

# **Face recognize & temperature measurement panel**

user manual

## Foreword

The purpose of this section is to ensure that user can use product correctly through this manual to avoid danger or property damage during operation. Before using this product, please read the manual carefully and save it for future reference.

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## About this manual

Use this manual as a guide. The photos, graphics, diagrams, and illustrations provided in the manual are for reference only. They may differ from specific products. Please refer to actual product. The company may update this manual due to product version upgrades or other needs. If you need the latest version of the manual, please log on to the company's official website to check.

It is recommended that you use this manual under professional person guidance

## Disclaimer

1.To the maximum extent permitted by law, the products described in this manual (including hardware, software, firmware, etc.) are provided "as is" and may have defective or errors. The company does not provide any form or Implied warranties, including but not limited to warranties of merchantability, quality satisfaction, fitness for a particular purpose, and non-infringement of third-party rights; nor does it impose any special, incidental, incidental, or indirect damages resulting from the use of this manual or the use of our products Compensation, including but not limited to loss of business profits, loss of data or documents.

2.If you connect the product to Internet, the product may be subject to network attacks, hackers, and virus infections. you have to bear risk by yourself. But we will provide you with technical support in time.




3. When using this product, please strictly follow the applicable laws. If the product is used for infringing the rights of third parties or other improper uses, the company will not bear any responsibility.

If the contents of this manual conflict with applicable laws, the legal provisions shall prevail.

## Sign convention

The description of the symbols that appear in the document is shown below.

### Sign Description

1.  Descriptive text, which supplements and explains the text.
2.  Warning texts indicate potential risks. If not avoided, they may cause injury, equipment damage, or business interruption.
3.  Dangerous text indicates that there is a high potential risk. If it is not avoided, it may cause Serious danger of personal injury or death.

### Tips:

To protect your privacy and improve product security, we strongly recommend that you set a more complex password according to the following rules: 8-16 characters, consisting of two or more types of numbers, uppercase and lowercase letters, and special characters Made.

Please understand that you are responsible for properly configuring all passwords and other related product security settings.

## Chapter 1: Product Overview

Product Line	Name
7-inch temperature measurement panel	7-inch temperature measurement panel with vertical bracket
	7-inch temperature measurement panel with wall bracket
8-inch temperature measurement panel	8-inch temperature measurement panel with vertical bracket
	8-inch temperature measurement panel with wall bracket

### 1.1 Product Introduction

The temperature measurement & Face recognition panel, using Dual sensor with living detect, based on face recognition and infrared temperature detection. The product realizes identity confirmation and access rights management through face recognition, and also realizes non-contact temperature detection, rapid screening, automatic alarm and automatic detection of whether the mask is worn or not.

The product avoids manual operation, improves efficiency and reduces missing information, and reduces the hidden danger of cross-infection caused by human-to-terminal and human-to-human contact during the detection and management process. Facilitate the rapid screening of people gathering place.

Suit for Hotel, access gate, office building, school, shopping mall, communities, public services.

### 1.2 Product Features

(1) Using high-precision infrared temperature detector non-contact automatic body temperature detection, accurate and efficient;

(2) Temperature measurement range: 30-45 (°C),

Accuracy can reach  $\pm 0.3$ (°C);

(3) Real-time output of identify results and voice prompts;

(4) Auto identify people without masks and give real-time warning;

(5) Auto register and record information, avoid manual operation, improve efficiency and reduce missing information;

(6) Dual sensor with living detect, face recognition distance 0.3-3M,

(7) Face recognition within 500ms; Face library 22400 person. Total can storage 100,000 recognize record;

(8) Rich interface protocols, supporting SDK and HTTP protocols under multiple platforms such as Windows / Linux

(9) Supporting machine vision optical dynamics  $\geq 80$ dB, suitable for backlight environment monitor;

(10) Supports fog, 3D noise reduction, strong light suppression, electronic image stabilization, and has multiple white balance modes, suitable for various scene requirements;

(11) Linux operate system, more stable.

