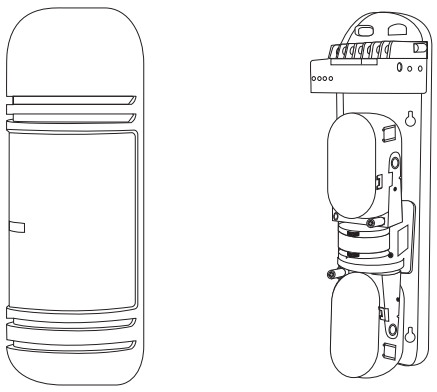
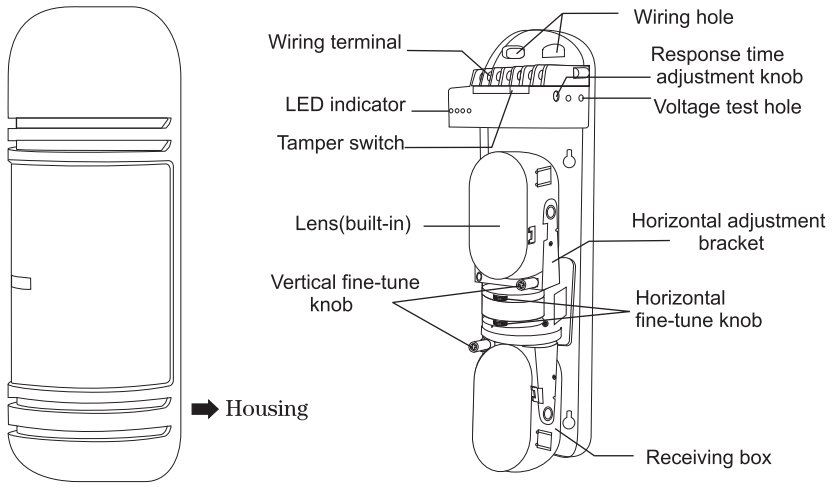
Wired / Wireless Perimeter Intrusion Beam Detector

BS 1624



CE

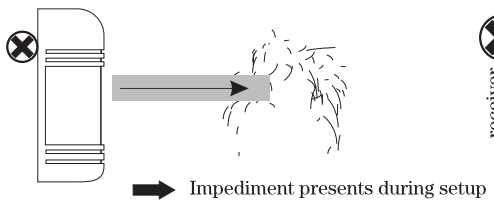
Ⅰ. Part Name



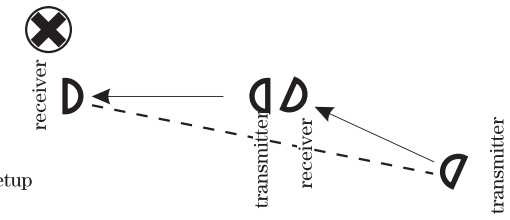
● POWER: The indicator turns on when power is connected.

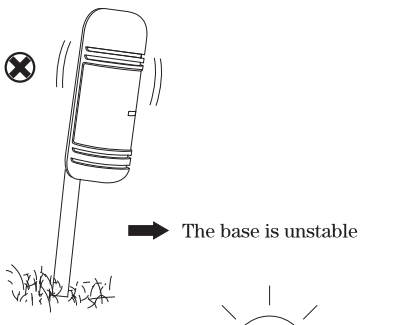
● ALARM: The indicator turns on when alarm presents.

Ⅱ. Precautions for setting

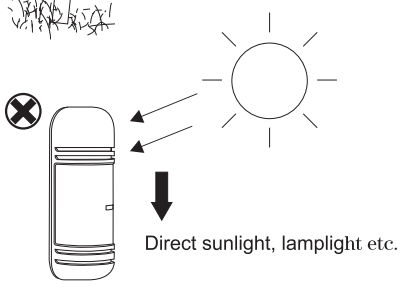


Impediment presents during setup



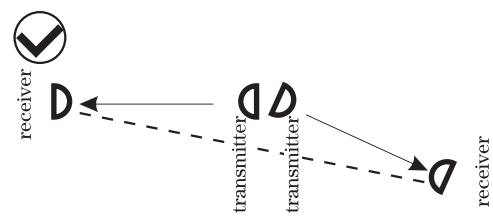


The base is unstable

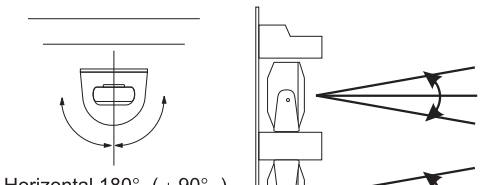


Direct sunlight, lamplight etc.

