

Installation Manual

Premier Elite Orbit QD/DT

INS483-2



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Designed to Perform

Introduction

- A CCTV event trigger utilising two independent passive infrared detectors combined in a T05 package and a microwave sensor. Both sensors have to trigger before the detector signals an alarm. This high precision, very reliable presence detector has been designed for use within CCTV installations. Programmable parameters include a pulse count feature and a choice of detection ranges from 10 to 30 metres.
- The integral dual axis tilt sensor allows 180° of pan and 90° tilt. This increases the speed of the outdoor installation and provides incredibly accurate aiming of the detection pattern. The electronics module is acrylic coated for additional component stability. It is encased in an ABS housing with a UV stabilised translucent front cover ensuring the sensor is impervious to and unaffected by weather conditions. Additionally the combination of precision electronics, digital white light filter and double shielding eliminates false alarms from the sun and other visible light sources.
- The Premier Elite Orbit design gives a neat and professional appearance with no visible indication of the orientation of the detector head, and totally hides the wiring.

Quick Installation Guide

Apply supply voltage to the unit, the blue LED flashes 3 times.

The detector takes approximately 2-3 minutes to settle.

The walk test LED is factory set to OFF. Pressing the program button once will enable the walk test LED for 5 minutes.

THE FRONT COVER MUST BE FITTED WHEN WALK TESTING.

FACTORY SETTINGS ARE:-

1 RANGE 30 METRES

2 PULSE COUNT 1

3 LED OFF

When enabled the **Premier Elite Orbit DT** has three LED indicators.

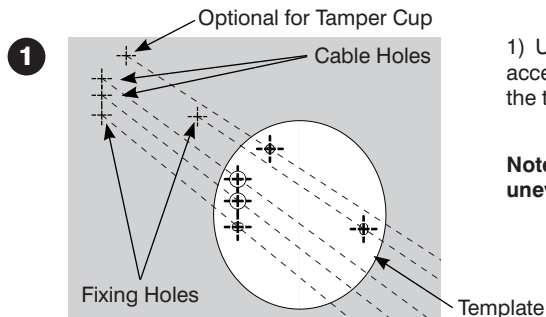
Green - Microwave detection

Red - Both PIRs detection

Blue - Alarm output, both PIRs and microwave detection

1. Mounting the Unit

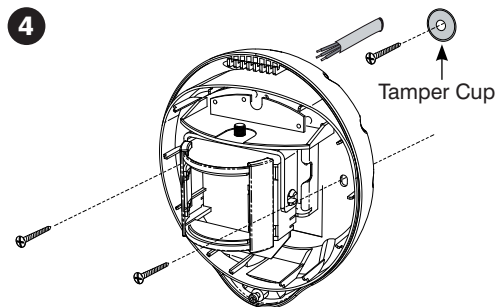
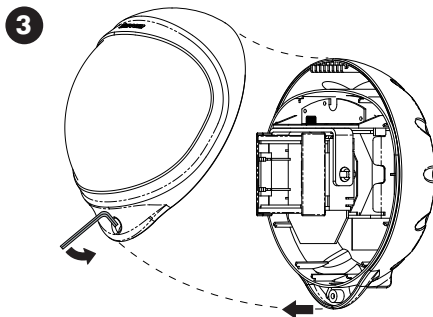
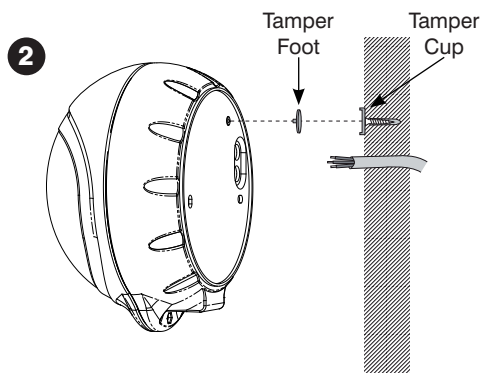
During installation the electronics must be protected against water, as trapped moisture can affect or damage the unit.