### 1.3 Packing list

Temperature measurement panel	1unit
Installation and user manual	1pcs
Warranty card	1pcs
Spare parts package	Post: 1 set of waterproof network head, 6 pcs tie Wall mount: 1 1pcs accessory kit, 1pcs gimbal bracket, 1pcs wall mount bracket, 1 set of waterproof network head

## Chapter 2: Appearance



7-inch with vertical bracket

8-inch with vertical bracket

8-inch with wall bracket

**Pigtail interface description:**

No.	Name	Description
J1	WG OUT	1:D0 2:D1 3:GND
J2	WG IN	1:D0 2:D1 3:GND
J3	ALARM OUT	RELAY SWITCH
J4	USB	USB 2.0
J5	RJ45	100M
J6	DC12V	POWER IN 12V/3A



7-inch with wall bracket

No.	Name	Description
J1	Multifunctional interface	WG OUT: Orange D0、 White D1、 Green GND
		WG IN: Brown and white D0、 Yellow D1、 Gray GND
		ALARM OUT: Brown ALARM+、 Purple ALARM
		RS485: Orange and White 485+、 Blue and White 485
		USB: Red 5V、 Blue D-、 Green and white D+、 Black GND
J2	RJ45	100M
J3	Power supply interface	POWER IN12V/3A

**Part fittings as shown :**

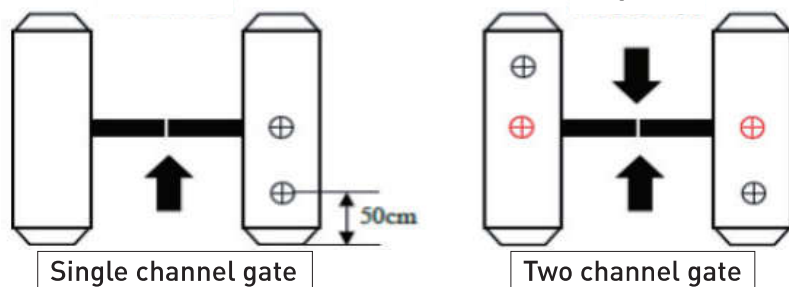
Image Display	Name	Description
	Wall-mounted mounting plate	<ol style="list-style-type: none"> <li>1. Divided into 7-inch and 8-inch , not shared.</li> <li>2. Standard configuration of wall-mounted temperature measurement panel.</li> <li>3. Please refer to the actual size.</li> </ol>
	Wall bracket	<ol style="list-style-type: none"> <li>1. Divided into 7-inch and 8-inch , not shared.</li> <li>2. Standard configuration of wall-mounted temperature measurement panel.</li> <li>3. Please refer to the actual size.</li> </ol>
	Gimbal bracket	<ol style="list-style-type: none"> <li>1. Divided into 7-inch and 8-inch , not shared.</li> <li>2. Standard configuration of wall-mounted temperature measurement panel.</li> <li>3. Please refer to the actual size.</li> </ol>
	Tripod	<ol style="list-style-type: none"> <li>1.Non standard, purchased by customers.</li> <li>2.The recommended installation height is less than 145mm.</li> </ol>
	"Accessory Pack" to the tripod	<ol style="list-style-type: none"> <li>1.Standard on tripod for fixed installations.</li> <li>2.Connected with the gimbal bracket during installation.</li> </ol>

## Precautions

1. Device working temperature : 10 ℃ -40 ℃ (Device optimum working temperature :16~32 ℃). Do not Install under the vent and ensure that there is no heating source within 3 meters;
2. People entering the room from a cold outdoor environment will affect measurement accuracy. The forehead temperature test needs to be performed indoors without covering the forehead for three minutes and the temperature is stable;
3. The temperature read by the temperature measuring device is the temperature in the forehead area. When there is water, sweat, oil orthick makeup on the forehead, or the elderly have wrinkles, the read temperature will be lower than the actual temperature. Make sure there is no hair or clothing covering this area;
4. We suggest end user do mutil practise for testing ,be well know about testing way,detecting result can't replace medical diagnose.

