

**Fingerprint Access Control Integration Host
User's Manual
KX-DR01**

V1.0.0

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Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

Note:

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature. Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

Warning:

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

1 Overview

The Fingerprint Access Control Integration Host integrates card reading, config and execution functions. Its has a neat appearance for medium to high-end clients such as commercial building, corporation and intelligent community.

It has:

- Touch keyboard + LCD display, TCP/IP protocol.
- Support unlock via card, fingerprint, password, card+password, card+fingerprint, card or password or fingerprint.
- Max support 4,500 fingerprints, 30,000 valid cards and 500 super-passwords.
- Max support 150,000 card records and 512 alarm records.
- Door time out alarm, intrusion alarm, duress alarm, and door sensor alarm.
- Ring input.
- Add guest card, duress card, black/white list and patrol card, while support period of validity or times.
- Integrate card reader and single-door controller.
- Support 128 groups of period and 128 groups of holiday period.

2 Device Structure and Installation

Device appearance and dimension are shown as in Figure 2- 1 and Figure 2- 2.
Unit is mm.

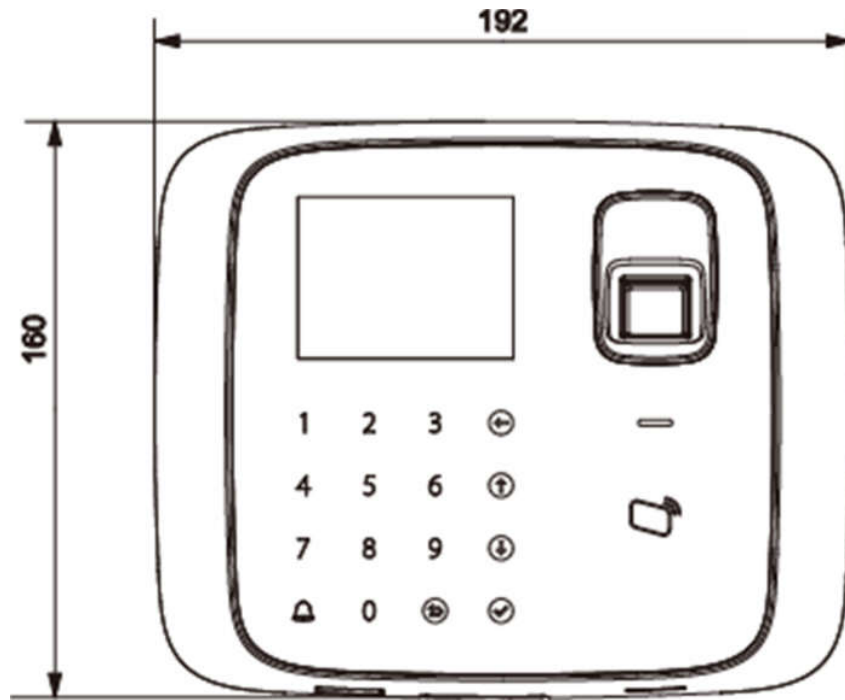


Figure 2- 1



Figure 2- 2

Fingerprint Access Control Integration Host installation is shown as in Figure 2- 3.

