# MULTI–BEAM WINDOW BARRIER

1.Description

The infrared multi-beam barrier adopts updated intelligent high technology for outdoor and indoor use, easy installation, convenient adjustment, elegant appearance, suitable for offices, schools, villas, factories, garage entry and perimeter protection, effectively ensuring your family safety and avoiding property damage.

2.Features

1.Integrated and fully sealed, real full external lines, frequency selection, 360 rotated infinitely, tamper switch and power options.
2.Utilizing the digital variable frequency and CPU microprocessor digital control technology. More stability and higher reliability, stronger anti-interference ability.
3.Adopting high-grade aluminum alloy shell with tamper and anti-mobile function.
4.Two frequencies are optional, completely solving the adjacent interference.
5.Dual-beam identification function can effectively prevent the false alarm caused by small animals, birds, etc.
6.High sensitivity,adjustable preventive alert distance ,AGC circuit
7.Resistant to rain, snow, fog and frost.
8.Detection distance: 10-100 meters
9.Beams :2-12beams.

3.Product diagram
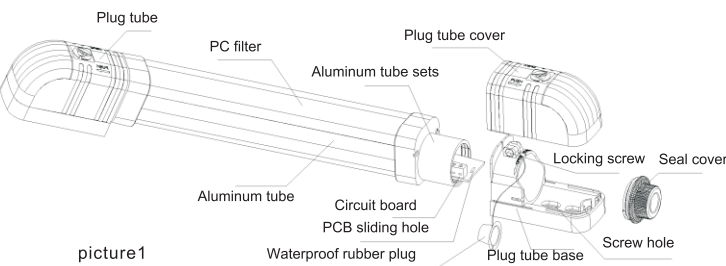
picture1

4.Installation Instruction

1. Open plug tube cover along the picture 2 showed direction
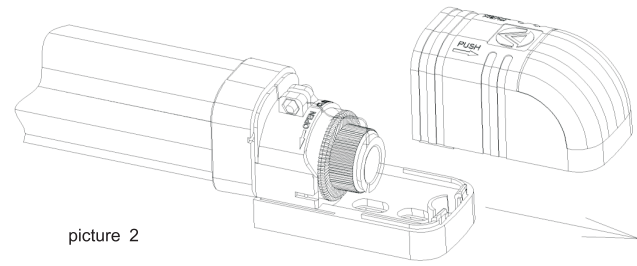
picture 2

2.Use Φ 6 drill to make mounting holes on the wall and nail small plastic pole(packed in part package) into it, then fix plug tube on screw hole position through screws.(as picture 3 showed)
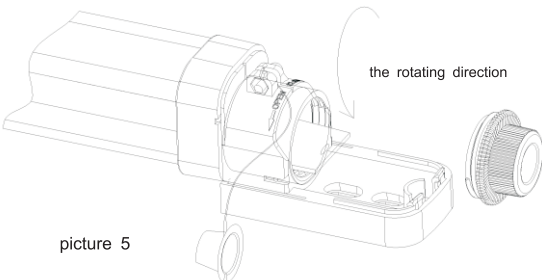
picture 3

