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Face Recognition Terminal F1 Manual

Shenzhen Rakinda IoT Technology Co., Ltd.

Content

Face Recognition Terminal F1

1. Product Overview

1.1 Product Introduction

F1 is a convenient and safe industrial-grade visual face recognition terminal.based on the latest face recognition algorithm of Baidu. F1 face recognition verification terminal can realize personnel identity verification, personnel entry and exit management and attendance management.it is widely used in office buildings, parks, school stations, enterprises, governments and scenic exhibition halls and other traffic scenes, which is conducive to the realization of intelligent security control.the system supports binocular infrared live body detection with the function of temperature measuring. It is a complete new generation of intelligent identity verification methods.

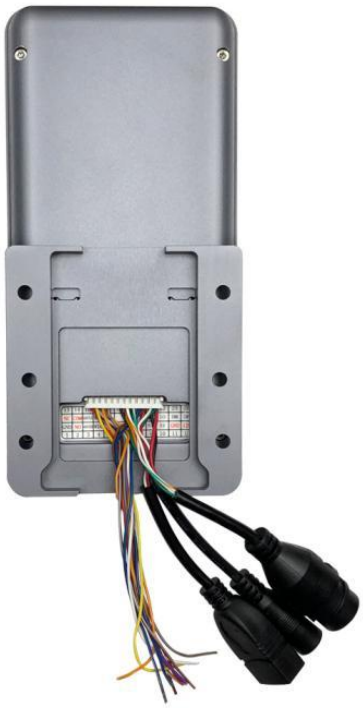
1.2 Product Features

- Recognition is fast and accurate: face recognition can be completed in 300 milliseconds, the recognition accuracy is higher than 99%, and it supports 0.5m~1.5m recognition;
- The capacity of the recognition library is large: support the local staff library of 20,000 people;
- Support local storage of historical records of 50,000 people;
- Powerful detection function: real-time detection and tracking of human faces, accurate detection can be carried out in situations such as side faces, half occlusion, and blur;
- Infrared live detection: effective defense against non-living attacks such as 3D printing, electronic screens, videos, pictures, masks, and headgear;
- Interface standardization: support the Wiegand protocol of the access control industry, and support the docking of third-party business systems;
- External access control card reader;
- Support RS-485 serial port, Wiegand 26/34 output interface;

- Support the deployment method of public network and local area network;
- Support HTTP interface docking;
- Support screen display content configuration;
- Support recognition distance configuration;
- Rich management functions: personnel management, visitor management, equipment management, employee attendance, employee batch storage, personnel group management, access policy management, access record inquiry, data report export, remote upgrade and other functions.

2. Equipment Hardware

2.1 Appearance Pictures



2.2 Product Parameter

Face Recognition Terminal		
Model		F1-Wall-Mounted
Features	Main functions	Face recognition, Access control
	Use environment	Indoor

	Color	Cold Gray	
Camera	Type	**RGB**	**IR**
	Resolution	2 million pixels	2 million pixels
	Aperture	F2.0±5%	F2.0±5%
	Focal length	4.3mm±5%	4.3mm±5%
	Wide dynamic range	N/A	N/A
	Vertical wide angle	40°	40°
	Horizontal wide angle	65°	65°
	Infrared fill light	Support	Support
	White fill light	Support	Support
Core parameter	Android	Android 9.0	
	CPU	Chip:Amlogic S905D3 ; 4 cores，1.6GHzx	
	Storage	RAM 2G，ROM 8G	
Man-machine Interactive	Display	5 inches,Full viewing angle, 170°IPS LCD screen, Resolution 720*1280	
	Touch Screen	Support	
	Human body sensing module	N/A	
	Body Temperature Measurement	N/A	
Communication method	Networks	100Mbps	
	WIFI	Comply with IEEE802.11b/g/n standard (2.4G)	
Reading Mode	Face	Support	
	IC card	Support	
	ID Card	Not supported by default, external is supported(optional)	
Input/Output port	RJ45 Port	Support 100Mbps	
	USB Port	USB 2.0	
Power	Adaptor	DC12V-2A	
Environmental requirements	Working temperature	-20 ℃～60 ℃	
	Working humidity	20% to 90% (under non-condensing water dripping state)	
	Static protection level	IEC61000-4-2,LEVEL3	
Installation	Install Method	Wall-mounted kit	

