

# Quick Start Guide

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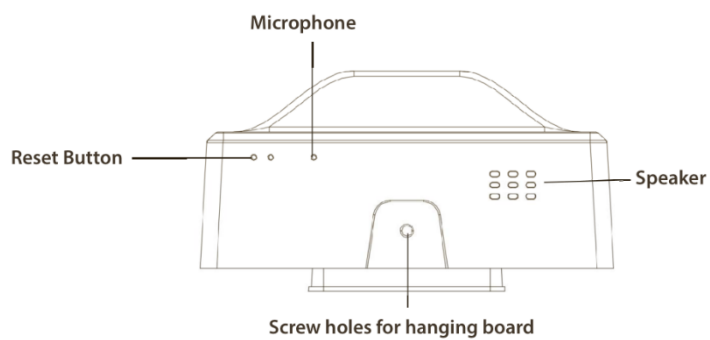
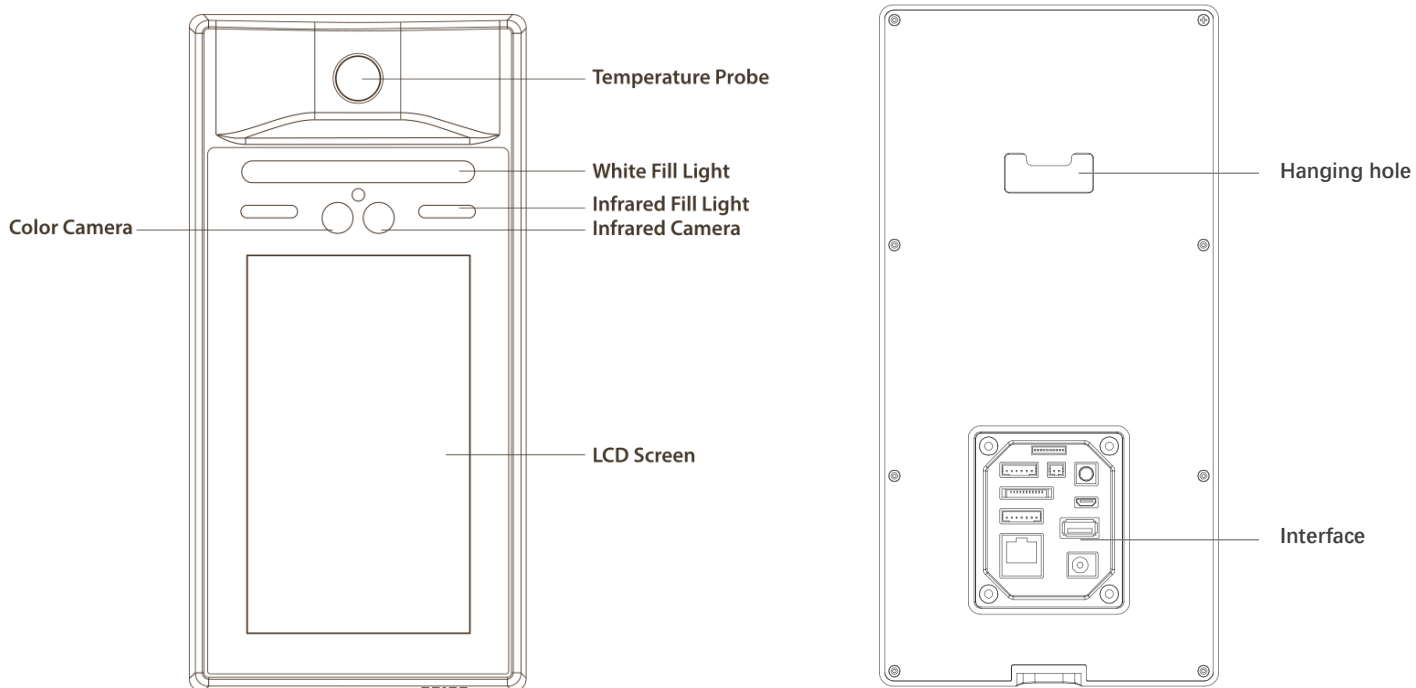
FACE RECOGNITION SCANNER

AI-321

V1.1

[WWW.CEM-INSTRUMENTS.COM](http://WWW.CEM-INSTRUMENTS.COM)

