

# Installation & Quick Start Guide

## Smart Series Access Control Terminal

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Version: V2.0

Date: April, 2017

## About This Manual

- All design and specification declared are subject to change without notice in advance.
- Not all products have the functions with ★, the real product shall prevail.

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# 1. Safety Precautions

Thank you for using our products. Please read this manual carefully before using this product for a comprehensive understanding so as to avoid causing unnecessary damages to the product.

## ● Important Notes

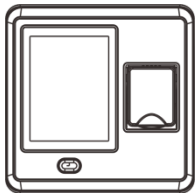
1. Do not place the device under strong light.
2. Use regulated 12V DC power source (separately purchased and recommend using Uninterrupted Power Supply with backup battery option considering of power failure).
3. Do not place the device in a vulnerable location where it might be subjected to vandalism.

## ● Before Installation

1. Prior to beginning installation, cut off all power to prevent personal injury and damage to the device and peripheral equipment.
2. Connect the ground wire first, in order to prevent electro-static damage to the device.
3. Connect 12V DC power supply to the device at last. If the device does not operate properly, always cut off power to it before examining/dismantling. Be advised that wiring the device while power is on may cause damage to the terminal. Possible resulting damage from not powering off the device prior to wiring is not covered by manufacturer's warranty.

4. Mount the device at a comfortable height, typically between 1.4~1.5 meter from the ground.
5. After installation, remove protective film from the device display and fingerprint sensor.
6. To prevent being accidentally locked out while testing the exit button, keep a person on the inside of the door.
7. Run the auto-test function to confirm that installation is successful.
8. In order to maximize the life of the device, use the auto-sleep functions, sleep time could be set in the system parameter menu.
9. The rated voltage of the device is DC 12V, and the rated current is 300mA. If the incorrect voltage is used, the device may be damaged or may not operate the electric door lock (if attached).
10. Improper wiring may cause the device's main circuit board and fingerprint sensor to burn out. Resulting damage from improper wiring is not covered under manufacturer's warranty.
11. Only use supplied transformer and cord. Do not attempt extending the cord by cutting and splicing.
12. Refer to the user handbook and operating instructions for further information.

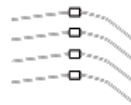
## 2. Packing List



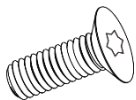
**1 Access Device**



**1 Screw Driver**



**4 Diodes (FR107)**



**1 Star Screw**

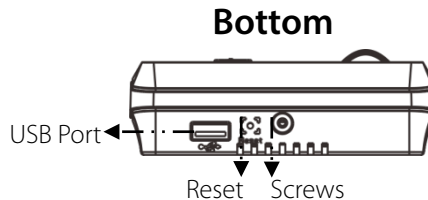
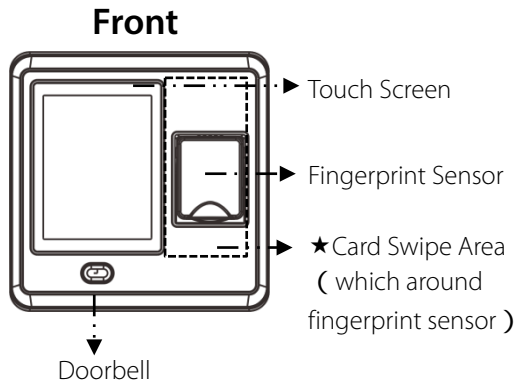


