User Manual

MA300

Date: March 2023

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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.

For further details, please visit our Company's website www.zkteco.com.

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The product will be updated from time to time without prior notice. The latest operation procedures and relevant documents are available on http://www.zkteco.com.

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

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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 **MA300**.
All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Document Conventions

This document includes such notational conventions as tips, important notices, and precautions. The notations contained in this manual include:

: indicates important information, including precautions, which must be read carefully to achieve the optimal equipment performance.

: indicates the voice prompt generated by the device. In the event of discrepancy between the voice prompts in this document and those generated by the actual products, the latter shall prevail.

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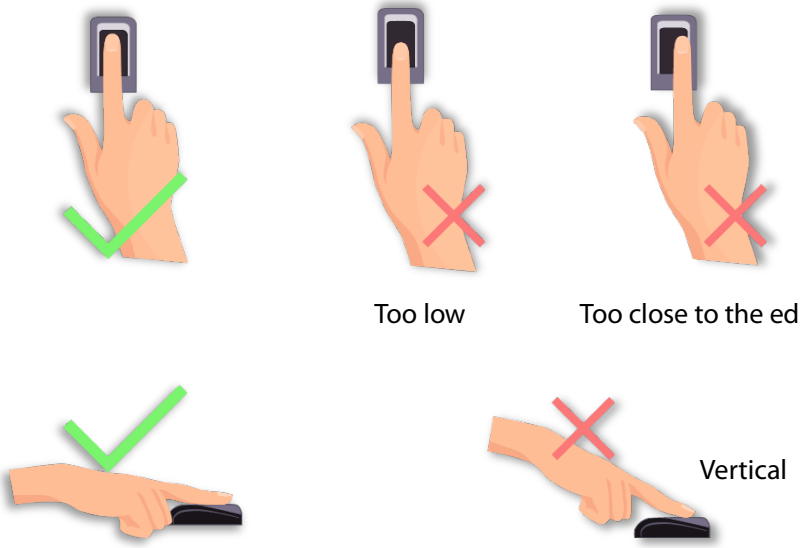
1 Instruction for Use

Before getting into the device's features and functions, it is recommended to be familiar with the below fundamentals.

1.1 Finger Positioning

Recommended fingers: Index, middle, or ring fingers; Avoid using your thumb or pinky on the fingerprint reader because they are difficult to press accurately.



Note: Please use the correct method when pressing your fingers onto the fingerprint reader for registration and identification. Our company will assume no liability for recognition issues that may result from incorrect usage of the product. We reserve the right of final interpretation and modification concerning this point.

1.2 Instruction for Card Swipe

Integrated with a non-contact RF card reader module, this device supports the ID cards and IC / HID cards (optional). By offering multiple verification modes such as fingerprint verification and RF card verification, this device can accommodate diversified user needs.

Swipe your card across the sensor area following the voice prompt and remove your card after the device has sensed it. For the swipe area, see 2.2 Product Appearance.

1.3 Cautions

Protect the device from exposure to direct sunlight or strong beam, as strong beam greatly affects the fingerprint collection and leads to fingerprint verification failure.

To produce the best results, the device should be used at temperatures ranging from 0℃ to 50℃. It is advised to adopt a sunshade and heat dissipation facilities if the device will be exposed to the outdoors for an extended length of time, as extremely high or low temperatures will slow down the device's performance and result in a high false rejection rate (FRR) and false acceptance rate (FAR).

When installing the access control device, please connect the power cable after connecting other cables. If the device does not operate properly, be sure to shut down the power supply before performing the necessary inspection. Note that any live-line working may cause damage to the device and the device damage arising out of live-line working falls beyond the scope of our normal warranty.

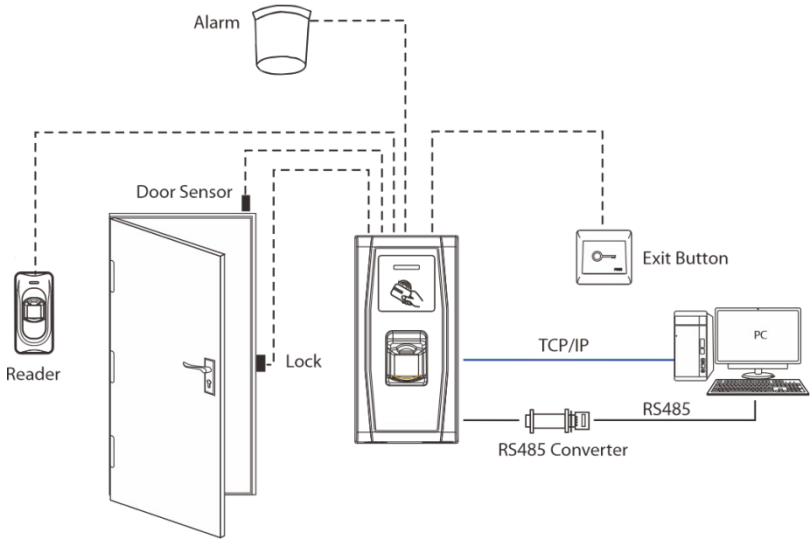
For matters that are not covered in this document, please refer to related documents including the Installation Guide, and ZKBioAccess IVS User Manual.

2 Introduction of Access Control Device

2.1 Overview of Device Functions

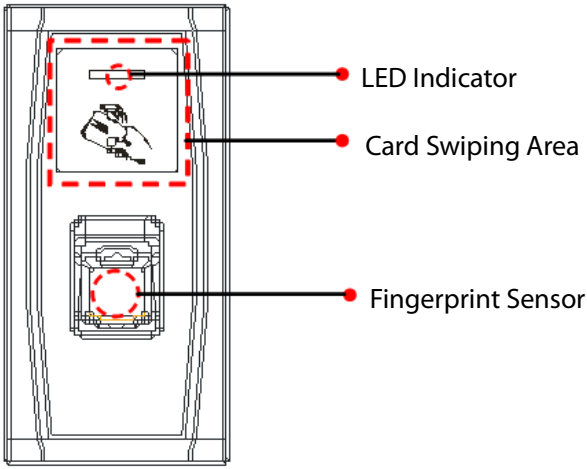
Our product can be used with an electronic lock or an access controller as a combined fingerprint and access control device. This device enables the usage of management cards and has easy and flexible operations. You can use a management card to conduct tasks like offline enrollment, user enrollment, and U-disk management. Without the need of a screen and a keyboard, the voice prompts will guide you through all the operations. It supports multiple communication modes. The U-disk features simple and convenient operations. The device's waterproof design and metal shell allow it to resist a strong impact without being damaged.

Featuring a compact and simple design, this device allows users to connect several devices through a PC and perform real-time monitoring.



2.2 Product Appearance

Front View:



- **LED Indicator:** The LED indicator is used to display device operation results and exceptional statuses which are defined as follows:

  Common Rules: If an operation succeeds, the green indicator is solid on for one second; otherwise, the red indicator is solid on for one second.

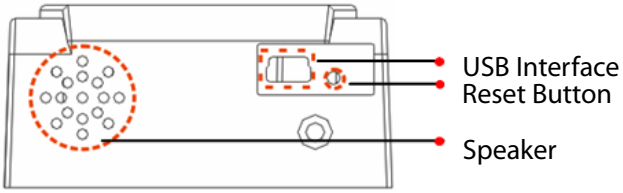
  Enrollment State: The green LED blinks three times every other three seconds.

  Single User Deletion: The red LED blinks three times every other three seconds.

  Verification State: The green LED blinks once every other two seconds.

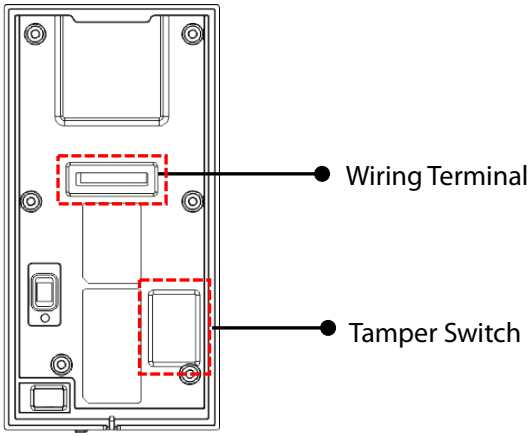
- **Card Swiping Area**: Refers to the area in the red dashed-line box as shown in the figure above.
- **Fingerprint Sensor**: Used to collect and match fingerprints and delete users.

