



Metal Access Control Machine **User Guide**

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Important Statement

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Contents

Installation Guide

1. Equipment InstallationI	1
2. Structure and FunctionII	3
3. Lock ConnectionIII	5
4. Connect with Other DevicesIV	7
5. Connect with PowerIV	7

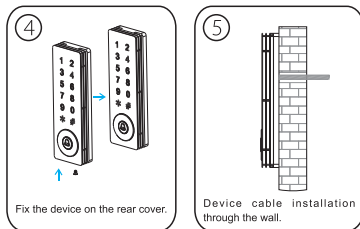
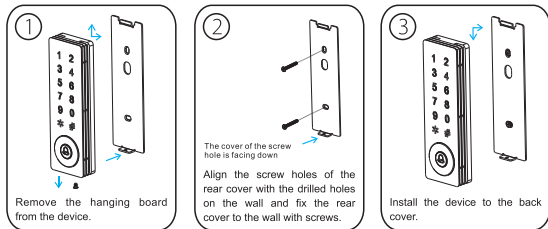
User Guide

1. User Management	8
1.1 Administrator Operation	8
1.2 Adding Users	10
1.3 User Authentication	11
1.4 User Deletion	12
2. Access Control Management	13
2.1 Unlocking Duration Configuration	13
2.2 Authentication Mode Configuration	13
2.3 Concealed Mode Configuration	14
2.4 Button backlight Configuration	14
2.5 Door Sensor Mode Configuration	15
2.6 Alarm Configuration	15
2.7 Factory Default Restoration	17
2.8 SRB	17
3. Switching Working Mode	18
3.1 Switching to Reader Mode	18
3.2 Switching to Controller Mode	19
Appendix	20
Packing List	20

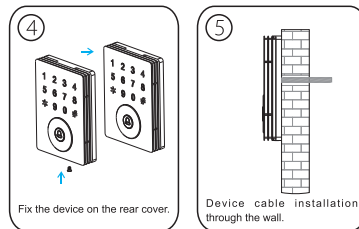
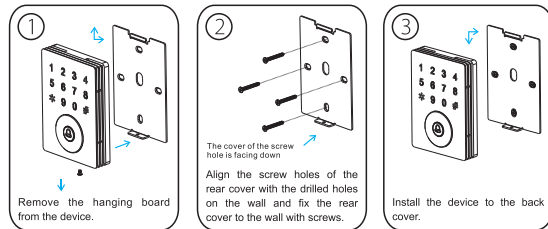
Installation Guide

1、Equipment Installation

The product size in the installation diagram below is 160*50*20.5mm.



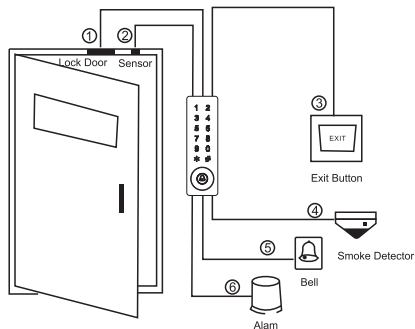
The product size in the installation diagram below is 120mmx86mmx20.5mm.



2、Structure and Function

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, the alarm will be triggered.
- (3) It supports the exit button for opening the door from inside.
- (4) It supports smoke detector and infrared sensor etc. If the Access Control device receives signal from detector, the alarm will be triggered, and the door is set as normally open.
- (5) It supports door bell (optional).
- (6) If the Access Control device is dismantled, the alarm will be triggered.



☺ ④ Linkage Function

This device has an Auxiliary Input interface (AUX+) which allows it to be connected with an external source, for instance, a smoke detector, gas detector, infrared sensor or emergency switch.

Trigger Linkage

When the device receives a signal from detectors or sensors connected to AUX+, the alarm will be triggered, switching the door to normally open state.

