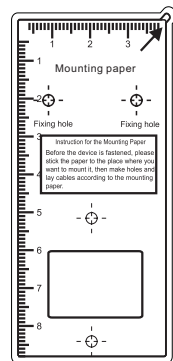


# Installation Guide

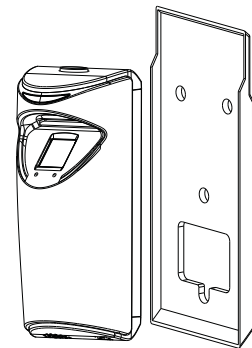
Vision:1.0

Date: August 2010

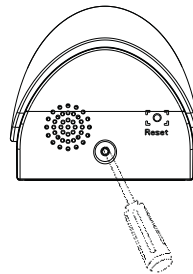
## I. Install device



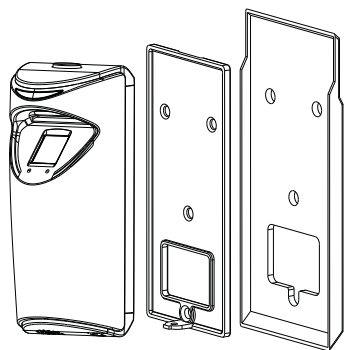
1) Post the mounting template on the wall. Drill holes according to the marks on the template. (Holes for screw and wiring)



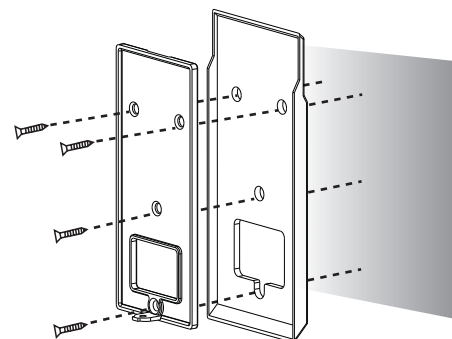
2) Take off the water-proof cushion



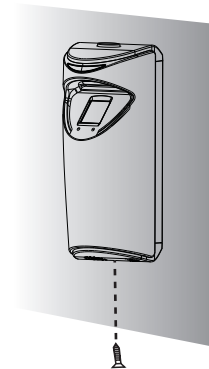
3) Take away the screw on the bottom of device



4) Release the mounting plate

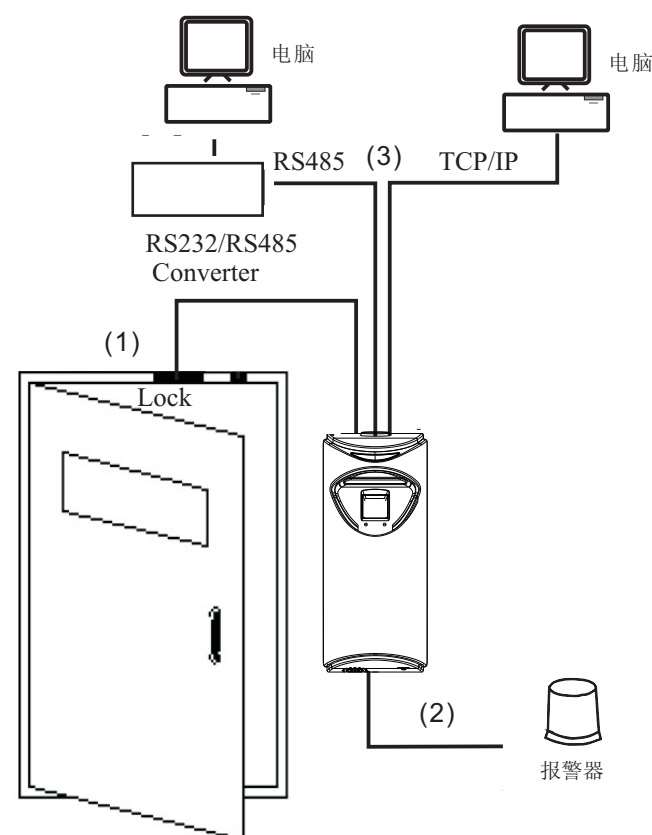


5) Fix the cushion and plate on the wall



6) Fix the device with the plate after all wiring completed

## II. Access control system overview



Access control system

(1) When a registered person verified, the access control device will export signal to open the door (NO lock) or close the door (NC lock).

