# Thermal Imaging Fever Screening Terminal Quick Start Guide V1.0.0

#### **About the Product**

The products described in this manual.

#### **About the Manual**

This manual is used as a guide. The photos, graphs, charts and illustrations provided in the manual are only for explanation and description purposes, and there may be differences with specific products, please refer to actual products. We try our best to ensure the accuracy of the content in this manual. The company does not provide any express or implied statement or guarantee for this manual.

The manual may be updated due to product version upgrades or other needs. If you need the latest version of the manual, please contact the distributors and subject to the new version.

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- If the contents of this manual conflict with the law, the legal provisions shall prevail.

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## 1. Product Introduction

## 1.1 Product Description

Based on AI chips and supported by powerful computing power and face recognition algorithms, the thermal imaging screening terminal also integrates thermal imaging modules and AI face recognition systems, which can identify and alert people who are not wearing masks and having abnormal skin temperature, and improve the efficiency of screening abnormal personnel in public places. It can be widely applied in high-speed railway stations, airports, bus stations, subway stations, schools, enterprises, exhibition forums, communities, office buildings, villas and other places.

## 1.2 Product Features

- Accurate temperature measurement by thermal imaging and measuring temperature from 0.3m to 1.5m (skin temperature accuracy:  $\pm 0.5$ °C).
- AI accurate temperature measurement and support 1:1, 1:N face comparison with face library capacity up to 50,000.
- Support face recognition for masks, with a recognition rate of 92%.
- 0.2s face recognition + forehead temperature measurement, non-inductive passage.
- Support measuring temperature for many persons at the same time.

- Support lock control output and face control for opening doors.
- Support cloud deployment and private server deployment.
- Support multi-language and voice broadcast.

# 1.3 Product Appearance

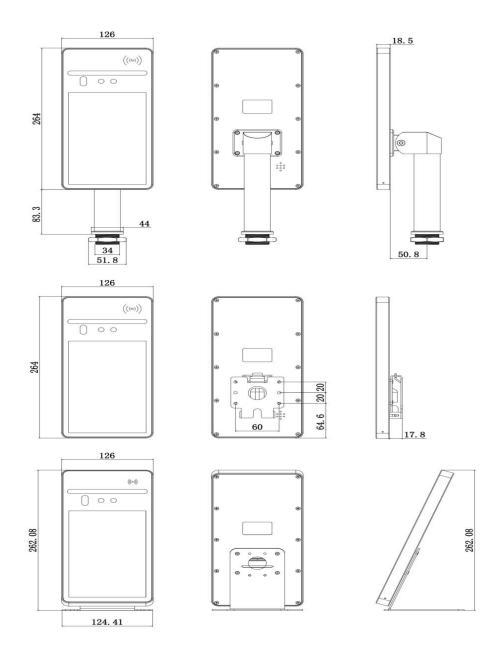
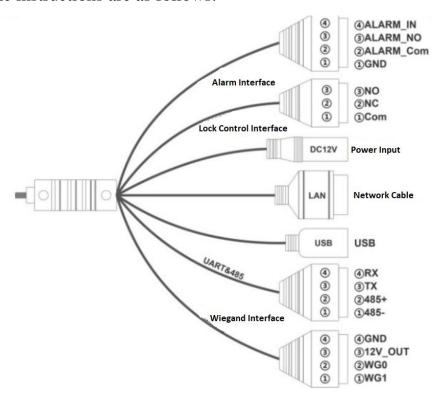


Figure 1.1 Appearance and Interface

## 1.4 Cable Instruction

The full-spec tail cables meet the needs of most scenarios. It is equipped with a relay to control the door opening, including power supply, USB, RJ45, lock control, serial port, RS485, alarm interface, Wiegand interface, etc. The instructions are as follows.



**Figure 1.2 Cable Instruction** 

**Table 1.1 Cable Definition** 

Line Set	Function	Cable No.	Terminal Name	Terminal Instruction
DC 13V	Power	1	12V in	12V power supply
DC 12V		2	GND	Ground
	USB Host	1	5V	
HGD		2	DN	
USB		3	DP	
		4	GND	
LAN (RJ45)	Ethernet	1	Ethernet	Standard 100M Ethernet port
	Lock control signals	1	COM	Ground
Lock Control Interface		2	NC	Normally Closed
		3	NO	Normally Open
		1	485-	RS485-
114 PE 0 PG 405	Serial	2	485+	RS485+
UART&RS485	port+RS485	3	TX	Serial sender
		4	RX	Serial receiver
	Wiegand	1	WG1	Wiegand 1
X7. 17. 6		2	WG0	Wiegand 0
Wiegand Interface	Signal	3	12V_OUT	12V output for power
		4	GND	Ground

## 2. Product Installation

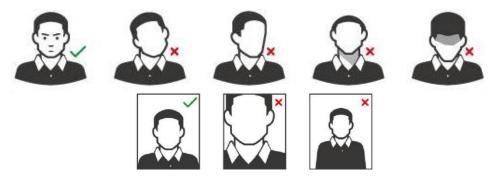
## 2.1 Installation Suggestions

Installation Height: The height of the camera is about 1.4m from the ground, and the distance from the camera to the face is  $0.5\sim1.5$ m. At this time, it can cover the detected persons in the height range of  $0.9\sim2.4$ m.

