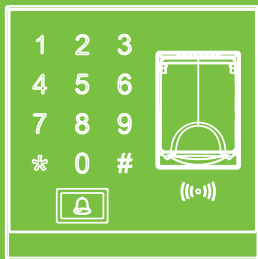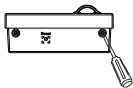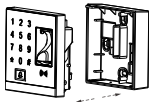# User Manual

X8s Access Control System

Version: 1.0

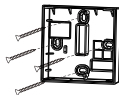## 1. Equipment Installation

(1) Remove the screw from the bottom of the device.

(2) Remove the back cover of the device.

(3) Fix the back cover on the wall. (Drill the wiring hole and fixing holes according to the back cover)

(4) Fix the device on the back cover using screws.
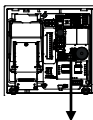
Tamper Alarm Button

2. Structure and Function

Lock ①
Door Sensor ②
③ Exit Button
④ Bell
⑤ Alarm
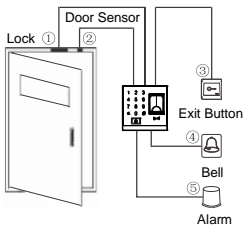
Access Control System Function:
(1) When a registered user's identity is verified, the Access Control device will send out signal to unlock the door.
(2) The door sensor will detect the status of the lock. If the door is unexpectedly opened or improperly closed, an alarm will be triggered.
(3) It supports the exit button for opening the door from inside.
(4) It supports door bell.
(5) If the Access Control device is dismantled, the alarm will be triggered.

3. Lock Connection

⚠️ **Warning**: **No operation when power on!**

(1) The system supports NO LOCK and NC LOCK. The NO LOCK (normally open at power ON) is connected with **NO** terminal, and the NC LOCK is connected with **NC** terminal.

(2) To prevent the generation of self-inductance EMF which would affect the system, when the electrical lock is linked to the Access Control System, it is required to connect one FR107 diode (equipped in the package, do not reverse the polarities) in parallel in order to release the self-inductance EMF.

(1) Device shares power with the lock

The device shares power with the lock, when U_{LOCK}=12V and I-I_{LOCK} >1A… ①
and the lock is near to the device.
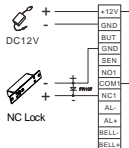
(2) Does not share power with the lock

The device does not share power with the lock:
A. When U_{LOCK} =12V I-I_{LOCK} ≤1A;
B. When U_{LOCK} ≠12V;
C. When the lock is far apart from the device.
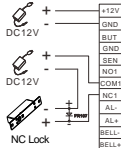
① **I**: device' current output, U_{LOCK}: lock voltage, I_{LOCK}: lock current.

(3) Professional Access Control Power Supply Connection
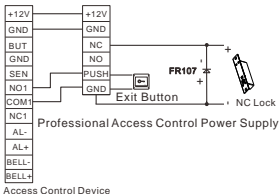
4. Connection with Other Devices
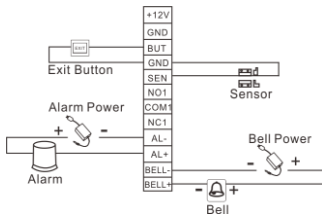
Only devices with an alarm consuming <=12V DC can be connected.

5. Connection with Power
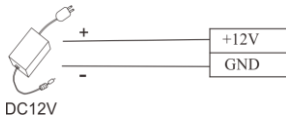
Input 12V DC, 500mA (50mA in idle status). Positive is connected with **+12V**, negative is connected with **GND** (do not reverse the polarities).

Instructions

Step 1: Power ON after the device is completely installed on the wall.

Step 2: Authenticate administrator password and change it immediately. Adjust access control parameters including password change for door opening, setting unlocking duration, authentication mode, concealed mode, door sensor mode, etc.

Step 3: You can register and authenticate user accounts, cards or passwords.

Operation Instructions

1. User Management

1.1 Administrator Operation

To ensure data security of the device, users can operate the device only after the administrator password is authenticated.

❖ **Administrator Authentication**

1. Press [*]. (The indicator is off and makes a long beep.)	→	2. Press[#]. (Enter step of password authentication.)	→	3. Enter the administrator password. (The default password is 1234.)