## Gate installation

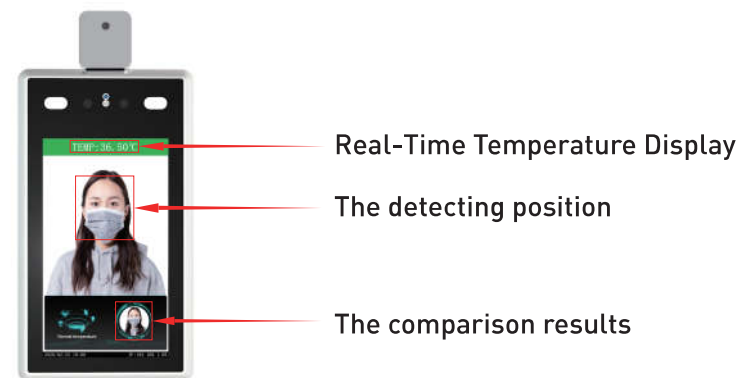
According to the requirements of the installation site, in the space position on the gate or in the front side, the opening diameter of the 7-inch access control machine is 30mm, and the opening diameter of the 8-inch access control machine is 35mm.The diagram is as follows:



### 1.2 Adjust angle of temperature detector

After the temperature measurement access control is fully activated, the human face is directly facing the device. Observe the face image on the device screen. Make sure that the bare skin on the forehead is

placed in the "temperature measurement area" (optimal temperature detector distance 0.5m). After that, paste the "Please stand here" detection position mark at the corresponding distance.



**Note:** Due to the height of the gate installation, it may cause the test personnel to actively cooperate during the test to ensure that the bare skin on the forehead is placed in the "temperature measurement area".

## 2. Temporary test position, (Tripod mounting)



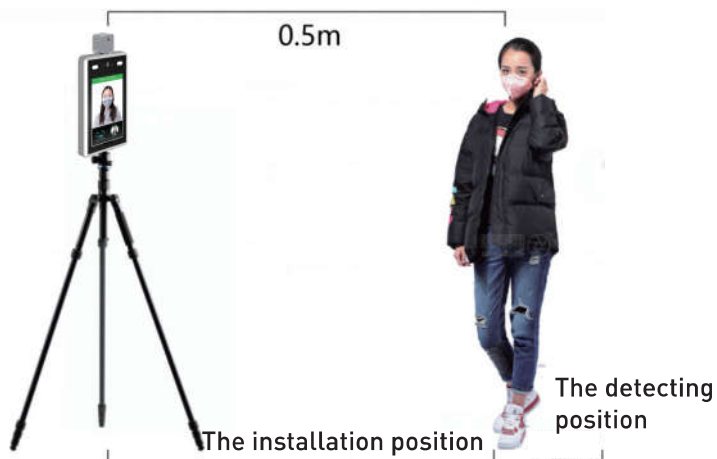
### 2.1 Temperature measurement panel with vertical bracket:

Attach the cable tie from the “Accessory Pack” to the tripod for the temperature measurement access control on the column,

### Temperature measurement panel with wall bracket:

Mount the gimbal bracket in the “Accessory Pack” to the tripod for the wall-mounted temperature measurement access control. Connect the power supply and network cable.

2.2 Adjust to best angle and detection position of the detector, as image below:



2.3 After temperature detect are confirmed , make detect position mark on the ground for accurate detection.

**Note:** There is no need to move or adjust the relevant position or height after installation is completed. Due to the height difference of the inspected person, the inspected person may need to cooperate actively to ensure the accuracy of the inspection data.

## 3. Wall mounting

Note: The installation height of 1.5 meters here is the recommended installation height, and users can adjust it according to their height.

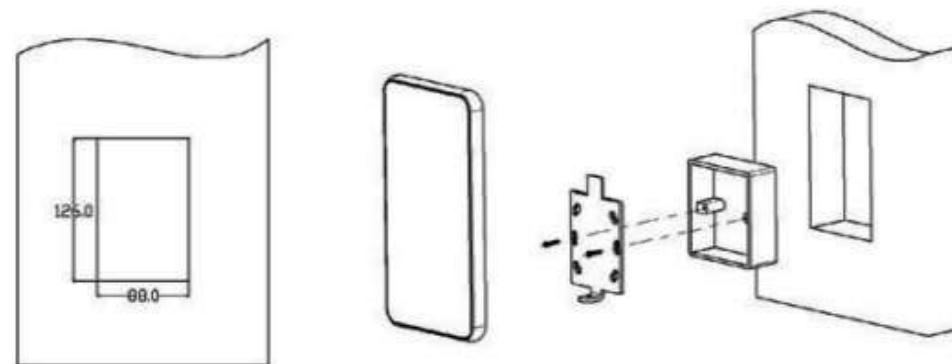
## Installation with 86 boxes

**Step 1:** Make holes in the wall according to the mounting bracket 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 plate, and The hanging plate is fixed on the 86 box as shown below.