**1 CD**

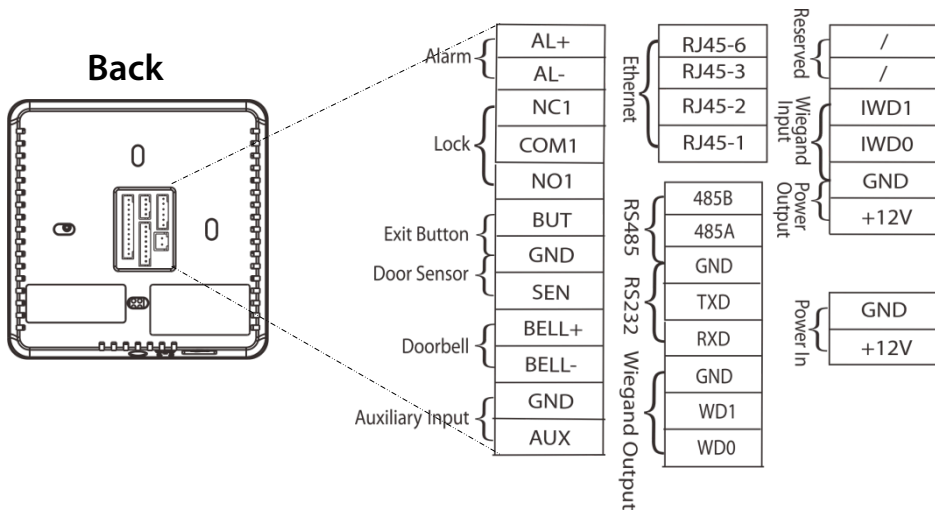


**4 Wall Plugs /Screws**

### 3. Overview of Operation Panel

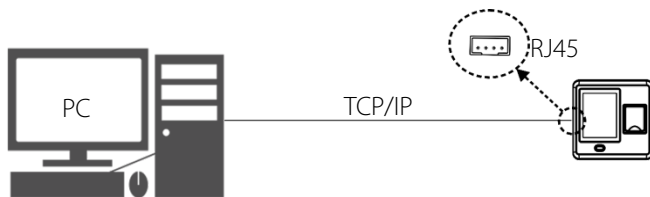




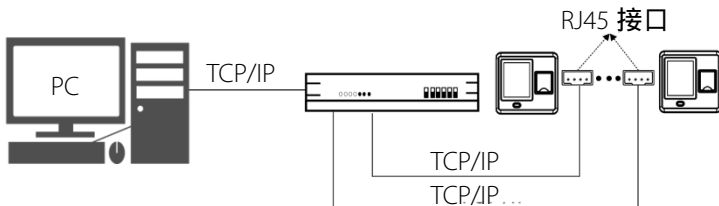


## 4. System Structure

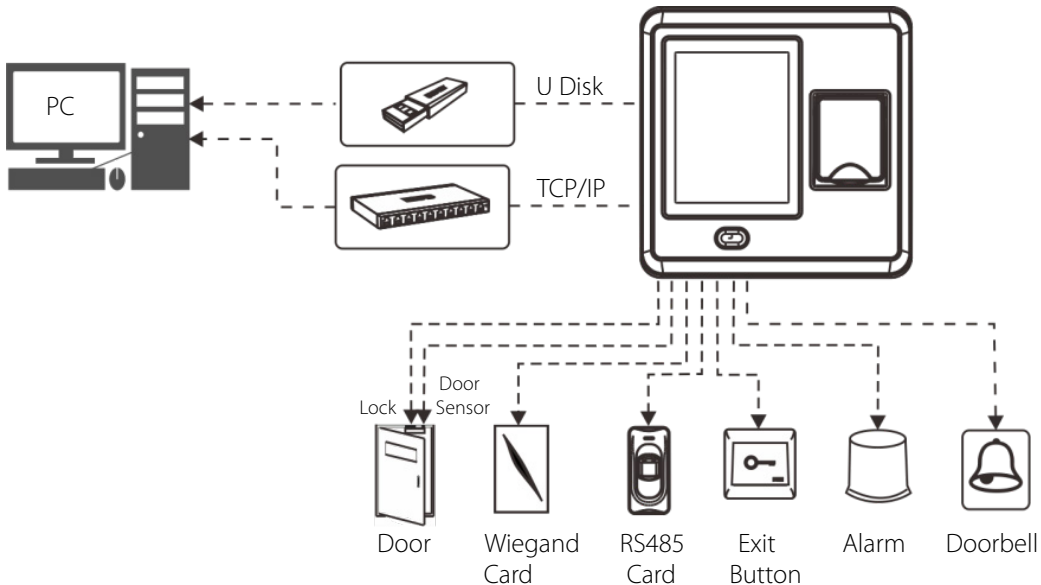
- Directly connect with PC through TCP/IP



