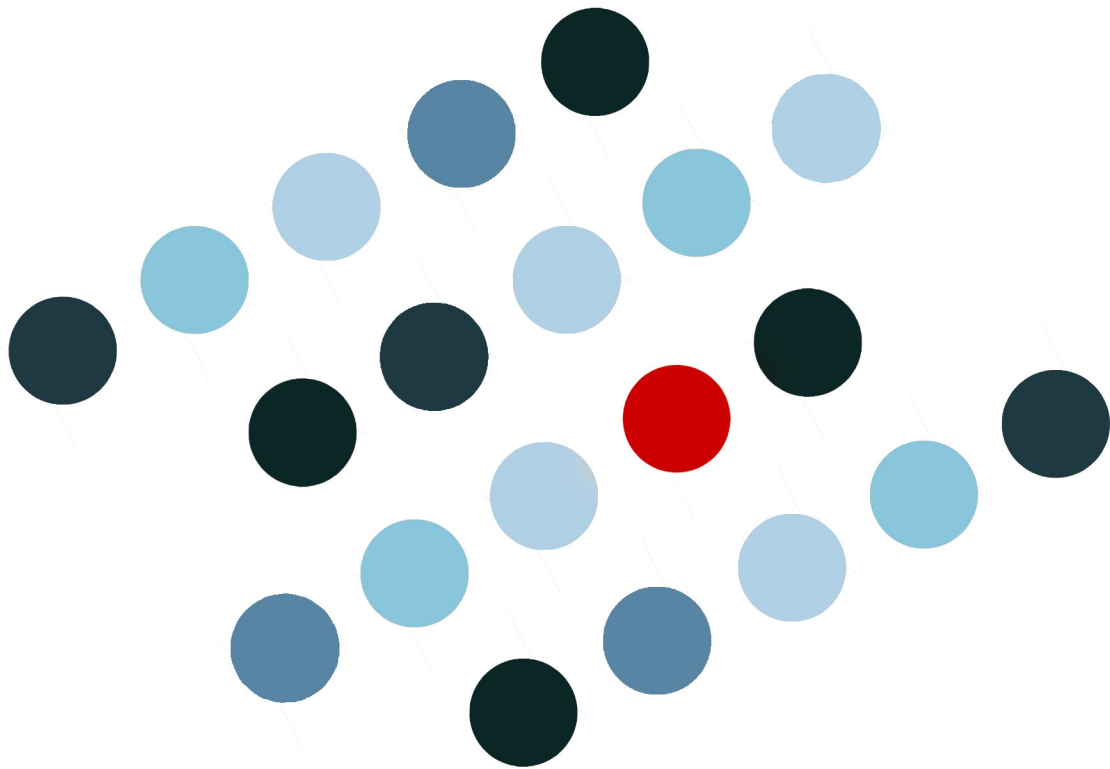


# CVX021

Facial Recognition and  
Temperature Measurement



Operation Manual

## CVX021 Quick Start

### Device



#### Environment:

- Indoor use (unless in an enclosure)
- Do not put device in direct sunlight or glare
- Keep effective read distance (12-24" from screen)

#### 1. Power On.

Connect 12V DC power supply, press on button.

#### 2. Test.

Position your face in frame of the camera with the dot on your forehead. It will display temperature and recognition status (stranger until registered). Test the temperature reader by holding a glass of hot water in front of your forehead during scan.

#### 3. Login.

Tap icon "Facial Recognition Device" to access admin and configuration menus.

**Default password is 123456**

#### 4. Configure.

Set device admin name and password, calibrate temperature and detection, connect to relay, connect to network, add personnel, take photos, import/export data, synchronization, etc.

### Software



#### Environment:

- Windows 10/8/7
- Google Chrome Browser Recommended
- LAN, Static IP Address, WIFI/Ethernet 2.4ghz

#### 1. Download MoFace Software.

[www.turnstiles.us/cvxsoftware](http://www.turnstiles.us/cvxsoftware)

Select the latest version.  
Continue through install wizard.  
Restart may be required.

#### 2. Launch.

Double click the new desktop icon and the program will open in browser.

#### 3. Login.

Start with the default. Later make an admin login, local to your computer.

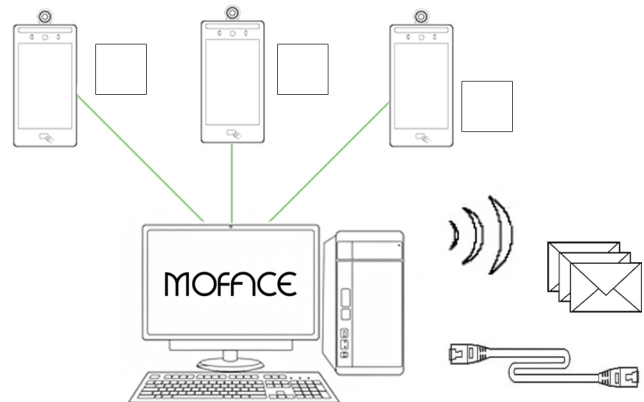
**User: sys\_admin Pw: sys123456**

#### 4. Configure.

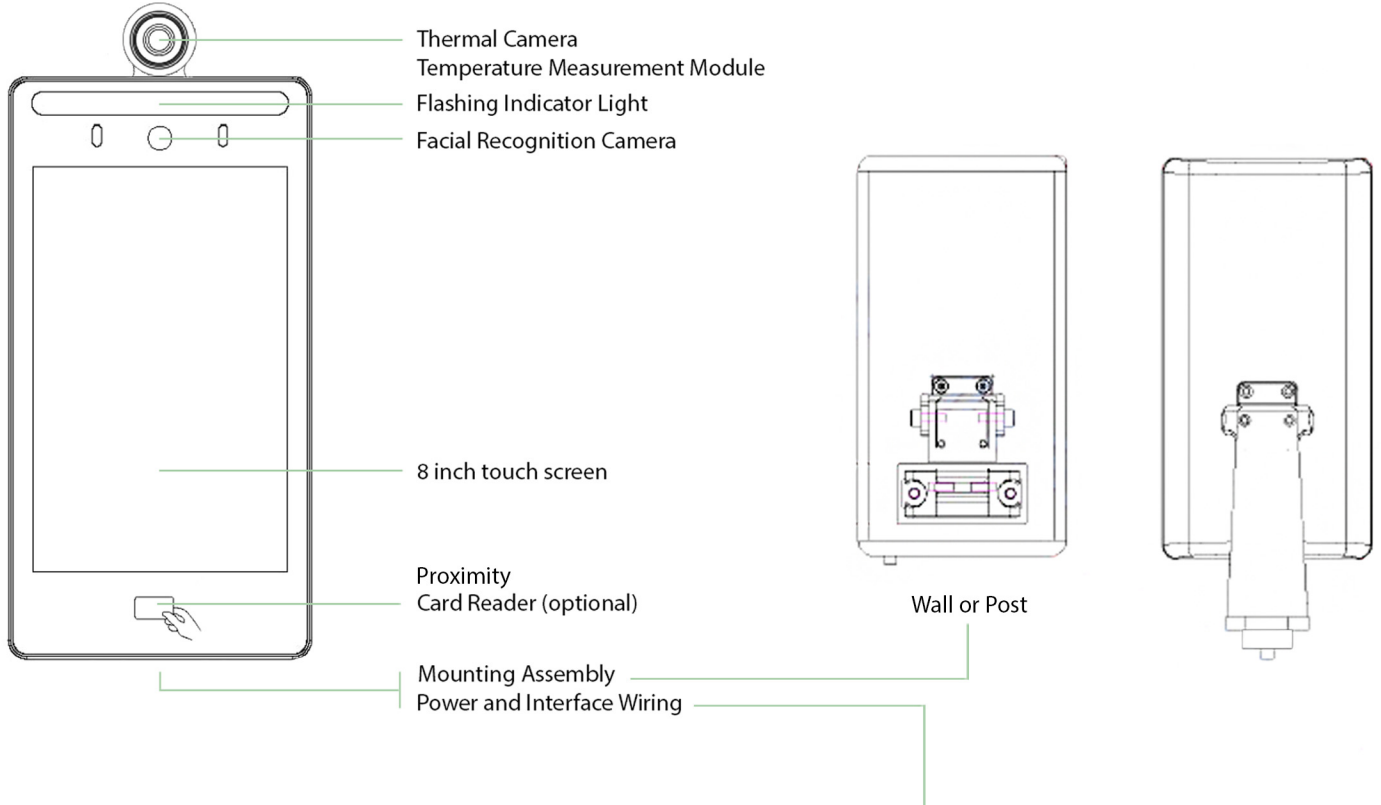
Set software admin name / password / profile, connect to network, add device, add personnel, manage jobs and areas, import/export data, set up mailbox alerts, etc.