Bottom View:



- **USB Interface:** Used to connect with a U-disk.
- **Reset Button**: Used to restart the device.
- **Speaker**: Used to play the BEEP sound and voice prompts. If a user passes the verification, the speaker beeps once and prompts "Thank you". If the user fails to pass the verification by fingerprint, the speaker beeps once and prompts "Please try again". If the user fails to pass the verification by card, the speaker beeps once and prompts "Please punch your card again". The default prompts during operation: Beep + voice prompts.

Rear View:



- **Wiring Terminal**: Connects with lock, power supply and a PC through cables (for detailed connection, see the Installation Guide).
- **Tamper Switch**: Used to generate a tamper alarm. For details, see 3.4 Tamper Switch.

2.3 Verification State

Verification state: If you have enrolled or successfully enrolled in a management card, or if any operation timeouts, the device enters the verification state once it is turned on.

All users can verify their identification and unlock in the verification state (the administrator with a management card can only unlock using his/her previously enrolled fingerprints); the administrator may do operations like user enrollment/deletion and U-disk management through the management card.

2.4 Management Card

The device users are classified into administrator and ordinary users.

Administrator: An administrator is allowed to perform all operations including user enrollment or deletion (deleting all the other users except him/her) and U-disk management. The privileges of the device administrator are implemented through the management card.

Ordinary Users: Ordinary users are only allowed to verify their identity and unlock.

A management card is a card specially allocated for a super administrator. Each device must enroll a management card. If no management card is enrolled, you cannot perform any operation and the system will generate a voice prompt "🗣: Please register the management card".

You can implement different functions by swiping a management card for different times in a row:

No U-disk is connected:

- By swiping the management card once, you can go into the single user enrollment state.
- By swiping the management card five times in a row, you can enter the single user deletion state.

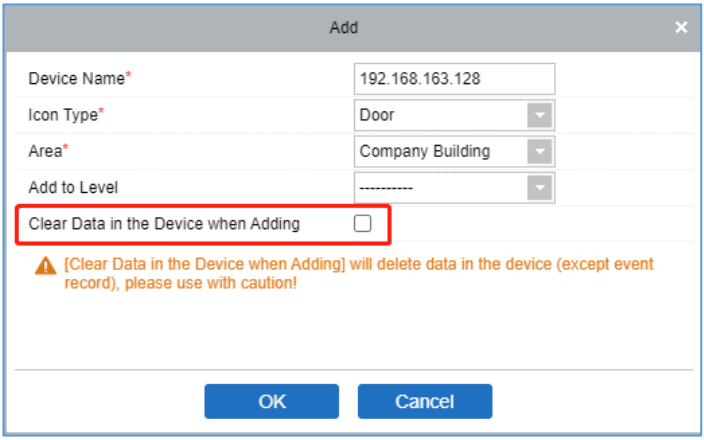
U-disk is connected:

- By swiping the management card once, you can go into the U-disk management state.

Consecutive Swipes: Consecutive swipes mean the interval between two swipes in a row is less than 5 seconds.

There are three ways to delete the management card:

- **ZKBioAccess IVS Software:** Check the **Clear Data in the Device when Adding** option when adding the device to the software. For details, see 5.2.



- **Tamper switch:** To restore the device to factory settings. For details, see 3.4.
- **Webserver:** To delete all data in the device. For details, see 4.3.4.

The fingerprints of the user who bears a management card can only be enrolled through software. For details, see 5.3.

Tip: Users who bear management card can only verify their identity and unlock using their fingerprints previously enrolled.

2.5 Operation Timeout

30 seconds is the default operation timeout. If there is no operation when you delete/enroll a user, the system prompts you once every 10 seconds and then it returns to the verification state after three prompts. The voice prompt is "Operation timeout. The system returns to verification state".

3 Device Operations

3.1 Management Card

3.1.1 Enroll Management Card

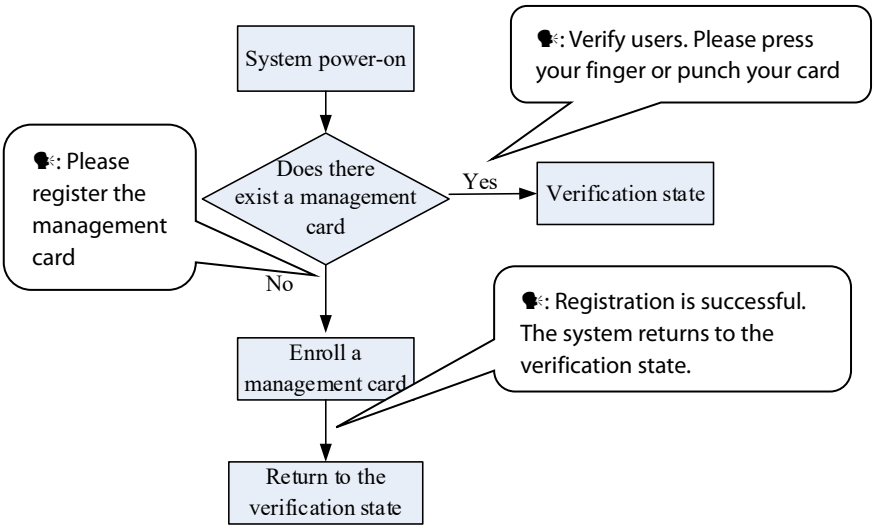
To enroll in a management card, proceed as follows:

1. The device automatically detects whether there exists a management card.
2. If the device fails to detect the presence of a management card, it enters the management card enrollment state. Then proceed with step 3; otherwise, skip to step 5.
3. After the system generates the voice prompt "🗣: Please register the management card", you can swipe your card across the sensor area.

Tip: The device will always be in the management card enrollment state until your card has been registered successfully.

4. If enrollment succeeds, the system generates the voice prompt "🗣: Registration is successful. The system returns to verification state".
5. After returning to the verification state, the system generates the voice prompt "🗣: Verify users. Please press your finger or punch your card".

The management card enrollment flow chart is shown below:

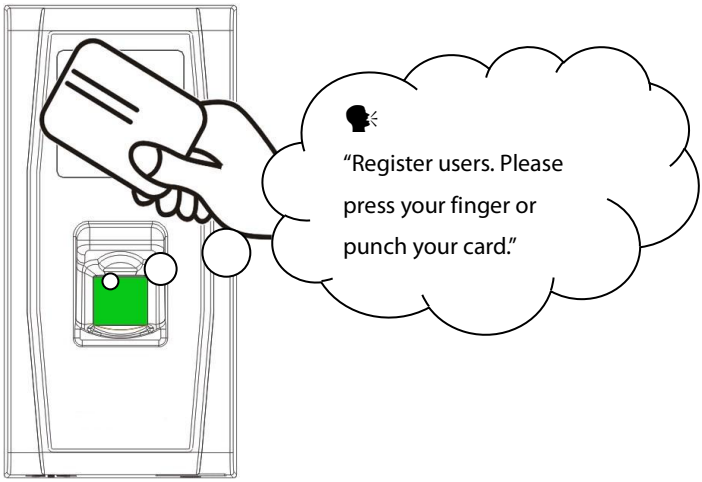


3.1.2 Enroll Ordinary User

Each time you enter the enrollment state, only one user can be enrolled. When you enroll a new user, the system automatically assigns a minimum idle ID to the user. Each user is allowed to enroll 10 fingerprints and one card at most.

To enroll a user, proceed as follows:

1. In the verification state, the system goes into the ordinary user enrollment state after you swipe a management card once (In the enrollment state, swiping a management card once will return you to the verification state).
2. After the system generates the voice prompt "🗣: Register users. Please press your finger or punch your card", you can start user enrollment. There are the following two cases:



(1) Swipe the card first

a. When you swipe your new card and succeed in enrolling a user, the device will generate a voice prompt "🗣: User number **. Registration is successful!" (** refers to the ID automatically assigned to the user by the system; same below) and you can proceed to step **b**.

b. After the device generates the voice prompt "🗣: Register. Please press your finger", the system enters the specified fingerprint enrollment state. Press the same finger over the sensor three times following the voice prompts.

c. If fingerprint enrollment succeeds, the system generates the voice prompt "🗣: Registration is successful. Register. Please press your finger" and directly enters the next fingerprint enrollment state; if fingerprint enrollment fails, the system generates the voice prompt "🗣: Please press your finger again" and repeats step **b**.

d. The system automatically returns to the verification state when both 10 fingers and card are enrolled, the management card is swiped once or the operation times out.