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

**Step 4:** Use a special tamper wrench at the bottom of the device to lock the tamper screws .





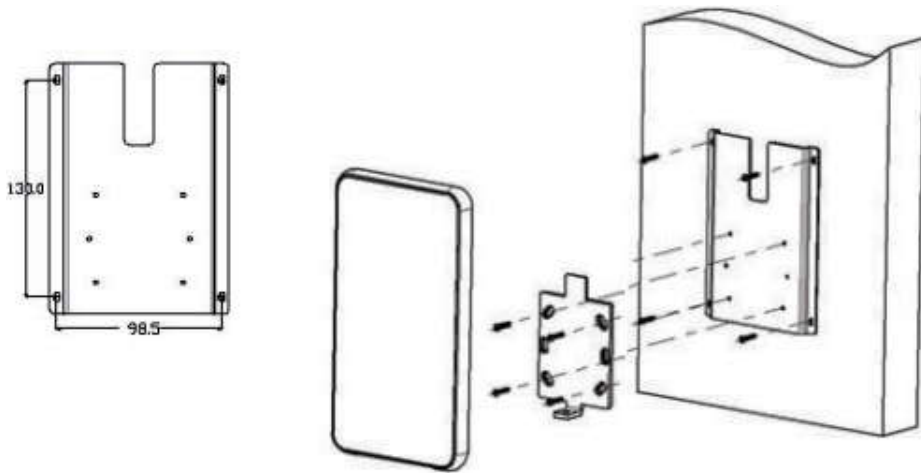
## Installation without 86 boxes:

**Step 1:** Fix the mounting base on the mounting wall as shown in the figure below.

**Step 2:** Use a special tamper-proof wrench to loosen the tamper-resistant fixing screws at the bottom of the device, remove the mounting plate, and lock it to the mounting base plate according to the hole position.

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

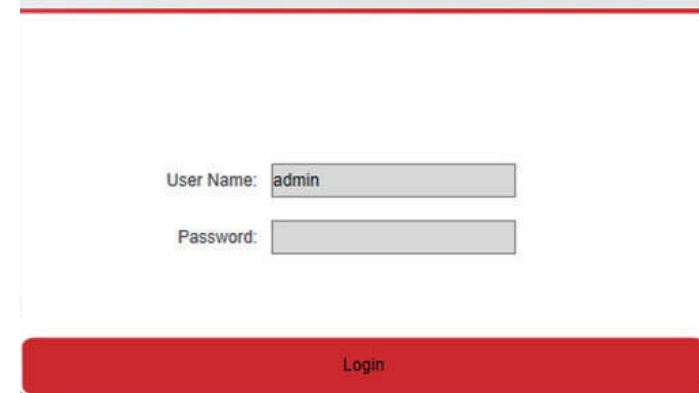
**Step 4:** Use a special tamper wrench at the bottom of the device to lock the tamper screws .



## Chapter 4: Instructions

### 4.1 IE page setup and environment setup

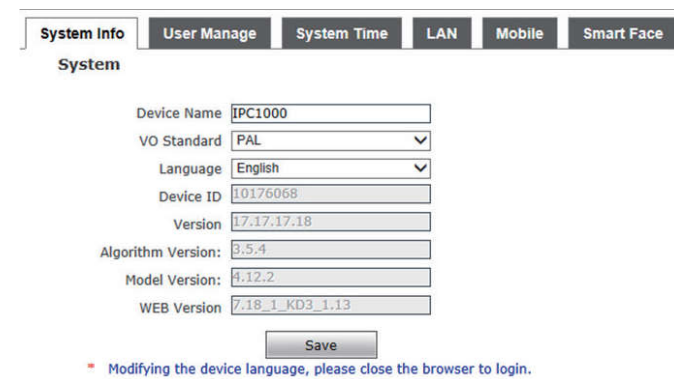
In an environment where all aspects of the device and network work normally, open the IE browser, Input the device IP in the address bar, [IP defaults is 192.168.1.88], press Enter button, pop up login interface, input password: admin ,Click Login.



