Alarm System
Active Infrared Detector

Solar-Powered Triple-beam Photoelectric Detector

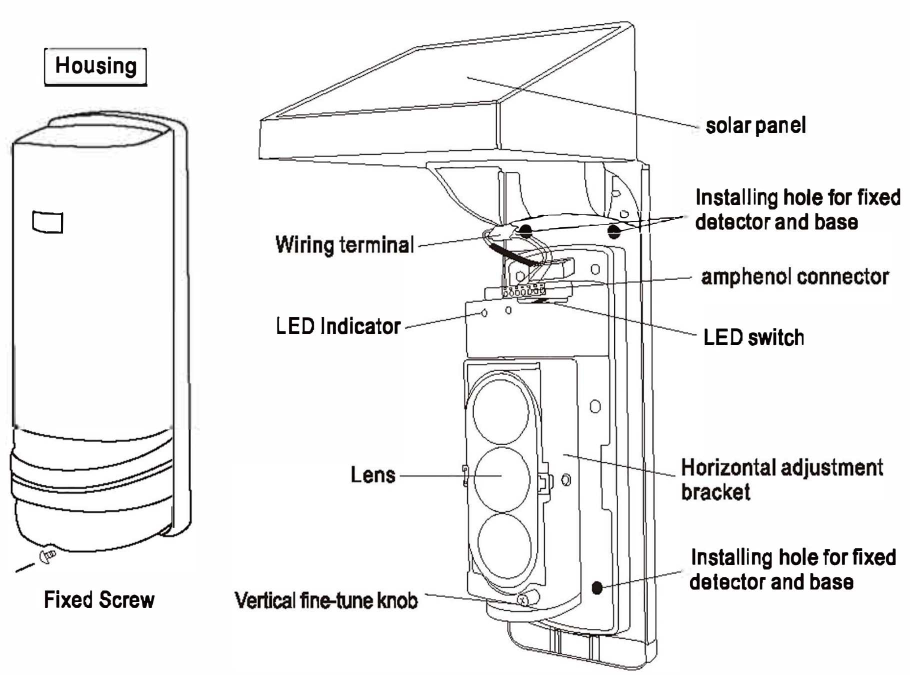
INSTALLATION GUIDE

Introduction

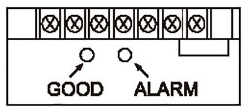
Solar-powered Triple-beam wireless detector is a new environment-friendly & high technology product. It uses solar energy to charge & work, and use wireless signal transmission to achieve the transmission of alarm signals. It is a truly wire-free and maintenance-free product. It is primarily used to perimeter monitoring and protection.

Dear customer, thank you for purchasing our company's Solar-powered Three-beam wireless Detector, For using the product correctly, before using this product, please be sure to read the instructions carefully.

01 Name of Components

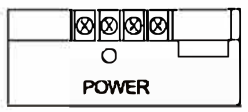


LED Indicator



Receiver

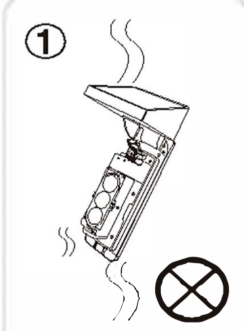
- "GOOD"Indicator (GREEN)
  Light up when received the signal from transmitter, light off when no signal received
- "ALARM"indicator light(RED)
  when alarm the light will light up for 5 seconds