2.3 Device Function Introduction

External Interface Hardware Wiring Instructions		
Type	Interfaces	Instructions
OTG	USB 2.0	Equipment upgrade and debugging and use of external equipment (ADB)
Network port	RJ45	Support 100Mbps
Relay	NC COM NO	The relay is normally closed/common/normally open. Generally, the door lock power supply is positively connected to the COM terminal, and then according to the type of door lock, the relay power supply is negatively connected to the NO port or the NC port. Note: the

		maximum relay contact load is 2A
Door sensor	MSG GND	GPIO1 detects the switch state of the door, input
IO Port	IO GND	GPIO detection control signal, input
Upgrade	Upgrade GND	Support motherboard upgrade
Serial Port	D-(RS485CB) D+(RS485CA)	Support RS485
Wiegand	WG_D1 WG_D0 GND	Wiegand output interface, support 26bit/34bit protocol
Power Input	GND 12V+	Power input：12V DC

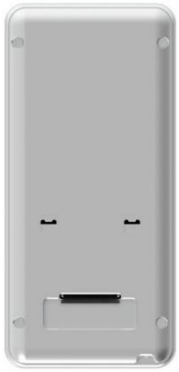
Wall-mounted Version Wiring Instructions:

13	14	15	16	17	18	19	20	21	22	23	24
NC	COM	485A	WGA1	U-D-	U-D+	TX+	RX+	MSG	IN IO	OTG-D-	OTG-D+
GND	NO	485B	WGA0	U-5V	GND	TX-	RX-	Upgrade	OTG-5V	GND	12V-IN
1	2	3	4	5	6	7	8	9	10	11	12

3. Installation Instructions

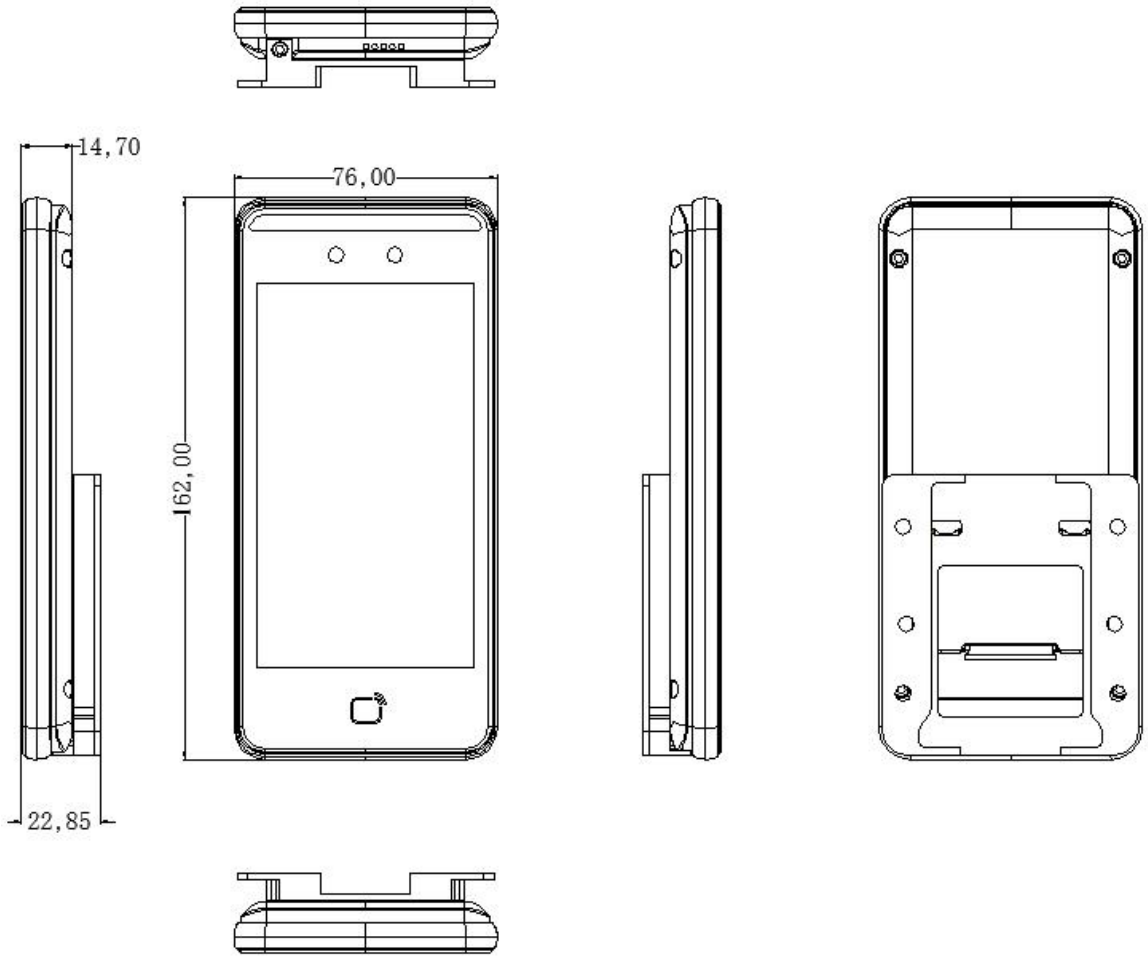
F1 Installation Method: Wall-mounted type