5. Exit. (Press [*] or do not operate the device within 20 seconds, The indicator turns red and makes a long beep, then automatically exit.)	←	4. Authentication succeeds. (The indicator turns green.)
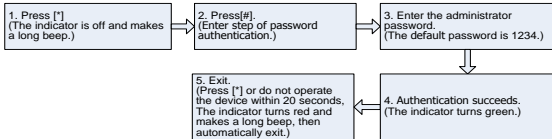
☺Note: The default administrator password is 1234. You are advised to change the initial password at the beginning.

❖ **Changing Administrator Password**

1. The administrator password is authenticated.	→	2. Press [8].	→	3. Enter a new administrator password.

Fail (The indicator turns red and makes three beeps.) / Succeed

6. Exit. (The indicator turns red and makes a long beep.)	←	5. Password is successfully changed. (The indicator turns green and makes a long beep.)	←	4. Enter the new administrator password again for authentication.
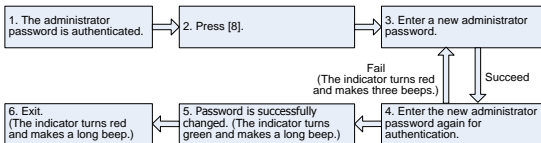
☺Note: Four-digit passwords are automatically verified. If the password length is less than four digits, then press [#] to confirm the password.

❖ Opening Door by Entering Administrator Password

```
1. The administrator password   →   2. Press [0] or [#].              →   3. Press [0] or [#].
is authenticated.                    (The indicator turns green            (The indicator turns green
                                      and makes a long beep.)               and makes a long beep.)
                                                                                    ↓
5.Exit.                          ←   4. The door is opened
(The indicator turns red and          (The indicator turns green
makes a long beep.)                   and makes a long beep.)
```
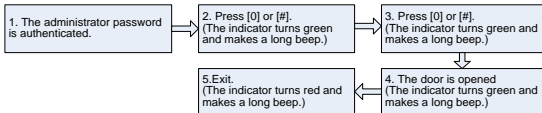
☺Note: This function can be used to open the door.

❖ Forgot Administrator Password

If the administrator password is lost, you can reset the password to default by using tamper switch.

Operation:

1. Dismantle the device and wait for 30 seconds until a short beep is heard.

2. Press the Tamper Switch thrice to reset to the initial administrator password.

☺Note: This operation must be done within 30 seconds; the default administrator password is 1234.

1.2 Adding Users

Register the fingerprint or card of a user or register cards in batches.

❖ Adding a User

```
1. The               →   2. Press [1].   →   4. Register fingerprint or card.
administrator is                              (Press fingers three times or swipe the card once.)
authenticated.
                                          →   3. Input user ID twice   →   4. Register fingerprint or card.
                                              (The indicator turns          (Press fingers three times or swipe the
                                              green and makes a             card once.)
                                              long beep.)
6. Exit.                  ←   5. Registration succeeds.
(Press [*], the indicator     (The indicator turns green
turns red and makes a         and makes a long beep.)
long beep. )
```

☺Note:

1. Five-digit user ID is automatically verified, if the user ID is less than five digits, press [#] to confirm the user ID.

2. If the user ID is not available, the device automatically increases the ID number and

continues to register a new user once the user is successfully registered.
3. If the user ID, fingerprint or the card has been registered already, the indicator turns red and generates three short beeps indicating that the registration fails. You can start registering the user again when the indicator turns green. Note: If you fail to register the card, then press fingerprint or enter user ID thrice to set the device in idle state.

❖ **Registering Cards in Batches**

```
┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────┐
│1. The administrator │──▶│2. Press [6].        │──▶│3. Swipe the first   │
│password is          │   │(Register cards in   │   │card once.           │
│authenticated.       │   │batches)             │   │                     │
└─────────────────────┘   └─────────────────────┘   └─────────────────────┘
                                                          ▲         │
                                              Fail        │         │ Succeed
                                    (The indicator turns  │         ▼
                                    red and makes three beeps.)
┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────┐
│6. Exit.             │   │5. Cards are         │   │4. Enter the total   │
│(The indicator turns │◀──│successfully         │◀──│number of cards.     │
│red and makes a long │   │registered in        │   │                     │
│beep, then           │   │batches.             │   │                     │
│automatically exit.) │   │                     │   │                     │
└─────────────────────┘   └─────────────────────┘   └─────────────────────┘
```
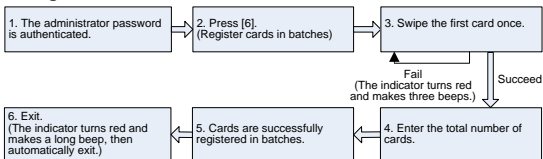
☺Note:
1. While registering the card number, three-digit card numbers are automatically verified. For card number less than or greater than three digits, press [#] to confirm and then press [*] to register the card number.
2. You must clear all the registered users before registering the cards in batches. IDs of the to-be-registered cards must be in consecutive numbers.

