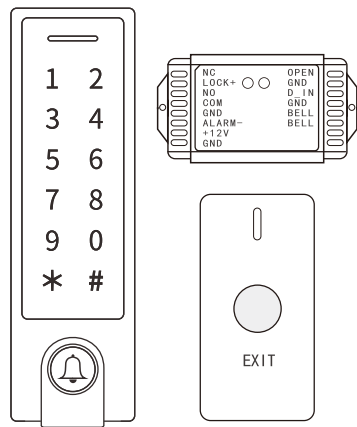


Wireless Access Control



User Manual

INTRODUCTION

The device is a single door wireless access control, consists of a wireless & waterproof keypad, a mini controller and a wireless exit button. 433MHz Rolling Code of encryption algorithm and the split design guarantees higher-secure.

The keypad can store 1100 PIN / card users, including 1000 common users and 100 visitor users. PIN length can be 4-8 digits. The controller is with internal & external alarm, door contact, exit button (wired) and door bell.

Because of ultra low power consumption, the keypad and exit button can work as long as one year (bases on 20 times/day), with just 3 units of AAA batteries and 1 unit Li-battery. It will remind people to replace batteries intelligently if low battery.

Two Versions available
 ABS: Waterproof Plastic Keypad + Controller + Exit Button
 Metal: Waterproof Metal Touch Keypad + Controller + Exit Button

Features

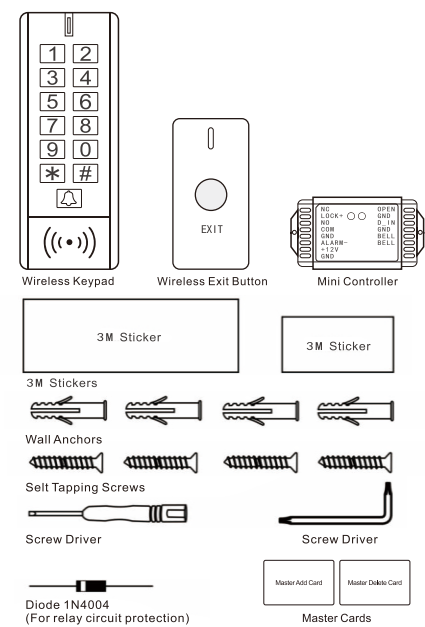
- > Waterproof, conforms to IP65
- > 1100 PIN / card users (1000 common users + 100 visitor users)
- > 125MHz EM Card / 13.56MHz Mifare Card (Optional)
- > PIN length: 4-8 digits
- > Backlit Keypad
- > Communication frequency: 433MHz
- > Communication distance: $\leq 330m$
- > Door contact, alarm and door bell output
- > Pulse mode, toggle mode
- > Tri-color LED status display
- > Ultra low power consumption (wireless keypad$\leq 10\mu A$)
- > Remote Control optional

Specifications

User Capacity	1100 PIN / card users (1000 common users + 100 visitor users)
PIN Length	4-8 digits
Card Type	125 KHz EM Card / 13.56MHz Mifare Card

Operating Voltage	3 units of AAA batteries 12V DC $\pm 20\%$
Current	Wireless Keypad: $\leq 10\mu A$ Mini Controller: $\leq 20mA$ Wireless Button: 1 unit of 2032 Lithium battery
Idle Current	Wireless Keypad: $\leq 10\mu A$ Wireless Button: $\leq 10\mu A$
Working Current	Wireless Keypad: $\leq 80mA$ Mini Controller: $\leq 50mA$ Wireless Button: $\leq 30mA$
Communication Frequency	433MHz
Communication Distance	530m
Relay Contact Load	2Amp Maximum
Environment	Outdoor (Wireless Keypad) -40°C~60°C (-40°F~140°F)
Operating Temperature	
Operating Humidity	10%~90%RH
Physical Dimensions	ABS Shell or Zinc-Alloy Wireless Keypad: L134 x W48 x D25 (mm) - ABS L148 x W43.5 x H22 (mm) - Metal Mini Controller: L85 x W50 x D25 (mm) Wireless Button: L88 x W38 x D15 (mm) Wireless Keypad: 150g (ABS) / 300g (Metal) Mini Controller: 62g Wireless Button: 34g
Unit Weight	300g (ABS) / 450g (Metal)
Shipping Weight	

