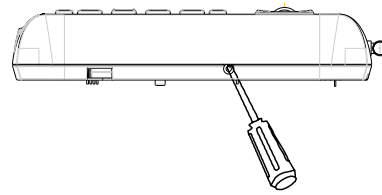
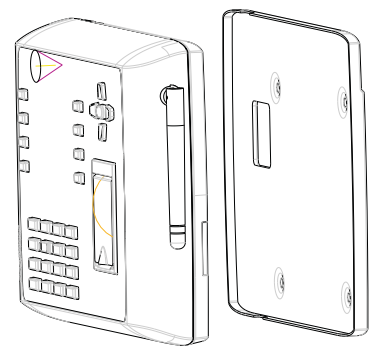
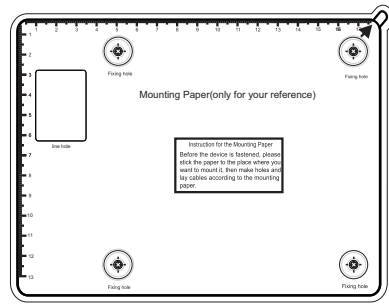


Installation Guide for Color Display Serial

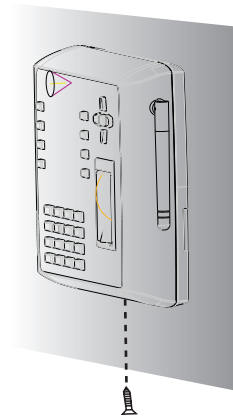
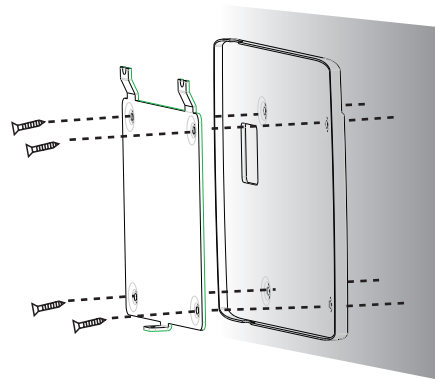
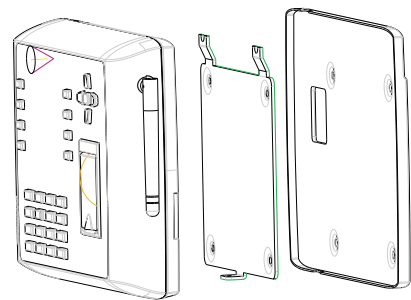
I. Install device



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



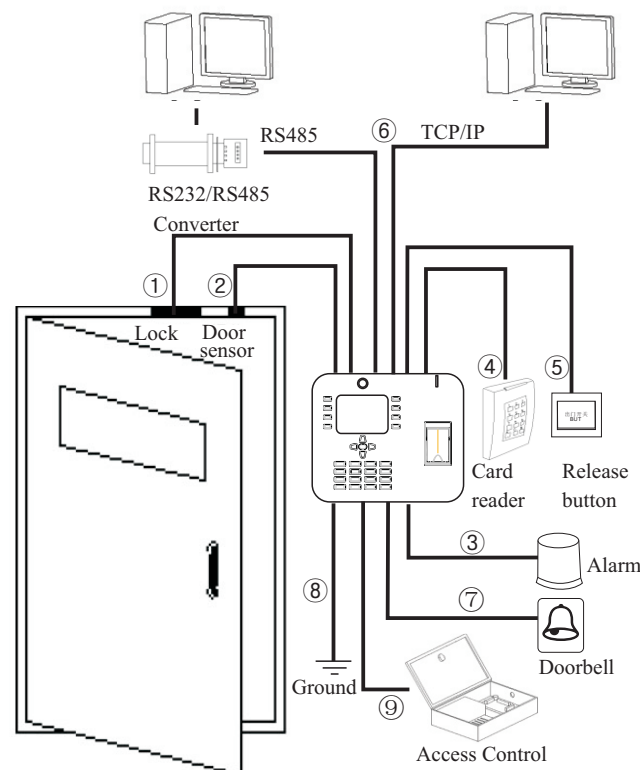
4) Release the mounting plate

5) Fix the cushion and plate on the wall

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

Note: This installation figure is a sample. The other device prevail in kind and could be refer to it.

