

User Manual

D3 Series

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Doc Version: 1.0

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.



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If there is any issue related to the product, please contact us.

ZKTeco Headquarters

Address ZKTeco Industrial Park, No. 32, Industrial Road,
Tangxia Town, Dongguan, China.

Phone +86 769 - 82109991

Fax +86 755 - 89602394

For business related queries, please write to us at: sales@zkteco.com.

To know more about our global branches, visit www.zkteco.com.

About the Company

ZKTeco is one of the world's largest manufacturer of RFID and Biometric (Fingerprint, Facial, Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces the operations of the D3 Series.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Features and parameters with ★ are not available in all devices.

Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	Description
Bold font	Used to identify software interface names e.g. OK, Confirm, Cancel .
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	Description
<>	Button or key names for devices. For example, press <OK>.
[]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window.
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols






Convention	Description
	This implies about the notice or pays attention to, in the manual.
	The general information which helps in performing the operations faster.
	The information which is significant.
	Care taken to avoid danger or mistakes.
	The statement or event that warns of something or that serves as a cautionary example.

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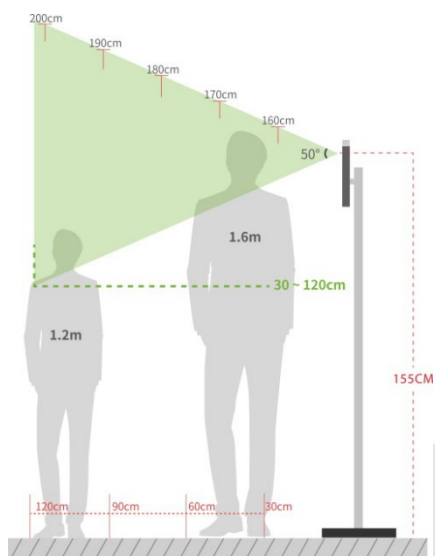
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1 Instruction for Use

Before getting into the Device features and its functions, it is recommended to be familiar to the below fundamentals.

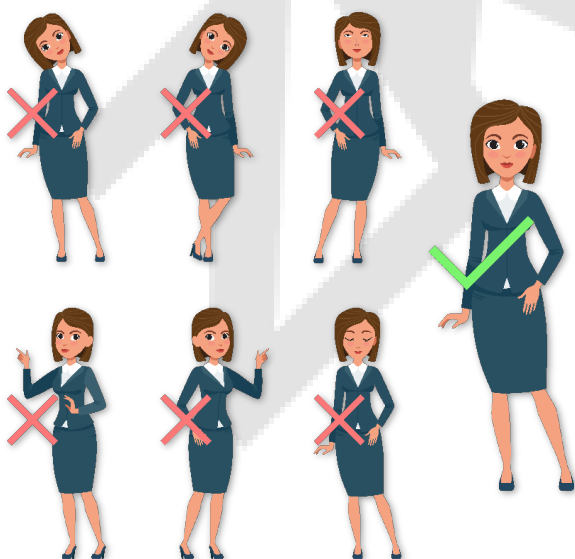
1.1 Standing Position, Posture and Facial Expression

- **The recommended distance**



The distance between the device and a user whose height is in a range of 1.55m to 1.85m is recommended to be 0.3 to 2.5m. Users may slightly move forward or backward to improve the quality of facial images captured.

- **Recommended Standing Posture and Facial Expression**



Standing Posture



Facial Expression

Note: Please keep your facial expression and standing posture natural while enrolment or verification.

1.2 Face Registration

Try to keep the face in the centre of the screen during registration. Please face towards the camera and stay still during face registration. The screen should look like this:



Correct face registration and authentication method

● Recommendation for registering a face

- When registering a face, maintain a distance of 40cm to 80cm between the device and the face.
- Be careful not to change your facial expression. (Smiling face, drawn face, wink, etc.)
- If you do not follow the instructions on the screen, the face registration may take longer or may fail.
- Be careful not to cover the eyes or eyebrows.
- Do not wear hats, masks, sunglasses, or eyeglasses.
- Be careful not to display two faces on the screen. Register one person at a time.
- It is recommended for a user wearing glasses to register both faces with and without glasses.

● Recommendation for authenticating a face

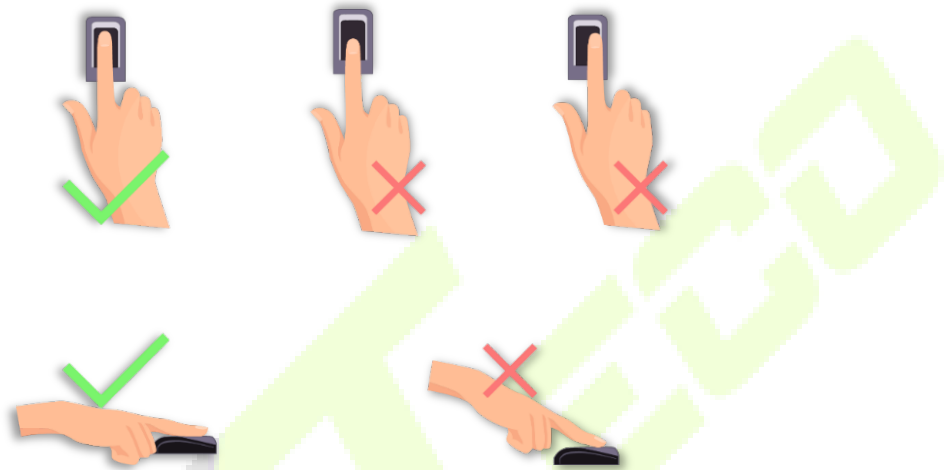
- Ensure that the face appears inside the guideline displayed on the screen of the device.
- If the glasses have been changed, authentication may fail. If the face without glasses has been registered, authenticate the face without glasses further. If the face with glasses has been registered, authenticate the face with the previously worn glasses.

- If a part of the face is covered with a hat, a mask, an eye patch, or sunglasses, authentication may fail. Do not cover the face, allow the device to recognize both the eyebrows and the face.

1.3 Finger Placement

Recommended fingers: Index, middle, or ring fingers.

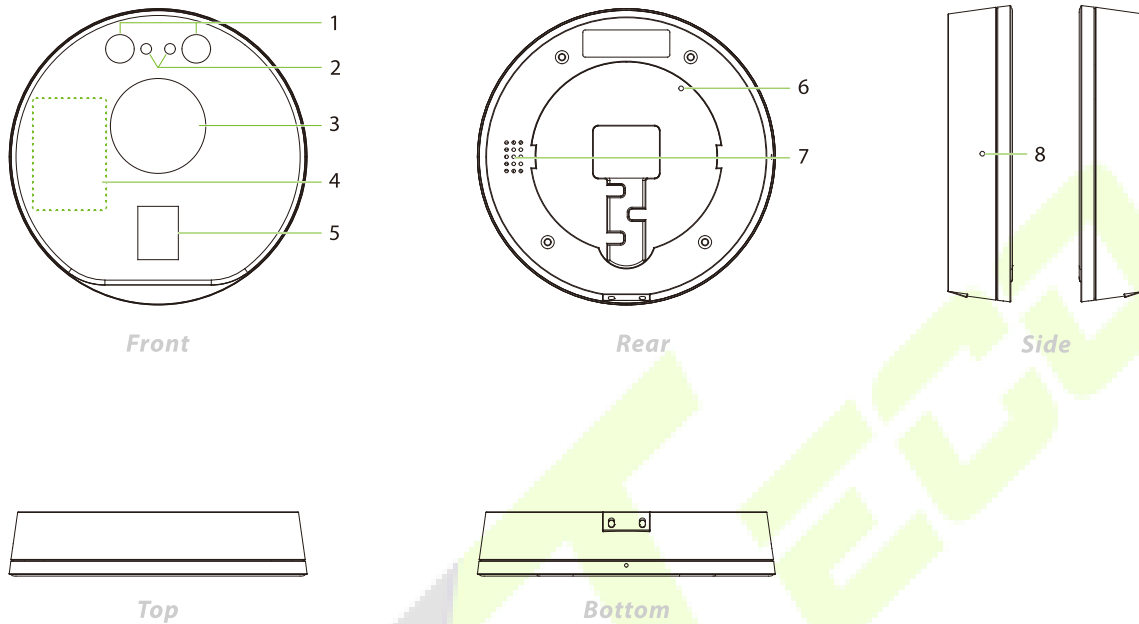
Avoid using the thumb or pinky, as they are difficult to accurately tap onto the fingerprint reader.



Note: Please use the correct method when pressing your fingers onto the fingerprint reader for registration and identification.

2 Overview

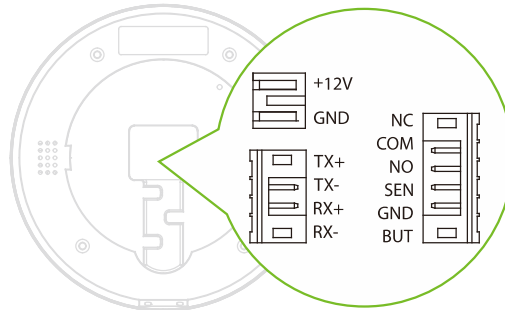
2.1 Appearance



No.	Description
1	Near-Infrared Flash
2	Camera
3	Display Screen
4	Card Reading Area ★
5	Fingerprint Sensor
6	Restore
7	Speaker
8	Reset

2.2 Terminal and Wiring Description

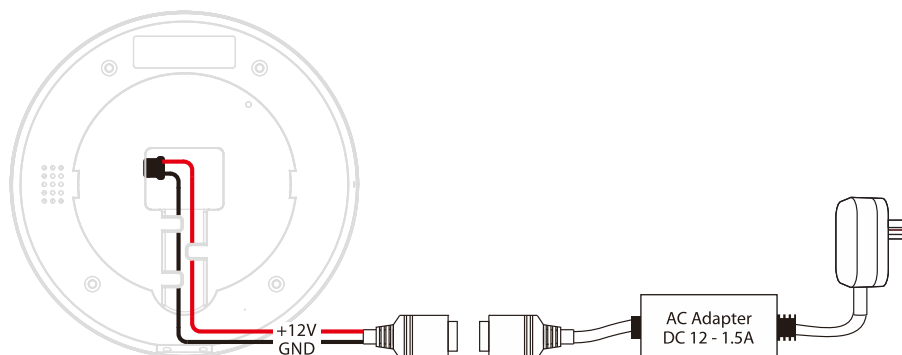
2.2.1 Terminal Description



Interface	Description
+12V	12V Power In
GND	
TX+	Network Interface
TX-	
RX+	
RX-	
NC	Lock
COM	
NO	
SEN	Sensor
GND	Power
BUT	Exit Button

2.2.2 Wiring Description

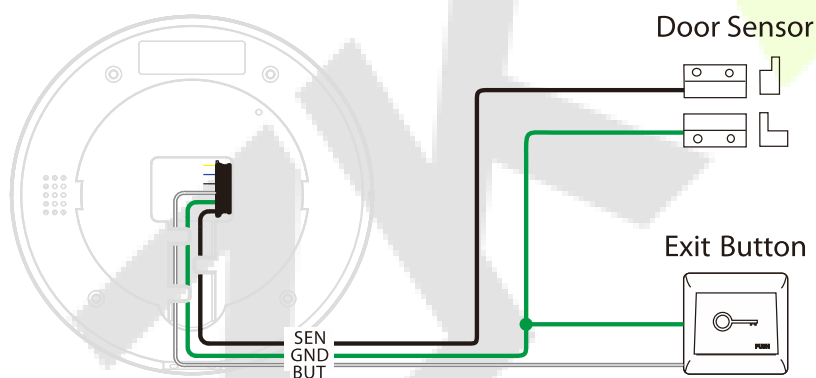
● Power Connection



Recommended power supply

- Rating of 12V and 1.5A
- To share the power with other devices, use an AC Adapter with higher current ratings.

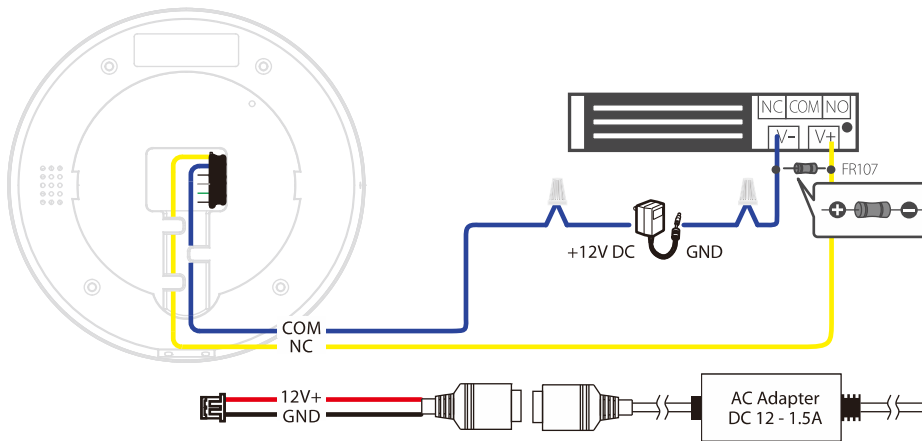
● Door Sensor and Exit Button Connection



● Lock Relay Connection

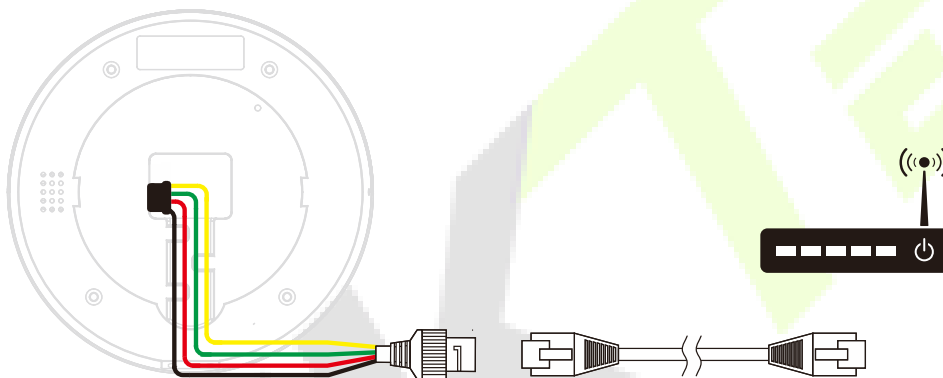
The system supports Normally Opened Lock and Normally Closed Lock. The NO LOCK (normally unlocked when power-on) is connected with 'NO' and 'COM' terminals whereas the NC LOCK (normally locked when power-on) is connected with 'NC' and 'COM' terminals.

Take NC Lock as an example below:



● **Ethernet Connection**

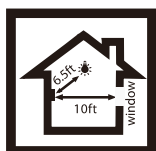
Connect the device and computer software over an Ethernet cable. An example is shown below:



3 Installation

3.1 Installation Environment

Please refer to the following recommendations for installation.



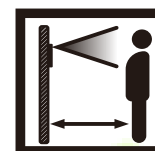
KEEP DISTANCE



AVOID GLASS REFRACTION



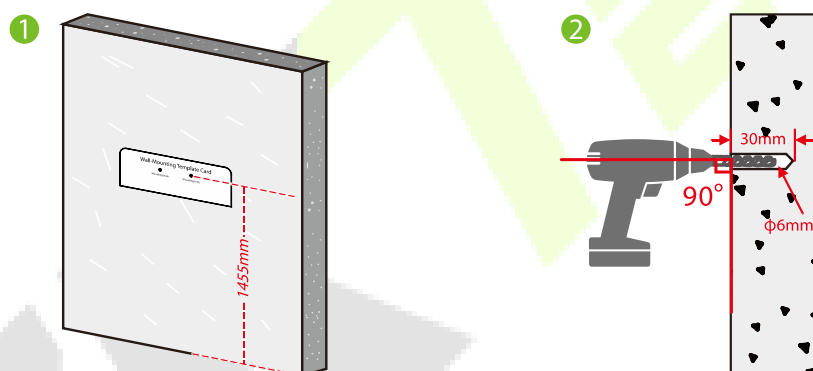
AVOID DIRECT SUNLIGHT AND EXPOSURE



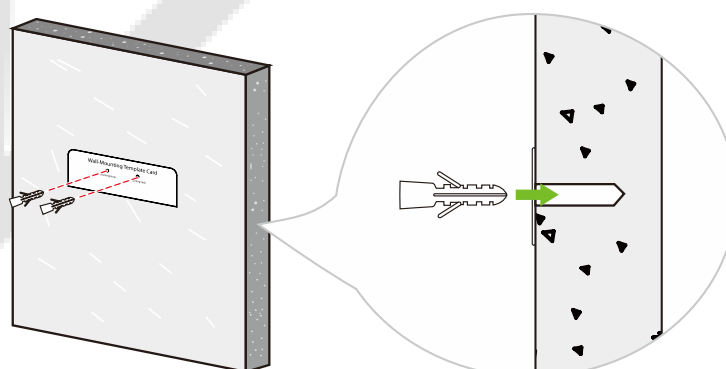
KEEP EFFECTIVE DISTANCE 0.3 to 1.6m

3.2 How to Install the Device on the Wall?

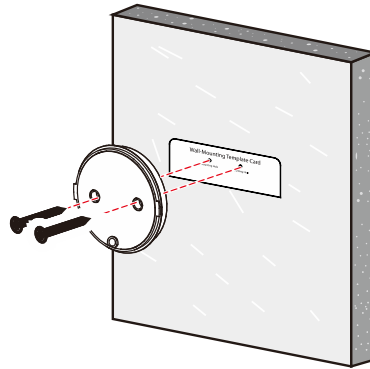
1. Stick the wall-mounting template card to the wall and drill holes according to the wall-mounting template card.



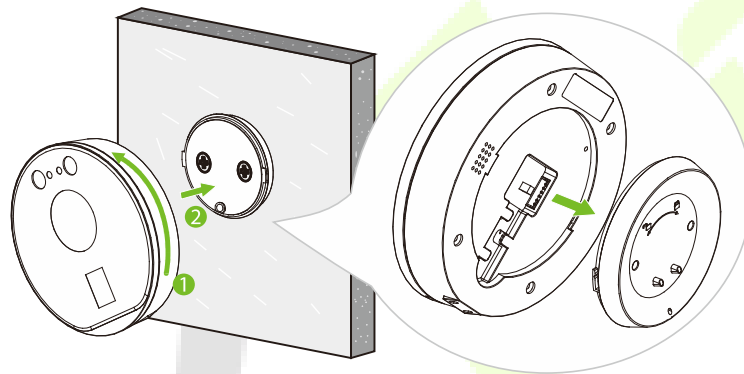
2. Insert the expansion tubes into the mounting holes.



3. Attach the bracket on the wall using the wall mounting screws.

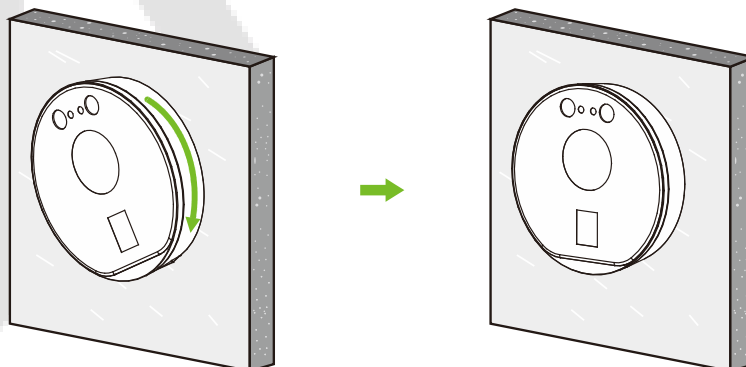


4. Attach the terminal to the bracket.



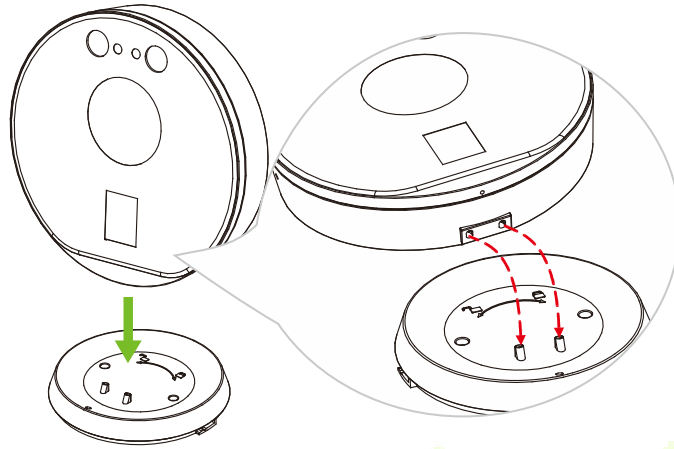
Note: Before attaching the terminal to the bracket, you need to tilt the terminal to the left at an angle.

5. Rotate the fixing terminal clockwise.

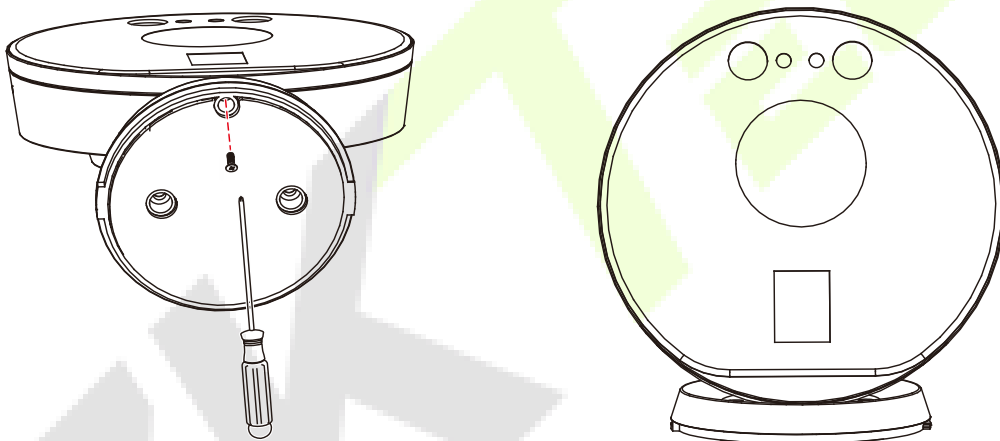


3.3 How to Install the Device on the Desktop?

1. Attach the terminal to the bracket.



2. Tighten it with a desktop bracket screw.



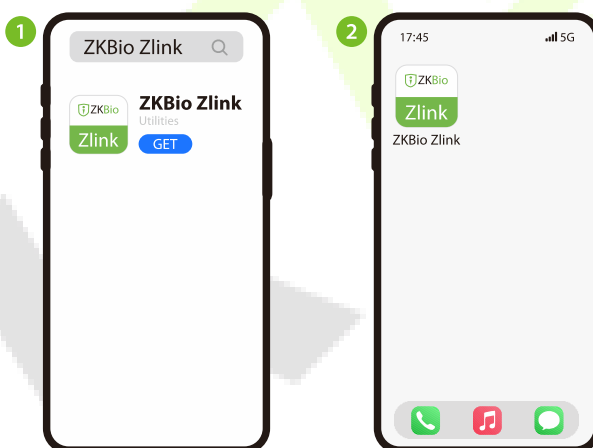
4 Binding the Device

When the device is initially used, the following screen is displayed after the power is connected:

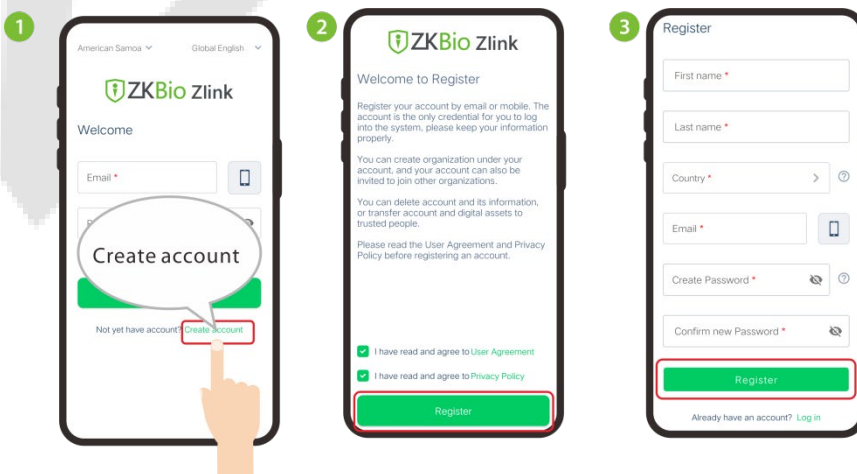


4.1 Binding your Device with the ZKBio Zlink App

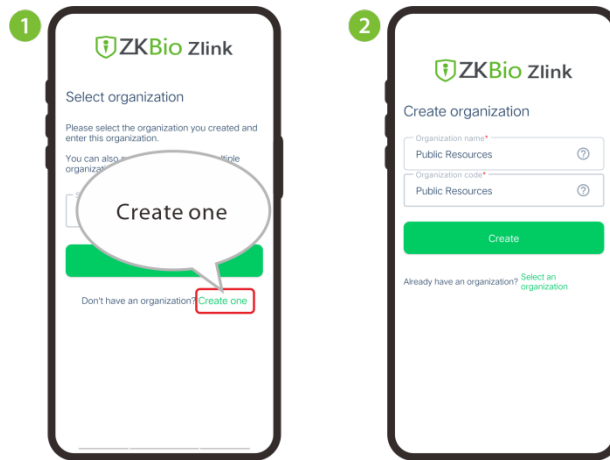
1. Search for the **ZKBio Zlink** App in Apple App Store or Google Play Store and download the App to your smartphone.