(2) If access control device is torn down illegally, or door sensor is abnormal, or menace alarm gives off, the device will export alarm signal.

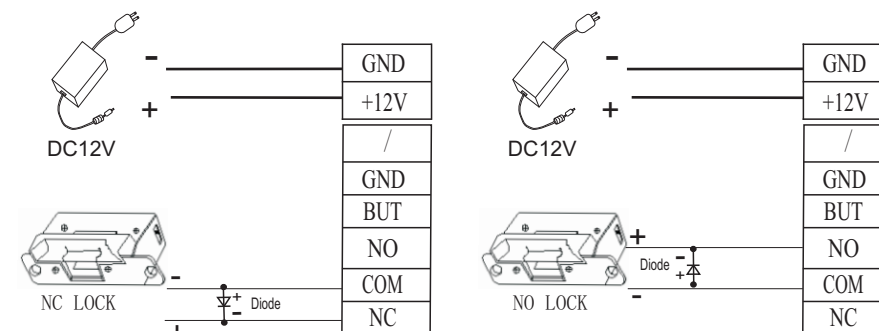
(3) Access control software to manage multi devices via RS485 or TCP/IP.



**Warning: Don't connect wires with power on!**

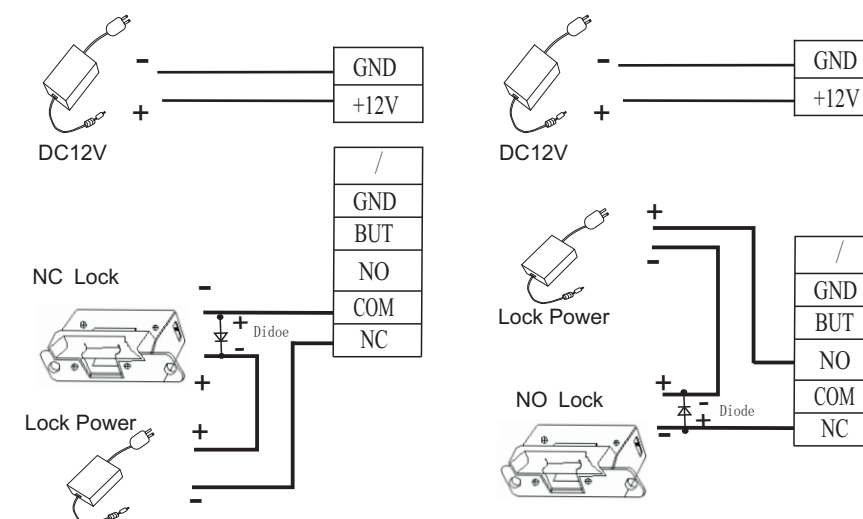
## III. Connect to door lock

1) device and lock share power supply



Notice: If lock's working power is DC12V, and working current is least 1000mA less than that of access control device power supply, wiring with sharing power supply can be adopted.

2) device and lock don't share power supply



Notice: Wiring with lock power supplied independently is recommended for the following states:

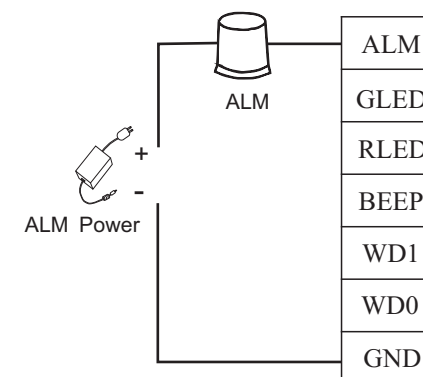
- 1) Lock's working power is DC 12V, device power's current is not 1A more than that of lock.
- 2) Lock's standard voltage is not DC12V.
- 3) The distance between lock and device is long.



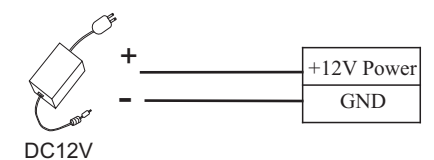
- Notice:**
- The system supports NO LOCK and NC LOCK. For example the NO LOCK (normally open at power on) is connected with 'COM' and 'NO' terminals, the NC LOCK is connected with 'COM' and 'NC' terminals.
  - When the DC power electrical lock is connected to the system, you need to parallel one FR 107 diode (equipped in the package) to prevent the self-inductance EMF affect the system, do not reverse the polarities.