II. Access control system overview



Access control system

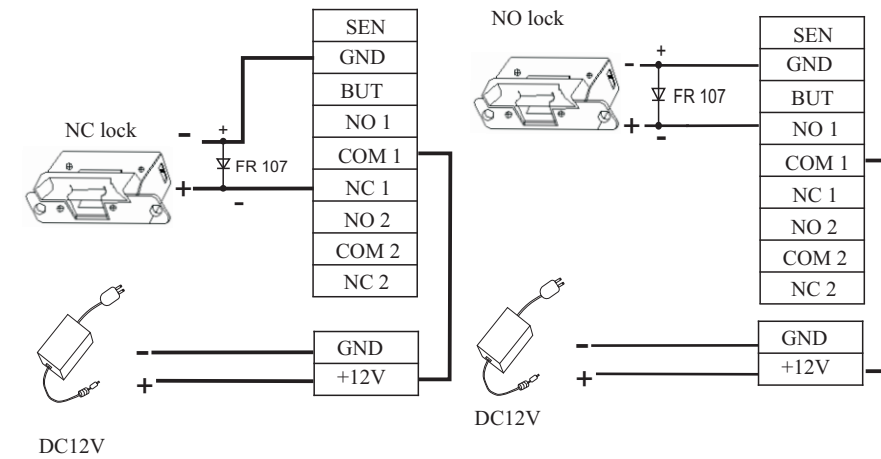
- ① When a registered person verified, the access control device will export signal to open the door.
- ② Door sensor will detect on-off state to sense whether the door is opened by accident or the door is not closed well, alarm will be given off under abnormal condition.
- ③ If access control device is torn down illegally, or door sensor is abnormal, or menace alarm gives off, the device will export alarm signal.
- ④ Connect a Weigand reader to work as a controller.
- ⑤ Access control device can be connected with external out-go switch, which provides convenience to open door from the inside.
- ⑥ Access control software to manage multi devices via RS485 or TCP/IP.
- ⑦ Connect to the wired doorbell.
- ⑧ Prevention of static electricity.
- ⑨ Connect with access controller, and communicate via Wiegand signal.

Warning: Don't connect wires with power on!

III. Connect to door lock

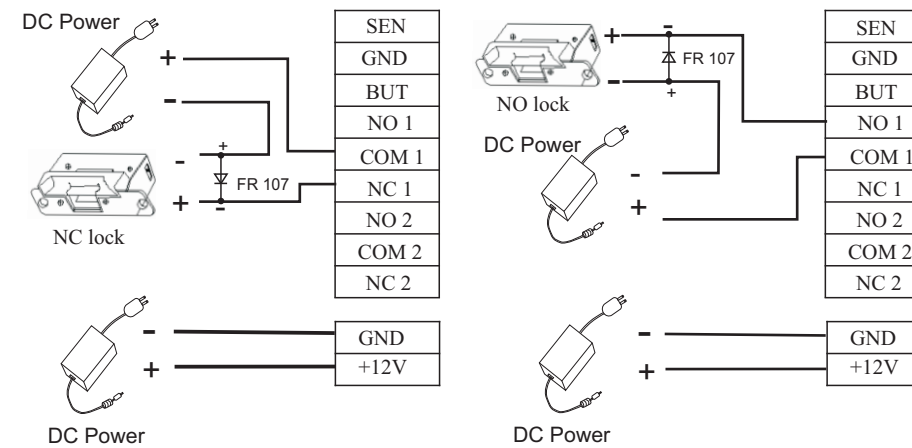
The device could connect to NC or NO locks, the connection terminal is not same, please according to the following diagram to make connection.

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.