Wall-mounted Effect：



3.1 Wall-mounted Detailed Installation Instructions

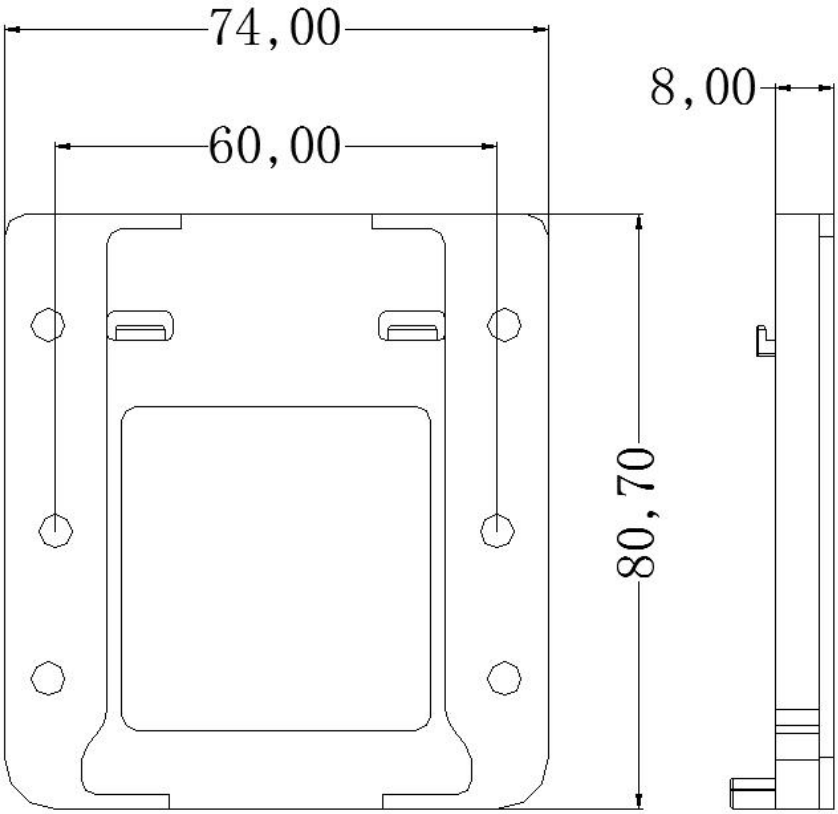
The shape and size of the wall-mounted version（162mm*76mm*14.7mm）



The deice package contains a wall mount bracket, plastic expansion screws, and

tools.