1) Using the template provided drill the wall to accept the two fixing screws, the cable entry and the tamper cup (if used). **See fig. 1 and 2.**

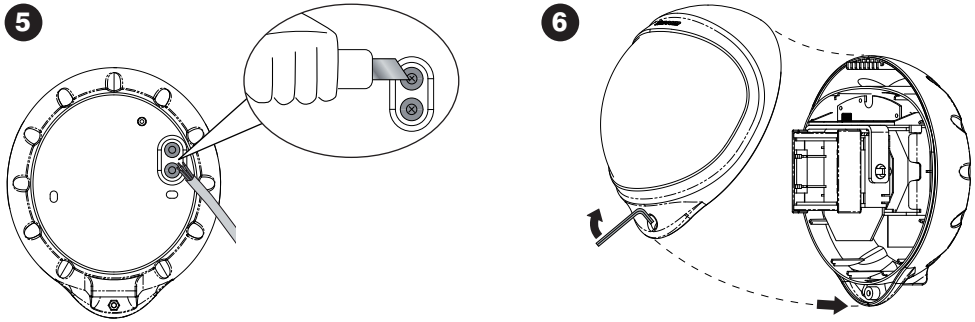
Note: We recommend using the tamper cup on uneven wall surfaces.

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 fig. 3.**

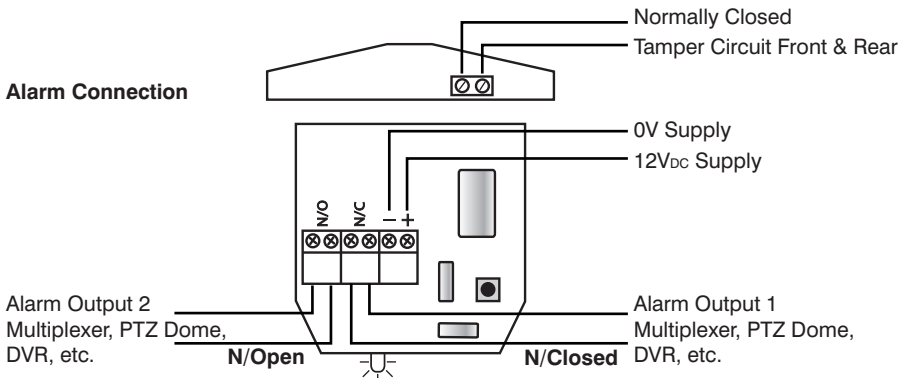
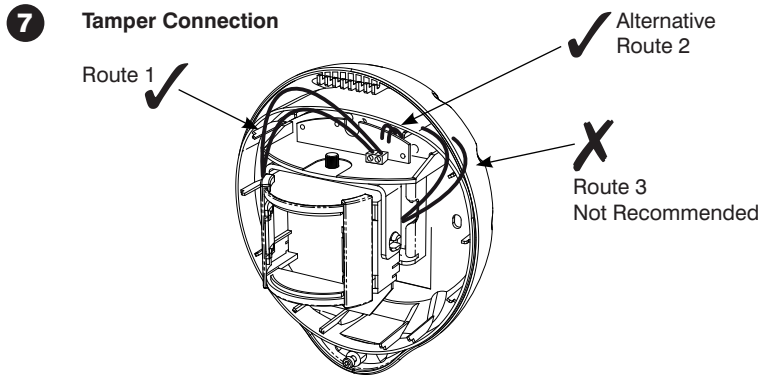


3) Feed standard 8 core alarm cable into the cable entry; bare the wires and connect to the removable terminal block as shown in **fig. 7**. Screw the unit to the wall ensuring that the tamper pin is correctly located and that the tamper microswitch is closed. **See fig. 4 and 5.** To aid installation, 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 fig. 2.**