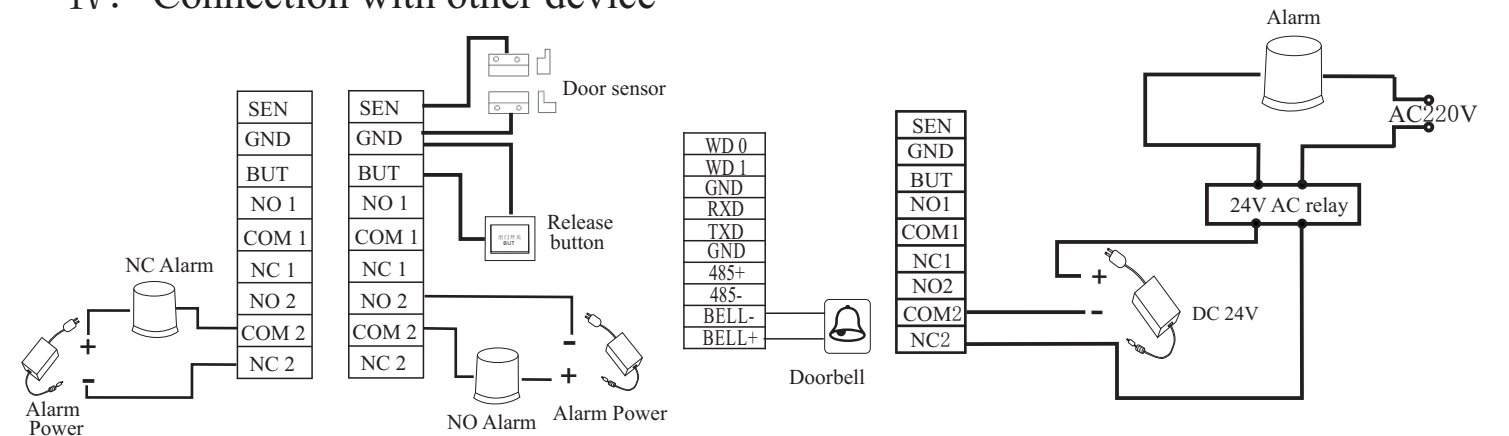
2) device and lock don't share power supply



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: Please use the attached diode which used in the above diagram with the model as FR107. And please don't connect the poles in reverse.

IV. Connection with other device

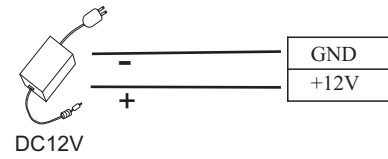


Notice:

Device alarm exports an open-close signal. The alarm can be serially connected to power circuit of simple alarm (as shown in left picture). It can also be used as touch signal of advanced alarm/monitor system (as shown in right picture). The rating output of the alarm no more than DC12V. There are two kinds of connection for the alarm: NC alarm and NO alarm (as shown in left picture).

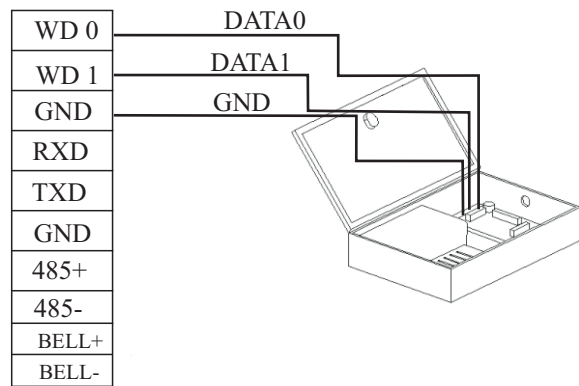
V. Power connection

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.

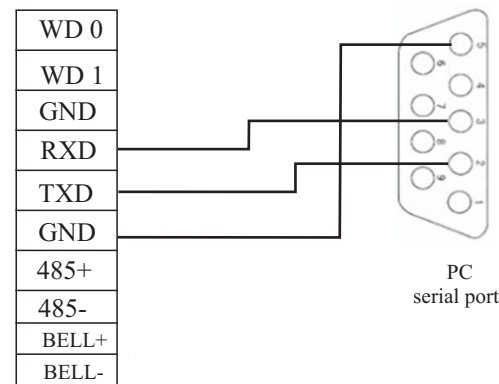


Note:

- 1) The distance between device and access controller or card reader shouldn't be over 90 meters (If alonger 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 Weigand reader.
- 3) If the distance of Wiegand output or 485 communication is over 90 meters, in order to reduce the interference caused by the long distance, it is suggested to use the cable with shield and connect the shield cable to the SGND terminal.

VIII. Device communication

1、RS232



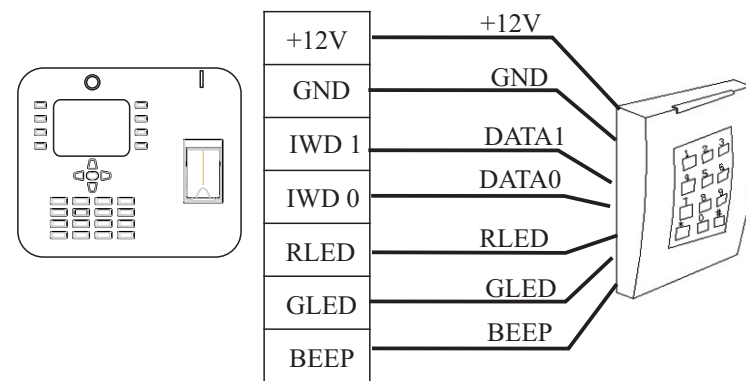
Terminal definition

| Terminal number | PC serial port |
|-----------------|-----------------|
| TXD | Pin2-Txd |
| RXD | Pin3-Rxd |
| GND | Pin5-Gnd |

