



Body Temperature Detect & Face Recognize

AIS-2 Use Manual

Happy Health Safety Life www.justlight.net

Chapter 1: Product Overview

1.1 Introduction

- Non-contact automatic body temperature detection, brush human face and perform high-precision infrared human temperature acquisition at the same time, fast and high effect
- Temperature measurement range 30-45 (°C) Accuracy ± 0.3 (°C)
- Automatically identify unmasked personnel and provide real-time warning
- Support temperature data SDK and HTTP protocol docking
- Automatically register and record information, avoid manual operation, improve efficiency and reduce missing information
- Support mid-range temperature measurement and real-time warning of high temperature
- Support binocular live detection
- Unique face recognition algorithm to accurately recognize faces, face recognition time $\leftarrow 500$ ms

1.3 Packing list;

| | |
|-----------------------------------|--------|
| Device | 1 unit |
| Installation and use instructions | 1piece |
| Installation screw bag | 1Kit |
| Mounting plate | 1Piece |
| Warranty Card | 1Piece |

Chapter 2: Appearance

The appearance of the device is as follows:

Interface description;

J1 Wiegand output 1 pin D0, 2 pin D1, 3 pin GND

J2 Wigan input by default None (requires expansion input module)

J3 Alarm output Exit button switch

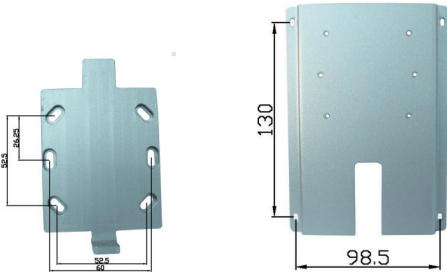
J4 USB interface

J5 RJ45 network port

J6 DC12V



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Chapter 3 Installation Instructions

Installation Environment:

If the device is installed indoors, the device should be at least 2 meters away from the light source and at least 3 meters away from windows and doorways, avoid direct sunlight.

Please keep the ambient light intensity greater than 100 Lux.

1. The extension of the power cord (weak current part) should not exceed 2 meters, otherwise it will cause insufficient voltage power supply on the host side of the device, and there will be repeated restarts, crashes and other abnormal phenomena. If the power supply is far away from the equipment, you can extend the power cord (high-power part).
2. If other adapters are used, such as 9V, 1A, insufficient voltage and low current will cause the device to restart repeatedly.
3. The cable used should not be too thin (such as a thin network cable).

It is recommended to connect multiple identical cables in parallel or use copper core thick cables to ensure that the voltage is \rightarrow 12V.

Installation method:

With 86 boxes

Step 1. Make a hole in the wall according to the mounting sticker and install 86 boxes

Step 2 Use a special tamper-proof wrench to loosen the tamper-resistant fixing screws at the bottom of the device, remove the mounting hanging plate, and fix the hanging plate as shown in the figure below.

On the 86 box.

Step 3. Hang the device from top to bottom on the mounting plate.

Step 4. Use the special tamper wrench on the bottom of the device to lock the tamper screws removed in step 2.

The installation height of 1.4 meters here is the recommended installation height, and users can adjust it according to their height.

Chapter 4: Device Datasheet

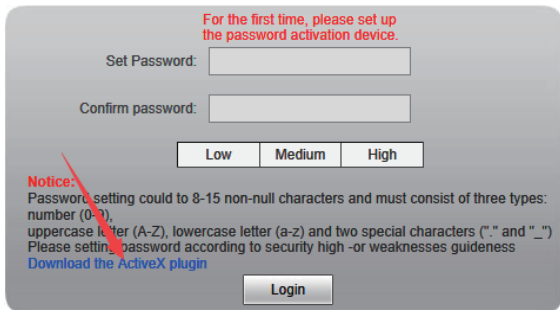
| Hardware | |
|--------------------|---|
| Chipset | Hi3516DV300 |
| System | Linux operation system |
| RAM | 16G EMMC |
| Image sensor | 1/2.7" CMOS |
| Lens | 4.5mm |
| Camera Parameters | |
| Camera | Binocular camera supports live detection |
| Effective pixel | 2Mega pixel, 1920*1080 |
| Min. lux | Color 0.01Lux @F1.2(ICR);B/W 0.001Lux @F1.2 |
| SNR | ≥50db(AGC OFF) |
| WDR | ≥80db |
| Face Recognition | |
| Height | 1.2-2.2 M, angle adjustable |
| Distance | 0.5-2 Meters |
| View angle | Vertical ± 40 degree |
| Reco. Time | < 500ms |
| Function | Support 22400 faces database and 100000 records |
| Temperature | |
| Range | 30-45 (°C) |
| Accuracy | ±0.3 (°C) |
| Distance | 0.3-0.8Meters |
| Response time | < 300ms |
| Interface | |
| Internet interface | RJ45 10M/100M Ethernet |
| Weigand port | Support input/output 26 and 34 |
| Alarm output | 1channel relay output |
| USB port | 1USB port (Can be connected to ID identifier) |

