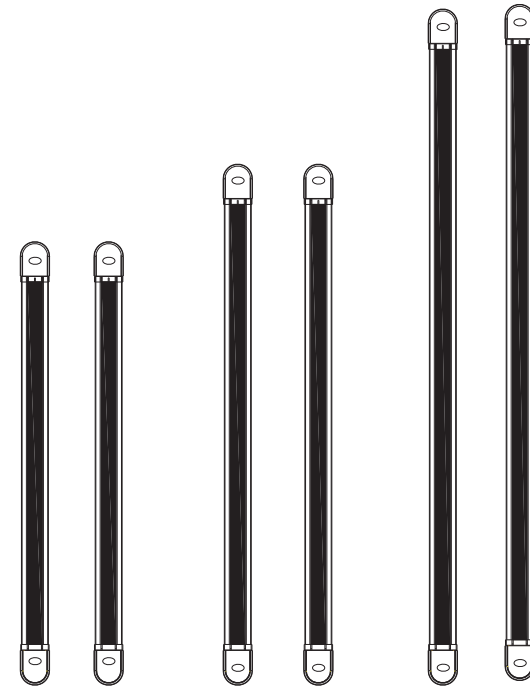




Multi-beams Initiative Infrared Detector

User's Manual



Designed for SAS-10xSeries, SAS-20xSeries, SAS-40XSeries.

-Outdoor 5m -Outdoor 10m -Outdoor 20m -Outdoor 40m

X-Number of Beams: 2. 3. 4. 6. 8. 10 Beams

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Thank you very much for choosing our product. Make sure that you have read this manual before use. It will make your use more efficient.

1. Summary

Dual-purpose Multi-beams Initiative Infrared Frequency Conversion Burglarpro of Detector is the product of modern high technology. This product has a pleasing appearance and adopts the advanced frequency conversion technology (cross-superimposition frequency modulation), which has four frequencies and brings high capability, as well as improves the defect of the traditional detectors. It is suited to protect all high risk installations such as government organizations, schools, villas, factories, military sites, frontier borders, etc. It can keep away from thieves if installed in bounding walls, watercourses, pounds, courts, etc., to secure you and your property efficiently.

2. Capability

Digital Frequency Conversion: It adopts advanced DSP to treat with signals of four different frequencies. There is high precision band-pass filter in the DSP, which can thoroughly eliminate the interference of other frequencies. There are almost no false alarms.

Intelligent Judgment: Two-beam Recognition Principle. When a thief enters the protected area, alarming occurs as adjoining two or more infrared beams are cut off. It can effectively overcome the false alarms of those traditional detectors.

Object Recognition: It can distinguish the size of the object, and give an alarm when there is an invader. It will not alarm when a cat or dog crosses. Therefore, it will not trouble people when they are opening or closing the window.

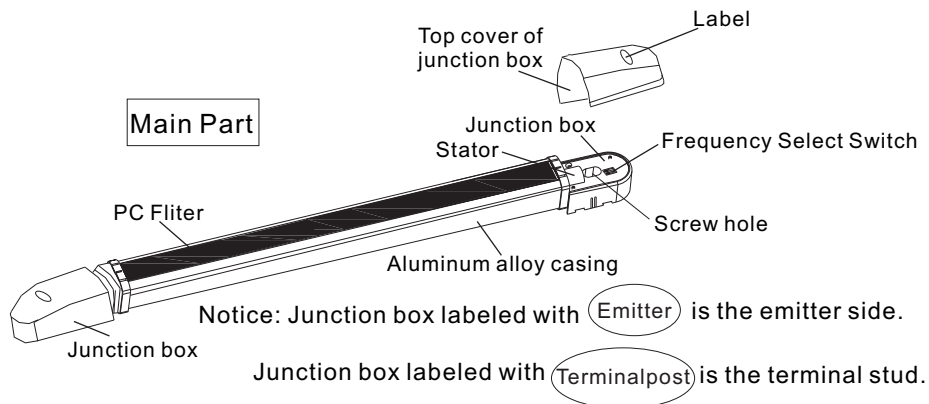
Excellent Reliability: Besides dismantle and cut prevention, there is anti-interference technology, which effectively keeps away from the cheating and vandalism.