## 4.2 Setting

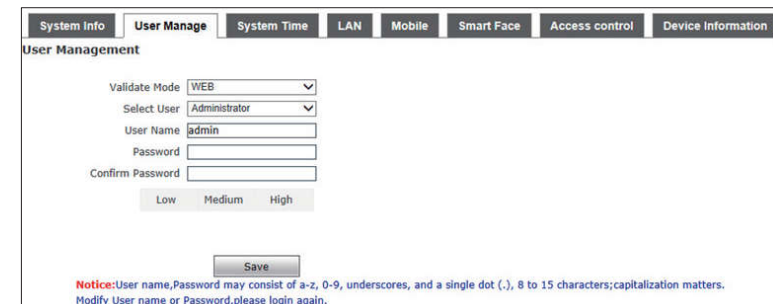
### 4.2.1 System Info

#### 4.2.1.1 Language config, select the desired language



\* Modifying the device language, please close the browser to login.

#### 4.2.1.2 User management, password setting



**Notice:**User name,Password may consist of a-z, 0-9, underscores, and a single dot (.), 8 to 15 characters;capitalization matters.  
Modify User name or Password,please login again.

### 4.2.1.3 System Time

### 2.1.4.2 Wireless network parameter setting

Click "Scan" to search for nearby wireless network, select target network, then enter password, click save button, when connect success, the device IP will show on LCD monitor. So please disconnect RJ45 network cable from device.

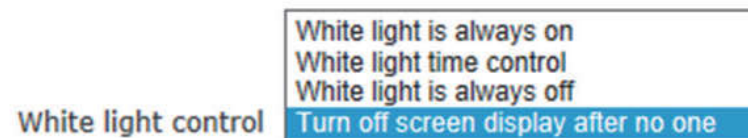
If you want preview details for device, please input the device IP (IP shown on LCD monitor) on the browser, then pop up the login interface, so can preview. Please notice that the PC should be at same IP segment with the device, PC connect at same router.

**(Note: wired network and wireless connect will not the same IP address)**

### 4.2.2 Face recognition-Access control

#### 4.2.2.1 White light control

Set the light status according to the actual environment (default is to turn off when detect no person).





#### 4.2.2.2 Screen display mode

Set the display mode according to the usage (default is closed when detect no person).

#### 4.2.2.3 Temperature threshold

The temperature threshold can be set between 35-45 °C, the default value is 37.3 °C, can be modified according to actual use needs.

#### 4.2.2.4 Temperature correction

"Smart Algorithm" defaults mode is "Smart Algorithm" under this mode no correction value;

"Low temperature algorithm" mode operation method, choose to use correction method in the environment with low ambient temperature (below 10 °C):

- a. Prepare a forehead temperature gun which meet relevant national standards;
- b. On-site temperature calibration requires the cooperation of two persons who are in good health (without fever and fever), one person is responsible for the operation, and the other acts as the person under test;
- c. Use the forehead temperature gun to test the forehead temperature of the person under test. It is recommended to make multiple (3-5 times) Multit time measurements to ensure temperature values accuract is less than 0.3 °C, record the measured temperature value, and then use the temperature measurement access control machine to test the person . After subtracting the average value measured by the access control machine from the average value measured by the forehead gun, fill in the "temperature In the "Compensation" box, click "Save". After saving the parameters, perform the test. The above method is set only when the value of the temperature gun and the access control machine are basically the same (the error range is less than 0.3 °C).

#### 4.2.2.5 Temperature measurement mode

Temperature measurement mode can choose precise temperature measurement or fast measurement mode (default is accurate measurement mode).

