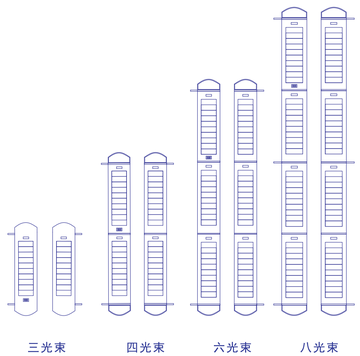
三光束太阳能全无线对射
多光束太阳能全无线光墙

使用说明书

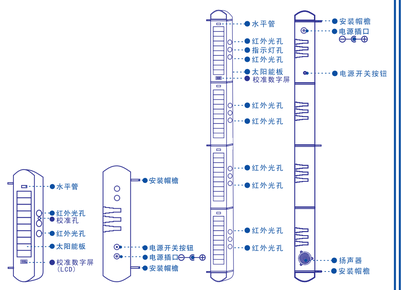


01 产品概述

三光束太阳能全无线对射及多光束太阳能全无线光墙是一款新型环保的科技产品，获得了国家专利，它利用太阳能进行供电，充电，利用无线信号传输实现报警信号的传送，真正做到了电源无线，信号无线。并且多光束光墙内装有扬声器，具有现场报警功能。

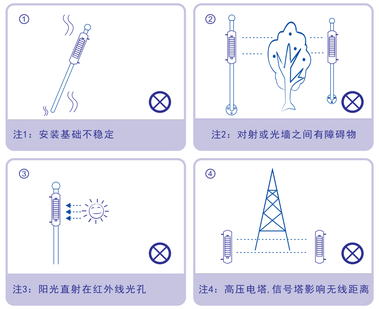
公司生产了3光束对射，4光束，6光束，8光束光墙，可适用于不同的庭院，围墙防护使用。

02 部件名称



注：每个对射或光墙背面分别有一个白色电源开关和一个电源供电插口（盖有橘红色塑料帽盖），当对射或光墙需要充电或供电时，请取下橘红色的塑料帽盖，接通电压为直流5~12V(电流>100mA)电源即可充电，并注意电源线的正负极。

03 安装时的注意事项



其他重要注意事项

①. 在安装时勿忘撕去对射或光墙太阳能板上的塑料薄膜.
②. 禁止安装在门禁，过道或频繁触警区域，以及每24小时触警次数多于50次的区域。
③. 本产品属太阳能全无线产品，请勿在室内和光照阴暗的场合（光照度低于2200LUX）安装测试以及使用。如一定要安装在上述环境中，则可以通过外接电源线的方式解决供电的问题。
④. 在正常光照环境下测试产品时，连续触警次数应小于50次，切勿在室内测试极限报警次数，导致电池低电无法正常工作，甚至导致产品损坏。
⑤. 若您是首次使用本产品请务必在借应商的技术指导下操作。
特别声明：若未按公司提示的注意事项或未按说明书的操作指导使用，而因个人操作不当造成产品故障或损坏，相应损失由客户自行承担。

04 工作现象

①. 对射或光墙开机时短按发送端<F>和接收端<S>背部白色开关按键N次(N=3-10)，按完后等待3秒左右的时间，对射或光墙发送端<F>和接收端<S>都有3-6声“嘀，嘀，嘀”的提示音，表示开机正常。验证对射或光墙是否开机，可再按1次开关键，若提示音为“嘀”声，则表示对射或光墙已开机。

4/6/8光束光墙开机时按开关的次数与报警持续时间如下：

开机按3次，报警声响持续时间5秒	开机按7次，蜂鸣器关闭，报警声响维持
开机按4次，报警声响持续时间15秒	开机按8次，对射触发后封锁3分钟再重新校准
开机按5次，报警声响持续时间30秒	开机按9次以上,喇叭静音
开机按6次，报警声响持续时间60秒	