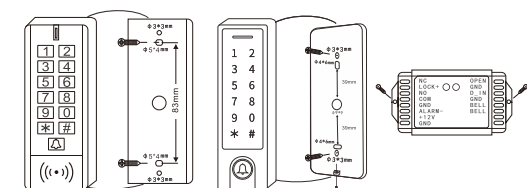
Carton Inventory



INSTALLATION

Method 1: Stick by 3M stickers
 The device packed with 3M double-side Stickers, can easily stick the Wireless Keypad and Wireless Button on Metal Door, Glass Door, Wooden Door, or Smooth Wall.

Method 2: Install by screws.



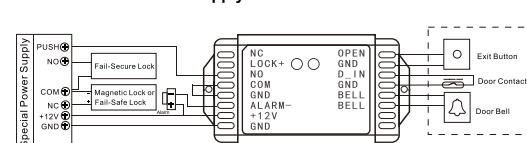
Wiring (Mini Controller)

No.	Function	Notes
1	GNID	Negative Pole of DC(12V) Power Input
2	+12V	Negative Pole of DC(12V) Power Input
3	ALARM-	Negative Contact for Alarm
4	COM	Common Connection for Relay Output
5	NO	Normally Open for Relay Output
6	LOCK+	Positive Pole of Lock Power Input
7	NC	Normally Close for Relay Output
8	OPEN	Contact to One Wire of Exit Button
9	D IN	Door Status Detecting
10	BELL_A	Contact for Door Bell
11	BELL_B	Contact for Door Bell

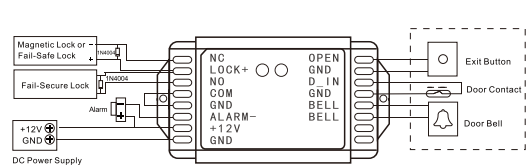
Sound and Light Indication

Operation Status	Red LED	Green LED	Buzzer
Standby	-	ON for 1 second	-
Unlock the lock	-	ON for 1 second	-
Key press under Program Mode	-	-	One beep
Enter into Program Mode	Shines per 1.5 seconds	-	One long beep
Invalid PIN	-	-	3 beeps
Exit from the Program Mode	-	-	One long beep
Low battery reminding	RED & GREEN alternately shines 2 times (Wireless Button)	ON (Wireless Keypad)	3 beeps when key press

Connection Diagram



Common Power Supply:



Attention: Install a 1N4004 or equivalent diode is needed when use a common power supply, or the reader might be damaged. (1N4004 is included in the packing)

Reset to Factory Default for Keypad

For Metal Keypad:
Method 1: First Power Off, then Power On for 4s, then press # and hold it (Note: Must press # after the power is on between 4 second and 10 second), there will be one beep after 5 seconds, release the # button, means reset to factory default successfully.
Method 2: Power on, read 'Reset Card' once, there will be one long beep, means reset to factory default successfully (Reset Card is not included in the package, users can add the Reset Card when needed, refer to Page 12)

For ABS Keypad:
 Power off, press "*" and hold it, then power on, there will be one beep after 5 seconds, then release the button, means reset to factory default successfully

Remarks:
 1. Reset to factory default, the user's information is still retained.
 2. Keypad needs to pair with controller after reset

PROGRAMMING

Enter and Exit Program Mode

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Exit	*

Pair Wireless Keypad / Exit Button and Mini Controller

1. They are already paired when out of factory, if no problem, the users do not need to do this operation in using.
 2. One Mini Controller can be connected by 5 pieces of Wireless Keypad and Exit Button maximum.