| General | |
|---------------------|------------------------------|
| Power input | DC 12V/3A |
| Power consumption | 20W(MAX) |
| Working temperature | 0°C ~ +50°C |
| Humidity | 5~90%, no condense |
| Dimension | 123.5(W) * 45.5(H) *266(L)mm |
| Weight | 1 kg |

Chapter 5: Instructions for Operate

1Face Snapshot IE page setup and environment setup

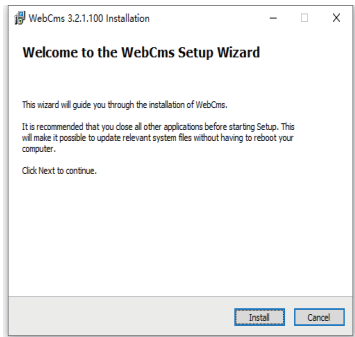
In the environment where the IP Camera and all aspects of the network work normally, open the IE browser, enter the device IP in the address bar, press Enter, enter the login interface, and enter the IPC username and password accurately [IP default is 192.168. 1.88, the first login password needs to be set by yourself] Click Login
[Note]: For the first time using the login interface, please click [Download Address] to download and install the control. If the page prompts security risks, please click [Allow Access]
If the default address of the device is 192.168.1.88, enter the login interface and click [Download Address]



Download the controls manually, or enter the password and follow the system prompts to download and install the controls;



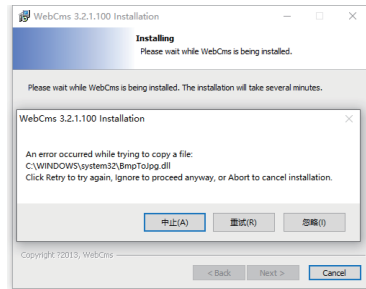
The file download dialog box pops up. Select [Run] or [Save] to download. After downloading, double-click the download file WebCMS.exe and click the "Run" button. Install according to the prompts, and finally click "Finish", the control installation is complete, as shown below.



Note: The abnormal installation of the control and its solution:

1. When prompted to download and install the control, when prompted with the information in the following figure, please manually modify the IE security level in IE Tools--> Internet Options--> Security Level--> Custom Security Level, and modify the parameters as shown below

2. Follow the prompts to install the controls normally. When the installation process is halfway through, you will be prompted with the information in the following figure. Please close the browser and CMS, and click [Retry] to install the controls correctly:



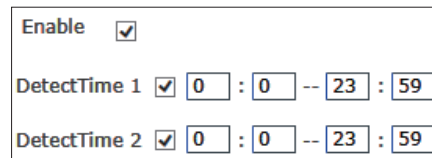
2 intelligent analysis

This setting item is mainly the setting of snap parameters, including the use of snap, snap sensitivity setting, snap control time, minimum pixel of snap, scene of snap application, snap mode, peripheral area expansion of snap picture and upload and other settings.

2.1 Face recognition · Parameter setting

2.1.1 Switch

This item is used to enable the face recognition algorithm. Only when the switch is ticked will the face recognition capture be performed, and other parameter settings will take effect;



2.1.2 Arming time

This item is the control time. The user can define two time periods. To make it effective, check the box next to [Arming time period]. Default: Both time periods are enabled, the default time is 00: 00 ~ 23: 59.