以上报警声响持续时间开机1小时后有效，开机1小时内报警持续声响时间均为5秒。

②. 对射或光墙开机正常后，发送端<F>亮30秒后随即灯灭，接收端<S>按键指示灯长亮，将发送端<F>和接收端<S>对准，接收端按键指示灯灯闪，并听到6次短促的“嘀嘀嘀嘀”的提示音，表示对射或光墙进入工作状态。

③. 对射或光墙进入正常状态后，用厚物阻档对射红外光孔三个以上，接收端<S>发送无线报警信号，接收端有5秒左右的灯亮时间，之后接收端指示灯灯闪，并听到6次短促的“嘀嘀嘀嘀”的提示音，表示对射或光墙再次进入工作状态。如此重复。

④. 对射或光墙关机时，按发送端<F>和接收端<S>背部白色开关按键N次(N=3-10)，按完后等待3秒左右的时间，对射或光墙发送端<F>和接收端<S>都有10秒左右时间的“嘀”连续长音，音单灯灭，表示已正常关机。验证对射或光墙是否关机，可再按1次开关键，若提示音为“嘀嘀”两声，则表示对射或光墙已关机。

其他注意事项

①. 对射或光墙处于开机状态时，进行关机操作，开关按至第二次时，对射会发送一个报警信号，按至第三次时，对射或光墙才发送关机信号并关机。

②. 对射或光墙正常开机后的1个小时内.若接收端无法收到发送端所发出的红外光脉冲，接收端按键指示灯持续灯亮30分钟的时间，之后灯灭；只有收到发送端的红外光脉冲后，按键指示灯重复亮起，并灯闪进入工作状态。

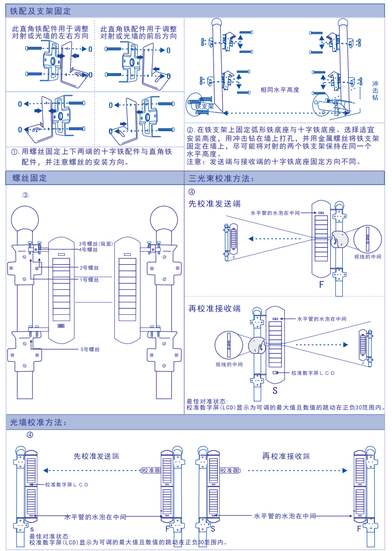
③. 对射或光墙正常开机后.若连续100小时都未能见到自然光或灯光.将会自动关机。

④. 成品对射或光墙的发送端和接收端都已配对，客户切勿随意搭配，若遇特殊情况，请与厂家或经销商联系。

⑤. 对射或光墙开机时，勿将对射或光墙置于黑暗处或将太阳能板遮盖，否则对射或光墙可能发出错误的提示音（3声长音）。

⑥. 区分对射或光墙处于开机或关机状态的方法是按对射开关键.若按1次有“嘀”短音1声提示.则说明为开机状态.若按1次有“嘀嘀”两声短促音提示.则说明为关机状态。

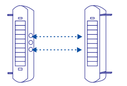
05 安装方法



⑤校准：

a. 先拧紧1号螺丝.固定对射.再拧紧5号螺丝.(通过观察水平管的水泡是否位于中间位置来核定对射或光墙安装是否平直)
b. 三光束：顺镜与对射的校准孔成同一直线，通过调整左右方向的微调螺丝观察另一端的对射是否落在视线的中间位置。先校准发送端，再校准接收端。
光墙：开启校准器，将校准器的后端紧贴对射或光墙一端的指示灯孔，并且校准器与对射或光墙或直角贴合。
通过调整左右方向的微调螺丝观察校准器的光点是否落在另一端对射或光墙的光孔上。先校准发送端，再校准接收端。
c. 数字屏(LCD)验证校准精确度：微调1号4号螺丝，调整对射或光墙的左右方向，使数字屏(LCD)的数值为可调的最大值且在正负30范围内跳动（最佳对准状态）
当校准数字屏(LCD)的数值较小或数值跳动大于10时表示对射或光墙偏移了，需重新校准。
校准数字屏(LCD)的对光精度检测原理：检测发送端的红外光与环境中的红外光的差值，差值越大，数字越大。
（即稀天时千扰光比较强，显示的数值比较小；阴天时干扰光比较弱，显示的数值比较大）
d. 对射或光墙接收端的校准数字屏(LCD)会在开机1小时内正常工作.1小时后自动关闭.若需重新开启校准数字屏.则需重启。

