

D-TECT DUAL HT

GJD362 High Temperature Technology External Detector



PACKAGE CONTENTS

- 1 x D-TECT Dual HT
- 1 x Drilling template for fixing holes
- 3 x 31.75mm wall plugs
- 3 x 31.75mm screws
- 2 x Spare Sliding Curtains
- 2 x Tamper Feet
- 1 x Installation manual

INTRODUCTION

The D-TECT Dual HT is an outdoor motion detector and alarm trigger. Utilising dual detection technology, the Dual Tech delivers precise, reliable presence detection.

QUICK INSTALLATION

1. Mount and connect the detector following the instructions given later in this sheet.
2. Apply supply voltage to the unit. The detection LED (blue) flashes three times.
3. Wait approximately 2 to 3 minutes to allow the detector to settle.

Note: The front cover must be fitted when walk testing.

The default settings are:

- Range: 20 meters
- Pulse count: 1
- Detection LED: off

MOUNTING THE UNIT

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

WARNING

• NYLON WASHERS PROVIDED MUST BE USED WITH SCREWS

• ENSURE CABLE ENTRY AND SCREW HOLES ARE SEALED WITH WATER BASED SEALANT

• DO NOT USE SILICONE BASED SEALANT



To reduce the possibility of the microwave circuit being affected it is recommended to leave a minimum space of 3 metres between D-TECT Dual HT sensors when mounted alongside each other. When facing each other a minimum space of 15 metres is recommended. It is possible to mount the units back to back however when detectors are mounted in close proximity to one another it is advisable to carry out a walk test to ensure that external objects are not influencing the microwave circuit.

1. Drill the wall to accept the two fixing screws, the cable entry, and the tamper cup (if used). See Figures 1 and 2. A hole-drilling template is provided.

Note: We recommend using the tamper cup on uneven wall surfaces.

2. Remove the cover assembly by loosening the locking screw using the allen key provided. The cover hinges from the top and lifts out of the location slot. See Figure 3.

3. Feed standard eight-core alarm cable into the cable entry. Bare the wires and connect 6 wires to the terminal block and optionally connect 2 to the tamper board. See Figures 2, 4, 5, 6 & 7.
4. Screw the unit to the wall ensuring that the tamper pin is correctly located and that the tamper microswitch is closed. See Figure 7. To aid installation, two spare tamper feet are provided. One is 1mm longer and the other is 2mm longer than the tamper foot originally fitted. The tamper foot is a push fit and can be removed by carefully pulling it from the pin. See Figure 2.
5. When the detector is aligned, connected, and programmed to suit the installation, replace the front cover and lock as shown. See Figure 8.

MULTIBEAM ALIGNMENT & MASKING

The multifunction lens fitted to D-TECT Dual HT produces seven long range beams and seven medium to short range curtain PIR beams. The PIR circuitry detects changes in heat and movement in the beam pattern; therefore items such as trees, shrubs, ponds, boiler flues, and animals should be considered when positioning the detector.

Note: The PIR sensor is more sensitive to movement across the beams, and less sensitive to movement directly towards or away from the beams.

The detector module is fitted with two sliding shutters to reduce the detection angle.

The curtains are fitted to the pan and tilt module as shown in Figure 9 (shown with primary and additional curtain sliders fitted). Each section of the detector lens gives a coverage pattern of approximately 10 degrees.

An additional set of curtain sliders is provided should the beam pattern need to be narrowed even further, e.g. if the minimum detection angle of 10 degrees is required.

When coverage exceeds the desired detection area, adjust the module as required and mask off any beams, either vertically or horizontally, to avoid unwanted detection.

Use portions of the self-adhesive silver mask applied to the rear, smooth side of the lens as shown in Figures 10 & 11. Always replace the lens the correct way up to ensure exact beam pattern coverage (top of the lens is marked TOP).

When mounted at heights above 3 metres there could be a significant reduction in the range of detection and the target will have to move a greater distance within the field of view before an alarm is generated.

MASKING CONFIGURATIONS FOR MAXIMUM RANGE

Configuration	Mounting Height (Metres)	Tilt (°)	Max. Range (Metres)	Reference
Multibeam (Optimum)	3	0	20	Figure 10
Pet Immunity	1.5	-2	20	Figure 11

Figure 12 shows the pattern for the maximum range in the optimum position (see Figure 10).

Figure 13 shows the pattern for the minimum range (10m).

Figures 14 and 15 illustrates alignment recommendations for when the detector is mounted close to a wall.