- 4) Always ensure when replacing the electronics module that the LED is facing forward so as to ensure correct alignment of the beam pattern. (Refer to section titled "Multibeam Alignment & Masking")
- 5) When the detector has been aligned to suit the installation, replace the front cover and lock as shown. **See fig. 6.**



2. Connecting the Unit

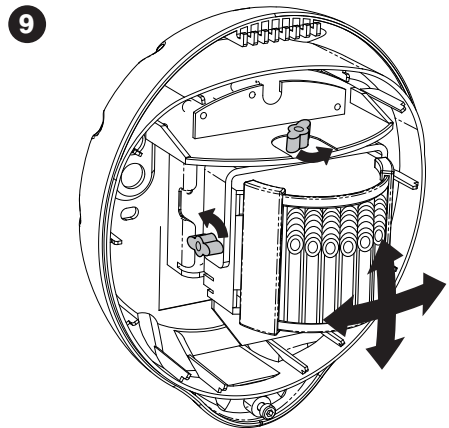
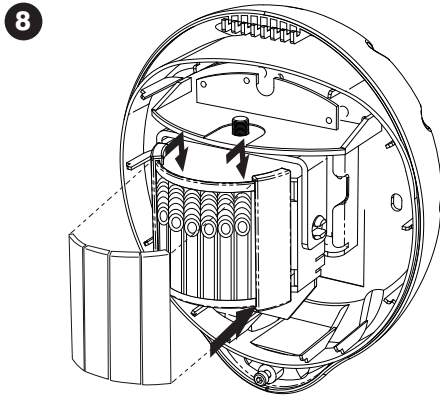


3. Multibeam Alignment & Masking

The multifunction lens fitted to the Premier Elite Orbit detector produces 7 long range beams and 7 medium to short range curtain beams. Movement across the beams produces the best response and range, whilst movement towards the detector will be less responsive. The unit detects the 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.

The detector module is fitted with two sliding shutters to reduce the detection angle. An additional set of curtains is provided should the beam pattern need to be narrowed even further, e.g. if the minimum detection angle of 10 degrees is required.

The curtains are fitted to the pan and tilt module as indicated in **fig. 8** below. Each section of the detector's lens gives a coverage pattern of approximately 10 degrees. **See fig. 8.**



3. Multibeam Alignment & Masking

When mounting higher than boundary fences rotate the module and mask off any beams, either vertically or horizontally, that fall outside the area being covered.

Use portions of the self-adhesive silver mask supplied to the rear, smooth side, of the lens as shown in the diagrams below. Always replace the lens the correct way up to ensure exact beam pattern coverage (the top of the Fresnel lens is marked - TOP). See fig. 9. (Page 4)

MULTIBEAM - OPTIMUM
 HEIGHT: 3 METRES
 RANGE: MAXIMUM
 MODULE TILT: 0 DEGREE

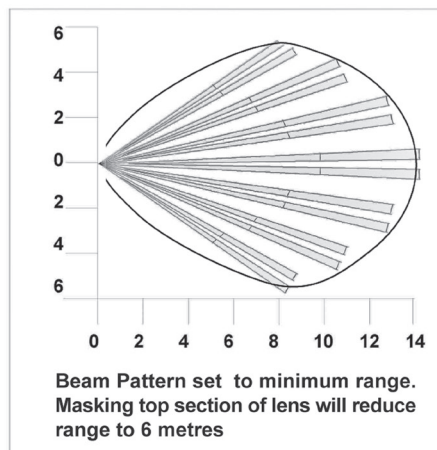
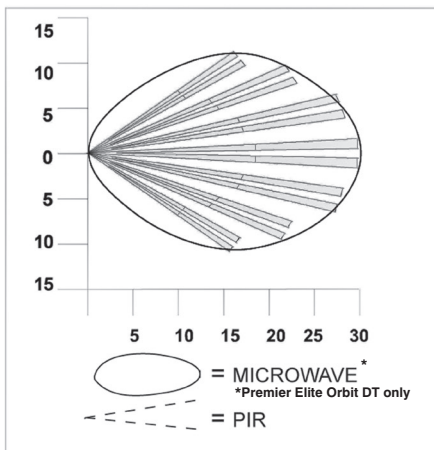
MULTIBEAM
 HEIGHT: 6 METRES
 RANGE: MAXIMUM
 MODULE TILT: 9 DEGREE