Multi sensors may be used for long-distance guarding. Please install according to the below diagram to avoid interference between beams.

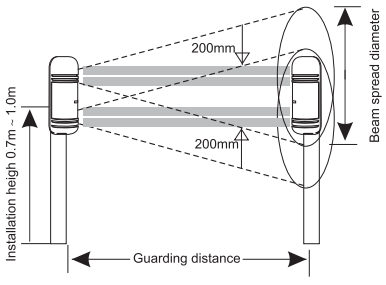


●Adjustable angle: horizontal ±90°
vertical ±10°



Horizontal 180° (±90°)

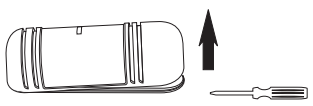
Vertical 20° (±10°)



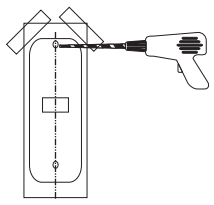
Style	Guarding distance	Beam spread diameter
50	50m	0.8m
100	100m	1.6m
150	150m	2.4m
200	200m	3.2m
250	250m	4.0m

Ⅲ Setting procedure

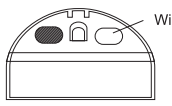
1.Remove the cover



2.Attach the paper stencil onto the location where the equipment is to be mounted, and drill the holes in the positions on its mark.

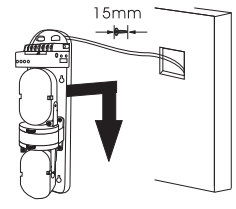


3.Put the cable through the hole for wiring.

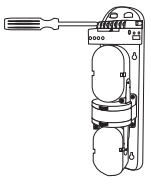


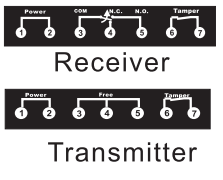
NOTICE:First pull the wire through the waterproof rubber,then attach the interface.

4.Fix the main body onto the wall



5.Connect the cable to the wire terminal.

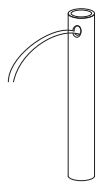




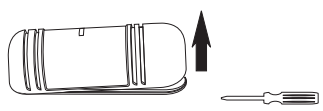
6.Put on the cover after adjusting the response time of the beam.

● **Installation of fixed bracket**

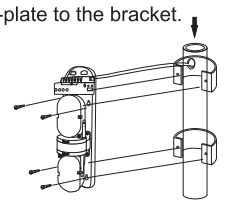
1.Drill a hole on the bracket and extend out the cable from it.



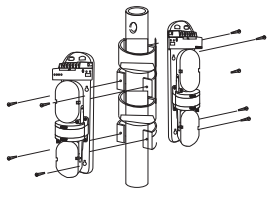
2.Remove the cover.



3.Fasten the base-plate to the bracket.



(Back-to-back installation guiding diagram)



Wiring distance between transmitter and receiver

wire size \ voltage / distance	DC12V	DC24V
0.5mm²(φ0.8)	200m	400m
0.75mm²(φ1.0)	300m	600m
1.25mm²(φ1.2)	600m	1200m
2.0mm²(φ1.6)	900m	1800m

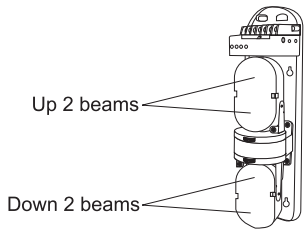
Ⅳ Beam alignment

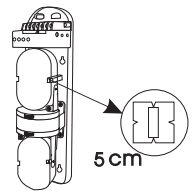
Visual test method

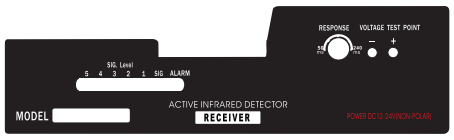
1.Remove the cover and connect power.

