

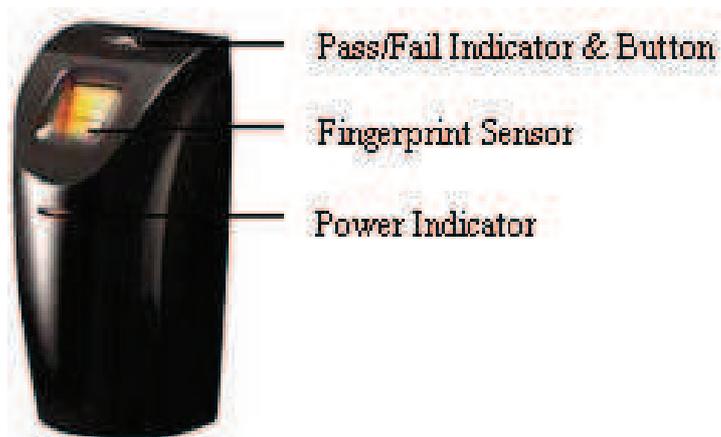
# Fingerprint Reader——F10

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User Guide



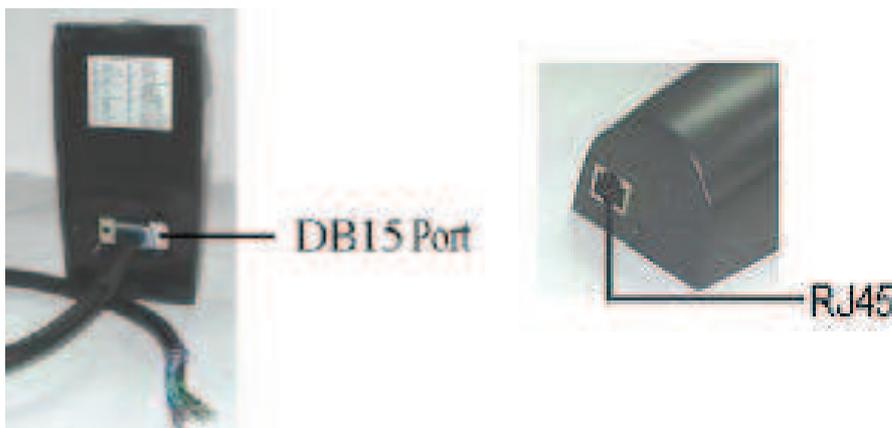
## F10 description



**Pass/Fail Indicator & Button:** The indicator glow green which the flash interval is 1sec, in normal ready working state, and constantly glow green for 3 sec as the identification is positive, if the authentication fail it will constantly glow red light for 3 sec. When the sliding ID card or Mifare Card to be verified is valid, the indicator displays rapidly green flash it interval time is 1 sec., you can press the button to start the reader while it in normal working state, and wait for 3 sec., switch the reader into idle state.