(2) Press finger(s) first

a. Press the same finger over the sensor three times following the voice prompts by adopting the proper fingerprint placement. If fingerprint enrollment succeeds, the system generates the voice prompt "🗣: User number **. Registration is successful" and you can proceed to step **b**; if fingerprint enrollment fails, the system generates the voice prompt "🗣: Please press your finger again" and returns to the enrollment state, waiting for you to press your finger or swipe your card.

b. After generating the voice prompt "🗣: Register. Please press your finger or punch your card", the system enters the specified user information enrollment state, waiting for you to swipe your new card or press your finger.

c. If the card enrollment succeeds, the system generates the voice prompt "🗣: Registration is successful. Register. Please press your finger" and enters the fingerprint enrollment state directly; if you press a finger that is not enrolled before and succeeds in enrollment of this finger, the system generates the voice prompt: "🗣: Registration is successful. Please press your finger or punch your card" and you can continue enrolling new fingerprints and card. After you enroll 10 fingerprints, the system will generate the voice prompt "🗣: Register. Please punch your card" to enroll your card if your card is not enrolled.

d. The system automatically returns to the verification state when both 10 fingers and card are enrolled, the management card is swiped once or the operation times out.

3. If you are already assigned with an ID, then there are the following two cases for you to enroll your fingerprint(s) or card:

(1) Enroll fingerprint(s) when you have already enrolled card

a. After you swipe the enrolled card, the system will generate the voice prompt "🗣: User number **. Register. Please press your finger" (** refers to the ID assigned to you; same below) and enter the fingerprint enrollment state. Your enrolled fingerprints will overwrite all previous fingerprints.

b. Press the same finger over the sensor three times following the voice prompts by adopting the proper fingerprint placement. If fingerprint enrollment succeeds, the system generates the voice prompt "🗣: Registration is successful. Please press your finger" and gets ready for enrollment of the next fingerprint.

c. The system automatically returns to the verification state when 10 fingers are enrolled, the management card is swiped once or the operation times out.

Tips:

- The fingerprint(s) enrolled in this step will overwrite all your previously enrolled fingerprints.
- In this mode, the fingerprint of the user who bears the management card cannot be enrolled because swiping the management card will return the system to the verification state automatically.

(2) Enroll card and fingerprint(s) when you have already enrolled fingerprint(s)

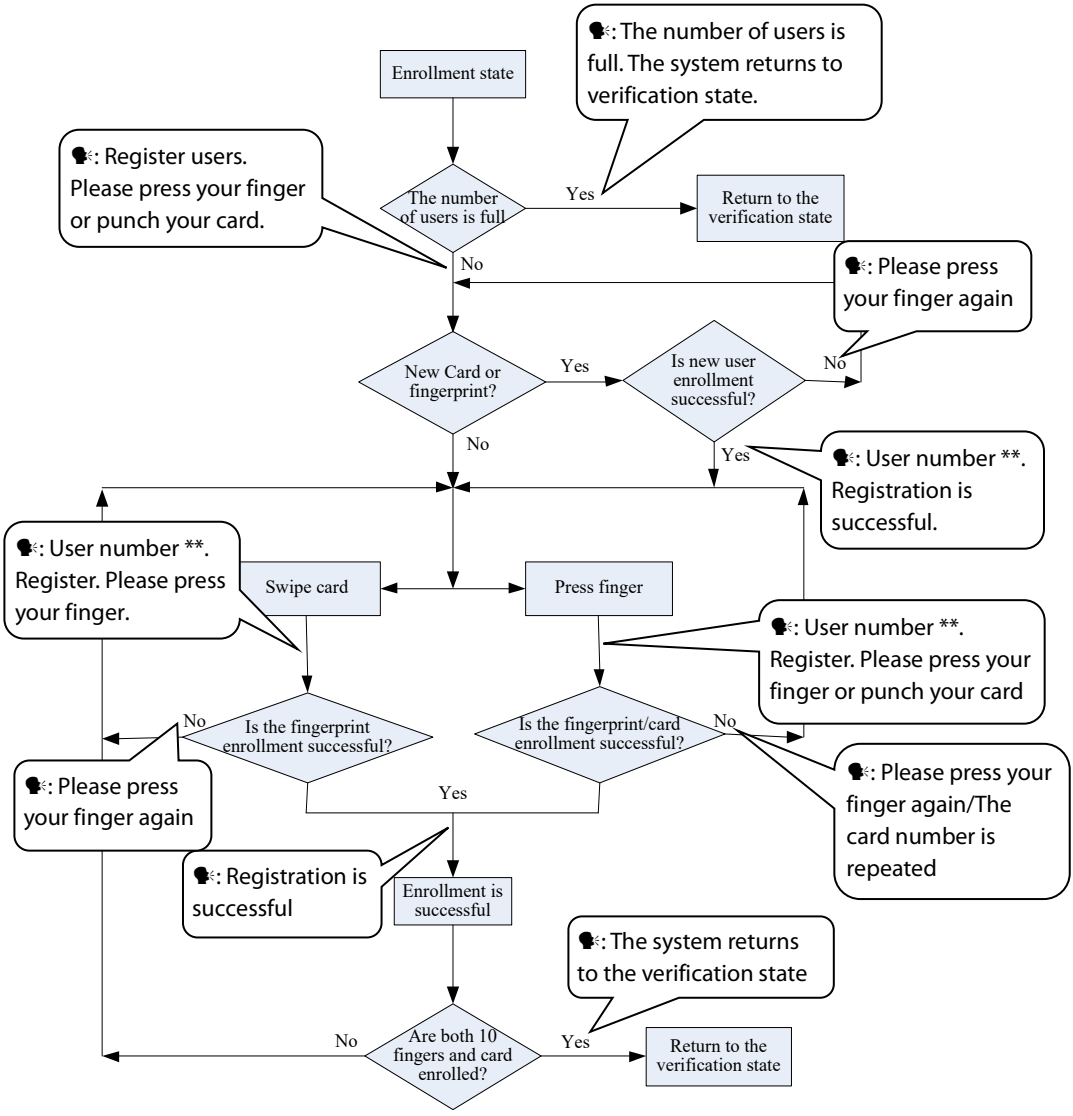
a. Press the finger with the fingerprint already enrolled three times following the voice prompts. If you are identified as the same person in each verification attempt, the system enters the fingerprint enrollment state.

b. After generating the voice prompt "🗣: User number **. Register. Please press your finger or punch your card", the system starts to enroll your fingerprint or card. Your fingerprint(s) enrolled in this step will overwrite all your previous fingerprints.

c. If the card enrollment succeeds, the system generates the voice prompt "🗣: Registration is successful. Register. Please press your finger" and enters the fingerprint enrollment state directly; if you press a finger that is not enrolled before and succeeds in enrollment of this finger, the system generates the voice prompt: "🗣: Registration is successful. Please press your finger or punch your card" and you can continue enrolling new fingerprints and card. After you enroll 10 fingerprints, the system will generate the voice prompt "🗣: Register. Please punch your card" to enroll your card if your card is not enrolled.

d. The system automatically returns to the verification state when both 10 fingers and card are enrolled, the management card is swiped once or the operation times out.

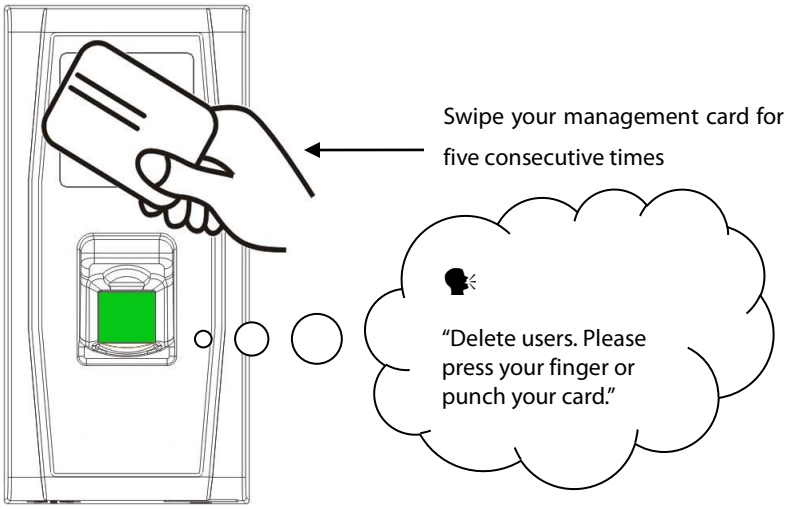
The flow chart is shown below:



3.1.3 Delete a Single User

The operation steps for simple single-user deletion:

1. In the verification state, swipe your management card five consecutive times to enter the simple single-user deletion state (swipe your card one more time to return to the verification state).