Cancel Linkage

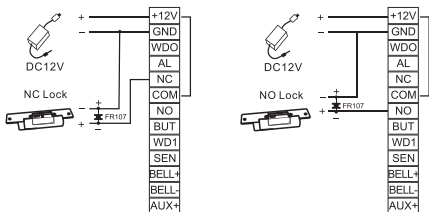
Alarm and normally open state will be canceled after user verification or administrator entering password. The Access Control device will resume to ready mode.

3、Lock Connection

⚠ Warning: No operation when power on!

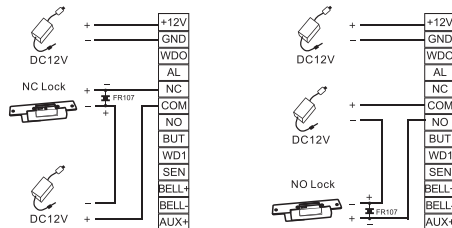
- ① The system supports NO LOCK and NC LOCK. The NO LOCK (normally open by power on) is connected with NO terminal, and the NC LOCK is connected with NC terminal.
- ② To prevent the generation of self-inductance EMF which would affect the system, when the electrical lock is linked to the Access Control 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) Under following two situations, device shares power with the lock: $U_{LOCK}=12V$, $I \geq I_{Device} + I_{Lock}$; and the lock is near to the device.



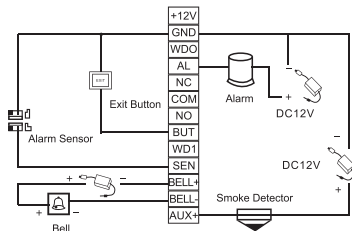
(2) Under following situations, device does NOT share power with the lock: Device does not share power with the lock:

- ① When $U_{LOCK}=12V$, $I < I_{Device} + I_{Lock}$;
- ② When $U_{LOCK} \neq 12V$;
- ③ When the lock is far from the device.



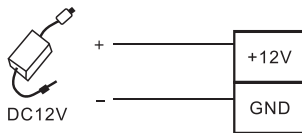
I: device's current output; U_{LOCK} : lock voltage; I_{LOCK} : lock current.

4、Connect with Other Devices



Only devices with an alarm \leq DC 12V can be connected.

5、Connect with Power



Input DC12V, \leq 200mA (\leq 150mA standby) Positive is connected with +12V, negative is connected with GND (do not reverse the polarities).

User Guide

Recommended procedure

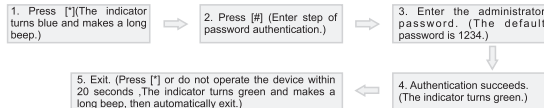
- Step 1: Power on after the device is completely installed on the wall.
- Step 2: Make sure that the access control is in the access mode and only the Wiegand format can be set in the Reader mode. For access control mode conversion method, please refer to "3 Switching Working Mode".
- Step 3: Authenticate administrator password and change it immediately. Adjust access control parameters, which include changing passwords for door opening, and setting unlocking duration, authentication mode, concealed mode, door sensor mode and alarm etc.
- Step 4: You may register and authenticate user accounts, cards or passwords.

1、User Management

1.1 Administrator Operation

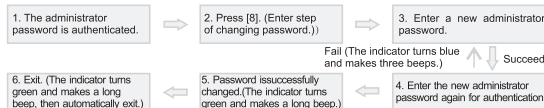
To ensure data security of the device, users can operate the device only after the administrator password is authenticated.

✦ Authenticate Administrator Password



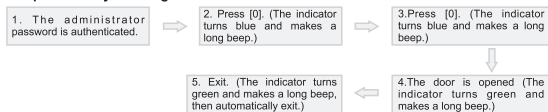
☺ Note: The default administrator password is 1234.

✦ Change Administrator Password



☺ Note: Four-digit passwords are automatically verified. For passwords with less than four-digit, press [#] to enter the verification process.

❖ Open Door by Entering Administrator Password



☺ Note: This function can be used to open the door.

