CPU Face Reader

Quick Start Guide

Rev.：A2

Please read the Guide carefully before use, and strictly follow the instructions herein.
Please keep the Guide properly for future reference.

1 Notes

For the normal use and function of the face recognition terminal, it is recommended that you read the following requirements carefully before installing the device:

a）Target faces must be large enough with a horizontal width of at least 80 pixels (preferably between 80-150 pixels).

b）In order to ensure accurate intelligent analysis of the face recognition terminal, the local or large-area light fill-in is required in heavily backlit or dim scenes. The background illumination must not be lower than 50 lux, and the illumination on faces cannot be lower than 20 lux.

c）Although the device has an enhanced face exposure feature targeted for backlit scenes, for a good recognition effect, strong backlighting needs to be avoided as practicably as possible.

d）Try not to cover the target face, so that the device can observe the face contour clearly.

e）The deflection angle of the face is less than 15°.

f）**Before testing the device, please tear off the protective film, otherwise it will affect the recognition performance**.

2 Important Safety Precautions

The following is about how to use the device properly, as well as information on preventing danger and avoiding property loss. Please read the Guide carefully before use, and strictly follow the instructions herein. Please keep the Guide properly after reading.

2.1 Requirements for Use

2.1.1 Power Supply Requirements

a）Strictly abide by the local electrical safety standards strictly during the installation and use of the device. Please choose a power supply that meets the Safety Extra Low Voltage (SELV) requirements and conforms to the Limited Power Source (rated voltage: DC 12V) as per IEC60950-1.

b）Please install an easy-to-use breaker in the wiring room for emergency power-off when necessary.

c）Before running the device, please check and verify that the power supply is in good condition.

d）Please protect the power cord from being stepped on or squeezed, especially at the plug, power socket, and connection where the power cord is leading from the device.

2.1.2 Service Environment Requirements

a）Please avoid pointing the device at blaze (such as lamp light and sunlight), otherwise, the resulting overbrightness or glare (which is not a device failure) will undermine the service life of photosensitive components.

b）Please transport, use, and store the device within the allowable humidity and temperature range. Do not put the device in places with moisture, dust, extreme heat, extreme cold, strong electromagnetic radiation, or unstable lighting conditions.

c）Please keep the device from water or any other liquid to avoid any damage to internal components.

e）During transportation, storage, and installation, protect the device against any damage caused by heavy loads, severe vibration, etc.

f）Before shipping the terminal device, repack it as it is delivered from the factory, or pack it with the equivalent packaging materials.

g）It is recommended that the device work together with a lightning protector for better lightning protection.

h）It is recommended that the device be grounded for higher reliability.

2.1.3 Operation and Maintenance

a）Do not disassemble the device. There are no user-serviceable parts inside.

b）Clean the body with a soft dry cloth. In case of any stubborn stain, wipe it down using a clean soft cloth dipped with a small amount of neutral detergent, and then dry it. Do not use volatile solvents such as alcohol, benzene, and thinner, nor strong, abrasive cleaners; otherwise, this may cause surface coating damage or performance decline of the terminal device.

2.2 Warning

2.2.1 The device shall be installed and repaired by professionals. Do not disassemble and repair it by yourself. Use the parts and accessories specified by the manufacturer only.

2.2.2 Photosensitive components may be damaged by laser beams, so when using a laser beam machine, please protect the device surface from being exposed to laser beams.

2.3 Statement

2.3.1 The Guide is for reference only. Please refer to the physical device.

2.3.2 The device is subject to updates from time to time without prior notice. Some functions may vary slightly before and after updates.

2.3.3 Please contact our Customer Service Department for the latest software and supplemental documentation.

2.3.4 If you have any doubts or questions while using the terminal device, please don't hesitate to contact our Customer Service Department or the supplier in time.

2.3.5 We always strive to maintain the integrity and accuracy of the content in the Guide, however, due to unforeseen circumstances that may arise in real-world environments, some data values may deviate from those stated in the Guide. For any doubt or dispute, our final interpretation shall prevail.

2.3.6 In case of failure to operate the device as instructed by the Guide, any losses caused thereby shall be borne by the user.

