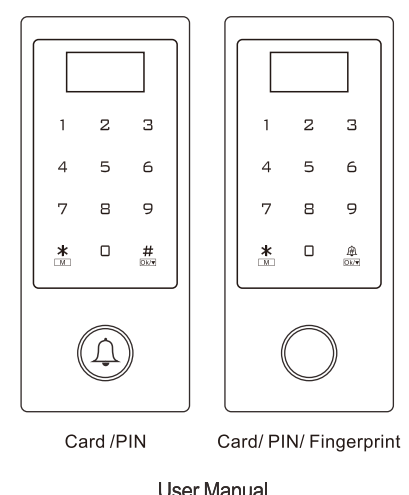
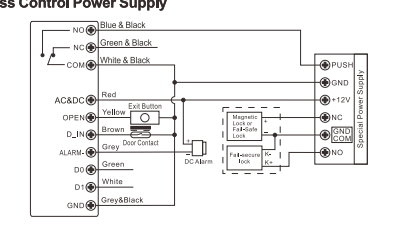
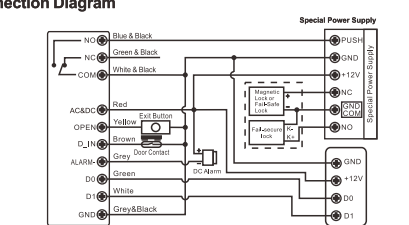
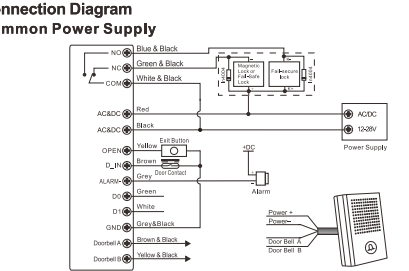
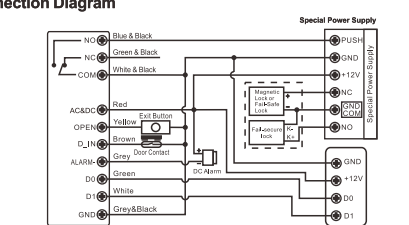
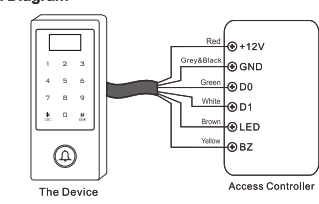


Access Controller/ Reader		CONTENTS		INTRODUCTION		Specifications		Wiring		INSTALLATION		Attention:	
 <p>Card/PIN Card/PIN/ Fingerprint User Manual</p>		INTRODUCTION	INSTALLATION	The device is a single door multifunction standalone access controller or a Wiegand output reader with OLED display. It uses Atmel MCU assuring stable performance. The operation is very user-friendly, and low-power circuit makes it long service life.		User Capacity	Wire Color	Basic Standalone Wiring Red AC&DC 12-28V AC/DC Regulated Power Input Black AC&DC 12-28V AC/DC Regulated Power Input Grey&Black GND Negative Pole Blue & Black Relay NO Normally Open Relay Output (install diode provided) White & Black Relay Common Common Connection for Relay Output Green & Black Relay NC Normally Closed Relay Output (Install diode provided) Yellow OPEN Request to Exit (REX) Input Pass-Through Wiring (Wiegand Reader or Controller) Green Data 0 Wiegand Output (Pass-through) Data 0 White Data 1 Wiegand Output (Pass-through) Data 1 Advanced Input and Output Features Grey Alarm Output Negative contact for Alarm Brown Contact Input Door/Gate Contact Input (Normally Closed) Brown & Black Doorbell A Contact for Doorbell Yellow & Black Doorbell B Contact for Doorbell		Remove the back cover from the unit > Drill 2 holes(A,C) on the wall for the screws and one hole for the cable > Knock the supplied rubber bungs to the screw holes(A,C) > Fix the back cover firmly on the wall with 4 flat head screws > Thread the cable through the cable hole(B) > Attach the unit to the back cover		Attention: Install a 1N4004 or equivalent diode is needed when use a common power supply, or the keypad might be damaged. (1N4004 is included in the packing) Access Control Power Supply 	
		CONNECTION DIAGRAM	PROGRAMMING	The device can be made with Bluetooth function or with WIFI function.		Operating Voltage	Carton Inventory Diode 1N4004 (For relay circuit protection) Wall Anchors Self Tapping Screws: Φ4*25mm Screw Driver Master Card		INSTALLATION > Remove the back cover from the unit > Drill 2 holes(A,C) on the wall for the screws and one hole for the cable > Knock the supplied rubber bungs to the screw holes(A,C) > Fix the back cover firmly on the wall with 4 flat head screws > Thread the cable through the cable hole(B) > Attach the unit to the back cover		Controller Mode The device can work as Controller, connected with the external Wiegand reader. (Factory default mode) Connection Diagram 		
		ADVANCED APPLICATION	SOUND AND LIGHT INDICATION	Card/ PIN device: It supports 10,000 users (9988 common + 2 panic + 10 visitor) Card/ PIN/ Fingerprint device: Three user capacities are available: 1) 10,000 card/ PIN users + 500 fingerprint users (standard version) 2) 10,000 card/ PIN users + 100 fingerprint users 3) 10,000 card/ PIN users + 880 fingerprint users Features > OLED display, touch keypad > Metal case, anti-vandal > Waterproof, conforms to IP66 > One relay > PIN length: 4-6 digits > EM card, EM+ Mifare card optional > EM card: Wiegand 26-44 bits input & output Mifare card: Wiegand 26-44bits, 56bits, 58bits input & output > Can be used as Wiegand reader with LED & buzzer output > Card block enrollment > Tri-color LED status display > Integrated alarm & buzzer output > Pulse mode, Toggle mode > User data can be transferred > 2 devices can be interlocked for 2 doors > Built-in light dependent resistor (LDR) for anti tamper > Backlit keypad, can set automatic OFF after 20 seconds		Environment Meets IP66 -40°C ~ 60°C (-40°F ~ 140°F) 0%RH-98%RH Physical Zinc-Alloy Colour Silver & Black Dimensions L145 x W68 x D25 (mm) Unit Weight 500g Shipping Weight 615g		CONNECTION DIAGRAM Standalone Mode The device can work as Standalone Access Control for single door. (Factory default mode) 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) Connection Diagram 			
		11	12	- 01 -		- 02 -		- 03 -		- 04 -		- 05 -	