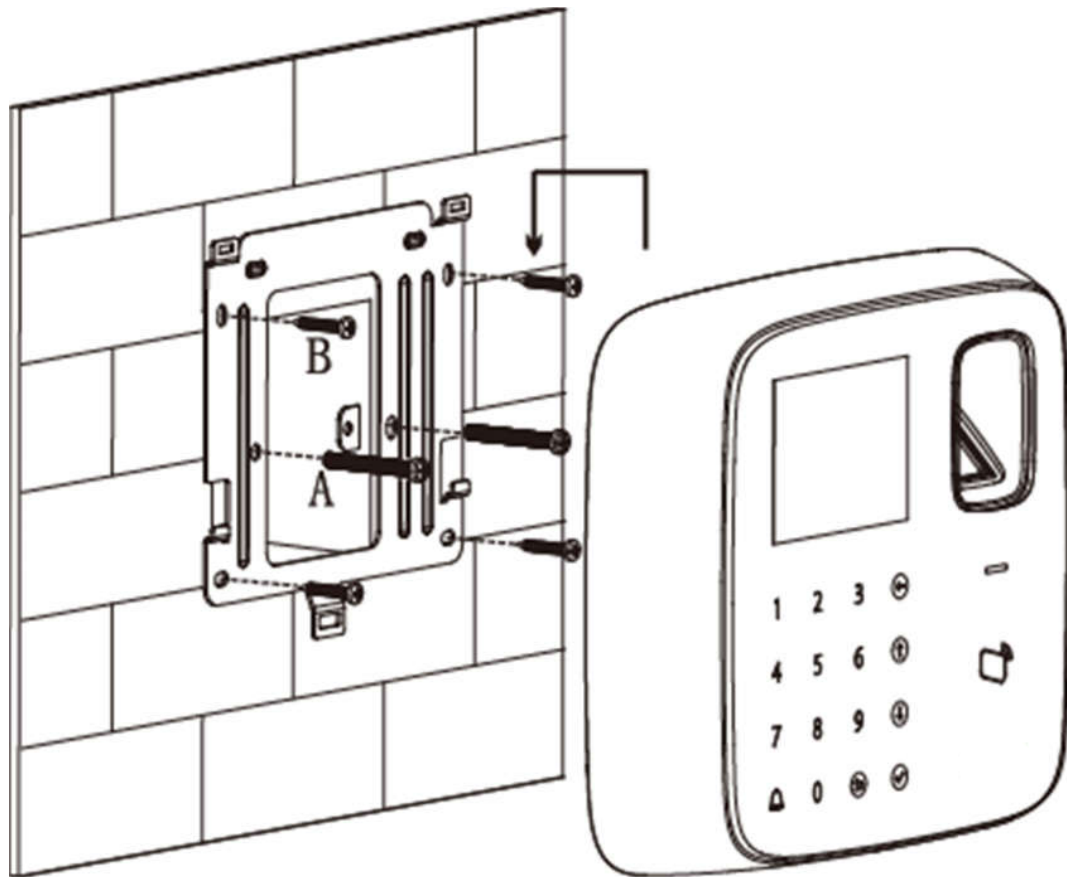


Figure 2- 3

Installation step:

Step 1. Fix installation bracket in the hole on 86 box via screw A as to fix the bracket on wall (if no 86 box or you cannot fix it well, then use screw B to fix the bracket on wall, but you must embed expansion nut at the corresponding position in wall before doing so).

Step 2. According to installation map, hang the device on bracket hook.

3 System Structure

3.1 System Structure

The device and card reader, alarm device, access control PC and etc. compose a system as in Figure 3- 1.