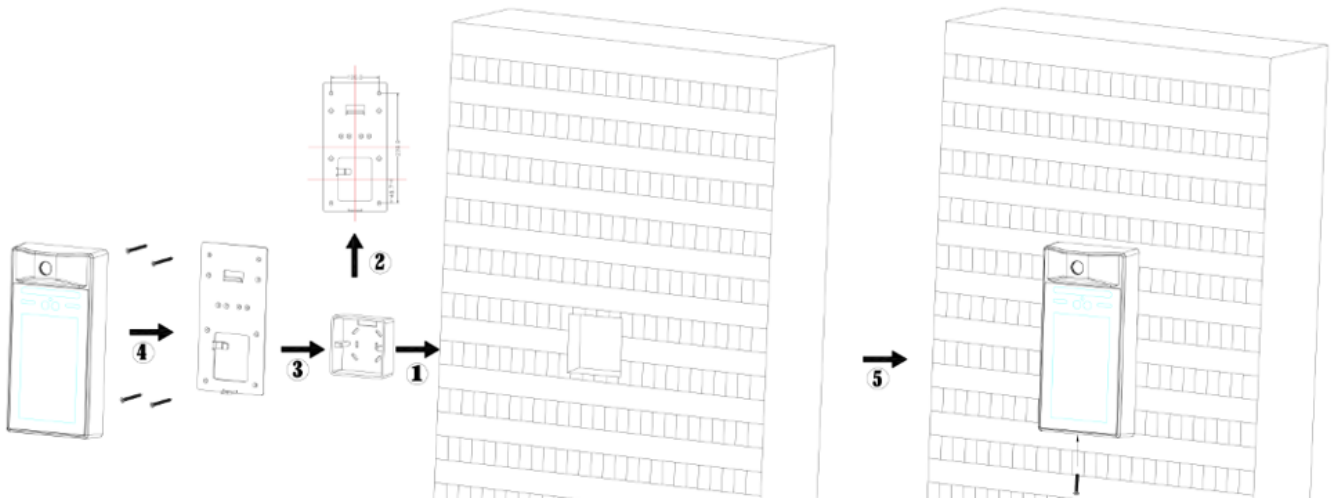
# 1 Product Appearance



## 2 Install Instruction

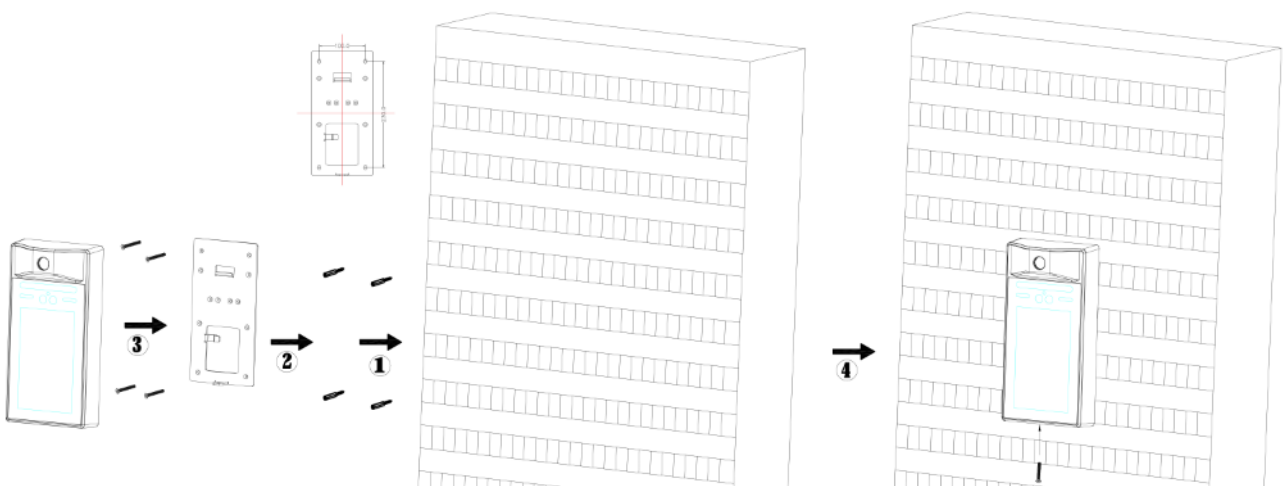
### Box 86 for Wall-Mounted Installation

1. Install stickers on the wall, and make holes in the wall according to the height and position of the stickers to install Box 86
2. Align the outlet of the hanging board with the center of the Box 86, punch four mounting holes on the wall according to the punching size diagram, and insert four wall plugs.
3. Use four KA4 \* 25 screws to fix the hanging board to the wall. Connect the cable of the external device to the cable, arrange the cables, and determine the cable outlet method.
4. Hook the device from top to bottom on the mounting plate, and make sure that the upper part of the hanging plate is inserted into the groove on the back of the device.
5. Fix the device and the hanging plate from the bottom with a screw.

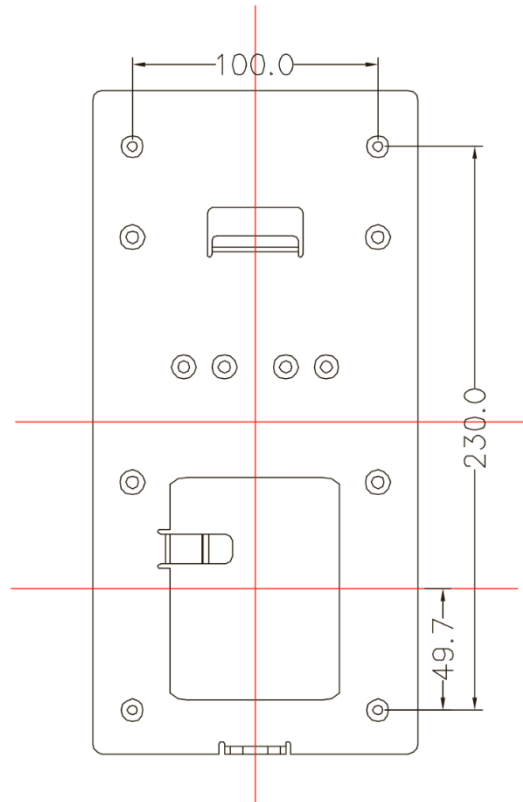


### Wall-Mounted Installation

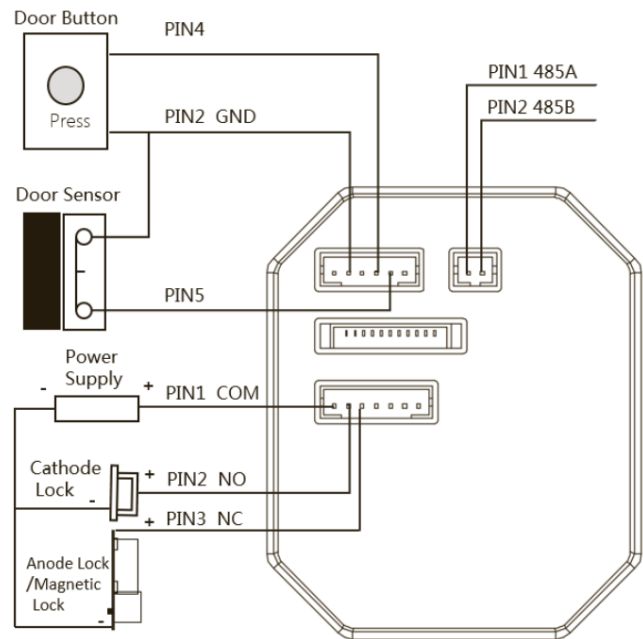
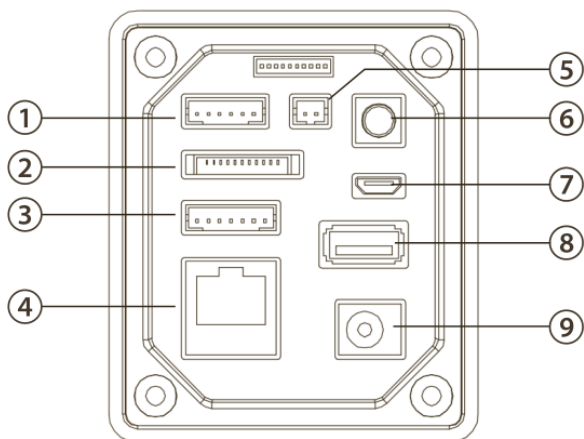
1. Attach an installation sticker to the wall, make holes in the wall according to the height and position of the sticker, insert a wall plug, and install 4 hex screws.
2. Fix the hanging board on the wall with four KM4 \* 10 screws.
3. Hook the device from top to bottom on the hanging board, and make sure that the upper part of the hanging board is inserted into the groove on the back of the device.
4. Use a screw to fix the device and the hanging plate from the bottom.