2. Press your finger onto the fingerprint sensor or swipe the card over the card reader.

(1) Press your finger onto the sensor to delete a user.

Press one of your enrolled fingers properly onto the sensor. If the verification succeeds, the system will generate the voice prompt "🗣: User number **. Deletion is successful. Delete users. Please press your finger or punch your card." (** indicates the ID number of the user) and automatically return to the deletion state. If the verification fails, the system will generate the voice prompt "🗣: Please try again."

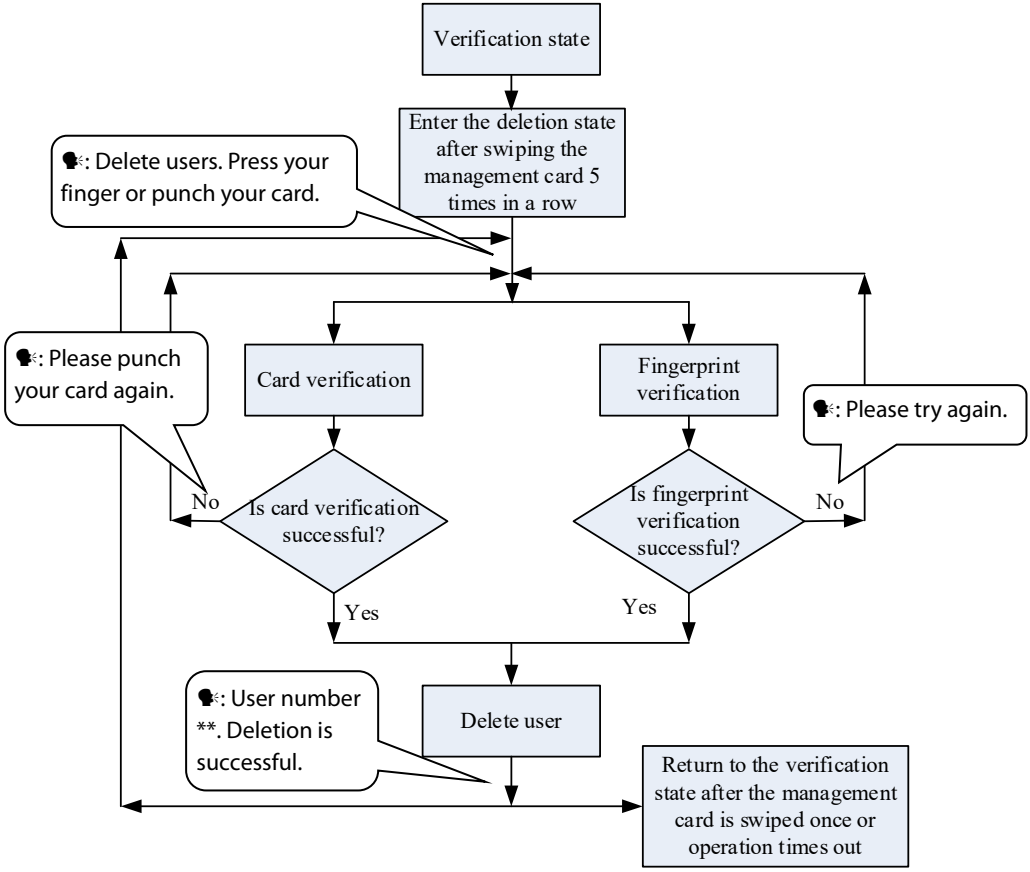
(2) Swipe your card over the reader to delete a user.

Swipe a registered card over the reader. If the verification succeeds, the system will generate the voice prompt "🗣: User number **. Deletion is successful. Delete users. Please press your finger or punch your card." and automatically return to the deletion state. If the verification fails, the system will generate the voice prompt "🗣: Please punch your card again."

3. If you swipe your management card one more time or your operation times out, the system will return to the verification state.

Tip: In simple single-user deletion mode, the management card user cannot be deleted because swiping the management card will return the system to the verification state.

Simple Single-User Deletion Procedure:



3.2 User Verification

Operation Steps:

1. When the device is in a verification state, the system generates the voice prompt "🗣: Verify users. Please press your finger or punch your card."
2. Start user verification. The device supports two verification modes: fingerprint verification and card verification.

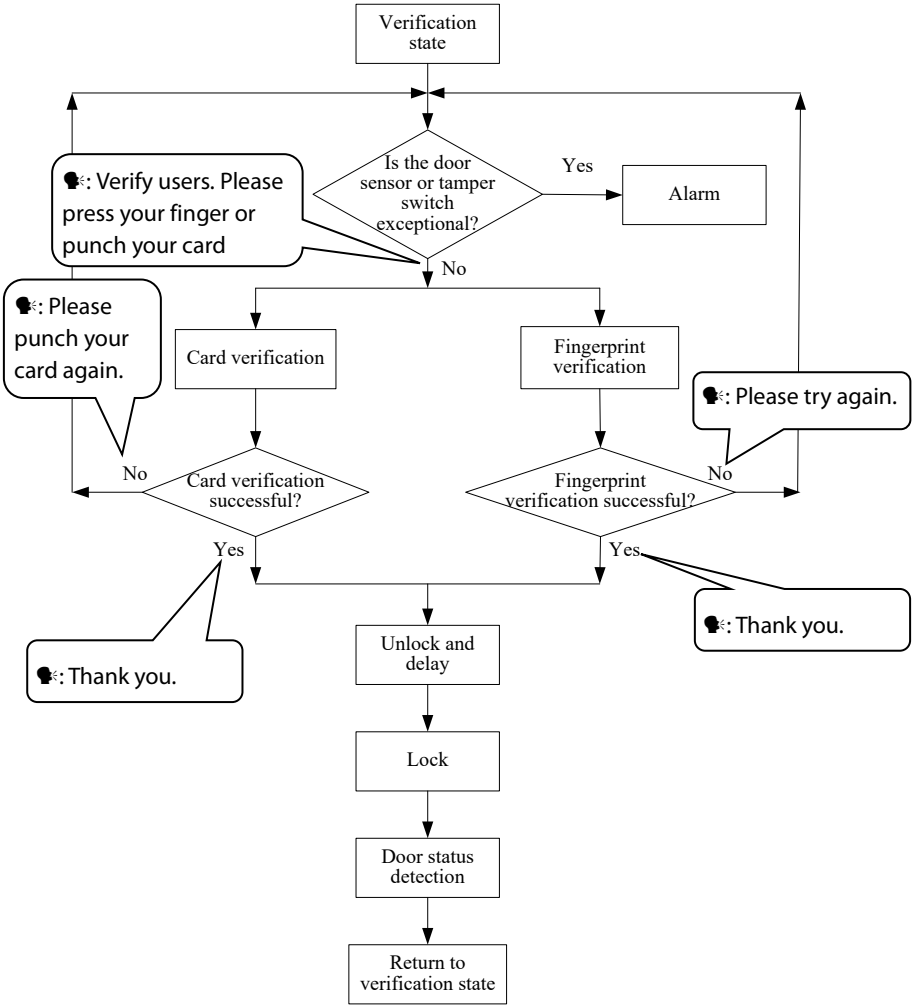
(1) Fingerprint Verification

Press your finger on the fingerprint sensor in a proper way. If the verification succeeds, the system generates the voice prompt "🗣: Thank you." and concurrently triggers an unlocking signal. If the verification fails, the system generates the voice prompt "🗣: Please try again."

(2) Card Verification

Swipe your card over the card reader. If the verification succeeds, the system generates the voice prompt "🗣: Thank you." and concurrently triggers an unlocking signal. If the verification fails, the system generates the voice prompt "🗣: Please punch your card again."

The user verification flow chart is shown as below:



Tip: The administrator can unlock by use of his/her enrolled fingerprints instead of a management card.

3.3 U-disk

The user can perform **record download**, **user download**, **user upload**, and **firmware upgrade** through a U-disk.

a. **Download Records**: Download the access records of all users from the device to a U-disk.

b. **Download Users**: Download all user information such as fingerprints and card numbers from the device to a U-disk.

c. **Upload Users**: Upload the user information from a U-disk to the device.

d. **Upgrade Firmware**: Upgrade the device firmware through a U-disk.

U-disk Operations:

If you connect a U-disk to the device, the system will automatically prompt you of the operations in sequence.