Installation Location: try to avoid exposure to direct sunlight. The long-term exposure of the lens to the sun may affect the camera life and algorithm recognition accuracy.

## 2.2 Face Position

It is recommended that the face position be in the middle of the camera screen during recognition, as shown below:

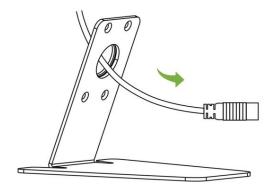


**Figure 2.1 Illustration of Face Position** 

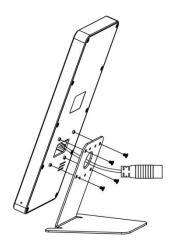
# 2.3 Installation Methods

## 2.3.1 Desktop Installation

1. Pass the power cable through the hole on the desktop stand.



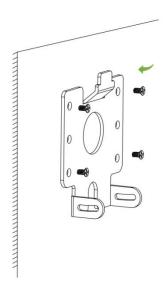
2. Tighten the bracket and the camera with screws.



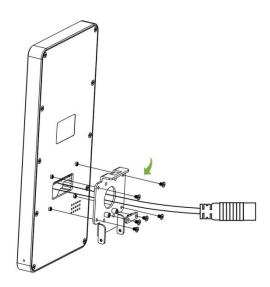
**Figure 2.2 Desktop Installation** 

## 2.3.2 Wall-mounted Installation

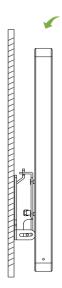
1. Use expansion screws to fix the bracket on the wall or electrical cassette.



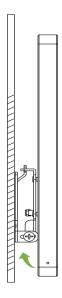
2. Fix the camera and bracket with screw as below.



3. Hang the camera on the wall bracket from top to bottom.



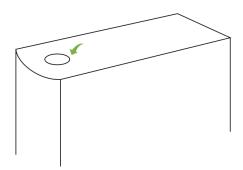
4. Fix the two brackets with screws and adjust the angle.



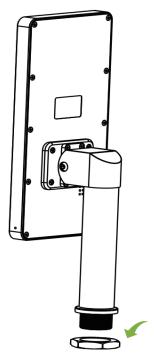
**Figure 2.3 Wall-mounted Installation** 

# 2.3.3 Column-mounted Installation

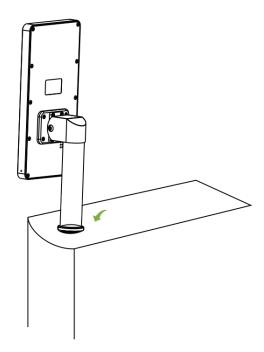
1. The opening diameter of the turnstile is 36 mm.



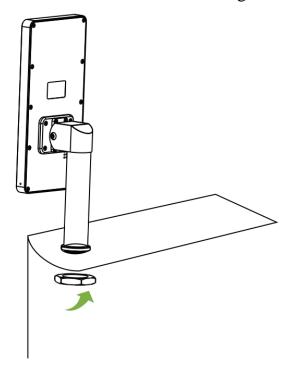
2. Unscrew the fixing screw on the column.



3. Put the column into the fixing hole.



4. Fix the camera on the turnstile with the fixing screw.



**Figure 2.4 Column-mounted Installation** 

## 2.4 Wiring Guide

The thermal imaging fever screening terminal can be connected to the door lock control through the tail line, while retaining the existing access control system functions, the access control is intelligently upgraded. The opening button can be simulated by the PUSH\_OUT signal, and the electromagnetic anode lock or cathode lock can be directly driven by the LOCK\_NO/NC signal. If the anode lock or cathode lock is driven directly, the input power supply of the panel machine is recommended to use 12V/2A power supply.

#### **Wiring Notice:**

- If using 1.0mm national standard line with 12V switching power supply, the wiring distance (distance between switching power supply and the camera) on site shall not exceed 20m.
- If using 1.5mm national standard line with 12V switching power supply, the wiring distance (distance between switching power supply and the camera) on site shall not exceed 20m.
- If using 2.0mm national standard line with 12V switching power supply, the wiring distance (distance between switching power supply and the camera) on site shall not exceed 40m.