### Connection Overview

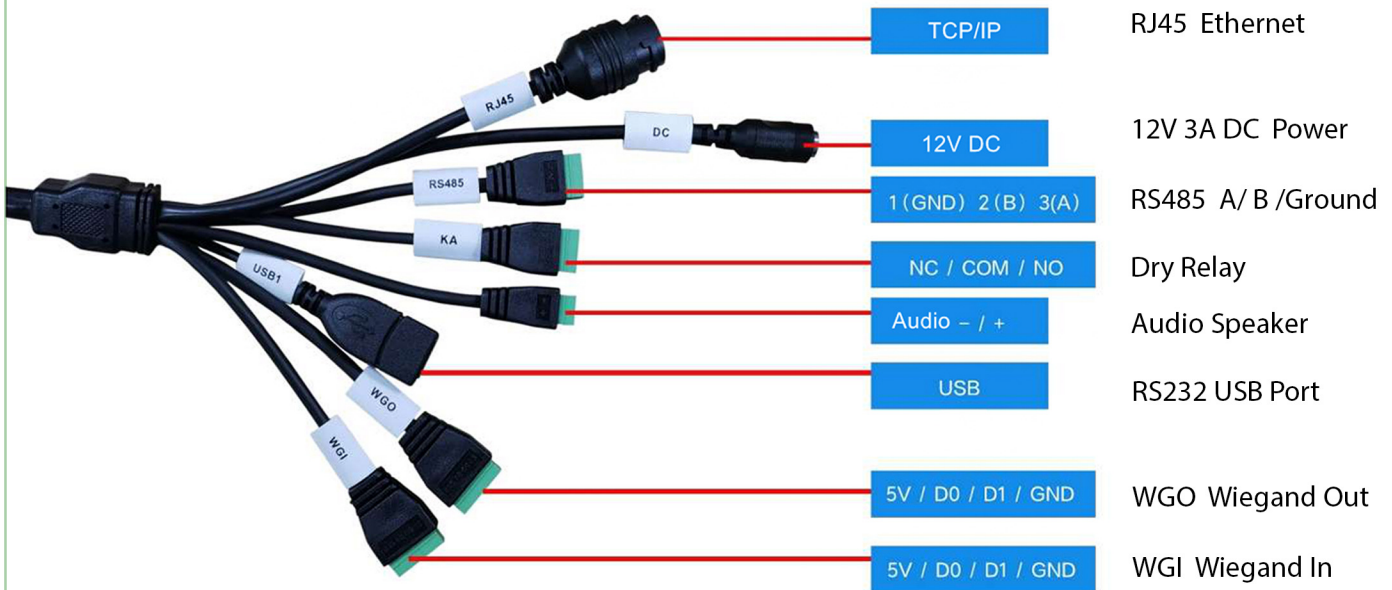
- Device works alone or with MoFace Software
- Devices operate independently with the server
- Import and export data between them in .xls
- Import your existing .xls employee list
- Add peripheral access control electronics
- Connect to a turnstile or door lock control
- Connect by WIFI or Ethernet
- Recommended: connect all devices to the same LAN



## DEVICE OVERVIEW



## CONNECTIONS

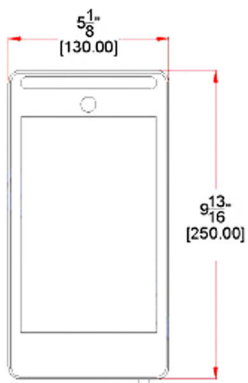




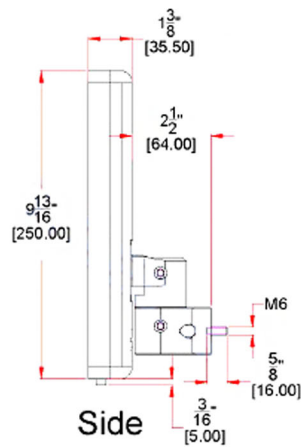
## CVX021 Contactless Facial Recognition Terminal with Infrared Thermometer

### DIMENSIONS

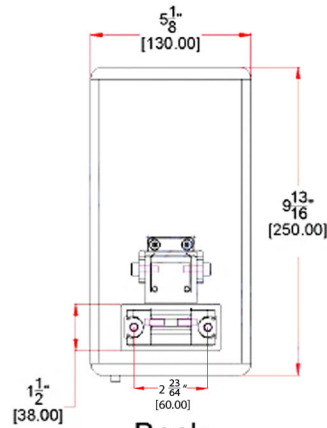
Shown in inches and [mm]