06 安装校准注意事项及检测方法

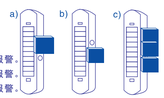


校准注意事项

①. 确保对射或光墙处于开机状态。
②. 确保对射或光墙安装平直
（水平管的水泡位于中间位置）
③. 确保对射或光墙工作现象正常。
④. 确保对射或光墙接收端的校准数字屏已调整至可调的最大数值且数值的跳动在正负30范围内。
⑤. 校准完毕后，拧紧所有固定螺丝。

验证是否安装到位的检测方法

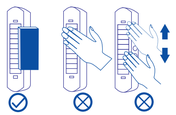
①. 对射或光墙是否灯闪进入工作状态。
②. 堵孔：
a）堵住上面两个红外线光孔，对射或光墙不报警。
b）堵住下面两个红外线光孔，对射或光墙不报警。
c）同时堵住三个红外线光孔，对射或光墙会报警。
三个光孔表示一组光孔，以上校准检查方法适用于任何一组光孔。



触警方式

正确的触警方式：

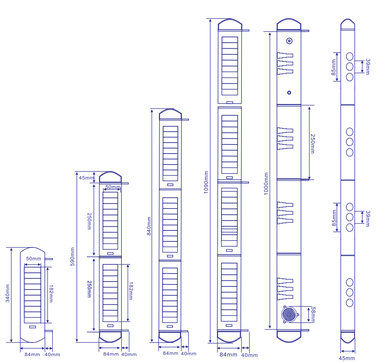
用厚物完全阻挡三个红外光孔，阻挡时间在1秒以上，并正确触警3次以上，若主机都能收到报警信息，则表示安装合格。4光束，6光束，8光束光墙的触警方式同上.



错误的触警方式：

①. 未完全阻挡
（对射或光墙对准状态下用手阻挡.因为手指间有指缝.可能无法完全阻挡对射的三个光孔）
②. 速度过快，防自由落体不报警。

09 产品外形尺寸



07 异常时的检查

故障现象	故障原因	故障处理方法
对射或光墙触警灯亮不报警	①. 未完全阻挡对射或光墙	用厚物完全阻挡
	②. 主机未设防	用遥控器设防后再触警
	③. 主机天线未拉出，无线距离超出产品规格	拉出主机天线
	④. 对射或光墙未学入主机	将对射或光墙学入主机
对射或光墙触警灯不亮	①. 对射或光墙长时间未校准.电池保护 将对射或光墙重新较准	
	②. 对射或光墙电池低电，自动转入电池保护状态	将对射或光墙置于光照充足处充电，若无法正常工作，发还厂家
	③. 若灯亮不能报警.为指示灯坏	送返厂家返修
对射或光墙开机后无法进入工作状态	①. 未正确开机	查看对射或光墙开机后的工作状态是否正常
	②. 未将对射或光墙对准	将对射或光墙对准
光墙开机后提示音为2秒长音	①. 光墙电池低电	将光墙置于当照充足处充电
	②. 开机时当墙处于黑暗处或光墙太阳能板被遮盖	将光墙太阳能板面向光照充足处开机
光墙开机后无提示音	①. 未正确按动开关键	正确按动开关键
	②. 光墙故障	发还厂家