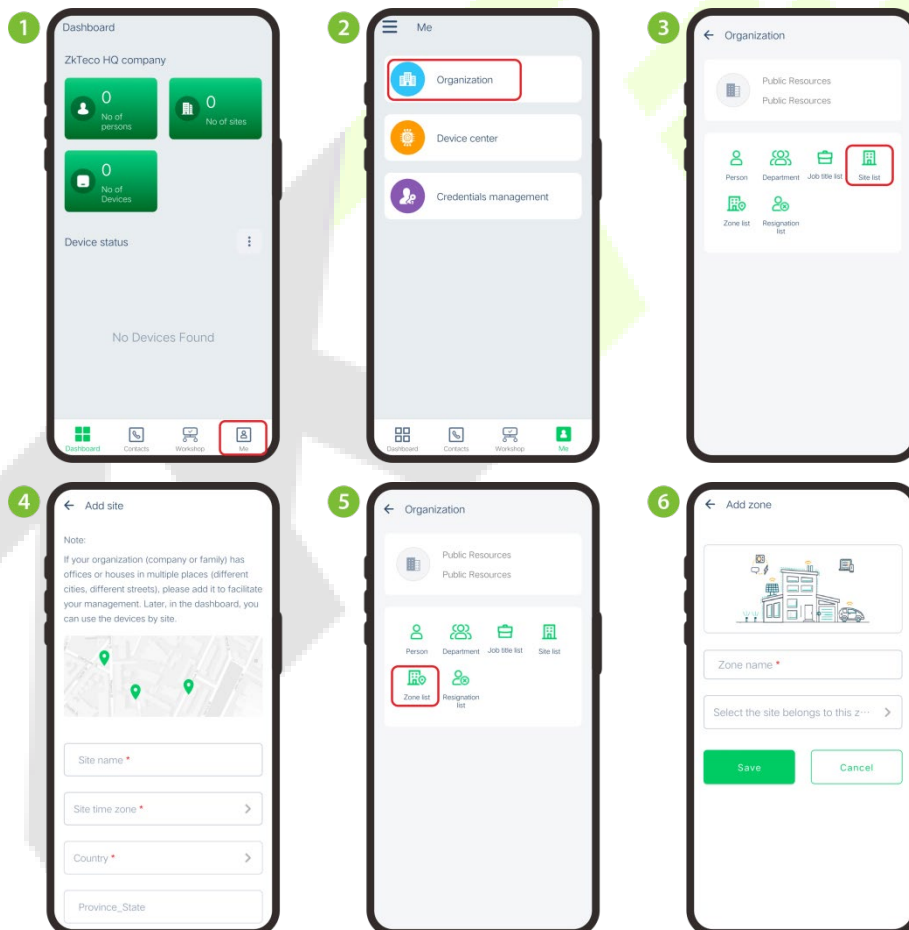
2. Open the **ZKBio Zlink** App and create an account with your phone number or Email ID.



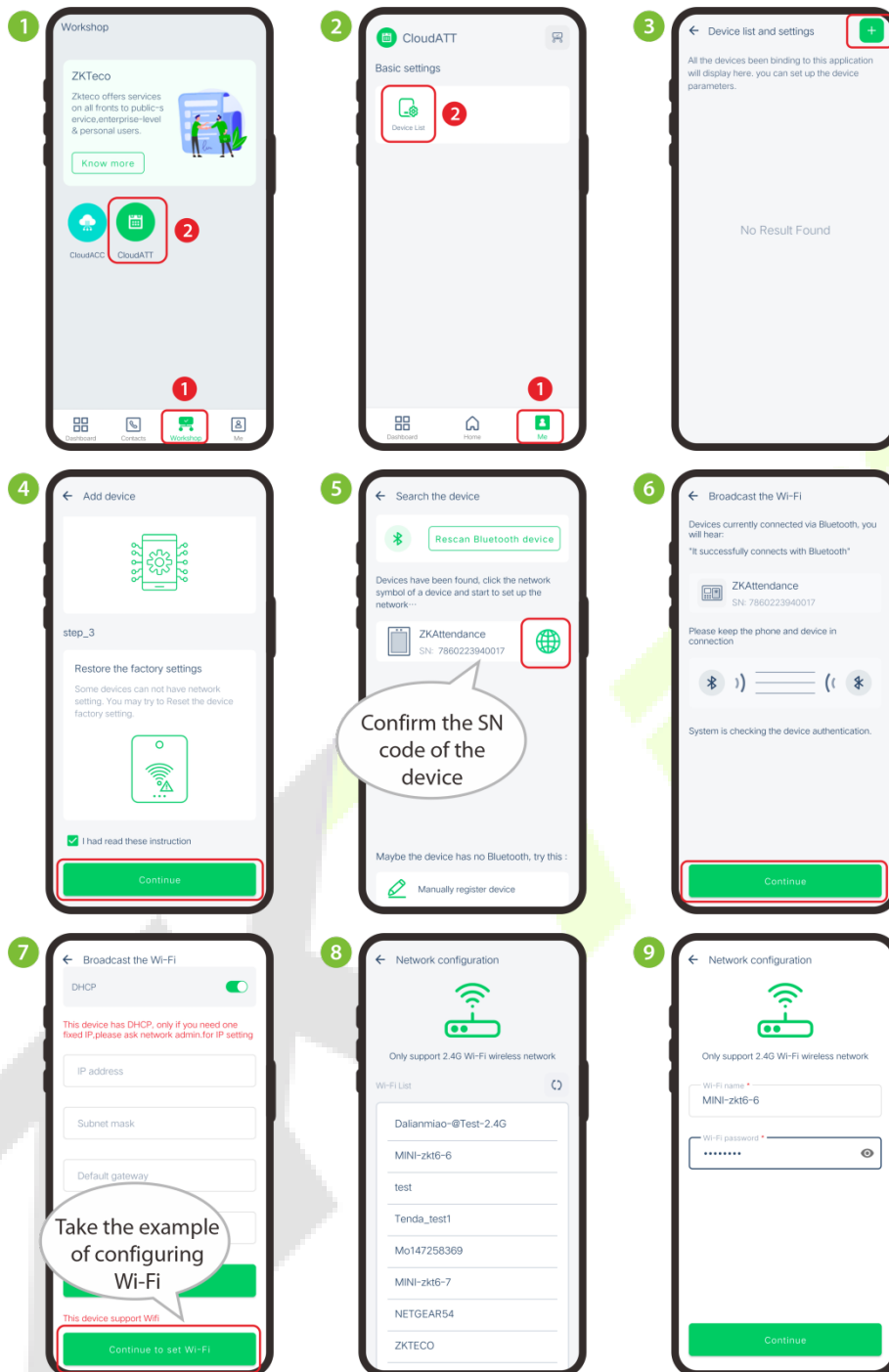
- Log in with your successfully registered account and follow the page prompts to create an organization.

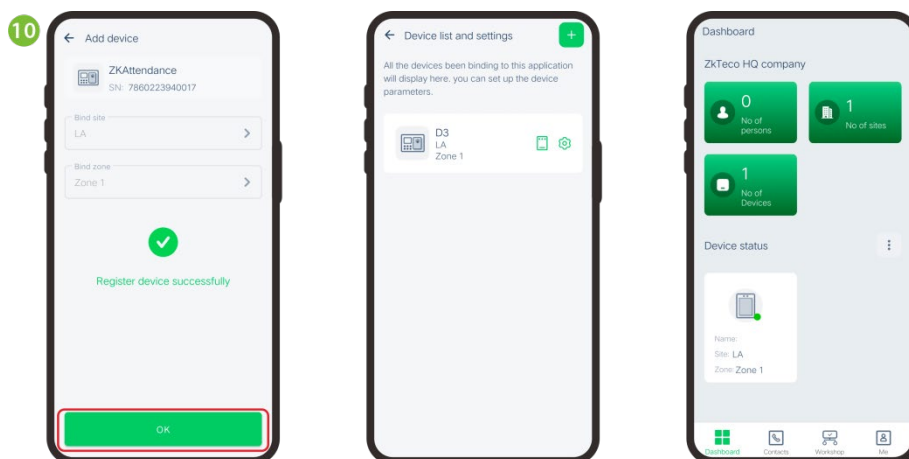


- Log in with the account and organization you created. After successful login, add **Site** and **Zone** in the **[Me]** module.



5. In [Workshop] module, click [CloudATT] > [Me] > [Device List] to add devices.





Note:

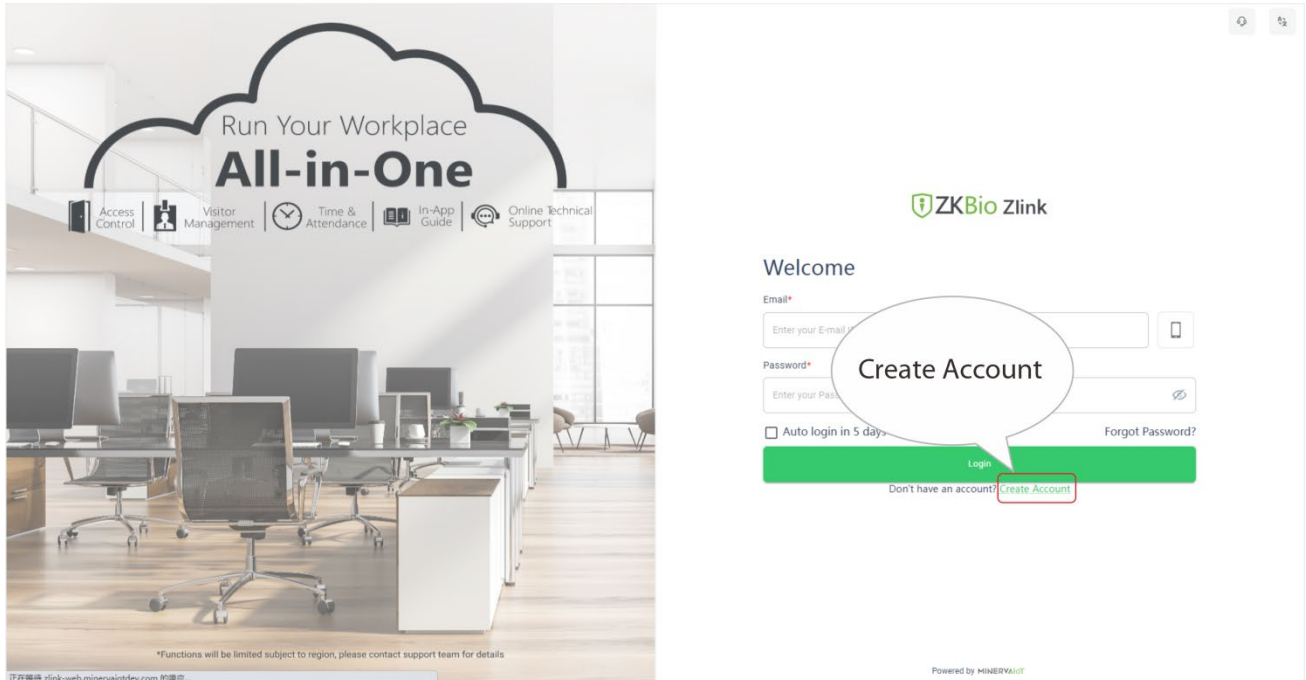
1. Turn on the Bluetooth function and location service on your mobile phone.
2. The device must be near the phone to avoid search failures.
3. The device can only connect to 2.4GHz Wi-Fi networks. Make sure that your phone is connected to the 2.4GHz network if you have a dual-band router with separate 2.4GHz and 5GHz networks.
4. ZKBio Zlink App currently supports Bluetooth device addition, organisation creation, and attendance report viewing, etc. More features will be added soon.

The following screen appears on the device to indicate successful activation, and then you can register or verify users, etc.

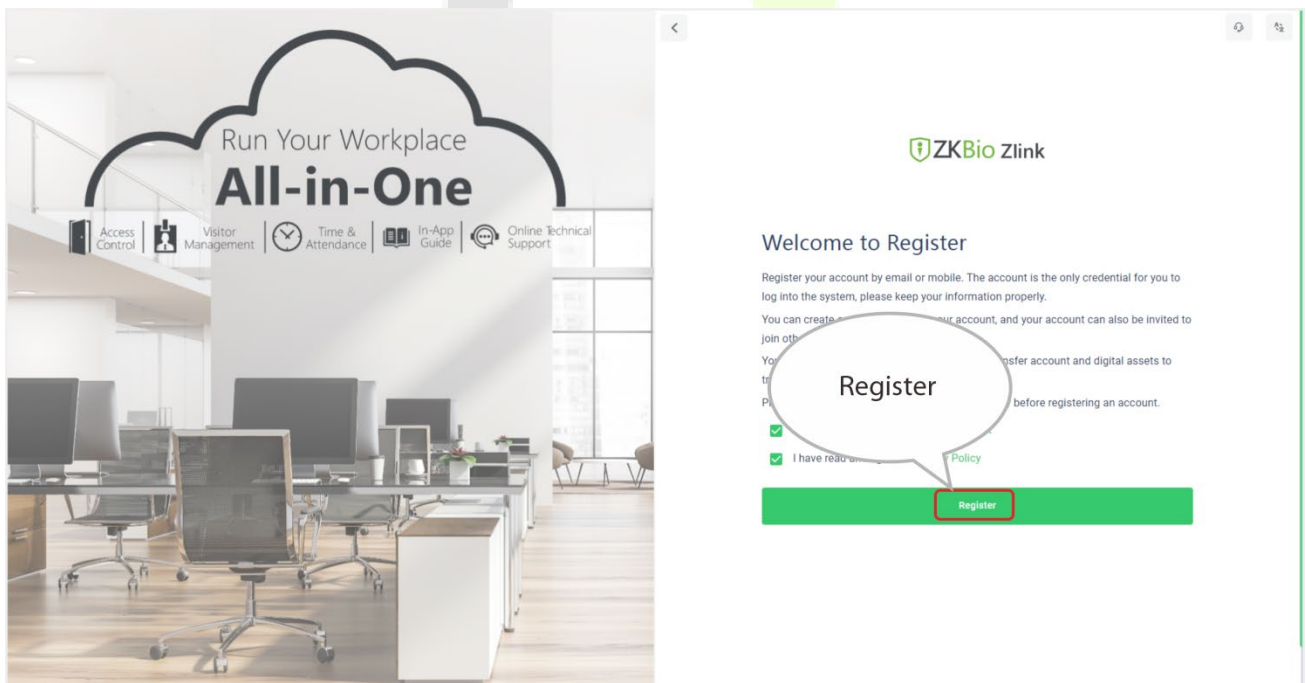


4.2 Binding your Device with the ZKBio Zlink Web

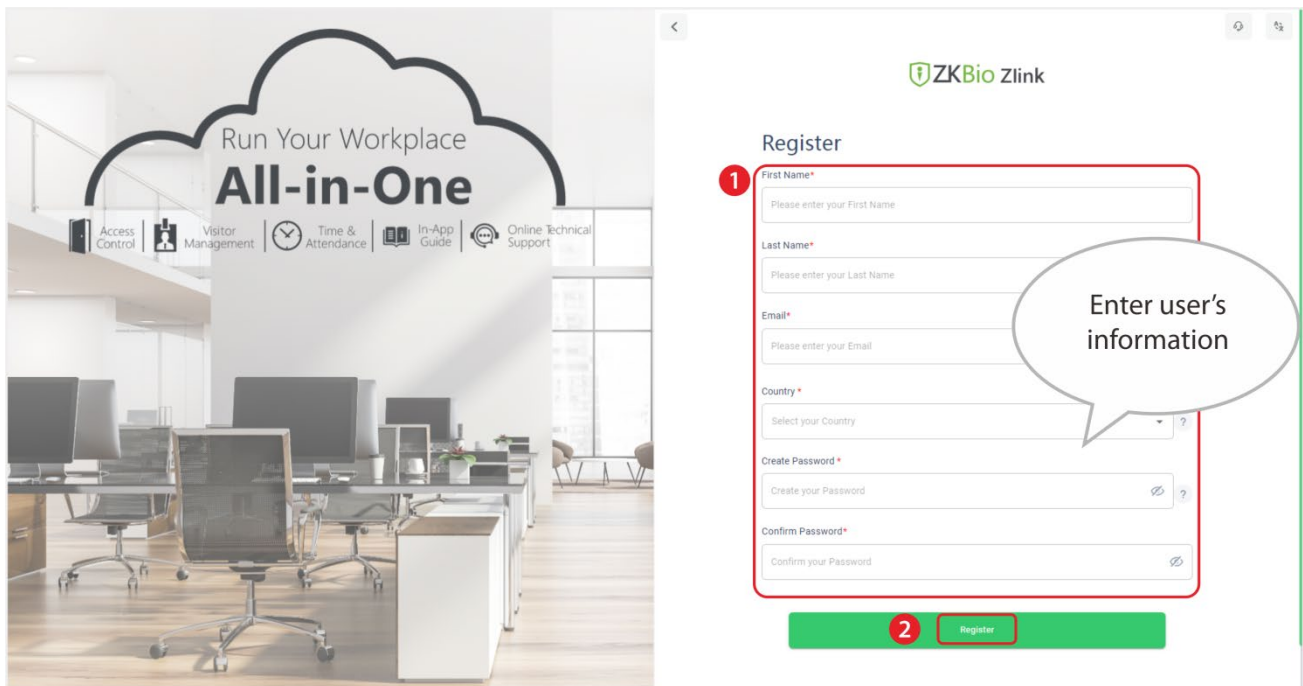
1. Access the ZKBio Zlink Web <http://zlink.minervaiot.com/>. If you do not have an account, please click **[Create Account]** to add a new account.



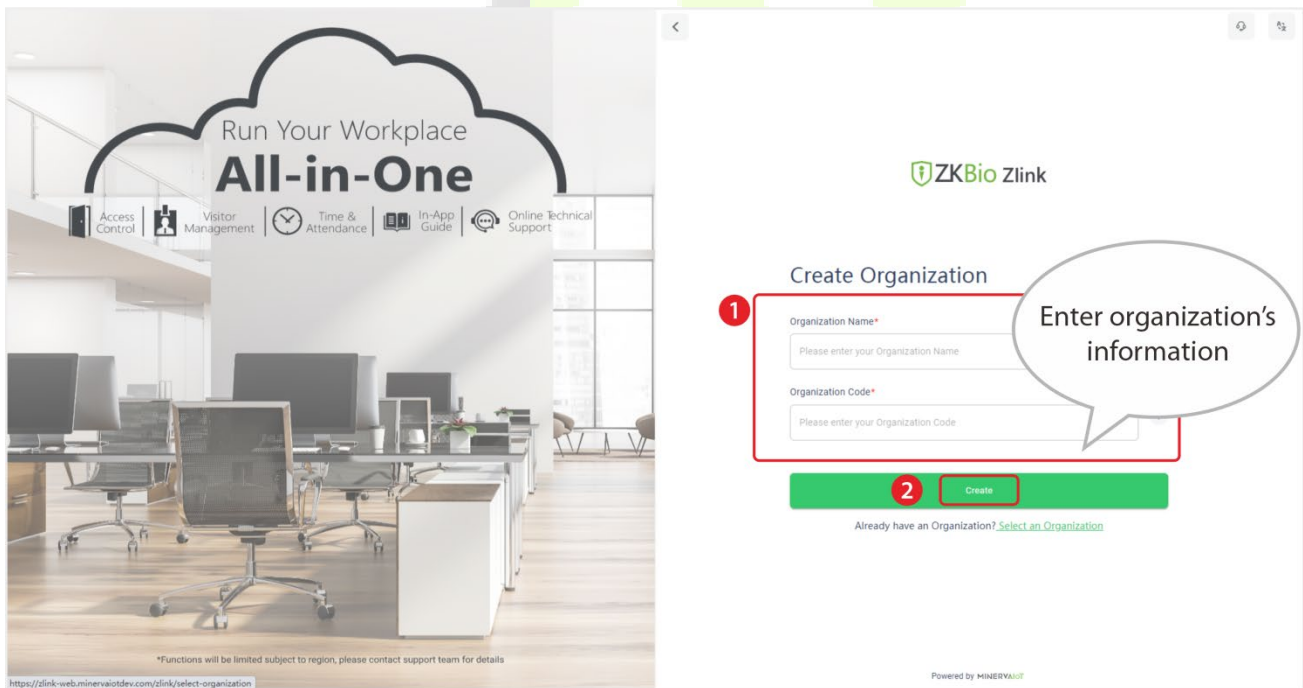
2. Read and agree to User Agreement and Privacy Policy, then click **[Register]**.




- 3. Enter user's information and set password, then click **[Register]**.

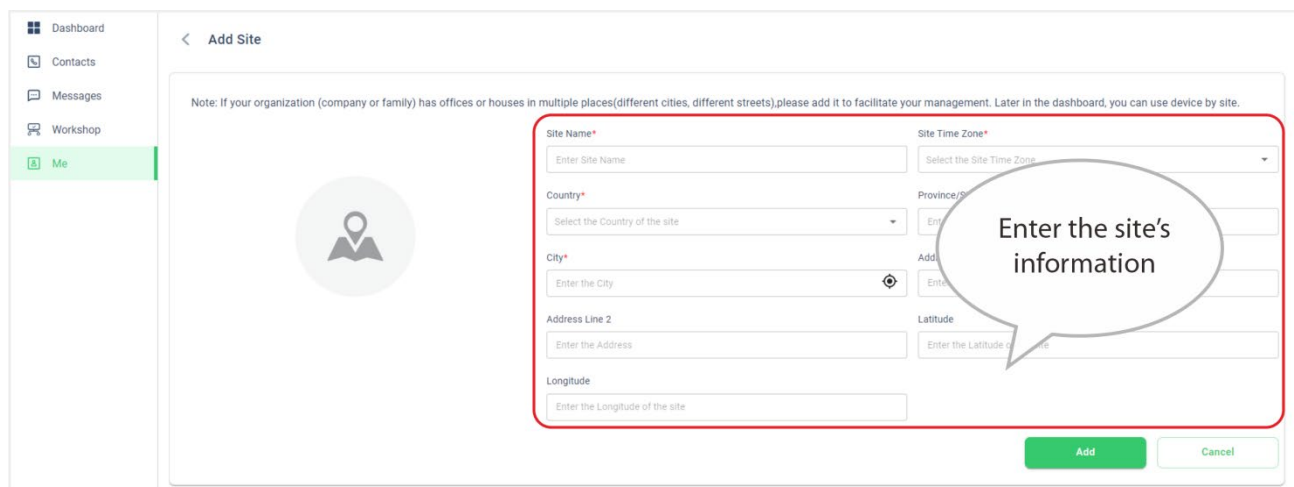



- 4. Set the organization's name and code, click **[Create]**, then complete registration.