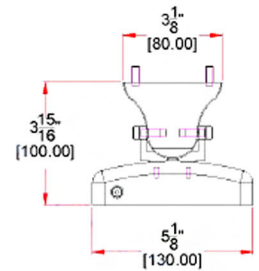
Front



Side

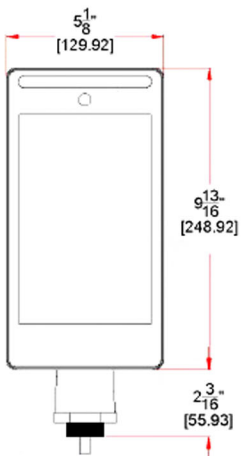


Back

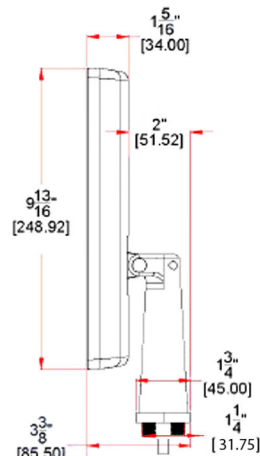


Top

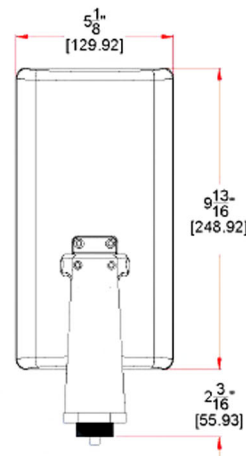
### WALL MOUNT



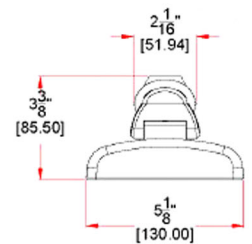
Front



Side



Back



Top

### POLE MOUNT

# MOFACE SOFTWARE

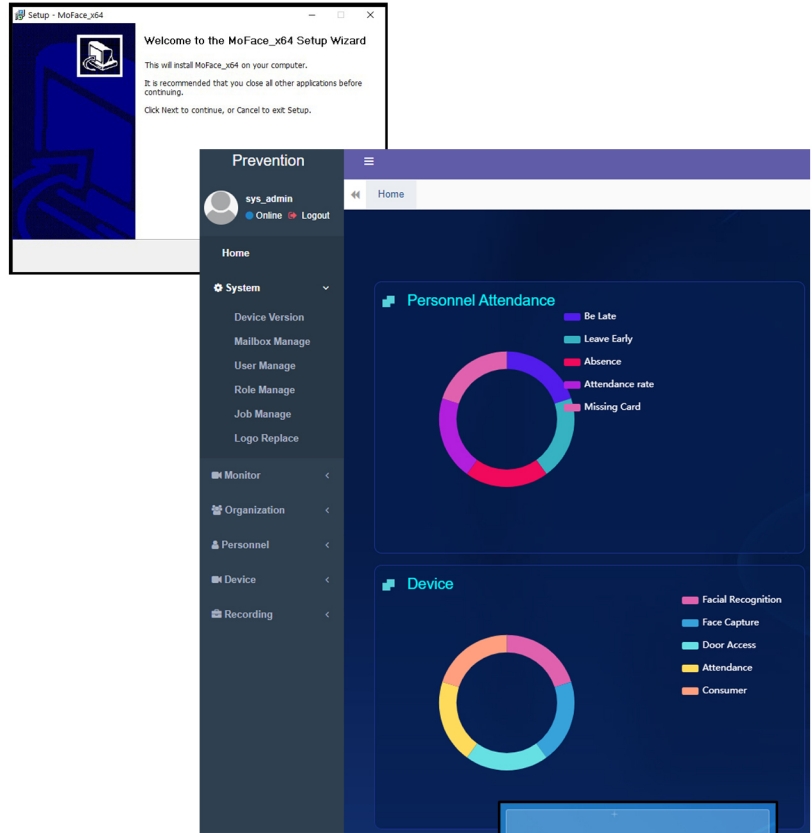
**1. Download MoFace Software:**  
[www.turnstiles.us/cvxsoftware](http://www.turnstiles.us/cvxsoftware)

Select the latest version.  
 Continue through install wizard.  
 Restart may be required.

**2. Launch.** Double click the new icon and the program will open in browser.

**3. Login.** Start with the default. Make your own login later, local to your computer.  
 User: sys\_admin Pw: sys123456

**4. Explore and Customize.**  
 Set admin info, user name and password, connect to network, add personnel, add devices, import/export data, set up mailbox alerts, and more.



# SYSTEM ENVIRONMENT

**Recommended Operating System:** Windows 10, 64-bit  
**Recommended Browser:** Google Chrome

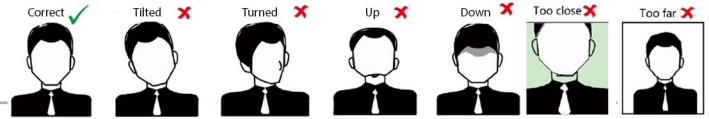
**Recommended Hardware Requirements:**

Hardware	Requirements
Platform	> CPU i/3/4GB memory
Server	> 100GB hard drive
Power Supply	12V

**Software/Environment Requirements:**

Software	Requirements
Platform Server	Windows 64-bit
OS Version Support	Windows 10 / Windows 8/ Windows 7
Browser Support	Google Chrome, Firefox, IE11
IP Address	Configure a server static IP address
Network Firewall	Turn off, or configure the firewall 16560 port access rule
Wifi and Ethernet	2.4ghz

# User Registration



## Preconditions

- MoFace Software is installed
- Server and devices are connected to LAN
- Devices are added in Device Manager
- Company and Department names assigned
- Images meet requirements

## Methods

- Register on Software (Recommended)
- Register on Device

## Image Requirements

Your uploaded images serve as an initial Registration Map, allowing the system to correctly associate names with faces for recognition at the terminal.

- Face forward position, natural expression
- Make sure eye/forehead area is visible, even lighting
- Use .JPG images, with Title matching Name field exactly
- Use a high resolution image (no less than 96ppi-300ppi)
- Note that photo quality impacts recognition accuracy



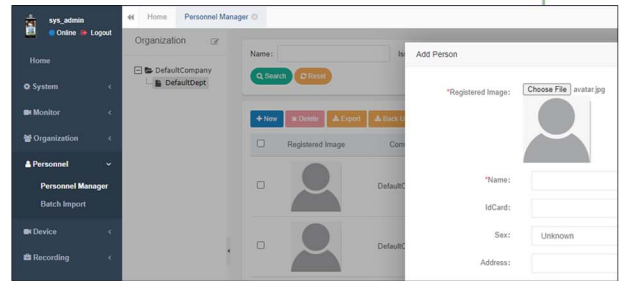
## Register on Software

Add users (individually or in bulk batch) through MoFace, then push data to all devices.

## Add Users



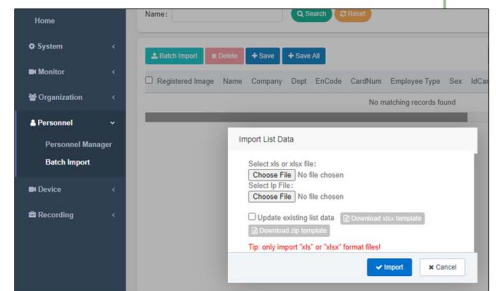
1. Login to MoFace Software
2. Personnel > Personnel Manager
3. Select the Department then click +New
4. Add a .jpg image, fill out fields and Confirm



## Batch Import

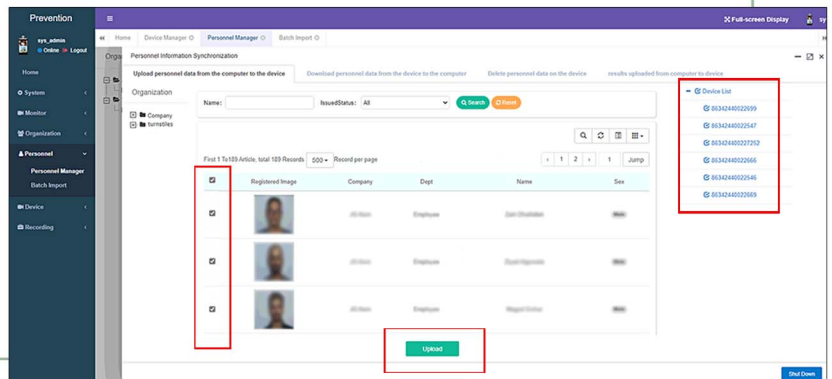


1. Login to MoFace Software
2. Personnel > Batch Import > Batch Import
3. Download .xls template and .zip template for editing\*\*
4. Batch Import > Select the edited .xls and .zip files > Import



## Sync Data to CVX021 Devices

1. Personnel > Personnel Manager > Personnel Information Synchronization
2. Check boxes of Personnel to sync
3. Check boxes of devices in the Device List
4. With items selected, Click Upload