High Integration: Fine integration and stability. It can effectively work with other intelligent alarm system.

Anti-vandalism: The combination of aluminum alloy casing and PC engineering plastic can resist the erosion of acid and alkali liquid.

Convenient Installation: exempt the wiring of synchronous wire in traditional railings. It is the ideal product with easiest installation.

3. Name of Components



8. Main Specifications

	3 beams	4beams	6beams	8beams	10beams	
Working Voltage	DC: 10.5V-18V					
Current (max)	Emitter	30mA	36mA	42mA	48mA	54mA
	Receiver	60mA	65mA	68mA	73mA	76mA
Method	Cross-superimposition Frequency Modulation					
Alarm Condition	Adjoining two beams					
Reaction Velocity	Fre1≤44mS	Fre2≤51mS	Fre3≤58mS	Fre4≤65mS		
Alarm Output	Relay open Time≥2.5s					
Relay Contact	AC/DC 30V 0.5A(max)					
Tampered Contact	AC/DC 30V 0.5A(max)					
Temperature	-25~55°C					
Material	Aluminum Alloy Casing and Imported PC Fliter					
Height	3 beams	4beams	6beams	8beams	10beams	

9. Common Problems and Solutions

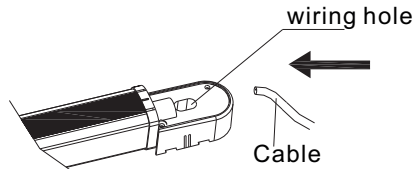
Problems	Causes	Solutions
Power indicator off	power voltage inconformity (short circuit or broken wire)	check power wiring
No work	different frequency selections on emitter and receiver	check frequency selection switch
alarm indicator off when beams are interrupted	1. light from relection or other projector enters receiver. 2. strong reflection light.	1. remove relectionobject or change the direction of Optic Axis. 2. appropriately decrease the emitter power.
alarm indicator on but no alarm when beams are interrupted	1. a break or short circuit on signal wire 2. poor contact	1. examine the wiring 2. examine the contact
receiver alarm indicator on	1. projrctor WORK indicator off 2. barrier between projector and receiver 3. dirty detector surface	1. examine power supply, then restart 2. remove barrier 3. clean the outer casing housing with a mull
False alarms	1. strong fluctuate on supply voltage 2. unsteady installation base 3. Optic Axis is not on optimum position	1. examine voltage,choose stabilized voltage supply 2. choose a steady place to install 3. re-adjust Optic Axis

5. Installation Method

1. Remove the top cover of junction box labeled with Terminalpost

2. pull the cable through the hole , then wiring.

1.1 How to remove: withstand the box end with forefinger; then pull towards the direction which the arrow indicated, remove the cover upwards when you hear a sound.