## Wall punching size chart



## 3 Interface Instruction



① 6PIN Door Button , Door Sensor , Alarm Interface

1	2	3	4	5	6
5V	GND	NC	Door Button	Door Sensor	Alarm

② 11PIN Reserved IO

1	2	3	4	5	6	7	8	9	10	11
	PWRON	IO7	GND	3.3V	IO6	IO5	IO4	IO3	IO2	IO1

③ 7PIN 12V Power Supply, Relay Interface

1	2	3	4	5	6	7
COM	NO	NC	GND	GND	12V	12V

④ Ethernet port

⑤ 2PIN 485

1	2
485A	485B

⑥ Tamper key

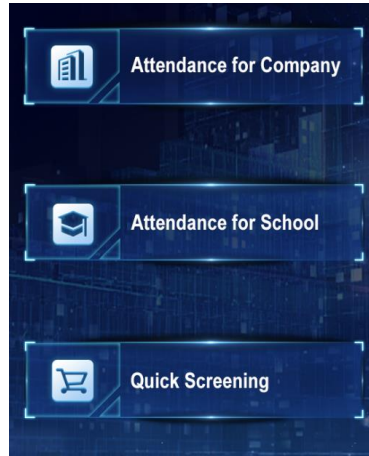
⑦ Micro USB Port

⑧ USB-A Port

⑨ 12V Power Adapter Socket

## 4 Product Function Overview

This device provides 3 usage modes: Attendance for Company, Attendance for School and Quick screening. Users can choose the appropriate application mode according to their needs.



### 1. Attendance for Company

This mode can perform temperature detection and identification of company employees, and complete temperature measurement, attendance and access control at the same time. This mode needs to be used in conjunction with Attendance Management Software for Company.

### 2. Attendance for School

This mode can perform temperature detection and identification of students, and complete temperature measurement, attendance and access control at the same time. This mode needs to be used in conjunction with Attendance Management Software for School.

### 3. Quick Screening

This mode only performs temperature detection, which can realize temperature measurement and access control functions. Users can view data through Temperature Cloud APP at this mode.

## 5 Attendance for Company

### 1. Log in to the attendance management software to complete the following operations:

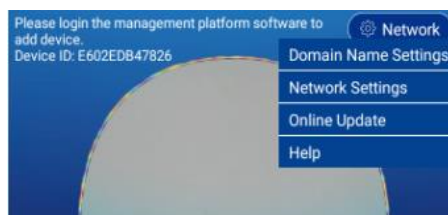
- Add device ID.
- Set attendance rules.
- Import employee information.
- Import employee face photos.
- Configure attendance device and attendance rules for employee.

For the specific operation method, please refer to the instructions of [Attendance Management Software for Company](#).

### 2. Configure device networking

Click the network button in the upper right corner of the interface to make the following settings:

- Set the domain name of the device



**Users who directly use the attendance management cloud service provided by our company can directly omit this step.**

Users who need to deploy attendance management service locally need to modify the domain name address to the actual server IP address.

For specific operations, see the [Local Service Deployment](#) instructions.

- **Network Settings**

Users can choose WIFI or Ethernet to configure device networking.

Users who directly use the access control attendance management cloud service provided by the company only need to configure the device to connect to the external network.

Users who use the local server need to configure the device to be able to access the local server.

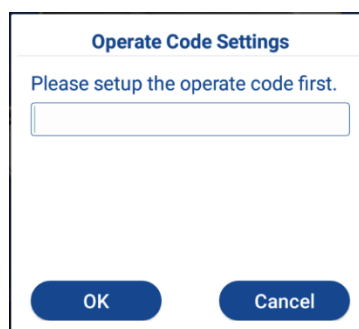
- **Connect Server Successfully**

Users who have successfully connected the device to the server and have completed the operations described at 1 point can see that the text prompt in the upper left corner of the main interface of the device disappears and becomes a menu

 icon.

### 3. Set operate code and synchronize data

- Clicking the menu button  will first ask to set the operation code.

A screenshot of a dialog box titled 'Operate Code Settings'. The text inside says 'Please setup the operate code first.' Below the text is a text input field. At the bottom of the dialog box, there are two buttons: 'OK' and 'Cancel'.

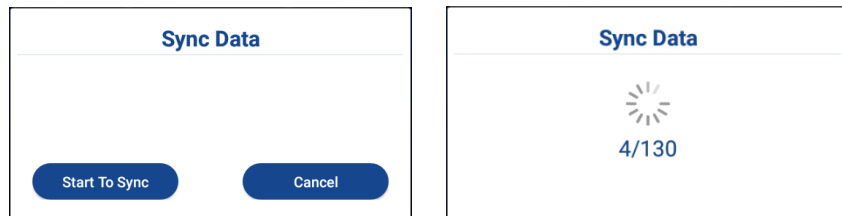
The user can set an operation code by himself, and after clicking the menu icon, the operation code set by the user is required to view the menu item.

If you forget the operation code, you can log in to the attendance management software to enter the device management page to view.

- **Sync Data**

After setting the operation code, the interface will automatically pop up the Sync Data window. Click the **Start To Sync** button to sync the employee information and photos imported by the attendance management software to the device.

After synchronization, the device can be used for employee temperature measurement and attendance.



**Note:** If there are a lot of faces synchronized at one time, the synchronization time will take a long time, please wait patiently

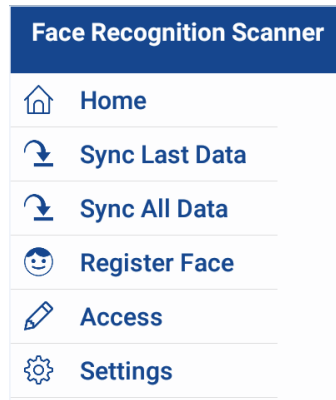
#### 4. Temperature Measurement and Attendance


- Please align your front face with the contour line and keep your forehead unobstructed.
- Keep the distance from the device 30~50cm.





## 5. Main menu item description



The menu icon  is hidden in the main interface, you need to double-click the screen to display it, click the menu icon to pop up the Operate Code interface, and the menu item pops up after the operation code is correctly input.