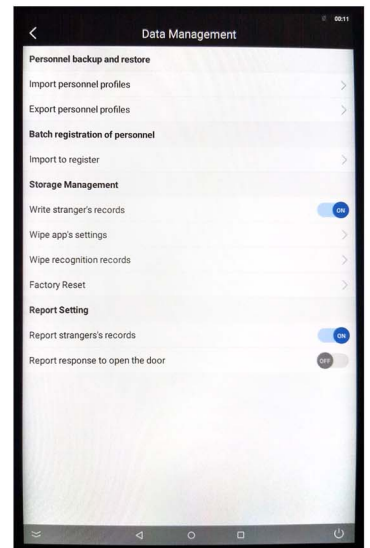
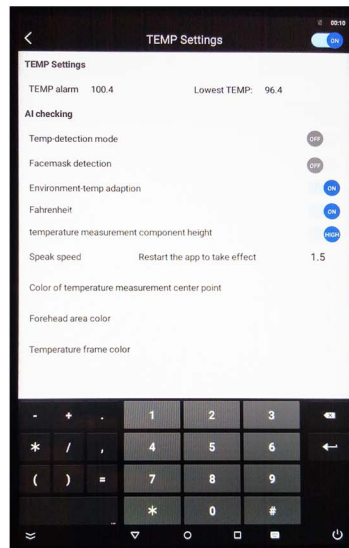
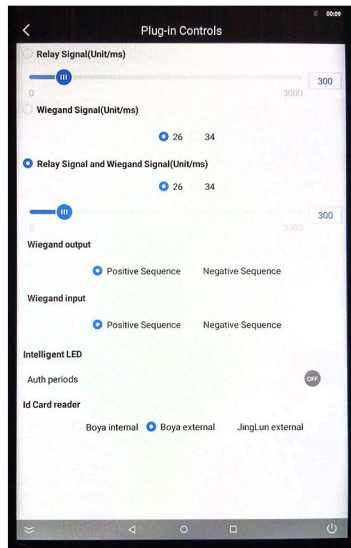
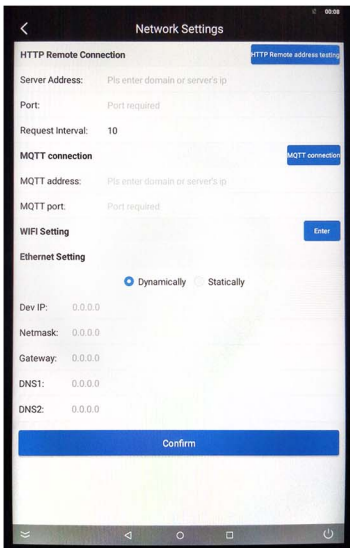
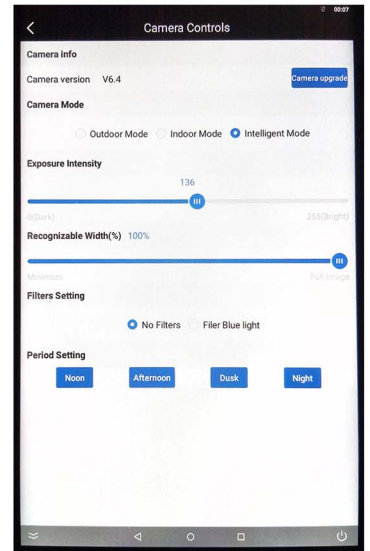
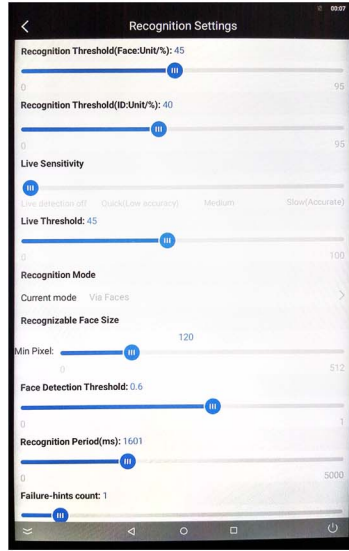
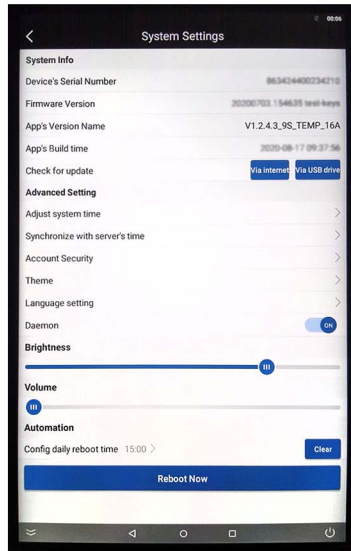
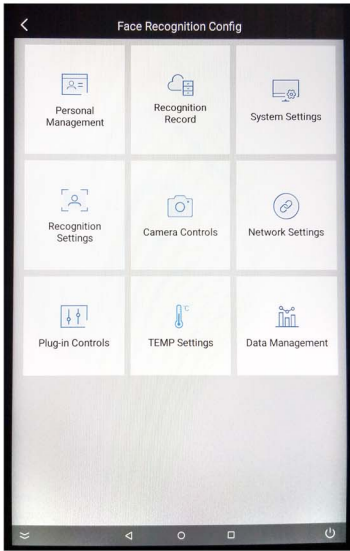


\*\* For more details, please refer to Database Management Operation Guide.

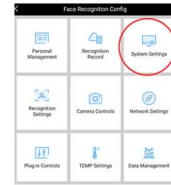


# Device Settings

The CVX021 device functions can be customized and settings adjusted for your convenience. A factory reset can also be performed to restore defaults if desired.

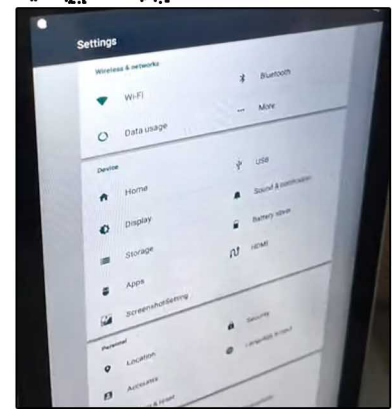
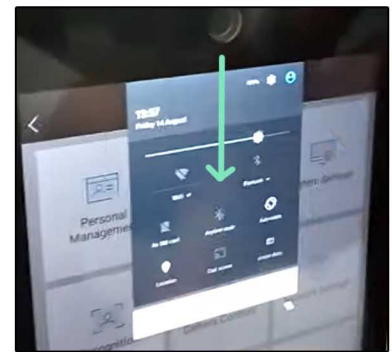