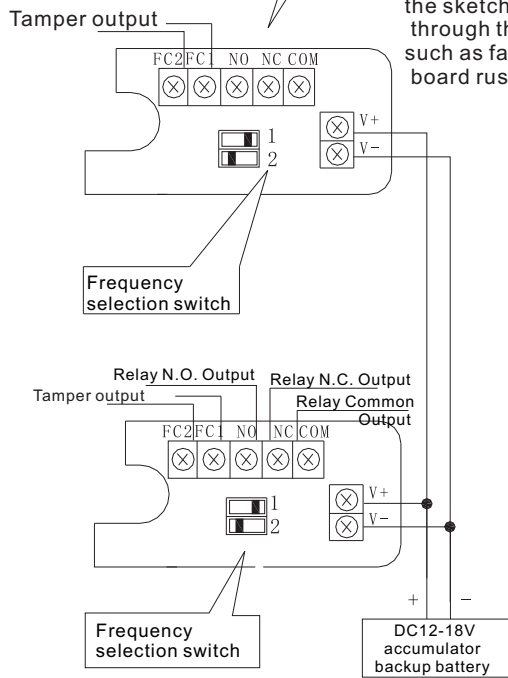


stress direction

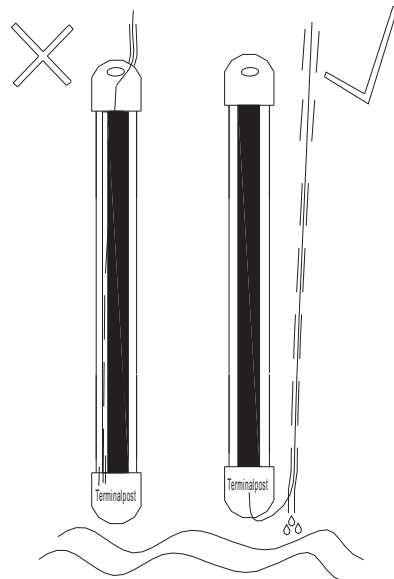
3. Projecting Power Adjusting Method

1. NC, NO, COM all not parallel connection, low power.
2. NC and COM parallel connection, moderate power.
3. NO and COM parallel connection, high power.
4. NC, NO and COM all parallel connection, max power.

Notice
When install it outdoors, please conduct following the sketch map in case of water enters the detector through the cable and cause serious problems, such as false alarms, short circuits, electrocircuit board rustiness, etc.



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5. Frequency selection method

- (F1) Frequency I: set 1 and 2 off →  (F3) Frequency III: set 1 off and 2 on → 
 (F2) Frequency II: set 1 ON and 2 off →  (F4) Frequency IV: set 1 and 2 on → 

6. Dig the installation holes on the wall with Drill $\phi 6$, drive in the plastic pole and mount the bolt sleeve; then fasten mounting brackets with M3*40 grub bolt.

7. make sure projector and receiver is corresponding: when turn on the power, projector green power indicator on, green indicator on and blinking; when reach alignment, indicator on receiver will show green light on and red off.

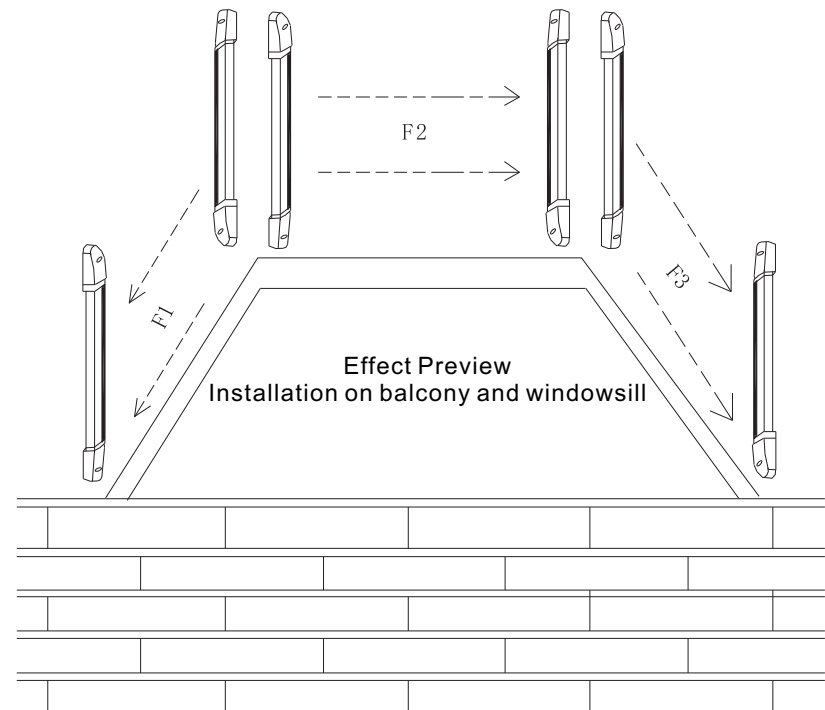
(attention: frequency selection on projector and receiver must be corresponding, or signal cannot be received.)

8. screw up the fansten bolts on projector and receiver mounting brackets, then close up the top cover of brackets.