3 Open-Box Inspection

3.1 Inspection Steps

Upon reception of the terminal device, please check whether the appearance of the device is free of obvious damage. The protective materials we selected for packaging the device can withstand most accidental impacts during transportation.

Then open the outer packing box and check whether the accessories provided with the device are full and complete. Refer to the accessory kit attached below for inspection. After verifying that all accessories are complete, you can peel off the protective film on the device.

3. 2 Accompanying Accessories

When opening the outer packing box, check the items inside against the list below. The actual configuration is based on the specific product.

Serial No.	Part Name	Specification	Quantity
1	Excellent 8-inch Face Recognition Terminal	Set	1
2	Certificate of conformity	No.	1
3	Quick Operation Manual	No.	1
4	Accessory kit	No.	1
5	Power supply	No.	1

4 Device Installation

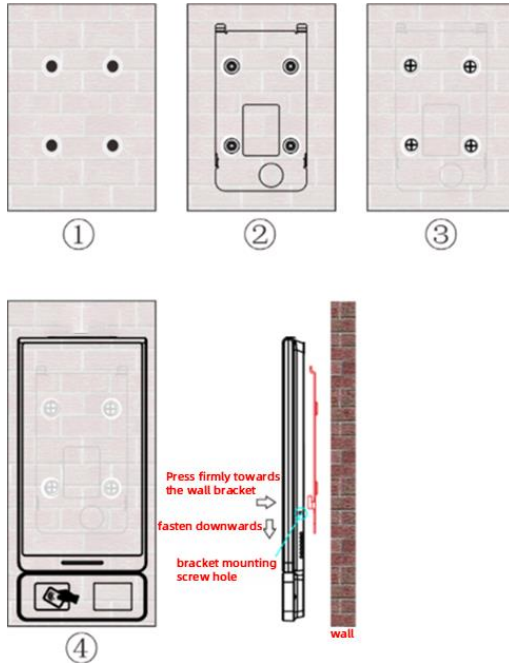The wall-mounted installation process of the terminal device is as follows:

① The horizontal distance between the terminal device and the face surveillance point is about 0.5-1.2 m;

②The recommended indoor illumination is above 200 lux;

③The illumination difference between the left and right or upper and lower sides of the face shall not exceed 50 lux;

④The recognition height range of the terminal device is 1.2-2.2 m; the vertical adjustment angle of the terminal device is below 15°.
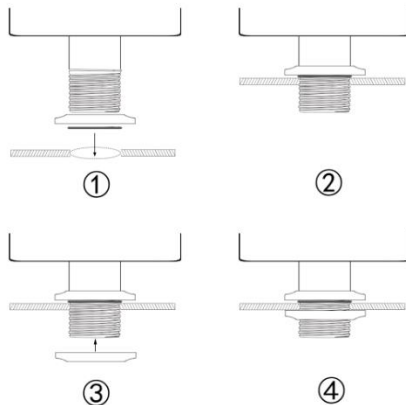
The wall-mounted installation process is as follows: (you can also refer to this installation diagram for models without a temperature measuring head)

① Drill holes in line with the hole positions of the wall-mounted bracket, and insert white screw rubber sleeves into the drilled holes on the wall.

② Place the wall-mounted bracket over the corresponding white screw rubber sleeves, and fix it with screws.

③ Align the device rack with the screw holes on the back of the device, and fix them with screws.

④ Refer to Figure ④ to hang the terminal device on the wall-mounted bracket, and screw set screws into the bracket fixation holes of the terminal device using an L-shaped Allen wrench.。