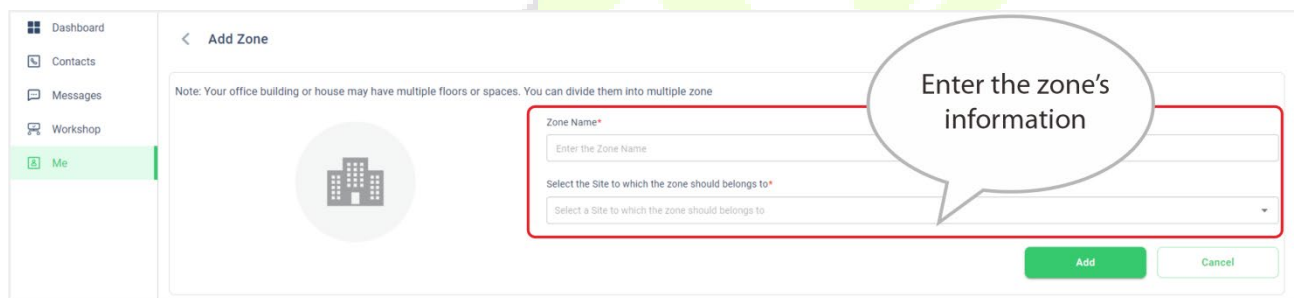


- 5. Log in with the account and organization you created.

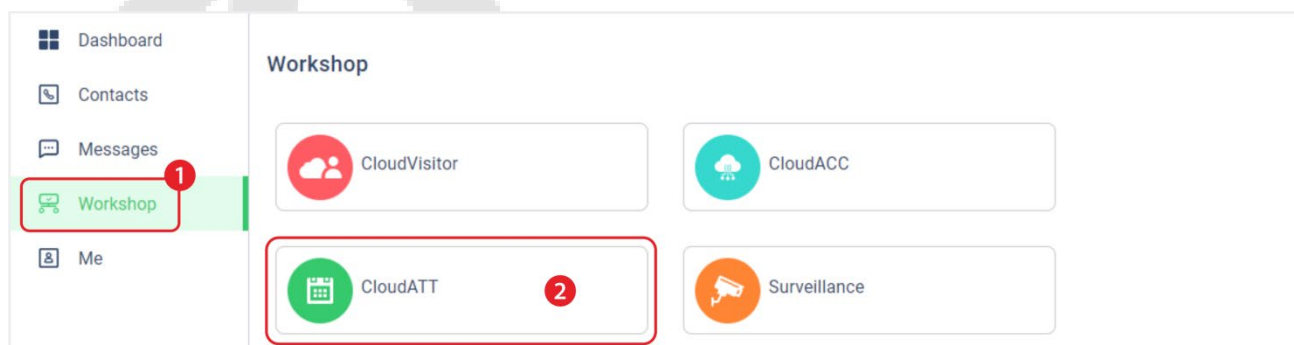
- Click **[Site list]** on the **[Organization]**, and click add icon  to add the site. Enter the site's information, and click **[Add]**.



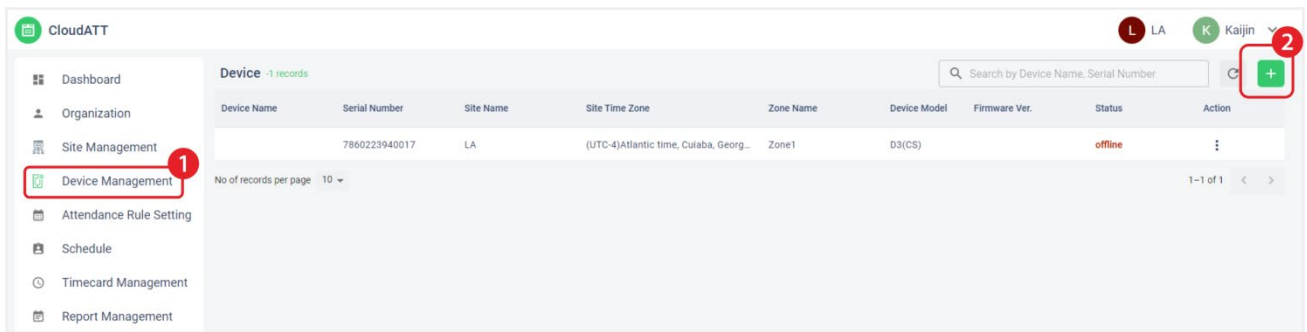
- Click **[Zone list]** on the **[Organization]**, and click add icon  to add the zone. Enter the zone's information, and click **[Add]**.



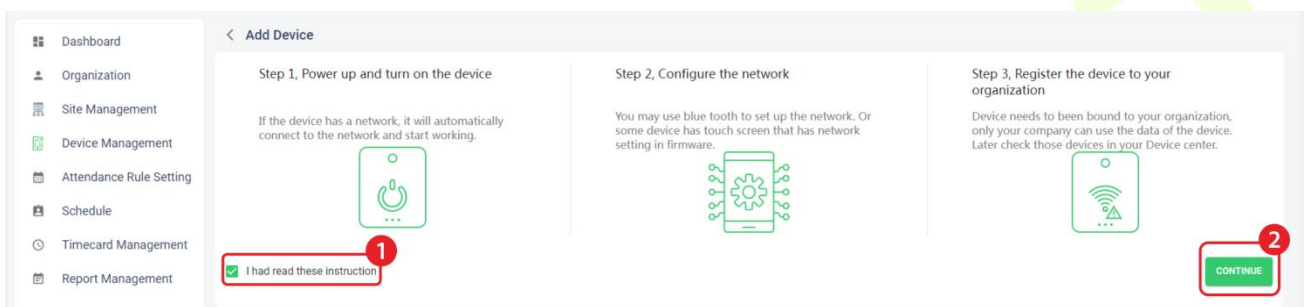
- Click **[Workshop]** > **[CloudATT]** on the ZKBio Zlink Web main menu.



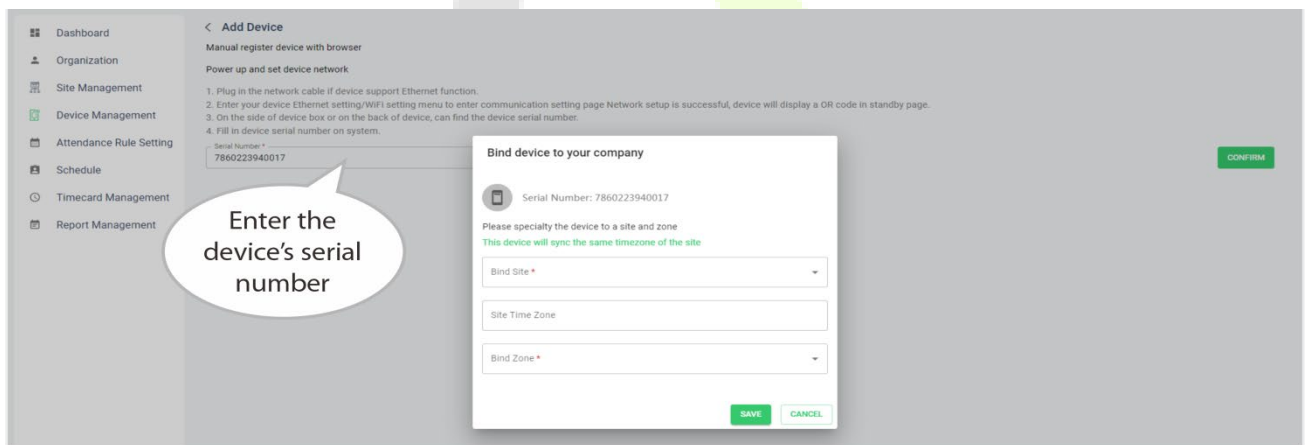
9. Click **[Device Management]** >  to add devices on the **[CloudATT]**.



10. Read and check to the instructions, then click **[Continue]**.



11. Enter the device's serial number, then click **[SAVE]**.

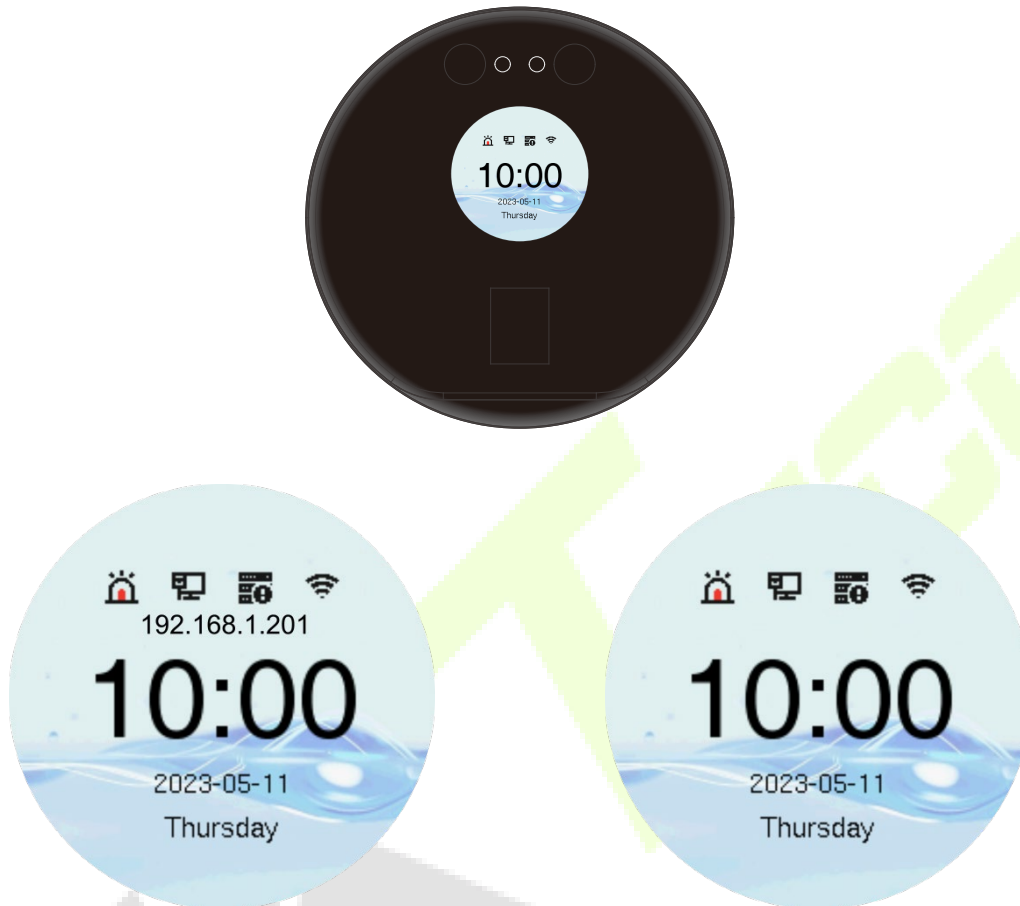


The following screen appears on the device to indicate successful activation, and then you can register or verify users, etc.



5 Standby Interface

After connecting the power supply, the following standby interface is displayed:



The device has a built-in IP address, which can be used for device communication, connection to WebServer.

Note: The device uses a 2" display screen, which does not support touch operation and is only used to display status and verification information. All operations such as device information, communication settings, user management and system settings are operated and set up on WebServer.

6 Verification Mode

6.1 Facial Verification

In this verification mode, the device compares the collected facial images with all face data registered in the device. The following is the pop-up prompt of a successful comparison result.

Successfully verified:



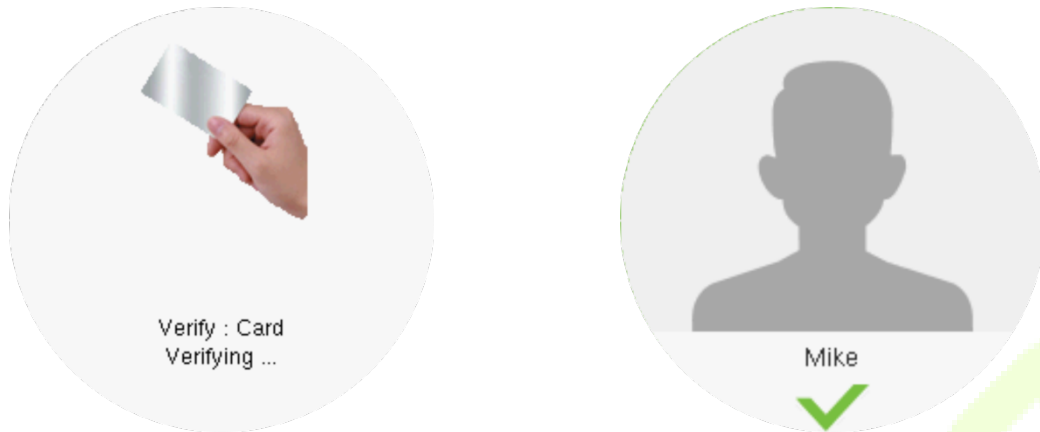
Failed to verify:



6.2 Card Verification★

The Card Verification mode compares the card number in the card induction area with all the card number data registered in the device; The following is the card verification screen.

Successfully verified:



Failed to verify:

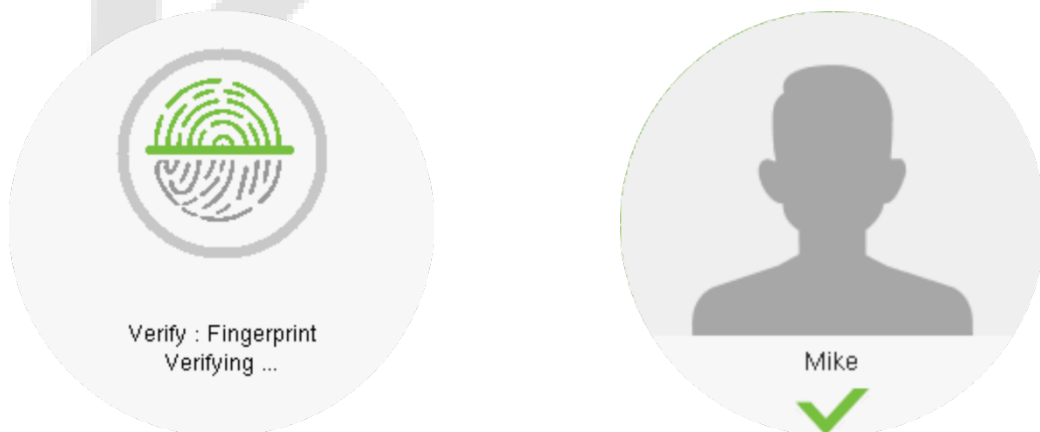


6.3 Fingerprint Verification

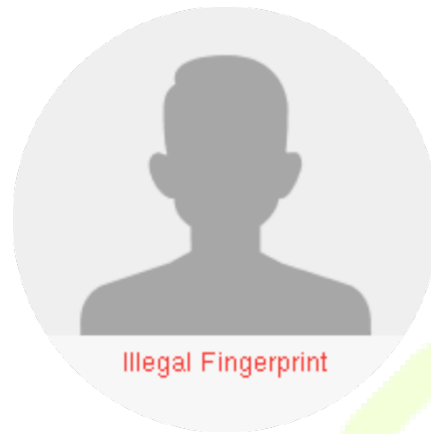
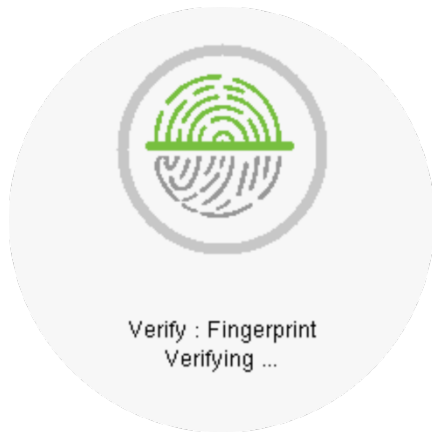
This method compares the fingerprint of the user that is being pressed onto the fingerprint reader with all the fingerprint data that is pre- stored in the device.

To enter fingerprint identification mode, simply tap your finger on the fingerprint reader.

Successfully verified:



Failed to verify:



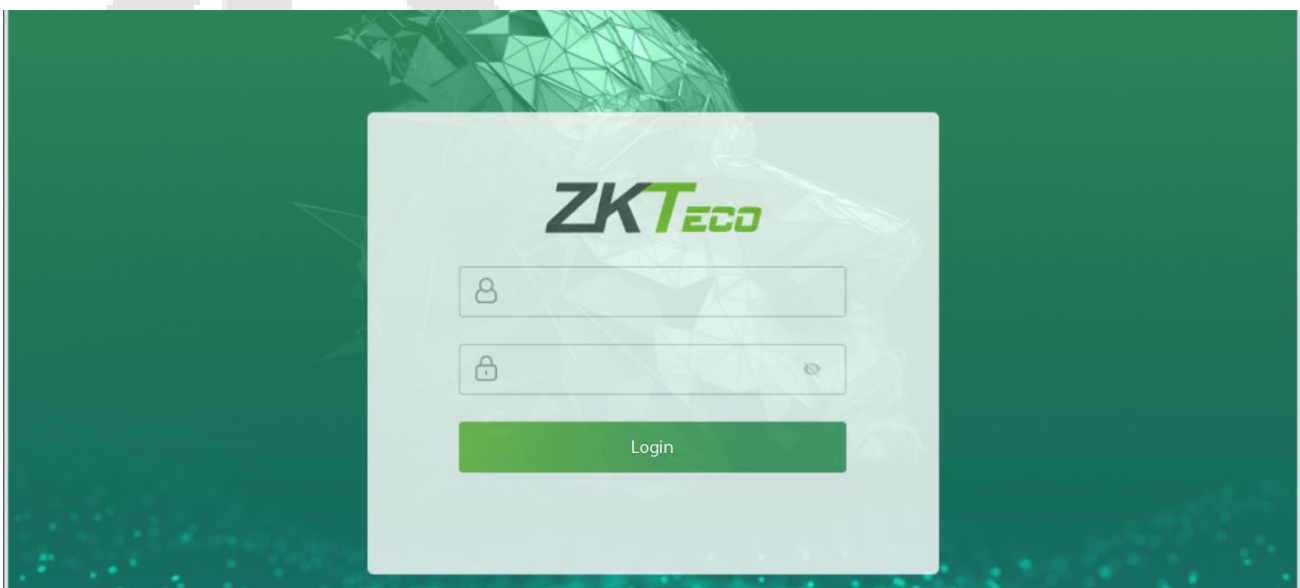
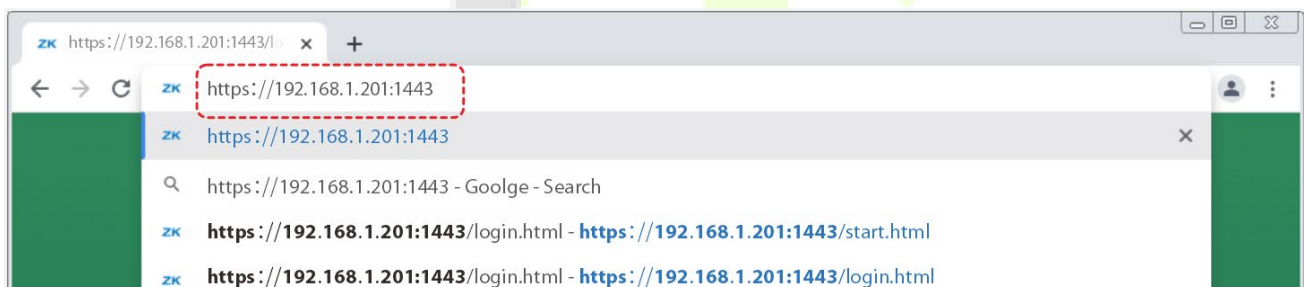
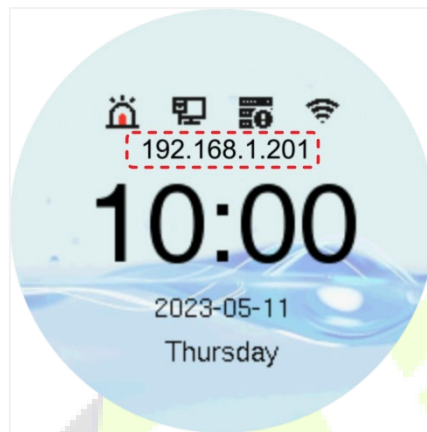
7 Login WebServer

A user can open the web application to set the relevant parameters of the device.

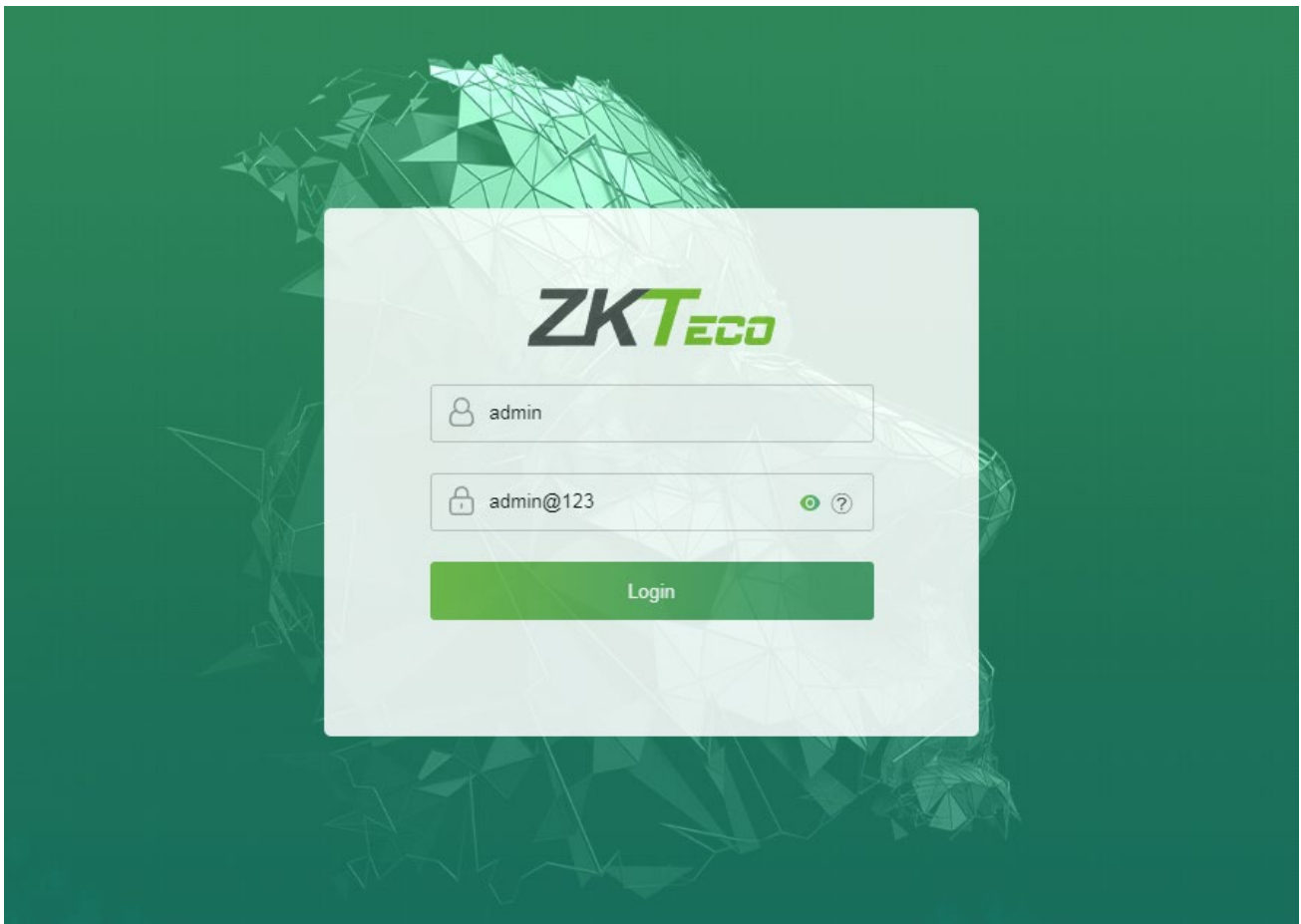
1. Open a browser to enter the address to log in to the WebServer, the address is **https:// Serial IP Address:1443**. For example: **https://192.168.1.201:1443**.



Note: The Serial IP Address of the device for communication can be modified, for details please refer to [Communication Settings](#).