The alignment shown in Figure 14 is not recommended. If the detector module is orientated at an angle of 90° to the perimeter, the mounting wall may cut off short and medium range beams. The long range beam will still detect an intruder, however the wall can cause false alarms when heated by sunlight.

Figure 15 shows the recommended alignment. The detector module is orientated at a 55° angle to the perimeter. As a result, short and medium range beams are parallel to the perimeter, but the detection range along the perimeter is reduced to 15 metres.

PROGRAMMING

To change any of the detectors settings change the configuration of the programming switches (see Figure 16)

PROGRAMMING CHART

Option	Switch Configuration
Range 10 metre	Switch 1 off
Range 20 metre	Switch 1 on
Pulse count 1	Switch 2 off
Pulse count 2	Switch 2 on
LED Off	Switch 3 off
LED On	Switch 3 on

PROGRAMMING OPTIONS DEFINITIONS

Pulse Count

This is the number of times the unit has to detect on both of its sensors before signalling an output.

LED

LED Off – LED disabled.

LED On – LED signals a detection.

WALK TEST

In walk test mode, the detection LED option is set to ON, and the pulse count option is set to 1. The detection LED lights each time the D-TECT Dual HT detects your presence.

The walk test mode is automatically selected after power up and cancels automatically after there has been no detection for 5 minutes. After this the LED will be disabled unless selected on with switch 3.

Note: When you conduct a walk test, make sure that the front cover is in place. Do not conduct walk tests with the cover removed.

The range of the detector increases without the protective front cover. Therefore the front cover must be fitted to establish the correct beam pattern. Use programming chart to adjust the range as necessary. Pan and tilt the lens module over the field of view to obtain the correct coverage area.

ACCESSORIES

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

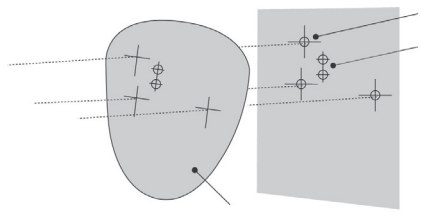
GJD304 Conduit cable entry adaptor ring
 GJD305 Pole mount clamp
 GJD380 D-Tect Walk Tester

SPECIFICATIONS

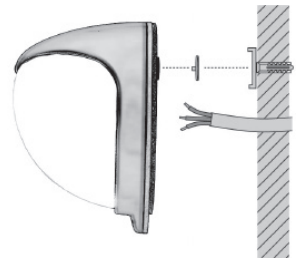
Microwave Frequency	10 dBm EIRP Operating frequency (country specific) GJD362/25 - 10.525GHz GJD362/35 - 9.35GHz GJD362/87 - 10.587GHz GJD362/90 - 9.9GHz
Detection Area	Selectable between 10 & 20 metres.
Coverage	10-70 degrees detection angle, 20m x 20m coverage max.
Adjustment	180 degree pan + 90 degree tilt.
Fresnel Lens	28 zones for each Pyro pair, which can be masked with curtain sliders and special masking tape (supplied).
Customised Optics	Double silicon shielded quad element eliminates 50,000 Lux of white light.
Outputs	Silent solid state magnetically immune.
No. 1	N / OPEN Volt free relay signal contact 24VAC/DC @ 50mA with an integral 25Ω Alarm time 5 seconds
No. 2	N / CLOSED Volt free relay signal contact 24VAC/DC @ 50mA with an integral 25Ω Alarm time 5 seconds
Power Input	9 to 15 VDC.
Current	9mA (12V nominal).
Pulse Count	1 - 2.
Temp. Compensation	Digital sensitivity adjustment.
Control	Digital microprocessor – non volatile memory
Walk Test	Output test mode with LED indication
Operating Temp.	-20 to +55 Centigrade Conformal coated electronics for increased stability
Housing	High impact ABS.
Protection Rating	IP 65
Dimensions	145 x 120 x 115 mm
Weight	274 grams NET, 390 grams GROSS
Mounting Height	Variable - optimum height 3 metres.
Cable < 200m	Using all 3 outputs (including tamper) – 8 core 7/0.2mm
Cable < 500m	Using all 3 outputs (including core 16/0.2mm



