Contactless Fingerprint Reader Installation Manual

Package

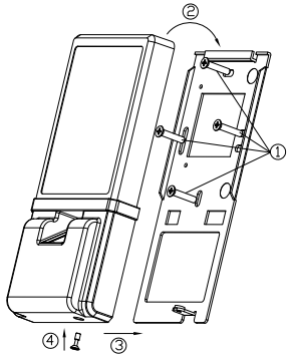
1. Fingerprint Reader x 1
2. Installation Manual x 1
3. Installation CD x 1

Installation:

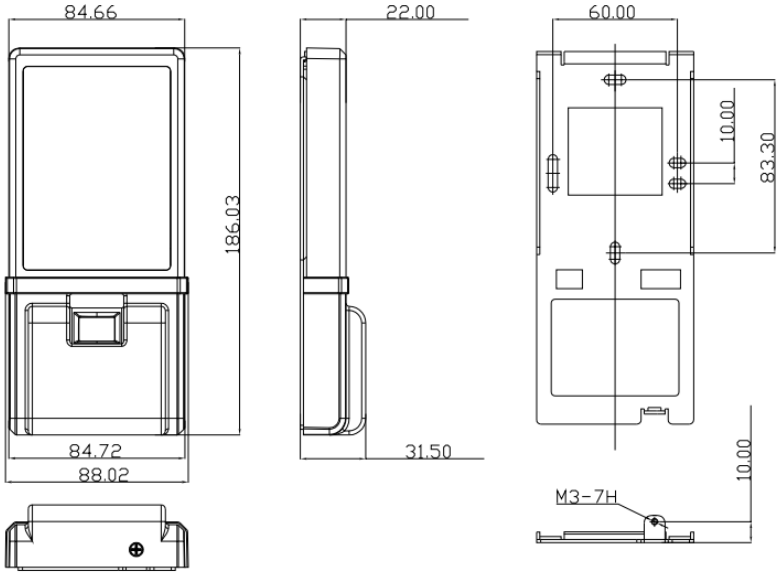
1. Install the metal plate on the wall with two or four screws, which depends on different kinds of gang box being installed①.

2. The cover shall clip on the upper edge ② the push in the bottom part as show in diagram③.

3. Tighten the secure non-dropout screw, which located underneath of the reader to fix the reader and the back plate④, installation is completed.



Physical Dimensions(mm)

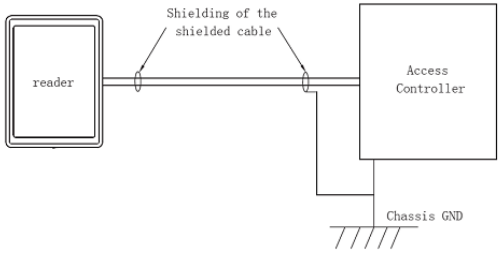


Specification

Input Voltage（At reader end)	DC10V~15V	**Typical Read range**	> 5cm
Operating Current	180mA (Max.)	**Fingerprint Recognition Speed**	1sec/1000 fingerprints
Operating Temperature	-20°C~60 °C	**Maximum Cable Length**	150m

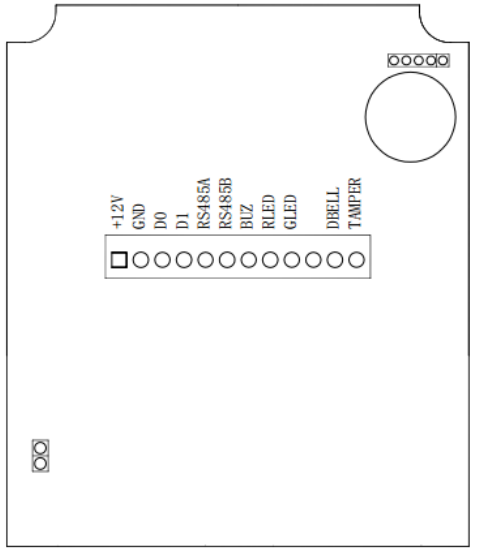
Recommendation

1. Linear DC Power Supply;
2. 22AWG shielded cable; it's required to do "one-point" ground. (As shown in the diagram)



Wiring

Label	Description
+12V	Power Supply to reader
GND	Signal GND
D0	Wiegand Output data, D0
D1	Wiegand Output data, D1
RS485A	RS485A
RS485B	RS485B
BUZ	Buzzer input, active low
RLED	Display control, active low
GLED	Display control, active low
DBELL	Door bell output (open collector, +5Vdc output ≤ 5mA)
TAMPER	Tamper output (open collector, Active low, max 100mA)



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Functions

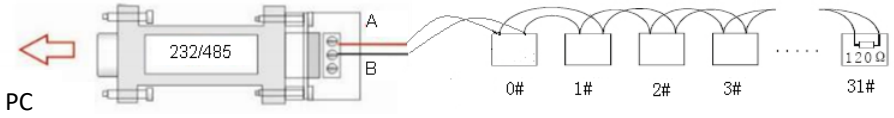
Fingerprint reader can be configured to Network Mode.