2. Enter the WebServer account and password, the default account is: **admin**, password: **admin@123**.



 **Note:**

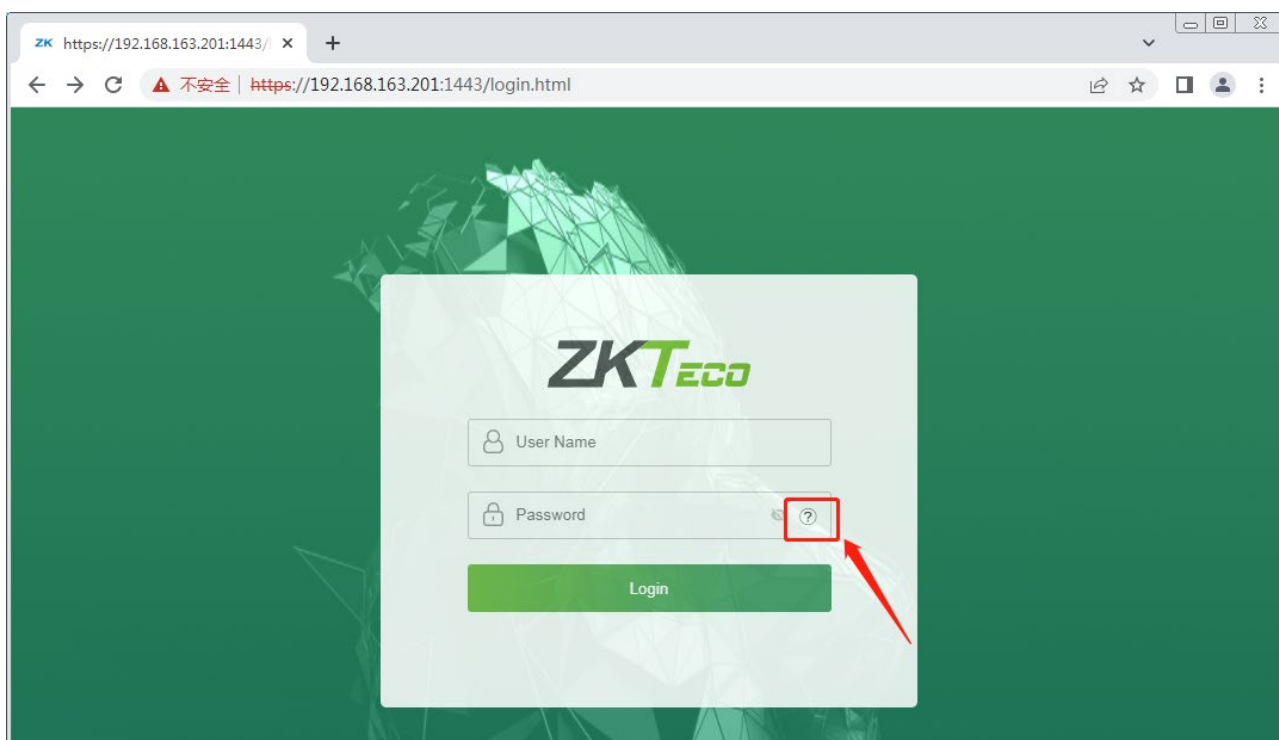
1. After logging in for the first time, users need to change their original password and log in again before they can use it, please refer to [Change Password](#).
2. In order to retrieve the password easily, please register a super admin first, please refer to [User Registration](#).

8 Forgot Password

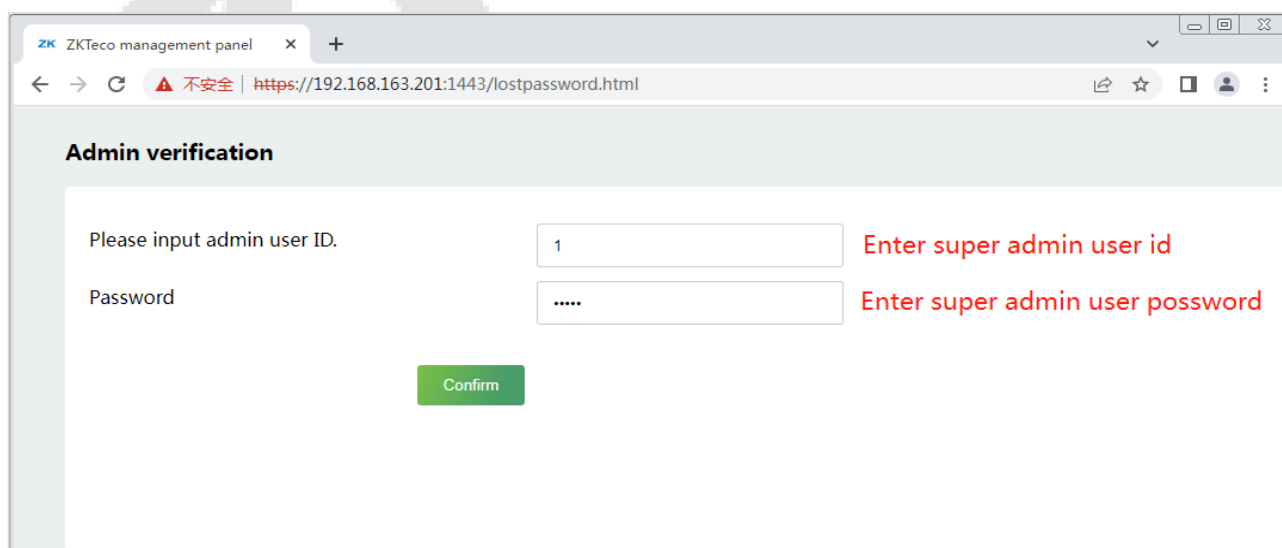
- **Method 1 (When there is a super admin):**

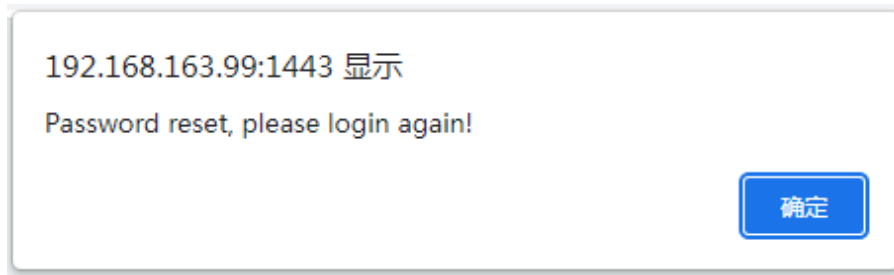
If you forgot the password of WebServer, you can reset it by the registered [super admin](#). The detailed steps are as follows:

1. Click the icon on the login interface.

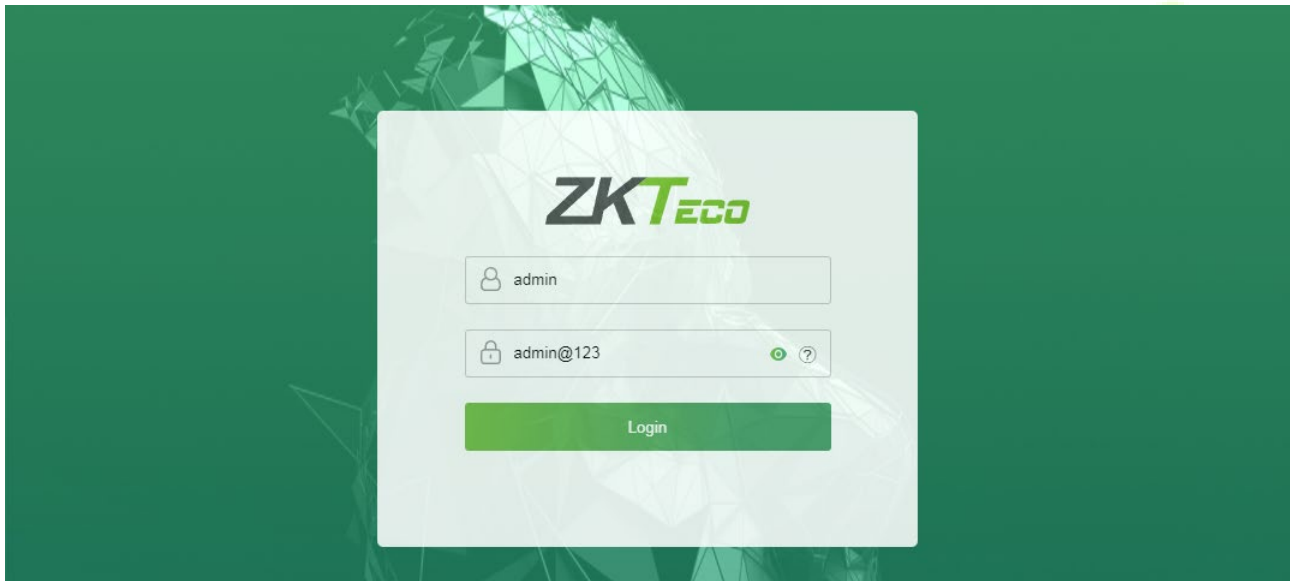


2. On the pop-up page, enter the relevant information of the super admin user as prompted.

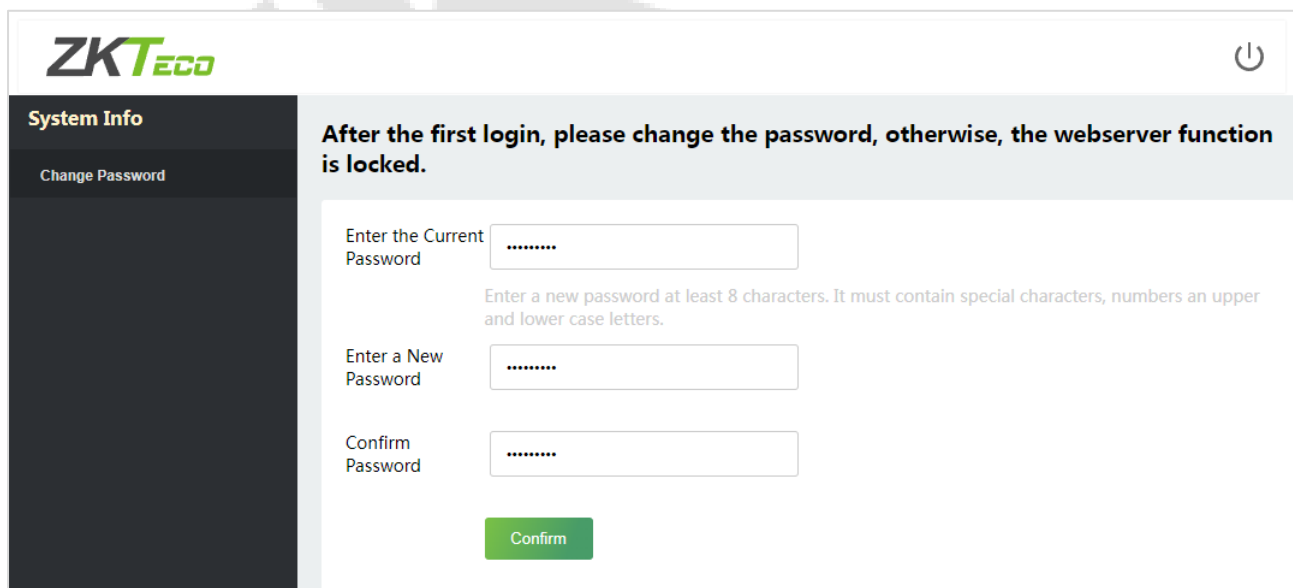




3. After a successful reset, enter the default account and password (account: **admin**, password: **admin@123**) on the login interface to log in.



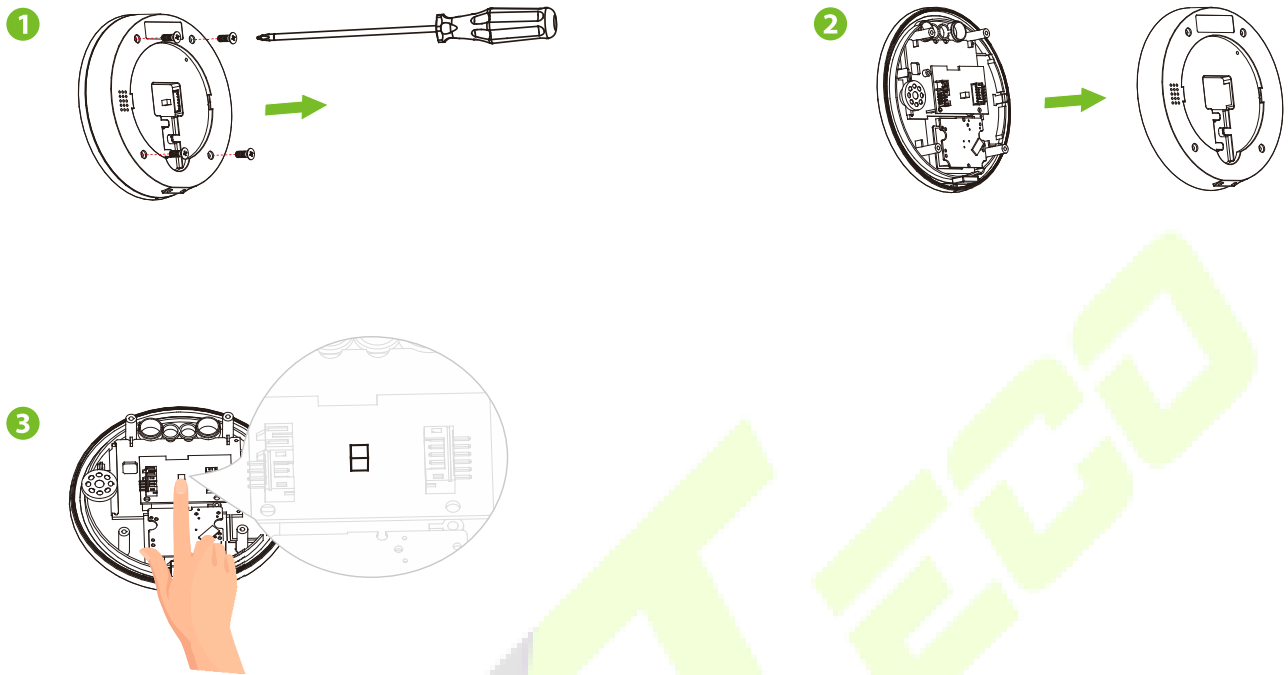
4. For security reasons, please change your password after successfully logging in.



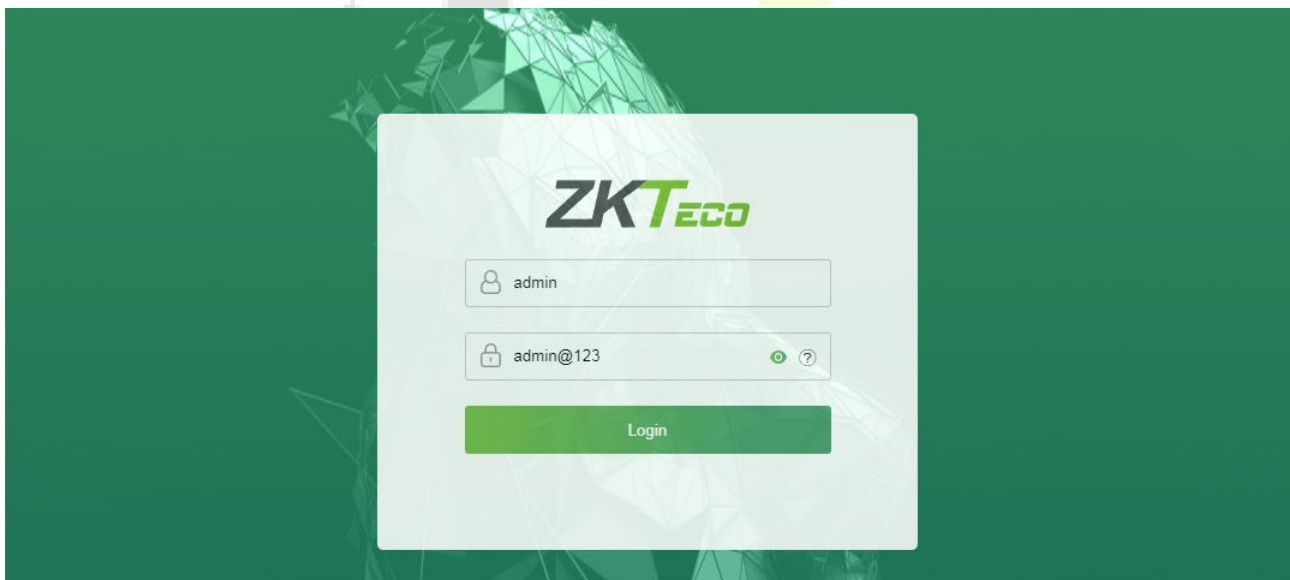
Note: The super admin must exist.

- **Method 2 (When there is not a super admin):**

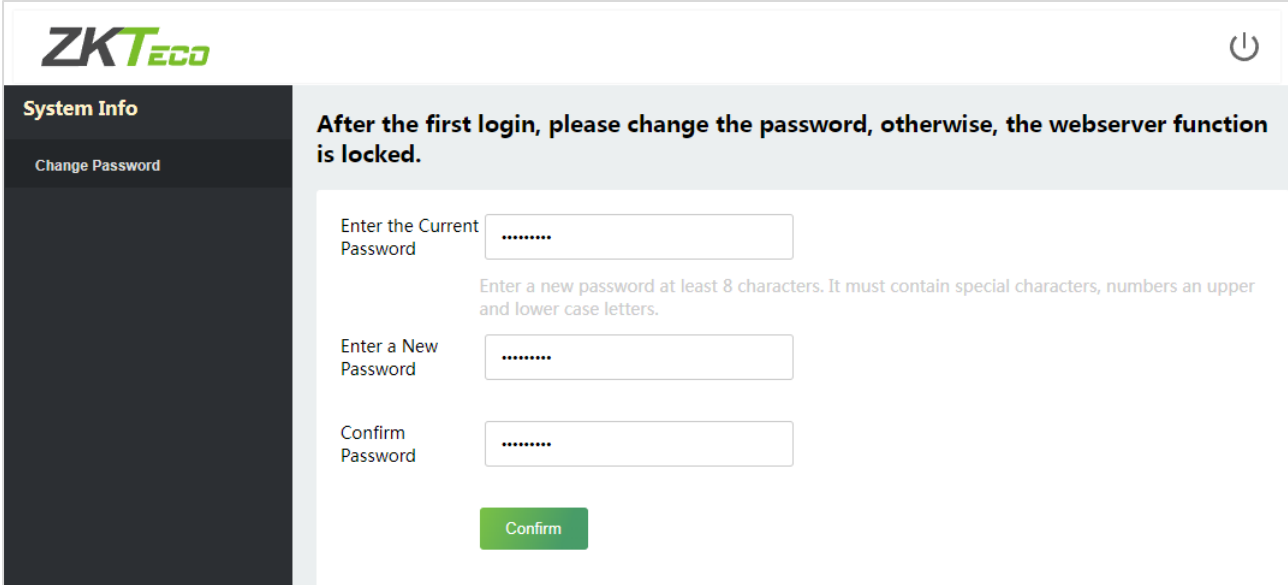
1. Remove the back cover with a screwdriver and long press the restore button to restore the device to factory settings.



2. After a successful restore, enter the default account and password (account: **admin**, password: **admin@123**) on the login interface to log in.



3. For security reasons, please change your password after successfully logging in.



ZKTECO ⏻

System Info

Change Password

After the first login, please change the password, otherwise, the webserver function is locked.

Enter the Current Password

Enter a new password at least 8 characters. It must contain special characters, numbers an upper and lower case letters.

Enter a New Password

Confirm Password

- **Method 3:**

Please contact our after-sales technicians to help retrieve the password.

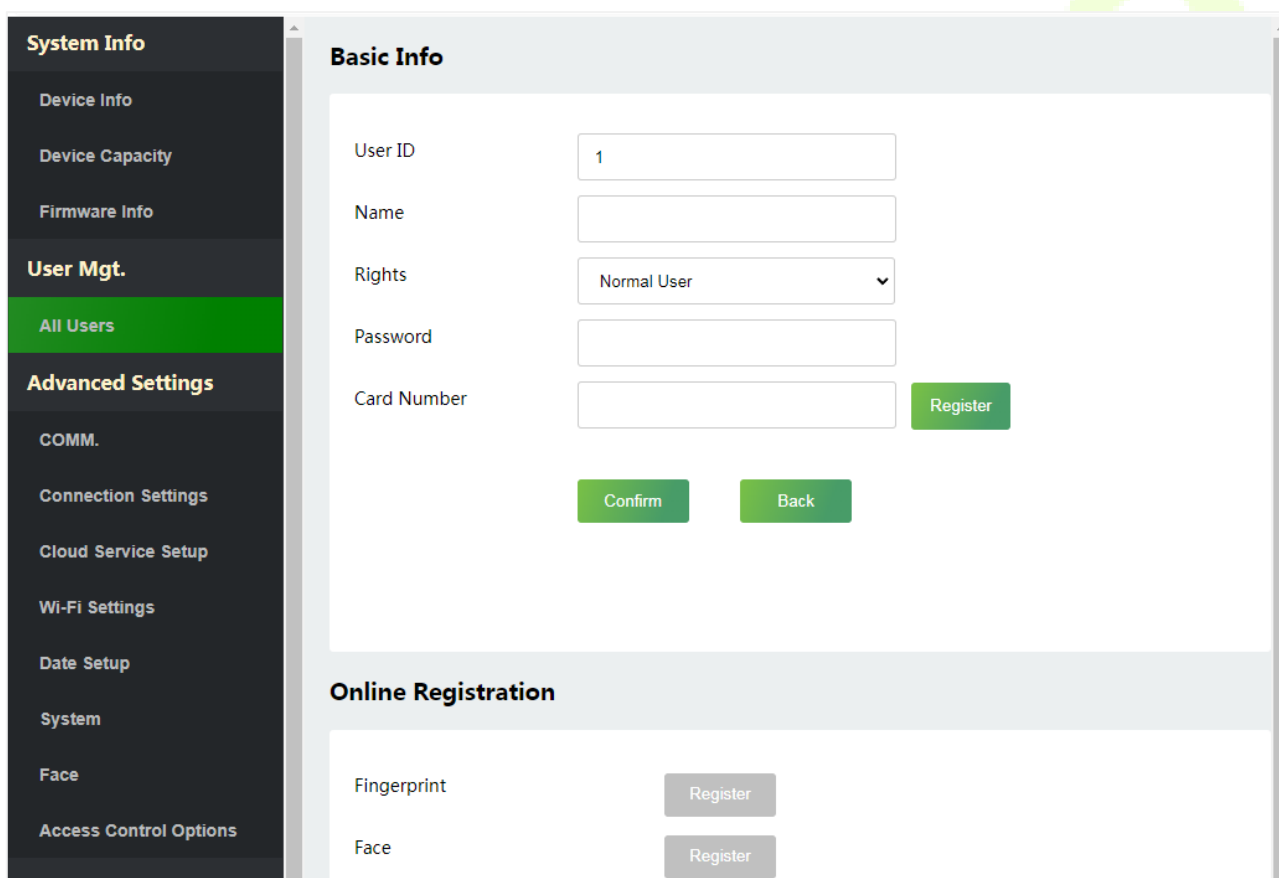
9 User Management

9.1 User Registration

9.1.1 Basic Information

Click **All Users** on the WebServer.

In this interface, you can register the User ID, Name, Rights, Password and Card Number of the new user, click **Confirm** to save.



Function Name	Description
User ID	The user ID may contain 1 to 14 characters by default. It can be numbers, letters, symbols, etc.
Name	Support English, Chinese and symbols etc.

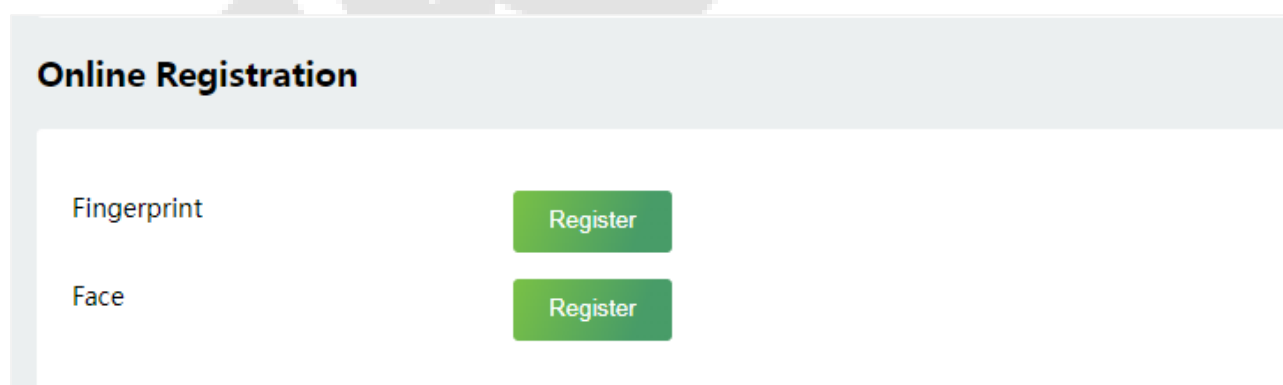
Rights	<p>Set the role for the user as either Normal User or Super Admin.</p> <ul style="list-style-type: none"> • Super Admin: The Super Admin owns all management privileges in the WebServer. • Normal User: If the Super Admin is already registered in the WebServer, then the Normal Users will not have the privileges to manage the system and can only access authentication verifications.
Password	Set the user's registration password.
Card Number	<p>Enter the card number manually, after registering the user's card number, the user can swipe the card for verification. Or behind the card number, click Register, and the device will display the card registration interface in real time, swipe the card underneath the card reading area. The registration of the card will be successful.</p>

 **Note:**

1. During the initial registration, you can modify your ID; you cannot be modifying the registered ID once after the successful registration.
2. If the message "**Registration failed!**" pops up, you must choose a different User ID because the one you entered already exists.