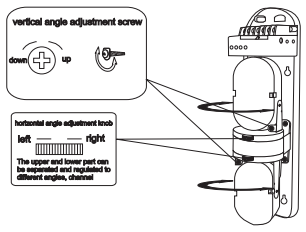
2.Observe the collimation effect at a distance of 5cm from the viewfinder. Adjust the upper / lower angle regulation screw and horizontal adjustment wheel in order that the image of opposite detector falls into the central part of the viewing hole.

3.Adjust the vertical adjustment screw and the horizontal angle adjusting wheel, the signal strength indicator will light up step by step, adjust until level 5 or higher indicator lights up. If not, adjust it repeatedly.

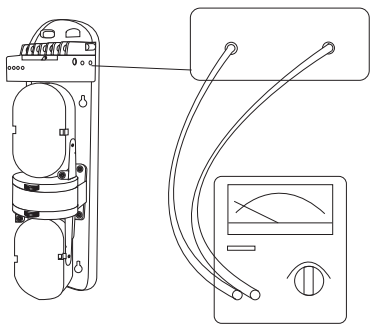








NOTICE: In the diagram, after adjustment of the beam, the level 5 of the reception / transmission LED shall light up. Otherwise, adjust again. It is strongly recommended that it should be adjusted to the point until level 7 or higher lights up.



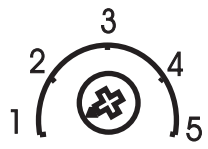
Multimeter selects DC 20V

Voltage test method

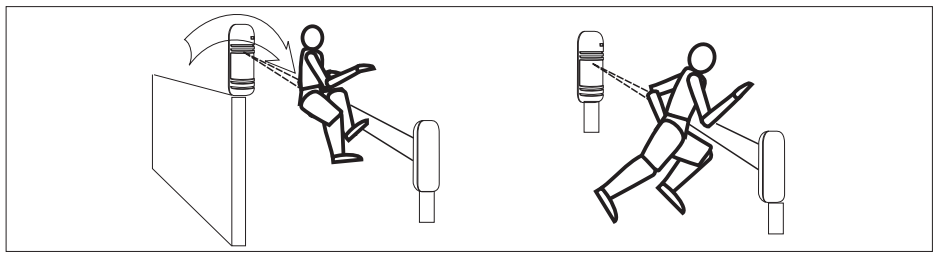
1.Cover the receiver with a light filter. Insert the test pen into the test hole (please note the +,- polarity).Adjust the beams until the voltage is above 1.6V.

2.The adjustment method is the same as visual test method. But the voltage shown by the multimeter must satisfy the value as under form. Otherwise, repeat the steps above to meet the standard.

Ⅴ Beam response time adjustment

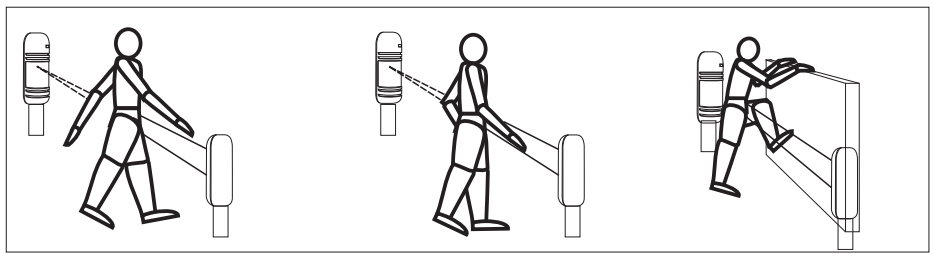


Please see the diagram to adjust the response time of the receiver. Usually, the time set shall be less than the time when the intruder crosses the guarding area.



High speed:1 Fast running(6.9m/s):2

Fast walking(1.2m/s):3 Normal walking(0.7m/s):4 Slow walking(0.4m/s):5



Ⅵ.Physical test

Walking test is required after the setting, accordance to below diagram.