1.3 Registering Access Passwords
This device supports 8 passwords, each password has a Group ID ranged from 1 ~ 8. The default password value is 0 for all groups, which means those passwords are disabled.

```
┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────┐
│1. The administrator │──▶│2. Press [3]. (The   │──▶│3. Enter the group ID│
│password is          │   │indicator turns green│   │of password.(Group   │
│authenticated.       │   │and makes a long     │   │IDs: 1 ~ 8.)         │
│                     │   │beep.)               │   │                     │
└─────────────────────┘   └─────────────────────┘   └─────────────────────┘
                                                              │
┌─────────────────────┐   ┌─────────────────────┐   ┌─────────────────────┐
│7. Exit. (Press [*], │   │6. Registration      │   │4. Enter the password│
│the indicator turns  │◀──│succeeds.            │◀──│twice. (The password │
│red and makes a long │   │(The indicator turns │   │is consists of four  │
│beep, then           │   │green and makes a    │   │digits.)             │
│automatically exit)  │   │long beep.)          │   │                     │
└─────────────────────┘   └─────────────────────┘   └─────────────────────┘
```

3

☺Note:

1. When a password is changed to 0, 00, 000, or 0000, the password is disabled.
2. When a password is successfully changed, you can immediately change the next password by entering another group ID.

1.4 User Authentication

Card / Fingerprint / Password Authentication

When the device is powered ON, it enters user authentication state.
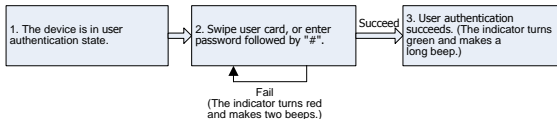
☺Note: Press [#] after entering the password for authentication. The door opens only if the entered password matches with one of the 8 passwords. The initial eight passwords for opening the door is set to 0.

1.5 User Deletion

Delete one, multiple or all registered user(s).

❖ Deleting One User
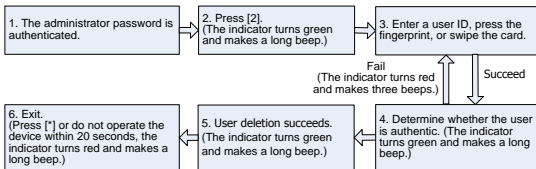
☺Note:

1. You can either swipe the card, press fingerprint or input user ID to delete a user.

Five-digit user ID will be automatically verified. If user ID is less than five digits, press [#] to confirm.

2. After successful deletion, the device will automatically enter the process of deleting next user. Press [*] to exit.

❖ **Deleting All Users**

```
1. The administrator password    →    2. Press [9].                    →    3. Press [9].
   is authenticated.                     (The indicator turns green            (The indicator turns green
                                          and makes a long beep.)               and makes a long beep.)
                                                                                      │
                                                                                      ↓
5.Exit.                           ←    4. Deletion of all users succeeds.
(The indicator turns red and            (The indicator turns green
makes a long beep, then                 and makes a long beep.)
automatically exit.)
```
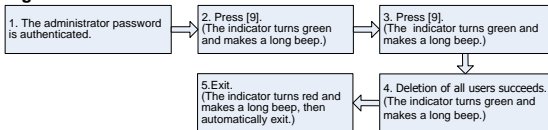
☺Note: In step 3, press [9] for automatic confirmation. Other numbers are considered invalid. If an invalid number is entered, the device indicator turns red and makes three short beeps, then makes a long beep and exits the process.