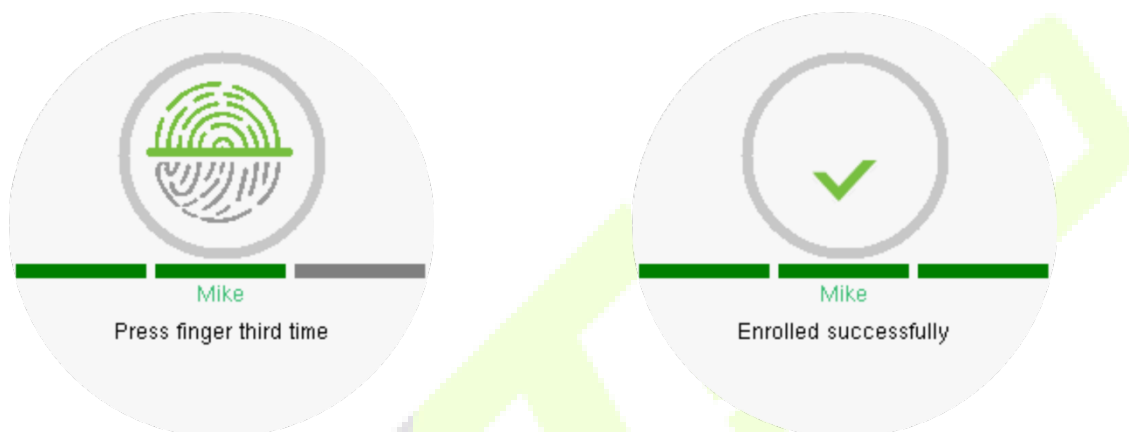
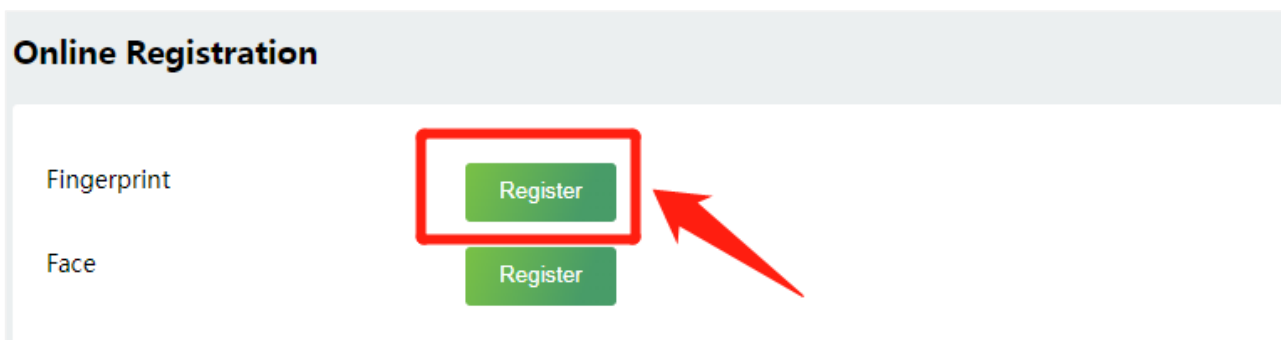
9.1.2 Online Registration

In this interface, you can register the User's Face and Fingerprint. The verification mode can only be registered after the basic information is confirmed.



➤ Register Fingerprint

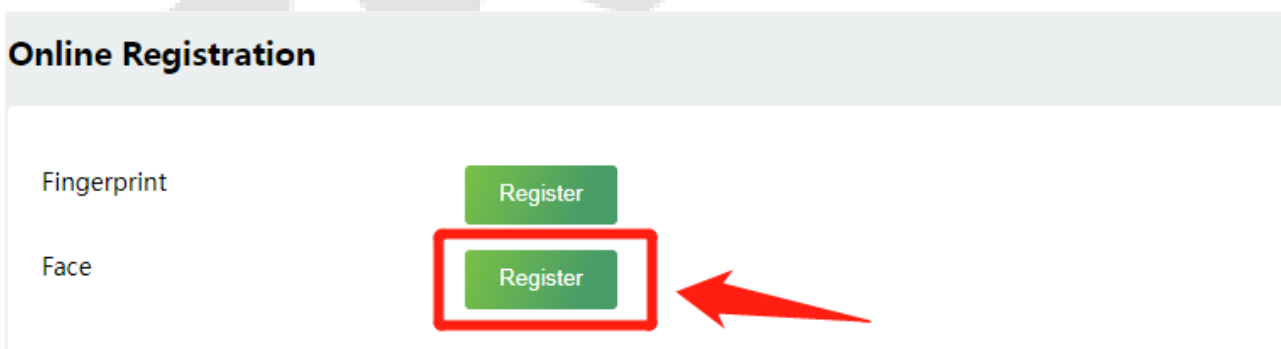
In the current interface, behind the fingerprint bar, click **Register**, and the device will display the fingerprint registration interface in real time, press your finger onto the fingerprint sensor of the device, and follow the instructions to complete the registration.



For fingerprint pressing operation, please refer to [Finger Placement](#).

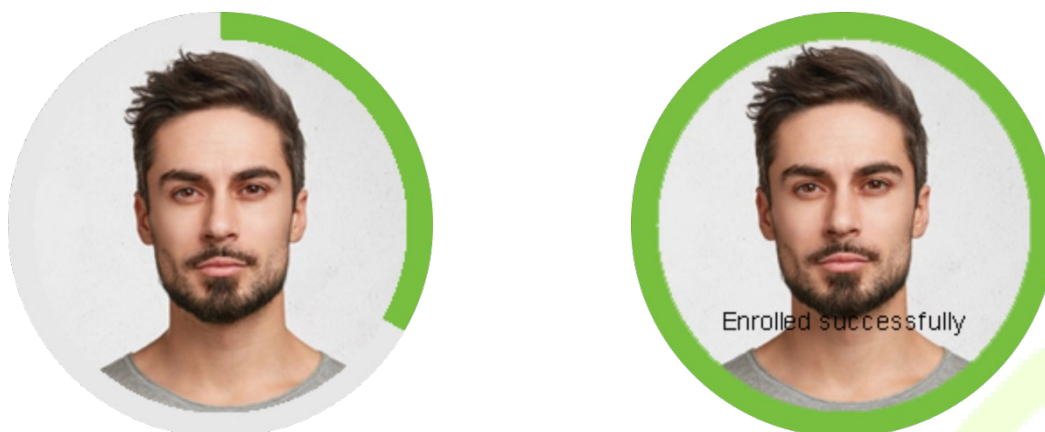
➤ **Register Face**

In the current interface, behind the face bar, click **Register**, and the device will display the face registration interface in real time.



- Please face towards the camera and position your face inside the white guiding box and stay still during face registration.
- A progress bar shows up while registering the face and “**Enrolled Successfully**” is displayed until the registration completes.
- If the face is registered already then, the “**Duplicated Face**” message shows up.

The registration interface is as follows:



9.2 Search for Users

Click **All Users** on the WebServer, click the search bar to enter the required retrieval keyword (where the keyword may be the user ID, surname or full name) and the system will search for the related user information.

The screenshot shows the 'User Mgt.' interface. On the left is a sidebar menu with 'System Info', 'User Mgt.', and 'Advanced Settings'. Under 'User Mgt.', 'All Users' is selected. The main area contains a search bar with 'New User' and 'Delete User' buttons, a search icon, and a refresh icon. Below the search bar is a table of users:

<input type="checkbox"/>	User ID	Name	Rights	Card Number	Verification Method	Operation
<input type="checkbox"/>	3	Lee Ivan	Normal User			Change User Info Delete User
<input type="checkbox"/>	2	Yan YFen	Normal User			Change User Info Delete User
<input type="checkbox"/>	4	LeBron James	Normal User			Change User Info Delete User
<input type="checkbox"/>	1	Mike	Super Admin	1311129248		Change User Info Delete User

9.3 Edit User

On the **All Users** interface, select the required user from the list and click **Change User Info** to edit the user information.

User Mgt.

New User Delete User

<input type="checkbox"/>	User ID	Name	Rights	Card Number	Verification Method	Operation
<input type="checkbox"/>	3	Lee Ivan	Normal User			Change User Info Delete User
<input type="checkbox"/>	2	Yan YFen	Normal User			Change User Info Delete User
<input type="checkbox"/>	4	LeBron James	Normal User			Change User Info Delete User
<input type="checkbox"/>	1	Mike	Super Admin	1311129248		Change User Info Delete User

Change User Info

User ID:

Name:

Rights:

Password:

Card Number:

Online Registration

Fingerprint:

Face:

Note: The process of editing the user information is the same as that of adding a new user, except that the User ID cannot be modified. The process in detail refers to [User Registration](#).

9.4 Delete User

On the **All Users** interface, select the required user from the list and click **Delete User** to delete the user. Here individual deletion and batch deletion is available.

System Info

- Device Info
- Device Capacity
- Firmware Info
- User Mgt.**
- All Users
- Advanced Settings
- COMM.
- Connection Settings
- Cloud Service Setup

User Mgt.

New User **Delete User** 2

<input type="checkbox"/>	User ID	Name	Rights	Card Number	Verification Method	Operation
<input type="checkbox"/>	3	Lee Ivan	Normal User			Change User Info Delete User
<input checked="" type="checkbox"/>	2	Yan YFen	Normal User			Change User Info Delete User
<input type="checkbox"/>	4	LeBron James	Normal User			Change User Info Delete User
<input type="checkbox"/>	1	Mike	Super Admin	1311129248		Change User Info Delete User



10 Advanced Settings

10.1 Communication Settings

Click **COMM.** on the WebServer.

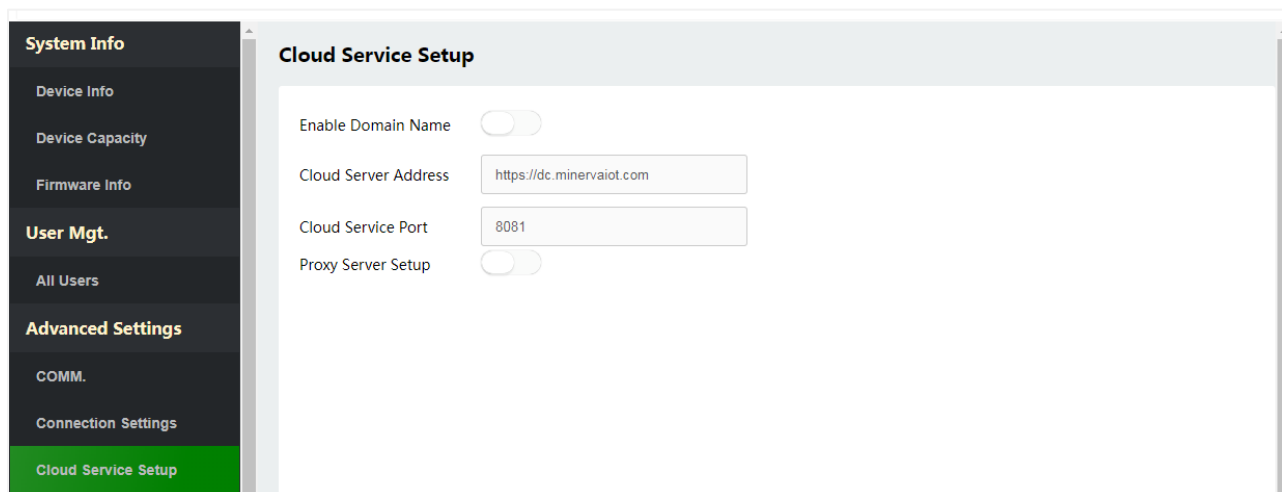
Change the IP address of the device as needed, click **Confirm** to save, and the device will automatically synchronize the IP information.



Function Name	Description
DHCP	Select whether to obtain the IP Address by automatically.
IP Address	The default IP address is 192.168.1.201. It can be modified according to network availability.
Subnet Mask	The default Subnet Mask is 255.255.255.0. It can be modified according to network availability.
Gateway	The Default Gateway address is 0.0.0.0. It can be modified according to network availability.
DNS	The default DNS address is 0.0.0.0. It can be modified according to network availability.

Note: After the IP address of the device is changed successfully, you need to log out of the currently WebServer and log in again to the IP address you just changed to connect to the device. For WebServer login details, please refer to [Login WebServer](#).

10.2 Cloud Server Setting

Click **Cloud Service Setup** on the WebServer.



Function Name		Description
Enable Domain Name	Server Address	Once this function is enabled, the domain name mode "http://..." will be used, such as http://www.XYZ.com, while "XYZ" denotes the domain name (when this mode is turned ON).  Note: The device is blocked from enabling this feature.
Cloud Server Address		The address of the Zlink server.
Cloud Service Port		The port of the Zlink server.
Proxy Server Setup		When you choose to enable the proxy, you need to set the IP address and port number of the proxy server.  Note: The device is blocked from enabling this feature.

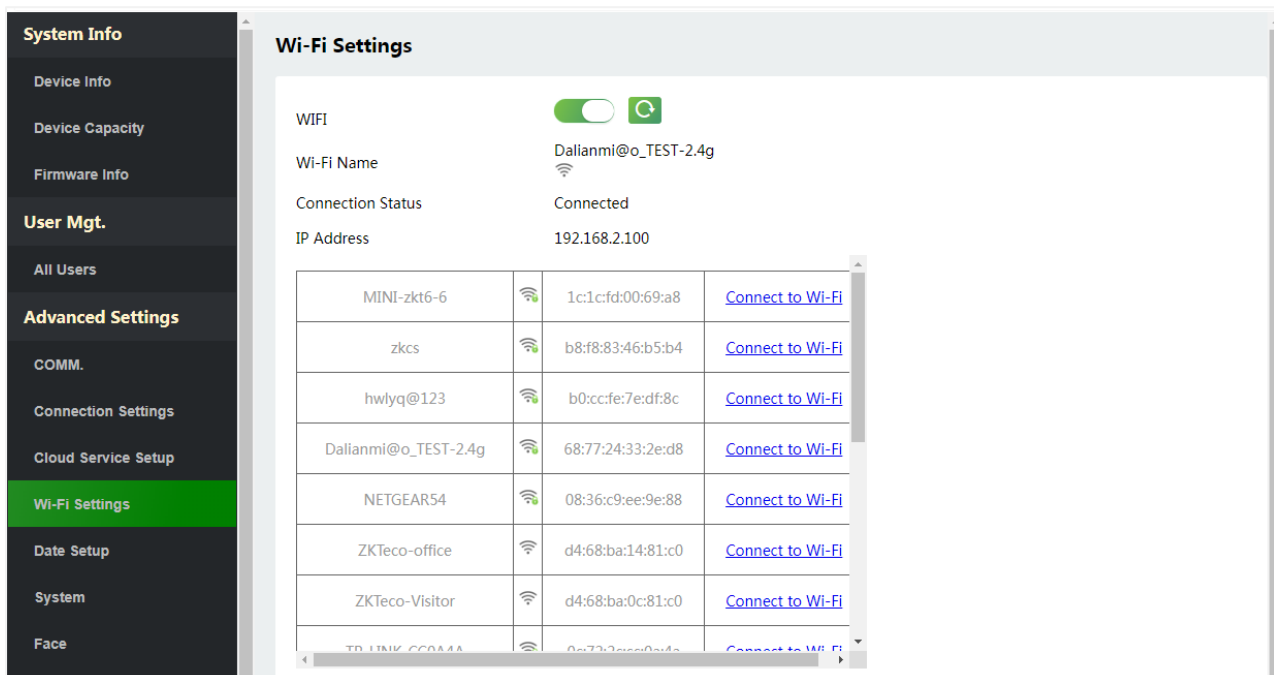
10.3 Wi-Fi Settings

The device provides a Wi-Fi module, which can be built-in within the device module or can be externally connected.

The Wi-Fi module enables data transmission via Wi-Fi (Wireless Fidelity) and establishes a wireless network environment. Wi-Fi is enabled by default in the device. If you don't need to use the Wi-Fi network, you can toggle the Wi-Fi to disable the button.

Click **Wi-Fi Settings** on the WebServer.

Click **Connect to Wi-Fi** after the name of the searched wireless network, and enter the correct password in the pop-up window to connect to the network.



Function Name	Description
WIFI	Wi-Fi's switch, choose button to enable/disable the Wi-Fi function. Click to refresh the wireless network.
Wi-Fi Name	Show the currently connected Wi-Fi.
Connection Status	Displays the current connection status of the device's wireless network.
IP Address	Displays the IP address of the current device's wireless network.

The Wi-Fi can also be added manually if the required Wi-Fi does not show on the list.

Add Wi-Fi Network

SSID

Network Mode

Auth. Mode

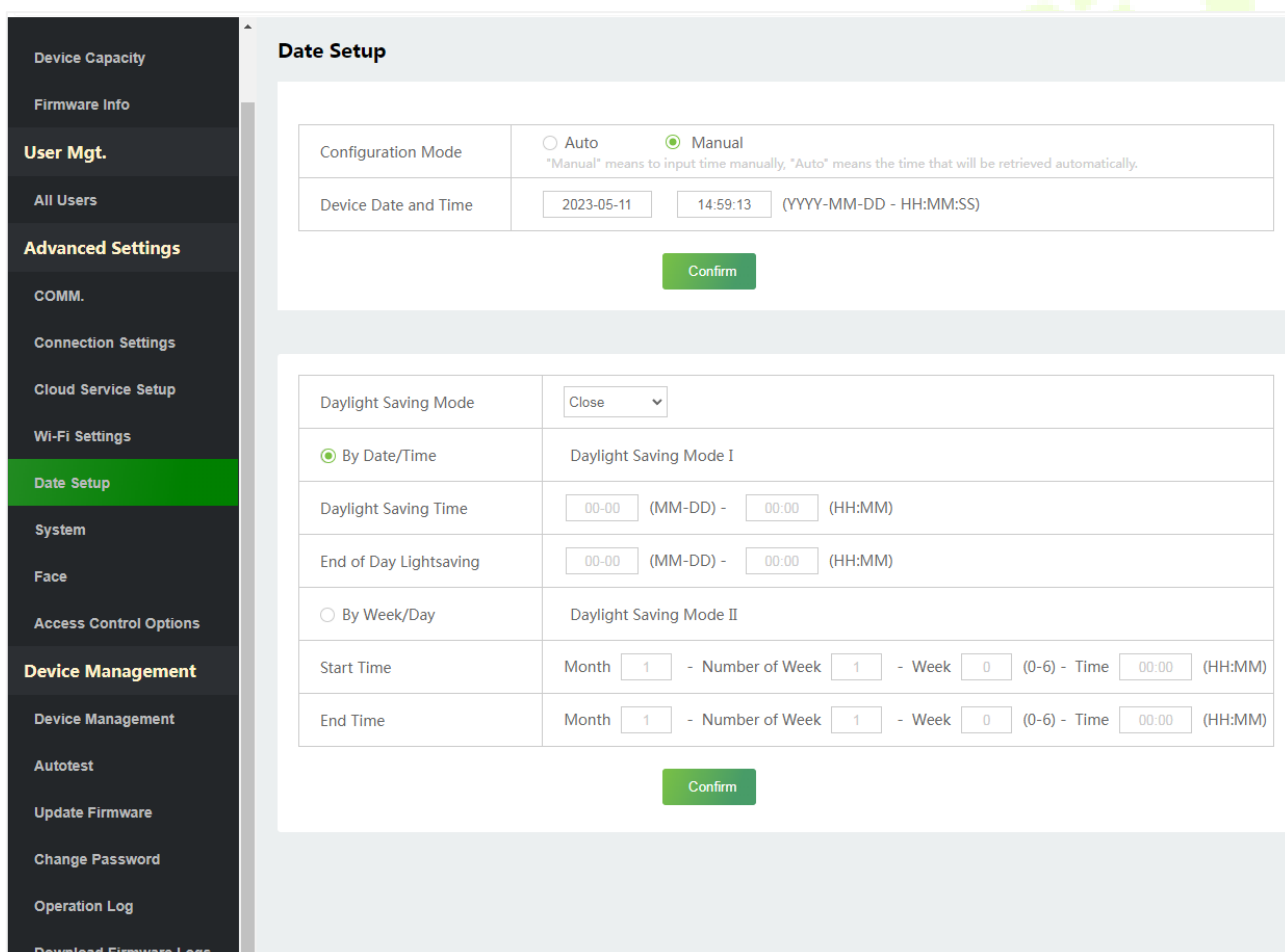
On this interface, enter the Wi-Fi network parameters. (The added network must exist.)

Note: After successfully adding the Wi-Fi manually, follow the same process to search for the added Wi-Fi name.

10.4 Date Setup

Click **Date Setup** on the WebServer.

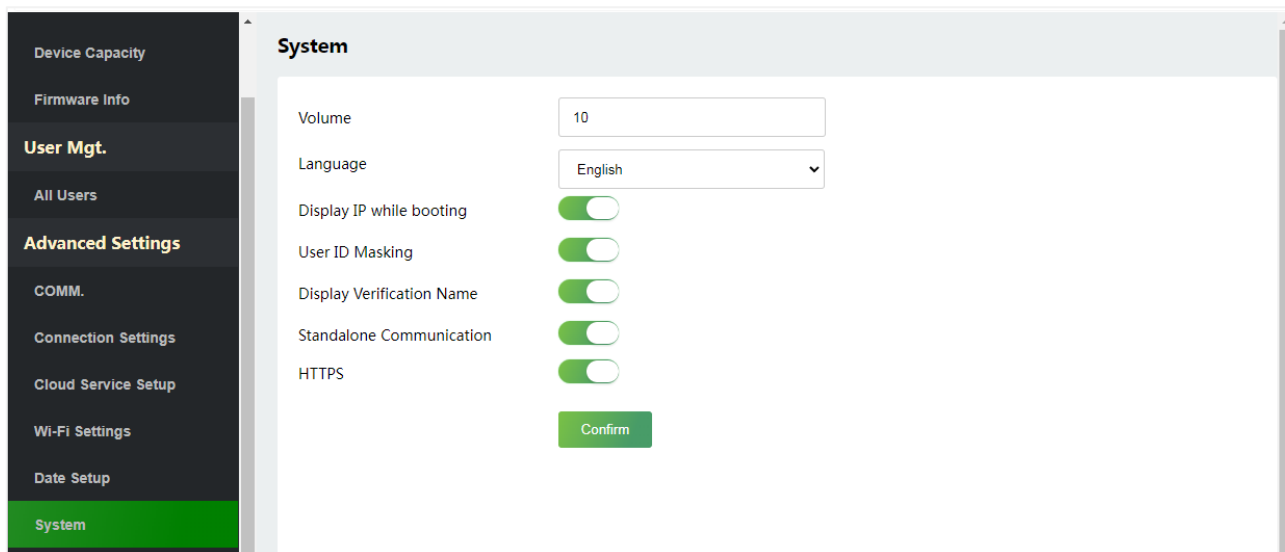
- Click **Manual** to manually set the date and time and click **Confirm** to save.
- Select Open or Close the **Daylight Saving Mode** function. If opened, set the **Daylight Saving Time** and **End of Daylight Saving**.



10.5 System Settings

Click **System** on the WebServer.

It helps to set related system parameters to optimize the accessibility of the device.



