



IP65, Suitable for outdoor use



Front and rear tamper detection



Detection range selectable  
3m - 12m



Temperature compensation for extreme environments

### PACKAGE CONTENTS

- 1 x GEM body
- 1 x T-bracket assembly
- 4 x wall plugs
- 4 x wall fixing screws
- 1 x drilling template
- 1 x opening tool

### INTRODUCTION

The GEM detector is an outdoor motion detector utilising precise PIR technology.

The detector has two N/C outputs for alarm and tamper triggering.

### QUICK INSTALLATION

1. Mount the detector following the instructions in sections "Mounting the Unit" and "Detector Placement and Beam Pattern".
2. Power the unit and ensure switch 1 is set to ON. The unit will flash for two minutes during this time. Fit the front cover on the unit and when the unit has finished flashing it will be ready for walk testing.

### MOUNTING THE UNIT

During installation, protect the electronics against water as trapped moisture can affect or damage the unit.

### BASIC INSTALLATION, BEAM OUTWARD FROM SURFACE (see figures 2,3,11,13)

1. Use drilling template to locate the two mounting holes (A figure 2).
2. Next feed the cable through rear or side knock-outs and then fix to the wall (B & C figure 2).

### INSTALLATION WITH T-BRACKET ASSEMBLY, BEAM ACROSS SURFACE (see figures 4,5,12,14)

1. Use drilling template to locate the four mounting holes (A figure 4).
2. Next feed the cable through rear or side knock-outs (B figure 4) and out through cable access point. Fix to the wall and then secure the blanking plate onto the unused side of the T-bracket (figure 5,15).

### FRONT ASSEMBLY (see figure 6-10)

1. Feed cable through grommet. Clip middle section shown into lower part of back section (figure 8) push back until flat to wall. Cut and wire the cable into the terminal blocks (figure 6,7)
2. Push the bottom of the front cover into clip on the middle section and rotate back flat to the wall (figure 8). Secure by tightening the screw in access hole. Finally push fit screw cover.
3. To access the unit once installed first lever off the screw cover (see figure 9). Unscrew the screw in the access hole. Next reverse steps shown in (figure 8) or to remove from the wall use provided clip to lever off the wall mounting (see figure 10).

### DETECTOR PLACEMENT AND BEAM PATTERN (see figure 12 -15)

The detector uses infrared sensing to determine motion detection. The optimum position of the detector should be chosen to detect an intruder crossing the beam pattern (figure 13), and to avoid traffic from roads and paths (figure 14).

For applications where the T-bracket is used ensure the angle of the detector is pointing 2° away from the building (figure 15).

The detector should be at an optimum height of 2-2.5m. Secure the detector to a wall or solid fixture.

### PROGRAMMING

The detector can be programmed with different range and sensitivity options and also LED indication. This can be done by changing the four DIP switch settings on the detector PCB (see figure 6). The range can be set to 3, 6, 9 or 12m and the sensitivity can be changed to high or low.

### WALK TEST

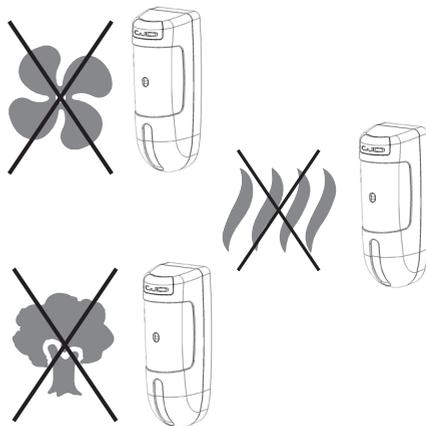
Set the LED Indication to Enabled (figure 6). On power up the LED will flash red for 1 minutes. The detector will then indicate an alarm condition with a red LED.

The alarm detection will flash red for 1s with an interval of 5s between detections when LED indication is ON.