(1) After connecting a U-disk to the device, you can swipe the management card once to enter the U-disk management state.

(2) The system generates the voice prompt "🗣: ****. Please punch your management card for confirmation." (**** indicates the four operation items from steps a to d in sequence; same below)

(3) If you want to perform the operation, swipe your management card for confirmation. If your operation succeeds, the system will generate the voice prompt "🗣: The operation is successful." and prompt you to proceed to the next step. After you finish the four items, the system

generates the voice prompt "🗣: The system returns to verification state." If your operation fails, the system will generate the voice prompt "🗣: The operation fails. The system returns to verification state."

(4) If you do not swipe your management card, the system will automatically skip over this step in 5 seconds and prompt you to the next step. After you finish the four items, the system returns to the verification state automatically.

Please do not upgrade the firmware at your discretion because it may bring problems and affect the normal use of the device. Contact our distributors for technical support or upgrade notification.

3.4 Tamper Switch

The tamper switch is pressed and held down with a rear cover. When the device is dismantled, the tamper switch will be lifted and then it will send an alarm signal to trigger an alarm.

Clear Alarm: The user can clear the alarm by putting the magnet back on the tamper switch.

Restore Factory Defaults: The factory defaults can be restored through the tamper switch.

Power on the device, place the magnet on the tamper switch six times after it prompts ''Verify users. Please press your finger or punch your card" for 30 seconds but no more than 60 seconds. After it is restored successfully, the

device will restart automatically and prompts "Please register the management card".

Tips:

1. The user data will be cleared including the administrator and ordinary users.
2. The IP address of the device and the login password of the Webserver will be restored to default.

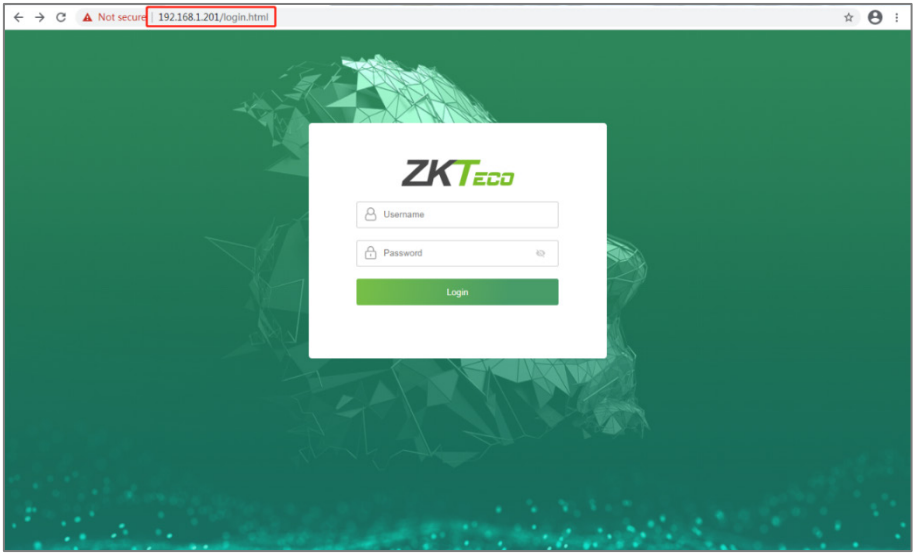
4 Webserver

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

4.1 Login

First, connect the device to the Internet. Open a browser and input the link: *https: //IP address (the device)* to enter the login interface. (e.g., the default IP address of the device is 192.168.1.201, and the webserver link is *https: //192.168.1.201*.)

Note: The IP address of your PC and the device should be in the same network segment, otherwise you cannot open the link. If you modify the IP address of the device in Settings-Comm Settings, then the webserver link will be changed accordingly.

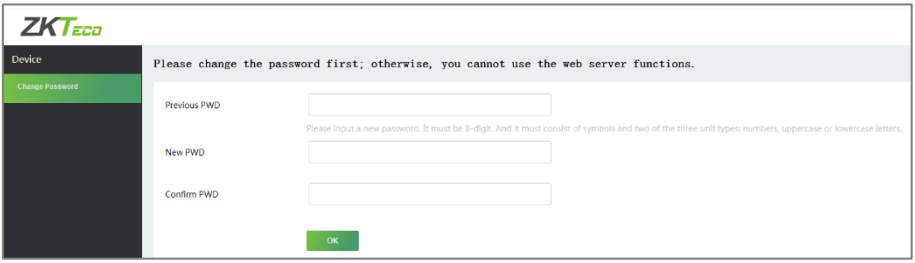


Enter the Username and Password.

Username: admin (default)

Password: admin@123 (default)

After successful login, it will jump to **the Change Password** page. Enter your **Previous password**, **New password** and **Confirm your password**. Then click OK, as shown below:



Note:

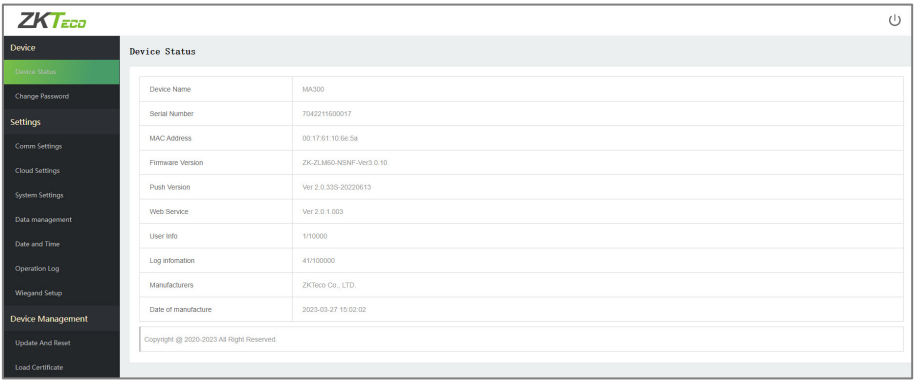
1. The password must be changed when logging in for the first time.
2. The new password must be 8-digits and it must consist of symbols and any two of the three-character types: numbers, uppercase or lowercase letters.
3. If you forget the password of the webserver, please restore factory settings through the tamper switch. For details, see 3.4.

After the modification is successful, it will return to the login interface.

4.2 Device

4.2.1 Device Status

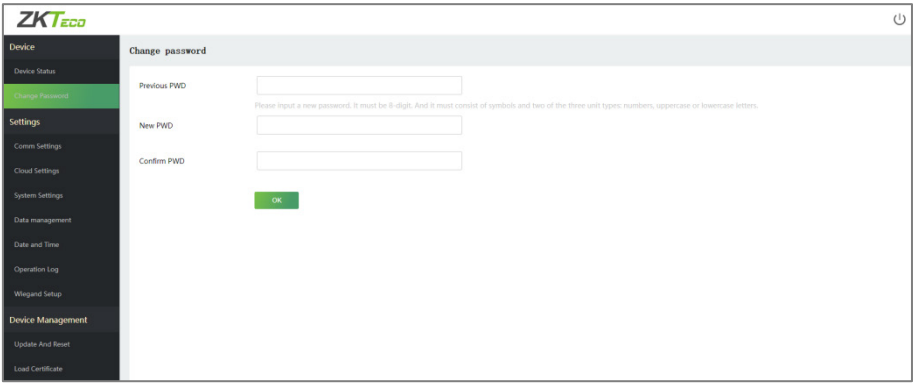
Click **Device Status** to view the Device name, Serial number, MAC address, etc. of the current device.



4.2.2 Change Password

Click **Change Password** to modify the user password.

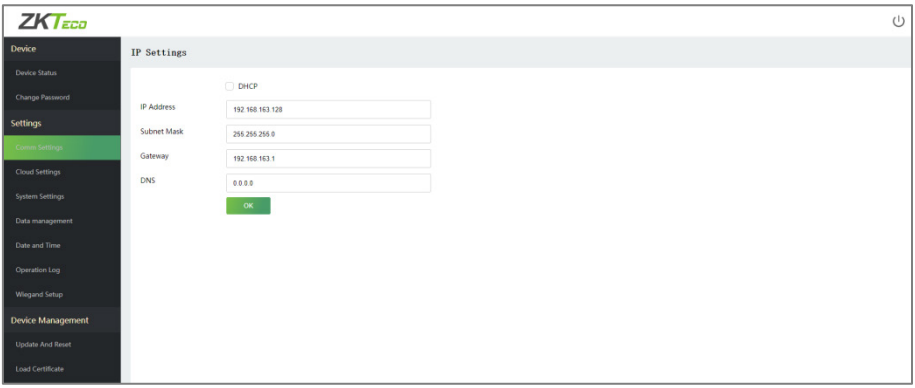
Enter your **Previous password**, **New password** and **Confirm the password**, then click **OK**.