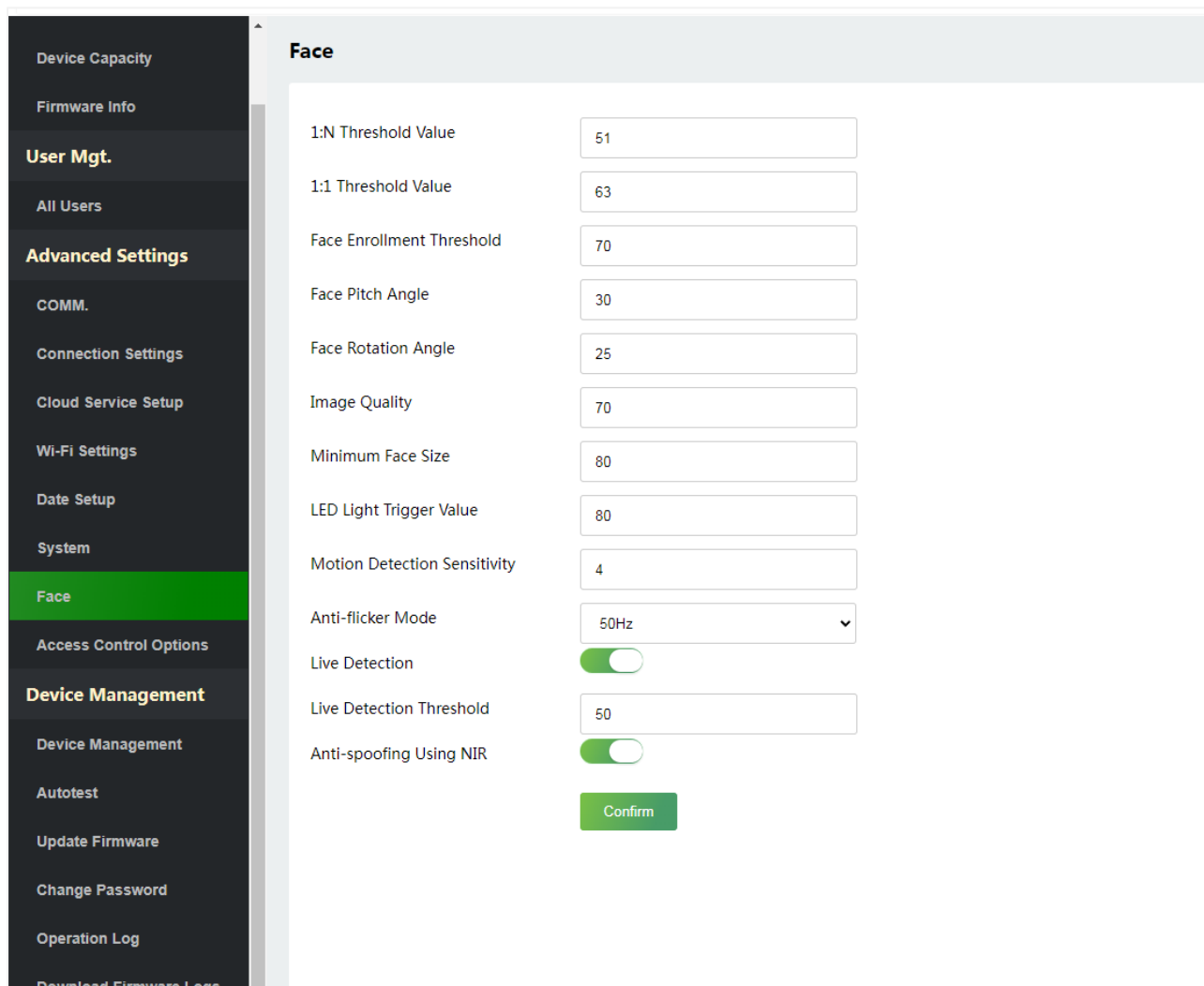
Function Name	Description
Volume	Adjust the volume of the device which can be set between 0 and 100.
Language	Select the language of the WebServer and device.
Display IP when booting	Enable/Disable the function of display IP when booting.
User ID Masking	When enabled, and then the user is successfully compared and verified, the User ID in the displayed verification result will be replaced with an * to achieve secure protection of sensitive private data.
Display Verification Name	Set whether to display the username in the verification result interface.
Standalone Communication	Set the communication protocol of the device.
HTTPS	To increase the security of software access, users can enable the HTTPS protocol to create a secure and encrypted network transmission and assure the security of sent data through identity authentication and encrypted communication. This function is enabled by default. This function can be enabled or disabled through the menu interface, and when changing the HTTPS status, the device will pop up a security prompt, and restart after confirmation.

Note:

1. After selecting the language and clicking **Confirm**, the device will automatically reboot and display the changed language.
2. Then WebServer will not display the switched language until the device reboots and log in again.

10.6 Face

Click **Face** on the WebServer.



Function Name	Description
1:N Threshold Value	<p>Under face verification mode, the verification will only be successful when the similarity between the acquired facial image and all registered facial templates is greater than the set value.</p> <p>The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgment rate, the higher the rejection rate, and vice versa. It is recommended to set the default value of 51.</p>

<p>1:1 Threshold Value</p>	<p>Under 1:1 verification mode, the verification will only be successful when the similarity between the acquired facial image and the user's facial templates enrolled in the device is greater than the set value.</p> <p>The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgment rate and the higher is the rejection rate, and vice versa. It is recommended to set the default value of 63.</p>
<p>Face Enrollment Threshold</p>	<p>During face enrolment, 1: N comparison is used to determine whether the user has already registered before.</p> <p>When the similarity between the acquired facial image and all registered facial templates is greater than this threshold, it indicates that the face has already been registered.</p>
<p>Face Pitch Angle</p>	<p>The pitch angle tolerance of a face for facial registration and comparison.</p> <p>If a face's pitch angle exceeds this set value, it will be filtered by the algorithm, i.e. ignored by the terminal thus no registration and comparison interface will be triggered.</p>
<p>Face Rotation Angle</p>	<p>The rotation angle tolerance of a face for facial template registration and comparison.</p> <p>If a face's rotation angle exceeds this set value, it will be filtered by the algorithm, i.e. ignored by the terminal thus no registration and comparison interface will be triggered.</p>
<p>Image Quality</p>	<p>Image quality for facial registration and comparison. The higher the value, the clearer the image requires.</p>
<p>Minimum Face Size</p>	<p>Required for facial registration and comparison.</p> <p>If the minimum size of the captured figure is smaller than this set value, then it will be filtered off and not recognized as a face.</p> <p>This value can be understood as the face comparison distance. The farther the person is, the smaller the face is, and the smaller the face pixel will be obtained by the algorithm. Therefore, adjusting this parameter can adjust the furthest comparison distance of faces. When the value is 0, the face comparison distance is not limited.</p>
<p>LED Light Triggered Value</p>	<p>This value controls the on and off of the LED light. The larger the value, the more frequently the LED light will be turned on.</p>
<p>Motion Detection Sensitivity</p>	<p>It is to set the value for the amount of change in a camera's field of view, which is known as potential motion detection that wakes up the terminal from standby to the comparison interface.</p> <p>The larger the value, the more sensitive the system would be, i.e. if a larger value is set, the comparison interface is much easier and the motion detection frequently triggered.</p>

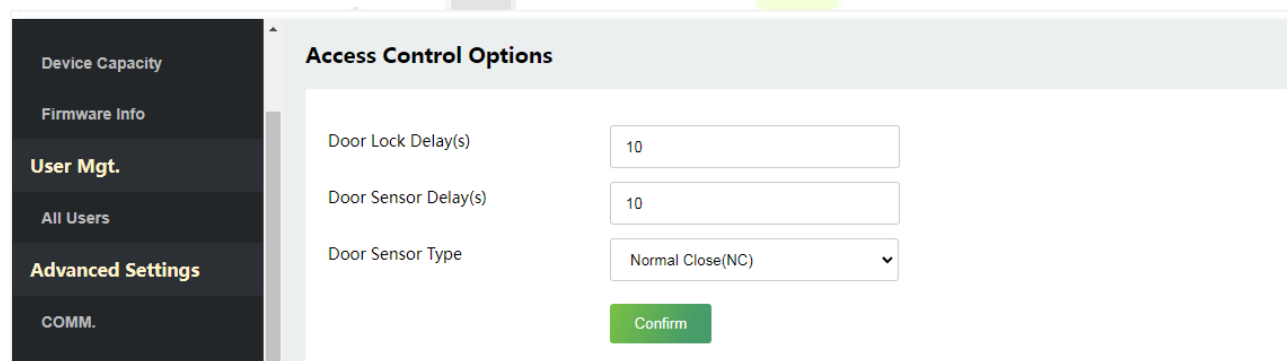
Anti-flicker Mode	Used when WDR is turned off. This helps reduce flicker when the device’s screen flashes at the same frequency as the light.
Live Detection	Detecting the spoof attempt using visible light images to determine if the provided biometric source sample is really a person (a live human being) or a false representation.
Live Detection Threshold	Facilitates to judge whether the captured visible image is really a person (a live human being). The larger the value, the better the anti-spoofing performance using visible light.
Anti-spoofing Using NIR	Using near-infrared spectra imaging to identify and prevent fake photos and video attacks.

Note: Improper adjustment of the exposure and quality parameters may severely affect the performance of the device. Please adjust the exposure parameter only under the guidance of the after-sales service personnel of our company.

10.7 Access Control Options

Click **Access Control Options** on the WebServer.

On the Access Control interface to set the parameters of the control lock of the terminal and related equipment.



Function Name	Description
Door Lock Delay(s)	The length of time that the device controls the electric lock to be in unlock state. Valid value: 1~255 seconds; 0 seconds represents disabling the function.
Door Sensor Delay(s)	If the door is not locked and is left open for a certain duration (Door Sensor Delay), an alarm will be triggered. The valid value of Door Sensor Delay ranges from 1 to 255 seconds.

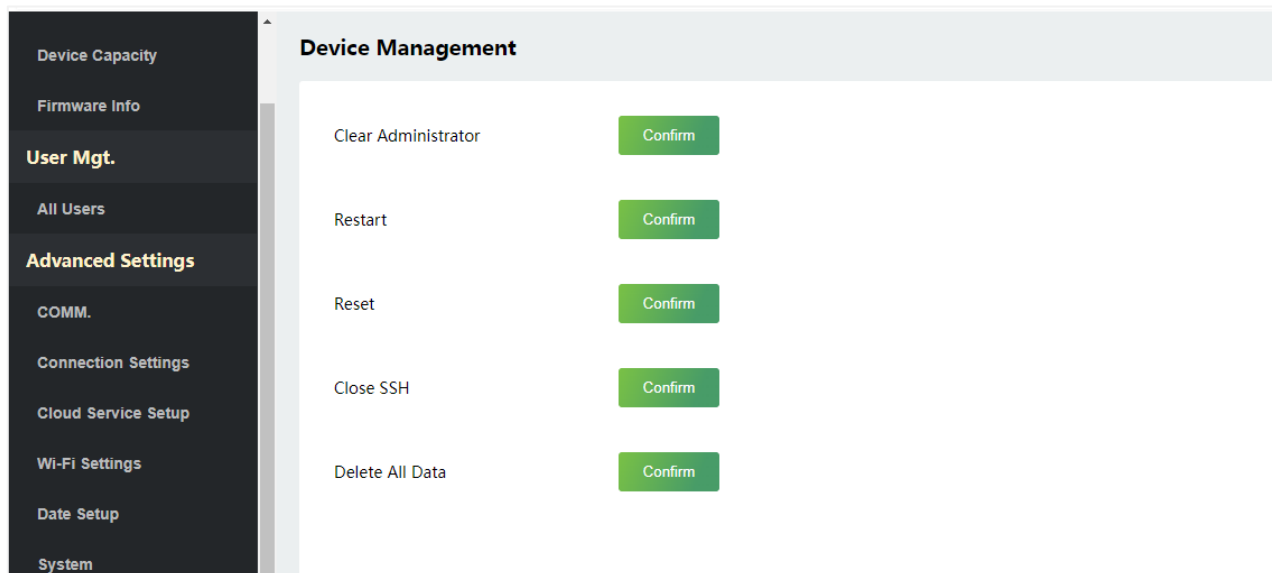
Door Sensor Type	<p>There are three Sensor types: None, Normal Open, and Normal Closed.</p> <p>None: It means the door sensor is not in use.</p> <p>Normally Open: It means the door is always left open when electric power is on.</p> <p>Normally Closed: It means the door is always left closed when electric power is on.</p>
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11 Device Management

11.1 Device Management

Click **Device Management** on the WebServer.

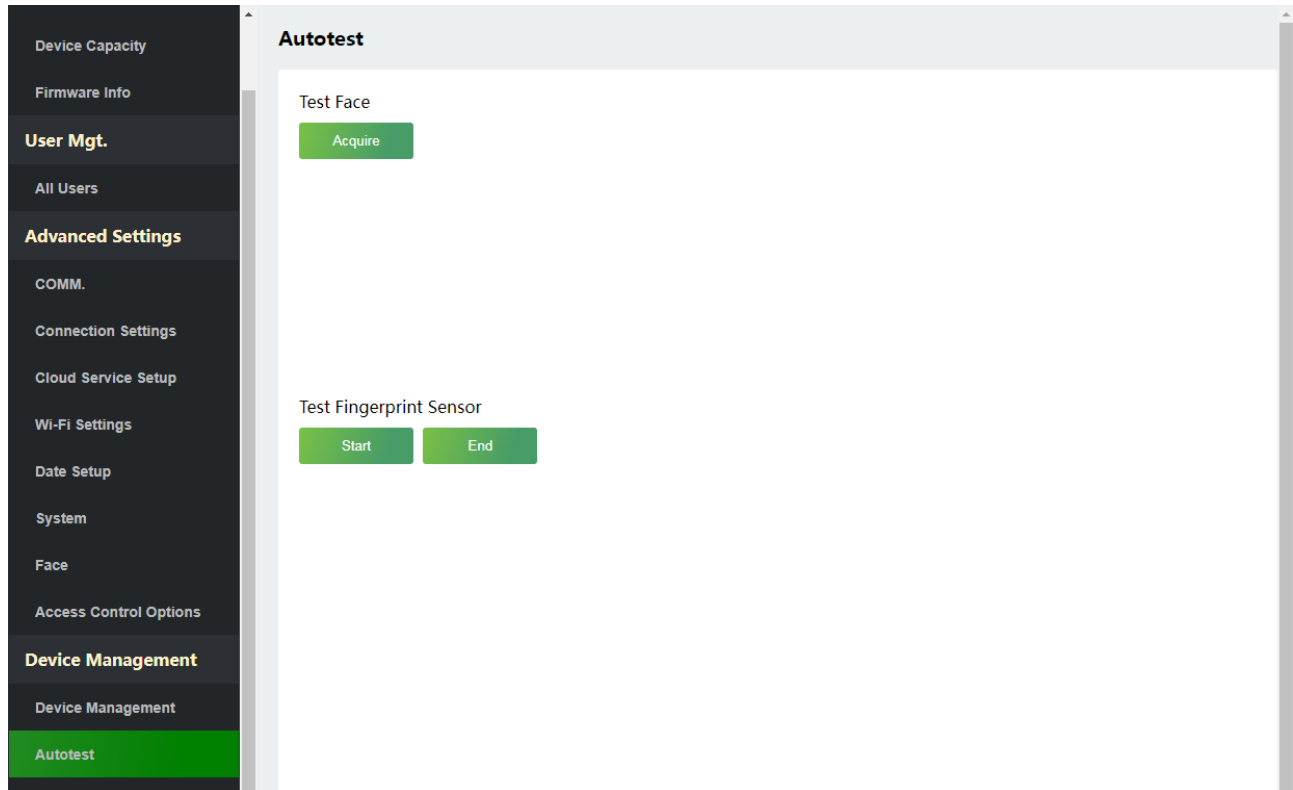


Function Name	Description
Clear Administrator	Choose whether to change the super administrator into a normal user.
Restart	Choose whether to restart the device.
Reset	The Reset function restores the device settings such as communication and system settings to the default factory settings (this function does not clear registered user data).  Note: After reset, the IP of the device is restored to the original 192.168.1.201, please refer to 10.1 Communication Settings to modify the IP.
Close SSH	SSH is used to enter the background of the device for maintenance, choose whether to close the SSH.
Delete All Data	To delete the information and attendance logs/access records of all registered users.

11.2 Autotest

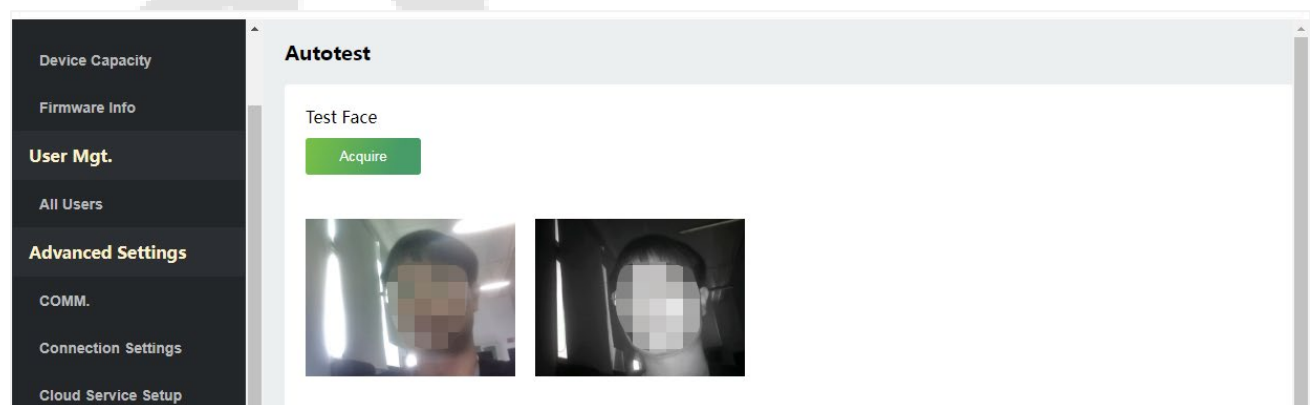
Click **Autotest** on the WebServer.

It enables the system to automatically test whether the functions of various modules are working normally.



11.2.1 Test Face

Click **Acquire**, the D3 device will display the Test Face interface in real time.



11.2.2 Test Fingerprint Sensor

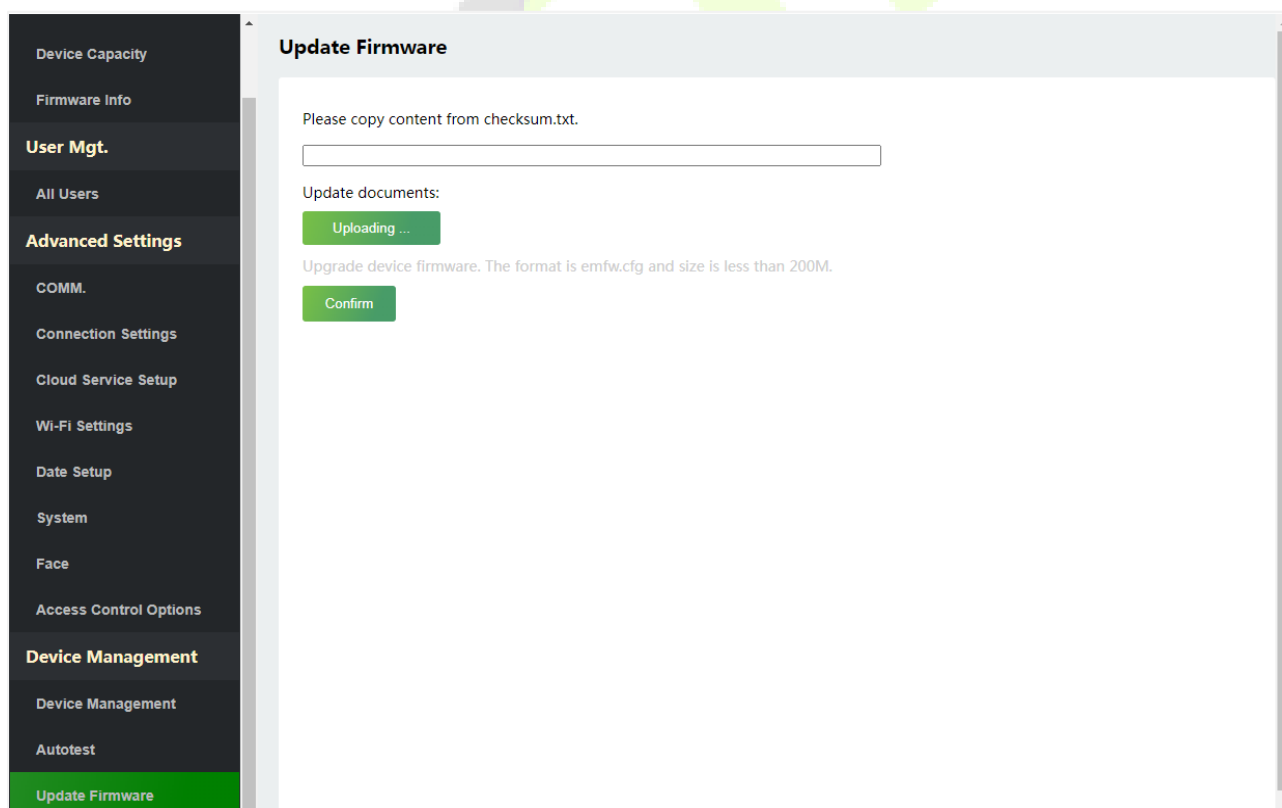
Click **Start**, the D3 device will display the Test Fingerprint interface in real time, click **End** to exit the test.



11.3 Update Firmware

Click **Update Firmware** on the WebServer.

Select an upgrade file and click **Confirm** to complete firmware upgrade operation.



Note: If the upgrade file is needed, please contact our technical support. Firmware upgrade is not recommended under normal circumstances.

11.4 Change Password

Click **Change Password** on the WebServer.

In this interface, you can change the password and reset the password of WebServer.

Change Password

Enter the Current Password

Enter a new password at least 8 characters. It must contain special characters, numbers an upper and lower case letters.

Enter a New Password

Confirm Password

Confirm

11.5 Operation Log

Click **Operation Log** on the WebServer.

All the user’s operation records on the device or WebServer are saved. Users can search and download these logs by time.

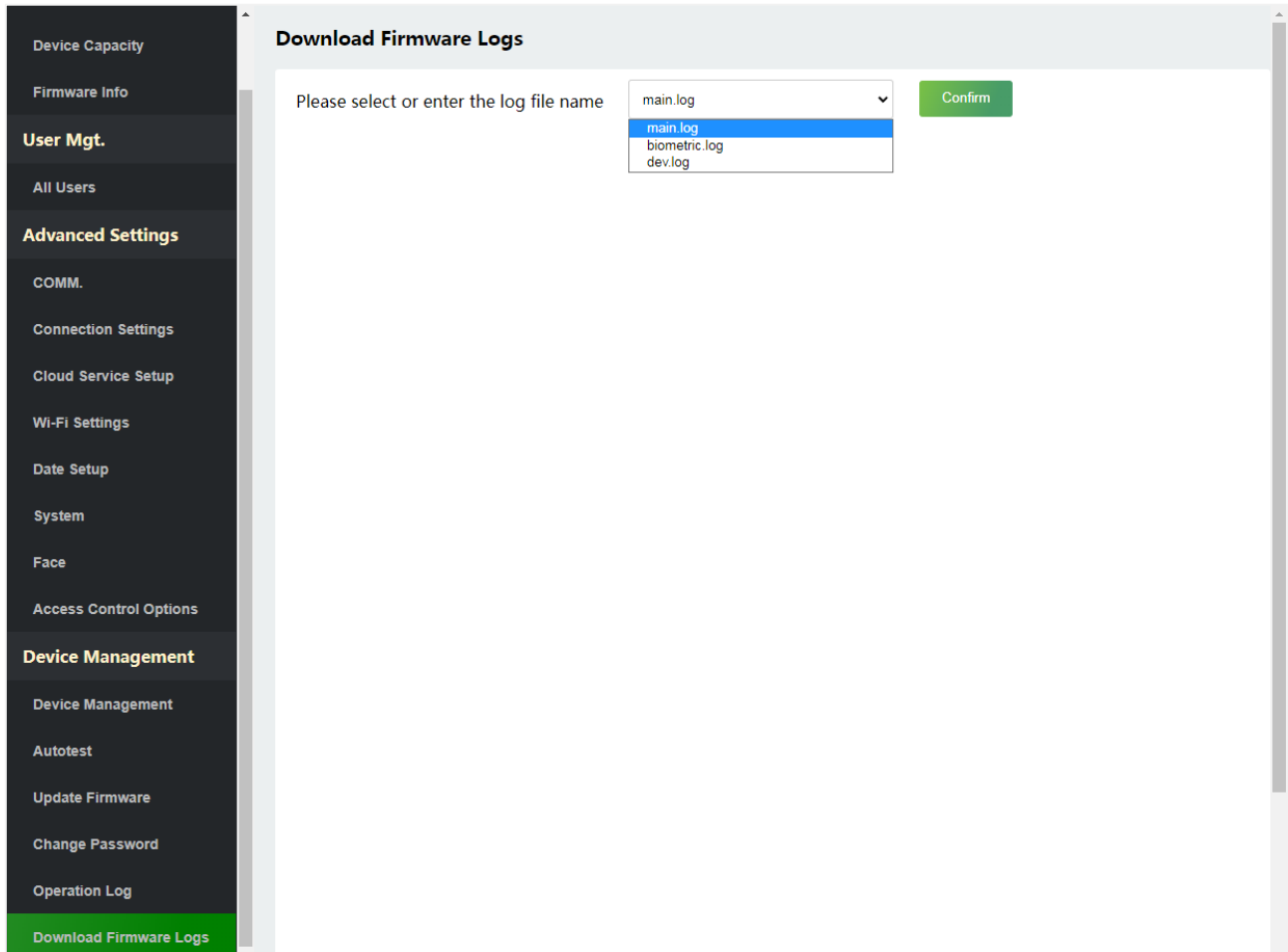
The screenshot displays the 'Operation Log' interface. On the left is a dark sidebar menu with various settings categories. The main area shows a table of logs with columns for Operator, Operation, Time, Object, Original Value, New Value, and Result. Above the table are input fields for 'Start Time' and 'End Time' (both in YYYY-MM-DD format) and a green 'Download' button.