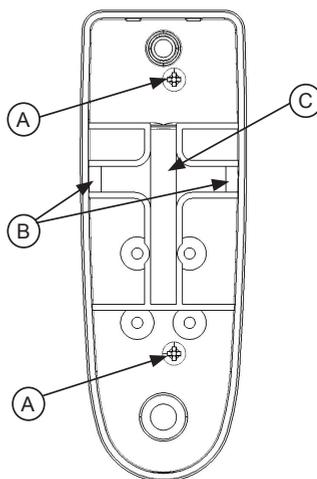
## SPECIFICATIONS

<b>Part Number</b>	GJD150
<b>Detection selectable range</b>	3m 6m 9m 12m
<b>Normally Closed Alarm</b>	50mA 24Vdc Alarm time 10s
<b>Normally Closed Tamper</b>	with 20Ω impedance 50mA
<b>Power input</b>	12V +/- 3V @ max 20mA
<b>*During installation the DC supply fault current shall be limited to a maximum of 1A</b>	
<b>Operating temperature</b>	-20°C to +55°C
<b>Temperature compensation</b>	Digital
<b>Maximum Beam Pattern Area</b>	12 x 2m
<b>Dimensions</b>	117mm[h] x 44mm[w] x 41mm[d]
<b>T-Bracket</b>	120mm[h] x 68mm[w] x 50mm[d]
<b>Boxed</b>	125mm[h] x 93mm[w] x 58mm[d]
<b>Weight</b>	139g
<b>Packed weight</b>	201g
<b>Cable (&lt;200m)</b>	8 core 7/0.2mm
<b>Walk Test</b>	Using LED Indication
<b>Recommended Mounting Height</b>	2 - 2.5 m
<b>Swivel Bracket Accessory</b>	GJD149/W - White
<b>Certifications</b>	

