Long Range Bluetooth Card Reader Operation Manual

Products Description:

This Bluetooth Reader is based on the most advanced Bluetooth technology in the world combined，with the characteristics of optical excitation and precise positioning, and developing-distance card reading device for parking lots application only.

Product Specifications

| Physical characteristics	Size	200mmx230mmx32mm
	Weight	4KG
Environmental Parameters	Operating Temperature	-40~+70℃
	Storage Temperature	-40~+85℃
	Working Humidity	5%~90%
	Waterproof and dustproof Level	IP65
	Working voltage	9-24V (9-18V Type)
	Working current	<500mA(max)
	Receiving sensitivity	-110dbm
	Serial COMM baud rate	9600bps
	COMM Port	RS485,Wigand26/wiegand34
	Wireless Port	SMA Interface impedance 50 Europe
	Working Frequency	ISM Frequency band 300-450MHz
	Recognition speed	<0.3s/80km/h(max)
	Card Reading Interval	<1s
	Card reading distance	0-20m
	Recognition angle	<60° (Horizontal)
	Recognition accuracy	100%
	Modulation	ASK
	Output IO	1-way card reading relay output interface
	Input IO	1 input trigger interface
Device Properties	Device ID	1 byte
	case	plastic
	Indicator	Red: power light Blue: signal light/card light
	Installation way	Vertical installation

Product working principle

The car equipped with the remote card reader passes through the infrared scanning area of the card reader(when the scanning angle is 45 degrees), and the sleeping long distance card receives the infrared activation signal of the card reader and is awakened to work. The radio frequency electromagnetic wave is used to transmit the information to the card reader, and the card reader verifies the received information, performs decoding and verification, and the data is matched and uploaded to the upper computer.
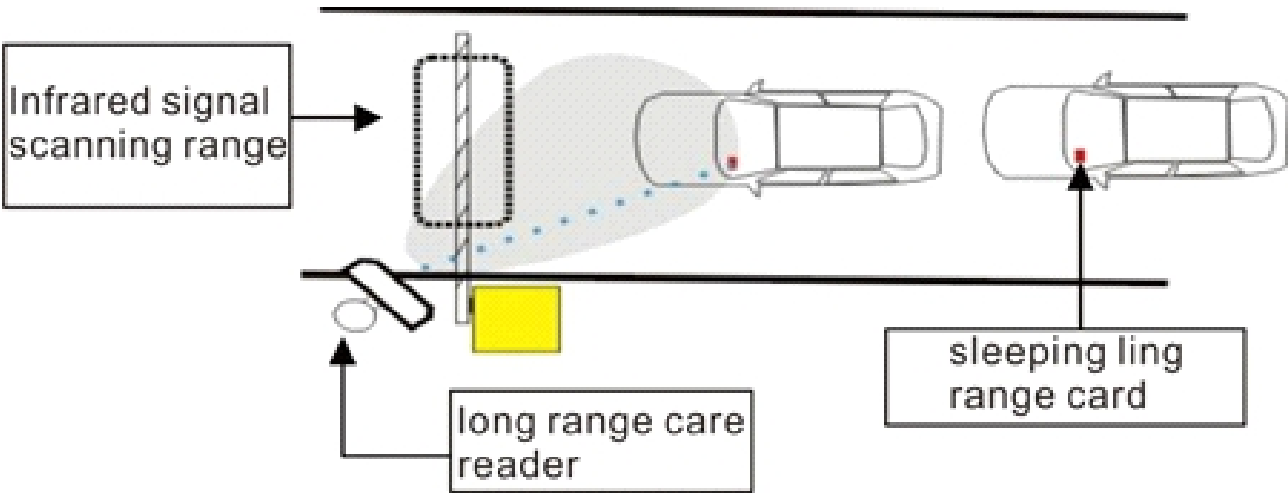
Function setting

