

### INTRODUCTION

The device is a metal standalone fingerprint access control, support 125KHz EM card. It is an easy to operate device, designs in 8 wires for mounting, with user-friendly programming.

The device is embedded design with metal plate. It supports up to 100 fingerprint users and 800 card users, it equips with an infrared remote control and master card for easy operation.

#### Main Features:

- > Metal case, embedded design
- > Waterproof, conforms to IP66
- > One programming relay output
- > Multi-color LED Status Display
- > 1000 Users (100 Fingerprint Users + 890 Card Users + 10 Visitor Users)
- > Latch Mode to hold door or gate open
- > Wiegand 26 bits output
- > Wiegand 26/34 bits input automatic identification

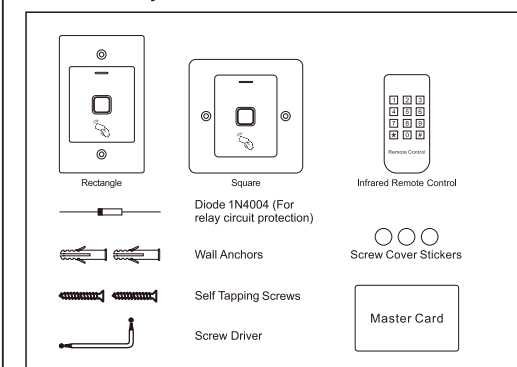
#### Specifications:

<b>User Capacity</b> Fingerprint Users Card Users Visitor Users	<b>1000</b> 100 890 10
<b>Operating Voltage</b> Idle Current Active Current	<b>12-18V DC ±10%</b> ≤30mA ≤150mA
<b>Fingerprint Reader</b> Resolution Identification Time FAR FRR	<b>Capacitive Fingerprint Module</b> 500DPI ≤1S <1% <0.001%
<b>Proximity Card Reader</b> Radio Technology Read Range	<b>EM</b> 125KHz 0-6cm
<b>Wiring Connections</b>	Relay Output, Exit Button, Wiegand(in/out)

-01-

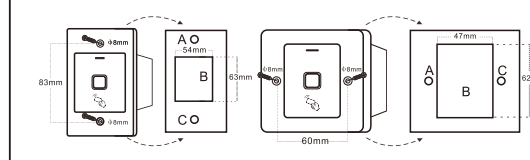
<b>Relay</b> Adjustable Relay Output Time Lock Output Load	<b>One (NO, NC, Common)</b> 0-99 Seconds (5 seconds default) 2 Amp Maximum
<b>Environment</b> Operating Temperature Operating Humidity	<b>Meets IP66</b> -25~+40°C (-13°F~140°F) 0%~98%
<b>Physical</b> Color Dimensions Unit Weight Shipping Weight	<b>Stainless Steel Plate</b> Silver & Black 115*70*25mm(Rectangle) 88*66*25mm(Square) 245g 285g

#### Carton Inventory



-02-

### INSTALLATION



#### Wiring

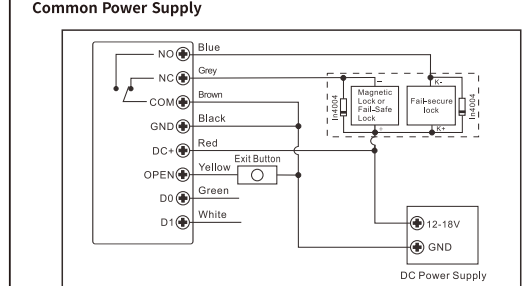
Colour	Function	Notes
Red	Power +	12-18V DC Regulated Power Input
Black	GND	Ground
Blue	NO	Normally Open Relay Output
Brown	COM	Common Connection for Relay Output
Grey	NC	Normally Closed Relay Output
Yellow	OPEN	Request to Exit Input(REX)
Green	DO	Wiegand Input/Output Data 0
White	D1	Wiegand Input/Output Data 1

#### Sound and Light Indication

Operation Status	LED	Finger Sensor Light	Buzzer
Stand by	Red light bright	OFF	-
Enter into programming mode	Red light shines	OFF	One beep
In the programming mode	Orange light bright	-	One beep
Operation error	Red light bright	-	Three beeps
Exit from the programming mode	Red light bright	OFF	One beep
Open lock	Green light bright	OFF	One beep
Alarm	Red light Shines quickly	OFF	Beeps

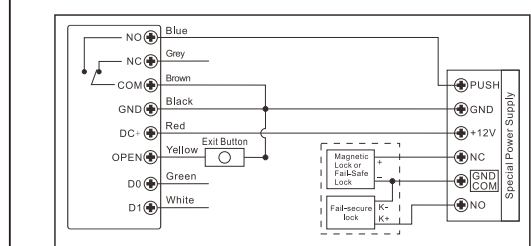
-03-

### Connection Diagram



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)

### Access Control Power Supply



-04-

### STANDALONE MODE

#### GENERAL PROGRAMMING INFORMATION

>**User ID Number:** Assign a user ID number in order to keep track of the users of access fingerprints or cards. The user ID number can be any number from 0-999. **IMPORTANT:** User IDs do not have to be proceeded with any leading zeros. Recording of User ID is critical. Modifications to the user require the User ID or card be available.