2.1.3 Sensitivity

Setting range: 0 to 10. The default sensitivity is 5

The higher the sensitivity, the worse the quality of the captured picture. The lower the sensitivity, the higher the quality of the captured picture. Generally adjusted to 3 ~ works better.



A horizontal slider control labeled "Sensitivity". The slider bar is positioned at the value 9, which is indicated by a small circle on the right end of the bar.

2.1.4 Snapshot Mode

Snapshot mode: The access control machine defaults to [Single mode] [Single mode]: Used with [Interval Frames], the default [Snapshot Times] is 8 and [Interval Frames] is 5 frame

| | | |
|---------------|--|----------|
| Snapmode | <input type="text" value="single mode"/> | ▼ |
| Capturetimes | <input type="text" value="8"/> | ▼ |
| EveryNthFrame | <input type="text" value="5"/> | (1~1500) |

Description: Trial scene access control and gate. When multiple people pass the gate, only the front one is captured (the face pixel is the largest in the picture). According to the set interval frame number, a face photo will be captured and uploaded to the FTP server. There is only one face frame in the picture.

2.1.5 Maximum and minimum pixels for face recognition

Face recognition maximum pixel setting range: 300 ~ 500. Default: 500
Face recognition minimum pixel setting range: 30 ~ 300. Default: 130
When the face's pixels in the frame are less than 130 (the smallest pixel for face recognition), they are not captured; when the face's pixels in the frame are greater than 500 (the largest pixel for face recognition), they are not captured.

| | | |
|--------------------------------|----------------------------------|-----------|
| Face recognition maximum pixel | <input type="text" value="500"/> | (300~500) |
| FaceMinPixel | <input type="text" value="160"/> | (30~300) |

2.2.1.6 Face Scene

This parameter setting is used to adopt different face exposure strategies for different application scenarios. There are two modes of ordinary scene and lobby scene. The default is [Lobby Scene]. Ordinary scene: used in normal environment; lobby scene: suitable for backlit environment.

| | |
|------------|--------------------|
| Face scene | Conventional scene |
| | Lobby scene |

2.1.7 Face Tracking Frame

This parameter is used to overlay the face tracking frame. [Open] by default.

| | |
|-----------|------------------------|
| FaceTrack | Close |
| | Filter Tracking |

2.1.8 FTP upload

This parameter is used to set the FTP server for uploading face pictures. The default state is [Open] For detailed setting method, please refer to "Chapter 3 FTP Setting".

| | | |
|-----------|-----------------------------------|---|
| FTPUpload | <input type="text" value="Open"/> | ▼ |
|-----------|-----------------------------------|---|

| | | |
|-------|---------------------------------|---|
| FTP上传 | <input type="text" value="开启"/> | ▼ |
|-------|---------------------------------|---|

2.1.9 Picture upload format

Set the format of the picture you want to upload, that is, the picture type, including the following three types: (1) upload only the face image obtained after the capture; (2) upload the captured face and the original image.

| | |
|------------|----------------------------------|
| Image Type | Face Picture |
| | Face and Original Picture |

2.1.10 Living test

This parameter is used for live detection. The default state is [On].

| | | |
|----------------|-------|---|
| Live detection | Close | ▼ |
|----------------|-------|---|

2.2 Face recognition and area recognition

Set the area, and only capture faces in this area. Only one area can be set. [Off] by default.

2.3 Face recognition

When a masking area is set, the faces in the area are masked. Set up to 4 areas. Default [off]

2.4 access control

2.4.1 Wigan output

Wiegand output is [Off] by default. Support WG26, WG34 output

2.4.2 White light control

White light control is [White light time control] by default, and the light duration is [10] seconds.

Note: The white light is controlled by motion detection. When there is a motion detection alarm, the white light is on. After the motion detection alarm is over, the white light is off after 10.