PET IMMUNITY
 HEIGHT: 1.5 METRES
 RANGE: MAXIMUM
 MODULE TILT: -2 DEGREE

MASK THIS SECTION OFF FOR PET ALLEY APPLICATIONS UP TO 30 METRES

CURTAIN COVERAGE
 HEIGHT: 6 METRES
 RANGE: MAXIMUM
 MODULE TILT: 45 DEGREE

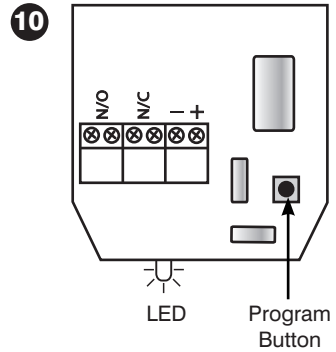
MASK THIS SECTION OFF FOR CURTAIN COVERAGE APPLICATIONS



4. Programming

The user can individually program a number of configurable settings as illustrated in the programming chart. Factory settings are shown as shaded boxes.

Changes to the existing settings can easily be made. To reset the factory settings simply remove power from the detector, press and hold the program button (**fig. 10**) whilst temporarily applying power to the detector: either before installation, with a PP3 battery, or by applying 12 Volts to the unit on site.



PROGRAMMING CHART		SETTING		
		1	2	3
OPTIONS	1 RANGE METERS	10	20	30
	2 PULSE COUNT	1	2	
	3 LED	OFF	ON	

To change any of the Premier Elite Orbit settings: -

- 1) Press the program button as shown in fig. 10 for the number of the Option to be changed i.e. once for range, twice for pulse count, three times for LED.
- 2) Wait four seconds until the blue LED indicator goes off.
- 3) The indicator will then flash out the existing setting.
- 4) To change the setting for that option, immediately (within 2 seconds) press the button the number of times required for the new setting.
- 5) The indicator blinks twice and the changes are stored.

Any alterations made to the Premier Elite Orbit settings are stored in the detector's non volatile memory.

EXAMPLE

To change the LED Setting from OFF to ON.

- 1) Press the program button three times and release the button.
- 2) Wait until the indicator goes off.
- 3) The indicator will now flash once.
- 4) Press the program button twice and release the button.
- 5) The indicator flashes twice showing that the option has been stored and the detector returns to normal operation.

5. Walk Test

The range of the detector increases without the front protective cover. Therefore the front cover must be fitted to establish the correct beam pattern alignment and when testing the outputs. Use the program table on page 5 to adjust the range as necessary and pan and tilt the lens module over the field of view to obtain the correct coverage area.

When the 'program' button is pressed momentarily the blue indicator lights and pulse count '1' is automatically selected. The unit can then be aligned. The blue indicator will light on the Premier Elite Orbit every time a detection takes place. This test mode will automatically cancel five minutes after last detection. Alternatively, remove the power and then re-apply.

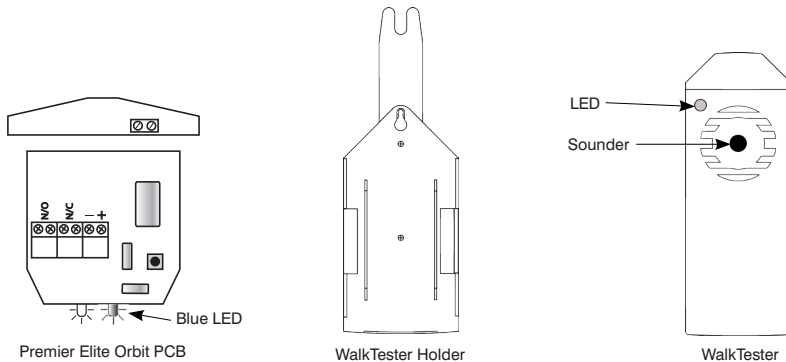
6. Walk Tester

The Premier Elite Orbit Walk Tester is an installation tool that will help the installer set up the detector on site. Considerable time will be saved in the setup procedure when using the Walk Tester, and it's use is highly recommended. If you have difficulty in aligning the detector, and you have issues with either short or long ranging, a Walk Tester will assist greatly in correct alignment and performance.