4.3 Settings

4.3.1 Comm Settings

When the device needs to communicate with the network, you need to configure the IP settings.



The fields description is as follows:

DHCP: DHCP (Dynamic Host Configuration Protocol) dynamically allocates the IP addresses for clients via server. If DHCP is enabled, IP addresses cannot be set manually.

IP Address: The default value is192.168.1.201, it can be modified according to the available network parameters.

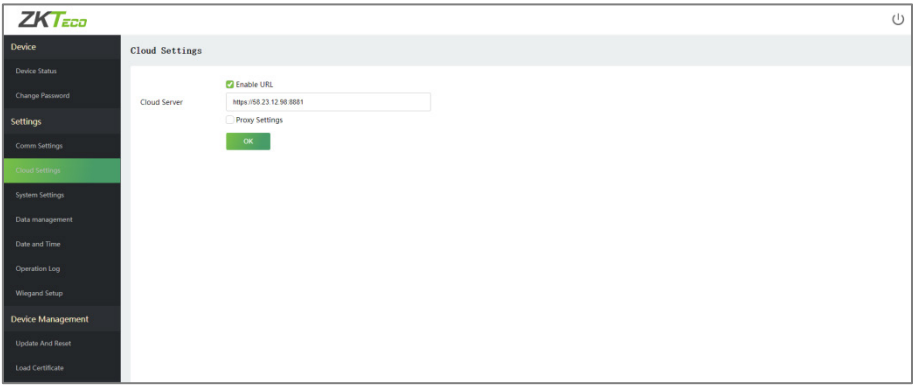
Subnet Mask: The default value is 255.255.255.0, it can be modified according to the available network parameters.

Gateway: The default value is 192.168.1.1, it can be modified according to the available network parameters.

DNS: The default DNS address is 0.0.0.0. It can be modified according to network availability.

4.3.2 Cloud Settings

We can connect to the Cloud server by configuring the Cloud Server Settings.



The fields description is as follows:

Enable URL: When the software is in HTTPS mode, the setting should be enabled, you need to type the complete server address and communication port, as shown in the figure above.

Cloud Server: The IP address of the server.

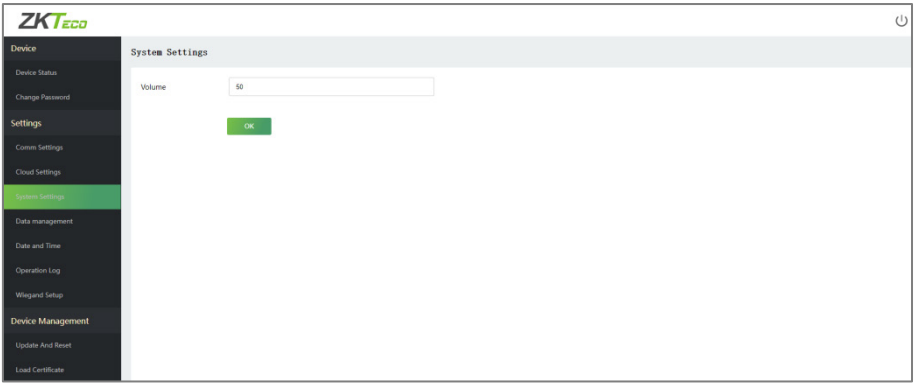
Cloud Server Port: The port of the server.

Proxy Settings: The IP address and the port number of the proxy server are set manually when the proxy is enabled.

4.3.3 System Settings

Click **System Settings** to set the device volume.

Enter the volume value and click **OK**.

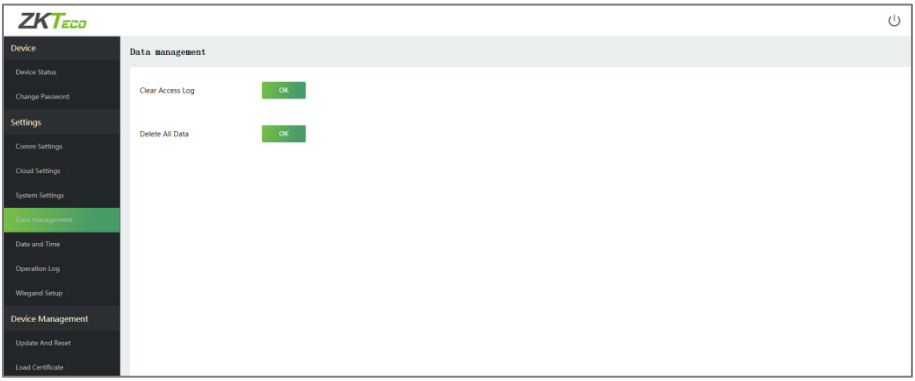


The fields description is as follows:

Volume: Adjust the volume of the device which can be set between 0 to100.

4.3.4 Data Management

Click **Data Management** to delete the relevant data in the device.



The fields description is as follows:

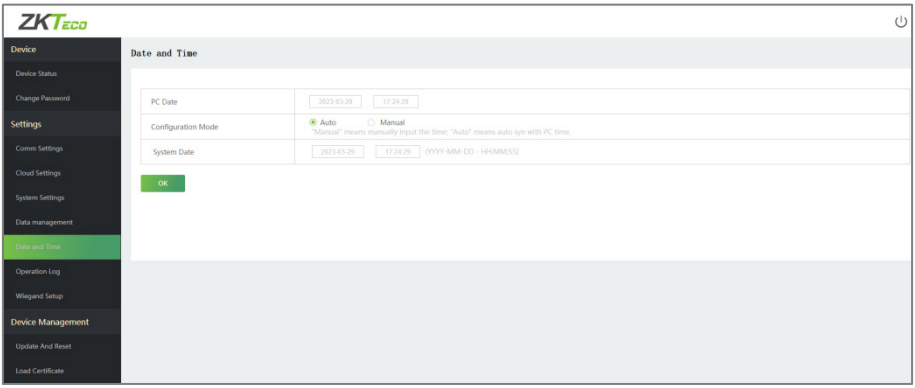
Clear Access Log: To delete all the access logs.

Delete All Data: To delete all the logs and user data (including the

administrator and ordinary users). **Please operate with caution!** After the operation is successful, you need to re-login the Webserver.

4.3.5 Date and Time

Click **Date and Time** to set the device date and time.



The fields description is as follows:

Auto: Automatically synchronizes the PC time.

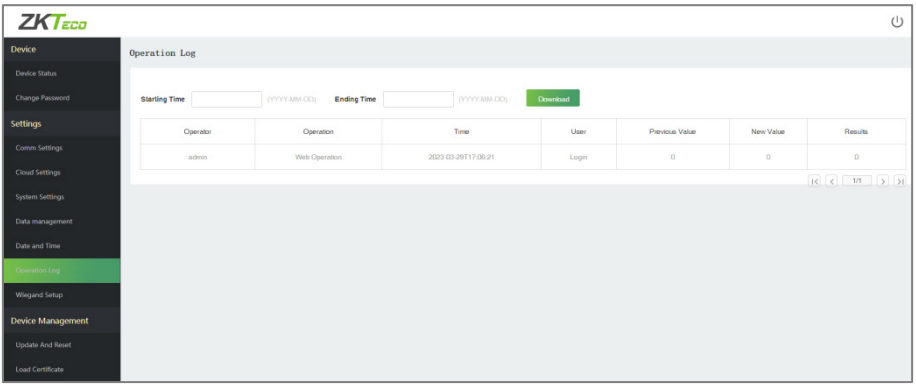
Manual: Need to manually input the date and time.

Note: The date format is required to be YYYY-MM-DD-HH: MM: SS.

4.3.6 Operation Log

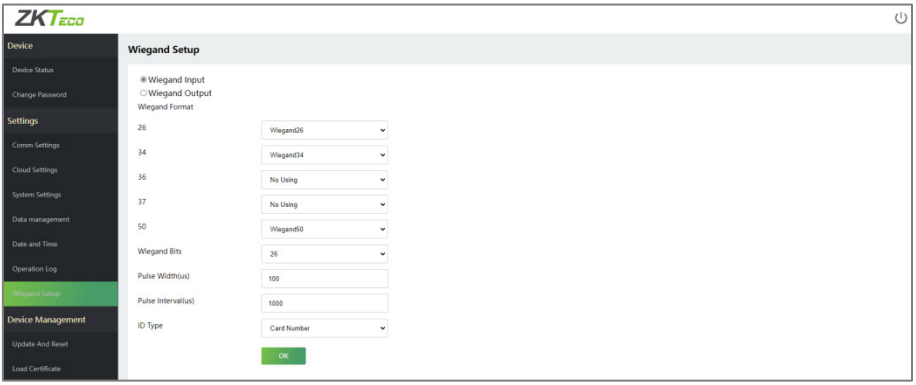
Click **Operation Log** to view all the device operation logs.