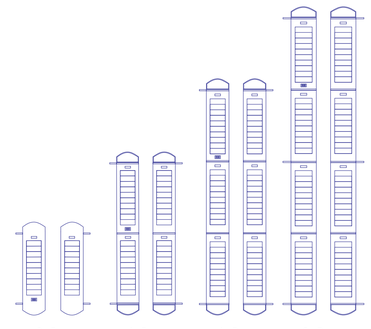
08 技术参数

技术参数 \ 产品名称	三光束太阳能全无线对射/多光束太阳能全无线光墙
技术项目	
红外距离	50米
无线发射距离	300米
无线发射频率	434.6MHz FSK
24小时最大触警次数	≤50次
电池容量	发送端500mAh；接收端1000mAh
工作环境适度温度	-30℃~70℃
红外光束数	3光束，4光束，6光束，8光束
工作电压	3.3V
储电类型	可充磷酸铁锂电池
静态工作电流	3光束对射：发送端≤0.5mA；接收端≤0.5mA 4光束光墙：发送端≤0.5mA；接收端≤0.5mA 6光束光墙：发送端≤0.75mA；接收端≤0.75mA 8光束光墙：发送端≤1mA；接收端≤1mA
红外光波长	940nm±20nm
太阳能电板输出电流	3光束对射：1800LX光照情况下≥2mA 4光束光墙：1800LX光照情况下≥4mA 6光束光墙：1800LX光照情况下≥6mA 8光束光墙：1800LX光照情况下≥8mA (注：普通阴雨天户外光照度约2000LX)

SN：20200915-6

Solar-Powered Multi-beam Active Wireless Infrared Detectors

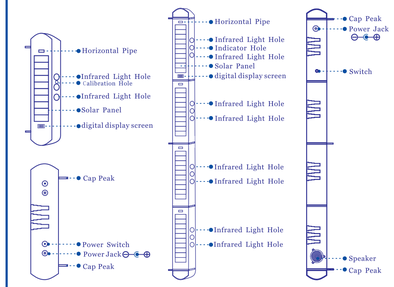
User Manuel



01 Product Overview

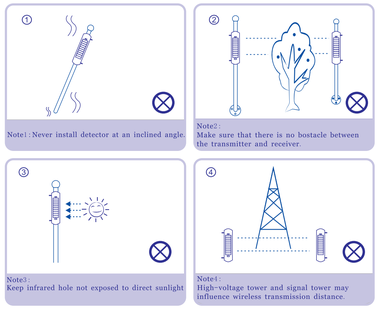
The solar-powered multi-beam active wireless infrared detector and The solar-powered active wireless multi-beam light wall is a new-type hi-tech environ-mentally-friendly product and has obtained national patent.It applies sun's UV rays to supply power and charge for itself,and adopts the wireless signal transmission device to transmit alarm signal instead of power cable and signal line. The multi-beam light wall has a built-in loudspeaker with on-the-spot alarm function. The company has developed 3-beam detectors , 4-beam, 6-beam and 8-beam light walls ,which are widely applied in various courtyards and fences

02 Name of Parts



Remarks: each solar panel have 2 switches(white:ON/OFF button, Red: Power Jack), when charge the beam by DC5-12V(current>100mA),please take off the red button, pay more attention about cable's positive and negative terminals.

03 Installation Precautions



Other Important Precautions

①.Before installation. remove the plastic film on the solar panel of the detector.
②.Never install the detector near doors, passages, or any other areas with continuously trigger alarm 50 times per 24 hours.
③. To be solar wireless product, it shall not be installed , tested or operated in doors orany dark place without sunlight. (light intensity should be≥1800LX)
If wanna be used indoor, suggest link extra cable to support.
④.Trigger times should be 50 times. installed in door prohibited, which may impede normal operation of this product. and even cause damage to this product.
⑤ Before first operating this product. Please follow the technical guide to operate.
special statement: Any loss or damage resulting from improper operation or unfollow the instruction, users take responsibility.

