Installation Guide & User Manual

FR1300

Version: 1.0.1

Date: November, 2014
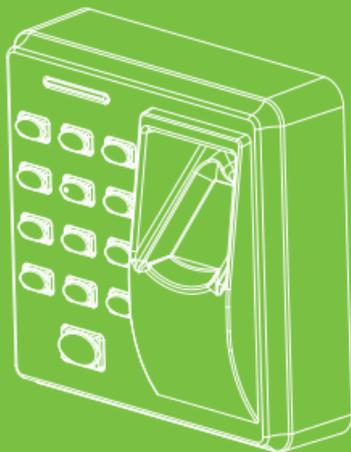
Contents

1. Device Installation
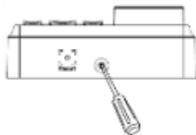
(1) Remove the screw on the bottom of device.
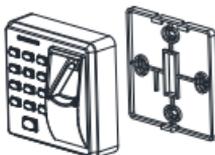
(2) Take away the back cover.

(3) Fix the back cover on the wall according to the mounting paper.
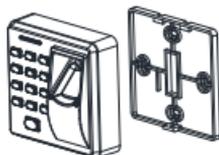
(4) Fix the device to the back cover.

(5) Fix the screw.

2. Work Principle

(1) Connection with Control Panel
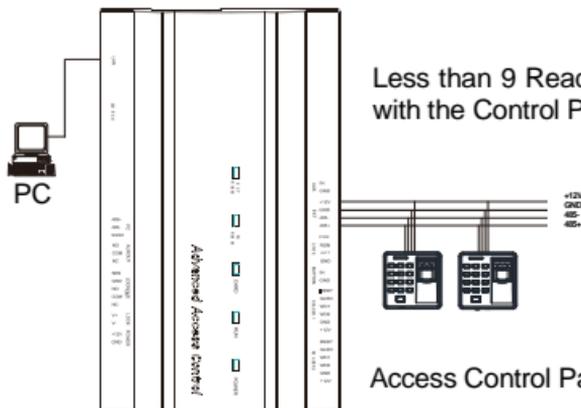
Less than 9 Readers can be connected with the Control Panel at present.

PC

Access Control Panel

(2) Connection with Standalone Access Control

FR1300 Terminal

| +12V |
| GND |
| 485+ |
| 485- |
| GND |
| BELL+ |
| BELL- |

| BEEP |
| GLED |
| RLED |
| IND 0 |
| IND 1 |
| GND |
| +12V |
| RXD |
| TXD |
| USB- |
| USB+ |

| WD 0 |
| WD 1 |
| GND |
| RXD |
| TXD |
| GND |
| 485A(+) |
| 485B(-) |

Standalone Access Control
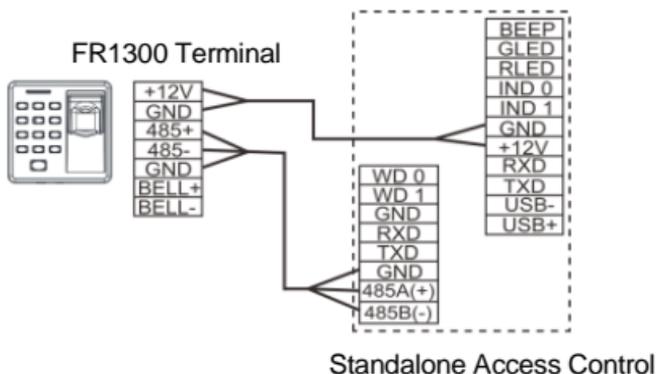
(3) The terminal definition table of Reader

| No.	Terminal Name	Function
1	12V	12V Power Input
2	GND	Power GND
3	485+	485 Communication+
4	485-	485 Communication-
5	GND	Signal GND
6	BELL+	Door-Bell+
7	BELL-	Door-Bell-

(1) Reset Switch

If the device does not work properly because of misoperation or other abnormalities, you can use 'Reset' function.

Operation: Remove the black rubber cap, then stick the Reset button hole with a sharp tool (diameter is less than 2mm).

Reset Switch

Bottom View
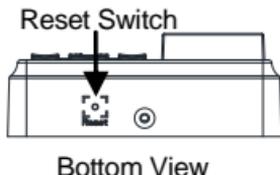
(2) Dip Switch Setting

It is adopted binary coding and little endian. Number 1~4 switches are used to set the 485 address number (device number). The address numbers setting by place these 4 switches are shown as the table below.

Address	Switch Setting	Address	Switch Setting
1		5	
2		6	
3		7	
4		8	

✍ **Note**:

1. Number 5 switch is idle.

2. The sixth switch is used to set the terminal resistance in RS485 communication: When the sixth dip switch is set in **ON** state, it means a terminal resistance of 120Ω is between 485+ and 485- in parallel.