Download: Select the starting and ending time, and then click download, the operation log of the selected time will be automatically downloaded.



4.3.7 Wiegand Setup

Click **Wiegand Setup** to set the Wiegand input and output parameters.



The fields description is as follows:

Wiegand Format: Its value can be 26 bits, 34 bits, 36 bits, 37 bits, and 50 bits.

Wiegand Bits: The number of bits of the Wiegand data.

Pulse Width(us): The value of the pulse width sent by Wiegand is 100 microseconds by default, which can be adjusted within the range of 20 to 100 microseconds.

Pulse Interval(us): The default value is 1000 microseconds and can be adjusted within the range of 200 to 20000 microseconds.

ID Type: Select between the User ID and card number.

Various Common Wiegand Format Description:

Wiegand Format	Description
Wiegand26	ECCCCCCCCCCCCCCCCCCCCCCCCO It consists of 26 bits of binary code. The 1st bit is the even parity bit of the 2nd to 13th bits, while the 26th bit is the odd parity bit of the 14th to 25th bits. The 2nd to 25th bits is the card numbers.
Wiegand26a	ESSSSSSSSCCCCCCCCCCCCCCCCO It consists of 26 bits of binary code. The 1st bit is the even parity bit of the 2nd to 13th bits, while the 26th bit is the odd parity bit of the 14th to 25th bits. The 2nd to 9th bits is the site codes, while the 10th to 25th bits are the card numbers.
Wiegand34	ECCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCO It consists of 34 bits of binary code. The 1st bit is the even parity bit of the 2nd to 17th bits, while the 34th bit is the odd parity bit of the 18th to 33rd bits. The 2nd to 25th bits is the card numbers.
Wiegand34a	ESSSSSSSSCCCCCCCCCCCCCCCCCCCCCCCCO It consists of 34 bits of binary code. The 1st bit is the even parity bit of the 2nd to 17th bits, while the 34th bit is the odd parity bit of the 18th to 33rd bits. The 2nd to 9th bits is the site codes, while the 10th to 25th bits are the card numbers.

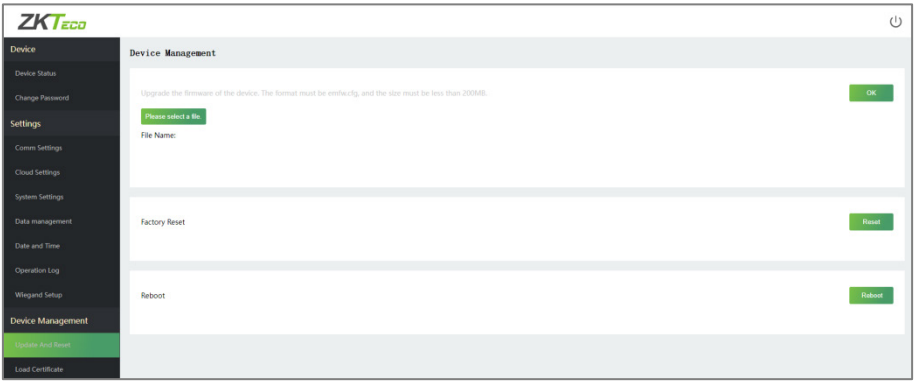
Wiegand36	OFFFFFFFFFFFFFFFCCCCCCCCCCCCCCCCMME It consists of 36 bits of binary code. The 1st bit is the odd parity bit of the 2nd to 18th bits, while the 36th bit is the even parity bit of the 19th to 35th bits. The 2nd to 17th bits is the device codes. The 18th to 33rd bits is the card numbers, and the 34th to 35th bits are the manufacturer codes.
Wiegand36a	EFFFFFFFFFFFFFFFFFCCCCCCCCCCCCCCCCO It consists of 36 bits of binary code. The 1st bit is the even parity bit of the 2nd to 18th bits, while the 36th bit is the odd parity bit of the 19th to 35th bits. The 2nd to 19th bits is the device codes, and the 20th to 35th bits are the card numbers.
Wiegand37	OMMMMSSSSSSSSSSSCCCCCCCCCCCCCCCCCCCE It consists of 37 bits of binary code. The 1st bit is the odd parity bit of the 2nd to 18th bits, while the 37th bit is the even parity bit of the 19th to 36th bits. The 2nd to 4th bits is the manufacturer codes. The 5th to 16th bits is the site codes, and the 21st to 36th bits are the card numbers.
Wiegand37a	EMMMFFFFFFFFFSSSSSSCCCCCCCCCCCCCCCCO It consists of 37 bits of binary code. The 1st bit is the even parity bit of the 2nd to 18th bits, while the 37th bit is the odd parity bit of the 19th to 36th bits. The 2nd to 4th bits is the manufacturer codes. The 5th to 14th bits is the device codes, and15th to 20th bits are the site codes, and the 21st to 36th bits are the card numbers.

Wiegand50	ESSSSSSSSSSSSSSSCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCO It consists of 50 bits of binary code. The 1st bit is the even parity bit of the 2nd to 25th bits, while the 50th bit is the odd parity bit of the 26th to 49th bits. The 2nd to 17th bits is the site codes, and the 18th to 49th bits are the card numbers.
"C" denotes the card number; **"E"** denotes the even parity bit; **"O"** denotes the odd parity bit; **"F"** denotes the facility code; **"M"** denotes the manufacturer code; **"P"** denotes the parity bit; and **"S"** denotes the site code.	

4.4 Device Management

4.4.1 Update and Reset

Click **Update and Reset** to set the device Update, Factory Reset, and Reboot settings.



The fields description is as follows:

Update: Click **Please select a file**, the file format must be emfw. cfg, and the size must be less than 200 MB.

Click **OK** to complete the firmware upgrade operation.

Factory Reset: The Factory Reset function restores the device settings such as communication settings and system settings, to the default factory settings.

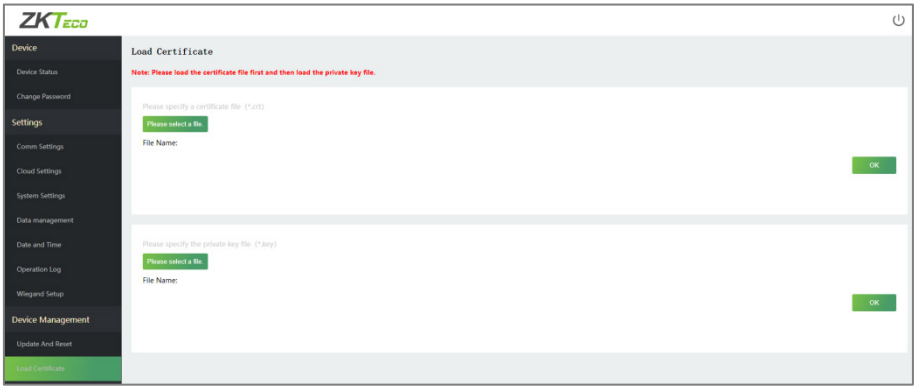
Note:

1. The password of the webserver and IP address of the device will be restored to default.
2. The user data won't be cleared.

Reboot: Restart the device.

4.4.2 Load Certificate

Click **Load Certificate** to upload the device certificate file and private key file. Click **Please select a file,** upload the certificate file and private key file, and click **OK** to complete the file upload operation.

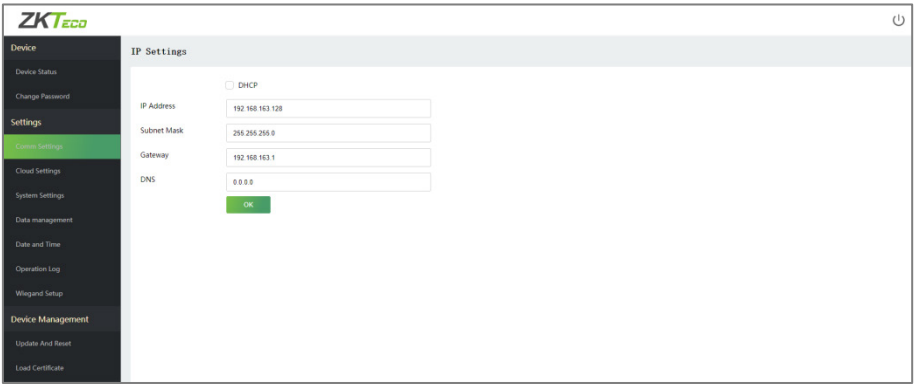


Note: Please load the certificate file first and then load the private key file.