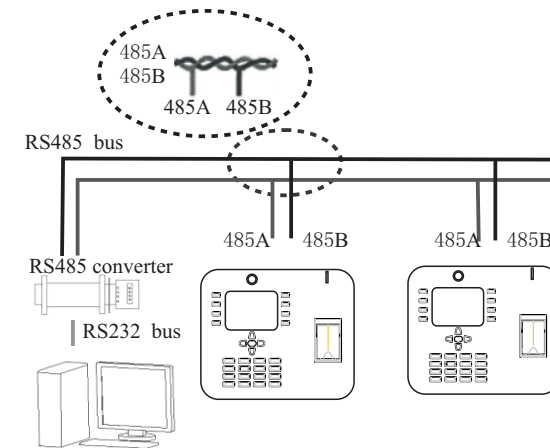
VII. Wiegand input connection

Wiegand 26input interface to connect a Wiegand reader, the device works as a controller to verify the information sent from the wiegand reader.

Reader and access control can be installed both inside and outside the door and control the lock and out & in together.



2、RS485



| Terminal number | PC serial port |
|-----------------|-----------------------------|
| 485+ | RS485 communication+ |
| 485- | RS485 communication- |



Warning: Don't connect wires with power on!

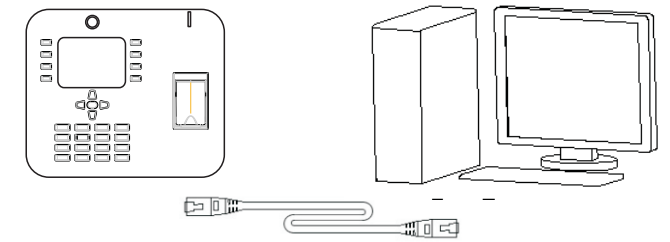
3、TCP/IP

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- |

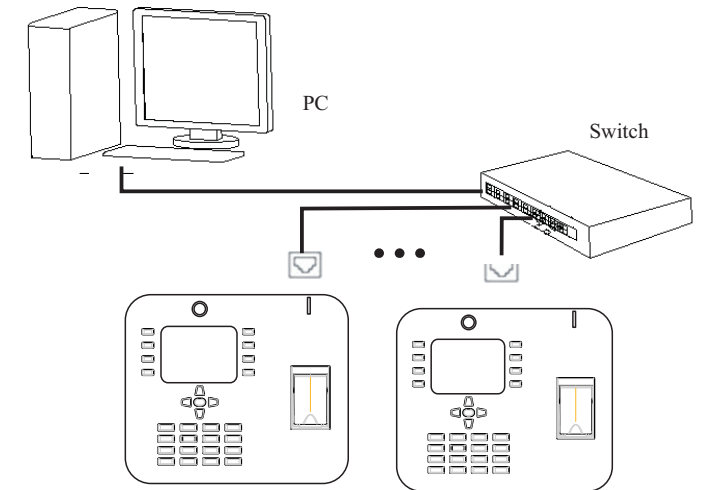
IP: 192.168.1.100
Mask: 255.255.255.0

IP: 192.168.1.124
Mask: 255.255.255.0



2) Lan connection

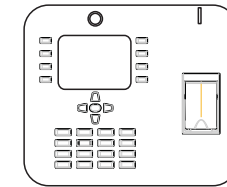
| Cable order | Pin | Color | Pin | Cable order |
|-------------|-----|--------------|-----|-------------|
| TX+ | 1 | white-orange | 1 | TX+ |
| TX- | 2 | orange | 2 | TX- |
| RX+ | 3 | white-green | 3 | RX+ |
| | 4 | blue | 4 | |
| | 5 | white-blue | 5 | |
| RX- | 6 | green | 6 | RX- |
| | 7 | white-brown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



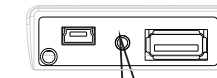
IX. Other function

1) reset

Manual reset



Front



Side

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 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.
- 8) Equipment needed to connect access control software to register users.

Please install the device according to this guide, we are not responsible for such damage caused by any abnormal operation.