Each Premier Elite Orbit has been fitted with an infra-red LED emitter. When activation occurs the transmitter sends a signal. This signal is then received by the Walk Tester and a very bright white LED on the Walk Tester flashes, also a piezo speaker sounds.

Under normal situations both the LED and the sounder can be seen and heard up to 50 meters.

11



The Walk Tester comes with a mounting bracket / holder. First fit a PP3 battery into the Walk Tester battery compartment. This is done by removing the battery compartment cover. Please ensure that the on/off switch on the Walk Tester is set to the 'off' position while connecting the battery. When fitted close the battery compartment and the Walk Tester is ready for use.

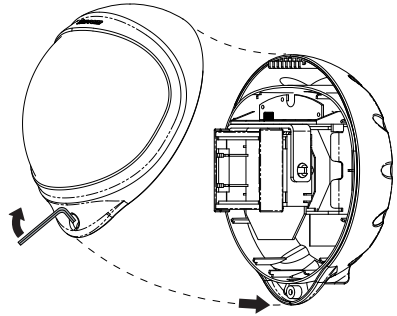


Removing the Battery Cover

7. Using the Walk Tester

Remove the cover from the Premier Elite Orbit housing by loosening the locking screw at the bottom of the detector. This will allow access to the programming button shown in **Fig.11** (and to also show the location of the blue IR emitting LED).

Place the Premier Elite Orbit into 'walk test' mode by pressing the programme button once (**Fig.11**). The Premier Elite Orbit's clear LED will then flash out its current settings. Wait for the flashing sequence to finish. The Premier Elite Orbit is now in walk test mode and will remain in that state for five minutes after the last detection, whereafter it will revert to normal mode. The walk test can be cancelled at anytime by pressing the programme button twice.



Replace the Premier Elite Orbit cover and place the Walk Tester in the metal holder. Slightly loosen the stainless steel screw on the bottom of the Premier Elite Orbit, just enough so that the drilled tab on the Walk Tester bracket can slide around the screw thread. Then gently tighten the screw to hold the Walk Tester and holder in place. Turn the Walk Tester on.

The Walk Tester will illuminate and sound every time the Premier Elite Orbit is activated.

When finished testing, turn off the Walk Tester and remove it and the holder from the Premier Elite Orbit. Tighten the screw on the base of the Premier Elite Orbit. The external detector is now ready.

8. Option Definitions

PULSE COUNT

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

LED MONITOR

LED Off - LED disabled.

LED On - LED signals a detection.

N/OPEN & N/CLOSED

These are magnetically immune volt free relay contacts used to trigger alarm inputs on connected equipment. The contacts are rated at a maximum of 24V_{AC/DC} @ 50 mA.

ACCESSORIES

Texecom is able to supply the following accessories to aid installations:

Pole mount bracket available on request.

(JAH-0001) Premier Elite Orbit Walk Tester.