correct installation   **wrong installation**
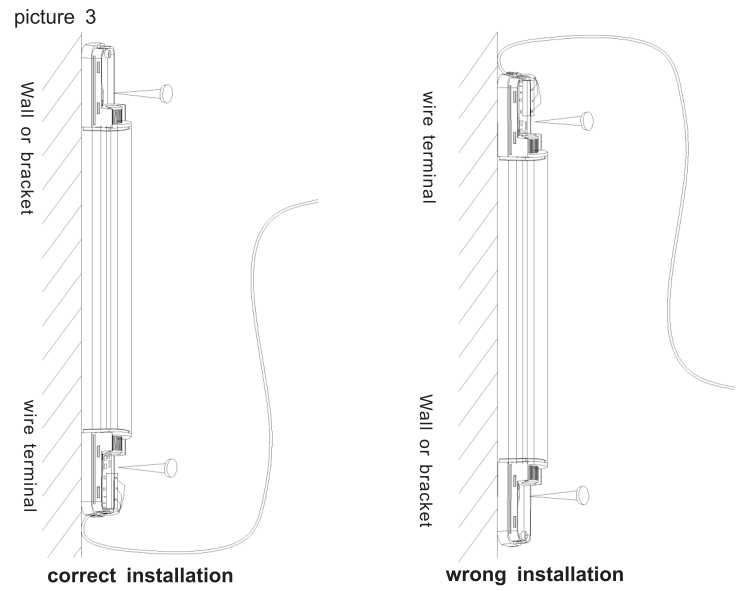
Note:
1.The transmitter (abbr TX) and receiver(abbr RX) of infrared barrier needs to be installed on the same horizontal level and vertically to the ground
2.The wired terminal must point to the ground, or rain will enter into it and make short circuit.
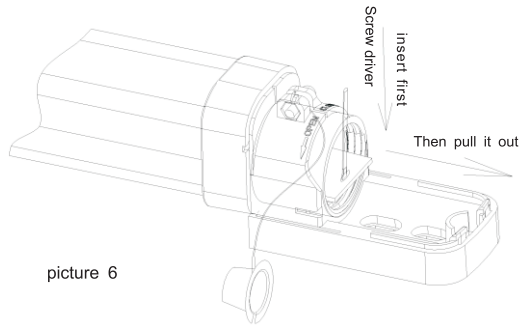
3. Function setting
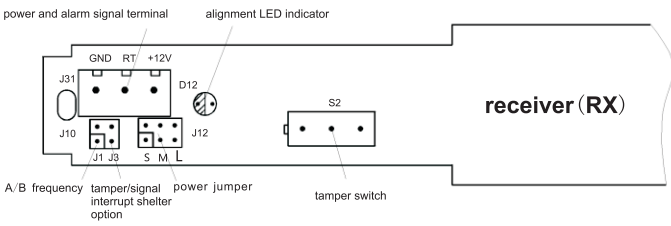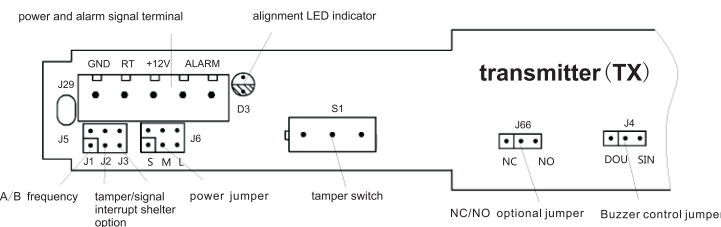(1).Open waterproof rubber plug. (as picture 4 showed)
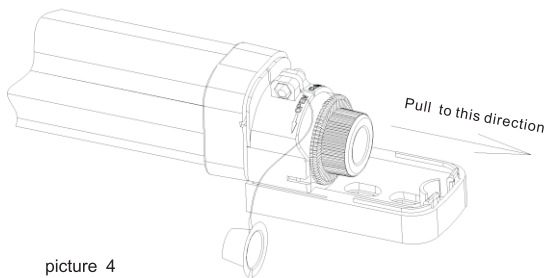
picture 4

(2).Counterclockwise rotate to open the seal cover. (as picture 5 showed)

picture 5

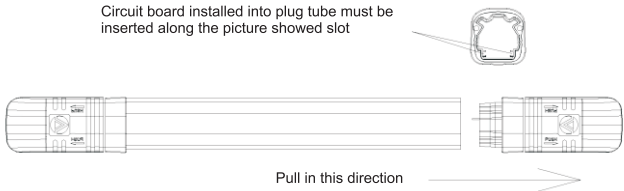(3). Insert screwdriver at the sliding hole on PCB board and pull it to take the PCB board out. (as picture 6 showed)

picture 6

(4). Function setting on PCB board

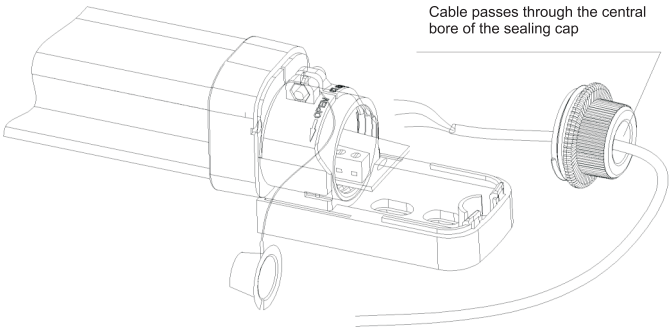| Transmitter | J5 | J1 | Insert jumper cap, A frequency (RX also A frequency) |
			Pull the jumper cap out, it becomes B frequency(RX also B frequency)
		J3	Insert jumper cap, TX tamper switch does not work for test use
			Pull the jumper cap out, TX tamper switch work normally
	J6	L	high operating power
		M	middle operating power
		S	Low operating power
			Micropower without jumper cap
	J66	NC	NC normally close(defaulted)
		NO	NO normally open
	J4	SIN	Put jumper cap on "SIN", trigger any one infrared beam, the buzzer sounds. Without triggering alarm within 30 min, it will automatically shift into 'DOU' status.
		DOU	Put jumper cap on "SIN", the buzzer sounds, when alarm signal outputs
			the buzzer will not sound without jumper cap