- Connect with PC through TCP/IP network

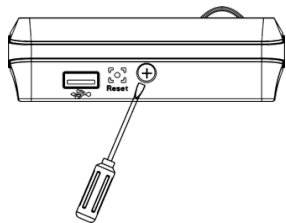


- The diagram of system construction

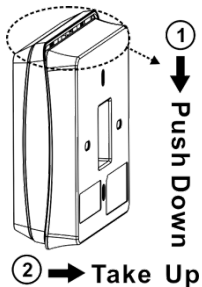


## 5. Installation

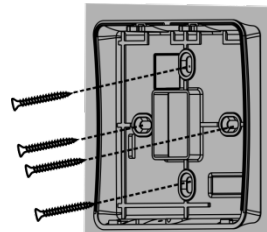
### 5.1 Installation of Device



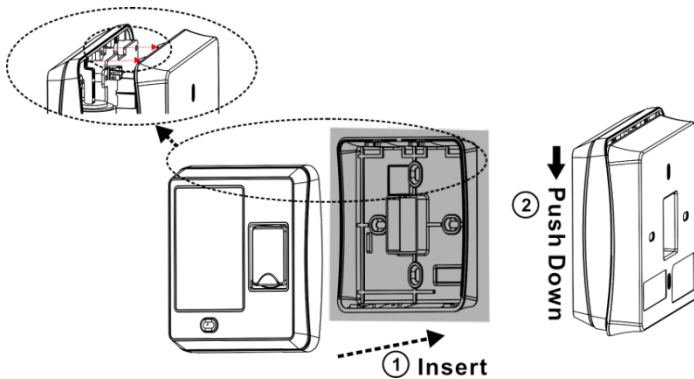
1. Remove the bottom screw.



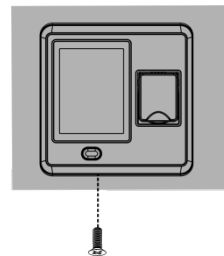
2. Take out the *Back Cover*.



3. Fix the *Back Cover* on the wall with screwdriver.



4. Fix the device on the *Back Cover*.

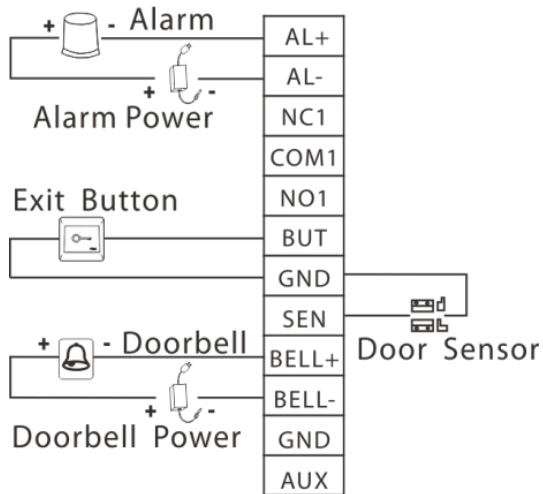


5. Tighten the bottom screw.

## 5.2 Connect with peripheral equipment

**Caution:** Please make sure the power is cut off before wiring; otherwise it is possible to damage the device.

- 1). Door Sensor Connection
- 2). Button Connection
- 3). Alarm Connection
- 4). Doorbell Connection
- 5). Lock Connection



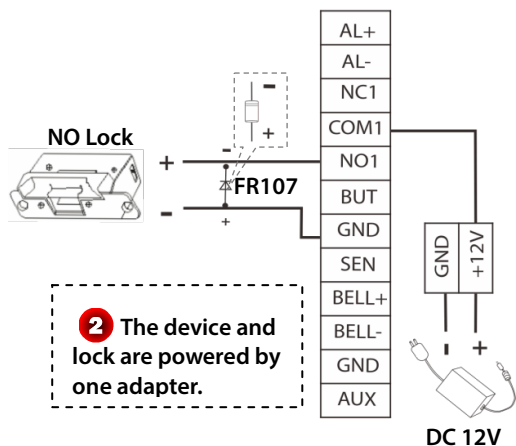
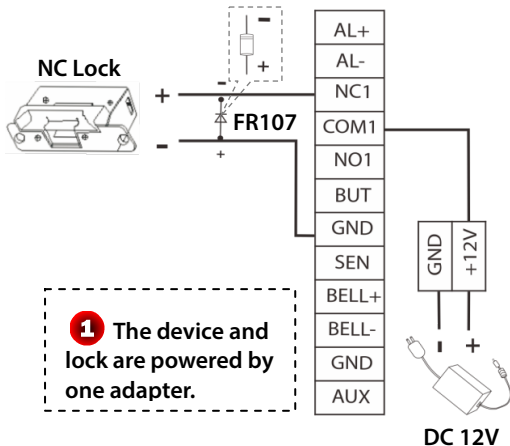
**Selecting door lock:** The choice of lock depends firstly on the door-electric strikes or bolts, magnetic locks, turnstiles or barriers are all options depending firstly on the architecture-and secondly on the required resistance to attach. Please consult your supplier for more info.

