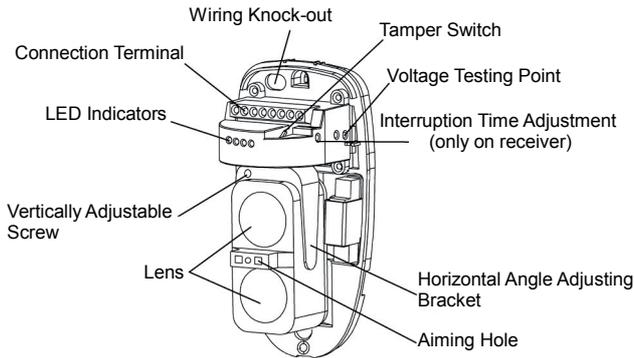


Active Edge

GJD940 / GJD960 Dual Infra-Red Beams

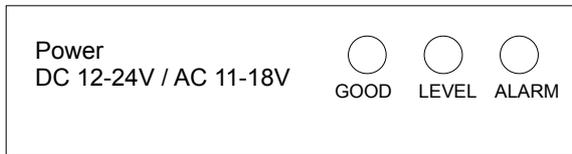


Parts Description



Receiver Interior

LED Indicators



Receiver Indicators

GOOD: Green indicator shows when the beams are aligned.

LEVEL: Green indicator shows beam alignment accuracy. The brighter the LED, the more accurately aligned the beams are.

ALARM: Red indicator lights when an alarm signal is generated.

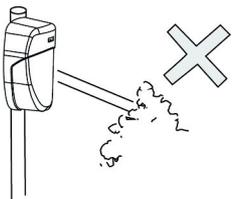


Transmitter Indicator

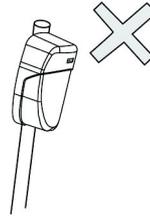
POWER: Green indicator shows when the transmitter is powered and transmitting.

Positioning

Do not mount the detector in the following areas:

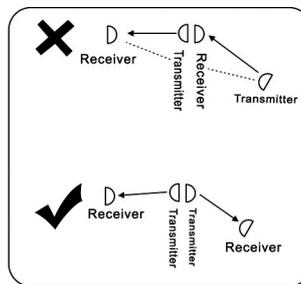
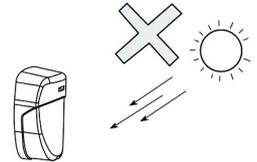


Care must be taken when positioning the beams; items such as trees, plants, washing etc. must be avoided.



The transmitter and receiver must be mounted on a solid base.

Avoid positioning the beams where they could be affected by direct sunlight and vehicle lights.

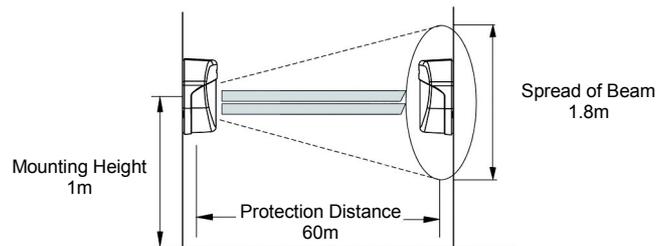


When beams are fitted in close proximity to other beams the top configuration must be avoided; the bottom example is correct.

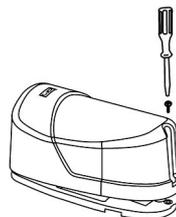
Mounting Height & Detection Distance

Model	Detection Distance	Beam Spread
GJD940	60m	1.8m
GJD960	100m	3m

Example (GJD940)

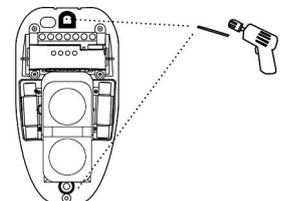


Installation



1. Loosen the cover fixing screw and remove the cover.

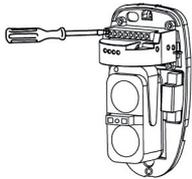
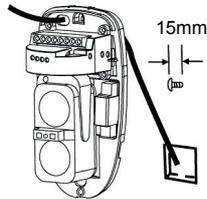
2. Attach the mounting template to the wall, mark the installation holes and drill the holes.





3. Remove the knock-out and pull the wire through.

4. Mount the detector to the wall.



5. Connect the wires to the terminals.

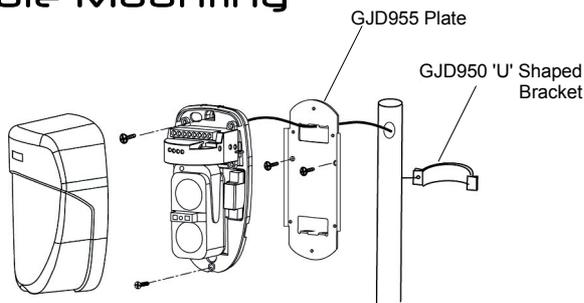
Terminal Wiring Patterns



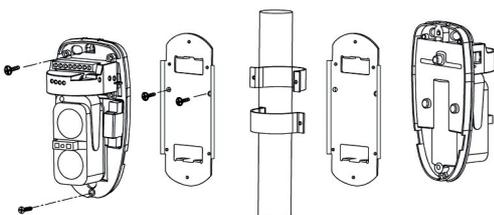
Wiring Distances

Diameter	DC 12V	DC 24V
0.5mm ² (Diameter 0.8)	300m	600m
0.75mm ² (Diameter 1.0)	400m	800m
1.25mm ² (Diameter 1.2)	700m	1400mm
2.0mm ² (Diameter 1.6)	1000m	2000mm