## IV. Connection between device and alarm

## V. Power connection



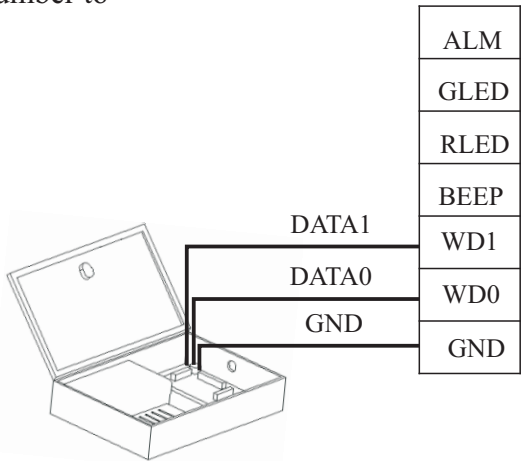
Notice: The rating output of the alarm no more than DC12V.



The device's working voltage is DC12V, with working current 500mA, standby current 50mA. Make sure the connection as the diagram (Don't connect the poles in reverse.).

VI. Wiegand output connection

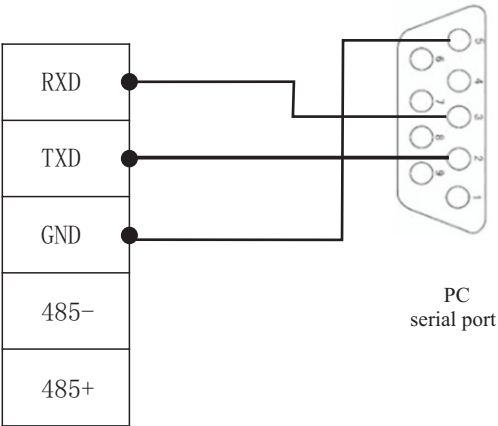
Wiegand 26output interface, export the verified user number or card number to the controller.



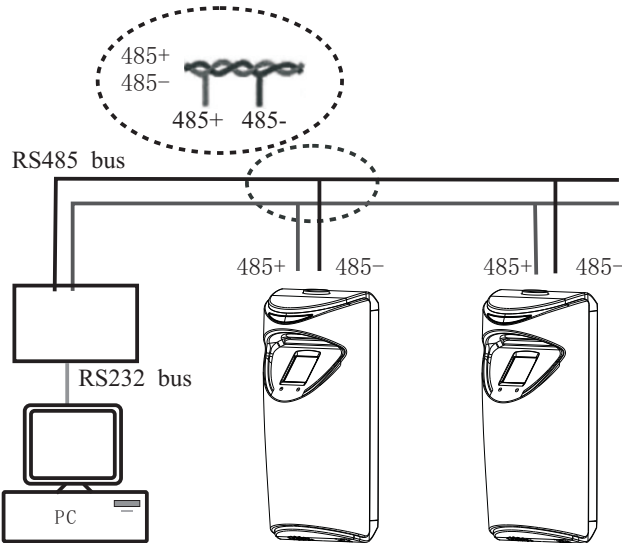
- Notice:
- 1) The distance between device and access controller or card reader shouldn't be over 90 meters (If longer distance is needed or there is interference in using environment, please use Wiegand signal delay.).
  - 2) To ensure the stability of the wiegand signal, the device must share the GND with controller or wiegand reader.

VIII. Device communication

1、RS232



2、RS485



There are three modes that the PC software communicate and exchange information with the device: RS232, RS485, TCP/IP. RS485 and TCP/IP mode support remote control.

| Port Description | PC serial port  |
|------------------|-----------------|
| <b>RXD</b>       | <b>Pin3-Txd</b> |
| <b>TXD</b>       | <b>Pin2-Rxd</b> |
| <b>GND</b>       | <b>Pin5-Gnd</b> |

| Port Description | PC serial port |
|------------------|----------------|
| <b>485+</b>      | <b>RS485 +</b> |
| <b>485-</b>      | <b>RS485-</b>  |



Warning: Don't connect wires with power on!