9. The receiving railing will send out wired /wireless signal in the case of any situations below:

- A. Tow or more adjoining infrared beams are cut off by an object.
- B. Power supply wire is artificially nipped.

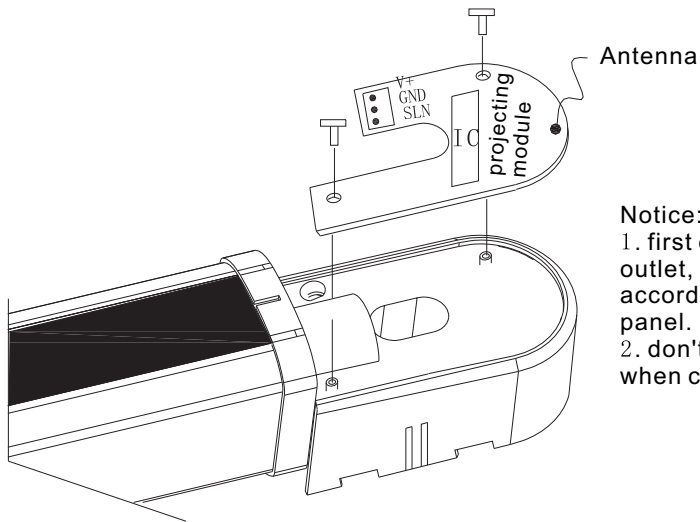
10. Preview of Installation Effect:



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6. Installation of projecting module

1. wireless projecting module is optional, please install it as the map indicated.
2. the control panel can receive wireless alarm signal when the the coding of wireless projecting module is corresponding with receiving control panel.
3. conduc the installation following the map. After screw up the bolt, plug in 3P outlet on receiver mainboard to the projecting module.



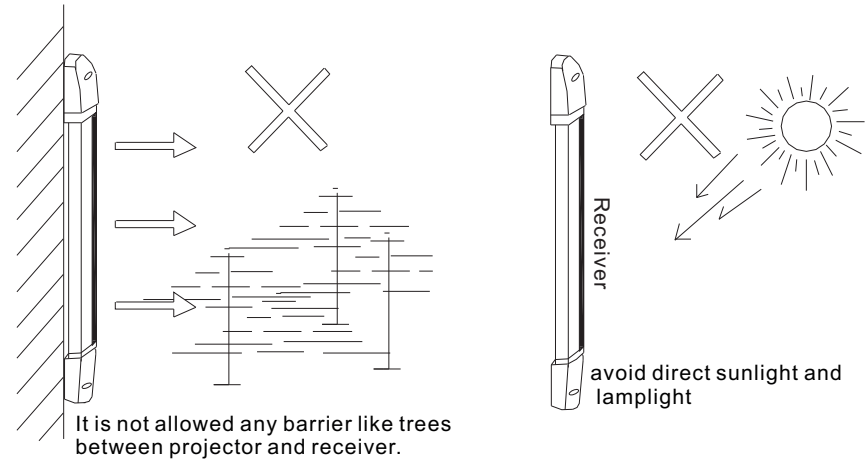
- Notice:
1. first examine the bolt, outlet, then start coding according to the control panel.
 2. don't act recklessly when conduct installation.

7. Action Confirmation

After setting, please be sure to conduct walking test and action confirmation according to the following table.

Name	State	Indicator
Emitter	power on	red LED on
	projecting	green LED on, red LED on
Receiver	protecting	green LED on, red LED off
	alarming	red LED on

4. Notice on Installation



1. mounting brackets must be steadily installed to the wall in order to avoid becoming loosened or disengaged, which will cause wrong action.
2. It is not allowed any barrier between projector and receiver. (e.g. Tree)
3. avoid direct sunlight, lamplight or other strong light.
4. in this product adjust the place of projector jumper cap to adjust projecting power. It can reduce false alarms. Usually when applied in outdoor harsh environment, power should be increased; only in the case of strong signal or no alarm because of reflection, appropriately decrease the power.
5. this product requires DC stabilivolt 12V-18V power supply, the ideal choice is rechargeable accumulator backup battery. It is not allowed to use nolinear switch power supply.

6. Installation Flow Chart