Operator	Operation	Time	Object	Original Value	New Value	Result
192.168.163.75	Change Parameters	2023-05-11T15:10:14	VOLUME	100	5	0
192.168.163.75	Change Parameters	2023-05-11T15:10:03	VOLUME	10	100	0
192.168.163.75	WEB Operation	2023-05-11T14:54:29	Login	0	0	0
192.168.163.75	WEB Operation	2023-05-11T13:21:01	Login	0	0	0
0	Alarm	2023-05-11T13:15:54	54	0	0	1
0	Power On	2023-05-11T13:15:46	0	0	0	0
0		2023-05-11T10:00:33	bind devices	0	0	0
192.168.163.75	WEB Operation	2023-05-11T09:45:00	Open SSH	0	0	0
192.168.163.75	WEB Operation	2023-05-11T09:42:17	Login	0	0	0
192.168.1.12	Comm Settings (WEB)	2023-05-11T09:41:45	IPAddress	192.168.1.201	192.168.163.99	0
192.168.1.12	Comm Settings (WEB)	2023-05-11T09:41:45	GATEIPAddress	0.0.0.0	192.168.163.1	0
192.168.1.12	WEB Operation	2023-05-11T09:39:13	Login	0	0	0
192.168.1.12	Change Password(WEB)	2023-05-11T09:39:02	admin	0	0	0
		2023-05-				

11.6 Download Firmware Logs

Click **Operation Log** on the WebServer.

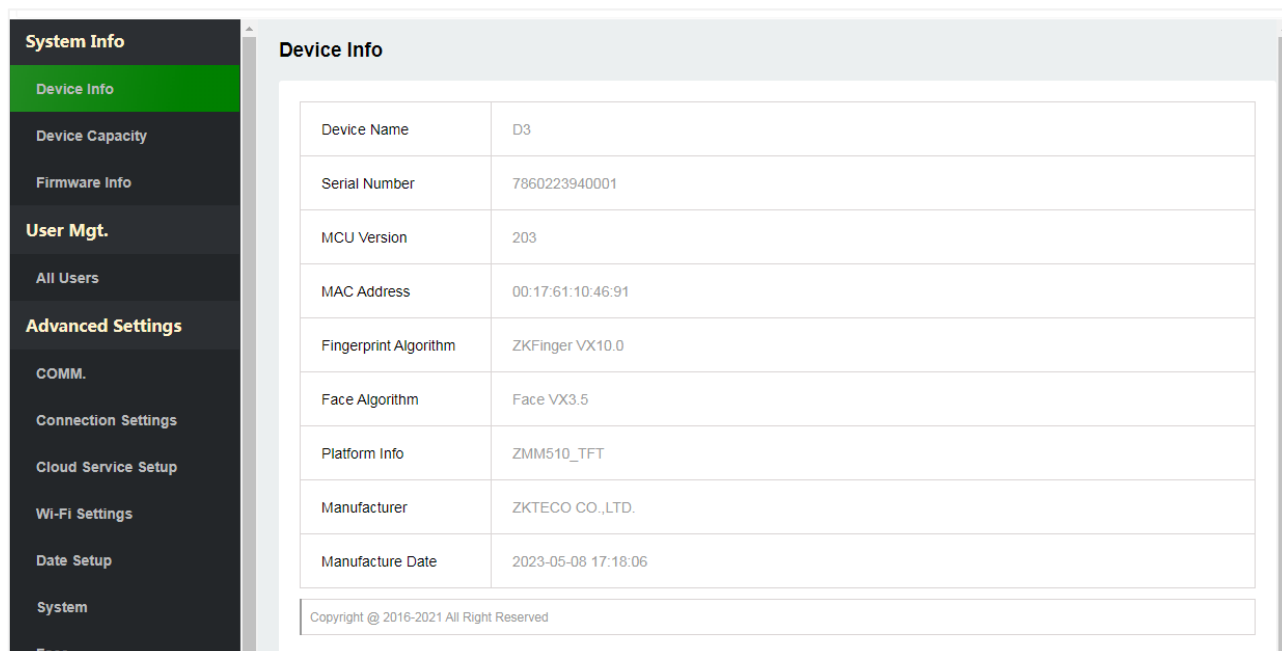
In this interface, you can select download the main, biometric, or dev.log.



11 System Information

Click **System Information** on the WebServer.

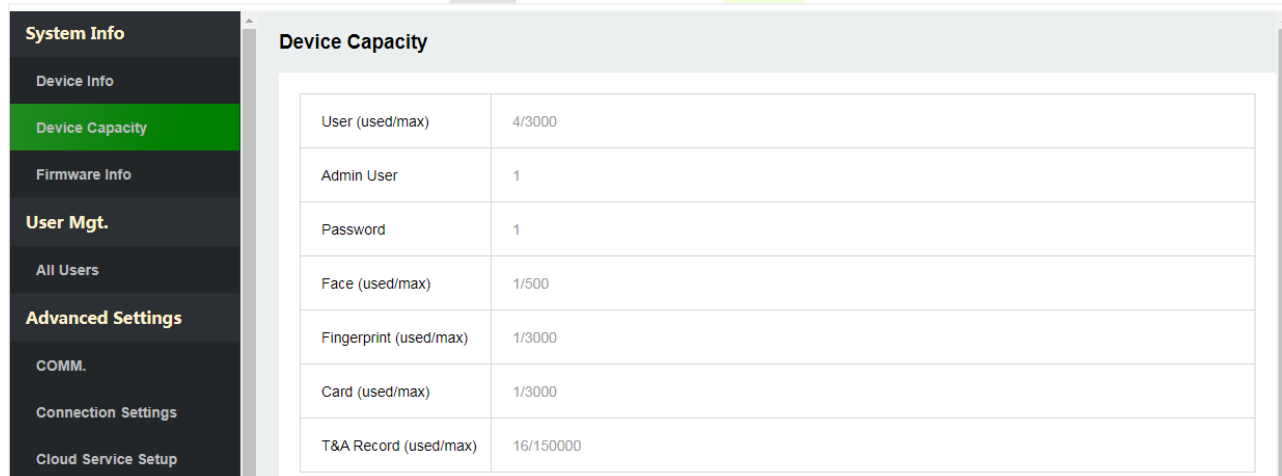
In this interface, you can view the data capacity, device and firmware information of the current device.



The screenshot shows the 'System Info' web interface. The left sidebar contains a navigation menu with the following items: System Info, Device Info (highlighted), Device Capacity, Firmware Info, User Mgt., All Users, Advanced Settings, COMM., Connection Settings, Cloud Service Setup, Wi-Fi Settings, Date Setup, System, and Face. The main content area is titled 'Device Info' and displays a table with the following data:

Device Name	D3
Serial Number	7860223940001
MCU Version	203
MAC Address	00:17:61:10:46:91
Fingerprint Algorithm	ZKFinger VX10.0
Face Algorithm	Face VX3.5
Platform Info	ZMM510_TFT
Manufacturer	ZKTECO CO.,LTD.
Manufacture Date	2023-05-08 17:18:06

At the bottom of the table, there is a copyright notice: Copyright @ 2016-2021 All Right Reserved.



The screenshot shows the 'System Info' web interface. The left sidebar contains a navigation menu with the following items: System Info, Device Info, Device Capacity (highlighted), Firmware Info, User Mgt., All Users, Advanced Settings, COMM., Connection Settings, Cloud Service Setup, Wi-Fi Settings, Date Setup, System, and Face. The main content area is titled 'Device Capacity' and displays a table with the following data:

User (used/max)	4/3000
Admin User	1
Password	1
Face (used/max)	1/500
Fingerprint (used/max)	1/3000
Card (used/max)	1/3000
T&A Record (used/max)	16/150000

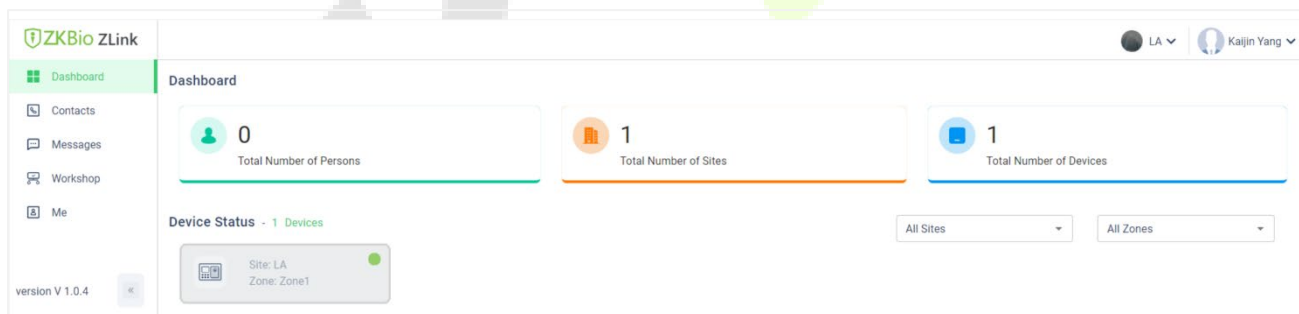
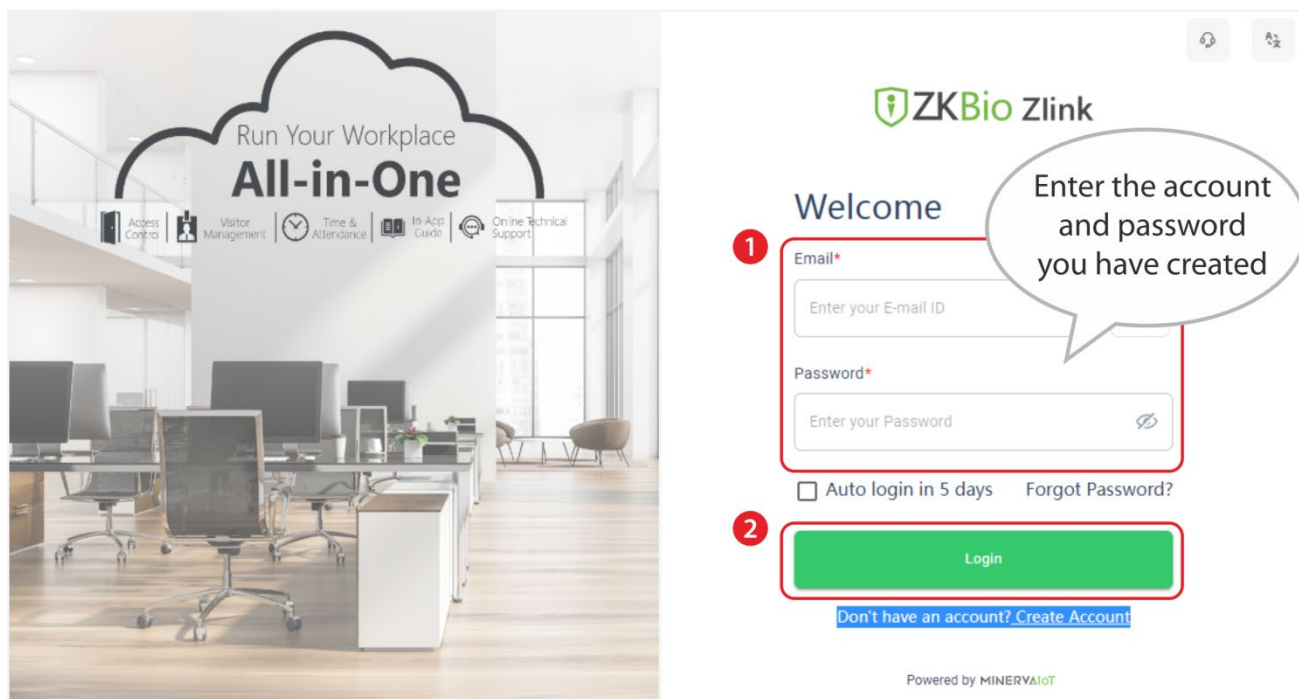
System Info	
Device Info	
Device Capacity	
Firmware Info	
User Mgt.	
All Users	
Advanced Settings	
COMM.	
Connection Settings	
Cloud Service Setup	
Wi-Fi Settings	
Date Setup	
System	
Face	
Access Control Options	
Device Management	

Firmware Info	
Firmware Version	ZMM510-NF28HC-Ver1.1.23
Bio Service	Ver 2.1.12-20230329
Push Service	Ver 1.0.3-20230310
System Version	Ver 3.8.2-20221207
Clicomm Service	Ver 1.0.3-20230310
Standalone Service	Ver 2.1.6-20220413
Dev Service	Ver 2.0.1-20230329
Web Service	Ver 2.0.3.001-20221223
FpSensor Version	Ver 1.0.1-20221119
Licdm Service	Ver 1.16-20221118
Mginit Service	Ver 1.16-20221118
Libopts Service	Ver 1.07-20221107

Function Name	Description
Device Info	Displays the device's name, serial number, MCU version, MAC address, fingerprint and face algorithm version information, platform and manufacturer information.
Device Capacity	Displays the current device's user storage, password, fingerprint, card★ and face storage, administrators, attendance records, attendance and forbidden list photos.
Firmware Information	Displays the firmware version and other version information of the device.

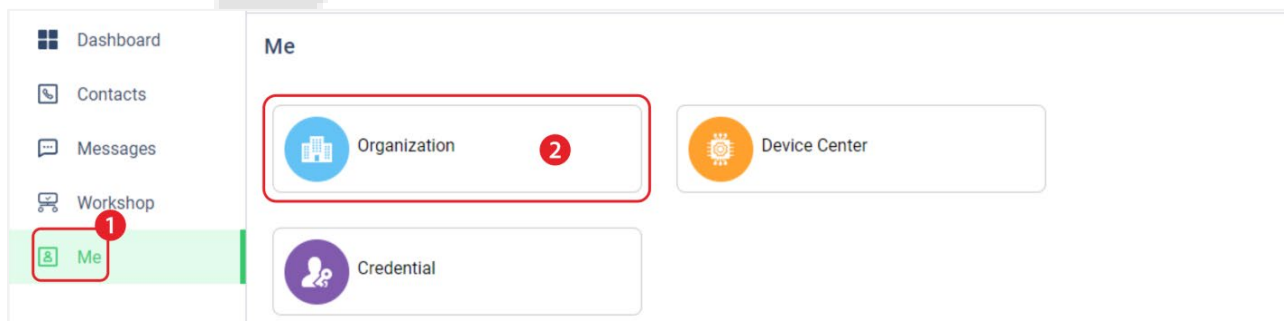
12 Connect to ZKBio Zlink Web


After successfully adding devices using the ZKBio Zlink App, you can use the created account to access ZKBio Zlink Web to find devices, add new personnel, register the verification method of registered personnel, synchronize personnel to devices and query records.

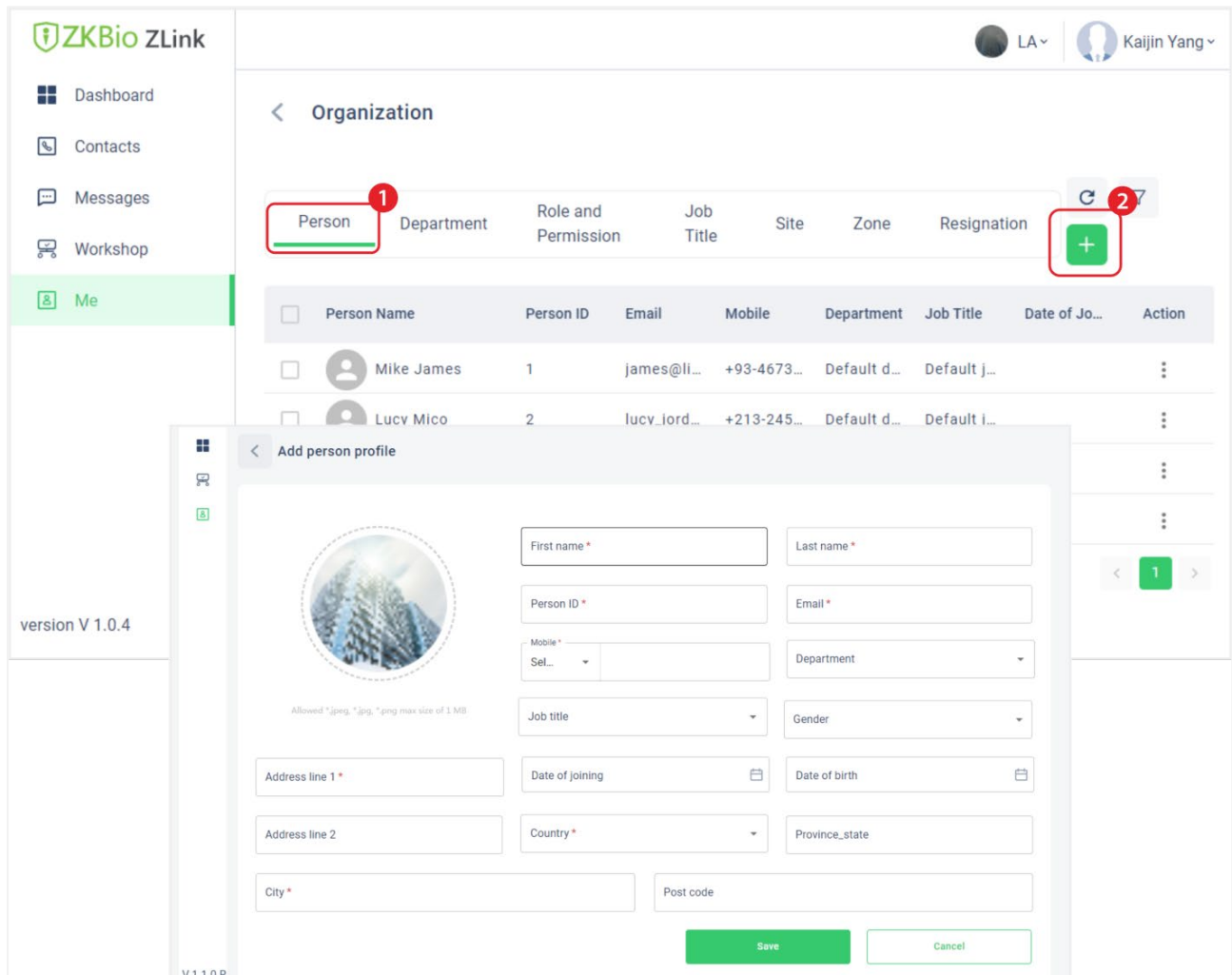


12.1 Add Personnel on the ZKBio Zlink Web

1. Click **[Me]** > **[Organization]** on the ZKBio Zlink Web main menu to add person.

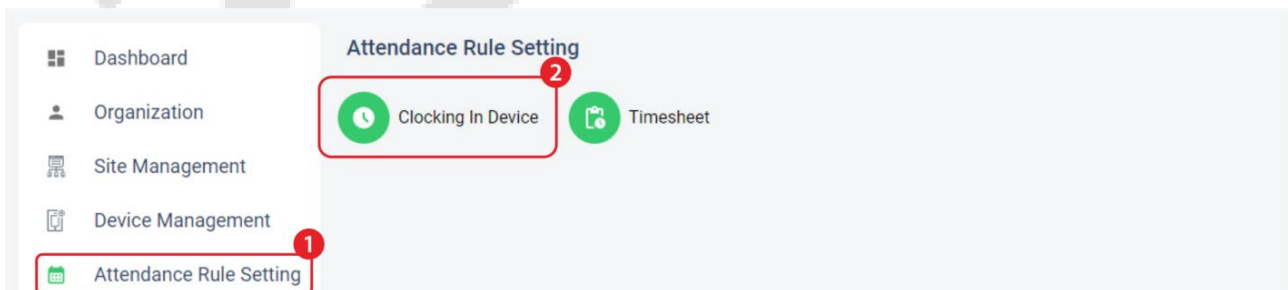


- Click add icon  to add a new person. Enter the person's information, and click **[Save]**.

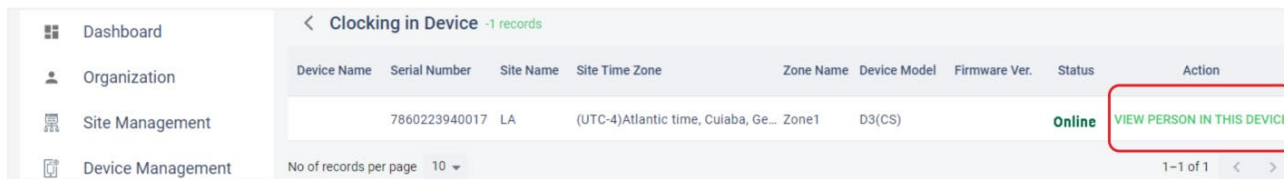



12.2 Synchronize Persons to Device on the ZKBio Zlink Web

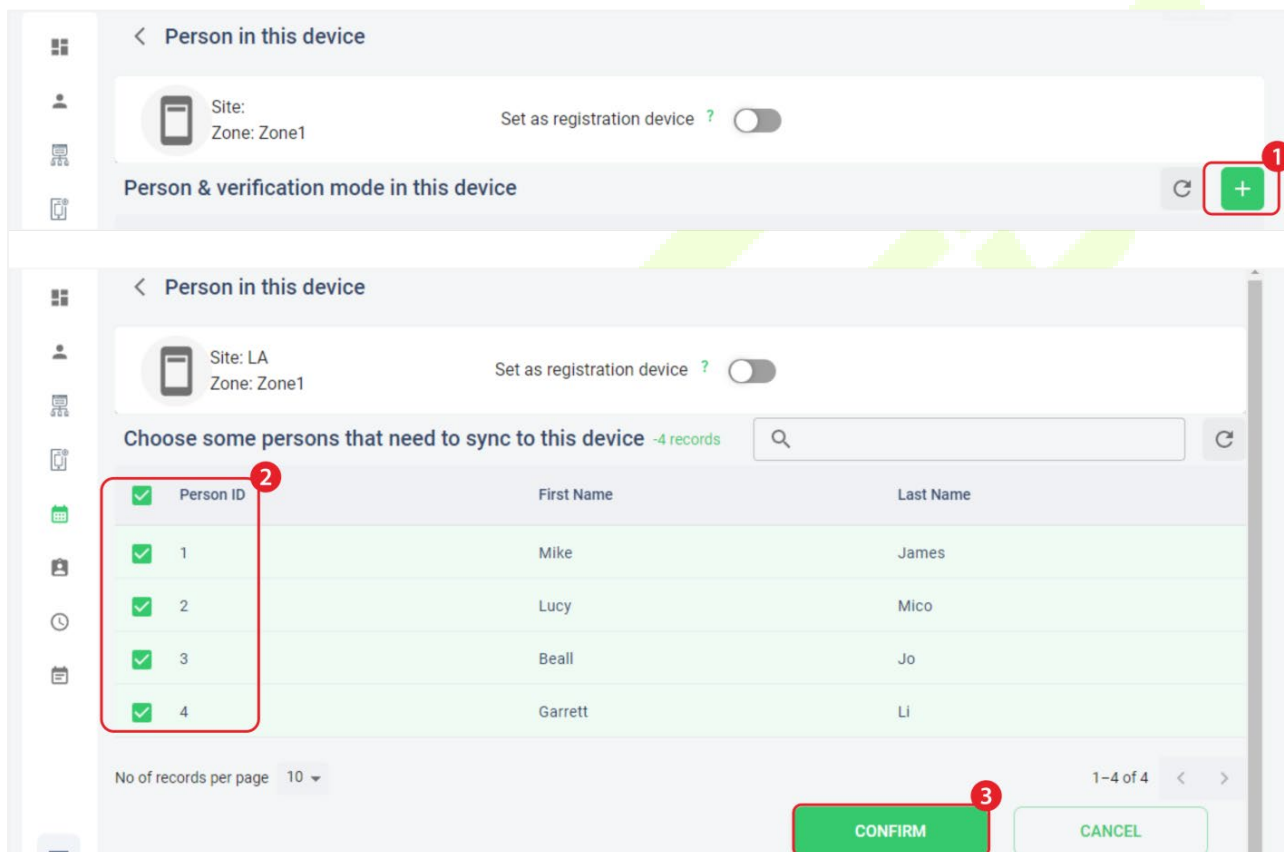
- Click **[Attendance Rule Setting]** > **[Clocking In Device]** on the **[CloudATT]**.