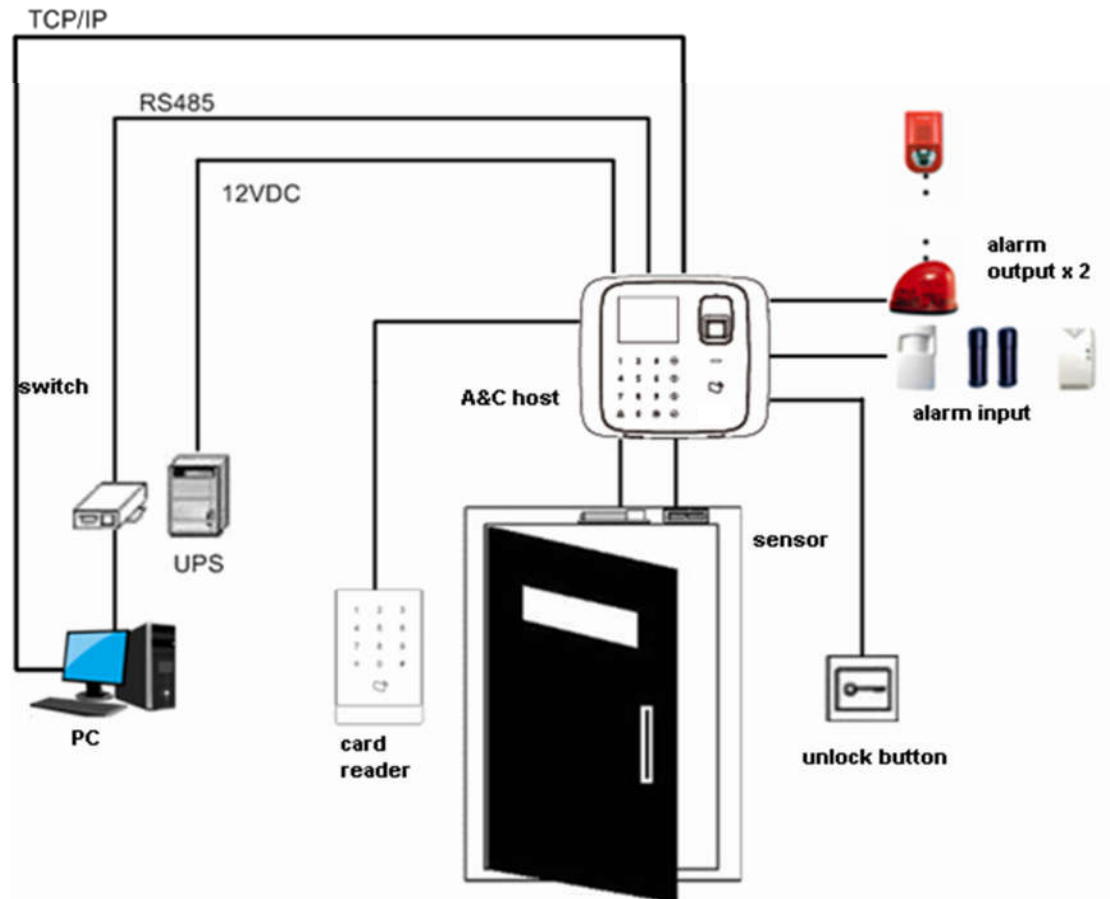


Figure 3- 1

3.2 Device Port

Device port of the host is shown in Figure 3- 2.

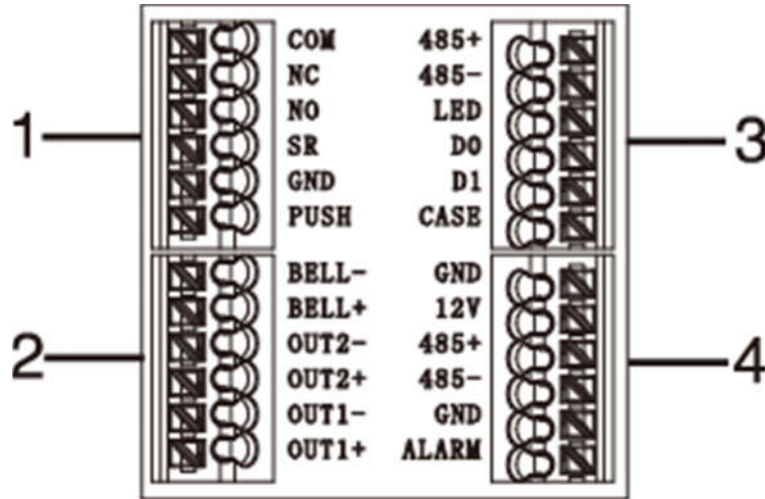


Figure 3- 2

| No. | Port | Note |
|-----|-------|---|
| 1 | COM | Door lock COM end |
| | NC | Door lock NC end |
| | NO | Door lock NO end |
| | SR | Door sensor detection |
| | GND | Connect to GND |
| | PUSH | Press unlock button |
| 2 | BELL- | Door bell output |
| | BELL+ | |
| | OUT2- | Alarm output 2 (5V level switch), connect to voltage not over 12V |
| | OUT2+ | |
| | OUT1- | Alarm output 1 (5V level switch), connect to voltage not over 12V |
| | OUT1+ | |
| 3 | 485+ | RS485+, 485 card reader |
| | 485- | RS485-, 485 card reader |
| | LED | LED_OUT, Weigand card reader |
| | D0 | D0, Weigand card reader |
| | D1 | D1, Weigand card reader |
| | CASE | Card reader protection alarm |
| 4 | GND | Connect to GND |
| | 12V | 12V power input |
| | 485+ | RS485+ |
| | 485- | RS485- |
| | GND | Connect to GND |
| | ALARM | Alarm input |

4 Function Setting

4.1 Login

Login interface step:

Step 1. Plug in power, device is going to boot up.

Step 2. Press 【√】 button, screen displays admin password.

Step 3. Input admin password, and press 【√】 button to enter homepage.

Default password is “88888888”.

You can select to enter user management, A&C setting, system setting and local info as main menu.

- Press 【↑】 button to move up.
- Press 【↓】 button to move down.
- Press 【√】 button to enter or confirm.
- Press 【↶】 button to return or exit.
- Press 【←】 button to backspace.
- Press 【🔔】 button to ring.

4.2 User Management

You can add or delete card, password.

You also can add user as you add card or fingerprint, and you can bind card and fingerprint.

Card type includes general, VIP, guest, patrol, black list and duress.

Please refer to Chart 4- 1.

| Card Type | Note |
|--------------|---|
| General card | General user card. When you add card, system will ask if set card password, period and term of validity. |
| VIP card | VIP user card. It warns service personal when cardholder enters. When you add card, system will ask if set card password, period and term of validity. |
| Guest card | When you add guest card, you need to set usage times. So when it exceeds this limit, the card becomes invalid. |
| Patrol card | Patrol card can only swipe card at patrol spot but |

| Card Type | Note |
|-------------|---|
| | cannot unlock. When you add card, system will ask if set card password, period and term of validity. |
| Black list | When you swipe card on black list and enters, it warns service personal. When you add card, system will ask if set card password, period and term of validity. |
| Duress card | Duress card becomes valid after you set duress alarm. You can swipe this card to unlock, but an alarm will be send to center. |

Chart 4- 1

Note:

All of these cards will be sent to center, management platform will process according to card type.