WIEGAND READER MODE

The device can work as Standard Wiegand Reader, connected to the third party Controller

Connection Diagram



Notes:

- > When set into Wiegand Reader mode, nearly all settings in Controller Mode will become invalid, and Brown & Yellow wires will be redefined as below:
- Brown wire: Green LED light control
- Yellow wire: Buzzer control
- > If you need to connect Brown/Yellow wires: When the input voltage for LED is low, the LED will turn into Green; and when the input voltage for Buzzer is low, it will sound.

PROGRAMMING

Keys & Functions

- 0-9: Enter value, menu number
- # : # Ok means confirm
- ↓ : means down to select
- Ⓜ : Means doorbell
- * : M means menu
- ↩ : Short press * means back to the previous menu
- ⏪ : Long press * means back to main interface

- 06 -

System Menu

> Please input * (Master Code) # to enter system menu. (Factory default master code is 123456)

> User ID number:
The Common Card/PIN User ID: 1-9988
Panic User ID: 9989-9990
Visitor User ID: 9991-10000
Fingerprint User ID (Only apply to card/PIN/ Fingerprint device) 10001-10100 or 10001-10500 or 10001-10880
> PIN: Can be any 4-6 digits
> Proximity Card: 125KHz EM card or 13.56MHz Mifare card

1- Change Admin
Press '1' to enter Change Admin.

Menu No.	Setting	Note
1	Change Admin	New Admin can be any 6 digits

2- User Setting
Press '2' to enter User Setting.
Press ↓ to select and long press # to confirm.

Menu No.	Setting	Note
1	Add Directly	Add users directly by inputting PIN/ card
2	Add by ID	Add users by user ID. The common user ID is between 1-9988, panic User ID is 9989-9990. Fingerprint User ID (Only apply to card/PIN/ Fingerprint device) is 10001-10100 or 10001-10500 or 10001-10880
3	Add Visitor	- Visitor user ID is between 9991-10000 - Add visitor card: ID# (1-9)# (read card) - Add visitor PIN: ID# (1-9)# (PIN)# 1-9 means times of usage.
4	Block Enroll	Choose the 1st ID--Set Card Number (can set 1-200)-- Read the 1st number card

- 07 -

5	Del Directly	- Enter PIN or card to delete user directly
6	Del by ID	- Delete users by inputting user ID
7	Del All User	- Delete ALL users

3- Door Setting
Press '3' to enter Door Setting.
Press ↓ to select and long press # to confirm.