# System Settings



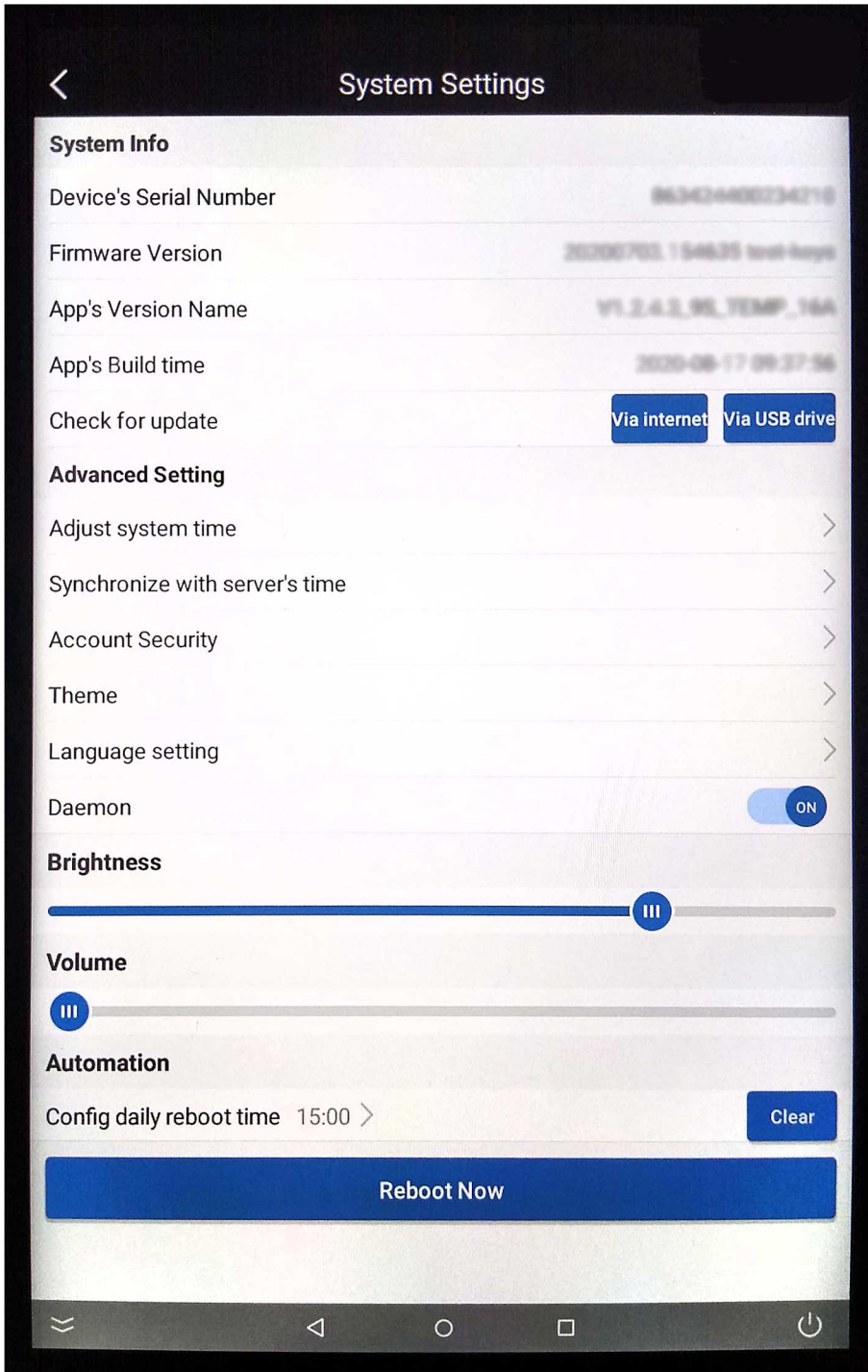
Under System Settings, access system information, advanced settings and device controls.

For more advanced settings, Go to the home menu and Swipe Down from the top of the screen to open a drop-down and click the gear icon.



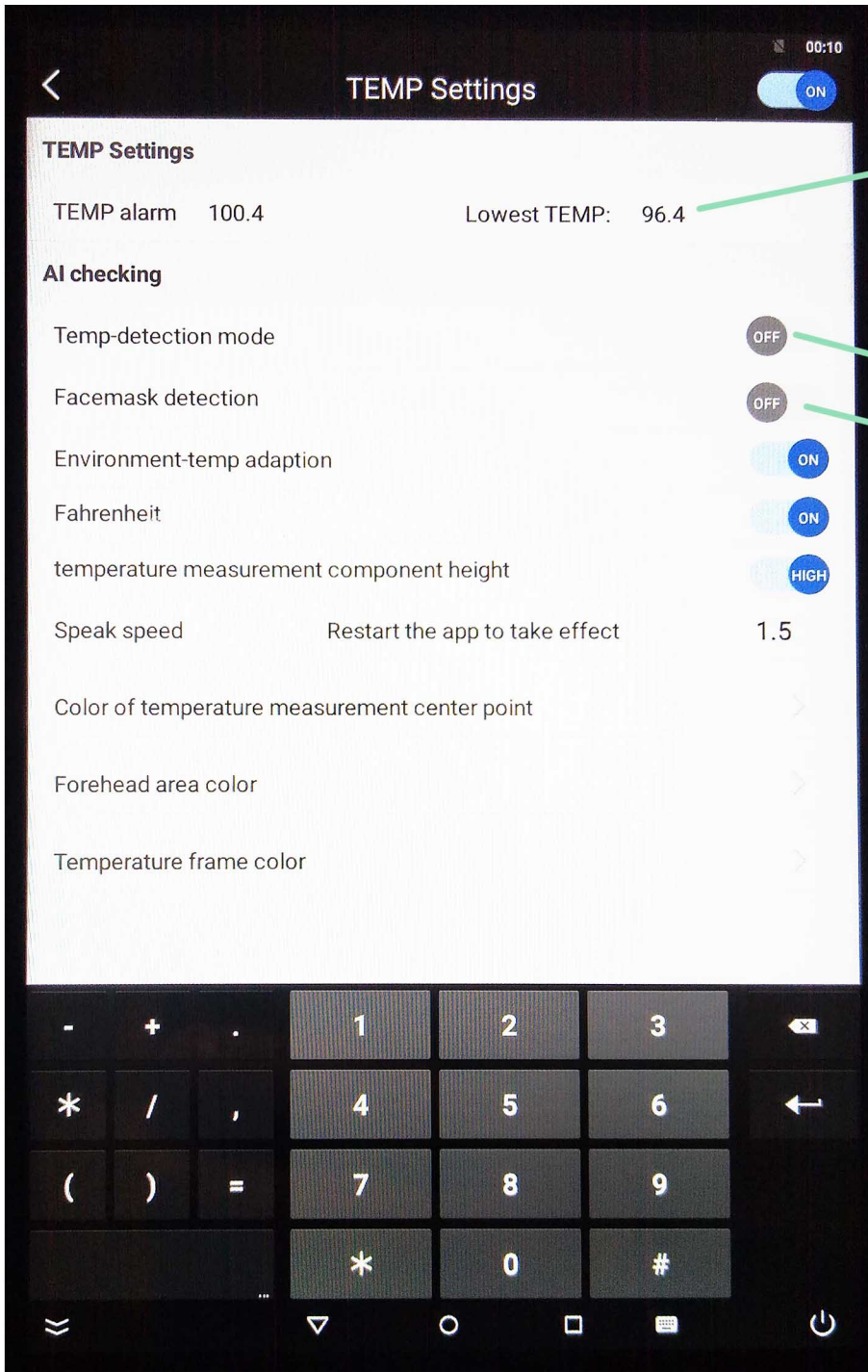
Adjust the Volume output. Controls both the voice and buzzer alarm.

Perform a Reboot of the device.