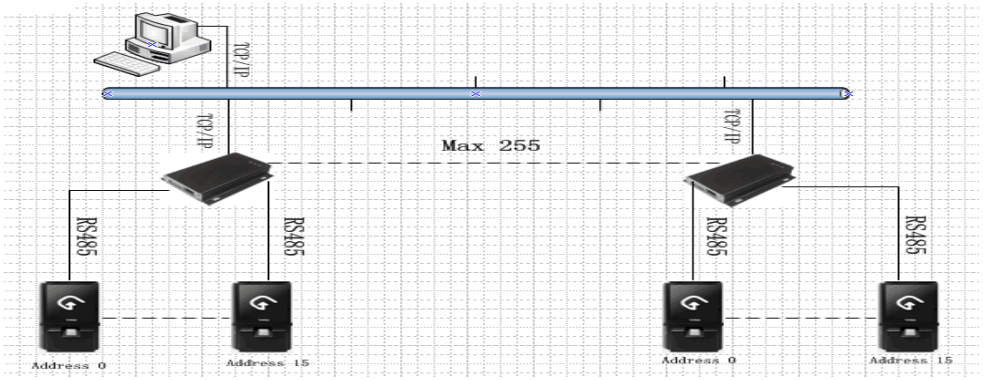
	Network Mode
Fingerprint storage location	Fingerprint Reader
Authentication Mode	1）Card only; 2）Card + Fingerprint 3）Fingerprint only; 4）Card or Fingerprint
Fingerprint enrollment	Use Configuration Card or by software to set the fingerprint reader as an enrollment device. Complete the fingerprint enrollment accordingly.
Fingerprint Storage Capacity	2000 users, 2 fingerprints for each user.
Max. number of readers	32 readers（RS485, address from 0 to 31）

1.Network Mode

Under Network Mode, it is required to connect the fingerprint reader by RS485 connection as shown in the figure below.

Switch one of the fingerprint reader to an enrollment device, and use it with the enrollment software to enroll the fingerprints and store it into the database. All the stored fingerprints could be downloaded to every single finger readers connected.





- Recommend to use 232 to 485 converter with power supply.
- Strongly recommend to use Shielded Twisted paired cable for RS485 connection. The fingerprint devices are to be connected in daisy chain.
- Add terminating 120 Ohm resistance to last fingerprint device in the daisy chain
- In TCP/IP mode, the host computer can connect 256 TCP/CP at most, and each TCP/CP links 16 fingerprint reader.

1.Operations

Oper. Mode	**Event**	**Status**
Read card only	Read card success	Blue backlit flash once, buzzer beeps once, Send Wiegand data to controller
Read card and scan fingerprint	Read card success	Blue backlit flash once, buzzer beeps once
	Waiting for scanning	Scan head red LED always lights up
	Authentication Success	Blue backlit flash once, buzzer beeps once, Send Wiegand to controller
	Authentication Fail	Buzzer beeps twice
Scan fingerprint only	Waiting for scanning	Scan head red LED always lights up
	Authentication Success	Blue backlit flash once, buzzer beeps once, Send Wiegand data to controller
	Authentication Fail	Buzzer beeps twice
Read Card or Scan fingerprint	Refer to read card only and scan fingerprint only	

Troubleshooting

Trouble List	**Solution**
No response when power up	Power off，check if wiring is correct（Refer to “Wiring”） Check if input voltage is correct（Refer to ”Specification”）
Auto Reboot	Check if input voltage is correct（Refer to ”Specification”）
Card number not correct	Check if card format of reader and controller are consistent. Test by a valid card with assigned right. Check if D0 and D1 is correctly connected.
No card information output	Check if D0 and D1 is correctly connected（Refer to “Wiring”） Check if input voltage is correct（Refer to ”Specification”）
No sound from Buzzer	Check if buzzer’s wire is correctly connected（Refer to “Wiring”）
Backlight Not Correct	Check if LED input is correct（Refer to “Wiring”） Use default reset card to reset reader