#### 4.2.2.6 Temperature measurement unit

Set temperature threshold / temperature unit according to usage habits (default is Celsius, 37.3 °C).

#### 4.2.2.7 Temperature abnormal switch control

This item default is "turn off" . It is set according to actual needs. After the setting is turned on, when measured forehead temperature too high, or too low, door switch signal will be triggered. In actual application, this switch signal can be to connect alarm device, when detect temperature abnormal, have alarm voice output.

#### 4.2.2.8 Comparison record storage

According to actual needs, the comparison information will be stored on the device when the face recognition is turned on, and the record will still exist after the power is turned off.

#### 4.2.2.9 Mask temperature detection

Mask temperature detect" can choose "no temperature detection", "mask detection", "mask + body temperature detection" and other modes, when "no" is selected, the temperature will not be measured, after selecting "body temperature detection" mode, the temperature will be measured, and select "mask detection" "Mode detects that no mask is wear, it will prompt remind voice" please wear a mask ". Selecting the " body temperature + mask detection "mode will detect when wear mask and measure temperature.

Mask temperature  
detection

None
Body temperature detection
Mask detection
Body temperature + mask detection

#### 4.2.2.10 Open door setting

This setting can be used in combine with "mask temperature detection setting", or can be set separately.

Opening conditions

<input type="checkbox"/> Whitelist + face verification to open the door
<input type="checkbox"/> ID card + face verification to open the door
<input type="checkbox"/> Body temperature + whitelist + ID card + face verification to open the door
<input type="checkbox"/> Whitelist or ID card + face verification to open the door
<input type="checkbox"/> Wiegand swipes the card to open the door
<input type="checkbox"/> Wiegand swipe card + whitelist verification to open the door
<input type="checkbox"/> Wiegand swipe to open the door or whitelist verification to open the door

#### 4.2.2.11 Control interface

Set the interface control mode, including Wiegand interface and alarm out interface. Wiegand interface + switching value.

Control interface

<input checked="" type="checkbox"/> Wiegand interface
<input type="checkbox"/> Switching value
<input type="checkbox"/> Wiegand interface + switch value

#### 4.2.2.12 Open state

This setting can be set to normally open or normally closed according to actual application.

#### 4.2.2.13 Wiegand protocol

Wiegand output: When you need to use Wiegand interface, select the corresponding protocol according to external device, we support WG 26 / WG 34 protocol.

### 4.2.3 Face recognition • Parameter setting

#### 4.2.3.1 Switch

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

Enable	<input checked="" type="checkbox"/>
Time 1	<input checked="" type="checkbox"/> 0 : 0 -- 23 : 59
Time 2	<input checked="" type="checkbox"/> 0 : 0 -- 23 : 59

#### 4.2.3.2 Arming time

This item is arming 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.

#### 4.2.3.3 Sensitivity

Setting range: 0 ~10. The default sensitivity is 9.

The sensitivity values is higher, the capture image quality be worse

The sensitivity Values is lower, The capture image quality will be better.

Sensitivity



#### 4.2.3.4 Snapshot Mode

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

Snapmode	single mode	▼
Capturetimes	8	▼
EveryNthFrame	5	(1~1500)

Description: Trial scene access control and gate. When multiple people pass the gate, only the front person can be captured (the face pixel is the largest in the picture). There is only one face square in the picture.

#### 4.2.3.5 Maximum and minimum pixels for face recognition

1. Face recognition maximum pixel setting range: 300~500. Default: 500.

2. Face temperature measurement minimum pixel setting range: 0~500.Default: 300
3. Face recognition minimum pixel setting range: 30 ~ 300. Default: 130
4. 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)
Face test minimum pixels	<input type="text" value="300"/>	(0~500)
Min pixel	<input type="text" value="200"/>	(30~300)

#### 4.2.3.6 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

#### 4.2.3.7 Face Tracking Frame

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

FaceTrack	Close
	Filter Tracking

#### 4.2.3.8 Living detect

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

Live detection	Close
	Filter Tracking

#### 4.2.4 List management

This parameter is used to add face library list, divided into white and VIP lists.