Password user represents user who input password in setup to enter.

Note:

- Card user has not set password, and you shall set unlock mode to card, card or password or fingerprint in order to enter.
- Card user set card password, and you shall set unlock mode to card, card + password, card or password or fingerprint in order to enter.
- Card user set fingerprint, but before entering, user shall set unlock mode to card, card + password, card or password or fingerprint.
- User, who set period, can only unlock door within designated period.
- Password user, shall set unlock mode to password, card or password or fingerprint in order to enter.

4.2.1 Add User

To add user:

Step 1. In homepage, press 【↑】 or 【↓】 key to select user management, press 【√】 key.

Step 2. Press 【↑】 or 【↓】 key to move up or down, select add user and press 【√】 key.

| New User | |
|-----------|--|
| Card No. | <input type="text"/> |
| Card Type | <input type="text" value="Normal"/> |
| Use Time | <input type="text" value="255"/> (Guest) |

Step 3. Use key to input card no. or place card at swiping area to scan.

Step 4. Press 【√】 key to select card type.

Step 5. Press 【←】 key to delete default data, input use time, and press 【√】. System shows added password and period interface as follows.

| New User | |
|----------|---|
| Card No. | <input type="text" value="1"/> |
| Password | <input type="text" value="123456"/> |
| Period | <input type="text" value="255"/> |
| Validity | <input type="text" value="2099-12-30"/> |

Note:

Use time if for guest card only.

Step 6. Press 【←】 key to delete default data, input user password, period and validity, and press 【√】 key. System asks if you want to record fingerprint.

Step 7. According to actual condition, select “yes” or “no”.

- If you select YES, system will instruct you to place finger.
- If you select NO, system will inform the info input is successful.

4.2.2 Add Super Password

To add super password:

Step 1. In user management, press 【↑】key or 【↓】key to move up and down, and select add super password. Press 【√】 key.

System shows add new super password interface.

Step 2. Input super password no. and press 【√】.

Step 3. Input super password and confirm. Press 【√】 key as follows.

Add Super Pwd

Pwd input

Confirm

4.2.3 Delete User

You can delete a single user, or all users.

To delete a single user:

Step 1. In user management interface, press **【↑】** or **【↓】** key to select delete user, and press **【√】** key.

Step 2. Press **【↑】** or **【↓】** key, to move up or down, select single card and press **【√】** key.

Step 3. Input no. of card to delete, place the card at swiping area, and press **【√】** key.

Delete User

User Card No.

System asks if to delete it or not.

Step 4. Select OK and press **【√】** key to delete single card.

To delete all users:

Step 1. In delete user interface, move up or down to select all users, and press **【√】** key. System asks if to delete all or not.

Step 2. Press **【√】** key to confirm. System says deleted successfully.

4.2.3.1 Delete Password User

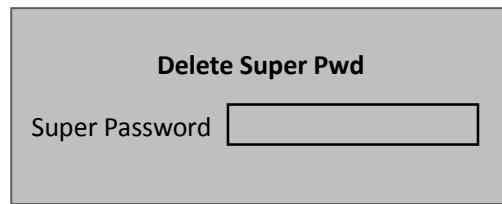
You can delete a single super password or delete all super passwords.

To delete a single password user:

Step 1. In delete user interface, press **【↑】** or **【↓】** key to select delete super password, and press **【√】** key.

Step 2. Press **【↑】** or **【↓】** key to move up or down, select delete single super password and press **【√】** key.

Step 3. Input no. of super password to delete, and press **【√】** key.



System asks if to delete it or not.

Step 4. Press OK and press 【√】 key to delete.

To delete all super passwords:

Step 1. In delete super password interface, press 【↑】 or 【↓】 key to select delete all super passwords, and press 【√】 key. System asks if to delete all or not.

Step 2. Press 【#】 key to delete.

Step 3. Select OK and press 【√】 key. System says deleted successfully

4.2.4 Add More Master Card

By adding more master card, user can quickly add card user. Before adding master card, user shall add master card first, please refer to Ch 4.3.2.

To add more master card:

Step 1. In user management interface, by pressing 【↑】 or 【↓】key to move up and down, select add more master card, and press 【√】 key. System prompt user to swipe the card.

Step 2. Place master card on swiping area and scan. System prompts master card mode.