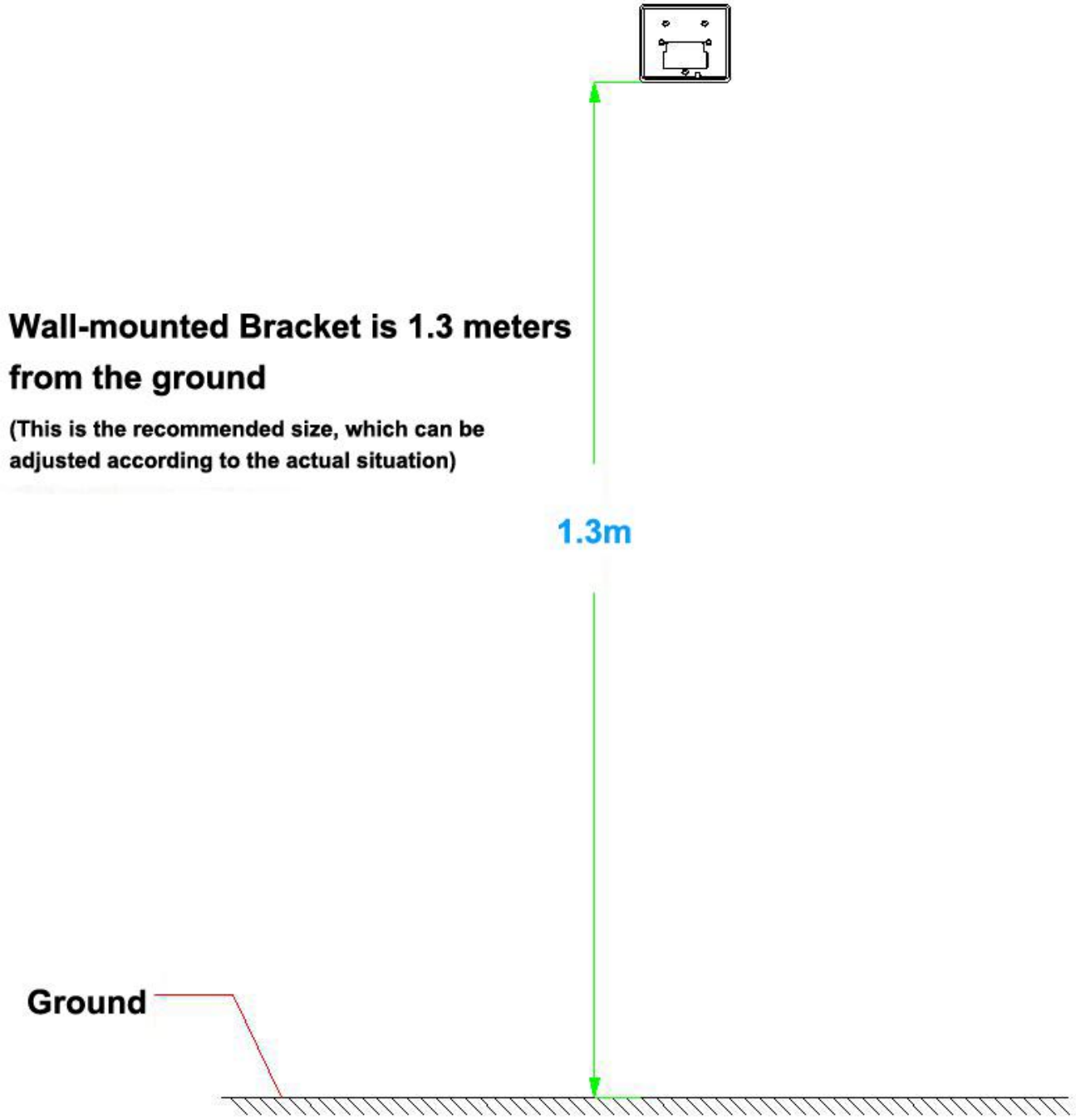
The following pic shows the size of the wall mount bracket.



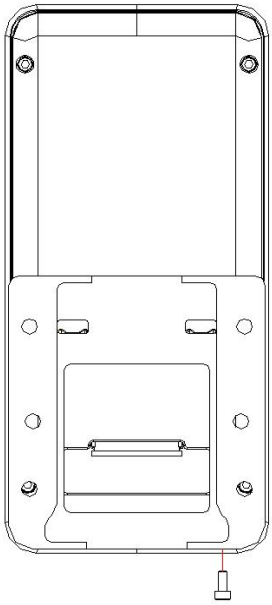
The wall mounted bracket supports standard 86 boxes of installation slots, and 86 boxes of machine screws are included in the package, which is convenient for construction and installation.

Installation Steps:

Step 1: Wall drilling



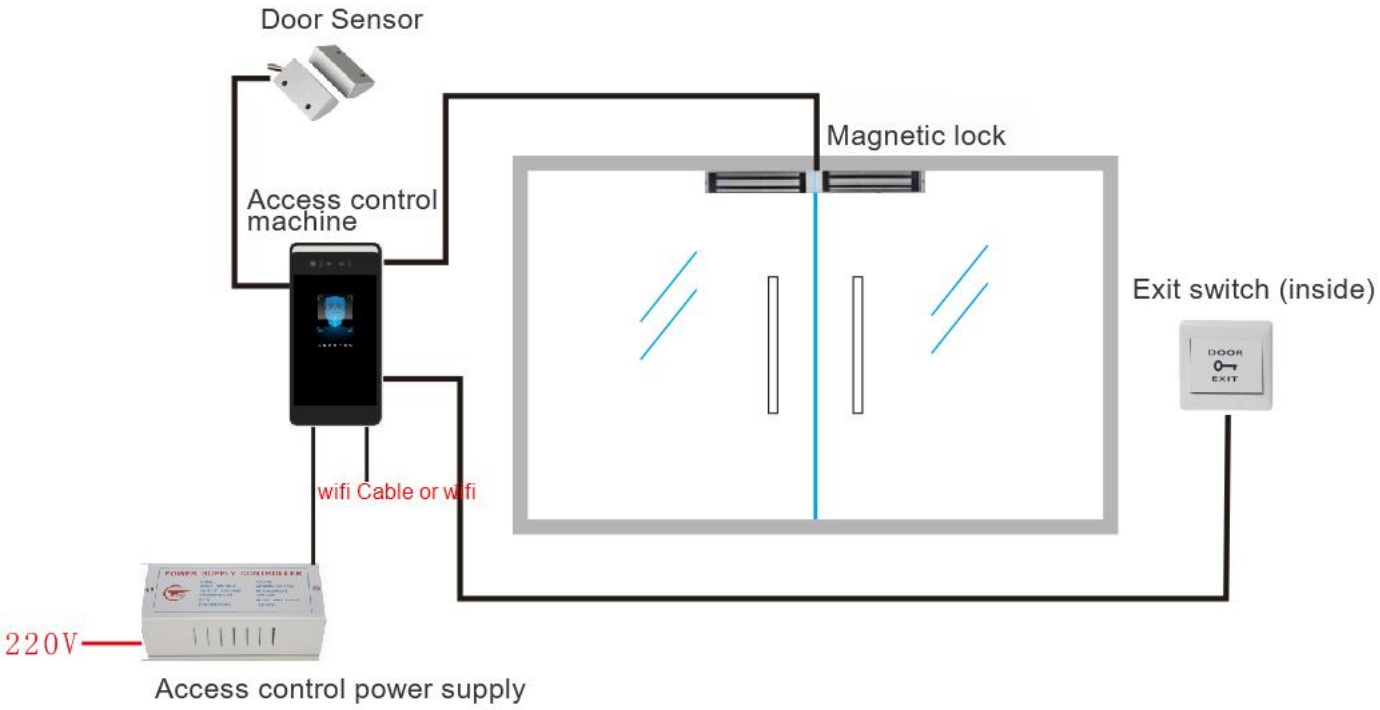
Step 2: Drive the screw expansion plug
Step 3: Install the wall panel
Step 4: After wiring, put the main machine on the bracket.



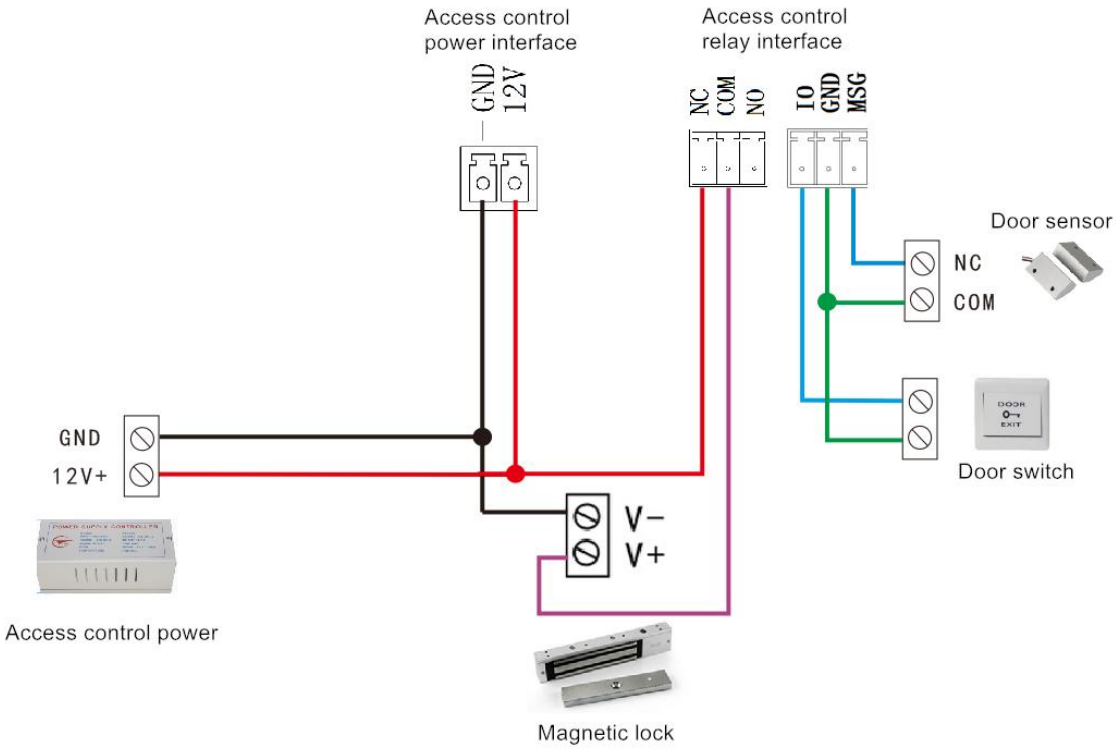
Step 5: Lock the anti-theft screw
A countersunk head screw M3*8 can be used to fix the terminal, and M3*8 is supplied in the package.
(Note: If the installation environment is glass plate or smooth stone wall surface which is inconvenient for opening holes, additional accessories shall be purchased (glass panel bracket))

