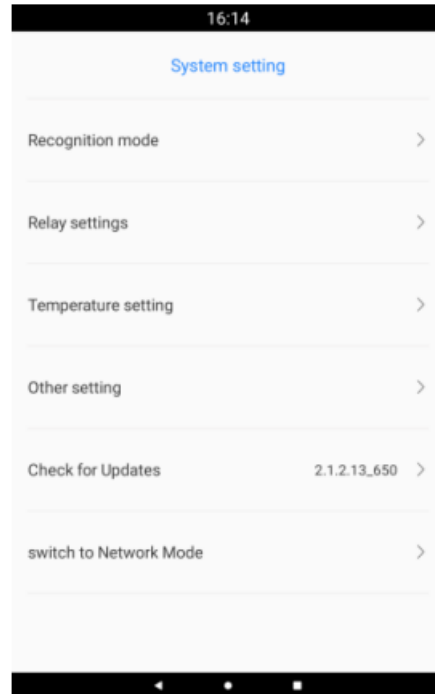istance between the algorithm and the camera, identify the highest matching distance, and define the default face frame size; Fast face detection: Reduce the size limit of the face frame and the limit of the face movement range, and the actual use can satisfy the user's face recognition and verification after entering the interface;
- **[Mask]:** Determine whether to wear a mask;
- **[Temperature measurement]:** Detect whether the body temperature is normal; The checked identification content must be met at the same time to pass.
- **[Rapid motion detection]:** After opening, for users who are quickly moving into the camera, no snapshot recognition is performed until they enter the recognition area and stop for verification and recognition.
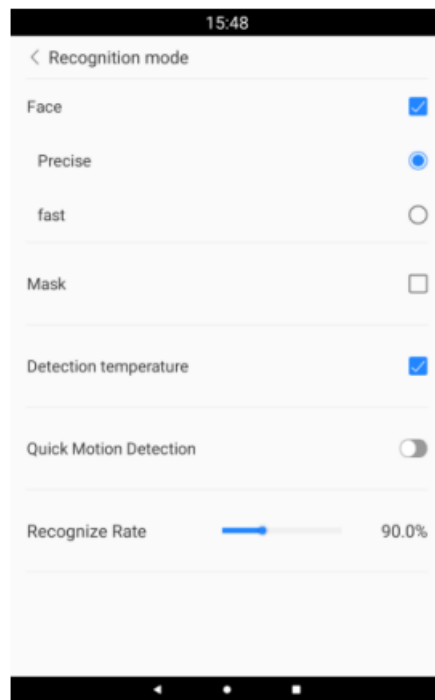
Relay Settings
You can click [Relay Settings] to set the relay on/off:

- **[Verification successfully turned on]:** Turn on the relay when the verification on the recognition interface is passed;
- **[Enable verification failure]:** When the verification of the recognition interface fails, turn on the relay; After the relay is turned on, it will be turned off after the corresponding set [waiting to turn off time].
- **[Normally open]:** The relay is normally open;
- **[Normal Close]:** The relay is normally closed
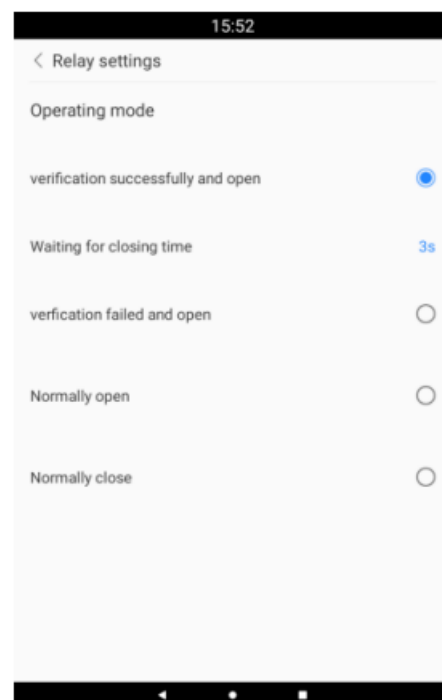
Body temperature setting

You can click [Body temperature setting] to set the temperature measurement alarm conditions:

- **[Temperature unit]:** Set the unit of high-temperature threshold and retest the hold (℃/℉);
- **[High-temperature alarm]:** After opening, when the detected temperature exceeds the set high-temperature threshold, an alarm will be played;
- **[Low-temperature retest]:** After opening, when the detected temperature is lower than the set threshold, it will prompt a retest.
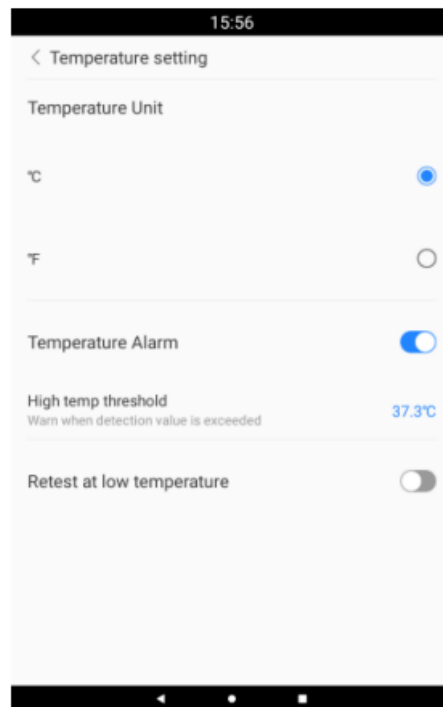
Other Settings

You can click other settings to enter the original system settings to set internet, voice, language, etc
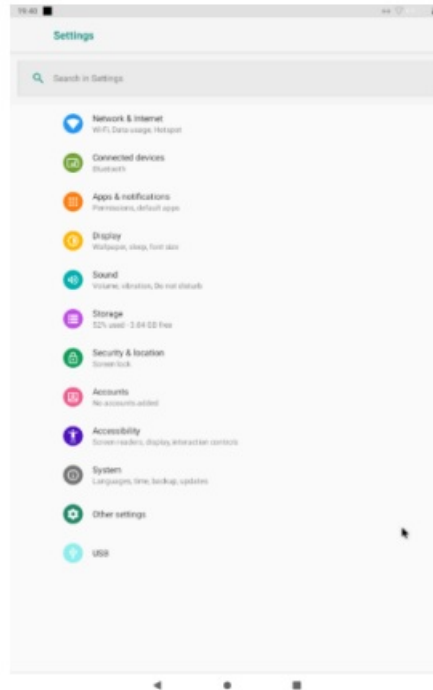
Check For Update

If there is a new version updated, you can click the check for update button in the system settings to proceed with the new version test. Please make sure that the internet connection is good and enough space before updating the new version.

Switch web version

After you obtain the login address, account number and password of the back-end system, and device registration information from LAYSON, you can switch to the online version and manage the device through the back-end system. Switching the version will delete all current data content. Please operate with caution.
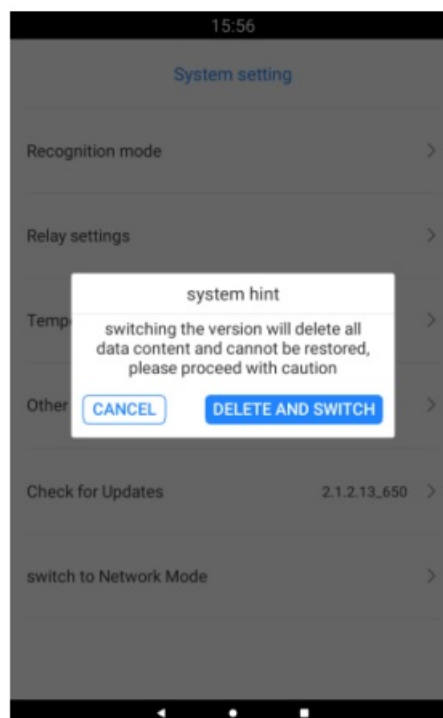
Relay connection control