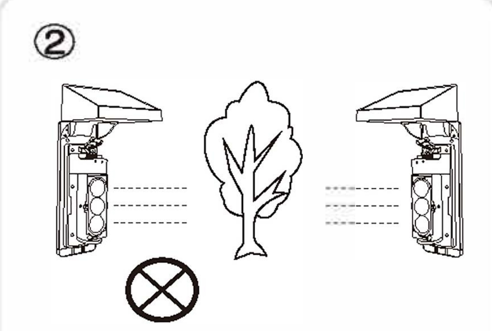
Transmitter

- power (green)
  light up when transmit

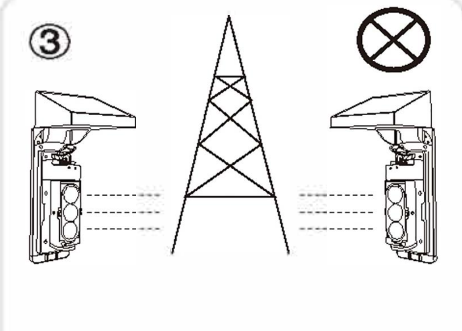
02 Installation Precautions



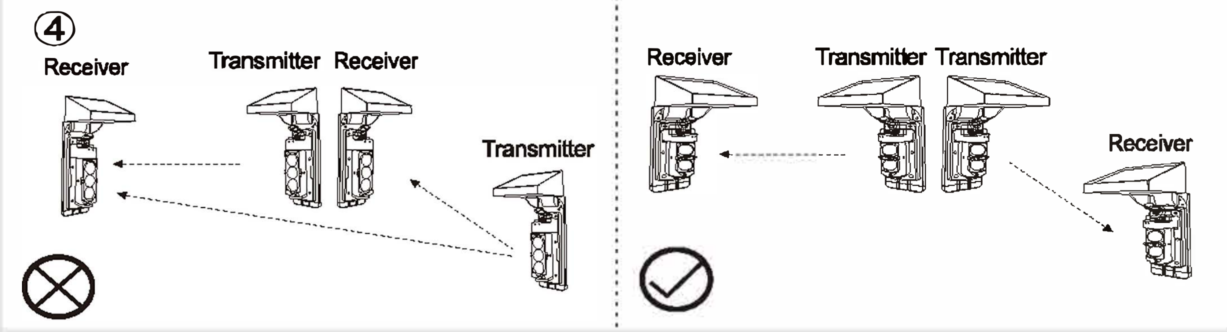
Note1:Never install detector at an inclined angle



Note2:Make sure that there is no obatacle between the detector



Note3:The hitgh-voltage tower and the signal tower may influence wireless transmission distance



Note4:Multiple detectors shall be installed for long-distance alarm in accordance with the installation instructions shown in the above-mentioned figure to avoid mutual interference among beams

Other Precautions

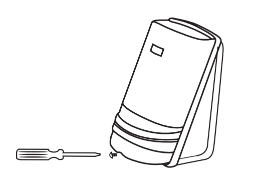
1. **Never install this detector in door access systems,passages,areas prone to trigger an alarm,or areas which could trigger an alarm more than 50 times per 24 hours.**
2. This detector is a solar-powered wireless product,so it shall not be in stalled,tested or operated indoors or in any dark place with a sunlight intensity of less than 2000lux(raining days with 2000lux sunlight intensity).
3. This product can trigger an alarm times less than 50 times under normal sunlight conditions. Never try to test maximum alarm times indoors,otherwise,it may cause batteries subject to low voltage problem,which may impede operation of this product,and even cause damage to this product.
4. If it is your first time to use this kind of detector， please install it under the guidance of supplier .

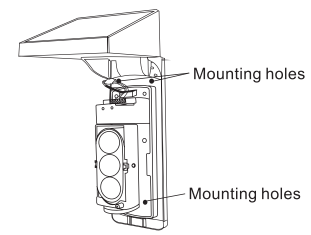
Attention

If the detector not in use for long time and the battery run out，lead to the detector fail to boot correctly, please refer to the following information:
1. Put the detector under the sun UV,charge for more than 5 hours
2. Or connect the external DC12Vpower ,charge for more than 3 hours

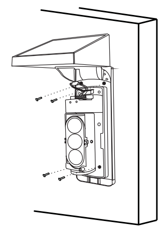
03 Installation Method

1. Remove the housing locking screw and remove the housing to reveal the inner mounting hole

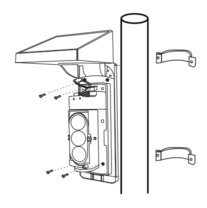




2. Fix the detector to a wall or bracket and screw the four mounting holes



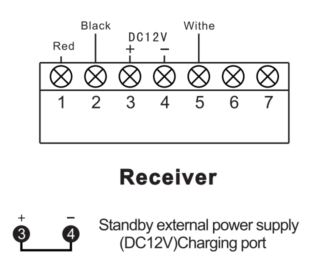
Wall mounting

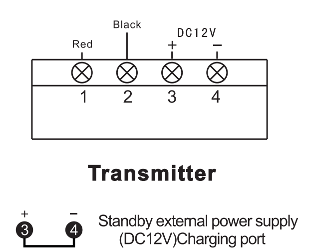


Bracket mounting
(Outer diameter Φ38~Φ50mm)