① ② ③

Press firmly towards the wall bracket

fasten downwards

bracket mounting screw hole

wall

④

Connect the network cables

Insert components 1, 2 and 3 of the waterproof kit into the network cable in turn (if the network cable crystal head with a sheath cannot be inserted, please peel off the sheath; if the sheath cannot be peeled off, please cut off the crystal head and rivet it again). Install all components in the order shown in the figure. The waterproof connector of the network cable must be tightened in place, otherwise, it may fall off.
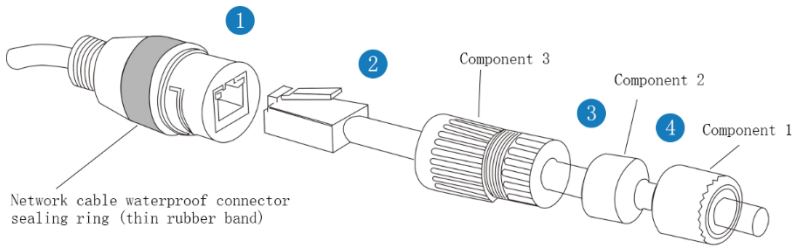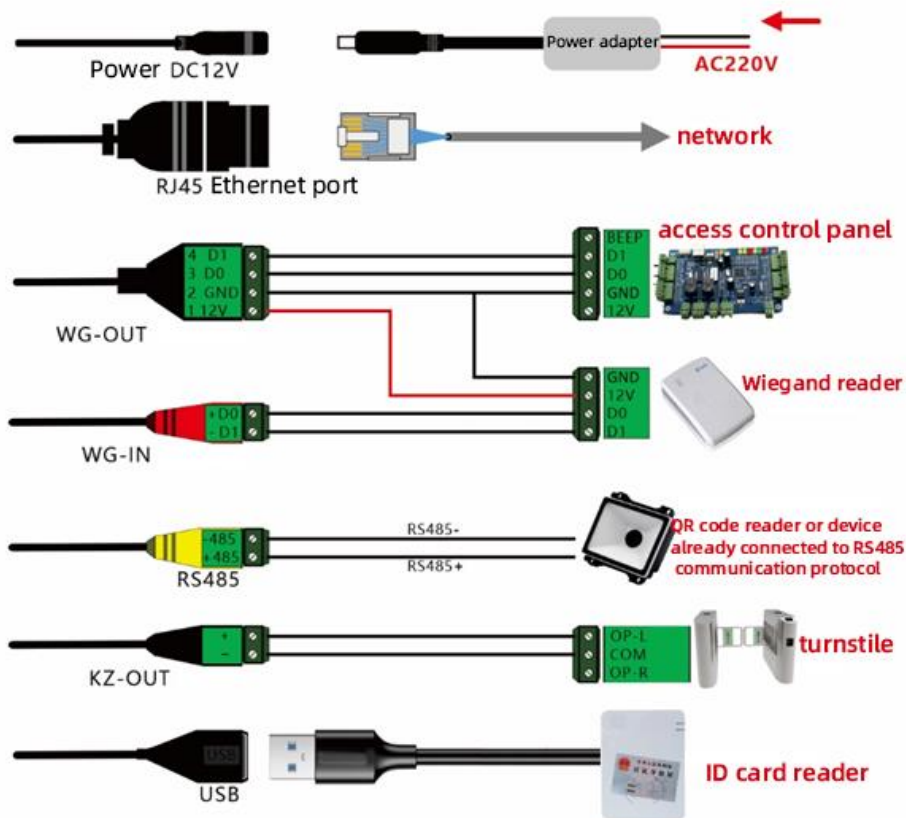
Network cable waterproof connector
sealing ring (thin rubber band)
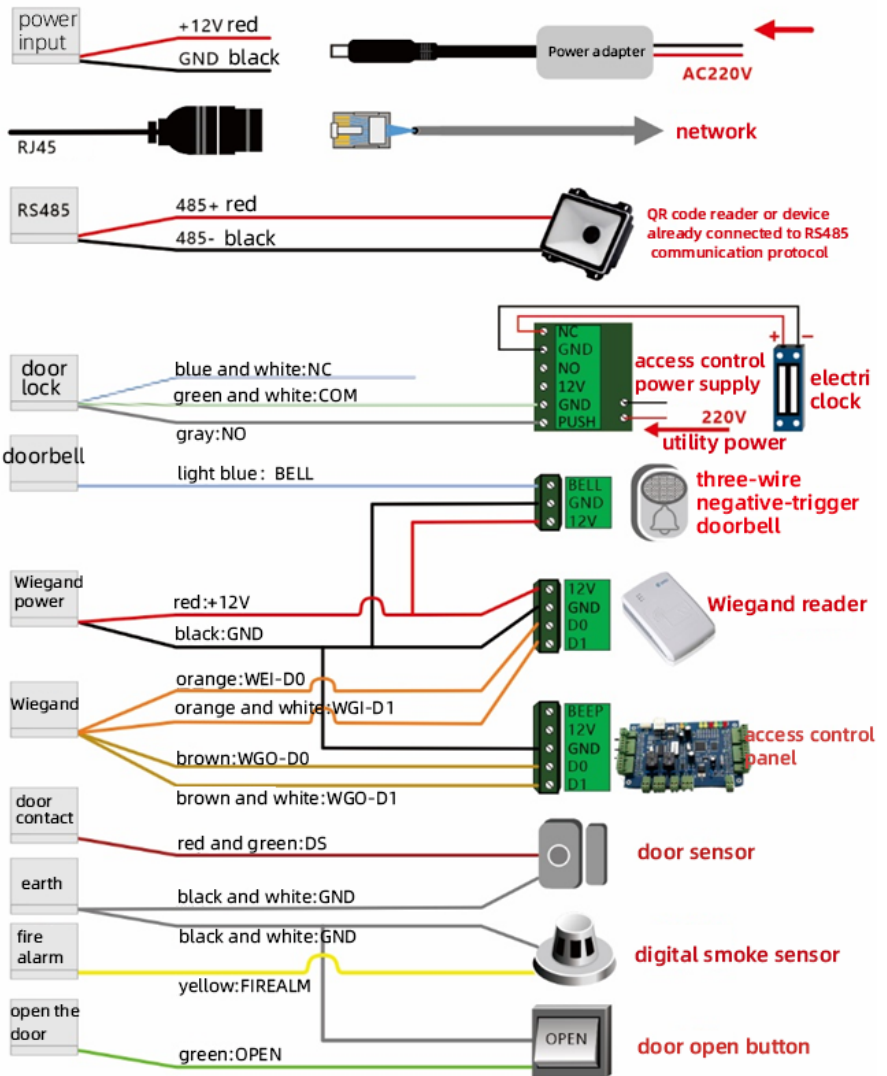
Component 3