**Connect with electric lock:** After the user verified the identity, the device will output the unlock signal. The device supports NO (Normally Open) LOCK and NC (Normally Close) LOCK.

**NO LOCK:** the door is normally open at power on, so it closes the door at power off.

**NC LOCK:** the door is normally closed at power on, so it opens the door at power off.

The device can supply power directly to a door lock, please refer to **Figure 1, 2**. (Ensure that proper voltages are applied to the lock terminals and check on the current ratings of the locks.)

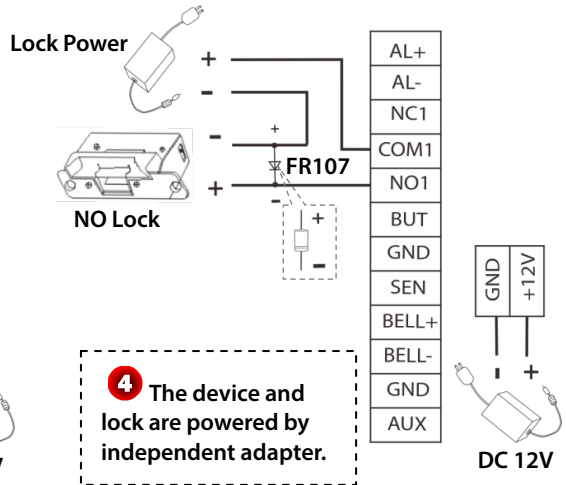
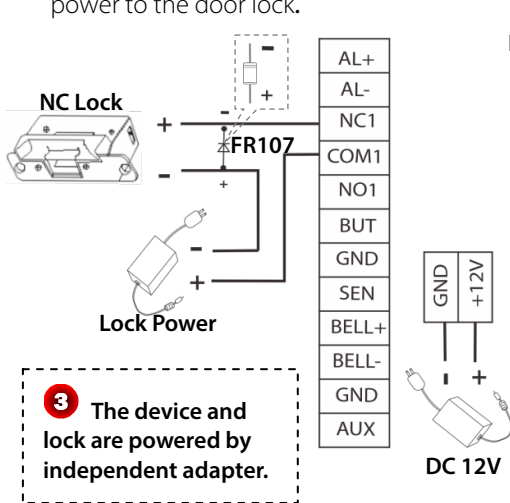


However, in the following three scenarios, it is recommended that the door lock has an independent power source, and is NOT powered by the device. Show as **Figure 3, 4**.

1. If the door lock voltage is not **12V DC**, then provides separate power to the door lock.

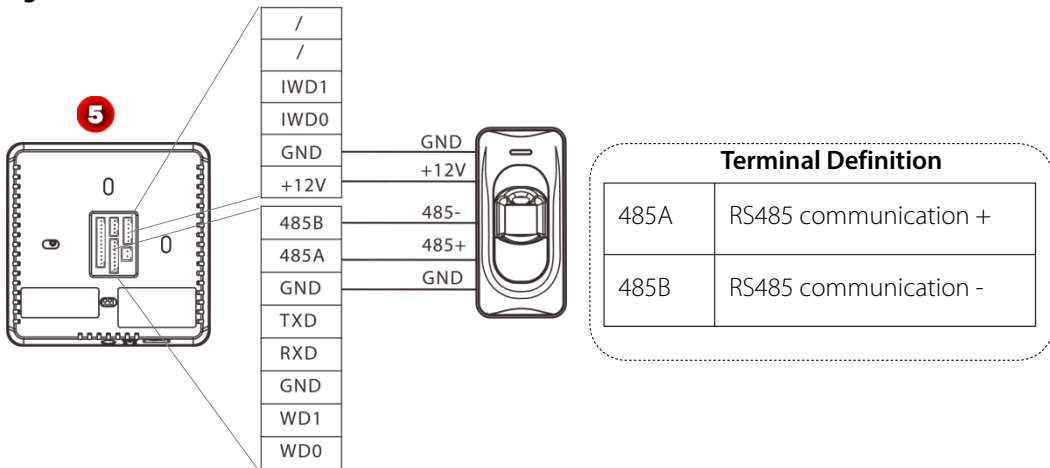


- If the door lock runs on **12V DC**, but requires more than **1A** (amp), then provide separate power to the door lock.
- If the distance between the device and door lock is greater than **15** feet, then provide separate power to the door lock.