2.5 Face Recognition · White and VIP List

Add a face database, which is divided into black and white lists. When the person added to the black and white list passes by the camera, the comparison information of the corresponding list will appear.

| | | |
|---------------|------|---|
| Picture Style | Snap | ▼ |
|---------------|------|---|

| | |
|------|----|
| 图片类型 | 抓拍 |
| | 导入 |

Snapshot: Import face pictures by real-time snapshot

Step 1: Select a snapshot in the picture type (default is snapshot)

Step 2: Enter a name for the picture name

Step 3: Enter the number named by the picture number

Step 4: Click to add white and VIP list

Picture name and number rules: Picture name + picture number cannot be repeated, single item can be repeated, ID card and mobile phone number can be optional

2.5 Face Recognition · Name List

You can view the added white and VIP list face database, and query and delete the face image of the list library.

2.6 Face recognition and alarm settings

You can set related alarms for white and VIP lists.

| Face recognition | | | | |
|--|--|--|------------------------------------|--|
| Alarm Switch <input checked="" type="checkbox"/> | Blacklistalarm <input type="checkbox"/> | Whitelistalarm <input checked="" type="checkbox"/> | vip Alarm <input type="checkbox"/> | nonWhitelistalarm <input type="checkbox"/> |
| IO Output | <input checked="" type="checkbox"/> Continuou | Alarm output [1] (1~60)S | IO Output type | Normal op ▼ = |
| RecognitionMode | Always idc ▼ | | | |
| Comparisonsimilarity | 75 (1-100) | | | |
| Arming time period 1 | <input checked="" type="checkbox"/> [0] : [0] -- [23] : [59] | | | |
| Arming time period 2 | <input checked="" type="checkbox"/> [0] : [0] -- [23] : [59] | | | |

1. Alarm switch: You can choose to enable or disable the alarm (default is on)
2. White and VIP list alarms: You can choose to enable or disable white, VIP, and non-white list alarms (by default, white and VIP list alarms are enabled)
3. IO output: IPC alarm output signal can be turned on or off. The output methods are: continuous output or pulse output
4. Alarm output duration: select input alarm duration
5. IO output type: IO output type can be selected (enabled by default)
6. Recognition mode: Select the mode of access control machine identification (default single sheet recognition)

Single recognition: Compare only one photo at a time

Frequency recognition: If the corresponding face picture can be matched in the list within the set number of recognition times, the recognition will stop. If the corresponding face picture is not matched in the list within the set number of recognition times, it will always be recognized

Always recognized: When the face is a green frame, it will always be captured and recognized

7. Comparison similarity: Choose the face recognize similarity . If the set recognize similarity is too low, a mismatch may occur (default similarity is 90)

8. Arming time period: You can select a specified time period for arming (the default time is 00:00 to 23:59, the default is on)

Note: The face verification function on the access control UI interface only supports the white list and VIP list verification. At the same time, the alarm output of the white list and VIP list needs to be enabled.

2.7 Face recognition and records

You can check the latest 100,000 recognize records; you can check the complete recognize or details person recognize record.

Checking conditions:

1. Time period checking: you can enter any time period to query the comparison records in the specified time period
2. List checking: select any list to query the comparison records of the specified list
3. Name and Number checking: You can enter the name and number of any person who already exists for specific query.

2.8 Face Recognition - Version Information

Algorithm version: View the current algorithm version information

Model version: View the current model version information

Tips for Face Library Import

The details requirement for import face photo :

1.Face Image Type: ID No._Item No._Gender.JPG
(Remarks: ID number limit to: Chinese、 words、 numbers、 blank)

2.Face Image format: JPG

3.Face Image Size:30*30-960*960

4.Face Image File Size: ←2M

For Mass Image Import please use JVT company face management tool,as below

3 .FTP parameter settings

The face captured by the face capture machine can be uploaded to the server through FTP. The specific settings are as follows:

Step 1: Turn off the Windows firewall.

Step 2: Open FTPServer and set the receiving port, account name, account password, access directory, and account permissions.

Step 3: Set the FTP parameters of IPC.

Step 4: Test if the transmission is successful.

Step 5: Save the FTP parameters filled in the IPC page.

3.1 FTPServer setting example is as follows:

[Listen port], [Account name], [Account password] The user can set it separately according to his needs, but it must be consistent with the IPC FTP parameters;

[Access Directory] is different from [Remote Path] of IPC's FTP parameter. This parameter is the root directory where the user chooses to store face pictures.

[Account Permissions] Check all.