Menu No.	Setting	Note
1	Open Time	- Open time can be set to 0-100s Input 0-100, long press # to confirm. - Factory default is 5s
2	Access Mode	Access Modes can be set to: Card/ PIN device: 1 Card, 2 PW, 3 Card/PW, 4 Multi User (max.9) Card/ PIN/ Fingerprint device: 1 Card, 2 PW, 3 Fingerprint, 4 Card/PW/FP, 5 Multi User (max.9)
3	Alarm Time	- 1 OFF (Factory default) - 2 1min - 3 2min - 4 3min
4	Door Contact	- 1 OFF (Factory default) - 2 ON Wiegand format for EM card can be set to 26-44.
5	Security Mode	- 1 OFF (Factory default) - 2 LOCK Dead The device will become 'access deny' for 10 minutes after 10 failed entry attempts. Restart the device to back to normal.

- 08 -

6	Interlock	- 1 OFF (Factory default) - 2 ON Connection Diagram please refer to page 12
7	Collect Card	- 1 OFF (Factory default) - 2 ON After this function is turned ON, all cards can open the lock, at the same time, the card is added to the device.
8	WG FMT	- 1 Check OFF - 2 Check ON (Factory default) Check means Parity Bit - 3 4bits (Factory default) - 4 8bits - 5 10bits (VirNum) - 6 ID: 26 Wiegand format for EM card can be set to 26-44. - 7 IC: 34 Wiegand format for Mifare card can be set to 26-58.
9	Working Mode	- 1 Controller (Factory default) - 2 Reader In Controller mode, the device can be also used as standalone. Connection diagram please refer to Page 4-6

- 09 -

4- Other Setting
Press '4' to enter Other Setting.
Press ↓ to select and long press # to confirm.

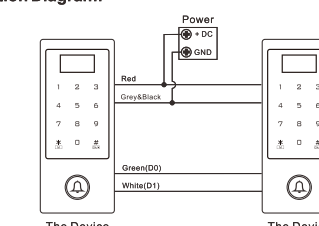
Menu No.	Setting	Note
1	Sound	- 1 OFF - 2 ON (Factory default)
2	Red Led	- 1 OFF - 2 ON (Factory default)
3	Keys Backlight	- 1 OFF (Factory default) - 2 ON - 3 Auto (Factory default) Automatic OFF after 20 seconds, it will go ON by pressing any key (this key isn't taken into considerations).
4	OLED Backlight	- 1 ON - 2 5S - 3 10S - 4 30S (Factory default) - 5 1min
5	Unbind Machine	- Unbind the device with Bluetooth. - Long press # to confirm Unbind, the device will back to main interface after unbinding successfully.
6	Copy Users	Connection diagram please refer to page 11
7	Factory Reset	Reset to factory default, the user's information is still retained.

- 10 -

ADVANCED APPLICATION

User Information Transfer (Valid for Card/ PIN device)
The device supports the User Information Transfer function, and the enrolled user (cards, PINs) can be transferred from one (let's name it Master Unit) to another (let's name it Accept Unit).

Connection Diagram:



Remarks:

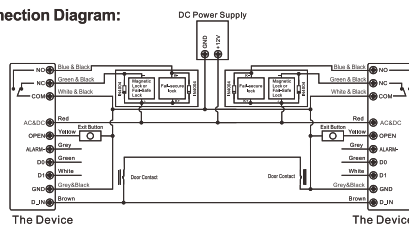
- > The Master units and Accept units must be same series devices.
- > The Master Code of the Master Unit and the Accept Unit must be set to the same.
- > Program the transfer operation on Master Unit only.
- > If the Accept Unit is already with the users enrolled, it will be covered after transferring.
- > For full 10000 users enrolled, the transfer takes about 5 minutes.

Set Transferring on Master Unit: Menu 4 Other Setting-- 6 Copy User

Interlock
The device supports the Interlock Function. It is of two Devices for two doors, and mainly used for banks, prisons, and other places where a higher level security is required.

- 11 -

Connection Diagram:



Remarks: The Door Contact must be installed and connected as the diagram. Let's name the two Devices as "A" and "B" for two doors "1" and "2"

Step 1:
Enroll the users on Device A, then transfer the users' information to Device B by 'User Information Transfer' function (Page 111)

Step 2:
Set both of the two Devices (A and B) to Interlock function
Menu 3 Door Setting -- 6 Interlock

If enable interlock, when and only door 2 is closed, the user can read the valid fingerprint/card or input PIN on Reader A, door 1 will open; then when and only door 1 closed, read valid fingerprint/card or input PIN on Reader B, door 2 will open.

SOUND AND LIGHT INDICATION

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

- 12 -