### 1) Home

Click to return to the homepage.

### 2) Sync Last Data

The device only sync the last modified or added user data and face photos.

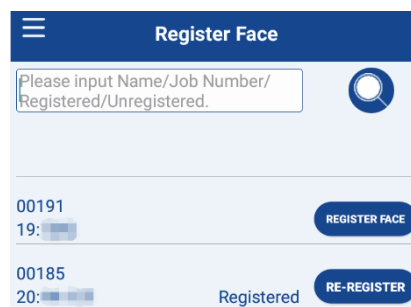
### 3) Sync All Data

The device will clear the local cached data, and re-sync all user data and face photos, which takes a long time.

### 4) Register Face

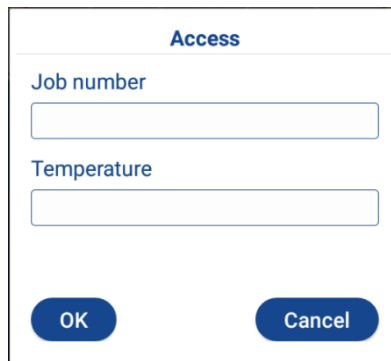
The device needs to synchronize the employee information first, and the employee can register the face after being able to query his information.

You can enter "Name/Job number/Registered/Unregistered" to perform a fuzzy search. After finding the corresponding employee information, select the **REGISTER FACE** or **RE-REGISTER** button to enter the face photo.



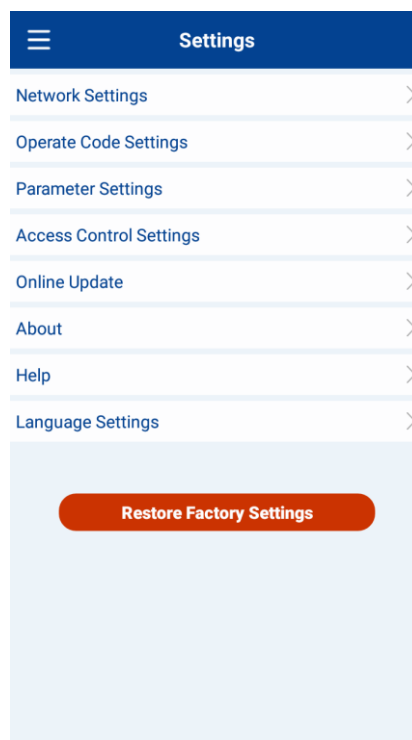
### 5) Access

If the face cannot be recognized, you can choose Access to verify.



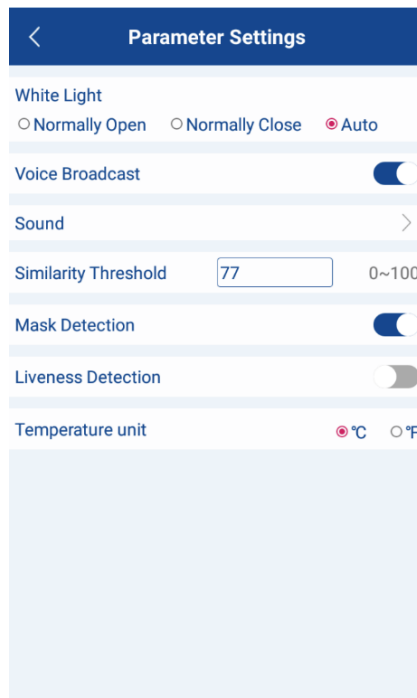
The image shows a dialog box titled "Access". It contains two input fields: "Job number" and "Temperature". Below the input fields are two buttons: "OK" and "Cancel".

## 6) Settings



The image shows a "Settings" menu. The menu items are: Network Settings, Operate Code Settings, Parameter Settings, Access Control Settings, Online Update, About, Help, and Language Settings. Each item has a right-pointing chevron. Below the menu items is a red button labeled "Restore Factory Settings".

- **Network Settings**  
Users can choose WIFI or Ethernet to configure device networking.  
Users who use the local server need to configure the device to be able to access the local server.
- **Operate Code Settings**  
To reset the operation code, the device must be connected to the Internet to set it successfully.
- **Parameter Settings**



### **White Light**

The white light can be set to normally open / normally closed / auto. When set to automatic, it will automatically adjust on and off according to whether there is face detection or not.

### **Voice Broadcast**

Control the opening and closing of voice announcements.

### **Sound**

Click to enter the volume adjustment interface.

### **Similarity Threshold**

The threshold adjustment will affect the pass rate and false detection rate of face recognition. If the face similarity threshold is set higher, the comparison will be stricter and the pass rate will be relatively reduced. Mask recognition, if the threshold is set higher, it may lead to unrecognizable. If the threshold is set lower, the false detection rate will increase. For example, if the original person is not entered, then because the threshold is set lower, it may be identified as an employee in the photo library that is similar to the person.

### **Mask Detection**

When mask detection is enabled, if someone is detected not wearing mask, an alarm will be issued, and only wear mask can pass.

### **Liveness Detection**

When the liveness detection is enabled, the live detection infrared fill light will be performed after recognition. It can be set to normally open / normally closed / auto. When set to automatic, it will automatically adjust on and off according to whether there is face detection. Only pass the liveness detection to enter.

### **Temperature Unit**

°C and °F are optional.

- **Access Control Settings**

#### **Door sensor type**

Normally Open and Normally Close are optional.

#### **Door Action Time**

The door will automatically close after the set time.

#### **Door Sensor alarm**

If the door is not opened or closed normally, the alarm will be triggered.

- **Online Update**

Online update requires that the device must be connected to the internet. If there is a new version, it will automatically update the latest version.

- **About**

Check device software version information

- **Help**

View instructions

- **Language Settings**

Change the system language.

- **Restore Factory Settings**

If you choose to restore the factory settings, the device will clear all data and restore to the state of initial use, please be careful.

## 6 Attendance Management Software for Company

### 1. Login the Attendance Management Software

- **Users who directly use the attendance management cloud service provided by our company can directly open the website with a browser:** <http://attendance-company-cloud.business.cloud.meterbox.com:30091>

The screenshot shows a login form with three input fields: 'User Name', 'Password', and 'Verification Code'. The 'Verification Code' field is accompanied by a CAPTCHA image. Below the fields is a 'Login' button. At the bottom left, there is a 'Register New Account' link, and at the bottom right, there is a 'Forgot password?' link.