- Find the device that you want to synchronize, and click **[VIEW PERSON IN THIS DEVICE]** on the **[Clocking In Device]** interface.



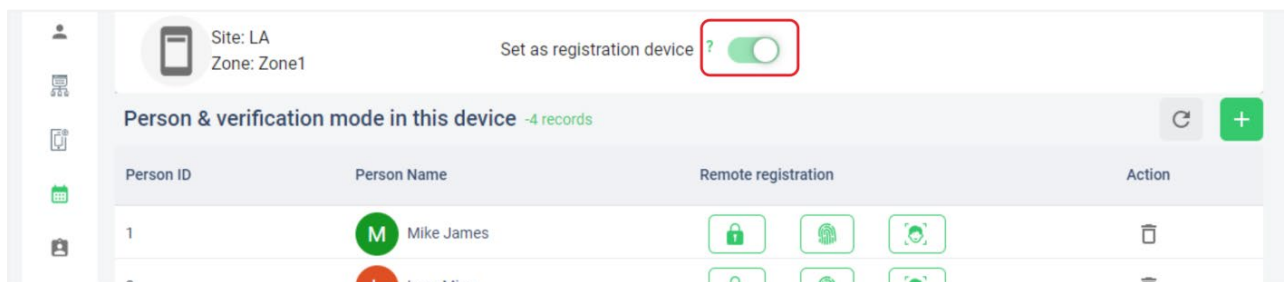
- Click add icon  to choose persons to synchronize to this device.



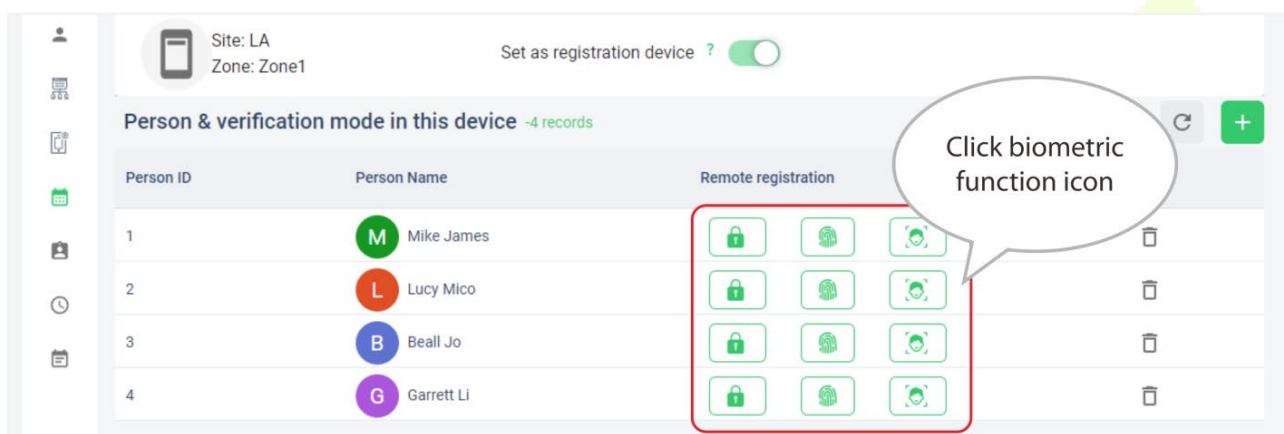
12.3 Register Verification Mode on the ZKBio Zlink Web

When you synchronize a personnel's profile to the device, you can view the basic information in the **[Person in this device]** interface.

- Turn on the **[Set as registration device]** switch.

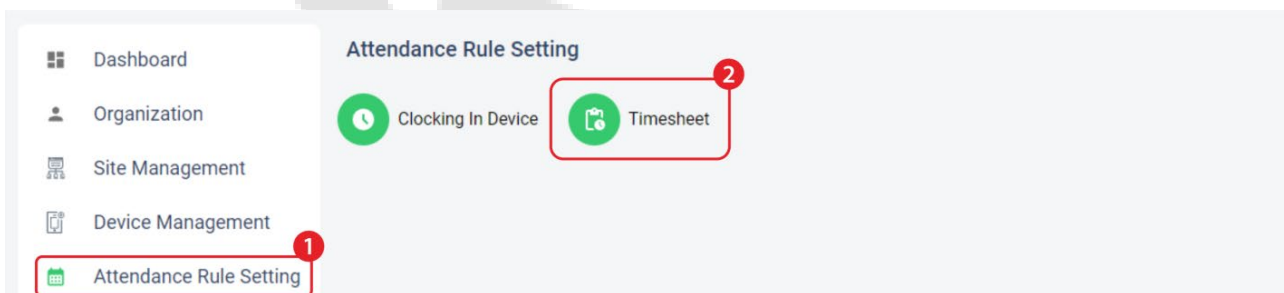


2. Click the relevant biometric function icon (fingerprint/face/password) to remotely register the personnel biometric identification method.

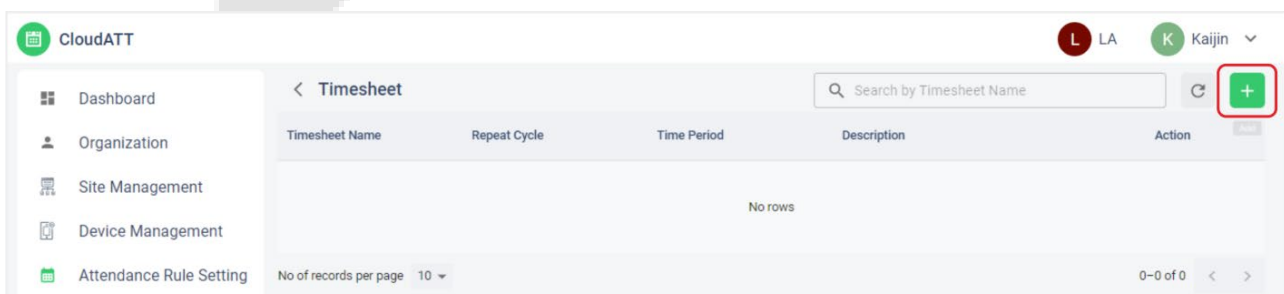


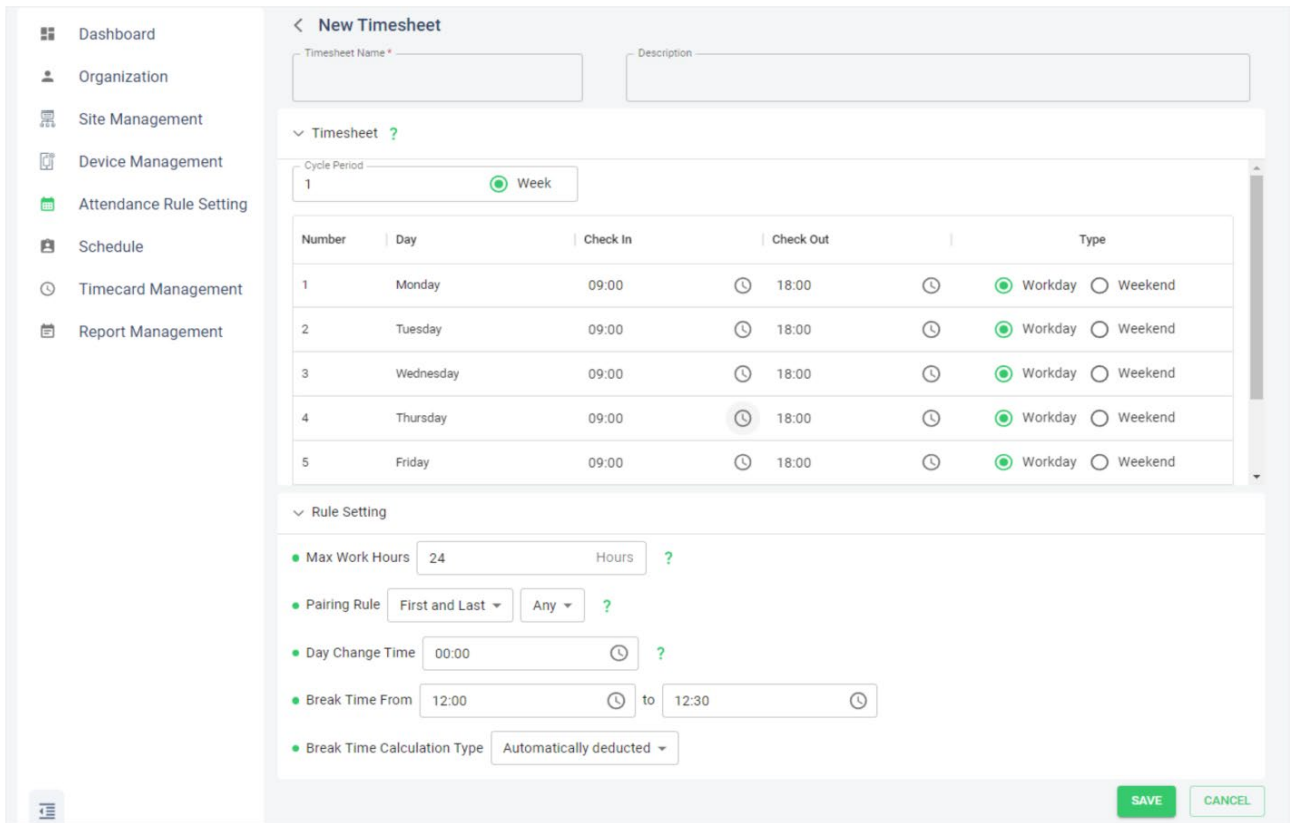
12.4 Timesheet Setting on the ZKBio Zlink Web

1. Click [Attendance Rule Setting] > [Timesheet] on the [CloudATT].




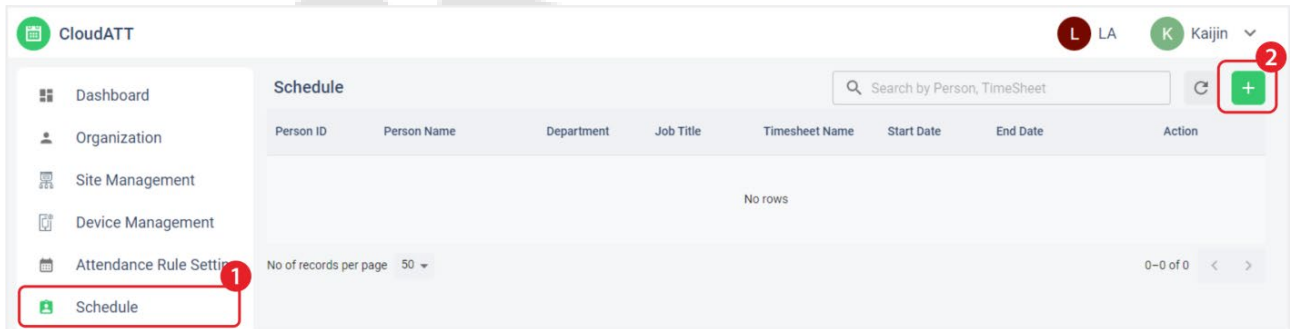
2. Click add icon  to set the attendance rule and timesheet, and click [SAVE].



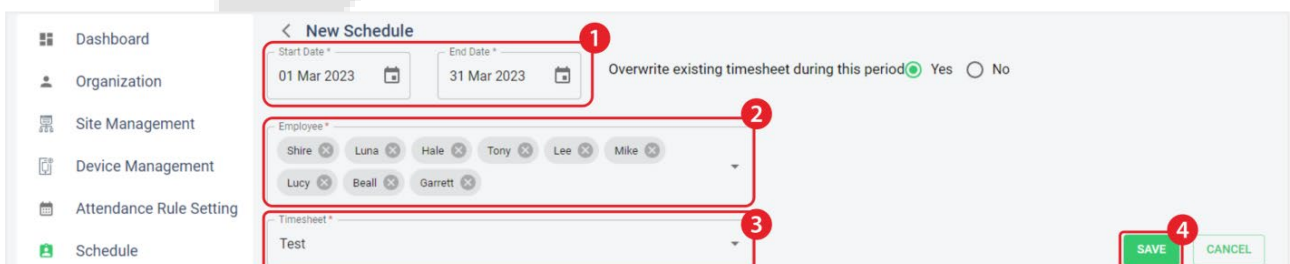


12.5 Schedule Setting on the ZKBio Zlink Web

1. Click **[Schedule]**, and click add icon  on the **[CloudATT]**.



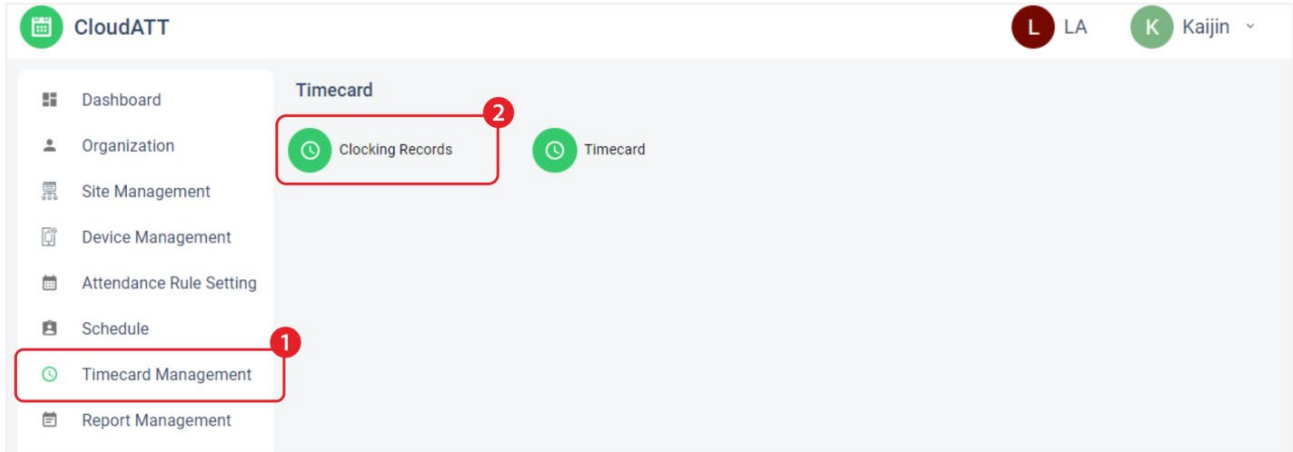
2. Select the time, employee and timesheet of the schedule.




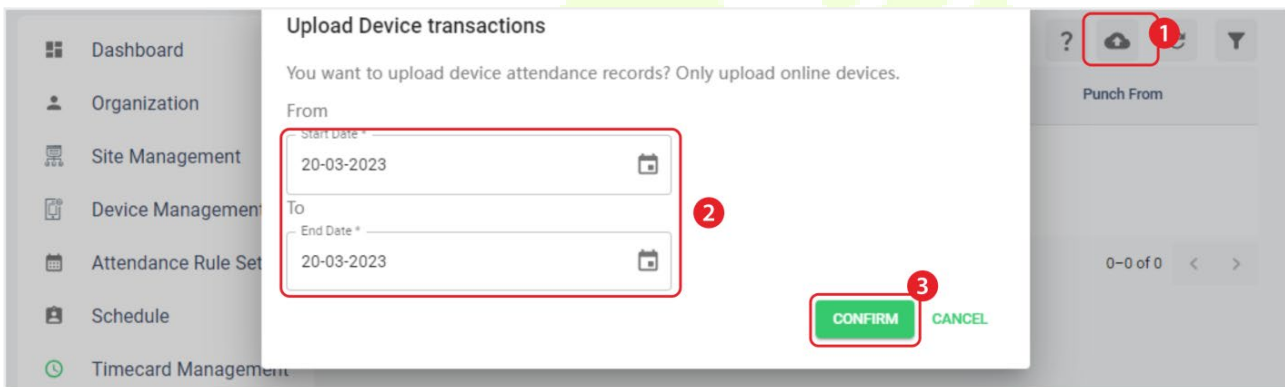
12.6 Records Query on the ZKBio Zlink Web

After the person has checked in/out on the device, you can view the attendance records.

1. Click **[Timecard Management]** > **[Clocking Records]** on the **[CloudATT]**.



2. Click , and then set the date of the query, finally click **[CONFIRM]**.



Appendix 1

Requirements of Live Collection and Registration of Visible

Light Face Images

- 1) It is recommended to perform registration in an indoor environment with an appropriate light source without underexposure or overexposure.
- 2) Do not shoot towards outdoor light sources like door or window or other strong light sources.
- 3) Dark-color apparels which are different from the background color are recommended for registration.
- 4) Please show your face and forehead, and do not cover your face and eyebrows with your hair.
- 5) The digital photo should be straight-edged, colored, and half-portrayed with only one person, and the person should be uncharted and casual. Persons who wear eyeglasses should remain to put on eyeglasses for photo-taking.
- 6) Do not wear accessories like scarf or mask that may cover your mouth or chin.
- 7) Please face right towards the capturing device, and locate your face in the image capturing area as shown in Image 1.
- 8) Do not include more than one face in the capturing area.
- 9) 50cm - 80cm is recommended for capturing distance adjustable subject to body height.



Image1 Face Capture Area

Requirements for Visible Light Digital Face Image Data

The digital photo should be straight-edged, colored, half-portrayed with only one person, and the person should be uncharted and in casuals. Persons who wear eyeglasses should remain to put on eyeglasses for getting photo captured.

- **Eye Distance**

200 pixels or above are recommended with no less than 115 pixels of distance.

- **Facial Expression**

Neutral face or smile with eyes naturally open are recommended.

- **Gesture and Angel**

Horizontal rotating angle should not exceed $\pm 10^\circ$, elevation should not exceed $\pm 10^\circ$, and depression angle should not exceed $\pm 10^\circ$.

- **Accessories**

Masks or colored eyeglasses are not allowed. The frame of the eyeglasses should not cover eyes and should not reflect light. For persons with thick eyeglasses frame, it is recommended to capture two images, one with eyeglasses and the other one without the eyeglasses.

- **Face**

Complete face with clear contour, real scale, evenly distributed light, and no shadow.

- **Image Format**

Should be in BMP, JPG or JPEG.

- **Data Requirement**

Should comply with the following requirements:

- 1) White background with dark-colored apparel.
- 2) 24bit true color mode.
- 3) JPG format compressed image with not more than 20kb size.
- 4) Resolution should be between 358 x 441 to 1080 x 1920.
- 5) The vertical scale of head and body should be in a ratio of 2:1.
- 6) The photo should include the captured person's shoulders at the same horizontal level.
- 7) The captured person's eyes should be open and with clearly seen iris.
- 8) Neutral face or smile is preferred, showing teeth is not preferred.
- 9) The captured person should be clearly visible, natural in color, no harsh shadow or light spot or reflection in face or background. The contrast and lightness level should be appropriate.

Appendix 2

Privacy Policy

Notice:

To help you better use the products and services of ZKTeco (hereinafter referred to as “we”, “our”, or “us”) a smart service provider, we consistently collect your personal information. Since we understand the importance of your personal information, we took your privacy sincerely and we have formulated this privacy policy to protect your personal information. We have listed the privacy policies below to precisely understand the data and privacy protection measures related to our smart products and services.

Before using our products and services, please read carefully and understand all the rules and provisions of this Privacy Policy. If you do not agree to the relevant agreement or any of its terms, you must stop using our products and services.

I. Collected Information

To ensure the normal product operation and help the service improvement, we will collect the information voluntarily provided by you or provided as authorized by you during registration and use or generated as a result of your use of services.

- 1. User Registration Information:** At your first registration, the feature template (**Fingerprint template/Face template/Palm template**) will be saved on the device according to the device type you have selected to verify the unique similarity between you and the User ID you have registered. You can optionally enter your Name and Code. The above information is necessary for you to use our products. If you do not provide such information, you cannot use some features of the product regularly.
- 2. Product information:** According to the product model and your granted permission when you install and use our services, the related information of the product on which our services are used will be collected when the product is connected to the software, including the Product Model, Firmware Version Number, Product Serial Number, and Product Capacity Information. **When you connect your product to the software, please carefully read the privacy policy for the specific software.**

II. Product Security and Management

- 1.** When you use our products for the first time, you shall set the Administrator privilege before performing specific operations. Otherwise, you will be frequently reminded to set the Administrator privilege when you enter the main menu interface. **If you still do not set the**

Administrator privilege after receiving the system prompt, you should be aware of the possible security risk (for example, the data may be manually modified).

2. All the functions of displaying the biometric information are disabled in our products by default. You can choose Menu > System Settings to set whether to display the biometric information. If you enable these functions, we assume that you are aware of the personal privacy security risks specified in the privacy policy.
3. Only your user ID is displayed by default. You can set whether to display other user verification information (such as Name, Department, Photo, etc.) under the Administrator privilege. **If you choose to display such information, we assume that you are aware of the potential security risks (for example, your photo will be displayed on the device interface).**
4. The camera function is disabled in our products by default. If you want to enable this function to take pictures of yourself for attendance recording or take pictures of strangers for access control, the product will enable the prompt tone of the camera. **Once you enable this function, we assume that you are aware of the potential security risks.**
5. All the data collected by our products is encrypted using the AES 256 algorithm. All the data uploaded by the Administrator to our products are automatically encrypted using the AES 256 algorithm and stored securely. If the Administrator downloads data from our products, we assume that you need to process the data and you have known the potential security risk. In such a case, you shall take the responsibility for storing the data. You shall know that some data cannot be downloaded for sake of data security.
6. All the personal information in our products can be queried, modified, or deleted. If you no longer use our products, please clear your personal data.

III. Others

You can visit https://www.zkteco.com/en/index/Index/privacy_protection.html to learn more about how we collect, use, and securely store your personal information. To keep pace with the rapid development of technology, adjustment of business operations, and to cope with customer needs, we will constantly deliberate and optimize our privacy protection measures and policies. Welcome to visit our official website at any time to learn our latest privacy policy.

Eco-friendly Operation



The product's "eco-friendly operational period" refers to the time during which this product will not discharge any toxic or hazardous substances when used in accordance with the prerequisites in this manual.

The eco-friendly operational period specified for this product does not include batteries or other components that are easily worn down and must be periodically replaced. The battery's eco-friendly operational period is 5 years.

Hazardous or Toxic substances and their quantities

Component Name	Hazardous/Toxic Substance/Element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr6+)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Chip Resistor	×	○	○	○	○	○
Chip Capacitor	×	○	○	○	○	○
Chip Inductor	×	○	○	○	○	○
Diode	×	○	○	○	○	○
ESD component	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adapter	×	○	○	○	○	○
Screws	○	○	○	×	○	○

○ indicates that the total amount of toxic content in all the homogeneous materials is below the limit as specified in SJ/T 11363—2006.

× indicates that the total amount of toxic content in all the homogeneous materials exceeds the limit as specified in SJ/T 11363—2006.

Note: 80% of this product's components are manufactured using non-toxic and eco-friendly materials. The components which contain toxins or harmful elements are included due to the current economic or technical limitations which prevent their replacement with non-toxic materials or elements.

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.

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 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.

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.

ZKTECO Industrial Park, No. 32, Industrial Road,

Tangxia Town, Dongguan, China.

Phone : +86 769 - 82109991

Fax : +86 755 - 89602394

www.zkteco.com