## 6). RS485 Connection

RS485 serial port will not be used as the communication port between the device and PC, which only connect external 485 reader (such as FR1200/ FR1300). Connection of 485 reader is shown as **Figure 5**.

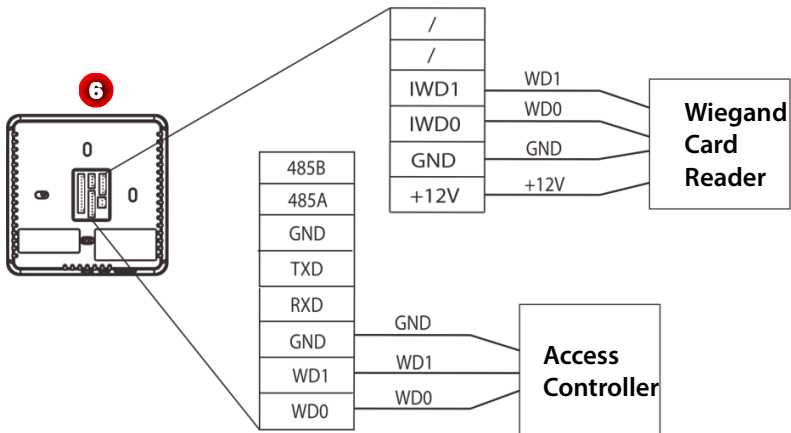


## 7). Wiegand Function

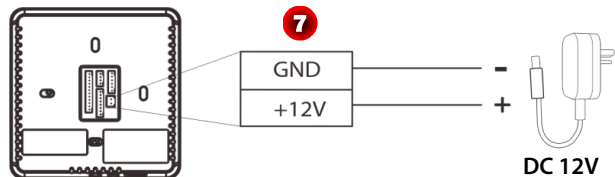
**Wiegand Output:** This device provides standard Wiegand 26 output, which can be used as reader. The distance from the controller to device cannot be more than 15 meter (If the signal must be transferred much further or there is a strong interference around, please adopt a Wiegand signal amplifier).

**Wiegand Input:** The device has Wiegand input function, can connect the external card reader. Device and card reader can be installed respectively inside and outside of the door, control the lock together, control out & in. (For detail, please see **Figure 6**.)

**Note:** No matter the device is powered by access controller or not, the ground ports of them have to be properly together to ensure the Wiegand transfer reliable.



### 8). Power Connection :



## 5.3 Test and examine after installation

Make a test and examine prior to power on, inspect whether the lock driver is OK or not.

1. The green LED begins to glitter after power up.
2. Enter **[Main menu] > [Autotest] > [Test All]**.
3. Enter **[Main menu] > [User Mgt.] > [New User] > [Fingerprint]**, enroll a fingerprint, and use the fingerprint to test access system and door lock.
4. If there is no any problem, please delete this enrolled fingerprint.

## 5.4 Reset and Tamper Switch

**Reset:** Due to operation error or other accidents, which leads the device failed to work, you can restart device through reset button.

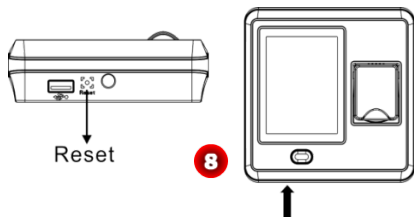
To reset the device use a small tool (e.g., pin or paperclip) to push in the reset button (labeled **Reset**, shown as **Figure 8**) located on the underside of the device.

**Note:** It does NOT erase any stored data (i.e. templates, transactions, settings). This information will be available as soon as power is restored.