❖ Forgot Administrator Password

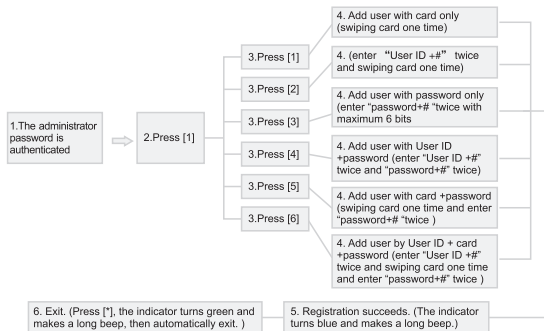
If administrator password is lost, you may reset the password to default through tamper switch. Dismantle the device and wait for 30 to 60 seconds until the blue light is on and a long beep is heard. Use a black plastic cap to cover the optical tamper switch for 2 to 5 seconds then release (turn blue and make a long beep), afterward covered with a black plastic cap at intervals of 2-5 seconds and repeat this step for 3 times. The administrator password is successfully reset to default when the blue light is on and a long beep is heard.

☺ Note: The default administrator password is 1234.

1.2 Adding Users

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

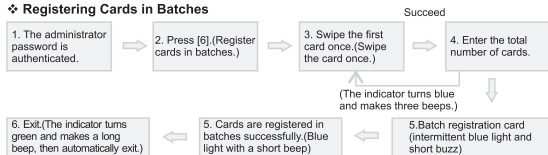
❖ Adding Users



☺ Note:

1. Nine-digit user ID is automatically verified. For user ID with less than nine digits, press [#] to confirm.
2. If the user ID is not available, the ID number increases automatically. It continues to register new one once a user is successfully registered.
3. The registration fails if the user ID or the card has been registered (the indicator turns blue and makes three short beeps). When the indicator turns green, you can register the user again. If you fail to swipe card or enter user ID for three times, the device will enter the standby state.

❖ Registering Cards in Batches



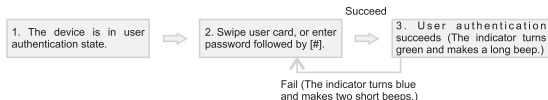
☺ Note:

1. In the process of entering the total number of cards, three-digit numbers are automatically verified. For numbers with less than three digits, press [#] to enter the verification process. Press [*] to enter the total number of cards again.
2. Ids of the to-be-registered cards must be consecutive numbers.

1.3 User Authentication

Card / Password Authentication

When the device is power-on, it enters user authentication state.

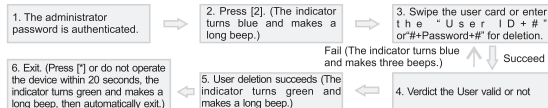


☺ Note: Press [#] after entering a password for authentication. The door opens if the enter password is identical passwords for opening the door.

1.4 User Deletion

Delete one, open door password or all registered user(s).

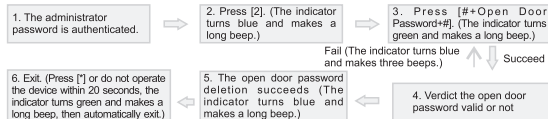
❖ Deleting One User



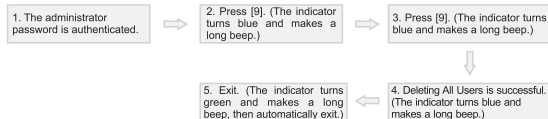
☺ Note:

1. You can either swipe the card or input user ID to delete a user. Nine-digit user ID will be automatically verified. For user ID with less than nine digits, press [#] to confirm.
2. After successful deletion, the device will automatically enter the process of deleting next user. Press [*] to exit.

❖ Deleting Open Door Password



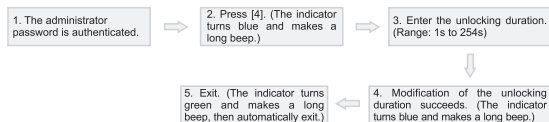
❖ Deleting All Users



☺ Note: In step 3, press [9] for automatic confirmation. Other numbers are considered invalid. If an invalid number is entered, the device indicator turns blue, and the device makes a long beep and exits the process.