Step 3. Place card to add one by one at the swiping area to scan. System says added successfully.

4.3 A&C

4.3.1 Period

You can set unlock period, including card swiping period, holiday period, mode period and NO period.

4.3.1.1 Card Swiping Period

Card swiping period can be 0~127, a total of 128 periods. In each period, you need to set schedule for each day of week. When a new card is added, and set card swiping period, then user swipe card to unlock. Access control will judge if current time is within set

period.

For example, set period 1, and the Monday to Sunday setup are in Chart 4- 2.

| Day | Period |
|-----------|--|
| Monday | 0800-2200 (valid period: 08:00 to 22:00) |
| Tuesday | 0800-2200 (valid period: 08:00 to 22:00) |
| Wednesday | 0800-2200 (valid period: 08:00 to 22:00) |
| Thursday | 0800-2200 (valid period: 08:00 to 22:00) |
| Friday | 0800-2200 (valid period: 08:00 to 22:00) |
| Saturday | 0800-2200 (valid period: 08:00 to 22:00) |
| Sunday | 0800-2200 (valid period: 08:00 to 22:00) |

Chart 4- 2

To set card swiping period:

Step 1. In homepage, press 【↑】 or 【↓】 key to move up or down, select A&C setup, and press 【√】 key.

Step 2. Press 【↑】 or 【↓】 key to select time period, and press 【√】 key. Enter time setup interface.

Step 3. Press 【↑】 key or 【↓】 key , select card swiping period, and press 【√】 key.

Step 4. Input time period, and press 【√】 key. Input any number between 0~127. Screen displays period.

| Card Period Setup | |
|-------------------|-----------------|
| Mon. | |
| Tue. | 00: 00 – 23: 59 |
| Wed. | 00: 00 – 23: 59 |
| Thu. | 00: 00 – 23: 59 |
| Fri. | 00: 00 – 23: 59 |
| Sat. | |
| Sun. | |

Step 5. Modify period and press 【√】 key.

Step 6. Set other periods. System asks if save it or not.

Step 7. Press 【↶】 key, system asks if to save config or not.

Step 8. Select YES, and press 【√】 key. System says saved successfully.

When new card set period 1, and user use it to unlock door. According to time period set, system judge if it is within unlock period. Other periods cannot unlock door.

Note:

Default period is full periods.

4.3.1.2 Holiday period

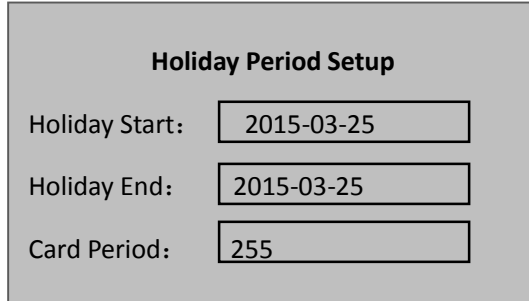
Holiday period can be 0~127, a total of 128 periods. When time is any period in 0~127, all cards or passwords cannot unlock door.

To set holiday period:

Step 1. In time period setup page, press **【↑】** or **【↓】** key to select holiday period, and press **【√】** key.

Step 2. Input period, and press **【√】** key. Input any number between 0~127, such as 1.

Step 3. Modify start time, end time and swiping period, and press **【√】** key.



Holiday Period Setup

Holiday Start:

Holiday End:

Card Period:

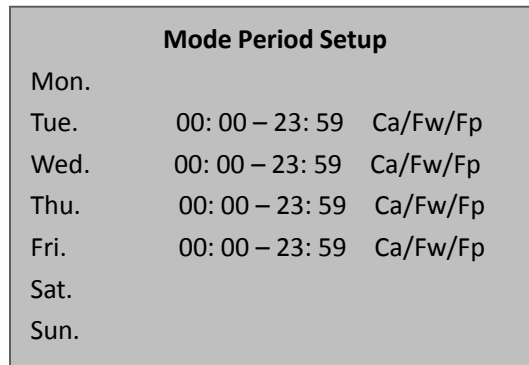
System prompts

4.3.1.3 Mode Period

Mode period has four periods per day, from Monday to Sunday, 7 days a week.

To set mode period:

Step 1. In time period setup interface, press **【↑】** or **【↓】** key, select mode period, and press **【√】**. System displays periods of Monday to Sunday.



Mode Period Setup

| | | |
|------|-----------------|----------|
| Mon. | | |
| Tue. | 00: 00 – 23: 59 | Ca/Fw/Fp |
| Wed. | 00: 00 – 23: 59 | Ca/Fw/Fp |
| Thu. | 00: 00 – 23: 59 | Ca/Fw/Fp |
| Fri. | 00: 00 – 23: 59 | Ca/Fw/Fp |
| Sat. | | |
| Sun. | | |

Step 2. For example select Monday, and press **【√】** key.