List management: through "Add List", select the face image to add; as snapshot below:

- Step 1: Click Browse and select the face image to be imported;
- Step 2: Select the type of list library (white list, VIP list), input the name, fill in the face image information;
- Step 4: Click "Save"

Batch import: Add face image through batch import, as shown below:

Step 1: Click Browse , according to the storage path Ctrl + A select all or press Ctrl + mouse to select the face image to be imported;

Step 3: Select the type of list library (white list, VIP list);

Step 4: Click"Save"

Picture name, numbering rules: Picture name + picture numbers can not be repeated, single item can be repeated, ID number setting and mobile phone number can be optional. (Delete the face list and double-click to delete the face image to be deleted).

## 4.2.5 Attendance and Comparison record

### 4.2.5.1 Comparison record

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

Face recognize

Condition

2020- 5 - 10 0 :0 - 2020- 5 - 11 23 :59

owner

Name

number

Search

Routing Mac	name	Serial number	list	body temperature	time	IC	Detailed situation
	-	-	Guest	36.00	2020-05-11 15:10:42		Mask:NO ,body temperature:Normal

Checking mode:

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.

## 4.2.5.2 Attendance settings and attendance records

### 4.2.5.2.1 Attendance setting :

Face recognition.

1

Set Time Sunday

go to work 06:00 - 09:00 off duty 18:00 - 23:59

Advanced

Working days setting

On Sunday  On Monday  On Tuesday  On Wednesday  On Thursday

On Friday  On Saturday

save default

2

Return

On Sunday  On Monday  On Tuesday  On Wednesday

On Thursday  On Friday  On Saturday

On Sunday  On Monday  On Tuesday  On Wednesday  On Thursday

On Friday  On Saturday

save default

2020 - 5 - 11

Name number Attendance status query type

all record

Search

Routing Mac name Serial number Detailed situation

a. Click "set Time" to select the working day to be set, set the commute time, save it.

b. Click "Advanced Settings" to choose single or multiple working days, set the working time, save it.

### 4.2.5.2.2 Attendance record query

Attendance records can be queried; attendance results can be queried by day, time period, late arrival, early departure, non-attendance, etc., and attendance results can also be queried by specific name number. (Note: The attendance status can only be recorded when the door opening condition is set to "white list + ..." mode).

## 4.3 Restore

### 4.3.1 Restore factory setting, select the desired restore to factory state

Restore

\* Click this button will make the Device to recover all set the default state.

Restore factory settings

Enter password!

Restore:  Network

User Name

Password

Submit

#### 4.4 Reboot

**Reboot**

Restart The System Automatically

Never ▾ At 00:00 ▾

Restart The System Manually

Reboot

#### 4.5 Device Setting

**Device Setting**

Choose	No.	TotalSize(M)	FreeSize(M)	Status
<input checked="" type="radio"/>	1 HSD	14800	13677	formatted

Format Refresh

(This item can be used to clear all the face images and comparison records / attendance records of the device list library)