**Fingerprint Sensor:** Enroll or match fingerprint

**Power Indicator:** It constantly glow green in the normal supply or idle state.

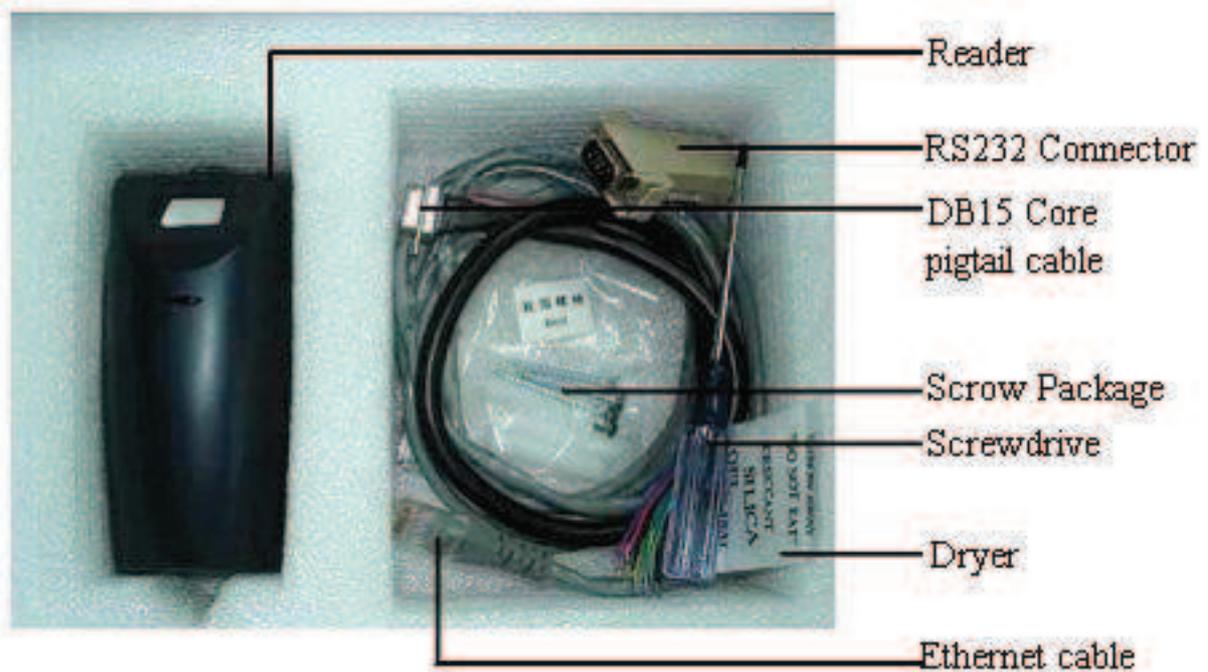


**DB15 Port,** mainly apply to connect the access controller and build network for communication

**RJ45 Prot,** which mainly apply to adjust while it connect to PC

# F10 Package

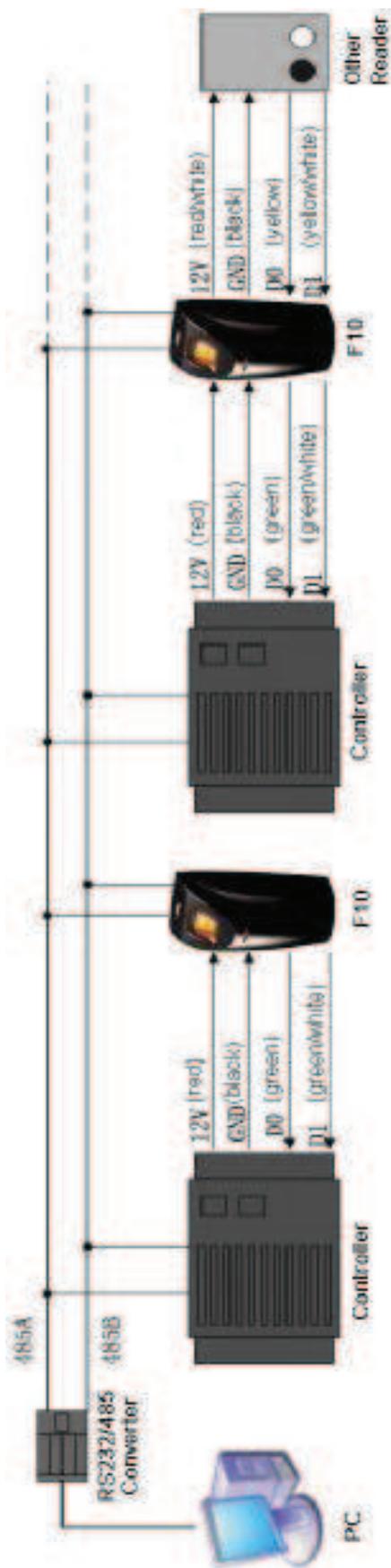
Checklist on unpackaged:



Product	Picture	Amount	Purpose
F10 Reader		1unit	
Fast Screw		2 Screw	Fix back plate cover
		4 Screw	Fix mounting plate

Pin-in-hex Screwdriver		1	Use for Turning screw between reader and mounting plate
15Core pigtail cable		1 piece	DB15 pin
Ethernet Comm. cable		1 piece	TCP/IP connect assistant comm. Prot
RS232 comm. connector		1 piece	RS232 Adjust comm. Prot .
Manual etc		1 set of	Contain Manuel and CD with software

# Installation



standard connection illustration

## **Connect to the access controller**

As a fingerprint reader, F10 isn't able to work alone, only after being linked to the access controller, it offers a fingerprint identification front-end for the system, providing the controller with a standard or self-defined Wiegand signal, such as other Proxy Card Reader. Adopt the standard signal (D0,D1,GND) connection method. (see standard connection illustration)

**Notice** : Whatever the power of F10 is supplied by the access controller, or not, the two equipment's GND must be in common connection, to ensure the Wiegand signal is steady.