	State	Signal
Transmitter	Transmitting	The indicators of green LED light up
Receiver	Guarding	SIG LEVEL indicators light up
	In alarm	The red ALARM indicator light up

Ⅶ. Trouble checking

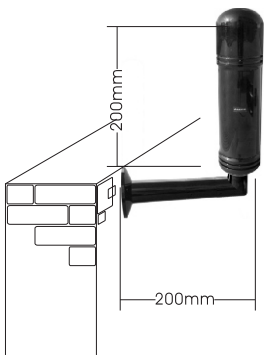
Fault	Cause	Solution
The LED of the transmitter doesn't light up	Power failure (open circuit, short-circuit, etc.)	Check the power wiring
The LED of the receiver doesn't light up	Power failure (open circuit, short-circuit, etc.)	Check the power wiring
The LED of the receiver doesn't light up when the light is blocked	1.By reflecting, or light from other sources enter the receiver 2.Both beams are not blocked at the same time 3.Response time is set too short	1.Remove the reflecting object or change the direction of beam 2. Block both beams at the same time 3.Prolong the response time
The receiver alarm indicator ON after the beam is blocked, but there is NO alarm signal output	1.Broken circuit or short-circuit of the wiring 2.Poor contact	1.Check the wiring and contact 2.Connect the cable
The alarm indicator of the receiver is constantly ON.	1.The beam doesn't match closely 2.There is obstacle presents between the transmitter and the receiver 3.The cover is polluted.	1.Re-adjust the beam 2.Remove the obstacle 3.Clear the cover
Intermittent alarm signal output	1.Improper wiring 2.The supply voltage does not reach 13V or higher 3.The potential obstacle appears to block the beams due to the effect of wind and rain 4.The installation base unstable 5.The beam coincidence accuracy is inadequate 6.Beams blocked by other moving objects 7.Response time too short 8.Level 5 LED does not light up before the cover is put on	1.Check the wiring 2.Check the supply power 3.Remove the obstacle or change the location 4.Select a site with a stable base 5.Re-adjust the optical axis 6.Adjust the shade time or change the install location 7.Re-adjust the response time 8.Re-adjust the optical axis, and make the signal reception reaches its top.

Ⅷ. Technical parameters:

Model		BS 1624				
Alert distance	Outdoor		100m			
	Indoor		100-150m			
No. of beams		4 beams				
Detection mode		4 beams blocked simultaneous				
Optical source		Infrared digital pulse beam				
Response speed		35 ~ 700msec adjustable				
Alarm output		Relay contact output: NO. NC contact rating: AC/DC30V 0.3AMax				
Power supply		DC1 2 ~ 24V				
Power consumption		Below 60mA(when all the LED is off and NO ALARM)				
Operation temperature & humidity		95mA	100mA	100mA	100mA	105mA
Dimensions		Refer to its diagram				
Tamper output		Contact output: NC contact rating DC24V 0.3Amax				
Optical axis adjustment(H)		180° (±90°)				
Optical axis adjustment(V)		20° (±10°)				
Viewfinder		Window style				
Protection against dew, frost		Calefaction housing (optional)				
Material		PC resin				
Net weight		2000g(receiver +transmitter)				
Gross		2500g				

Ⅸ. Recommended installation guide & physical appearance and dimension

Recommended installation



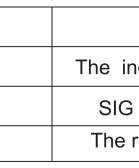
T-shaped bracket
T-100
100 × 120mm

T-200
200 × 120mm

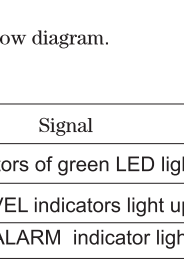
l-shaped bracket
l-100
100mm

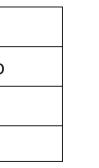
l-200
200mm

Installation bracket

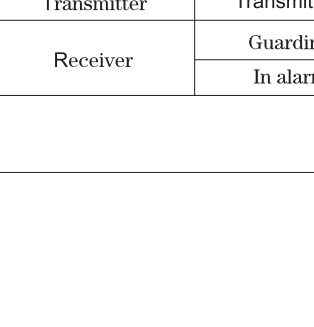


L-shaped bracket
80 × 75mm





Dimensions



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