3.4 Field magnetic door installation reference

3.4.1 Installation diagram of magnetic door system



3.4.2 Wiring diagram of magnetic door system



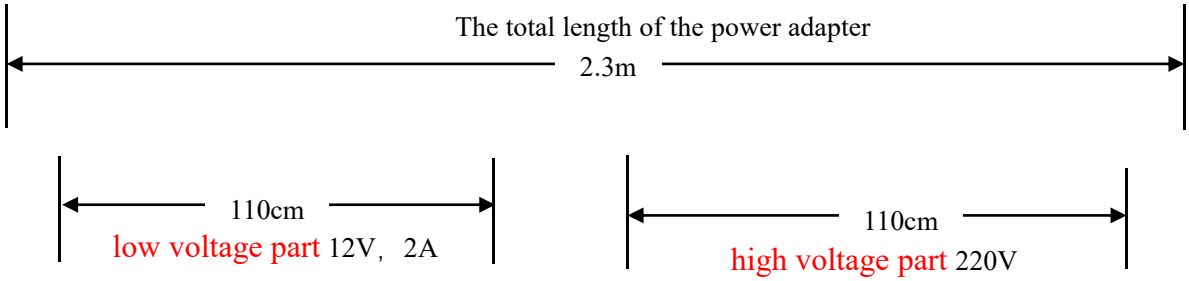
3.5 Installation Precautions

(1) This equipment has a built-in relay device. The maximum load voltage of the

magnetic lock (or other access control unit) cannot exceed DC12V and the maximum current cannot exceed 2A. If it exceeds, the relay will be broken down and the door cannot be opened.

(2) In actual wiring, if the 12V power supply line of the host does not use a "dedicated power extension cable" and the distance is longer (more than 10 meters), resulting in excessive cable equivalent resistance, it is easy to cause insufficient equipment voltage (≤11V) and host repetition restart or crash.

(3) The device comes with a power adapter as shown in the figure, with a total length of 2.3 meters, of which the power cord (low voltage part) is 110cm and the power cord (high voltage part) is 110cm.



- The extension of the power cord (low voltage part) shall not exceed 10 meters, otherwise it will lead to insufficient power supply at the host terminal of the device, causing abnormal phenomena such as repeated restarts and crashes. If the power source is far away from the device, you can extend the power cord (high voltage part).
- If you use other adapters, such as 9V, 1A, insufficient voltage and low current will cause the device to restart repeatedly.
- The cable used should not be too thin (such as a thin network cable). It is recommended to connect multiple strands of the same cable in parallel or use a cable with a thick copper core to ensure that the voltage is greater than 11V.

Note: If you use a network cable, use 4 strands of network cable as the positive electrode and 4 strands as the negative electrode for the extension cable.

- If you are not sure how to extend it, please contact the supplier to replace the "dedicated power extension cord".

4. Hardware Warranty Service Description

After you purchase, read the warranty service manual carefully.

1.The free warranty time is 1year if because of quality problem

2.Product breakdown caused by the following conditions are not covered by the warranty:

※ Improper use environment or conditions, such as power failure, ambient temperature, humidity, lightning strikes, etc. cause product failure.

※ The product malfunctions due to accidents, negligence, disasters, improper or misoperation, network attacks, etc.

※ Failure or damage caused by installation, repair, modification or disassembly by maintenance personnel who are not authorized by the company.

※ The product exceeds the warranty period.

