

1. Wiring Instructions

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Wire Color	Definition	Instruction	Length	Specification of the wires	
Red	+12V	Positive	480mm	AWG26# Black tinned	
Black	GND	Negative			
Blue	CASE	Anti-tamper output			
White	D1	Wiegand output			
Green	D0	Wiegand output	400111111	copper shielded wire	
Brown	LED	LED			
Yellow	R-B	RS-485 output			
Purple	R-A	RS-485 output			

Note:

- It will damage the product when the black (GND) is connected to the positive terminal and the D0 or D1 is connected to the negative.
- 2. Don't wire with power on.

- Must use shielded twisted pair for RS-485 wiring when over 100m transmission and the power cable must be connected separately from the signal cable.
- 4. The controller supports two upgrades at the same time. If the upgrade is not completed within 30 minutes, please wait until the controller starts automatically to indicate completion of the upgrade process.

2. Packing and accessories

- 2. 2 φ3 screws,2 rubbers
- 3. User manual with install instruction

Specifications

Card Type	IC
Power supply	DC12V±20%
Static current	5 MA ~ 12MA
Woring current	5 MA ~ 22MA

Operating Temperature	40% 00%		
	-40°C~60°C		
Operating Humidity	0%~95% (non-condensing)		
Transmit Frequency	13.56MHz		
Read Range	20mm ~ 65mm		
Output Format	RS-485(OSDP) or Wiegand 26~37		
RS-485 Transmission Distance	100M		
WG Transmission Distance	100M		
IP Rating	IP67		
Dimension	L95*W50*H20(mm)		
Weight	136g		

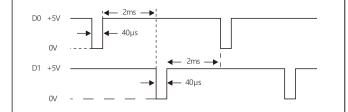
Note: Contactless card reading for IC cards (Mifare cards).

4. Functions Instruction

- When swiping the card, the buzzer sounds 200MS, and outputs Wiegand signal and RS485 signal at the same time.
- When RS485 confirms authorized card, red light off, green light on, then red light on, green light off after 200MS.
- 3. When RS485 confirms illegal card, buzzer gives 3 short beeps consecutively, green light is not on.
- When the LED line is pulled low, the LED turns green and the buzzer sounds, when the LED line is pulled high, the LED turns red and the buzzer stops.
- If reader does not trigger the tamper, the CASE line outputs a low level, if reader triggers the tamper, the CASE line outputs a high level. Triggering timeout is 15 seconds; the buzzer returns to normal;
- 6.Unlock through card swiping and Bluetooth.
- 7. Communicates through the RS-485 port, Wiegand port, and Bluetooth.
- 8. Prompts using the buzzer and indicator light.

About Wiegand

- 1. Factory default is Wiegand34, any formats between Wiegand26 and 37 are customizable
- Green wire is Wiegand D0 and White wire is Wiegand D1. Normally it is high level, low level means output data. Pulse width is 40us; interval is 2ms;



6. Anti-tamper alarm

When the anti-tamper alarm function is turned on, the buzzer will make a continuous alarm when the card reader is illegally dismantled, the alarm timeout is 15 seconds. Can be used with APP & Controller together.

7.FCC Regulations:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

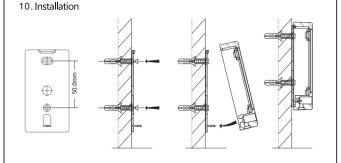
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

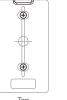
8.FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

9.Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.





- Drill holes according to the backplate.
- 2. Mount the backplate to the wall.
- 3. Mount the reader to the backplate.
- 4. Secure the reader to the backplate with screw on bottom as shown.



Bottom