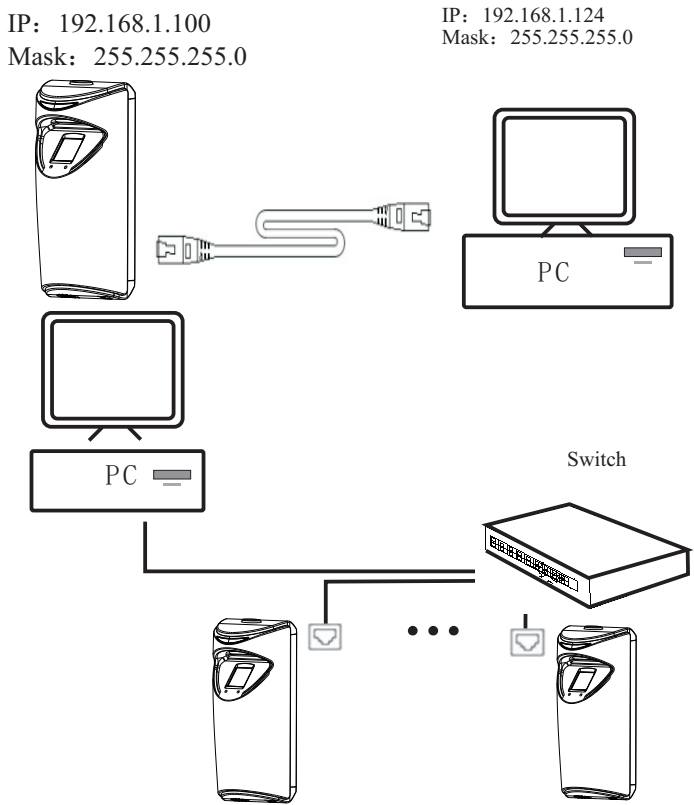
3、TCP/IP

1) Connection between device to PC via cross cable.

| Joint 1 | Pin |   | Pin | Joint 2 |
|---------|-----|---|-----|---------|
| TX+     | 1   | ↔ | 3   | RX+     |
| TX-     | 2   | ↔ | 6   | RX-     |
| RX+     | 3   | ↔ | 1   | TX+     |
| RX-     | 6   | ↔ | 2   | TX-     |

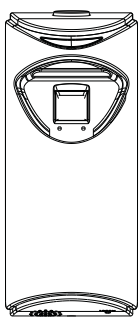
2) Lan connection

| Cable order | Pin | Color          | Pin | Cable order |
|-------------|-----|----------------|-----|-------------|
| TX+         | 1   | ↔white-orange↔ | 1   | TX+         |
| TX-         | 2   | ↔orange↔       | 2   | TX-         |
| RX+         | 3   | ↔white-green↔  | 3   | RX+         |
|             | 4   | ↔blue↔         | 4   |             |
|             | 5   | ↔white-blue↔   | 5   |             |
| RX-         | 6   | ↔green↔        | 6   | RX-         |
|             | 7   | ↔white-brown↔  | 7   |             |
|             | 8   | ↔brown↔        | 8   |             |

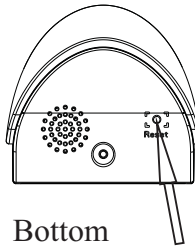


IX. Other function

Manual reset



Front



Bottom

Find a top pointed tool with diameter of 2mm.

If wrong operation or other unexpected fault makes device fail in working normally, use this function to restart the device.

X. Notice

- 1) Make sure all connection is correct before power on the device or not wiring when the device is powered.
- 2) DC12V/3A power adaptor is recommended to power the device, You can consult technicians for detailed information.
- 3) Please read wiring instruction carefully, damage caused by abnormal operation is beyond maintenance guarantee.
- 4) Make sure there is no bare part of the connection terminal.
- 5) To prevent machine damage caused by too powerful instant static in winter or in the place where there is much static, please connect ground wire firstly, then connect other wires.
- 6) If the distance between power supply and machine is long, please don't use network cable or other wires. While selecting wire for power supply, voltage attenuation caused by too long distance transmission should be taken into account.
- 7) While using RS485 communication method for network deployment, RS485 cable and RS232/485 converter required, bus structure is recommended. If RS485 communication distance is over 100 meters, add a terminal-matched resistor (with 120Ω) to RS485 bus.