# Temperature Detection Settings



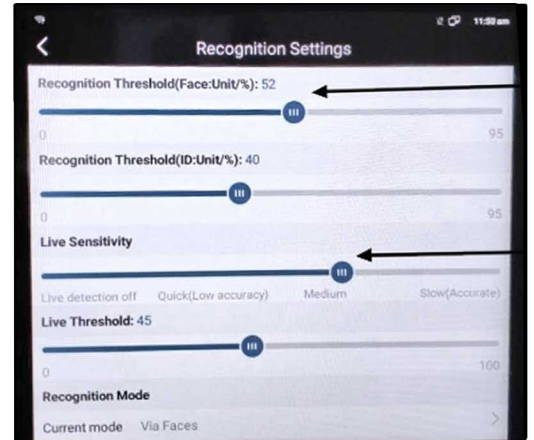
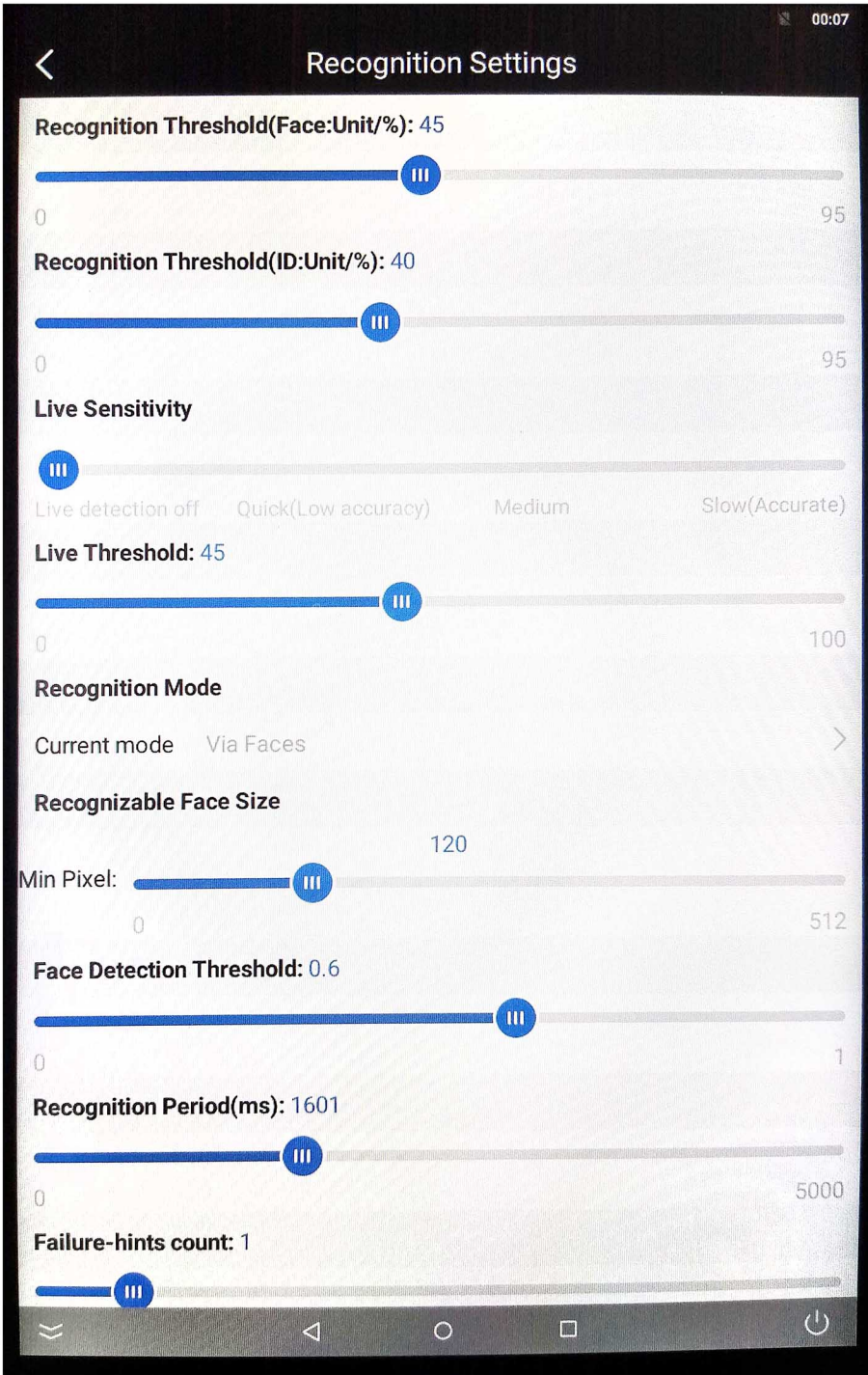
Set the permitted temperature range maximum and minimum values.

Toggle OFF/ON detection modes. Use features independently or simultaneously.

Switch ON to enable temperature detection.

Switch ON to enable facemask detection. If no mask is detected, a popup will show reminding users to wear a mask.

# Recognition Settings



Above: Set Recognition Threshold to 52 or higher to improve live recognition accuracy.

Set Live Sensitivity to Medium to turn on living body detection.

# Wiring Connections

## RJ45 (TCP/IP) Ethernet

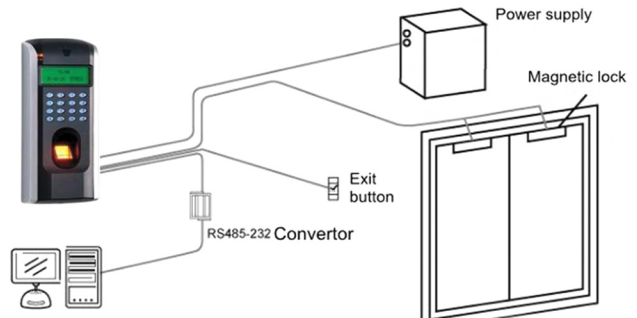
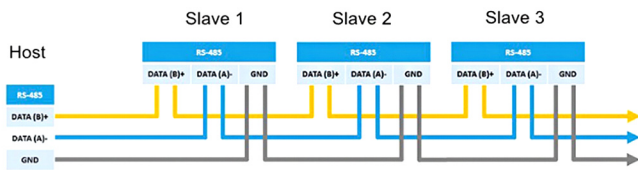
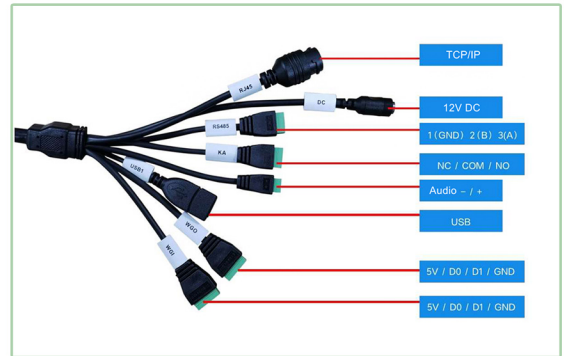
Devices on the network can be connected by ethernet cable.

## 12V 3A DC Power Supply

The power supply should plug in to a grounded outlet.

## RS485 Connection 1(GND) 2(B) 3(A)

The RS-485 communication mode: the transmitter converts the TTL level signal of serial port into differential signal a and B, and then converts the differential signal to TTL level signal at the receiving end after cable transmission. please have a look at the typical example at below picture, it can be used for access control system, With the development of TCP / IP, RS485 interface is less frequently used now.