Step 3. Config period, press **【√】** to select unlock mode of the period

Step 4. Config Tuesday to Sunday periods.

Step 5. Press **【↶】** key. System asks if save or not.

Step 6. Select YES, and press **【√】** key. System says saved successful.

After completion, A&C unlock method will be managed according to the four periods.

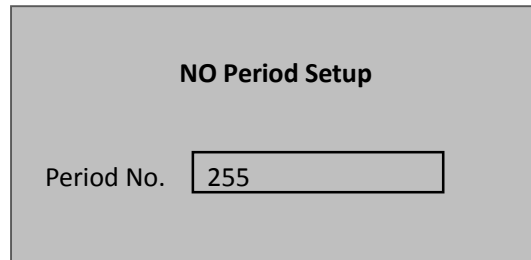
4.3.1.4 NO Period

After user set NO period, A&C will be open during this period.

To set NO period:

Step 1. In time setup interface, press **【↑】** or **【↓】** key to move up and down, select NO period, and press **【√】** key.

Step 2. Input period no., and press **【√】** key as follows.



NO Period Setup

Period No.

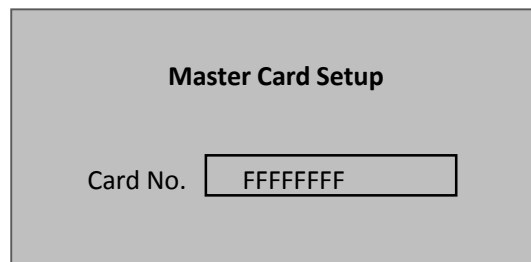
System prompts setup is successful. Period no. is the no. set in card swiping period setup.

4.3.2 Master Card

You can modify or add master card.

Step 1. In A&C setup interface, press **【↑】** key or **【↓】** key to select master card setup, and press **【↓】** key.

Step 2. Press **【←】** key to delete old card no., and input modified card no., or directly place the card at swiping area for scanning, and press **【√】** key, as follows.



Master Card Setup

Card No.

System prompts setup is successful.

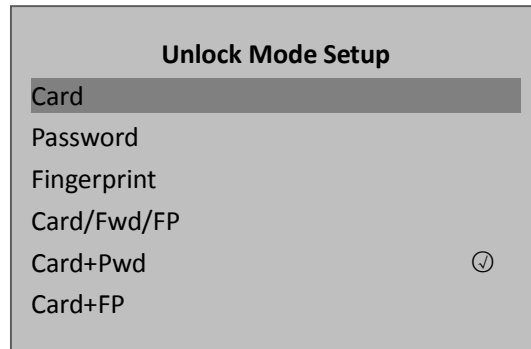
4.3.3 Unlock Mode

Unlock mode includes card, password, fingerprint, card+password, card+fingerprint, card or password or fingerprint.

To set:

Step 1. In A&C interface, press **【↑】** or **【↓】** key to move up or down, select unlock mode, and press **【√】**. Enter unlock mode setup page.

Step 2. Press **【↑】** or **【↓】** key to select mode to set, and press **【√】** key. When it is selected, there will be a ϕ next to the mode.

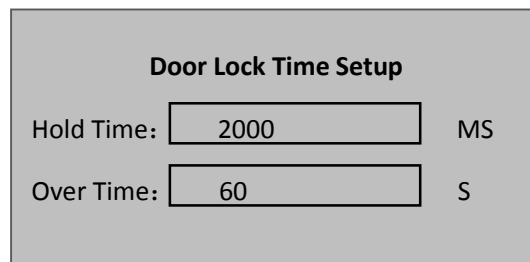


4.3.4 Door Lock Time

Door lock time setup includes hold time and over time setup.

Step 1. In A&C setup, press **【↑】** key or **【↓】** key, select door lock time setup and press **【√】** key.

Step 2. Press **【←】** key to delete original data, input hold time and over time, press **【√】** key.



System prompt setup is successful.

Door lock hold time is the time door remains open after user swipe card. If the door remains open exceeding “over time”, it will send alarm.