## 2.4.1 Wiring Instruction

The device can be connected to RS-485 card readers, door locks, door opening buttons, and alarm devices through wiring terminals. Among the wiring terminals, the power input is through power input terminal. The RS-485 card reader can be connected through the RS485 terminal, and connected to door lock through lock control interface terminal.

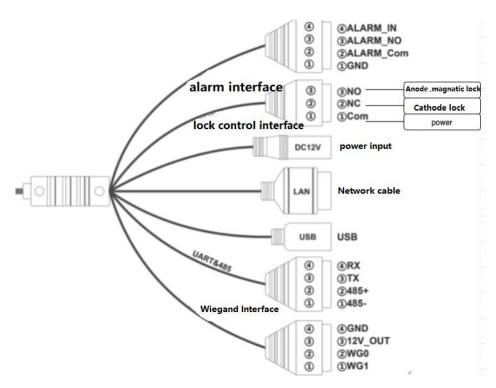


Figure 2.5 Wiring Interface

Software configuration: enter the personnel authority page (refer to the user manual) and set the door sensor type to "normally open".

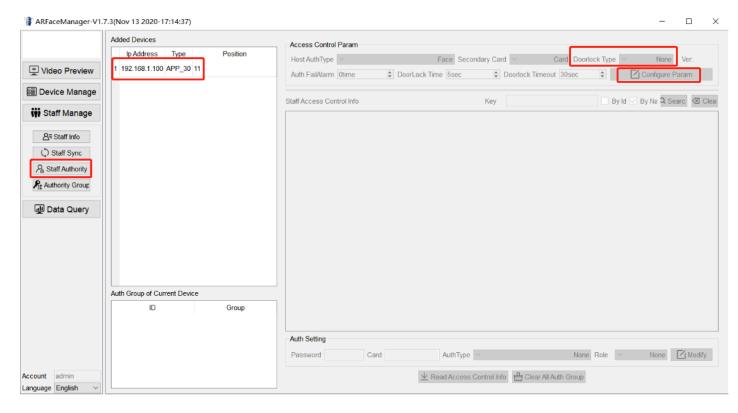


Figure 2.6 Software Configuration Setting

#### 2.4.1.1 Unlock Button

If the access control system has button unlock function, the hardware wiring is as follows:

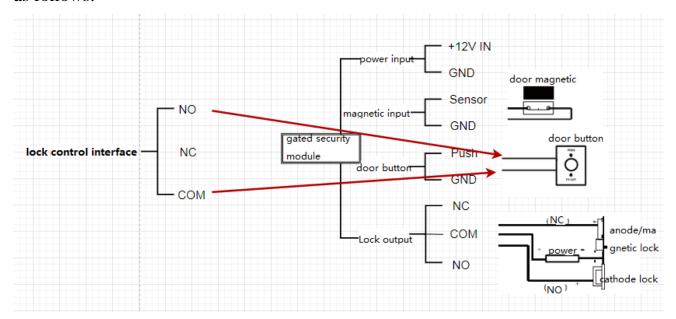


Figure 2.7 Wiring Instruction (Unlock Button)

#### 2.4.1.2 Anode/Cathode Lock

If the access control system does not have the door button function, the access controller can directly drive the door lock to open and close, and the peak current of the door lock cannot exceed 1A.

The hardware wiring is as follows. The switch signal can directly output 12V, and no external power supply is required to supply power to the door lock.

Note: After removing the power supply, the original door can not be unlocked.

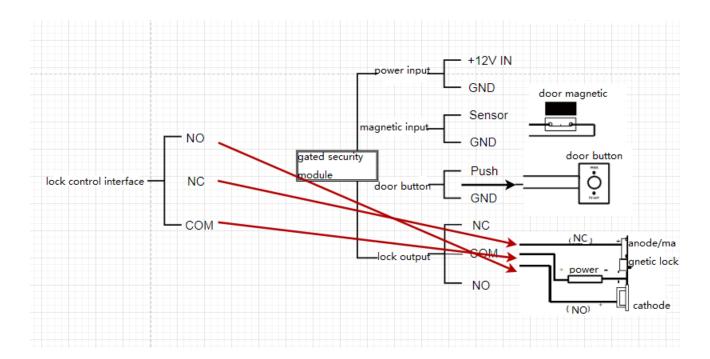


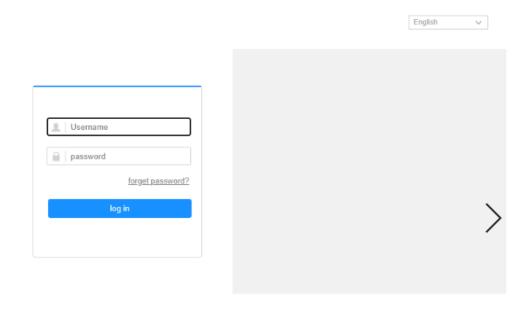
Figure 2.8 Wiring Instruction (Anode/Cathode)

Software configuration: In the ARFaceManager tool interace, enter the personnel authority page (refer to the subsequent chapters), and set the door sensor type to "normally closed".