**Remark:** Fingerprint User ID: 0-98  
Master Fingerprint User ID: 99  
Card User ID: 100-999  
Visitor User ID: 990-999

>**Proximity Card:**  
Any 125KHz industry standard 26bits EM proximity card

#### 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 Program Mode	*

#### Add Master Fingerprint by Specific ID (ID Number: 99)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Master Fingerprint	1 (99) # (Fingerprint)(Repeat Fingerprint)(Repeat Fingerprint again)
3. Exit	*

-05-

#### Add Fingerprint Users by Auto ID

(Allows the device to assign Fingerprint to next available User ID, ID number is 0-98)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Fingerprint	1 (Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint again) (Repeat Fingerprint again)
3. Exit	*

#### Add Fingerprint Users by Specific ID

(Allows Master to define a specific ID to the fingerprint, ID number is 0-98)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Fingerprint	1 (User ID) # (Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint again) (Repeat Fingerprint again)
3. Exit	*

#### Add Card Users by Auto ID

(Allows Master to assign Card to next available User, ID number is 100-999)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Card: by Reading Card	1 (Read Card )
3. Exit	*

#### Add Card Users by Specified ID

(Allows Master to define a specific ID to the Card, ID number is 100-999)

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

-06-

Simplified Instruction	
Function Description	Operation
Enter the Programming Mode	* -123456-# then you can do the programming (123456 is the default factory master code)
Change the Master Code	0 - New code - # - Repeat the New Code - # (code: 6 digits)
Add Fingerprint User	1 - Fingerprint - Repeat Fingerprint - Repeat Fingerprint Again - #
Add Card User	1 - Read Card (can add cards continuously)
Delete User	2 - Fingerprint - # 2 - Read Card 2 - User ID - # (can delete users continuously)
Exit from the Programming Mode	*
<b>How to release the door</b>	
Fingerprint User	Input Fingerprint
Card User	Read Card

2. Add Card: by User ID	1 (User ID) # (Read Card )
3. Exit	*

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Delete Fingerprint: by Fingerprint	2 (Input Fingerprint)
OR	
2. Delete Card: by Reading Card	2 (Read Card)
OR	
2. Delete Card or Fingerprint: by ID number	2 (User ID) #
OR	
2. Delete ALL Users	2 (0000) # (Master Fingerprint User will be Deleted when Delete All Users)
3. Exit	*

#### Master Fingerprint/ Card Usage

Using Master Fingerprint/ Card to add and delete users

Add Fingerprint / Card	1. Input (Master Fingerprint/ Card) or (Card) 2. Input (Fingerprint three times) Repeat step 2 for additional users 3. Input (Master Fingerprint/ Card) again
Delete Fingerprint / Card	1. Input (Master Fingerprint/ Card) Twice within 5s 2. Input (Fingerprint) or (Card) Repeat step 2 for additional users 3. Input (Master Fingerprint/ Card) again

-07-

**Visitor User Setting (For card user only)**  
There are 10 groups Visitor card available the users can be specified up to 10 times of usage after a certain number of times, i.e. 5 times, the card becomes invalid automatically.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Visitor Card User	8 (0-9) # (User ID) # (Read Card )
OR	
2. Delete Visitor User by ID Number	2 (User ID) #
OR	
2. Delete Visitor User by Read Card	2 (Read Card)
3. Exit	*

Note:  
Number of time is 0-9, 0-10 times. User ID number must be any number between 990-999, Visitor card must be unique, should be distinguished from common card

#### Set Access Mode

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Card or Fingerprint Access	3 0 # (Factory Default)
OR	
2. Fingerprint Only	3 1 #
OR	
2. Card Only	3 2 #
3. Exit	*

-08-

#### 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)
OR	
2. Latch Mode	4 0 # (Factory default: 5 seconds)
3. Exit	*

#### Set Alarm

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Set alarm time	5 (0-3) # Factory default is 1 minute
3. Exit	*

#### Set Strike-out Alarm

The strike-out alarm will engage after 10 failed Card/Fingerprint attempts, factory default is OFF, it can be set to deny access for 10 minutes or enable alarm after engaging.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Strike-out OFF	6 0 # (factory default)
OR	
2. Strike-out ON	6 1 # Access will be denied for 10 minutes
OR	
2. Strike-out ON	6 2 # Enable alarm, need enter Valid Card/Fingerprint to silence
3. Exit	*

-09-

### WIEGAND MODE

#### Pass-through Mode

(The device Operates as a Wiegand Output Reader)  
In this mode the device supports a Wiegand 26 bits output so the Wiegand data lines can be connected to any controller which supports a Wiegand 26 bits input, and then the device will operate as a slave reader.

The relay time is 1-99 seconds (factory default: 5 seconds)

4 0 # Sets the relay to ON/OFF latch mode

3. Exit \*

#### Fingerprint Users Transmission Format

1) Add fingerprint on device

2) Operate the controller enter into adding card users, then read this added fingerprint on the device, this fingerprint's corresponding User ID will generate a virtual card number and send to the controller.

Example: User ID is 2 for the added fingerprint, the output will be 00000002

#### Wiring Diagram