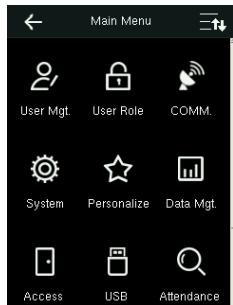
**Tamper Switch** is located on the back of the device, when the device detects it is being “tampered”


with, it will send an alarm signal.

If the administrator was lost, you can wait about 30 seconds (there is a short beep tip) after the device is disassembled from the wall, then press the tamper switch three times to access the device menu.



## 6. Quick Start Guide



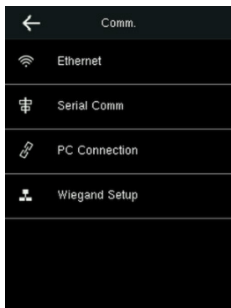
Press  to enter main menu, include User Management (User Mgt.), User Role Setting (User Role), Communication Setting (COMM.), System Setting (System), Personalize Setting (Personalize), Data Management (Data Mgt.), Access Control Setting (Access Control), USB Management (USB Manager), Attendance Search, Print Setting (Print), Autotest and System Information (System Info).

### 6.1 Communication Setting

Press [**COMM.**] icon in main menu to enter the communication setting (**COMM.**) Interface.

**Ethernet:** Set *IP address* (The default value is 192.168.1.201), *Subnet Mask* (The default value is 255.255.255.0), *Gate Way* (The default value is 192.168.1.254), *DNS* (The default value is 0.0.0.0), *TCP COMM. Port* (The default value is 4370), *DHCP* (The default setting is OFF) and set whether to enable *Display in Status Bar* for device.

**Serial Comm:** Set function of serial port, the baud rate for the communication between the device

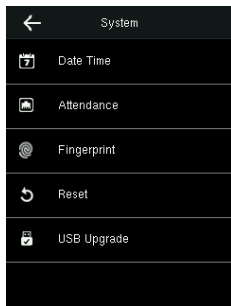


and external reader, whether to enable the print function, and baud rate for the communication between the device and printer.

**PC Connection:** Set Device ID and password for the connection between the device and software. The default password is 0 (that is, no password).

**Wiegand:** To configure Wiegand Function.

## 6.2 System Setting



Press [**System**] icon in main menu to enter the system setting (**System**) Interface

**Date/Time:** To set device's Date and Time, and Daylight Saving Time as required.

**Attendance:** To set the attendance parameters as required, such as Duplicate Punch Period, Attendance Log Alert, Cyclic Delete ATT Data, Confirm Screen Delay and Verification Result Font Size.

**Fingerprint:** To set the fingerprint parameters as required, such as 1:1



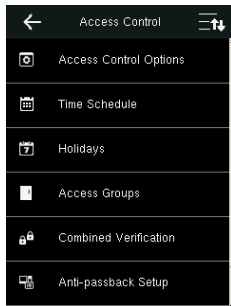
Match Threshold, 1:N Match Threshold, FP Sensor Sensitivity, 1:1 Retry Times and Fingerprint Image.

**Reset:** To restore all system parameters to factory default settings (**Note:** All users' information and verification records saved in the device will not be deleted after reset).

**USB Upgrade:** To upgrade the firmware with the upgrade file saved in the U disk (It is not recommend to upgrade firmware in general case).

## 6.3 Access Setting

Press [**Access**] icon in main menu to enter the access setting (**Access**) Interface.



**Access Control Options:** To set parameters of the lock and other related devices.

**Time Schedule:** To set a maximum of 50 time zones. Each time zone consists of 7 spaces (for one week from sunday to saturday).

**Holidays:** To set dates of holiday and the access control time period for that holiday.

**Access Groups:** Access Group refers to one selected Time Period or several selected Time Period s that can be opened by verification. (**Note:** The Access Group must be set under **Access** setting.)

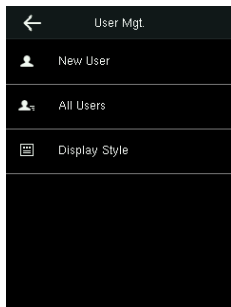
**Combined Verification:** To set access control combinations. A combination consists of a maximum of 5 access control groups.

**Anti-Passback Setup:** To prevent passing back which causes risks to security. Once it is enabled, entry and exit records must be matched in order to open door. In Anti-Passback, Out Anti- Passback and In / Out Anti-Passback functions are available.