## **Create Network Configuration**

The only way to create a network is to adopt RS 485 for F10, (see standard connection illustration), we recommend to use the standard RVVP2 × 1.0 shield twisted-pair and RS-232/RS-485 converter which has its own power supply, if there are more than 32 units in one network, please utilize RS 485 HUB to connect.

## **F10 power**

F10 is powered by 12 VDC, with an idle current of 50mA, and the working current is about 400mA, as well as F10 offers a 12VDC/300mA power output which applies to meet the external reader supply (see standard connection illustration)

**Notice:** F10 is powered not only by the access controller, but also can depend on external power

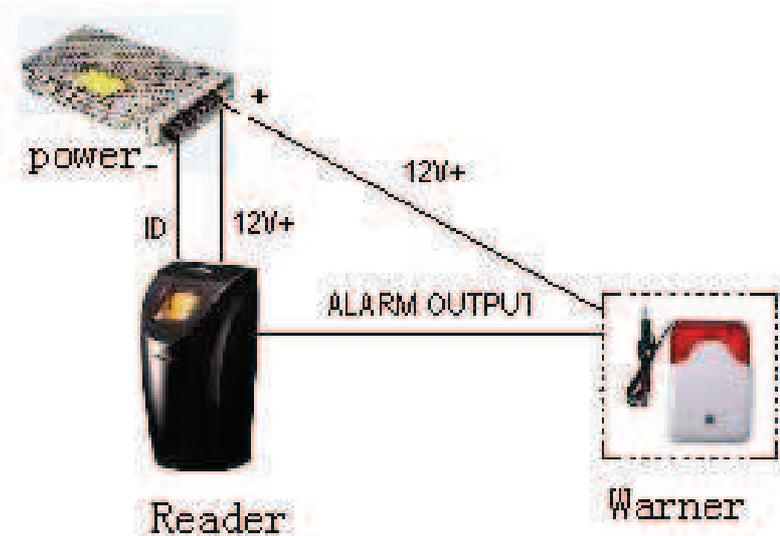
## **External Reader**

F10 utilizes the function of Wiegand input to support an external reader, at the same time F10 connects an external reader via standard way, and the pins of the reader (D0,D1,12V) according to the pins of F10 (Wiegand In D0, Wiegand In D1, GND, 12VOUT) one by one to connect (see standard connection illustration)

**Special Notice:** when there is a Mifare module in the F10, the Wiegand input is invalid, if there is no external reader; don't need to do this connection.

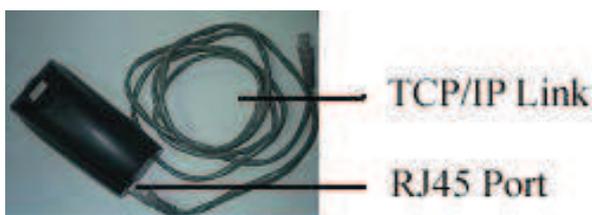
## **Connect to Alarm**

F10 can connect a signal (alarm) to system, which mainly use to remind that the F10 has been dismantled ,no matter what condition, when it is removed F10 will trigger alarm output (brown wire) in the power on state, in normal condition, the wire doesn't send any signal., F10 will link GND through the wire if the system be trigger, follow this principle we can achieve the remind function of dismantled alarm, connect the cathode of alarm power to alarm output( brown wire), the positive of alarm power link to the positive of F10 power ( see right Figure), F10 alarm output only support 12VDC alarm.



**Notice:** There is a button to prevent to dismantle in the bottom of F10, realize function is to utilize the cylinder on the mounting plate to keep press the button

### Assistant Communication Port Hookup



Connection Illustration

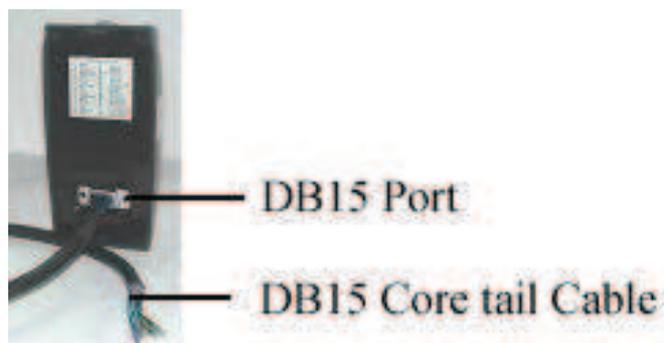
RJ45 port mainly is provided for PC adjusting, this port is not used to create equipment network.