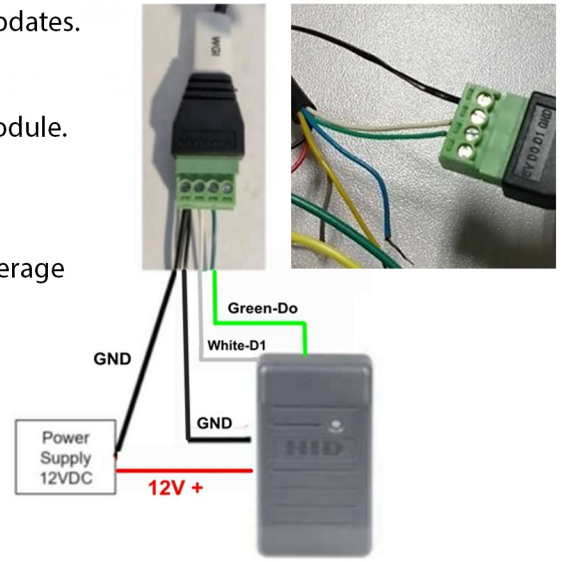
**KA NC / COM / NO** (Normally Closed, Common, Normally Open) SPDT Single Pole Double Throw Relay  
The KA relay provides a switch signal, its voltage and current are very low, almost negligible but enough for a door lock. The voltage is about 0.3V, the current is about 200mA. Pay attention that when working with the power supply, the NO terminal should connect with the PUSH of power supply, the COM terminal connects with the COM of power supply.

**Audio Speaker**  
Use this connection to play device audio through an external speaker.

**RS232 USB Port**  
The USB is used for connecting devices, transferring data, and flashing updates.

**WGO Wiegand Output**  
The WGO is Wiegand output, it should connect with an access control module. Recommended 26 Bit.

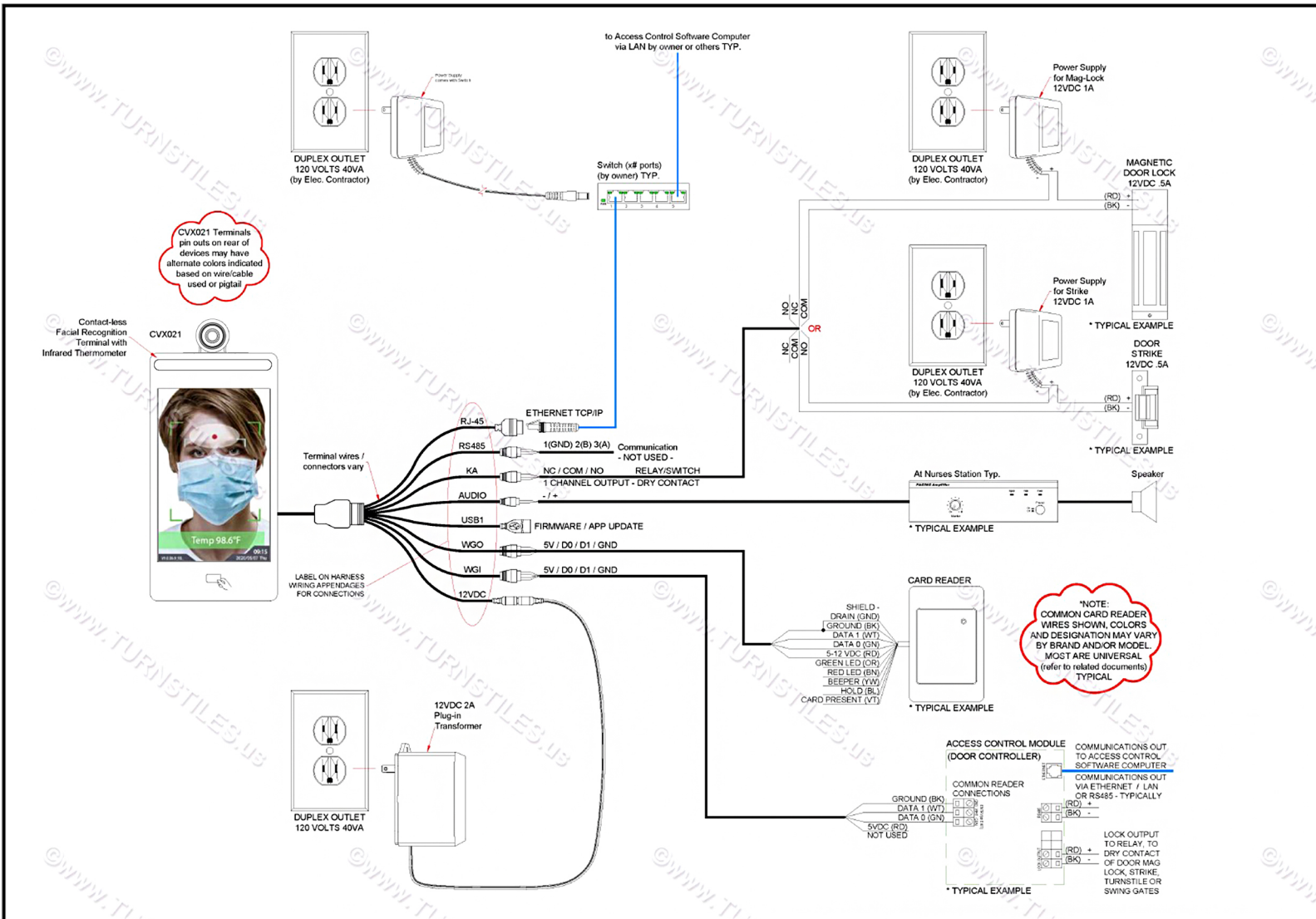
**WGI Wiegand Input**  
The WGI is Wiegand input, it should connect with a card reader. The amperage rating on the 5 volt Wiegand circuit of input and output is 5V 1 A. Please note that the input from WGI is also an external output: Do Not not put current into this end of the equipment. Recommended 26 Bit.





# CVX021 Contactless Facial Recognition Terminal with Infrared Thermometer

## Wiring Diagram Multiple Typical Connections



**CVX021 Facial Recognition Terminal with Thermometer - Wiring Options Multiple Typical Connections**

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**Patrick McAllister**  
8641 S. Warhawk Rd.  
Conifer, CO 80433  
Tel: 303-670-1099