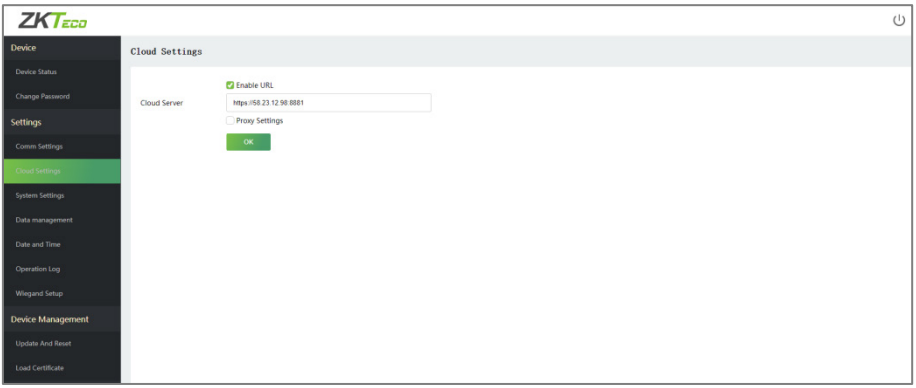
5 Connect to ZKBioAccess IVS Software

5.1 Set the Communication Address

1. Login to the Webserver. Click **Comm Settings** to set the IP address and Gateway of the device. (**Note:** The IP address should be able to communicate with the ZKBioAccess IVS server.)



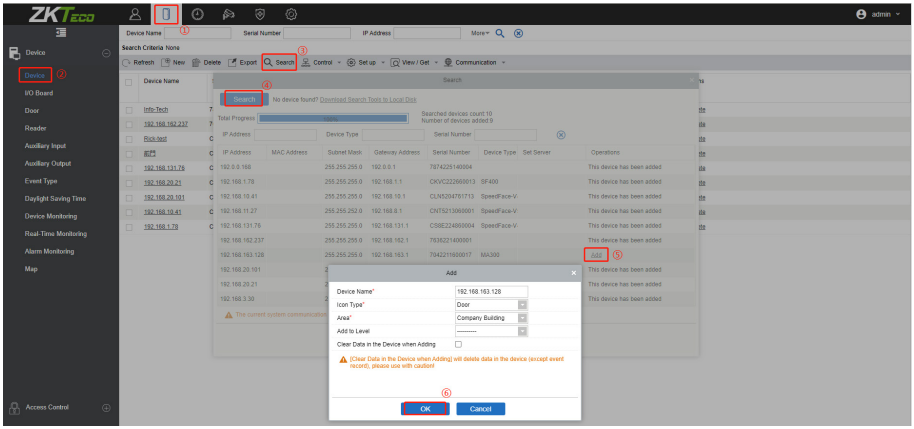
2. Click **Cloud Settings** to set the Server address and Server port.
   Enable URL: When the software is in HTTPS mode, the setting should be enabled, you need to type the complete server address and communication port, as shown in the figure below.
   Cloud Server: Set as the IP address of the ZKBioAccess IVS server.
   Cloud Server Port: Set as the service port of ZKBioAccess IVS.



5.2 Add Device to the Software

You can add a device by searching. The process is as follows:

1. Click **Access > Device > Search**, to open the Search interface.
2. Click **Search**, and it will prompt **Searching…….**
3. After searching, the list and the total number of access controllers will be displayed.

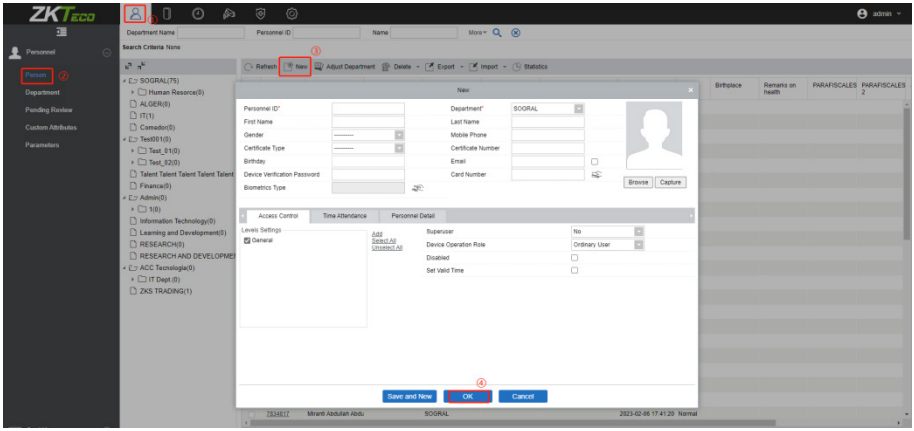


4. Click **Add** to add the device.

5. After the addition is successful, the device will be displayed in the device list.

5.3 Add Persons to the Software

1. Click **Personnel** > **Person** > **New**.

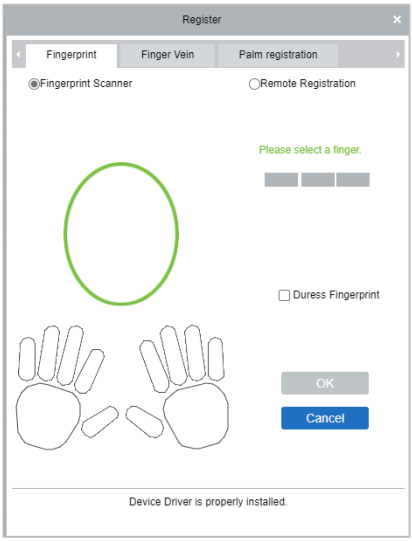


2. Enter the required details of the user and click **OK** to save the user.
3. Click **Access** > **Device**, check the device to be operated, and click **Control** > **Synchronize All Data to Devices** to synchronize all the data to the device.

- **How to enroll the fingerprints of the user who bears the management card?**

1. Click **Access** > **Device**, check the device to be operated, and click **View/Get** > **Get Personnel Information** to obtain the personnel information.
2. Click **Personnel** > **Person**, select the user whose personnel ID is 1 to enter the user edit interface. Click the  icon to enroll the

fingerprint. (**Note:** You need to connect a fingerprint reader to the PC first).



3. After the registration is successful, click **Access** > **Device**, check the device to be operated, and click **Control** > **Synchronize All Data to Devices** to synchronize all the data to the device.

Note:

1. The MA300 currently doesn't support online fingerprint registration.
2. For other specific operations, please refer to the *ZKBioAccess IVS User Manual*.

6 Appendix

6.1 List of Parameters

The following table lists the basic functional parameters of the device.

Item	Note
Power Supply	12V, 3A
Function	Access control device, door sensor/alarm/lock/exit button
	One Wiegand input and one Wiegand output
User Quantity	10,000 (fingerprint and ID card)
Record Capacity	100,000 pieces of records
Enrollment Capacity (fingerprint/card)	1,500 fingerprints / 10,000 cards
Verification Mode	ID (IC / HID) card, fingerprint
Communications	TCP / IP, RS485
Speaker	Voice prompt
LED	Bi-color indication (red / green)

6.2 Privacy Policy

Notice:

To help you better use the products and services of ZKTeco and its affiliates, hereinafter referred to as "we", "our", or "us", the 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 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. How we handle personal information of minors

Our products, website and services are mainly designed for adults. Without the consent of parents or guardians, minors shall not create

their own account. If you are a minor, it is recommended that you ask your parents or guardian to read this Policy carefully, and only use our services or information provided by us with the consent of your parents or guardian.

We will only use or disclose personal information of minors collected with their parents' or guardians' consent if and to the extent that such use or disclosure is permitted by law or we have obtained their parents' or guardians' explicit consent, and such use or disclosure is for the purpose of protecting minors.

Upon noticing that we have collected personal information of minors without prior consent from verifiable parents, we will delete such information as soon as possible.

IV. Others

You can visit https://www.zkteco.com/cn/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 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.

6.3 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.

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