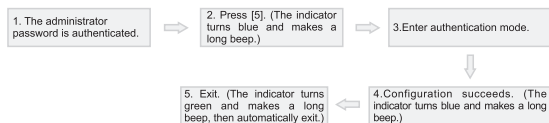
2、Access Control Management

2.1 Unlocking Duration Configuration



☺ Note: The unit of unlocking duration is “second”. Three-digit values will be automatically verified. For values with less than three digits, press [#] to enter verification process.

2.2 Authentication Mode Configuration



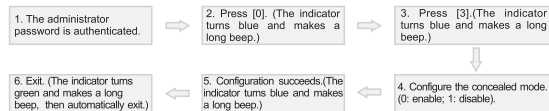
☺ Note:

1. When the authentication mode is RF card & password, user must swipe card first and then enter the password.
2. Details about the authentication modes are as follows:

Authentication Mode	Value	Description
PW	1	Only password verification
RF	2	Only RF Card verification
RF/PW (default)	3	RF Card or password verification
RF&PW	4	RF Card and password verification

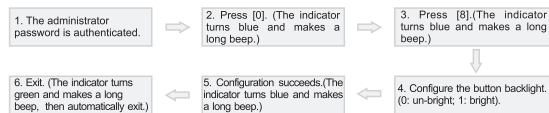
2.3 Concealed Mode Configuration

Under standby mode, when the Concealed Mode is on, the indicator will be turned off.



☺ Note: When user is authenticating the card or password under Concealed Mode, the indicator will still blink correspondingly to denote process status.

2.4 Button backlight Configuration

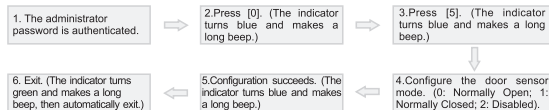


☺ Note: In the Reader mode, short press [*] 5 times to wait for the blue light to be off, then follow the steps above to set the button backlight.

2.5 Door Sensor Mode Configuration

The door sensor has three modes:

- Disable: The door sensor is disabled.
- Normal Open (NO): The door sensor will send an alarm signal if it detects the door is closed.
- Normal Closed (NC): The door sensor will send an alarm signal if it detects the door is open.

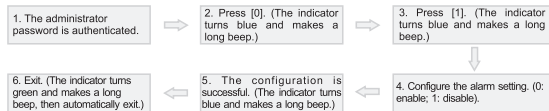


☺ Note: The sensor mode set here is used as the basis for the door sensor alarm.

2.6 Alarm Configuration

❖ Configuring Alarm Switch

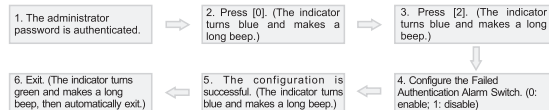
Only if the alarm switch is set to be ON will the Failed Authentication Alarm and Door Sensor Alarm be effective. The default status of the alarm switch is ON.



☺ Note: The Tamper Alarm is still effective even if the alarm switch is OFF.

❖ Configuring Failed Authentication Alarm

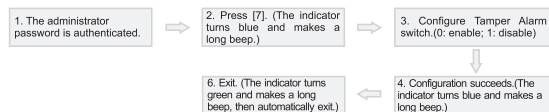
If the administrator fails in authentication in 3 attempts, Failed Authentication Alarm will be triggered. No authentication can be made within 20 seconds.



☺ Note: The Temper Alarm is still effective even if the alarm switch is OFF.

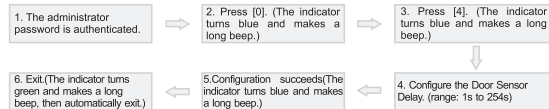
❖ Configuring Tamper Alarm

If this function is enabled, alarms will be raised when the device is dismantled from the wall.