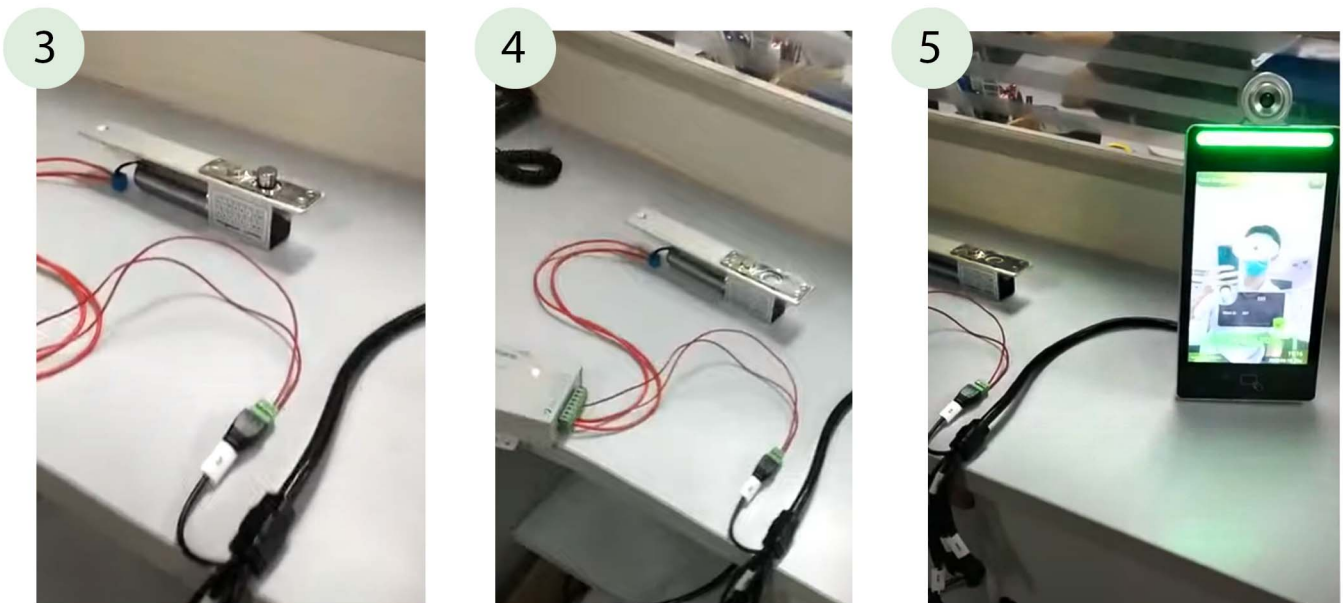
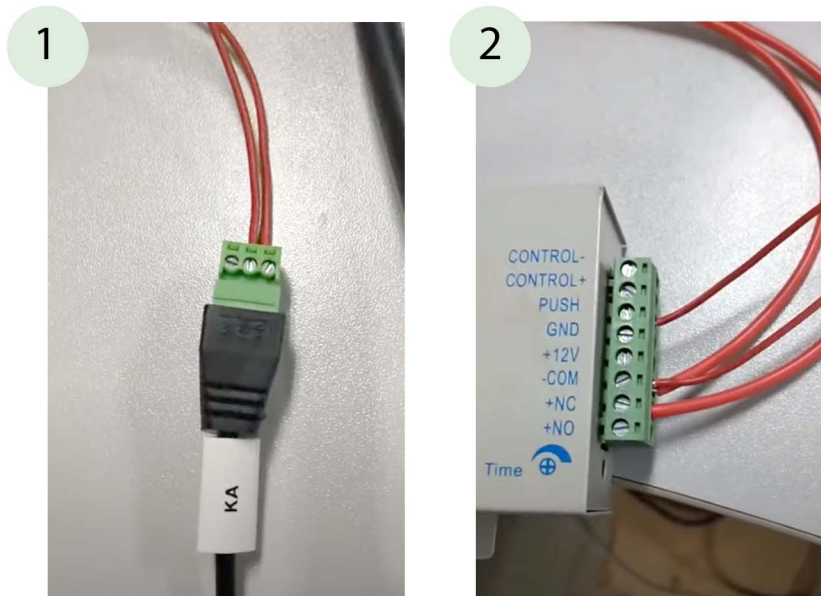
## Connect to an Electric Lock

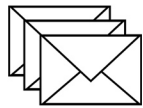
\* Unplug device power supply to begin

1. Connect access control wires to KA output
2. Connect the other end of these wires to your power supply control input
3. Connect power supply control output to the lock
4. With wiring as shown, plug in and power on device
5. Test the device with a valid scan to see the lock open

- Tip/Recommendation: Use a separate grounded power supply for each powered item instead of linking multiple items through one connection.

- Wiring rule of thumb: Use only 70% of given power rated output to ensure parts never overheat, extending equipment longevity.

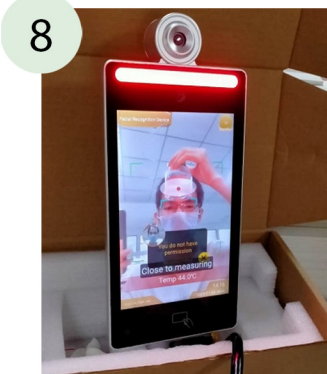
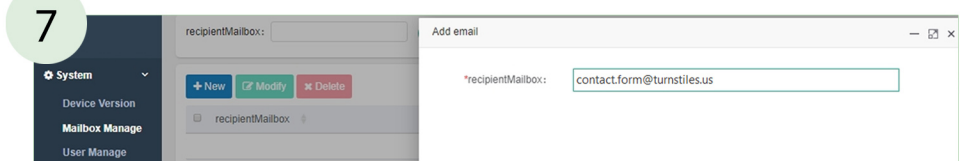
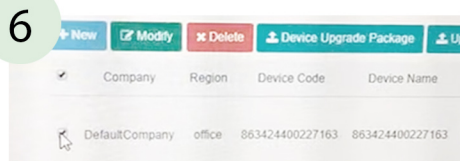
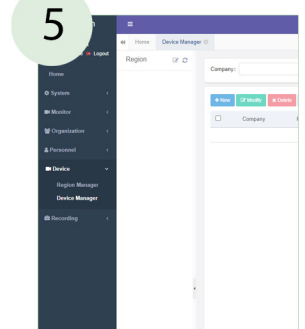
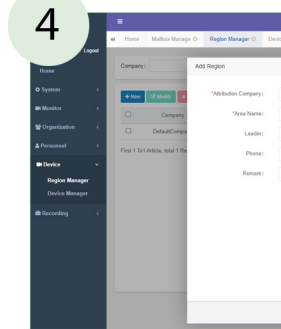
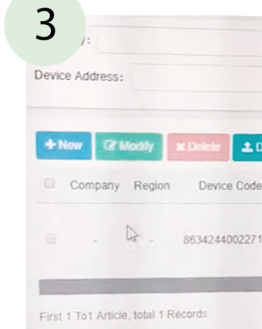
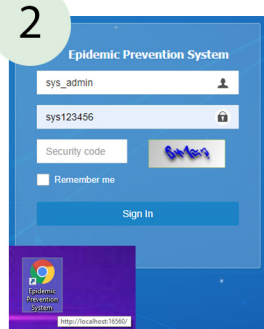




## Set Up Email Alerts

Set up 'fever alert' email notifications. When the CVX021 detects a fever, it can record the temperature, user name, date/time, take a photo, and send an alert to registered administrator mailboxes.


1. Make sure Device and Computer are both connected to the same Ethernet.
2. Make sure you have the latest MoFace Software for desktop installed. Open it and log in to your administrator account or use the default (user: sys\_admin pw: sys123456)
3. Device > Device Manager > See if your device is listed. If not, click Refresh or Add New to add a Device.
4. Region Manager > Add New > Select Company (Default Company). Input Region/Area Name (eg office). Confirm.
5. Device Manager > Select Device > Modify > Select the same Attribution Company/Region Name. Confirm.
6. Select device again by checking the box. Click Open. Popup should say Operation Succeeded.
7. System > Mailbox Manage > Add New > Input Recipient Mailbox. Confirm.
8. Go to the Device. Test the new function by triggering the high temperature detector.  
(Try holding a glass of hot water in front of your forehead for the scan)
9. Check your email for the fever alert.



**Fever alarm** ★

**1658518404**  
www.TURNSTILES.us

From: 1658518404  
To: www.TURNSTILES.us <contact.form@turnstiles.us>  
Subject: 2020-07-06 Fever alarm 14:16  
Size: 21 KB

Captured	Company	Device Name	Name	Temperature	Status	Create Time
		863424400227163		44.0	Fever	2020-07-06 14:16:04

# CVX021

Facial Recognition and Temperature Measurement



**TEMPERATURE  
CHECK**



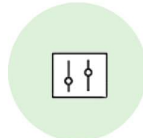
**FACIAL  
RECOGNITION**



**MASK  
DETECTION**



**EMAIL  
ALERTS**



**PLUGIN  
CONTROLS**



**ACCESS  
LOGS**



**FULL ACCESS TO  
OPEN SOURCE .APK  
BUILD YOUR OWN APPS**



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