#### 4.6 Audio attributes setting

##### 4.6.1 This parameter is used to set sound voice size and turn off / on sound

**Audio attributes**

Enable

Audio Input Mic ▾

Compression Type AAC ▾

Audio Bitrate 128000 ▾

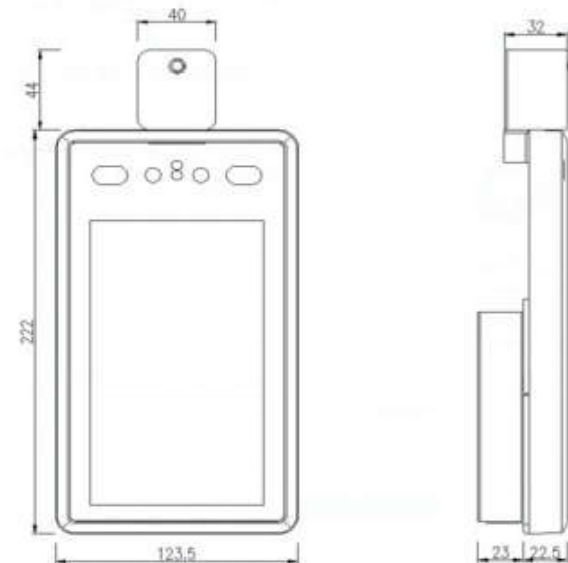
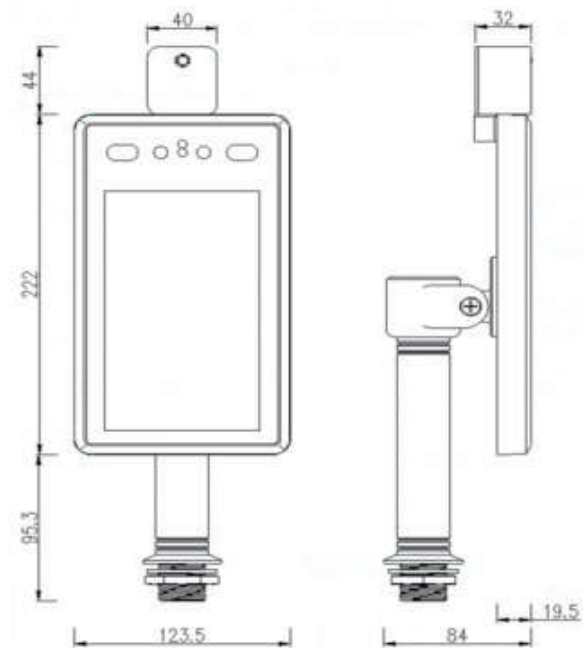
Sampling Rate 44.1k ▾

Input Volume  15

Output Volume  15

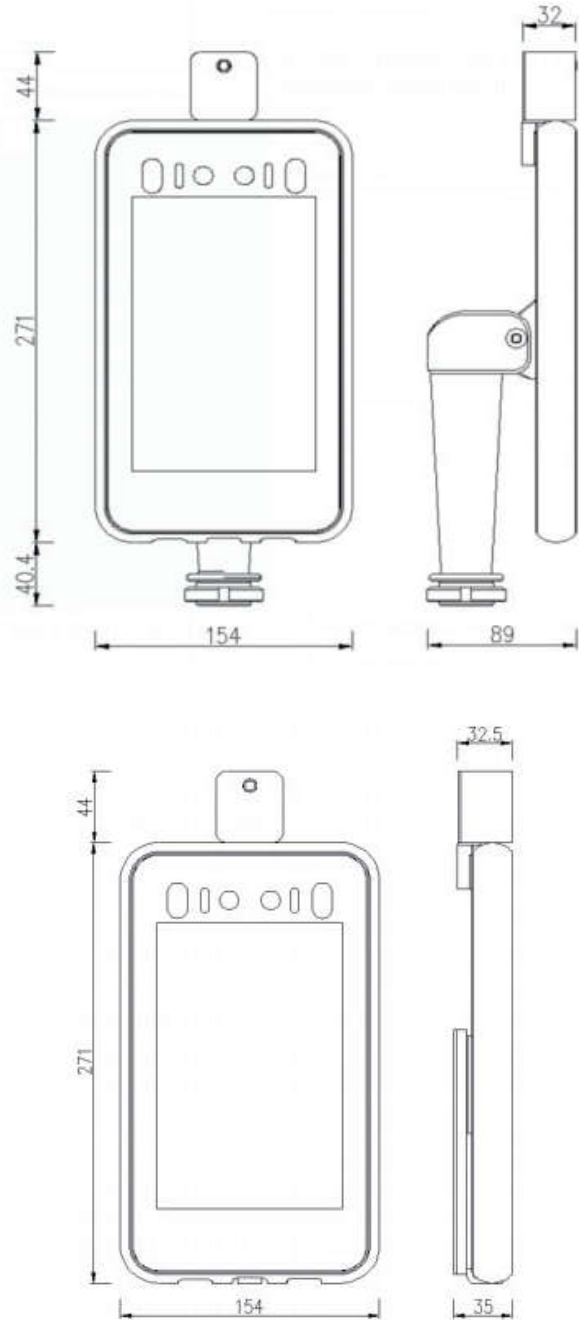
Save

#### 7" access control panel diagram :





## 8" access control panel diagram :



## FCC Warning:

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

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.

Note: 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 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.