3.2 Example of setting IPC FTP parameters:

Open the IPC settings interface, find [Network settings] [FTP parameters], and fill in the following parameters

[Server Address]: Enter the IP address of the computer, which is on the same network segment as the IPC.

[Server Port]: It is the same as the [Listen Port] set by FTPServer above.

[Remote path]: User-defined

[User Name] and [Password]: Same as [Account Name] and [Account Password] set on the FTPServer above.

After completing the parameters, click [Test]; wait for the test results; if the test is successful, a test.jpg file will be generated in the directory set by the user.

4 notes

1. The infrared light is always on, used to detect the living body; the white light is on after power-on, and the white light is off after the device is started; after that, the white light and the screen are controlled by motion detection. When there is no motion detection alarm, after the alarm disappears, the white light and the screen turn off after 10 seconds by default (Note: the white light control can be always on or time control, the length of time is 5-60S)

Note: The motion detection alarm switch cannot be turned off

2.This version supports voice notification. The comparison is successful. The captured face picture is displayed with a voice prompt of "Verification Passed". The comparison fails (such as no list library). There is an "unauthorized" voice prompt. Enable audio. The audio compression format is ACC. Modifying the compression format will cause the device to restart.

Note: The audio switch cannot be turned off, and the audio compression format cannot be modified.

3.The sub stream image is black and whit

Chapter 7 App Instructions

Use our ikan app, please read this user manual before using the software. This user manual will tell you how to install and use the app to help you better understand and use the software.

1.1 Installation of an app

Open app treasure, search for ikan and download

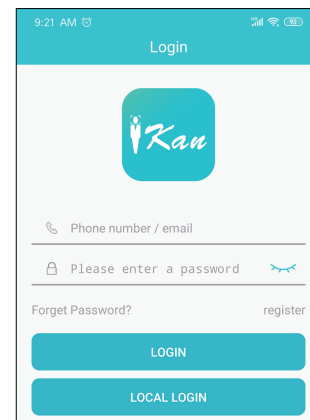


User registration and login


After opening the app, click Register to enter the registration interface. After entering the mobile phone number, click Send Verification Code, and then your mobile phone will receive the 4-digit SMS verification code sent by ikan, fill in the verification code, set the password, and save Just fine.


After saving, you can return to the login interface, fill in the mobile phone number and password set in the previous step to log in.


Note: The password setting does not support all English or all numbers




Introduction for function Button:


Image capture: On the video preview interface, click the image icon  to take a screenshot. The screenshot will be saved in the sharing management.


Video recording: On the video preview interface, click the recording icon  to start recording. To close the recording, click the icon again. The video will be saved in the sharing management.

This icon  switches between 1-channel and 4-channel interface,

This icon  is the PTZ control function

This icon  is the code stream switching function

This icon  is an intercom function

This icon  is a sound playback function

Remote playback: search local device for playback

Add Device

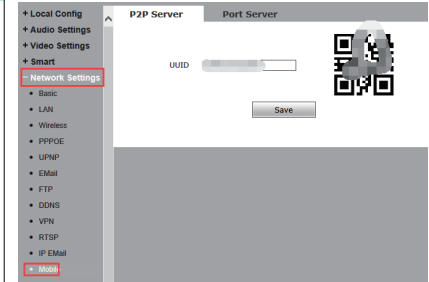
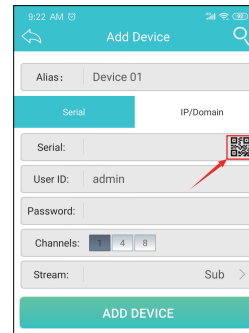
Open the app and click on "Tools"

1. In the device management item, enter the device add, it will automatically jump to the add device interface. Can be added via serial number, IP / domain name or local search.

Serial number added:

2. Fill in the device name arbitrarily. The serial number can be entered manually, or you can directly click the QR code to enter the scan QR code function. Scan the QR code of the device to add the device automatically. Username Password Enter the user name and password of the device, and then click Add Device to add the device successfully.

Note: Serial number = UUID of the device.