3. Connect the two wire connectors to each other and start debugging. After debugging, cover back the housing.

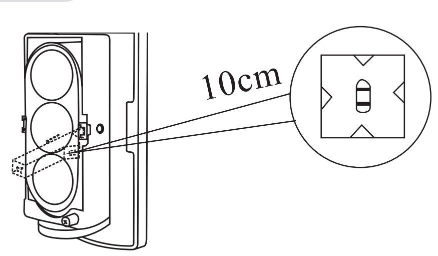
04 Wiring diagram





05 Adjustment

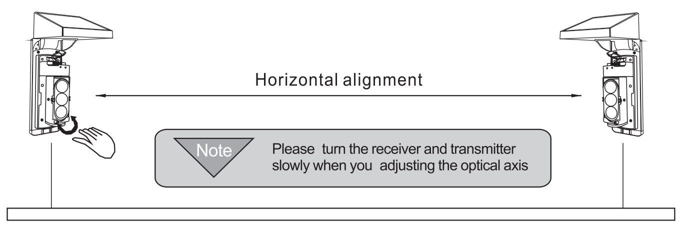
1. Adjust the vertical adjustment screw and the horizontal angle adjusting wheel,obverse the collimation effect at a distance of 5cm from the viewfinder,in order that image of opposite detector falls into the center part of the viewing hole.At this time,the Good indicator of receiver shall light up;If not ,adjust it repeatedly.



Observe the aiming effect about 10cm away from the sight

The best way to adjust the optical axis

1. To alignment the transmitter and receiver .
2. **Turn the receiver left,until the GOOD indicator flashing,and mark down the angle. Then turn the receiver right,until the GOOD indicator flashing, and mark down the angle.The best optical axis point is the center point of that 2 angle.**
3. In the same way to adjust the transmitter.



06 Physical test

walking test is required after the setting,physical test in accordance to below diagram

	State	表示
Transmitter	Transmitting	Green LED light up
Receiver	Guarding	GOOD indicator light up,ALARM indicator lights out
	In Alarm	GOOD indicator lights out,ALARM indicator light up

07 Check For Abnormality

Fault	Cause	Solution
The receiver does not alarm,but the Alarm lamp light up	The host is not armed.	Arm the host by remote control, and then trigger an alarm
	The detector has not been learnd with the host	Keep the detector learn with the host
The receiver GOOD lamp doesn't light up	The beam doesn't match closely	Re-adjust the beam
	There is obstacle presents between the transmitter and the receiver	Remove the obstacle
	The cover is polluted	Clean the cover
The detector does not normally work when powered on	Broken circuit or short-circuit of the wiring	Tighten the wire
	The optical axis coincidence accuracy is inadequate	Re-adjust the optical axis
	The battery voltage of detector is too low Automatically transferred to the battery protection status	Put the detector under the sunshine or access DC12V power supply charge (spare charging port see wiring diagram)
The Alarm lamp doesn't light up ,when the beams be covered	There is other signal of transmitter come into the receiver	Remove the other signal of transmitter or change the optical axis direction
	The beams doesn't be coverd at the same time	To cover the beams at the same time
Intermittent alarm signal output	Beams blocked by other moving objects	Remove the obstacle or change the location
	The optical axis coincidence accuracy is inadequate	Re-adjust the optical axis (See Section 6 for the best way to adjust optical axis)

08 Technical parameters

Alert distance	Outdoor	100m	150m	250m
	Indoor	300m	450m	750m
Quantity of beam	3 beams			
Detection mode	3 beams blocked simultaneous			
Optical source	Infrared digital pulse beam			
Response speed	200ms			
Alarm output	Wired and wireless compatible、wired output contact capacity:DC24V 0.5Amax			
Maximum alarm times in 24 hours	≤50 times/ Day			
Operating Voltage	3.2V			
Power supply	DC12V			
Sratic Operating Current	Transmitting Terminal≤0.5mA,Receiving Terminal≤0.3mA			
Solar electric panel output current	≥2mA at a light intensity of 1800LX (Note：The outdoor light intensity in cloudy or rainy days is about 2000LX)			
Wireless Transmitting Frequency	FM433MHZ,315MHz，can be customize other Frequency			
battery capacity	500mAh(Transmitting Terminal)1000mAh(Receiving Terminal)			
Battery Type	Rechargeable lithium battery			
Working environment temper-aturer ange	-25℃~+55℃			
Optical axis adjustment (H)	180° （±90°）			
Optical axis adjustment (V)	±20°			

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