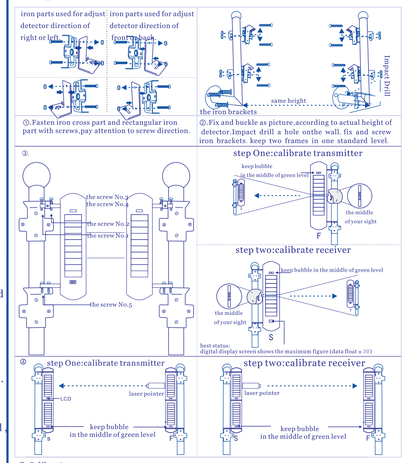
04 Operating Phenomena

①.ON: short press switch of transmitter & receiver N times(N=3-10), 3 seconds later, there's 3-6 beeps, mean it starts normally. On working state, press power switch, 1 beep, its already started.
[Notice]:4/6/8 beam sensor have on site alarm function
If press the switch 3 times to turn on the sensor, there are 5 Seconds alarm voice while the beam sensor be triggered;
If press the switch 4 times, to turn on the sensor, there are 15 seconds alarm voice;
If press the switch 5 times, to turn on the sensor, there are 30 Seconds alarm voice;
If press the switch 6 times, to turn on the sensor, there are 60 seconds alarm voice;
If 7-10 times,no alarm voice;
All the setting will take effect after 1 hour,within 1 hour,there are only 5 seconds alarm voice while the sensor be triggered.
②.After start the sensor, transmitter indicator lights 30 seconds then off, match both terminal , receiver keeps on shining with 8 beep ,its normally in working state.
③.In working state , only if block 3 infrared hole of detector with thick obstacle , it alarms.
④.OFF :short press switch of transmitter & receiver 3 times, hear long beep , mean it's off normally. This time ,press power switch,2 beep, its already powered off.

Other Precautions

①.Turn off detector by clicking power button 3 times .if 1-2 times , it works and still send signal to host unit.
②.If detector cant match up with each other well, it send invalid code to host unit. Once re-match ,it works.
③.It automatically turn off ,if long time stay at dark place ,more than 100 hours.
④.Transmitter and Receiver matched by default, if wanna change either terminal contact us for support.
⑤.Do not start the detector at dark place or block the solar panel, otherwise , detector cant started and 3 long beeps for false operation.
⑥.Press power switch,1 beep, it starts.2 beeps, its off.

05 Installation Method

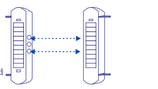


⑤.Calibration:
a. firstly,fasten and tight screw No.1,place the detector,then fasten screw No.5
b. 3 Beams:calibrate the beams through the hole.ensure the other sensor in the middle position of your sight by adjusting the screw
4Beams.6Beams.8Beams：calibrate by laser pointer:start laser pointer,made it tightly close to infrared hole rectangularly.
Make sure laser points at the other terminal of detector .Calibrate receiver and transmitter one by one.
c. accuracy data for digital screen display: slightly adjust screw No.2 & 1,direction from left to right or right to left,make maximum figures showed at digital screen.(best state and data floating ±30).
If smaller figure or extreme big,it shows need recalibrate detector
d. digital screen display works within 1 hours after detector started, then after,it turn off automatically.
Restart digital screen display must restart detector.

06 Installation&Calibration Precautions and Test Method

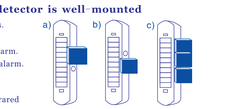
Calibration Precautions

①.make sure detector already started.
②.make sure detector in one line
(keep bubble in the middle of green level)
③. make sure detector in normally working condition.
④.make sure digital screen display had already showed Maximum figure, figure floating±30)
⑤. calibration finished，fasten and fix screw tightly.



Test and verify whether detector is well-mounted

①.Indicator lamp of detector flashes.
②.Block infrared hole:
a) Block upper 2 infrared hole, no alarm.
b) Block bottom 2 infrared hole, no alarm.
c) Block 3 infrared hole, it alarms.



one infared light group insists of 3 infrared light holes,above calibration is suitable for either infrared light group.

How to trigger and alarm

Right way:
Block whole 3 infrared hole by thick obscatle. and host unit alarms, its right. try at least 3 times.

Wrong way:
①.Fingures can not completely blocked up, it's not allowed. because infrared light would pass through very easily)
②.Detectors not alarm if inruding object moves at a most quick speed.