4.3.5 Alarm

User can enable or disable alarm, system alarm includes intrusion, anti-pass back, duress card, door sensor and door timed out. Please refer to Chart 4- 3.

| Alarm Type | Note |
|----------------|--|
| Intrusion | Enter without valid card swiping or password, it will generate an alarm. |
| Anti-pass back | Must swipe card when enter/exit, otherwise it will generate an alarm. |
| Duress Card | Enter with duress card, it will generate an alarm. |
| Door Sensor | When A&C device is damaged, it will generate an alarm. |

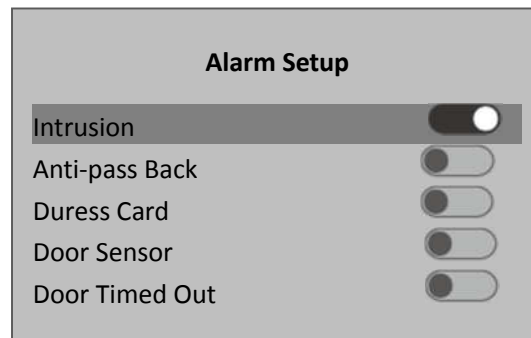
| | |
|----------------|---|
| Door Timed Out | When A&C open time is over Door Over time, it will generate an alarm. Door timed out alarm requires setup of door over time, please refer to Ch 4.3.4. |
|----------------|---|

Chart 4- 3

To set alarm:

Step 1. In A&C interface, press **【↑】** key or **【↓】** key, select alarm setup, and press **【√】** key. Enter alarm setup interface.

Step 2. Press **【↑】** key or **【↓】** key, select alarm to turn ON, and press **【√】** key as follows.



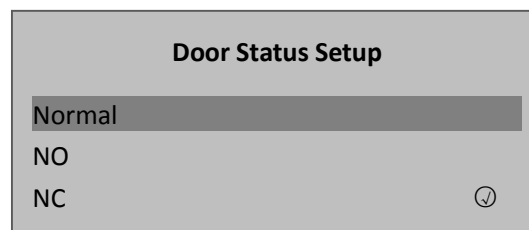
Press **【√】** key again to close the alarm.


4.3.6 Door Status Setup

You can set A&C status to normal, NO or NC.

Step 1. In A&C setup interface, press **【↑】** key or **【↓】** key, select door status setup, and press **【√】** key to enter door status setup interface.

Step 2. Press **【↑】** key or **【↓】** key, select needed A&C status, and press **【√】** key as follows.



After selection is successful, a  will shown next to door status.

4.4 System Settings

4.4.1 Local Setup

You can set data, admin password and voice mail. You also can export all data, restore default settings.

4.4.1.1 Date Setup

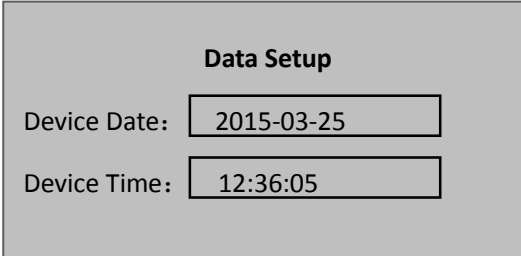
It sets current system date and time.

Step 1. In system settings page, press **【↑】** or **【↓】** key, select date setup, and press **【√】** key.

Step 2. Press **【↑】** key or **【↓】** key, select local setup, and press **【√】** key.

Step 3. Press **【↑】** key or **【↓】** key, select date setup, and press **【√】** key.

Step 4. Input device date and device time, and press **【√】** key as follows.



The screenshot shows a grey rectangular window titled "Data Setup". Inside the window, there are two input fields. The first is labeled "Device Date:" and contains the text "2015-03-25". The second is labeled "Device Time:" and contains the text "12:36:05".

System prompts setup is successful.

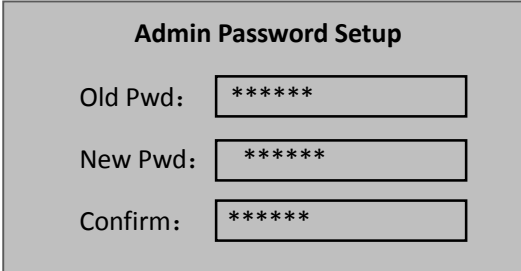
4.4.1.2 Admin Password Change

You can modify admin password.

Step 1. In local setup interface, press **【↑】** or **【↓】** key, select admin password setup, and press **【√】** key.

Step 2. Press **【↑】** key and **【↓】** key, select date setup, and press **【√】** .

Step 3. Input old password, press **【√】** key as follows.



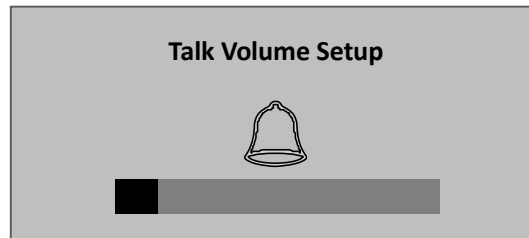
The screenshot shows a grey rectangular window titled "Admin Password Setup". Inside the window, there are three input fields. The first is labeled "Old Pwd:" and contains seven asterisks "*****". The second is labeled "New Pwd:" and contains seven asterisks "*****". The third is labeled "Confirm:" and contains seven asterisks "*****".