Pole Mounting

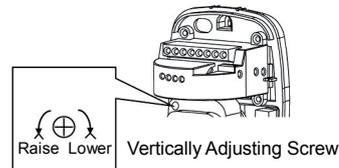
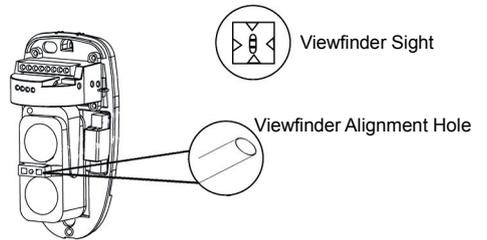
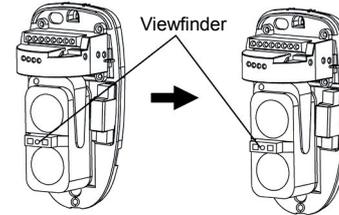
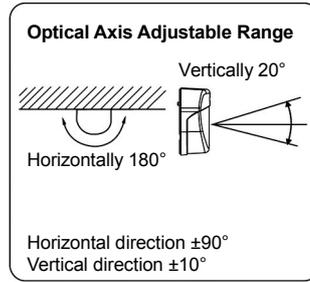


1. Remove the cover
2. Fit the base plate on the bracket



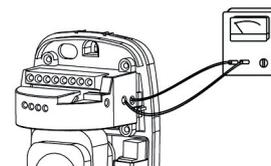
When mounting units back to back, please refer to proper positioning practices outlined in the "Positioning" section of this manual.

Beam Adjustment



1. Remove the cover, apply power.
2. Look down the angled viewfinder alignment hole from a distance of approximately 10 cm. The detectors are properly aligned when the beam is in the centre of the four alignment markers.
3. Adjust the horizontal angle adjusting screw and bracket to align the beam in conjunction with the viewfinder and LEVEL LED to obtain the highest signal.

To achieve the best optical alignment it is advised to use a volt meter connected to the output test point.



1. Insert the multimeter probes in to the test point.
2. Adjust the horizontal and vertical angles to obtain the maximum voltage from the test point.
3. The test point voltage must be above 1.1 volts.

Testing

Confirm correct operation after installation by carrying out suitable walk tests. Operational status can be identified by the following indicators:

- The green LED on the transmitter should be permanently lit.
- With the beam unobstructed, both the GOOD and LEVEL green LEDs should be lit on the receiver.
- When the beam is blocked, the red ALARM LED on the receiver should be lit and the alarm output relay should be activated.

Trouble Shooting

Symptom	Possible Cause	Remedy
Transmitter LED does not light.	Improper voltage supplied.	Check the power supply and wiring
Receiver LED does not light.	Improper voltage supplied.	Check the power supply and wiring.
Alarm LED does not light, even when beams are blocked.	1.Beams are reflected to the receiver by other objects. 2.2 beams are not blocked simultaneously. 3.Interruption time is too short.	1.Remove the reflecting object or change the optical axis direction. 2.Shade 2 beams. 3.Increase interruption time.
When the beams are blocked, the receiver LED lights are on, but not causing an alarm.	Wiring short circuit.	Check wiring.
The alarm indication lamp on the receiver is always on.	1.Optical axis is not properly adjusted. 2.There are blocks between the transmitter and receiver. 3.The detector cover is dirty.	1.Adjust the optical axis. 2.Remove the blocks. 3.Polish with soft cloth.
Intermittent Alarm	1.Bad wiring. 2.Fluctuating power supply/voltage. 3.Movable blocks between the transmitter and the receiver. 4.The installation base is unstable. 5.Blocked by other moving objects.	1.Check wiring. 2.Check the power supply. 3.Remove the blocks or relocate. 4.Fix the mounting. 5.Adjust interruption time or change installation position.

Accessories

GJD is able to supply the following accessories to aid installation:

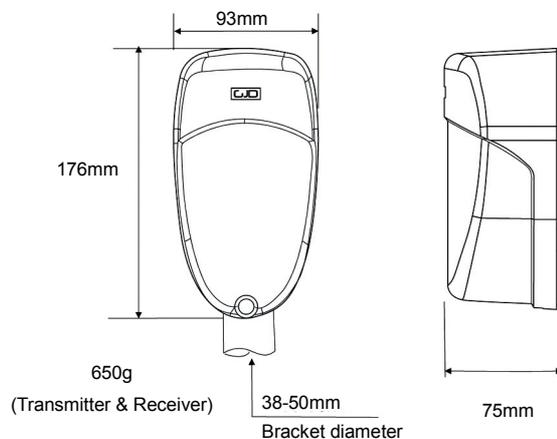
GJD950 'U' Bracket
GJD955 Back Plate

Specifications

Model	GJD940	GJD960	
Detection Method	Infra-red photoelectric		
Range	Outdoor	60m	100m
	Indoor	180m	300m
Beam Characteristics	Pulsed infra-red dual beams		
Interruption Period	50-700msec (selectable)		
Power Input	12-24 VDC / 11-18 VAC		
Current Consumption	55mA max	65mA max	
Alarm Period	2 seconds (±1) nominal		
Alarm Output	Form C relay (AC/DC30V 0.5A max)		
Tamper Switch	Normally Closed. Opens when cover is removed (receiver only)		
Operating Temp.	-25°C - +55°C		
Environment Humidity	95% max		
Alignment Angle	Horizontal ±90°, Vertical ±10°		
Mounting	Wall or pole		

GJD reserve the right to amend specifications without prior notice

Dimensions & Weight



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Engineer Notes

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