Component 2

Component 1

⚠ Attention:

● All cables such as power cable, network cable etc., including
  thetail wire not be used. All need to make waterproof and
  insulation measurement.
● Check if cable has been connected properly and work well
  before making waterproof and insulation measurement, avoid to
  rework.
● Any losses caused by failure to operate as required will be
  borne by the customer.

5 Wiring Description

The wiring diagram for the gate control system

Power DC12V

Power adapter AC220V

RJ45 Ethernet port

network

WG-OUT

4 D1
3 D0
2 GND
1 12V

BEEP
D1
D0
GND
12V

access control panel

WG-IN

+ D0
- D1

GND
12V
D0
D1

Wiegand reader

RS485

-485
+485

RS485-
RS485+

QR code reader or device already connected to RS485 communication protocol

KZ-OUT

+
-

OP-L
COM
OP-R

turnstile

USB

ID card reader

Access control wiring diagram

power input
+12V red
GND black

Power adapter
AC220V

RJ45 ──────── network

RS485
485+ red
485- black

QR code reader or device already connected to RS485 communication protocol

door lock
blue and white:NC
green and white:COM
gray:NO

NC
GND
NO
12V
GND
PUSH

access control power supply
220V
utility power

electri clock
+ −

doorbell
light blue : BELL

BELL
GND
12V

three-wire negative-trigger doorbell

Wiegand power
red:+12V
black:GND

12V
GND
D0
D1

Wiegand reader

Wiegand
orange:WEI-D0
orange and white:WGI-D1
brown:WGO-D0
brown and white:WGO-D1

BEEP
12V
GND
D0
D1

access control panel

door contact
red and green:DS

door sensor

earth
black and white:GND

fire alarm
black and white:GND
yellow:FIREALM

digital smoke sensor

open the door
green:OPEN

door open button

On the back of the device are interfaces for the door lock switching value, doorbell output, door sensor input, Wiegand I/O, RS485, door open button input, and alarm input. The device suits two scenarios:

① When the device serves as the primary access control: The door lock signals are connected to the access control power supply and then connected to the door lock, the door open button signals to the door open button, the doorbell signals to the doorbell, the alarm input signals to the alarm sensor, the door sensor signals to the door sensor, and the Wiegand input to the card reader;

② When the device serves as a face reader, the WG OUT interface is connected to the primary access control, the verification signal from the terminal device is transmitted to the main control board of the access control through the WG OUT interface, and the main control board controls the switch of the door lock.