9. Approved External Microwave Frequencies - Premier Elite Orbit DT

	9.35GHz	9.90GHz	10.525GHz	10.587GHz
Albania			•	
Argentina			•	
Australia			•	
Austria	•			
Belgium			•	
Brazil			•	
Croatia	•			
Czech Republic		•		
Denmark			•	
France		•		
Germany	•			
Greece				•
Holland			•	
Hungary			•	
Iceland			•	
Indonesia			•	
Italy				•
Latvia			•	
Lithuania			•	
Malta			•	
Norway			•	
Portugal			•	
Poland		•		
Russia			•	
Slovakia	•			
South Africa			•	
Spain			•	
Taiwan			•	
Thailand				•
U.A.E				•
UK				•
Ukraine			•	
USA			•	

10. Technical Specifications - Premier Elite Orbit DT

Detection Area	Programmable between 10 & 30 metres.
Coverage	10 - 70 degrees detection angle, 30 m x 30 m coverage max.
Adjustment	180 degree pan + 90 degree tilt.
Fresnel Lens	28 zones for each pyro pair, which can be masked with the curtain sliders.
Customised Optics	Double silicon shielded quad element eliminates 50,000 lux of white light.
Microwave Module	Frequencies: 9.35GHz, 9.90GHz, 10.525GHz, 10.587GHz (see page 10)
Outputs	Silent solid state magnetically immune.
No.1 - N/OPEN	Volt free relay signal contact 24V _{AC/DC} @ 50mA with an integral 25R series resistor. Alarm time 5 seconds.
No.2 - N/CLOSED	Volt free relay signal contact 24V _{AC/DC} @ 50mA with an integral 25R series resistor. Alarm time 5 seconds.
Power Input	9 to 15 V _{DC} .
Current	15mA (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 °C. Conformally coated electronics for increased stability.
Housing	ABS.
Protection Rating	IP 55.
Dimensions	141 x 165.5 x 109 mm.
Weight	300 grams.
Mounting Height	Variable up to 6 metres - optimum height 3 metres.
Cable < 200m	Utilising all three outputs (incl. tamper) – 8 core 7/0.2mm.
Cable < 500m	Utilising all three outputs (incl. tamper) – 8 core 16/0.2mm.

Regulatory Information

Supplier: Texecom Ltd, St. Crispin Way, Haslingden, Lancashire, BB4 4PW, UK.

Weee Directive: 2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.



RoHS Directive: 2002/95/EC RoHS Compliant. Hereby, Texecom declares that this device does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) in more than the percentage specified by EU directive 2002/95/EC, except exemptions stated in EU directive 2002/95/EC annex.

CE Directive: 2004/108/EC (CE directive): Hereby, Texecom declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC.



Maintenance: Test yearly by the installer

Warranty: 2 year replacement warranty

The Premier Elite Orbit detector is not a complete alarm system, but only its part. Therefore Texecom does not accept any responsibility or liability for any damage that is claimed to be a result of an incorrect functioning of the Premier Elite Orbit detector. Texecom reserves the right to change the specification without a prior notice.



Certificate Number: FM 35285

MADE IN ENGLAND

The Premier Elite Orbit detector is protected by UK & International Designs. Premier is a Trademark of Texecom Ltd.

11. Technical Specifications - Premier Elite Orbit QD

Detection Area	Programmable between 10 & 30 metres.
Coverage	10 - 70 degrees detection angle, 30 m x 30 m coverage max.
Adjustment	180 degree pan + 90 degree tilt.
Fresnel Lens	28 zones for each pyro pair, which can be masked with the curtain sliders.
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 24V _{AC/DC} @ 50mA with an integral 25R series resistor. Alarm time 5 seconds.
No.2 - N/CLOSED	Volt free relay signal contact 24V _{AC/DC} @ 50mA with an integral 25R series resistor. Alarm time 5 seconds.
Power Input	9 to 15 V _{DC} .
Current	8mA (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 °C. Conformally coated electronics for increased stability.
Housing	ABS.
Protection Rating	IP 55.
Dimensions	141 x 165.5 x 109 mm.
Weight	275 grams.
Mounting Height	Variable up to 6 metres - optimum height 3 metres.
Cable < 200m	Utilising all three outputs (incl. tamper) – 8 core 7/0.2mm.
Cable < 500m	Utilising all three outputs (incl. tamper) – 8 core 16/0.2mm.

Texecom
Designed to Perform

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