The screenshot shows a registration form with five input fields: 'Company Name', 'Email', 'Verification Code', 'Password', and 'Password Again'. The 'Verification Code' field has a 'Click to obtain' button next to it. Below the fields is a 'Submit' button. At the bottom, there is a link that says 'Click to return the home page.'

To use it for the first time, you need to click the **Register New Account** to register.

**Note:** In some countries, it will take a long time for the email to receive the verification code when registering by email.

**Please wait patiently**

- **Users who deploy attendance management service to the local server can install and run local deployment tools to access the attendance management software.**

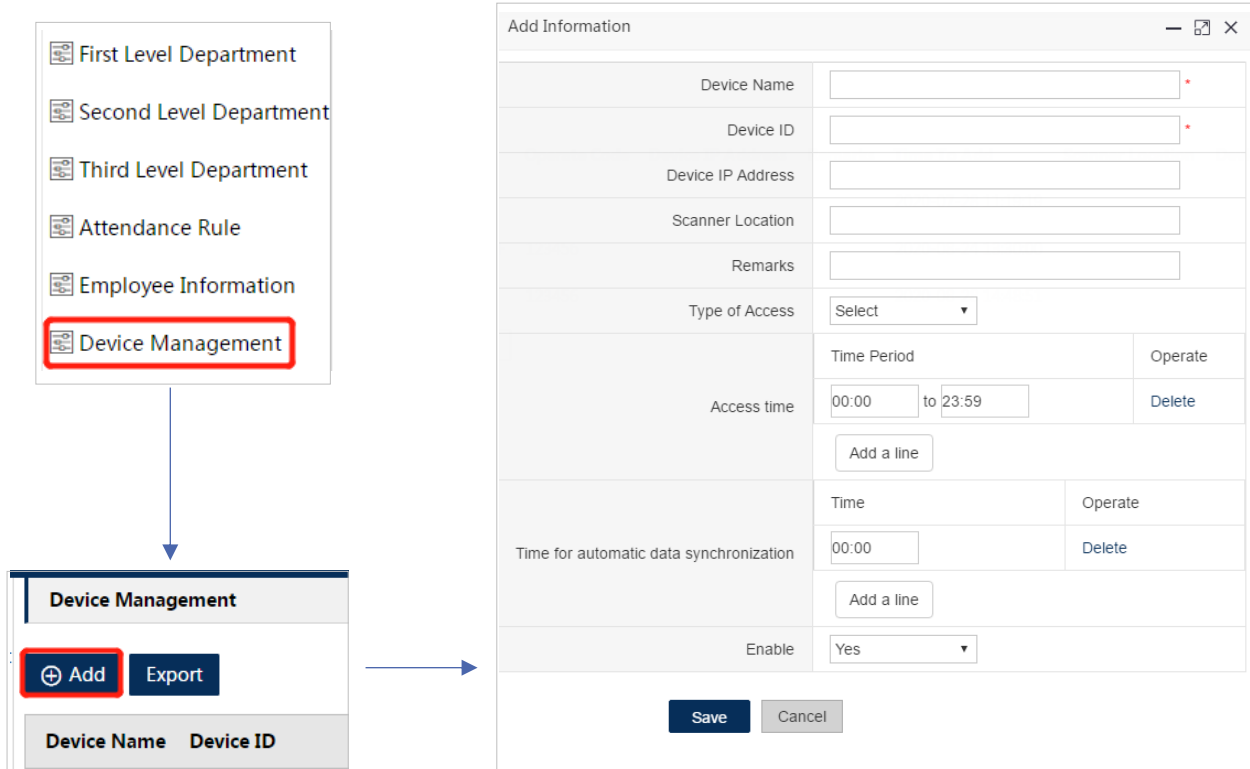
Please refer to the **Local Service Deployment Instructions** for how to deploy services locally.

This is another view of the login page, showing the 'User Name', 'Password', and 'Verification Code' fields with a CAPTCHA image, and the 'Login' button. The 'Register New Account' and 'Forgot password?' links are also visible at the bottom.

No registration is required to access the local attendance management software. The default user name is: **admin** and the initial password is: **123456**. User can modify the password after logging in.

## 2. Add Device

Click [Device Management] > [Add] to add device to the software.



Device name and device ID are required.

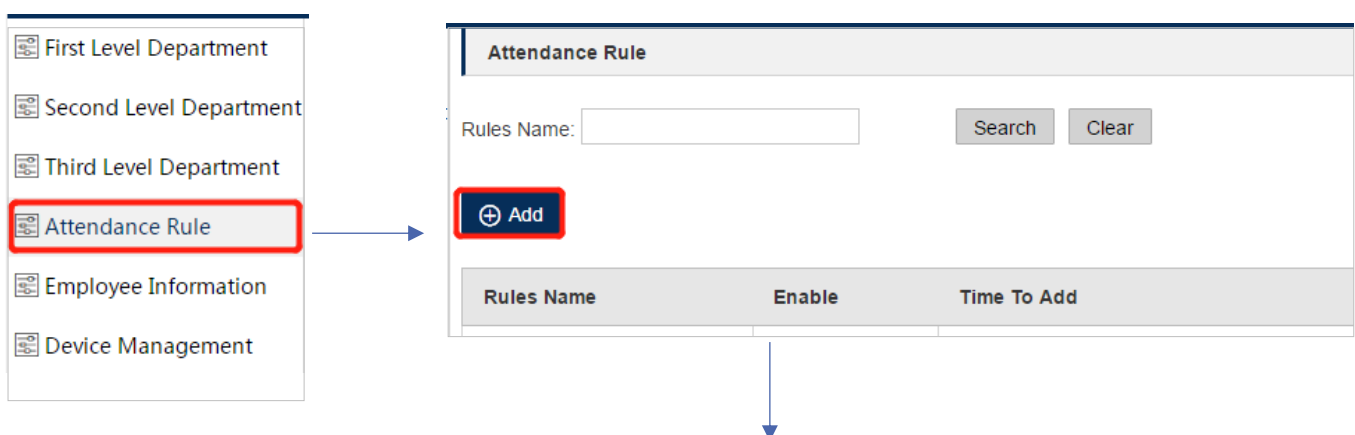
The device name can be set by the user, and the device ID must be consistent with the ID number displayed on the upper left corner of the main interface of the device. After the input is complete, click the save button to complete the device addition.

**Note:** The device can only control the door to open within the "access time" range, and the door will not open if it exceeds the access time range.