(3) Wiring Terminals

Back View   Wiring Terminals
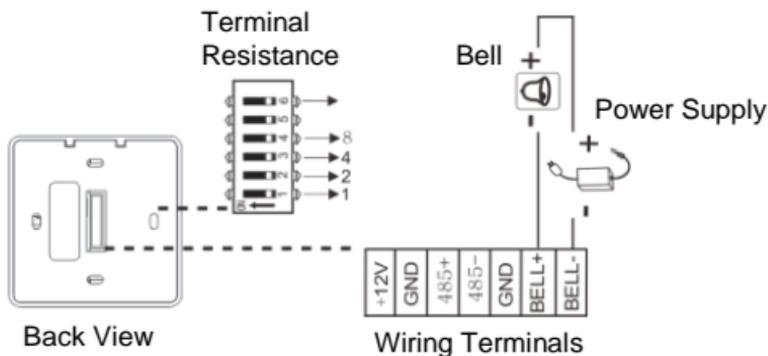
✍ **Note**: When connecting With Standalone Access Control, please set the dial code address "1" to "ON" position.

∴ **4. Verify Mode**

After the reader is powered on independently, the reader can not identify the fingerprint, password or card. In other words, the reader can not receive data or send data without connectiong with Control Panel or Standalone Access Control.

Operation Tips:

Operation	Description
Verify successfully	The indicator turns green and the buzzer makes a long beep.
Verify failed	The indicator turns red and the buzzer makes two short beeps.
Verify state	The indicator turns green once every two seconds and the buzzer makes no beep.
Non-privileged	The indicator turns red and the buzzer makes three short beeps.
Press [*] to input password	The indicator turns off and the buzzer makes a long beep.
A verify mode is finished and then into next verification	The indicator turns green three times (when a verify mode is finished, the indicator turns green three times，and then into next verification when in combined verification.
The inputted user ID (or password) is valid	The indicator turns off and the buzzer makes a long beep.
User ID (or password) is inputted and press [*] to exit verification	The indicator turns red and the buzzer makes two short beeps.
Incorret verify mode	The indicator turns red, the buzzer makes two short beeps, and then makes a long beep.
Data transmission abnormally	The indicator turns red, the buzzer makes a short beep, and then makes a long beep.
Communication failed	The indicator turns red, the buzzer makes four short beeps.

Validation steps:

1. When the reader connected with the access control panel, it is in verification state.
2. Start user verification. The reader supports fifteen Verify modes: only card, only fingerprint, card and fingerprint, card or fingerprint and so on. Verify modes are as the follows:

Verify modes	Description	
Card, Fingerprint and Password	First way	Punch card for verification.
	Second way	Press finger for verification.
	Third way	Input password for verification.
	Fourth way	Press [*], and then input duress password, press [#] to confirm at last.
Only Fingerprint	Press finger for verification only.	
Only User ID	Input user ID for verification only.	
Only Password	First way	Input password for verification only.
	Second way	Press [*], and then input duress password, press [#] to confirm at last.
Only Card	First way	Punch card for verification.
	Second way	Press [*], input duress password, and then press [#] to confirm, punch card at last.
Fingerprint or Password	First way	Press finger for verification.
	Second way	Input password for verification.
	Third way	Press [*], and then input duress password, press [#] to confirm at last.

	First way	Punch card for verification.
Card or Fingerprint	Second way	Press finger for verification.
	Third way	Press [*], input duress password, and then press [#] to confirm, punch card at last.
	First way	Punch card for verification.
Card or Password	Second way	Input password for verification.
	Third way	Press [*], and then input duress password, press [#] to confirm at last.
User ID and Fingerprint	Input user ID and press finger for verification, and there is no order.	
Password and Fingerprint	Input password and press finger for verification, and there is no order.	
Card and Fingerprint	Punch card and press finger for verification, and there is no order.	
Card and Password	First way	Punch card and input password for verification, and there is no order.
	Second way	Press [*], input duress password, and then press [#] to confirm, punch card at last.
Card, Fingerprint and Password	Punch card, press finger and input password for verification, and there is no order.	
User ID, Password and Fingerprint	First way	Input user ID, and then input password, press finger for verification at last.
	Second way	Press finger, and then input password, press user ID for verification at last.

Fingerprint, Card or User ID	First way	Press finger and punch card for verification, and there is no order.
	Second way	Press finger and input user ID for verification, and there is no order.

✍ Note:

1. No matter which verify mode is setted, emergency password is effective on Control Panel. The emergency password is alse effective on the reader when connecting with Standalone Access Control which supports emergency password.
2. When connecting with Control Panel or Standalone Access Control, the firmware on device decides verify modes.
3. For how to set verify modes, please read the software user manual.

⁝. 5. List of Parameters

Item	Note
Power Supply	DC 12V/3A
Fingerprint Collecter	IR fingerprint reader
Key Type	Sensitive switch
Verify Mode	Fifteen verify modes
Communication	RS485
Buzzer	Prompt "di-di"
Indicator	Two colour: red and green

6. Cautions

◆ Connect GND cable firstly, and power cable is connected after all the other wiring.

◆ It is recommend to use the DC 3A/12V power supply.

◆ Keep the exposed part of wire is less than 5mm to avoid unexpected connection, and result in machinery damage.

◆ Recommend operating temperature range: 0°C ~ 45°C.

◆ It is recommend that the distance of 485 communication is less than 200 meters when power supply independently; It is recommend that the distance between power supply and decvice is less than 100 meters, and connecting less than 5 readers when sharing power with Control Panel.