Wireless IR Barrier User Manual(V1.0)

Summary

The wireless IR barrier is designed for preventing intruders from a protectd area by crossing the IR line between transmitter and receiver. Easy installation without wires, more suitable for the places which aren't good for wiring.

Features

1.Definitely wire-free design, easy to install and operate.
2.Low voltage consumption, long battery life.
3.Fully-sealed PC tube adopted, well against dust or water.
4.IP65 approved.
5.Low voltage reminding.If turning to 2.9V, low-voltage signal will be sent to alarm host.
6.433MHz wireless coding.
7.Lightning protection design，can avoid being struck by lighting.

Product Structure

Waterproof Plug · Direction Fixing Screw · Upper Cover · Lower Tube Plug · PC Tube · mainboard · PC Tube Plug · Lower Cover · Upper Tube Plug
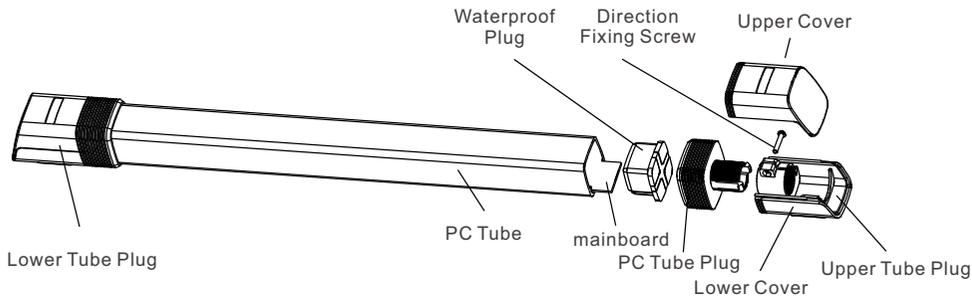
Figure 1

Installation Precautions

1.Pay attention to the alignment direction to prevent water,

RX   **TX**
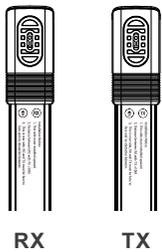
Caution:

1.This side must be upward,

2.The distance between RX and TX is ≤10m

3.This side is the back side, RX and TX must be installed face to face and no obstacles between them

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2.Prevent the strong light which may cause false alarm, do not install at the strong light or direct sunlight

RX
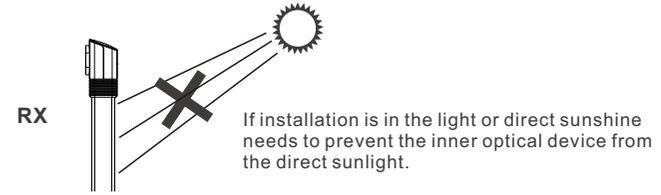
If installation is in the light or direct sunshine needs to prevent the inner optical device from the direct sunlight.

3.To install two pairs or more pairs wireless barriers, in order to avoid the disturbance of the infrared signal from same channel, install as below:

RX   TX

TX   RX

RX   TX   TX   RX
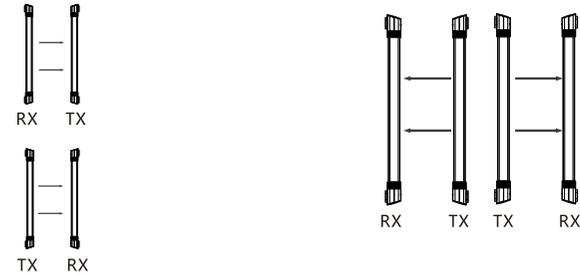
Installation Instructions

1.Take off the upper tube plugs and waterproof rubber plugs then pull out PCB.

Lower Tube Plug   Upper Tube Plug
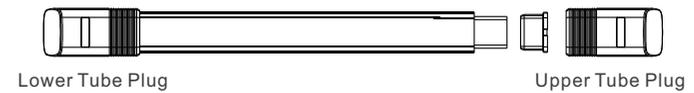
Figure 2

2.Function Setting

Tamper/Test Switch · DIP Switch · Test/Low-Voltage Indicator · Buzzer

S4
TAMPER ON   OFF
TRANSMIT POWER S   L
POWER OFF   ON
B2
T_LED2
TX

S3
TAMPER ON   OFF
INTERVAL 120S   6S
REACTION TIME 80MS   40MS
POWER OFF   ON
ALA1
T_LED1
B1
RX

Tamper/Test Switch · DIP Switch · Test/Low-Voltage Indicator · Alarm Indicator · Buzzer

Figure 3

DirekTronik
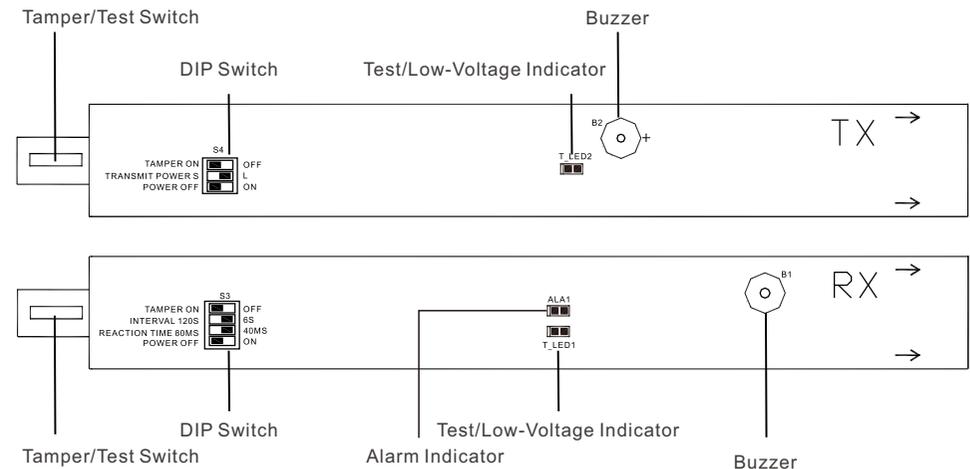
TX S4	Anti-Tamper	TAMPER ON ☐ OFF	On:Enabler anti-Tamper
		TAMPER ON ☐ OFF	Off:Disable anti-tamper
	Transmission power	TRANSMIT POWER S ☐ L	S:Small power for detection distance less than 5m
		TRANSMIT POWER S ☐ L	L:large power for detection distance from 5m to 10m
	Power	POWER OFF ☐ ON	OFF:Power off
		POWER OFF ☐ ON	ON:Power on