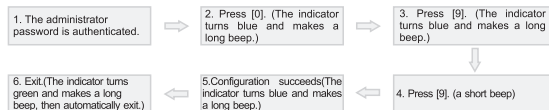
❖ Configuring Door Sensor Delay

When the door is not closed well after a time period, the Door Sensor Delay will raise an alarm to alert users. Its configured value is the time period denoting how long after the door is opened will the alarm ring.



☺ Note: Three-digit values will be automatically verified. For values with less than three digits, press [#] to confirm. Values greater than 254 are considered invalid.

2.7 Factory Default Restoration



The Factory Default Settings

Unlock Authentication Mode	RF/PW
Door Sensor Mode	None
Alarm Switch	Enabled
Failed Authentication Alarm Switch	Enabled
Tamper Alarm Switch	Enabled
Concealed Mode	Disabled
Unlocking Duration	5 seconds
Door Sensor Delay	15 seconds

2.8 SRB

Security Relay Box (SRB) is a relay switch controlling electric lock. When it receives the Wiegand signal sent from the Access Control device, it will send a (unlock/lock) signal to trigger the relay switch to operate, so as to provide a higher security level for access control.

Note: For the detailed parameters and wiring guide of SRB, please consult the SRB Access Controller Wiring Guide.

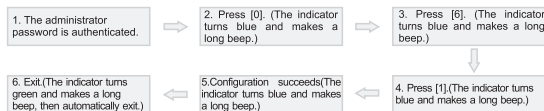
3、Switching Working Mode

This device can work as either a standalone controller or a wiegand reader, which offering high flexibility to use depending on actual needs. It is a standalone controller in default setting, but user can switch the working mode by the following instruction.

If the indicator stays in blue, this indicates that the device is set to Reader Mode. If the indicator blinks in blue, this indicates that the device is set to Controller Mode.

Note: For wiring diagram of reader mode, please consult Appendix.

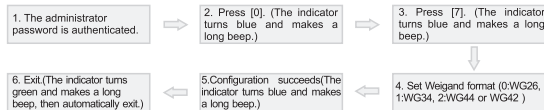
3.1 Switching to Reader Mode



☺ Note: When mode switching fails, the device will give 3 short beeps, followed by the indicator turning to blue with a long beep, and then automatically exits.

Setting Wiegand Format

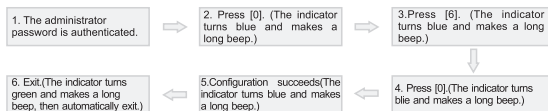
When the device is in Reader Mode, short press [*] for five times. Press [#] when the blue indicator is off, and then input administrator password. The Wiegand format can be set to Wiegand 26 or Wiegand 34.



☺ Note: When mode switching fails, the device will give 3 short beeps, followed by the indicator turning to blue with a long beep, and then automatically exits.

3.2 Switching to Controller Mode

When the device is in Reader Mode, short press [*] for five times. Press [#] when the blue indicator is off, and then input administrator password.



☺ Note: When mode switching fails, the device will give 3 short beeps, followed by the indicator turning to blue with a long beep, and then automatically exits.

Appendix

Wiring Diagram of Controller Mode		Wiring Diagram of Reader Mode
Red: DC 12V	Light Blue: SEN	Red: DC 12V
Black: GND	Gray: BUT	Black: GND
Yellow: NC	Purple: BELL+ (Bell)	Green: WD0
Pink: COM	Brown: BELL- (Bell)	White: WD1
Blue: NO		Gray: BEEP
		Light Blue: LED
Weigand Output	Linkage Function	Purple: BELL+ (Bell)
Green: WD0	Orange: AL (Alarm)	Brown: BELL- (Bell)
White: WD1	Light Green: AUX+	

Packing List



Access Control
Device & Mounting



Card



Diodes (Fr107)



Screws



Wall Plugs



L-type hexagonal
screwdriver



Anti dismantling screw



User Guide