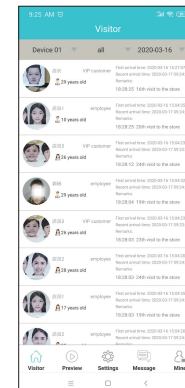
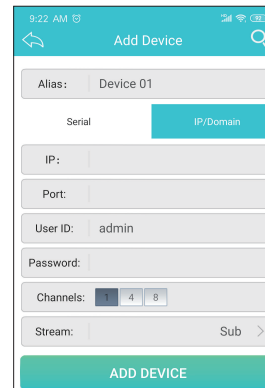


IP / domain name addition:

4. The port number is 5800, and the rest can be correctly input and added according to the device information.

5. You can also click the icon in the upper right corner to add a local search.

6. Note: If added using local search, the device must be under the same router as the network, and it must be a router of the same level. If the network is on the first-level router, and the device is on the next-level router, the device cannot be found.

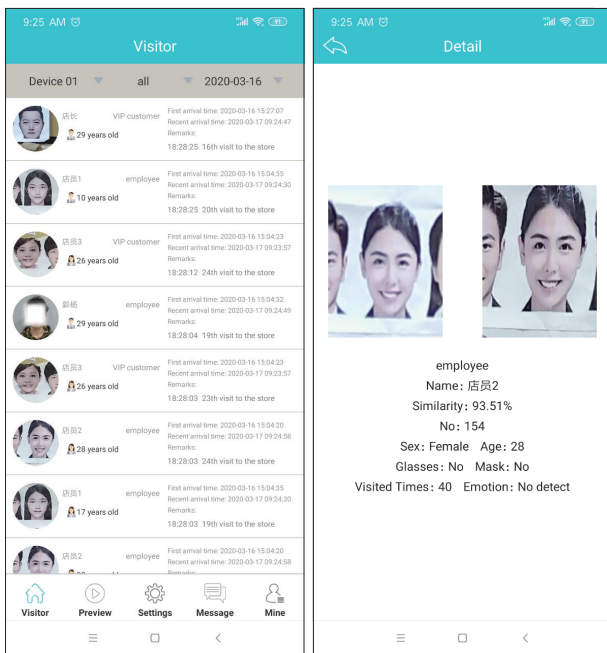


Visitor Menu

Record review

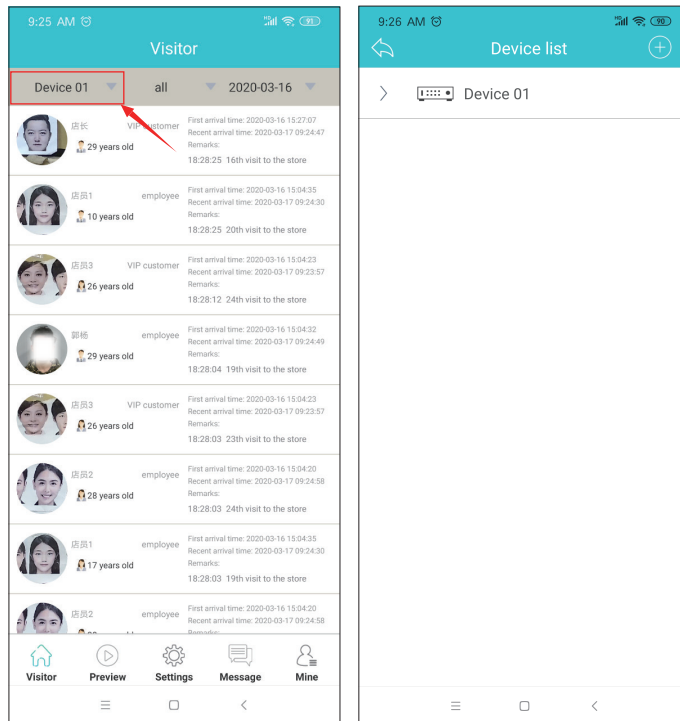
After the device is successfully added, you can view the visitor records on the visitor page, and the visitor records will be refreshed in real time. Click on any record of the latest record to view the detailed information of that record.

Note: Only the latest record will show the snapped picture on the face; while the historical record shows the base map of the face library. And only the latest record can be clicked to view the detailed information, the history record is not.