6　Software Use

6.1 Device Login

1．After the device is powered on, enter the **Recognition** interface:

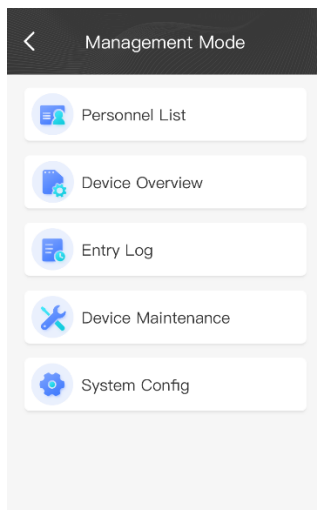2．Click the upper right corner of the device page. The Administrator Login interface is displayed:
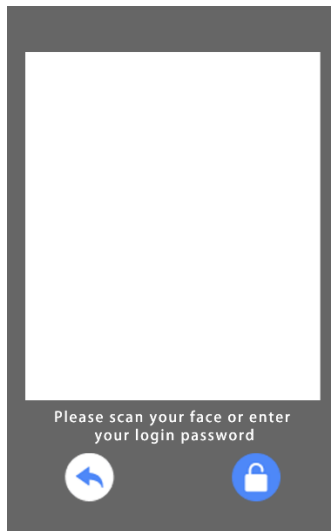
3. Select **Password Login**, and enter the default password admin to enter the Management Mode interface:
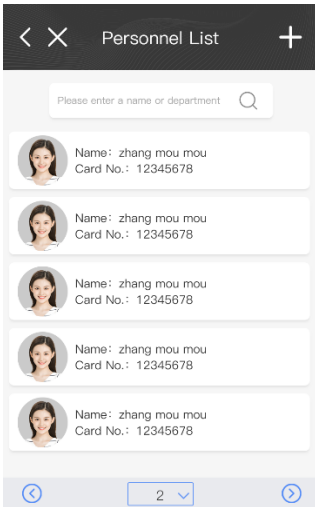

4. After entering the correct password, enter the Management Mode interface:
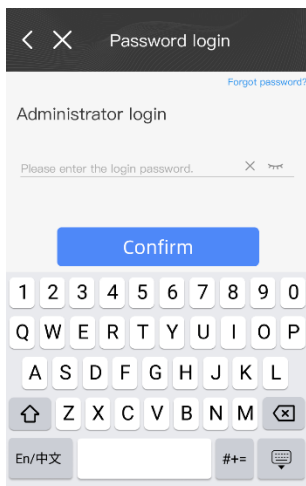
5. On the Personnel List interface, enter the personnel list of the default group:

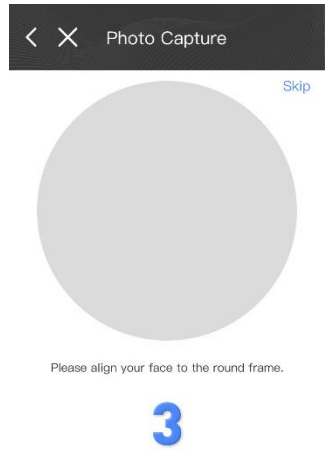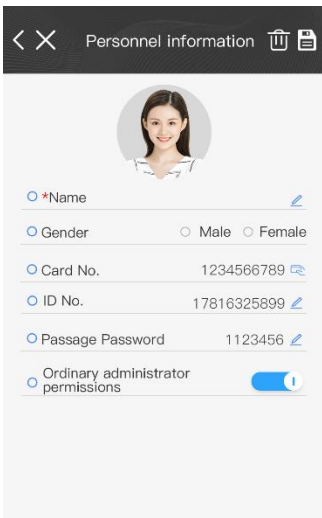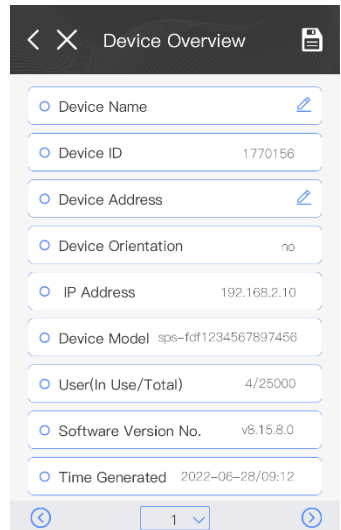6. The enrollment personnel will align their faces with the capture frame, and the device will automatically capture the faces:
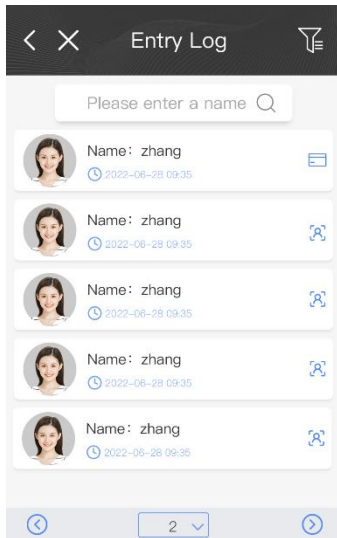
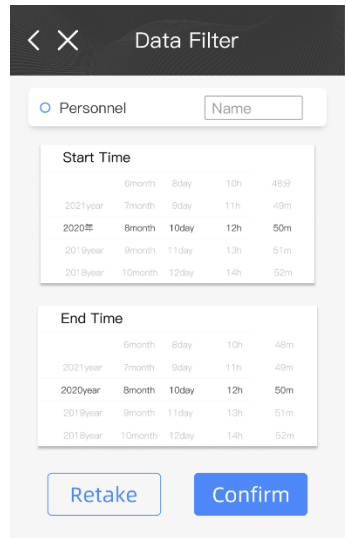7. On this page, you can edit user information:

8. On the Device Overview page, you can query the information about the system and IP address:

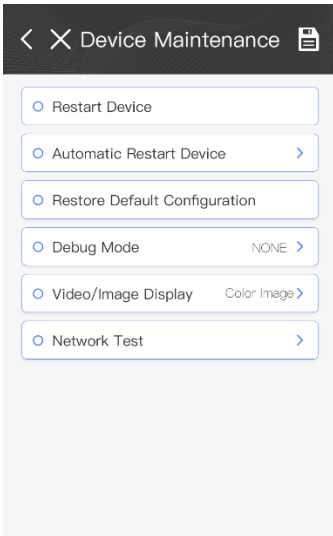9．On the Entry Log page, you can query the entry logs of the personnel:

10．Click the button on the upper right of the Entry Log page to filter the data:

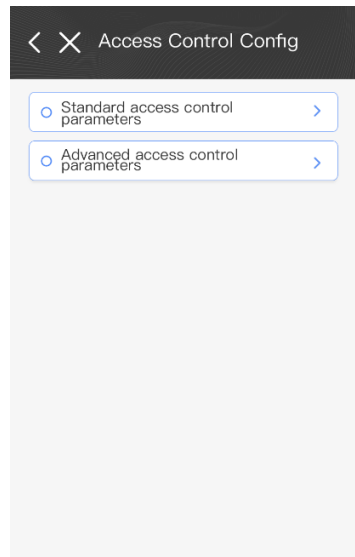11．On the Device Maintenance page, you can restart the device or set parameters for automatic restart of the device:

12．On the System Config. page, you can set parameters of the device such as face recognition, access control, system, and network:

Device Maintenance

- ○ Restart Device
- ○ Automatic Restart Device >
- ○ Restore Default Configuration
- ○ Debug Mode   NONE >
- ○ Video/Image Display   Color Image >
- ○ Network Test >

System Config

- ○ Face Parameters >
- ○ access control Config >
- ○ System Parameters Config >
- ○ Network Config >
- ○ Change password >