Product internal structure
The circuit board functions and wiring ports are as follows:
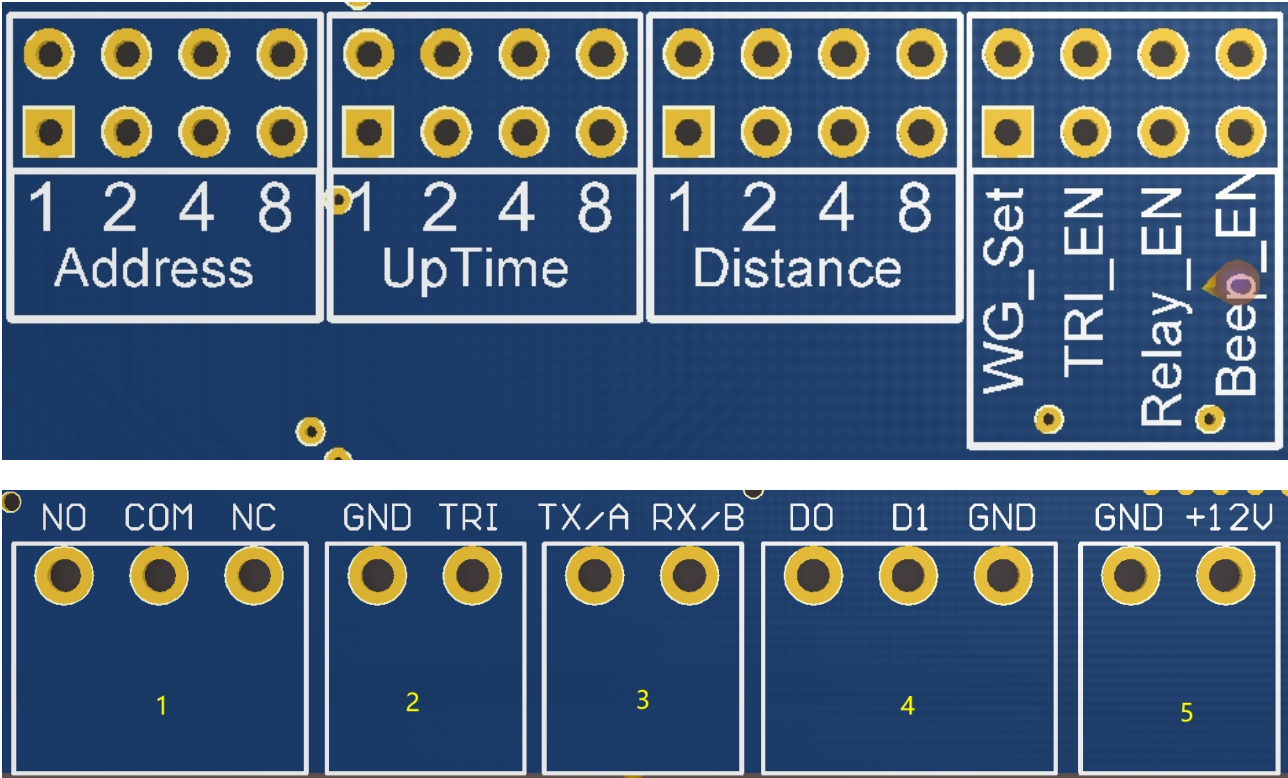
External data interface:

①:Relay output: NC is normally closed, COM is common, NO is normally open, card reading action(default 1 second).

②:Ground-sensing trigger input: TRI-side active low, connected to the vehicle detector dry node normally open

③:Communication interface:RS485 baud rate 9600

④:Wiegand interface: Wiegand 26/34 options.

⑤:Voltage input port:DC9-18V input.

Function setting description

Address: reader address.

UpTime: when the reader reading the tag, upload interval time.

Distance: the reader infrared signal trigger the sleeping tag level.

1	2	4	8	Address	UpTime(s)	Distance
Off*	off	off	off	0	0	Auto***
On**	off	off	off	1	1s	1
off	on	off	off	2	2s	2
on	on	off	off	3	3s	3
off	off	on	off	4	4s	4
on	off	on	off	5	5s	5
off	on	on	off	6	6s	6
on	on	on	off	7	7s	7
off	off	off	on	8	8s	8
on	off	off	on	9	9s	9

Off*: without jump cap.

On**: with jump cap.

Auto***: the trigger signal level will automatic adjust via sunshine brightness.

	WG_Set	TRI_EN	Relay_EN	Beep_EN
off	WG26	Disable	Disable	Disable
on	WG34	Enable	Output	Beep

Installation requirements

Installation angle:

As shown in the figure. The angle between the card reader and the pole is about 30 degrees, and the front of the card reader is tilted by about 30 degrees toward the road surface where the car enters