Receiver	J10	J1	Insert jumper cap,A frequency(same as TX)
			Pull the jumper cap out,it becomes B frequency (same as TX)
		J3	Insert jumper cap,TX tamper switch does not work for test use
			Pull the jumper cap out,TX tamper switch work normally
	J12	L	high operating power
		M	middle operating power
		S	Low operating power
			Micropower without jumper cap

(5). Put the PCB board back to shell

Circuit board installed into plug tube must be inserted along the picture showed slot

Pull in this direction

5.Wiring

1.Cable passes through the central bore of the sealing cap

Cable passes through the central bore of the sealing cap

2.Wiring method

to alarm transmitter

12~18V

ALARM
+12V
RT
GND
J2
J29 J5

+12V
RT
GND
J31

Dual power supply, synchronous wiring work method

---

to alarm transmitter

ALARM
+12V
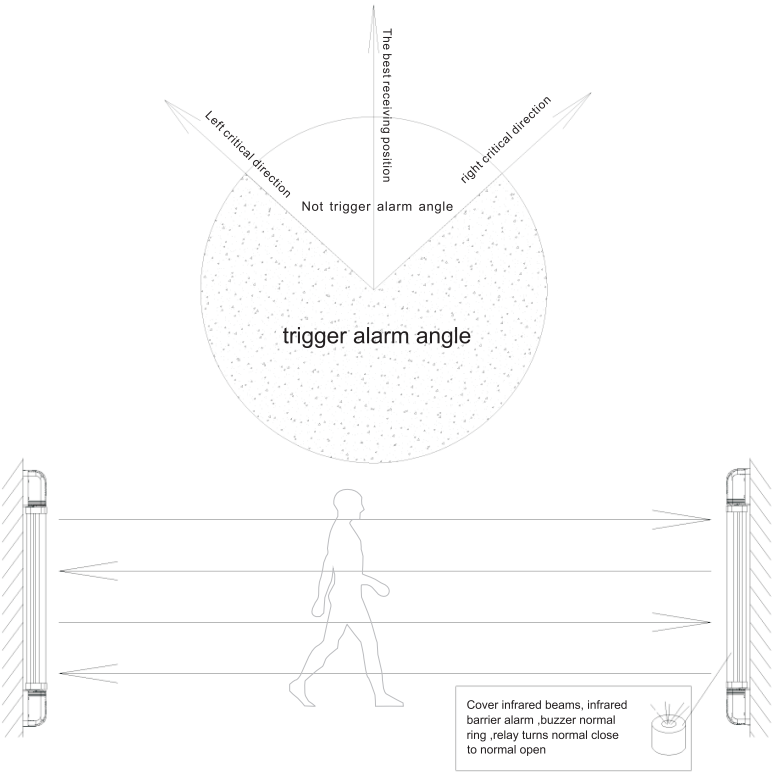RT
GND
J2
J29 J5

+12V
RT
GND
J31

12~18V

12~18V
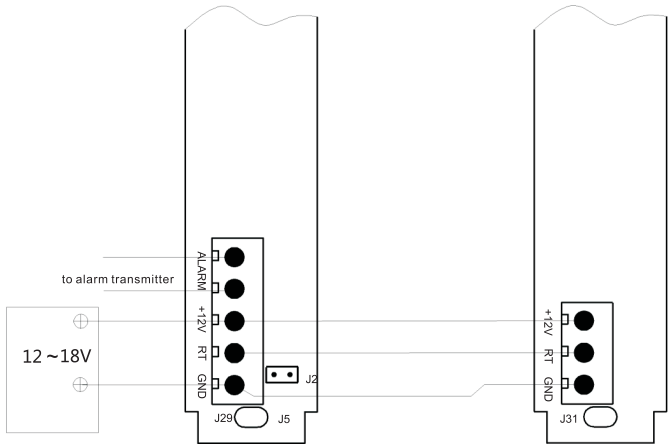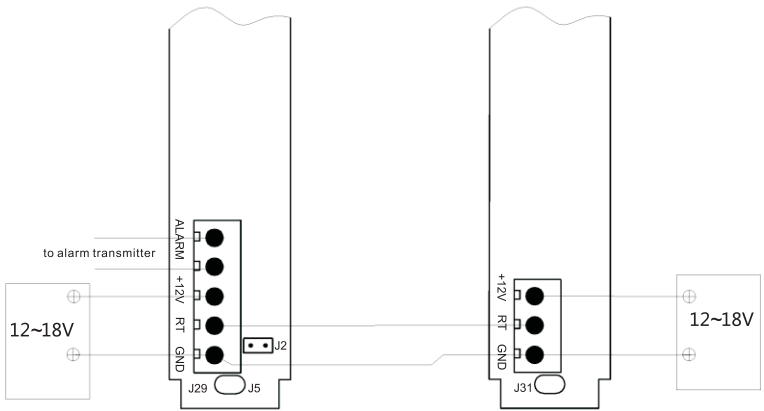
single power supply, synchronous wiring work method