13．On the System Config.-Face Parameters page, you can set face parameters:
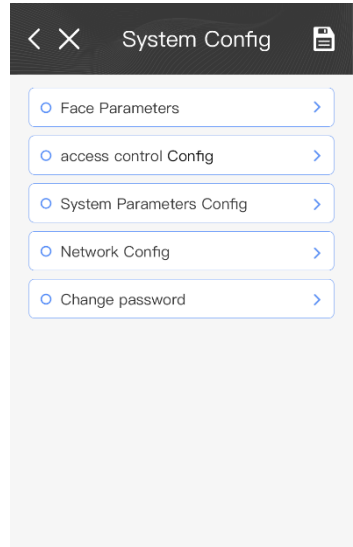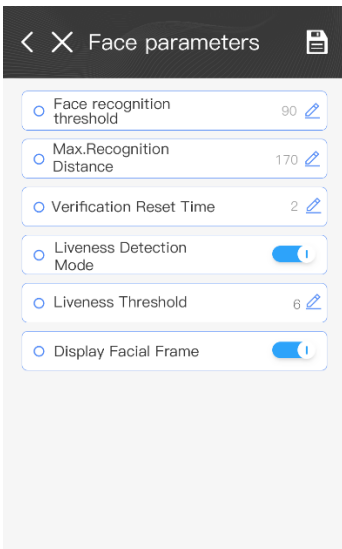
14．On the System Config.-Access Control Parameters page, you can set general and advanced access control parameters:

Face parameters

- ○ Face recognition threshold   90 ✎
- ○ Max.Recognition Distance   170 ✎
- ○ Verification Reset Time   2 ✎
- ○ Liveness Detection Mode ●
- ○ Liveness Threshold   6 ✎
- ○ Display Facial Frame ●

Access Control Config

- ○ Standard access control parameters >
- ○ Advanced access control parameters >

15. Click **General Access Control Parameters** to set device orientation, door sensor input, open door input, doorbell switch, mask recognition and other parameters:


16. Click **Advanced Access Control Parameters** to set verification method, opening method and password detection parameters:
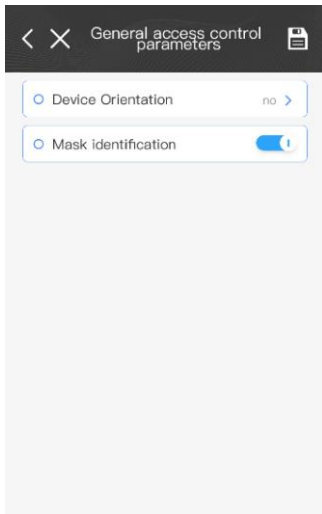
17. On the System Config.-System Parameters Config. page, you can set general and advanced system parameters:
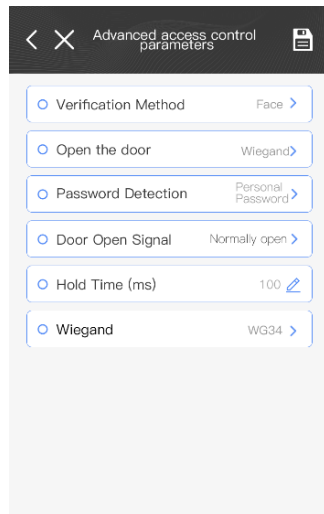
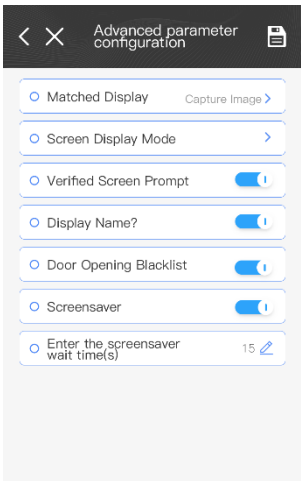18. Click **General Parameters Config.** to set time & date, language, automatic return time, white light mode, voice prompt, and volume parameters:
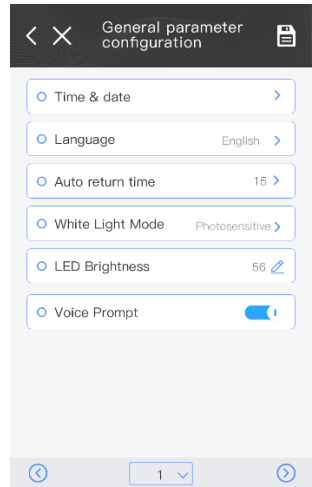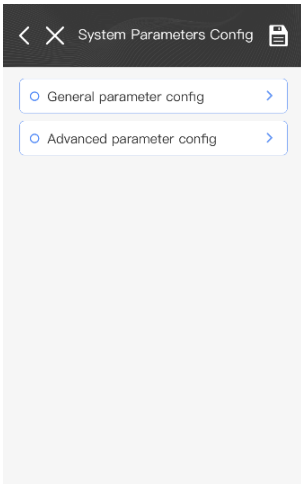
19. Click **Advanced Parameters Config.** to set the following parameters:

7 FAQs

Precautions	Countermeasures
How to Start Using a Device for the First Time after You Receive It?	Use the original default factory IP address to access the background of the access control device, and you can learn about its default configuration information: Opening Method, Door Lock Control Port, System Info and IP Address, Default Server Central Connection Address, Default System Parameters Config., and Default Sound + Screen Prompt Options. The IP address of the access control device can be modified on the System Info and IP Address page.
How to Import Lists in Batches?	Method 1: Log in to the web admin system of the device on a PC. Click **List Management-Batch List Import** to import personnel registration information in batches. This method can only be used for batch operations of a single device: Method 2: Use the FACEName management software on a PC, and click **Personnel Management-List Distribution** to distribute personnel information in batches. This operation can be performed for batches of devices; Method 3: If the user's SAAS platform has established a connection to the device's interface through the network interface, batch personnel data can be distributed through the personnel management function of the SAAS platform.
Precautions for Interface Cables of Access Control Devices	1. The switching value input interface provides the relay output signal. It cannot be directly connected to a high-load electric lock. Please follow the wiring diagram for wiring: 2. If the model is waterproof and the network port is externally connected through an interface cable, use a four-piece waterproof set to carry out waterproof treatment on the network port. The specific operation steps are described in detail in "Device Installation".

8 Appendix: Reference Table for Content of Toxic and Hazardous Substances or Elements

Part Name	Toxic/Hazardous Substance/Element					
	Lead Pb	Mercury Hg	Cadmium Cd	Hexavalent chromium	PBBs	Polybrominated diphenyl ethers
Circuit board assembly	O	O	O	O	O	×
Housing	O	O	×	×	O	O
Screen	O	O	O	O	O	O
Wires	O	O	×	O	O	O
Packaging components	O	O	O	O	O	O

Accessories	×	○	○	○	○	○

Description:

1、 ○：indicates that the content of toxic and hazardous substances or elements in all homogeneous materials of this part is below the limit as specified in SJ/T11363-2006;

2、 ×：indicates that the content of the toxic and hazardous substances or elements in at least one homogeneous material of the part exceeds the limit as specified in SJ/T11363-2006. During the normal use of the device within the environmentally friendly service life, these substances or elements will not leak or mutate suddenly, and will not cause serious bodily injury to users or damage to their assets. Users are not allowed to handle such substances or elements on their own. Please refer to government regulations and hand them over to the designated government department for recycling and disposal.

9 Warranty Instructions

According to the "New Three Guarantees", the warranty period of the complete machine is one year (calculated from the date of issuing the invoice).

1. During the warranty period, for faults caused by quality problems of heatstroke prevention products, please bring the completed "Product Warranty Certificate" and the purchase invoice to authorized service centers for free repairs.

2. Please carefully retain the purchase invoice and warranty certificate as crucial warranty documents. If the purchase invoice is modified or altered in any way, it can render the warranty invalid.

3. To purchase product spare parts by mail after the warranty expires, please contact our Customer Service Department for assistance.

4. If there is any mention of the warranty period in the Guide, the information provided within the Guide shall prevail.

The free maintenance is not applicable for the following:

A、 No warranty certificate and valid invoice;

B、 The faults are caused by failure to operate the device according to the Guide;

C、 Any of the following circumstances is not covered by our warranty:

- ◆ Damage caused by improper use, storage and maintenance by consumers;
- ◆ Damage caused by assembling, disassembling and repairing by the maintenance department not designated by our company;
- ◆ Damage caused by force majeure.

FCC Statement

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.