System prompts setup is successful.

4.4.1.3 Talk Volume

You can set device audio volume.

Step 1. In local setup interface, press 【↑】 key or 【↓】 key, select talk volume setup, and press 【√】 as follows.



Step 2. Press 【↑】 key or 【↓】 key, you can adjust volume.

4.4.1.4 Export All Data

You can export device card data, alarm data to a USB disk.

Before exporting, you shall insert a USB disk.

In local setup interface, press 【↑】 or 【↓】 , select export all data, and press 【√】 key.

4.4.1.5 Default

To restore default settings:

Step 1. In local setup interface, press 【↑】 or 【↓】 key, select default, and press 【√】 key.

System asks if to restore or not.

Step 2. Select YES and press 【√】 key to restore.

4.4.2 Communication Setup

It sets current access control communication.(Only IP for now)

Step 1. In system settings interface, press 【↑】 or 【↓】 key, select communication setup, and press 【√】 .

Step 2. Press 【↑】 or 【↓】 key, select IP setup, and press 【√】 .

Step 3. Modify IP, subnet mask, gateway, and press 【√】 as follows.

| IP Setup | |
|-----------|---------------|
| IP: | 172.7.10.33 |
| Sub Mask: | 255.255.255.0 |
| Gateway: | 172.7.0.0 |

System prompts setup is successful.

4.4.3 Mode

The device supports two work modes, including “this device as controller” and “this device as card reader”.

- This device as controller: the device is used as an A&C controller for unlock operation.
- This device as card reader, the device is used as a card reader, if you need to control door unlock, then it must be connected to an A&C controller before it can be used.

To set device mode:

Step 1. In system setup interface, press **【↑】** key or **【↓】** key, select mode setup, and press **【√】** key.

Step 2. Select work mode, and press **【√】**.

Step 3. Press **【↑】** key or **【↓】** key, select work mode, and press **【√】** key as follows.

| Work Mode |
|----------------------------|
| This device as controller |
| This device as card reader |
| Ⓢ |

After selection is successful, a **Ⓢ** will be shown next to work mode.

4.4.4 Reboot System

To reboot the system:

Step 1. In main interface, press **【↑】** or **【↓】** key, select system reboot, and press **【√】**.
System asks if to reboot or not.

Step 2. Select YES, and press **【√】** key to reboot.

4.5 System Info

You can view device card swiping info, alarm info and local info.

4.5.1 Card History

To view card swiping record:

Step 1. In homepage, press 【↑】 key or 【↓】 key, select system info, and press 【√】 key.

Step 2. Press 【↑】 key or 【↓】 key, select card history, and press 【√】 key.

Step 3. Press 【↑】 key or 【↓】 key, user can view card swiping history, including swiping time, card no., method, status and etc.

| Card History | | | |
|-----------------|----------|----------|-------|
| Time | Card No. | Mode | State |
| 10-12 08:00 | 12470 | Card | OK |
| 10-12 08:43 | 15700 | Card | OK |
| 10-12 08:36 | 15760 | Finger | OK |
| 10-12 08:43 | 15604 | Card | Fail |
| 10-12 08:45 | 13420 | Card | OK |
| Total 5 records | | Page 1/1 | |

Note:

Max can display 512 records of history.

4.5.2 Alarm History

To view alarm history:

Step 1. In system info interface, press 【↑】 or 【↓】 key, select alarm history, and press 【√】 key.

Step 2. Press 【↑】 or 【↓】 key, user can view alarm history, including alarm type, alarm time and etc as follows.

| Alarm History | |
|-----------------|-------------|
| Alarm Type | Alarm Time |
| Duress | 10-12 08:00 |
| Door Sensor | 10-12 08:43 |
| Anti-pass | 10-12 08:36 |
| Anti-pass | 10-12 08:43 |
| Duress | 10-12 08:45 |
| Total 5 records | Page 1/1 |

Note:

Max can display 512 records of history.

4.5.3 Local Info

To view local info:

Step 1. In homepage, press **【↑】** or **【↓】** key, select local info, and press **【√】** key. You can view version, MAC, IP, Card Quantity, Super Password Quantity, Card History and Alarm History in the shown interface.

Note:

- **This manual is for reference only. Slight difference may be found in user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website or contact your local service engineer for more information.**