RX S3	Anti-Tamper	TAMPER ON ☐ OFF	On:Enabler anti-Tamper
		TAMPER ON ☐ OFF	Off:Disable anti-tamper
	Alarm period	INTERVAL 120s ☐ 6s	Alarm period:120s
		INTERVAL 120s ☐ 6s	Alarm period:6s
	Interruption period	REACTION TIME 80ms ☐ 40ms	Interruption period:80ms
		REACTION TIME 80ms ☐ 40ms	Interruption period:40ms
	Power	POWER OFF ☐ ON	OFF:Power off
		POWER OFF ☐ ON	ON:Power on

3.When power on, set RX/TX DIP on(as below), insert PCB into PC tube, put the plug in and cover the upper tube plug.

(Caution: do not opposite the upper or lower of the PCB.)

S4

TAMPER ON ☐ OFF
TRANSMIT POWER S ☐ L
POWER OFF ☐ ON

TX

S3

TAMPER ON ☐ OFF
INTERVAL 120s ☐ 6s
REACTION TIME 80ms ☐ 40ms
POWER OFF ☐ ON

RX

Figure 4
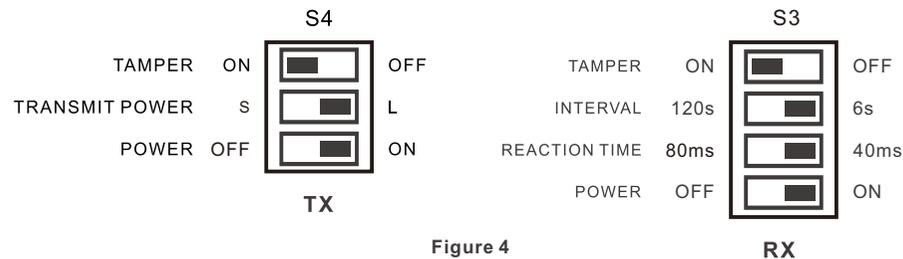
4.Drill installation holes by φ6 driller on the wall, fill in with equipped plastic expansion screws, then fix upper and lower installation base by M4*25 screws. Please keep TX and RX in same horizontal plane. (Upper plug tube must be installed on the up side while lower plug tubes on the lower side.)

Upper Tube Plug   Upper Tube Plug

Lower Tube Plug   **Figure 5**   Lower Tube Plug
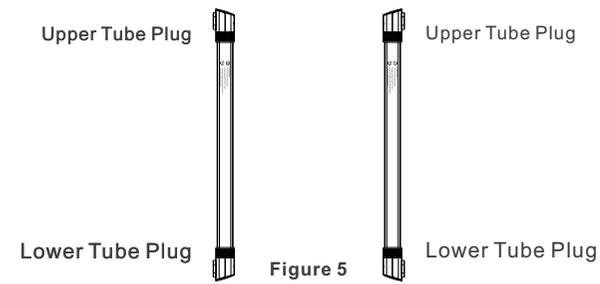
5.Remove upper cover of lower tube plug for TX and RX, it is entering alignment mode after 4 beeps. Adjust it until buzzer doesn't beep. It enters normal working mode after well-alignment.

Note:
·RX will exit alignment mode automatically after 1 minutes failure.
·RX re-entering alignment mode by putting back and remove upper cover of lower tube plug again, try the buzzer till stop beep.
·TX will exit alignment mode putting back upper cover of lower tube plug.

6.Well screws the fixing directions after alignment, put back the upper cover of upper/lower tube plugs, try to active it, alarm triggered.

7.Coding to alarm host:
   Under normal working mode(no alarm triggered or no blocks between TX and RX within 6s/ 120s), alarm host is entering wireless coding mode. Block the barrier once, trigger alarm. It is well coded now.

Product Structure

Beams: 4
Alarm current: 0.3mA
Battery life: 3 years
Maximum detection distance:10m
Wireless frequency: 433 MHz
Working current: RX <100µA /TX <100µA
Interruption period:≤40ms
Dimensions:648mm(L)*39mm(W)*39mm(H)
Waterproof grade: IP65
Wireless transmission distance: 100m in open area
Working mode: 3 options(interruption of all 4 beams or upper 2 beams or below 2beams)

Troubleshooting

1. Can't align well
·Check power if it is on.
·Test battery voltage of RX and TX, change 2 new batteries if they are lower than 2.9V (Battery model: ER14505 lithium)
·Check if anti-tamper is enabled.
·Check holder for lens if it is loosen, dropped or broken.
·Check PCB is fixed in right direction
·Check if there is any obstacles between TX and RX
·Check detection distance if it exceed

2.Doesn't work if wireless barriers are well blocked
·Buzzer doesn't beep if wireless barriers are blocked, please check TX and RX if they are under normal working mode. Pull out upper cover of lower tube plug of RX, buzzer beeps once a second, it is found out that wireless barriers are not aligned well, please do alignment again.
·Buzzer beeps while alarm host doesn't receive any signal if wireless barriers are well blocked. Please check the detection distance ensure it is within max range.