**Duress Options:** Set the duress alarm ways and alarm delay time as required.

## 6.4 User Management

Press [User Mgt.] icon in main menu to enter the user management (**User Mgt.**) Interface.

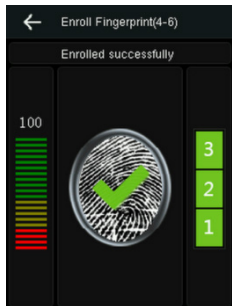



**New User:** Input User ID ( The max length is 9 ) and Name, select the User Role (Normal User or Super Admin), enroll Fingerprint, Badge Number★, and Password ( The maximum length is6, set the access control role as required.

**All Users:** Input user ID or name to start searching, you can also edit and delete the user.


**Display Style:** Set the display style of all enrolled users.

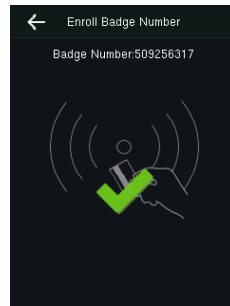
## ● Enroll Fingerprint



1. Press [**Fingerprint**] in **New User**, the **Enroll Fingerprint** interface is displayed.
2. According to the operation prompt information, place finger on the Fingerprint Sensor properly three times until enrollment succeeds, and then return to the **New User** interface automatically.
3. Press  to return and save user information.

## ● Enroll Badge Number★

1. Press [**Badge Number**] in **New User**, the **Enroll Badge Number** interface is displayed.
2. According to the operation prompt information, punch card at the punch area (around the Fingerprint Sensor); after enrollment succeed, return to the **New User** interface automatically.
3. Press  to return and save user information.



## ● Search User



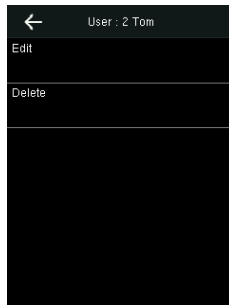
1. Press [**All Users**] icon in **Use Mgt.** to enter **All Users** interface, shown as left figure.

2. Input user ID or name in the search box. (Note: You can input user name with the intelligent input.)

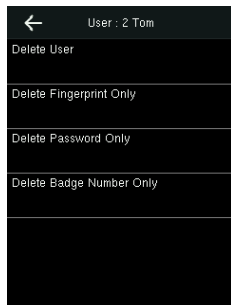
3. Press [**OK**] to locate the specified user.

## ● Edit User

After search the specified user, click the user to enter left interface. Press [**Edit**] to enter the **Edit** interface. Detail operations of editing are the same as adding user (The user ID cannot be edited).



- **Delete User**



1. After search the specified user, click the user and press **[Delete]** to enter left interface.

2. Select delete type (Delete User, Delete Fingerprint Only, Delete Password Only, Delete Badge Number Only), and then press **[OK]** to confirm and carry out the corresponding delete operation.

**Note:**

(1) Based on the information registered by a user, the device displays the optional operation types. For example, if the user does not register the password, the option *Delete Password Only* is not available.

(2) If *Delete User* is selected, the user's fingerprint, password, and badge number information will be deleted.

- **User Access**

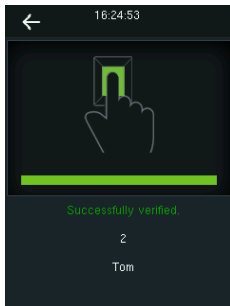


1. In **[New User]** or **[Edit]** interface, press **[Access Control Role]** to enter the **Access Control** setting interface, shown as left figure.
2. Set the Access Group, Verification Mode, Time Period and select Duress Fingerprint as required.

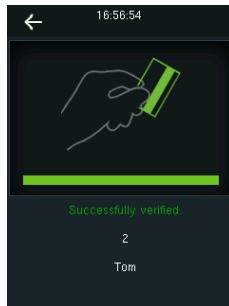
## 6.5 Verification

- **Verification by Fingerprint or Card★**

Place finger on the Fingerprint Sensor properly or punch card★ in the punch area (around the Fingerprint Sensor); after verification succeed, the interface shown as **figure 1** (Fingerprint Verification), **figure 2** (Card Verification★).