**Automatic data synchronization time:** the time when the device automatically synchronizes the latest data of the management software.

## 3. Configure Attendance Rule

Click [Attendance Rule] > [Add] to add an attendance rule.



Add

Rules Name: Rule1

Week: Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Enable: Yes

Attendance Time	Name	Type	Time Period	Late Arrival Time (Minutes)	Early Departure Time (Minutes)	Operate
	On Work	Go To Work	08:00 to 08:30	30		Delete
	Off Work	Off Work	18:00 to 20:00		30	Delete

Add a line

Cancel OK

Interpretation of attendance time setting:

Set the type Go to Work, the attendance time is 8:00-8:30, and the late time is 30 minutes, then: Check-in from 8:00-8:30 is considered normal, and check-in from 8:31-9:00 is considered late.

The setting type is Off Work, the attendance time is 18:00-20:00, and the early departure time is 30 minutes, then: Check-in at 18:00-20:00 is regarded as normal, check-in at 17:30-17:59 is regarded as early departure.

Checking in at other times will be regarded as not within the attendance time period.

#### 4. Enter employee basic information and employee face photos

- Import employee information in bulk

Click [Employee Information] > [Import Data] to import data.

The first screenshot shows a sidebar menu with 'Employee Information' highlighted. The second screenshot shows the 'Employee Information' page with the 'Import Data' button highlighted. The third screenshot shows the 'Import Data' dialog with 'Upload File' (Step 3), 'Download' (Step 1), and 'Submit' (Step 4) buttons highlighted.

Step 2: First Level Department, ID Number and Name are required.

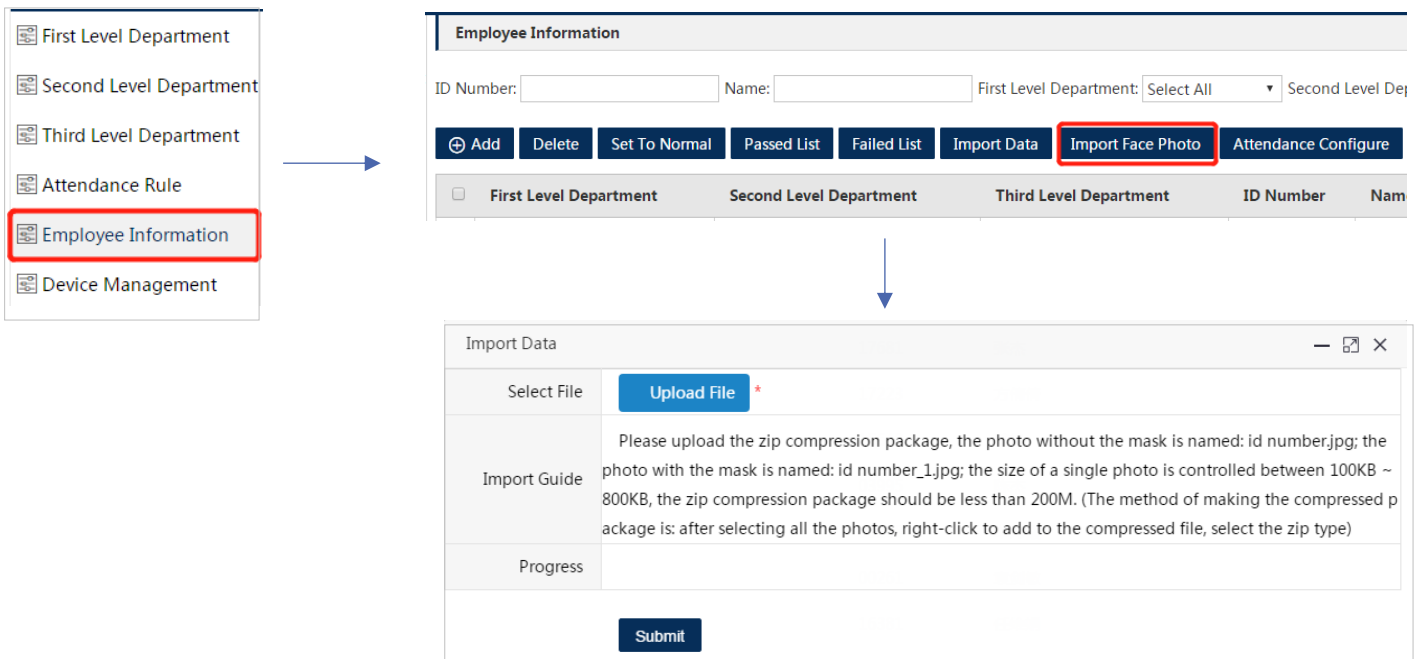
	A	B	C	D	E	F	G	H
1	First Level Department	Second Level Department	Third Level Department	ID Number	Name	Sex	Government ID	Phone

In the data import interface, click **Download** to download the EXCEL template and save it to the specified location.

Fill in the data in the EXCEL template style and save it. Click **Upload File** to find the file and click Open. After the data is loaded, the interface will display the data list. Click **Submit** to complete the batch import of employee information.

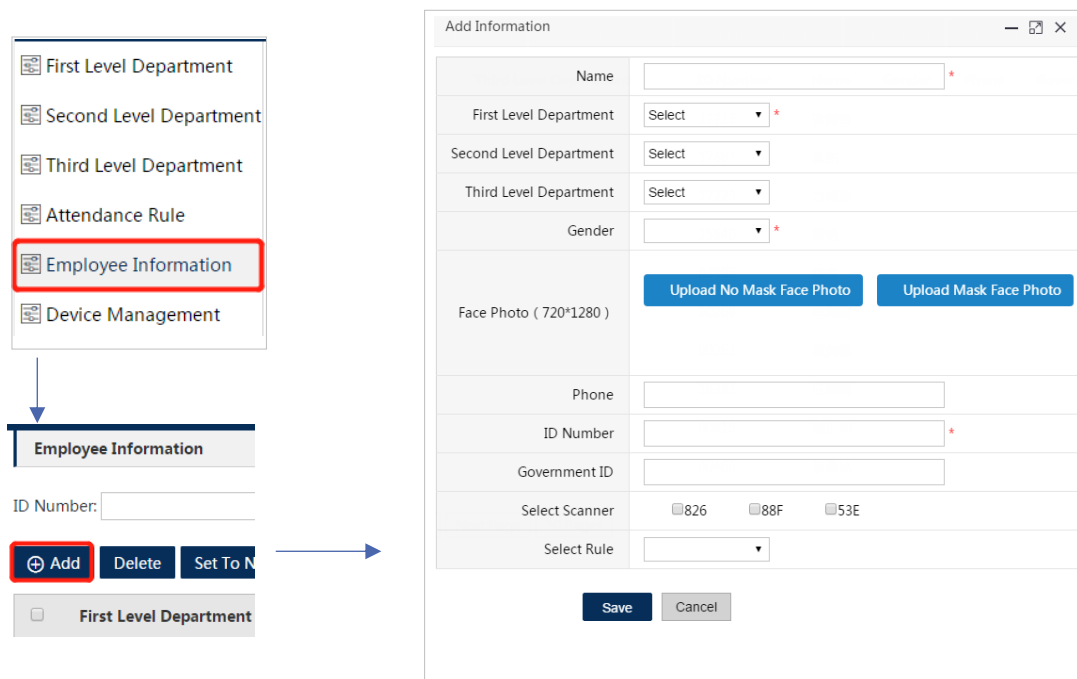
- **Import employee face photos in bulk**