- To pair the wireless keypad and the controller:
Mini Controller: Remove the back cover, and press the button "Pair"
Wireless Keypad: Master Code # 9 0 #, press "*" on the keypad to exit. If pair successfully, there will be one beep from both the controller and the keypad; if not, there will be three short beeps, then please repeat the setting.
- To pair the wireless button and the controller:
Mini Controller: Remove the back cover, and press the button "Pair"
Wireless Button: Remove the back cover, and press the button "Pair", after hearing one beep, press "Pair" again to exit pairing mode
 If pair successfully, there will be one beep from both the controller and the keypad; if not, there will be three short beeps, then please repeat the setting.
- To pair the wireless keypad with multiple mini controller:
Wireless Keypad: Master Code # 9 0 #
Mini Controller: Remove the back cover, and press the button "Pair" (Same settings for multiple controllers)
 If pair successfully, there will be one beep from both the controller and the keypad, press "*" on the keypad to exit pairing mode; if not, there will be three short beeps, then please repeat the setting. Users need to finish the pairing within 30s for multiple controllers, or else, the keypad will exit pairing mode automatically.
- To pair the wireless button with multiple mini controller:
Wireless Button: Remove the back cover, and press the button "Pair"
Mini Controller: Remove the back cover, and press the button "Pair" (Same settings for multiple controllers)
 If pair successfully, there will be one beep from both the controller and the button, press the button "Pair" on the button to exit pairing mode; if not, there will be three short beeps, then please repeat the setting. Users need to finish the pairing within 30s for multiple controllers, or else, the keypad will exit pairing mode automatically.

Simplified Instruction	
Function description	Operation
Enter the Program Mode	* (123456) # then you can do the programming (123456 is the factory default master code)
Change the master code	0 (New Code) # (Repeat the New Code) # (code: 6 digits)
Add PIN user	1 (User ID) # (PIN) # (Repeat PIN) # (PIN length: 4-8 digits)
Add Card User	1 (Read Card)
Delete user	2 (User ID) #
Delete ALL user	2 (Read Card)
Exit from the Program Mode	*
How to release the door	
PIN Access	PIN #
Card Access	(Read Card)
PIN + Card Access	(Read Card) (PIN) #

Additional Pairing when necessary
 This operation is for situation that when the mini controller is already installed on a high location, and not easy to press the "Pair" button
 1. To enter Pairing mode for Mini Controller: * (Master Code) # 8 1 # (This step is programmed on the keypad)
 2. Press Wireless Button / Remote Control (Optional) / * (Master Code) # 8 0 # (pairing keypad) to pair the additional devices

Unpair All the Devices (Program this step with caution)
Method 1: Press "Pair" button on mini controller for 5 seconds, there will be one beep, means unpair all devices successfully
Method 2: Press * (Master Code) # 8 2 #, there will be one beep from Mini Controller, means unpair all devices successfully

Low Battery Reminding
 If low battery of the wireless keypad, there will be 3 beeps when every key is pressed, and the LED will be in YELLOW;
 If low battery of the wireless button, the LED will shine in RED & GREEN twice alternately;
 then please replace the batteries for the keypad and the button within one week.

Set Master Code

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Update Master Code	0 (New Master Code) # (Repeat New Master Code) # Master code is any 6 digits
3. Exit	*

Add / Delete Master Cards

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Master Add Card	0 1 # (Read Card)
2. Add Master Delete Card	0 2 # (Read Card)
3. Delete Master Add Card	0 1 # #
3. Delete Master Delete Card	0 2 # #
4. Exit	*

(Master Cards are included and added already. When new Master Cards added, the previous one will be replaced)

Master Cards Using

Using Master Cards to add and delete card users	
Add a User Card	1. (Read Master Add Card) 2. (Read User Card) Repeat Step 2 for additional user cards 3. (Read Master Add Card)
Delete a User Card	1. (Read Master Delete Card) 2. (Read User Card) Repeat Step 2 for additional user cards 3. (Read Master Delete Card)