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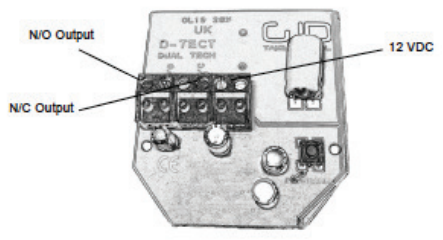
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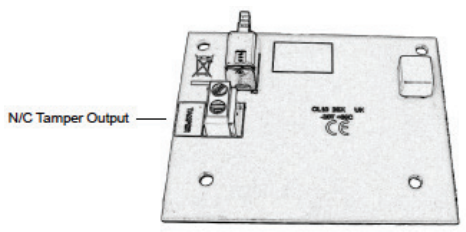
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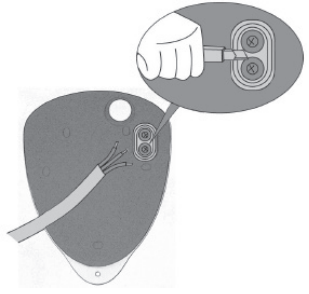
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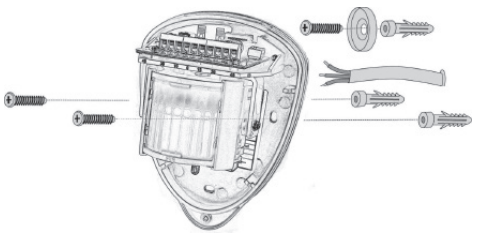
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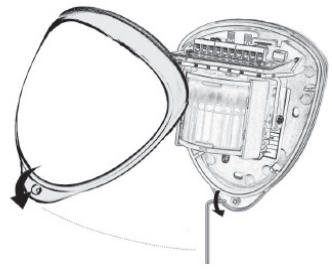
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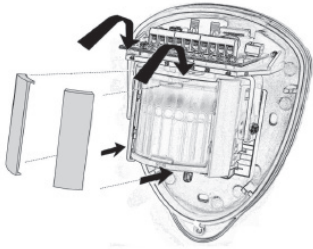
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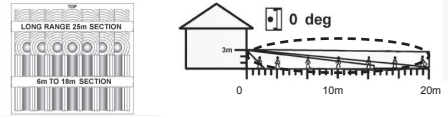
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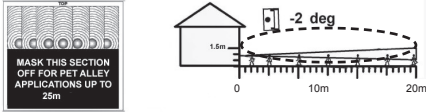
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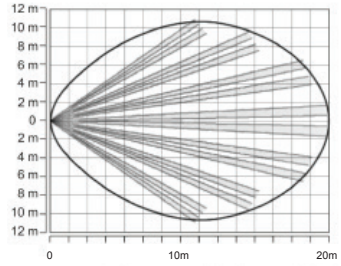
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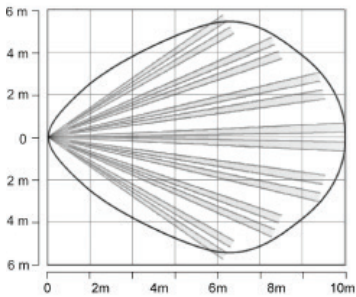
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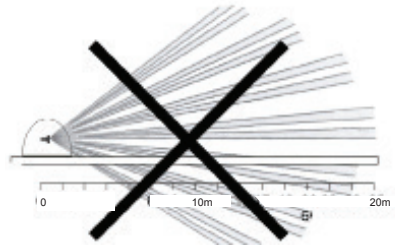
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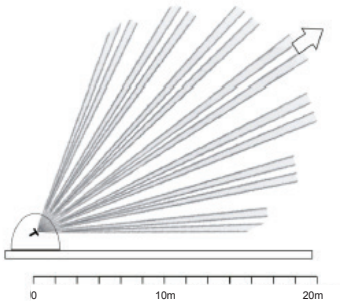
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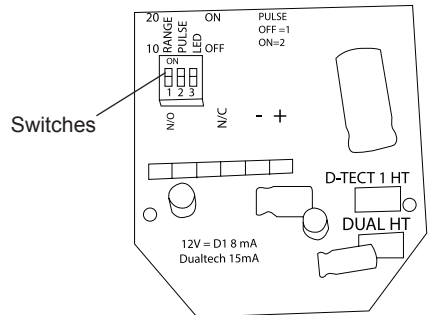
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ENGINEER NOTES

www.gjd.co.uk | info@gjd.co.uk | +44 (0) 1706 363 998

Unit 2 Birch Business Park, Whittle Lane, Heywood, Greater Manchester, OL10 2SX, UK