Click [Employee Information] > [Import Face Photo] to import face photo.



**Note:** Please operate according to the interface import guide requirements. After the progress reaches 100%, it means that the photos have been loaded then click "Submit" to complete the batch import of photos.

- **Enter employee information and employee face photos individually**



**Note:** The items marked with an asterisk are mandatory. If there is no first-level department, you need to add a department. After selecting the scanner and attendance rules, the selected scanner can be synchronized to the employee's information.

## 5. Configure attendance devices and attendance rules for employee

**Employee Information**

ID Number:  Name:  First Level Department:  Second Level Department:  Third Level Department:

**Select current page items**
 **Select one item**
 **Select all items**

<input checked="" type="checkbox"/>	First Level Department	Second Level Department	Third Level Department	ID Number	Name	Gender	Phone	Government ID
<input checked="" type="checkbox"/>				17713				
<input checked="" type="checkbox"/>				17681				
<input checked="" type="checkbox"/>				17223				

**Attendance Settings**

Select Scanner:  826  88F  53E

Select Rule:

You can configure different attendance devices for different employees by querying and checking. Attendance device can be synchronized to the corresponding employee information.

**Note: If no employee is assigned to the attendance device, the attendance device will not synchronize any data.**

## 6. Home Page

Display attendance statistics and access information.

After the device is connected to the server, it will automatically upload employee temperature measurement records and attendance records at real-time.

Home Page

Start Date:  End Date:  First Level Department:  Second Level Department:  Third Level Department:  State:

**Attendance information statistics**

**Statistics Today**

Leave Early : 0 Actual Attendance : 0  
Late : 0

Not Checked In : 291

**Statistics Last Week**

Actual Attendance : 0  
Late : 0 Leave Early : 0

Not Checked In : 290

**Statistics Last Month**

Leave Early : 51 Actual Attendance : 86  
Late : 1

Not Checked In : 282

**Custom Time Statistics**

Actual Attendance : 0  
Late : 0 Leave Early : 0

Not Checked In : 290

**Access Information**

Department	ID Number	Name	Gender	State	Time	Temperature	Temperature State
	00115	Crystal	Female	Not within the time period	2020-09-03 09:02:34	98.2	Normal
	00115	Crystal	Female	Not within the time period	2020-09-03 09:02:32	97.5	Normal

## 7. Employee Attendance Record

You can view or export detail employee attendance record at this page.



**Employee Attendance**

Start Date: 2020-09-01 00:00 End Date: 2020-09-09 23:59 ID Number: Name: First Level Department: Select All Second Level Department: Select All Third Level Department: Select All  
 State: Select

Enquiry Reset **Export Data**

Statistics Today

Checked In/Total

1/291

Detail

0

Normal

0

Late

0

Leave Early

290

Not Checked In(person)

Order By Time Order By Temperature

Department	ID Number	Name	Time	Rules Name	State	Picture	Temperature	Temperature State
	00115	Crystal	2020-09-03 09:02:34		Not within the time period		98.2	Normal
	00115	Crystal	2020-09-03 09:02:32		Not within the time period		97.5	Normal

## 8. System

### • Role Management

The administrator has the authority to add multiple user roles and assign different permissions to different roles, such as to view records only one of the departments; add, modify or delete one department...

Change The Information

Role Name:

Remarks:

Basic Information

First Level Department  Add  Change  Delete  
 Second Level Department  Add  Change  Delete  
 Third Level Department  Add  Change  Delete  
 Attendance Rules  Add  Change  Delete

Other Permissions

PMC

State: Normal

## 9. Temperature Analysis

### • Dashboard

You can view the latest employee temperature data curve, data list, temperature alarm data and temperature statistics. The page will update automatically.

Last Data

98.2<sup>°F</sup>

Normal

Crystal Female 2020-09-03 09:02:34

Alarm Data

No.	Department	Name	ID Number	Photo	Temperature	State	Measurement Time
1		Crystal	00115		98.2	Normal	2020-09-03 09:02:34
2		Crystal	00115		97.5	Normal	2020-09-03 09:02:32
3		Crystal	00115		98.1	Normal	2020-09-03 09:02:30
4		Crystal	00115		98.1	Normal	2020-09-03 09:02:26
5		Crystal	00115		96.6	Normal	2020-09-03 09:02:24
6		Crystal	00115		97.7	Normal	2020-09-03 09:02:21

Temperature Curve/List

Last 12 hours Curve List

No.	Department	Name	ID Number	Photo	Temperature	State	Measurement Time
1		Crystal	00115		98.2	Normal	2020-09-03 09:02:34
2		Crystal	00115		97.5	Normal	2020-09-03 09:02:32
3		Crystal	00115		98.1	Normal	2020-09-03 09:02:30
4		Crystal	00115		98.1	Normal	2020-09-03 09:02:26
5		Crystal	00115		96.6	Normal	2020-09-03 09:02:24
6		Crystal	00115		97.7	Normal	2020-09-03 09:02:21
7		Crystal	00115		97.5	Normal	2020-09-03 09:02:17
8		Crystal	00115		98.2	Normal	2020-09-03 09:02:12
9		Crystal	00115		97.7	Normal	2020-09-03 09:02:11
10		Crystal	00115		97.5	Normal	2020-09-03 09:02:09

Statistical analysis

Number of people taking temperature: 1  
Highest Value of temperature: 98.4 °F

Normal: 1

- **History**

You can inquire the history data.