07 Check for Abnormality

Failure Symptoms	Failure Reasons	Failure Recovery Methods
The multi-beam light wall does not alarm, but the alarm lamp lights up	①The light holes of the multi-beam light wall are not completely blocked up.	Completely block up infrared light holes with thick materials
	②The host is not armed.	Arm the host by remote control, and then trigger an alarm
	③The antenna of the host is not retracted, and wireless distance does not conform to product specifications.	Retract the antenna
	④The multi-beam light wall does not automatically learn code with the host.	Keep the multi-beam light wall automatically learn code with the host
The alarm lamp of multi-beam light wall does not light up	①The multi-beam light wall has been not calibrated for a long time, and battery protection works.	Calibrate the multi-beam light wall again
	②The battery voltage of multi-beam light wall is too low, so that the multi-beam light wall automatically runs in battery protection mode.	Charge the multi-beam light wall in a sunny place. Return batteries to the manufacturer if batteries fail to work.
	③If the alarm lamp does not light up, but the multi-beam light wall can alarm, it means the lamp does not work.	Return the alarm lamp to the manufacturer
The multi-beam light wall does not normally work when powered on	①Inappropriately powered on	Check if the active infrared light wall works normally when powered on
	②Not keep the transmitting terminal of the light wall aligned with the receiving terminal of the light wall.	Keep the transmitting terminal of the light wall aligned with the receiving terminal of the light wall.
The multi-beam light wall gives out a prompt sound lasting for 2 seconds when powered on	①The battery voltage of multi-beam light wall is too low	Charge the light wall in a sunny place.
	②When powered on, the light wall shall be kept in a shady place or the solar panel of the light wall shall be covered with something.	Make sure the solar panel of the light wall is kept in a sunny place when turning on the light wall.
The multi-beam light wall does not give out a sound prompt when powered on	①Any operation error occurs when pressing the ON/OFF button	Press the ON/OFF button in a proper way
	②The multi-beam light wall is kept in a dark place or the solar panel is covered with any materials when powered on.	Keep the multi-beam light wall in a sunny place when powered on
	③The multi-beam light wall does not work.	Return the multi-beam light wall to the manufacturer

08 Technical Parameters

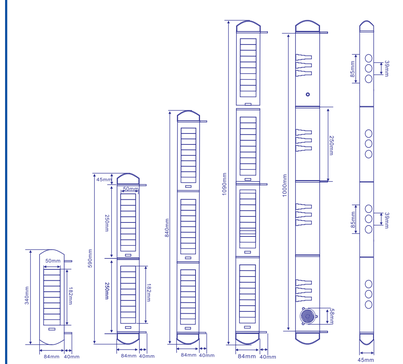
Technical Parameters \ Product Name Parameter Items	Solar-Powered Multi-beam Active Wireless Infrared Detectors
Infrared Distance	100m
Wireless Transmitting Distance	1km
Wireless Transmitting Frequency	FSK+FHSS 433MHz
Maximum alarm times in 24 hours	≤50次
Battery Capacity	500mAh (Transmitting Terminal), 1000mAh (Receiving Terminal)
Working environment temperature range	-30℃~70℃
Number of infrared beams	4 beams，6beams，8beams
Operating Voltage	3.3V
Battery Type	LiFePO4 Battery
Static Operating Current	≤1mA
Infrared light wavelength	940nm±20nm
Solar electric panel output current	For 3-beam detectors：≥2mA at a sunlight intensity of 1800LX For 4-beam Light wall：≥4mA at a sunlight intensity of 1800LX For 6-beam Light wall：≥6mA at a sunlight intensity of 1800LX For 8-beam Light wall：≥8mA at a sunlight intensity of 1800LX (Note:The outdoor sunlight intensity in cloudy or rainy days is about 2000LX)

This device complies with Part 15 of the FCC Rules.Operation is subject to the following two conditions:
(1)this device may not cause harmful interference, and
(2)this device must accept any interference received, including interference that may cause undesired operation.

FCC Warning
Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Statement
NOTE: This equipment has been tested and found to comply with the Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
1.Reorient or relocate the receiving antenna.
2.Increase the separation between the equipment and receiver.
3.Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4.Consult the dealer or an experienced radio/TV technician for help.

09 Product Dimension



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