Installation diagram
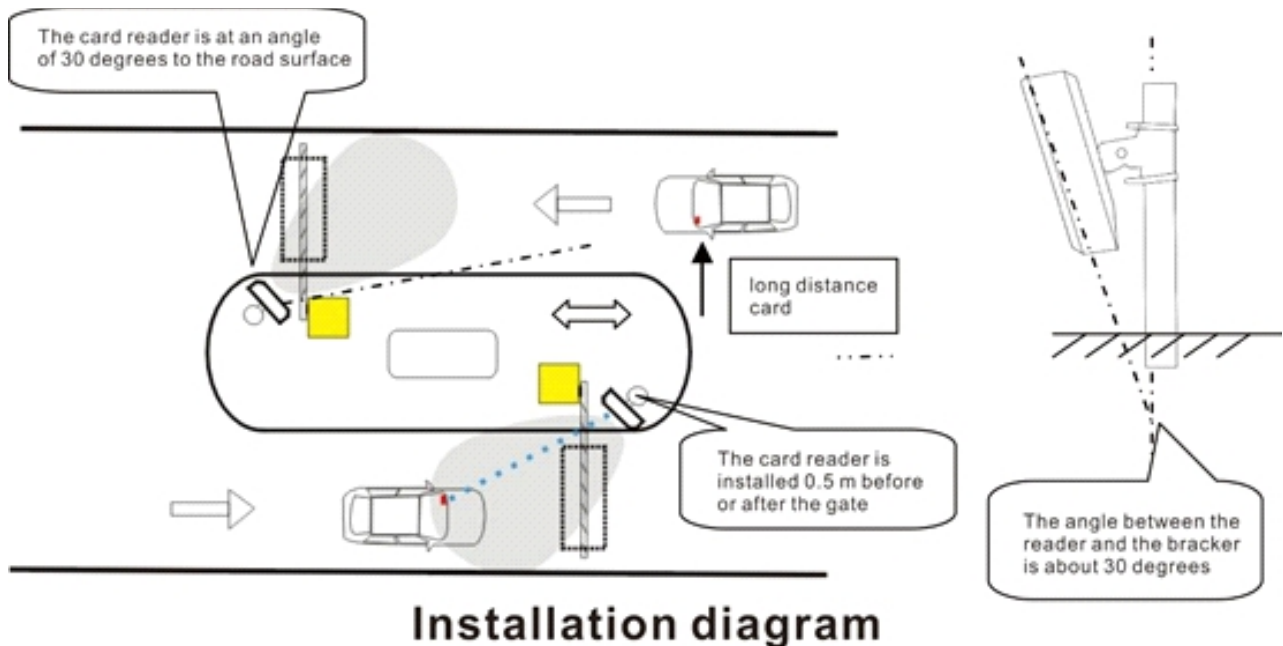
Wiring requirements

Wiring between card reader and controller:

(1)Wiegand interface controller: The card reader and the controller are connected by 5-core wires with a wire diameter of not less than 0.5 mm 2 and a length of less than 200 m, two power supplies and three Wiegand signal lines.

(2)485 interface controller : the card reader and the controller are connected by a 2-core twisted pair cable with a wire diameter of not less than 0.5 mm 2 and a length of less than 1000 m

(3)Power supply:12V/3A,use high quality linear power supply

Field installation card distance test

After installing the device as required, please turn on the power of the card reader: install the remote card to the rear view mirror of the car windshield, and drive the card to wake up in the direction of the card reader. Adjust the card reader reading direction as needed to achieve the best results.

Common troubleshooting

1.The reader power light does not light:

Cause analysis: ①Power input polarity is reversed ②Poor power supply itself

Solution: Wire re-connects or replaces a power supply

2.Do not reading reader:

Cause analysis: ①The card is not placed correctly ②The card does not have a battery or the battery is dead ③Card damage ④Bad card reader

Solution: Install the card and battery correctly or replace the card or card reader

3.Do not read cards at a distance:

Cause analysis:①low battery ②Outside interference ③The card reader position is not adjusted or the signal setting is too weak

Solution: Replace the battery or eliminate external interference, re-adjust the setting card reader

4.The card reader and the control board cannot communicate:

Cause analysis: ①The wiring sequence is wrong ②Electrical interface does not match ③Power is not shared

Solution: rewire as required

5.Two card readers read the card at the same time(one entry and one exit):This Phenomenon occurs when the code of two adjacent readers is the same(factory default is 1)

Cause analysis: ①The card reader code is not set ②Card reader infrared is a overlap

Solution: Set the card reader different code(such as the entrance card reader ID1 is set to ON, then the adjacent exit must be set to ID2 or other ID number ON, and can only dial a different bit at a time ID number)

Product Warranty Terms
1.Warranty period:18 months
2.Warranty: Damage caused by non-human factors. Product failure under normal use

Warranty Card

Dear Customer:Thank you for purchasing the remote identification automatic management system!Please keep this card in a safe place and present it before repair.

User name		Product name	
User phone number		Product Model	
Date of purchase		Tag card number	
Date of purchase		Qualified	