2. Access Control Management
2.1 Unlocking Duration Configuration

```
1. The administrator password    →    2. Press [4].                    →    3. Enter the unlocking
   is authenticated.                     (The indicator turns green            duration. (range: 1s to 10s)
                                          and makes a long beep.)
                                                                                      │
                                                                                      ↓
5.Exit.                           ←    4. Modification of the
(The indicator turns red and            unlocking duration succeeds.
makes a long beep again.)               (The indicator turns green
                                        and makes a long beep.)
```
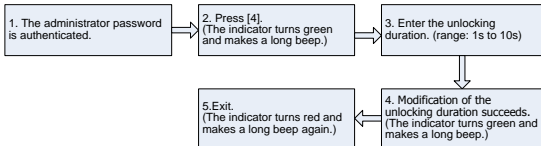
☺Note: Press [10] for automatic confirmation. For values with less than 10, press [#] to confirm. Values greater than 10 will be considered invalid.

2.2 Authentication Mode Configuration

```
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│ 1. The administrator    │ ── │ 2. Press [5].           │ ── │ 3. Enter authentication │
│ password is             │    │ (The indicator turns    │    │ mode.                   │
│ authenticated.          │    │ green and makes a long  │    │                         │
│                         │    │ beep.)                  │    │                         │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
                                                                            │
┌─────────────────────────┐    ┌─────────────────────────┐                  │
│ 5.Exit.                 │    │ 4. Configuration        │ ◄────────────────┘
│ (The indicator turns    │ ◄─ │ succeeds.               │
│ red and makes a long    │    │ (The indicator turns    │
│ beep.)                  │    │ green and makes a long  │
│                         │    │ beep.)                  │
└─────────────────────────┘    └─────────────────────────┘
```
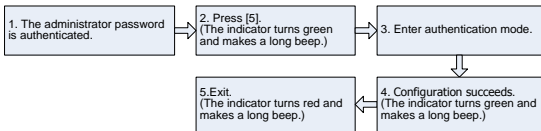
☺Note: Details of authentication modes are as follows:

Authentication Mode	Value	Description
PW	1	Only password verification
RF	2	Only RF Card verification
FP	3	Only fingerprint verification
FP/PW/RF	4	fingerprint or password or RF Card verification
RF&PW	5	RF Card and password verification (swipe card before entering password)
FP&PW	6	fingerprint and password verification (fingerprinting before entering password)

2.3 Concealed Mode Configuration
In standby mode, when the Concealed Mode is ON, the indicator will be turned OFF.

```
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│ 1. The administrator    │ ── │ 2. Press [0].           │ ── │ 3．Press [3].           │
│ password is             │    │ (The indicator turns    │    │ (The indicator turns    │
│ authenticated.          │    │ green and makes a long  │    │ green and makes a long  │
│                         │    │ beep.)                  │    │ beep.)                  │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
                                                                            │
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│ 6.Exit.                 │    │ 5. Configuration        │    │ 4 .Configure the        │
│ (The indicator turns    │ ◄─ │ succeeds.               │ ◄─ │ concealed mode          │
│ red and makes a long    │    │ (The indicator turns    │    │ (0: enable; 1: disable).│
│ beep.)                  │    │ green and makes a long  │    │                         │
│                         │    │ beep.)                  │    │                         │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
```
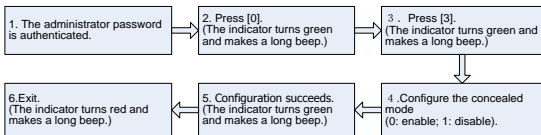
☺Note: When user is authenticating the card or fingerprints or password in Concealed Mode, the indicator will still blink correspondingly to denote process status.

2.4 Door Sensor Mode Configuration

The door sensor has three modes:

● **NONE**: The door sensor is disabled.

● **NO** (**Normally Open**): The door sensor will send an alarm signal if it detects the door is closed.

● **NC** (**Normally Closed**): The door sensor will send an alarm signal if it detects the door is open.
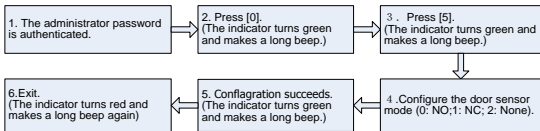
1. The administrator password is authenticated.	→	2. Press [0]. (The indicator turns green and makes a long beep.)	→	3. Press [5]. (The indicator turns green and makes a long beep.)
6.Exit. (The indicator turns red and makes a long beep again)	←	5. Conflagration succeeds. (The indicator turns green and makes a long beep.)	←	4 .Configure the door sensor mode (0: NO;1: NC; 2: None).

2.5 Alarm Configuration

☺Note: If an alarm is triggered, it will be terminated only after the user is authenticated.