# 3. Operation Guide

# 3.1 Web Login

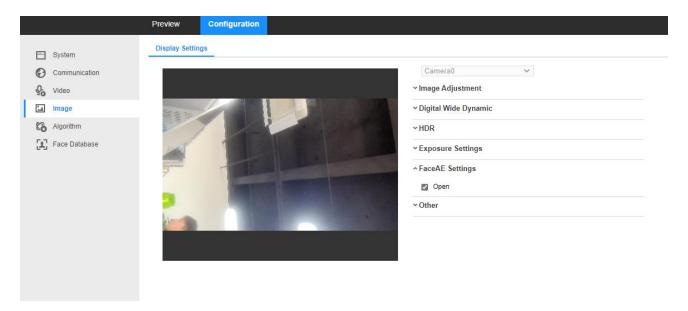
The default administrator account of the camera is admin. For the first time use, set the password according to the pop-up page box to access the camera. After setting the password, click "OK". Enter http://IP address:8080 in the address bar of the IE browser, and the following login interface will appear. Enter the user name and password to log in.



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Figure 3.1 Login Interface

After the username and password match, enter the web page to perform the corresponding function setting operations of the device as shown in the figure below.



**Figure 3.2 Operation Interface** 

## 3.2 Web Main Interface Introduction

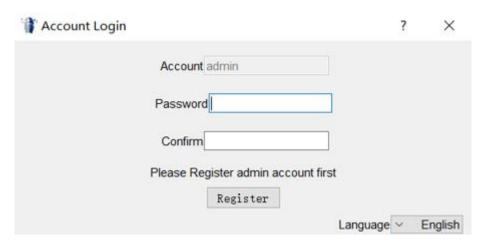
On the Web main interface of the camera, you can perform operations and configurations such as preview, parameter setting, face library, intelligent analysis, video and audio, and communication.

- 1. Preview: used for access controller monitoring screen preview and operation control.
- 2. Settings: Enter the access controller configuration interface to configure the system and functions, such as face library, intelligent analysis, network communication, video and audio.

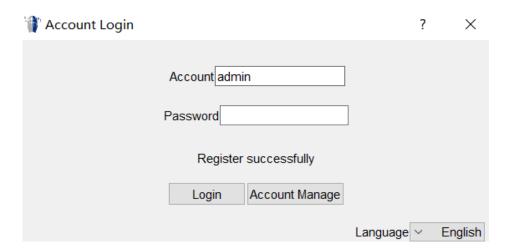
# 3.3 Client Login

The default administrator account of the terminal is admin. You need to set a password for registration when you log in for the first time. After successful registration, you can enter the client interface.

## Registration Interface



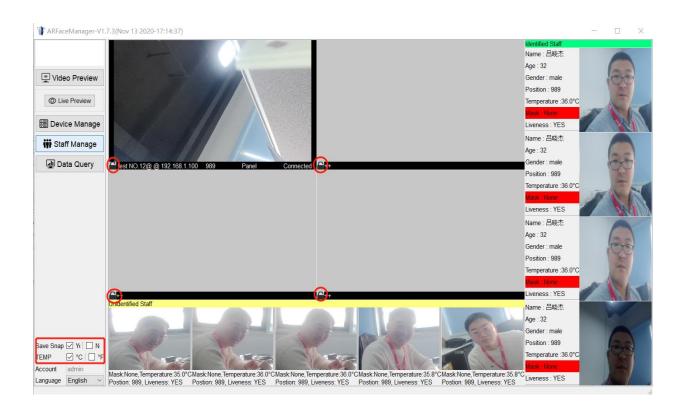
Login Interface



## 3.4 Client Main Interface Introduction

On the client main interface of the camera, you can perform operations and configurations such as preview, device management, staff management, and data query.

- 1. Preview: used for access controller monitoring screen preview and operation control.
- 2. Device Management: Enter the device management interface to search camera, add camera, set camera configurations and other operations.
- 3. Staff management: personnel information query, personnel information synchronization, personnel authority settings, authority group management and other operations and configurations can be set.
- 4. Data Query: Enter the data query interface to filter and export personnel attendance records according to skin temperature and mask attributes for analysis by attendance managers.



#### **FCC Statement**

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.

#### FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. 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 consider removing the no-collocation statement.

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.

#### Caution!

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