## 7 Local Server Deployment

### 1. Installation

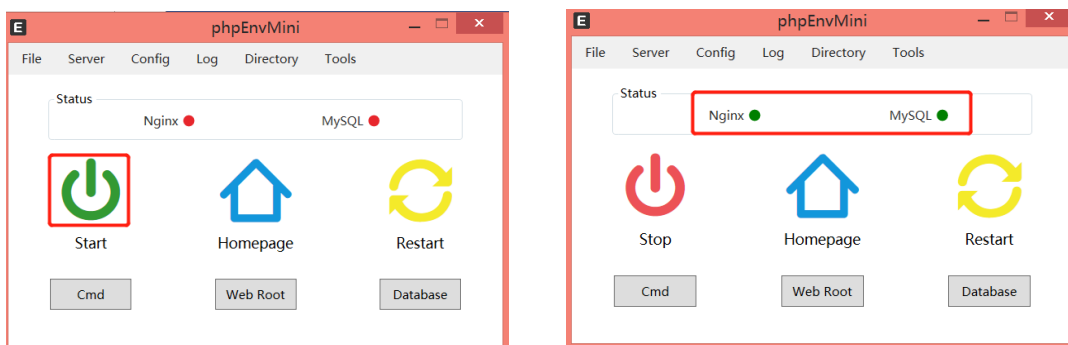
Select a computer as the local server and install the Environment Configuration software in the computer.

Double click **Attendance\_E.Setup.exe** to install the software. Please install the software in a non-system disk directory , The default directory is "D:\attendance".

After successful installation, the shortcut icon will be generated on the desktop.

### 2 . Configure the operating environment

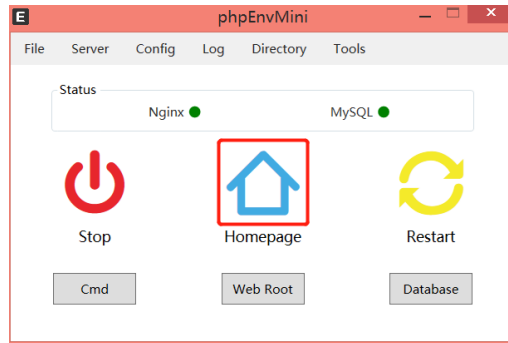
Double-click the icon to run the software. Click the "Start" icon to start MySQL and Nginx. If the **Nginx** and **MySQL** start successfully, the icon will turn green.



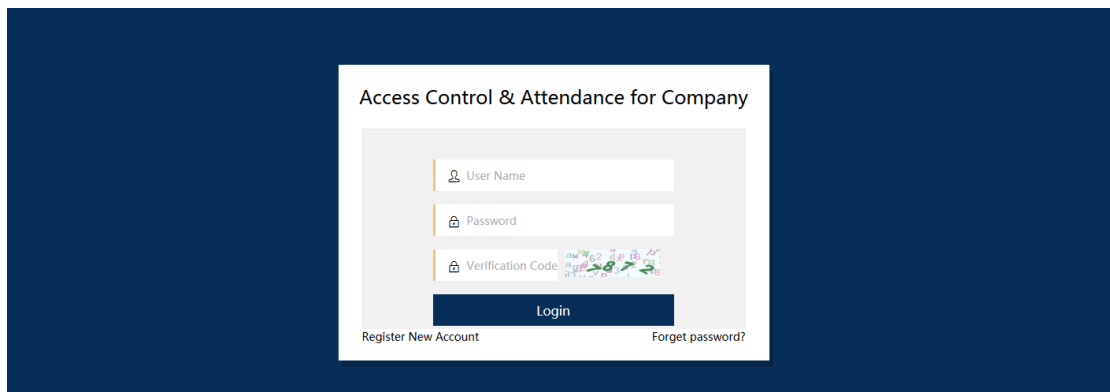
**Note:** Please keep the two items (Nginx and MySQL) on, otherwise the terminal device will not be able to access the server to upload data or sync data or other communications.

### 3 . Run the access control and attendance management platform software

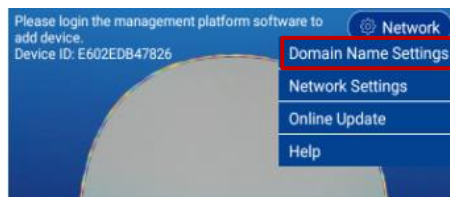
Click the “**HomePage**” button, and the interface shown below will appear, indicating successful operation. (Chrome is recommended for browsers )



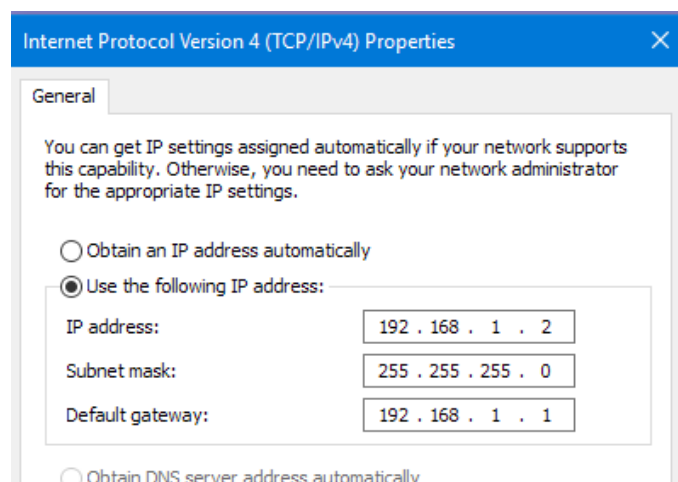
The default User Name is **Admin**. Default Password is **123456**.




### 4 . Face Recognition Scanner Configuration



For example, the IP address of the local server is as shown below:



Then modify the domain name of the terminal to: <http://192.168.1.2:30091/>



The screenshot shows a mobile application interface with a dark blue header bar. On the left side of the header is a white back arrow icon. In the center of the header is the text "Config Domain Name" in white. On the right side of the header is the text "Done" in white. Below the header is a white text input field with a thin blue border, containing the text "http://192.168.1.2:30091/".

**Note: Make sure that the server firewall opens the "30091" port.**

If the access control attendance management platform service was previously deployed in another location, and you have logged in to the management platform and added the device, you need to log in to the previously deployed management platform to delete the device, and then enter the device "Menu / Settings / Restore Factory Settings".