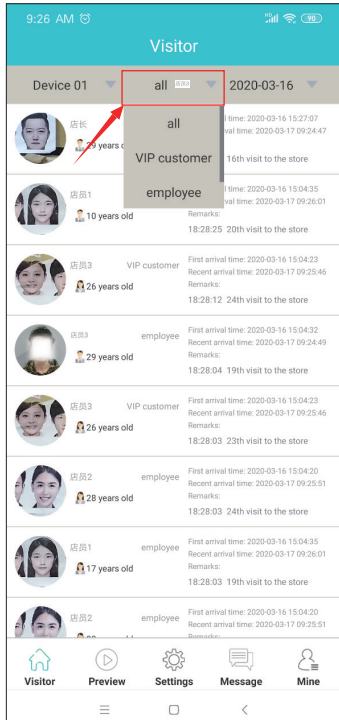
2. Device switching

Click the device name in the upper left corner, and a drop-down box will pop up. In the drop-down box, you can select the device you want to view to switch.



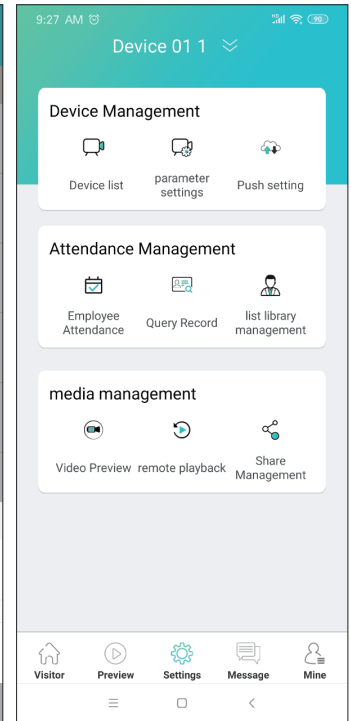
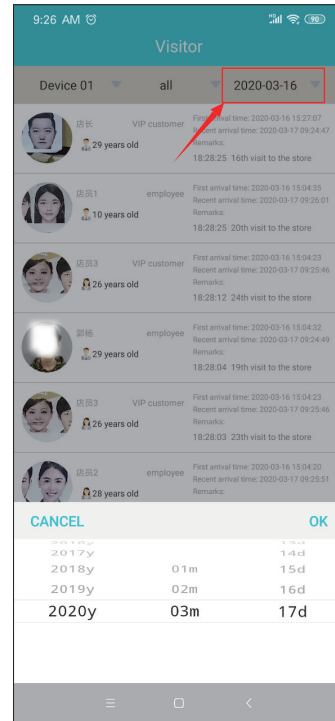
3. List library type switching

Click "All" in the middle, a drop-down box will pop up, select the type of list library to be viewed in the drop-down box, and click to view.



4. Date switch

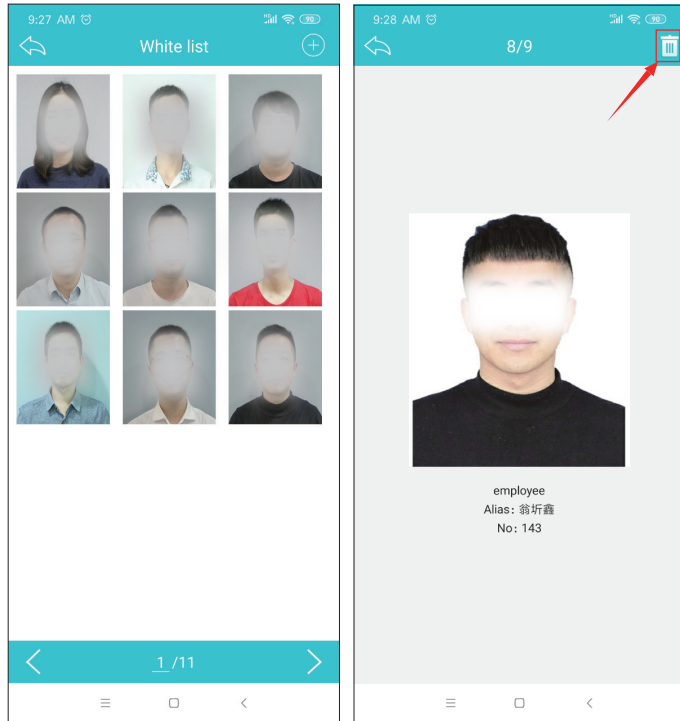
Click on the date in the upper right corner, and a date selection pop-up window will be displayed below. After sliding the year, month, day to the date you want to view, click OK.