Add User PIN(s)

User ID: 0-999; PIN length: 4-8 digits

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Users	1 (User ID) # (PIN) # (Repeat PIN) # The users can be added continuously
3. Exit	*

Add User Card(s)

User ID: 0-999; Card type: 125 KHz EM Card / 13.56MHz Mifare Card

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Card: Using Auto ID	1 (Read Card) # The cards can be added continuously.
2. Add Card: Select Specific ID (Allows Master to define a specific User ID to associate the card to)	OR 1 (User ID) # (Read Card) #
3. Exit	*

Add Visitor Users
 There are 100 groups Visitor PIN / card available, the users can be specified up to 9 times of usage, after a certain number of times, i.e. 5 times, the PIN/card become invalid automatically.

Visitor Users

User ID: 00-099 (the leading zero of the User ID means Visitor Users)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Visitor Card	1 (User ID) # (1-9) # (Read Card) The cards can be added continuously.
2. Add Visitor PIN	1 (User ID) # (1-9) # (PIN) # (Repeat PIN) # The users can be added continuously
3. Exit	*

Note:
 Number of time is 1-9
 Visitor PIN/card must be unique, should be distinguished from common PIN/card

Change PIN Users

Note: Below is done outside programming mode, users can undertake this themselves.

Programming Step	Keystroke Combination
2. Change PIN: By Card	*(Repeat Card) (Old PIN) # (New PIN) #
2. Add Card: Using Auto ID	OR *(Repeat New PIN) #
2. Change PIN: By PIN	*(User ID) # (Old PIN) # (New PIN) #
3. Exit	*

Delete Users

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Delete user by ID	2 (User ID) # The users can be deleted continuously
2. Delete user by card	OR 2 (Read Card) #
2. Delete All User	OR 2 (0000) #
3. Exit	*

Set Access Mode

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. PIN Access	3 0 #
2. PIN + Card Access	OR 3 1 #
2. PIN or Card Access	OR 3 2 # (factory default)
3. Exit	*

Set Relay Configuration

The relay configuration sets the behavior of the output relay on activation.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Pulse Mode	4 (1-99) # (factory default) The relay time is 1-99 seconds. (Default is 5 seconds)
2. Toggle Mode	OR 4 0 # Set the relay to ON/OFF Toggle mode
3. Exit	*

Set Door Bell (for Mini Controller)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Door Bell OFF	5 0 #
2. Internal Door Bell ON	OR 5 1 #
2. External Door Bell ON	OR 5 2 #
2. Internal & External Door Bell ON	OR 5 3 # (factory default)
3. Exit	*

Remarks: press Door Bell on keypad, there will be 2 times 'dingdong' from mini controller

Set Safety Mode

If set Strike-out ON, the keypad will deny access for 10 minutes after 10 failed PIN / card attempts in 10 minutes (Factory is OFF)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Strike-Out OFF	6 0 # 0 # (factory default)
2. Strike-Out ON	OR 6 0 # 1 #
3. Exit	*

Set Anti-tamper Alarm

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Anti-tamper Alarm OFF	6 1 # 0 #
2. Anti-tamper Alarm ON	OR 6 1 # 1 # (factory default)
3. Exit	*

Set Door Open Detection
Door Open Too Long (DOTL) Detection
 When use with an optional magnetic contact or built-in magnetic contact of the lock, if the door is opened normally, but not closed after 1 minute, the inside buzzer will beep automatically to remind people to close the door. The beep can be stopped by closing the door, valid users or press exit button, or else, it will continue to beep the same time with the alarm time set.

Door Forced Open Detection

When use with an optional magnetic contact or built-in magnetic contact of the lock, if the door is opened by force, the inside buzzer and external alarm (if there is) will both operate, they can be stopped by valid users or press exit button, or else, it will continue to sound the same time with the alarm time set.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Disable Door Open Detection	6 2 # 0 # (factory default)
2. Enable Door Open Detection	OR 6 2 # 1 #
3. Exit	*