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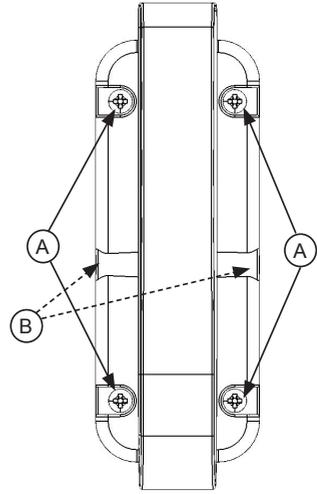
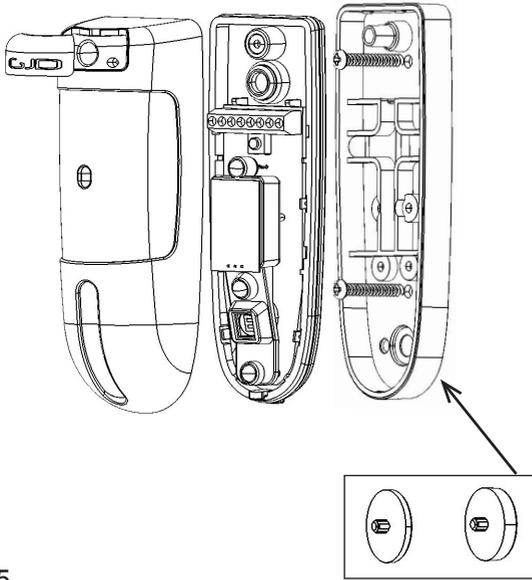
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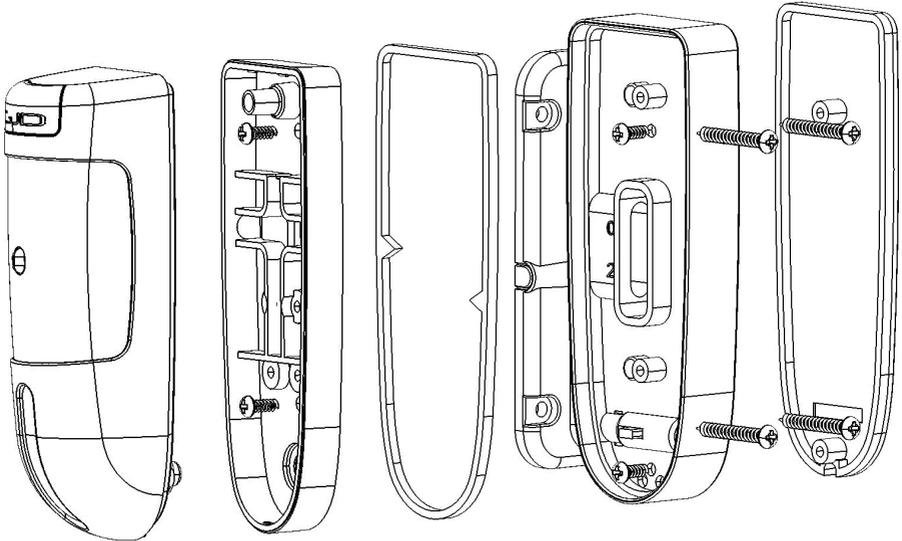
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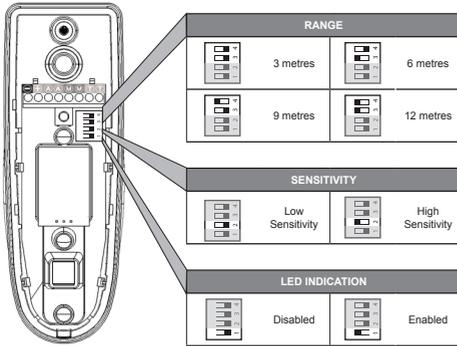
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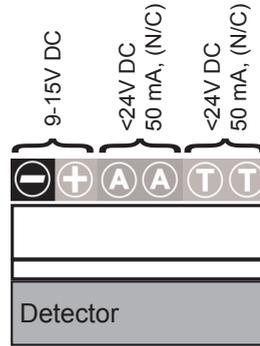
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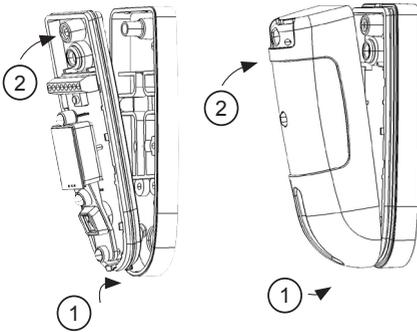
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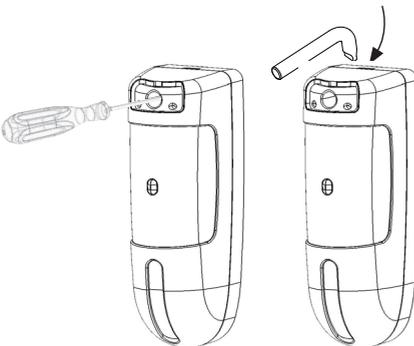
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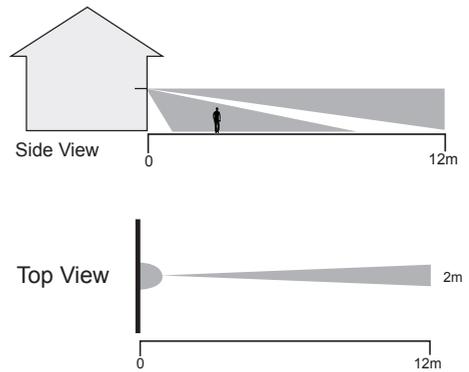
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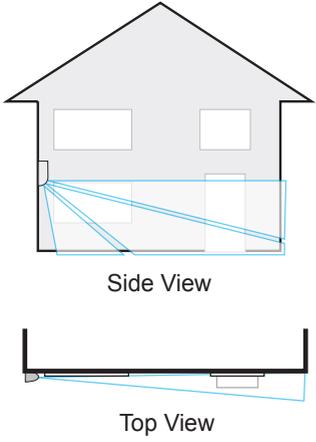
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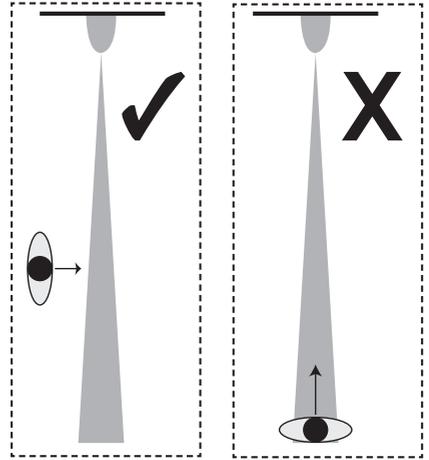
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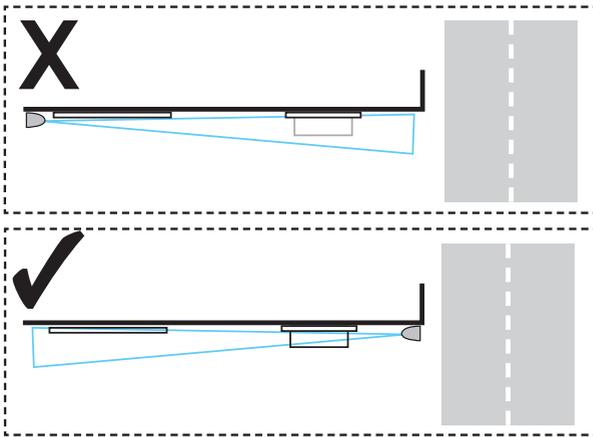
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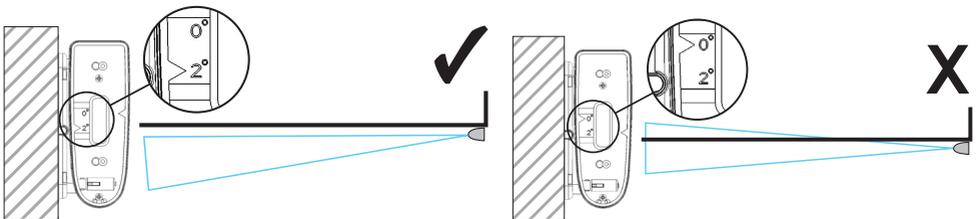
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# ENGINEER NOTES

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