❖ Configuring Alarm Switch

Failed Authentication Alarm and Door Sensor Alarm will be effective only if the alarm switch is set to ON status. Note: The default status of the alarm switch is ON.

1. The administrator password is authenticated.	→	2. Press [0]. (The indicator turns green and makes a long beep.)	→	3. Press [1]. (The indicator turns green and makes a long beep.)
6.Exit. (The indicator turns red and makes a long beep again.)	←	5. The configuration is successful. (The indicator turns green and makes a long beep.)	←	4 .Configure the alarm setting. (0: enable; 1: disable).
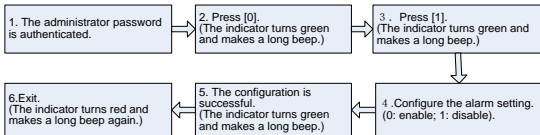
☺Note: The Tamper Alarm will be effective even if the alarm switch is set to OFF.

❖ Configuring Failed Authentication Alarm

If the administrator fails in authentication in 3 attempts, Failed Authentication Alarm will be triggered. No authentication can be made within 20 seconds.

```
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│1. The administrator     │───▶│2. Press [0].            │───▶│3. Press [2].            │
│password is authenticated.│    │(The indicator turns green│    │(The indicator turns green│
│                         │    │and makes a long beep.)  │    │and makes a long beep.)  │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
                                                                            │
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│6.Exit.                  │◀───│5. Configuration succeeds.│◀───│. Failed Authentication  │
│(The indicator turns red │    │(The indicator turns green│    │Alarm Switch. (0: enable;│
│and makes a long beep    │    │and makes a long beep.)  │    │1: disable).             │
│again.)                  │    │                         │    │                         │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
```
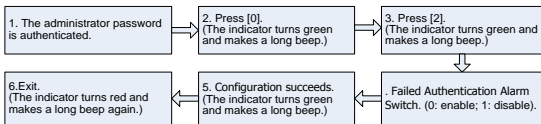
❖ **Configuring Tamper Alarm**
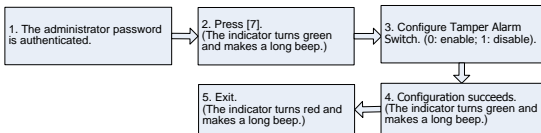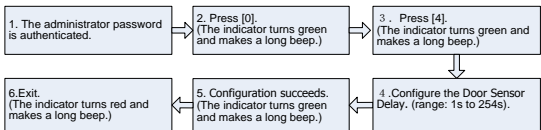
If this function is enabled, alarms will be raised when the device is dismantled from the wall.

```
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│1. The administrator     │───▶│2. Press [7].            │───▶│3. Configure Tamper Alarm│
│password is authenticated.│    │(The indicator turns green│    │Switch. (0: enable; 1:   │
│                         │    │and makes a long beep.)  │    │disable).                │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
                                                                            │
┌─────────────────────────┐    ┌─────────────────────────┐                  │
│5. Exit.                 │◀───│4. Configuration succeeds.│◀─────────────────┘
│(The indicator turns red │    │(The indicator turns green│
│and makes a long beep.)  │    │and makes a long beep.)  │
└─────────────────────────┘    └─────────────────────────┘
```

❖ **Configuring Door Sensor Delay**

When the door is not closed well after the set time period, the Door Sensor Alarm will generate an alarm signal to alert the users.

```
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│1. The administrator     │───▶│2. Press [0].            │───▶│3 . Press [4].           │
│password is authenticated.│    │(The indicator turns green│    │(The indicator turns green│
│                         │    │and makes a long beep.)  │    │and makes a long beep.)  │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
                                                                            │
┌─────────────────────────┐    ┌─────────────────────────┐    ┌─────────────────────────┐
│6.Exit.                  │◀───│5. Configuration succeeds.│◀───│4 .Configure the Door    │
│(The indicator turns red │    │(The indicator turns green│    │Sensor Delay. (range: 1s │
│and makes a long beep.)  │    │and makes a long beep.)  │    │to 254s).                │
└─────────────────────────┘    └─────────────────────────┘    └─────────────────────────┘
```

☺Note:

1. Three-digit values will be automatically verified. For values with less than three digits, press [#] to confirm. Values greater than 254 are considered invalid.
2. When an alarm is triggered, the device interior alarm will be triggered first. After 30 seconds, the device exterior alarm will be triggered.