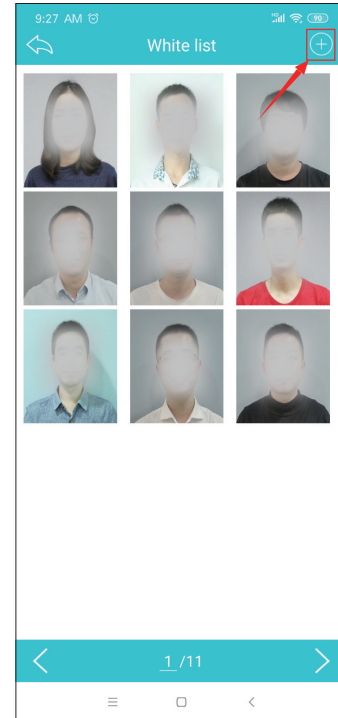
Tool Menu

(I) List library management

Select any type of list library to view, and click to enter. After the picture is loaded, select a face arbitrarily, click to enter to view the detailed information of the face image, and on the detailed information page, you can delete the face.



On the list library page, click the plus sign in the upper right corner to add faces. There are two ways to add faces: adding new pictures and adding them from the album. Choose any method, set the face picture, enter the name and number, and you can successfully add the face



(2) equipment management

See Chapter 3 for device add functions

Parameter setting: Synchronize with the device web settings. Set the parameters of the device on this page. After setting, click Save.

The screenshot shows the 'Parameter setting' screen with the following fields and values:

- Minimum recognition Pixel: 30 px (30 - 300)
- Capture model: Interval capture(frame)
- Capture number of times: Continue capture
- Interval frame: 10 Frame (10 - 1500)
- match similarity: 10 % (0 - 100)
- Recognise model: Number recognise
- Recognise Qty: 10 Times (1 - 10)
- Message push: Custom (Chinese)

A green 'SAVE' button is located at the bottom of the form.

Employee Attendance: Enter the attendance time, you can set the commute time and working day. After setting, click the save icon in the upper right corner to save. Enter the attendance query, select the start time and end time, and then click the magnifying glass icon in the upper right corner to return the query results; you can also enter the name or number for fuzzy query. The operation method of attendance statistics is the same as the attendance query. You can query the attendance statistics of each face.

The screenshot shows the 'Query Record' screen with the following search criteria and results:

Query Start Time: 2020-03-17 00:00
Query End Time: 2020-03-17 09:28
All

Alias: [] Number: 2

| Image | Name | Time |
|-------|----------|---------------------|
| | employee | 2020-03-17 09:27:59 |
| | employee | 2020-03-17 09:27:35 |
| | employee | 2020-03-17 09:27:33 |

The screenshot shows the 'Query Record' screen with the following search criteria and results:

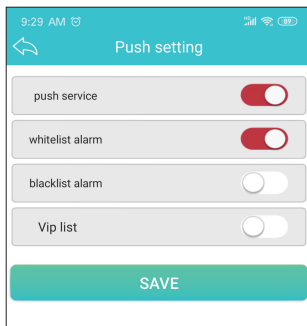
Query Start Time: 2020-03-17 00:00
Query End Time: 2020-03-17 09:28
All

Alias: [] Number: []

| Image | Name | Time |
|-------|-----------------|---------------------|
| | employee | 2020-03-17 09:27:59 |
| | employee 店员2 | 2020-03-17 09:27:58 |
| | employee | 2020-03-17 09:27:56 |

Select query time effect:

Record query: The operation method is the same as that of attendance query. Under “Everyone” under time setting, click to switch the face database that needs to view records. Push settings: After you click to enter, open the push service first, and then click to open the face database that needs to be pushed for alarm and then save.



message Menu

The alarm message will be displayed on this interface. Clicking on an alarm message will directly enter the video preview interface. Device switching, list library type switching, and date switching. The operation is the same as that of the guest record switching.

Alarm notification effect