F10 offer the TCP/IP and RS232 connection way (See up Figure)

**Special Notice:** Because F10 assistant communication port is on the bottom of equipment, it isn't necessary to remove the unit for creating connection , so in normal used, no matter how it must setup communication password( the

communication pass word of F10 is setup by self in the software ) .

## DB15 Hookup



DB15 Illustration

F10 are connected to the access controller, the external reader, the power supply and to create RS485 network through the pig-tail wire bundle that protrudes from the rear of the unit (See connection illustration).

**Notice:** The all black wire in the DB 15 bundle is GND, which does not differentiate type. The RS232 may be used in the future. This communications is invalids at exit factory

**DB15 Connector** is a 15 core pig-tail cable, which defined by color, like as the follow chart

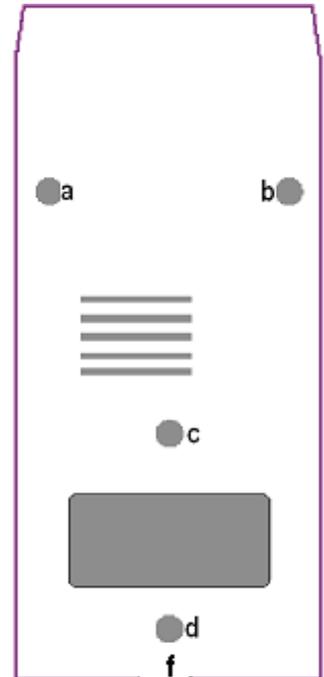
Pin	Colour	Signal	Connect to
1	Green	Wiegand Out Data 0	D0 of the access controller
2	Yellow	Wiegand In Data 0	D0 of the external reader
3	Green/white	Wiegand Out Data 1	D1 of the access controller
4	Yellow/white	Wiegand In Data 1	D1 of the external reader
5	Brown	Alarm Output	Alarm output
6	Black	Wiegand GND	Wiegand GND
7	Blue/white	RS-485 (+)	RS-485 (+)
8	Blue	RS-485 (-)	RS-485 (-)
9	Violet	RS-232 TX	RS-232 Rx
10	Violet/white	RS-232 Rx	RS-232 TX
11	Black	Signal GND	Signal GND

12	Black	Power GND	12V power input (GND)
13	Red	Power 12V IN	12V power input (positive)
14	Red /white	12V OUT	12V Output (positive)
15	Black	GND	12V Output (GND)

## Installation Notice Item

This product is designed for indoor installation, if it has to be installed it outdoor, please place the equipment in proper surroundings, you must beware of not exposing it to water or harsh condition, we remind to cover up the cable into the wall, if it isn't capable to do, you must obtain the user's permission before to install.

Locate a comfortable height for finger place, firstly use the screwdriver along with the unit to turn off the screw in the bottom of the unit, and take away mounting-plate, there are four fix-hole in the mounting-plate (**see right illustration a, b, c, d**),



keep secure it on the wall using supplied screw, and fix the F10 reader body on the mounting-plate. Please strictly complied with the wire definition and color, after finish the hookup, cut the expose part of the unwanted wire, especially red/white wire, and use the insulating tape to wrap it, because the red/white wire provide a output 12VDC voltage, when there is no external reader, No mater what, you must cut this wire and wrap it to keep away short circuit, **You must ensure that hookup is correct follow the above table before power up and use.**

## Version, Model and Corresponding Name

Model	Version	Name	Name
F10	Standard	Standard fingerprint reader	Fingerprint capacity 600,support 1:1 or 1:N
F10-ID600	Build-in ID module	Build-in ID module fingerprint reader	Build-in ID module , Fingerprint capacity 600,support 1:1 or 1:N
F10-ID5000		Build-in ID module fingerprint reader	Build-in ID module 内 Fingerprint capacity 5000, only support 1:1.
F10-ID8000		Build-in ID module fingerprint reader	Fingerprint capacity 600,support 1:1 or 1:N
F10-SMART	Build-in Mifare module	Build-in IC module fingerprint reader	Build-in Mifare module, Fingerprint capacity immensity 6

The shape or parameter of the above products are subject to change without notice, please read this user guide carefully before mount and use.