**figure 1**



**figure 2**

- **Verification by Password**

1. In initial interface, press  to enter the user ID input interface, shown as **figure 3**.
2. Input user ID which needs to do password verification and press **[OK]**, **figure 4** will display.
3. Press  icon to enter password input interface, shown as **figure 5**.
4. Input the correct password (same as inputting ID Number) and press **[OK]** to confirm the password. After verification succeed, **figure 6** will display.

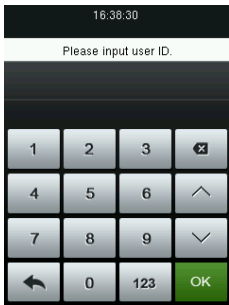


figure 3

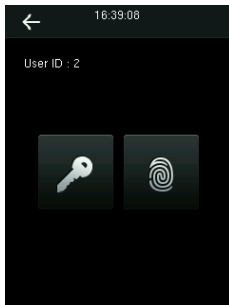


figure 4

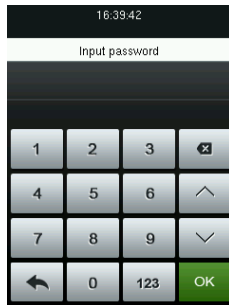


figure 5

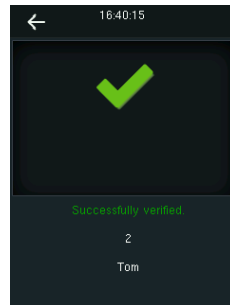


figure 6

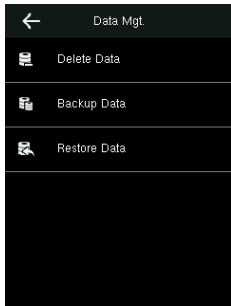
## 6.6 Data Management

Press [**Data Mgt.**] icon in main menu to enter the **Data Management (Data Mgt.)** interface.

**Delete Data:** Delete data saved in the device, such as attendance data, all data, admin role, access control, wallpaper, screen savers and backup data.

**Backup Data:** Backup the business data or system data to device or USB disk.





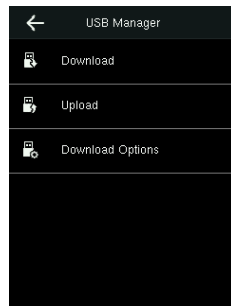
**Restore Data:** Restore the backup data saved in device or USB disk to device.

## 6.7 USB Manager

Press [**USB Manager**] icon in main menu to enter the **USB Manager** interface.

**Download:** Download all attendance logs or user information to the USB Disk. And then import logs into the **Access 3.5** software through **Import Data From USB disk** function, and then view Access Report as required.

**Upload:** Upload user information, screen saver or wallpaper (stored in USB Disk) into the device.



**Download Options:** Set whether to enable the *Delete ATT Data* option.



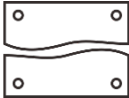






## 6.8 View Access Report

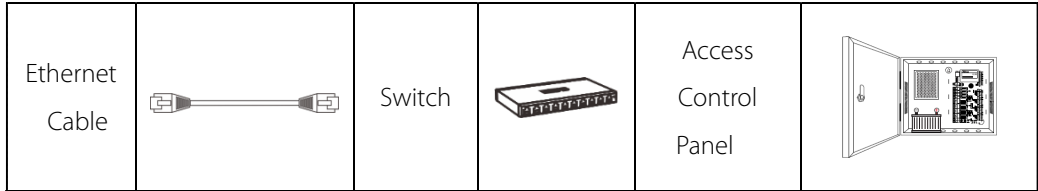
1. Connect the device to the network.
2. Run **Access3.5** software.
3. Add the device to the software, download logs from device (you can use the USB Disk to download logs too), and then analyze logs and view the access report as required.

Bundled *Access3.5 Security System* is unique software. For detailed operations, refer to **Access3.5 software user manual** in the CD.

## 7. Others

The following equipments are needed for an access control system but are not included in the standard package.

Name	Picture	Name	Picture	Name	Picture
PC		Lock		Door Sensor	
Doorbell		Exit Button		Alarm	
485 Reader		Wiegand Card Reader		USB Disk	



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.

**Warning:** Changes or modifications to this unit 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.