1. There is a digit number on the Relay interface, please connect wires refer to the wire connection as below.
2. If your device needs to be earthing, please divide the DC wire in two. one is connected to 12V, the one GND.
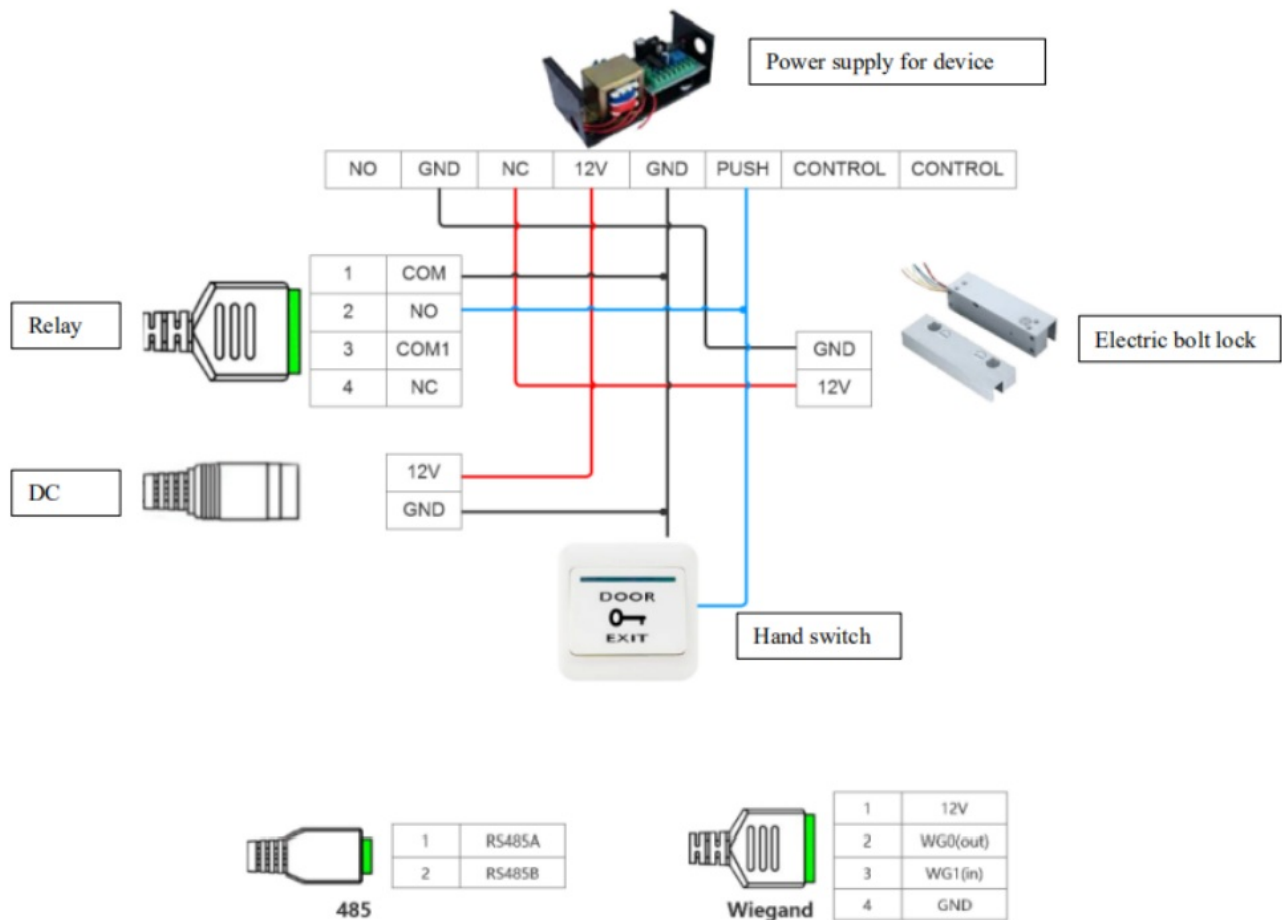3. For example for access control, Refer to the wire connection as below.

Power supply for device

| NO | GND | NC | 12V | GND | PUSH | CONTROL | CONTROL |

Relay		1	COM
		2	NO
		3	COM1
		4	NC

GND
12V

Electric bolt lock

DC		12V
		GND

DOOR
EXIT

Hand switch

485	1	RS485A
	2	RS485B

Wiegand	1	12V
	2	WG0(out)
	3	WG1(in)
	4	GND

NOTE
This document may be updated irregularly for upgrade versions or other reasons. Unless some additional agreements, there is no guarantee for any explicitly and implicitly made by statements, information, or suggestions in this document.
Attention

1. Please do not use the product outdoors or in the rain or direct sunlight. The product is not waterproof.
2. After starting the machine, let the machine runs for 10-15 minutes first, and then use the temperature measurement to avoid the large deviation value caused by the ambient temperature not detected by the sensor.
3. The best test value will be obtained when the human body should be 50-80cm away from the device and detected at the face frame.
4. It is a normal range that the temperature measurement is greater than or less than 0.1℃-0.3 ℃ between the results of the two measurements.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF exposure warning:

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Documents / Resources

Shenzhen LS090 Face Recognition Device [pdf] User Manual
LS090, 2AXA6-LS090, 2AXA6LS090, LS090 Face Recognition Device, Recognition Device, Device