(1). Adjust the position of RX and TX,make them in horizontal level .The method as follow: left rotate TX slowly until trigger alarm(Left critical direction), right rotate TX until trigger alarm(right critical direction),then rotate TX to the position of middle of left and right critical direction(picture 12). The adjusting job down when the calibration LED are off and buzzer does not make sound.

(2).Tighten the steering lock screw of infrared barrier's up/down plug and closures,then use silicone waterproof plug squeeze in the closure ,finally cover the up plug of device.

(3). Infrared barrier functions checking.Cover infrared beams,if the buzzer of TX ring,the calibration LED turn on,relay turns NC to NO,the device work normally.

The best receiving position

Left critical direction

right critical direction

Not trigger alarm angle

trigger alarm angle

Cover infrared beams, infrared barrier alarm ,buzzer normal ring ,relay turns normal close to normal open

---

Notes:
1. No installation under following situations:
   a. Obstacle between TX and RX
   b. Unstable base
   c. Direct sunshine, or strong light.
2. The voltage allowed DC10-18V
3. Keep out of corrosive objects.
4. Fix plug tube,avoid water entering inside

6.Technical Parameter

Detection distance	With sync cord 10-100m No sync cord 10-80m
Beams	2-12 beams
Current	50-100mA
Power supply	DC 10-18V
Working temperature	-30℃-70℃
Alarm output	NC. Contact capacity 30V 2A
Reaction speed	≤ 40ms
Answer speed	≥ 1s

7.Troubleshooting

Indication	Reasons	Solutions
LED of TX and RX is always on, meanwhile buzzer is always ringing when do alignment. (Jumper "J4" on"DOU" position)	1.Wrong frequencies setting 2.Power failure 3.Sync line connection failure 4.There are obstacles between TX and RX 5.Installation position is beyond the max detection distance	1.Ensure the same frequencies of TX and RX. 2.Check power supply of RX 3.Make sure the sync line is connected right. 4.Remove the obstacles. 5.Re-install at a shorter distance.
LED of TX is always on, LED of RX is off and buzzer of TX isn't ringing when do alignment. (Jumper "J4" on "DOU" position)	1.Power failure 2.At least one beam of RX does not work	1.Check power supply of RX 2.Using hand to block receivers of RX one by one, find out the abnormal adjacent beams when buzzer rings. Or using cameras (cellphone cameras) to check if there are some non-light beams.
LED of RX and TX is always on but buzzer of TX is not ringing when do alignment. (Jumper "J4" on "DOU" position)	1.Power failure At least one beam of TX does not work	1.Check power supply of TX 2.Using hand to block receivers of TX one by one, find out the abnormal adjacent beams when buzzer rings. Or using cameras (cellphone cameras) to check if there are some non-light beams.
Alarm sensitivity is low or even can not trigger alarm when blocking the beams	1.Wrong trigger method 2.There are obstacles between RX and TX Too high operation power	1.Block two adjacent beams 2.Remove the obstacles Adjust Jumper "J6" and "J12" to "M" or "S" (please keep the same operation power of RX and TX)
Beams are blocked, alarm LED is on but no alarm output	1.Signal line is cut off or short circuit Terminals of signal line is loosen or damaged	1.Check wire connection Make maintenance
False alarm	1.Bad wire connection or corroded wires 2.Moving blocking objects like birds,leaves 3.Unstable power voltage 4.Unstable installation base Bad alignment	1.Check wire connection 2.Change installation position 3.Stable the installation base 4.Ensure the power supply Adjust axis or realign