

Specification

Description	Dual External PIR Detector
Pyro Electric Sensor	2 x Dual Element
Range	2 - 12m, 90°, rotatable over 180°
Optics	2 x non-overlapping wide angle Fresnel lenses
Detection Areas	18 x 2
Mounting Height	1.8m – 2.0m
White Light Immunity	>50,000 Lux
Outputs	Alarm 1: NC Solid State Relay, 100mA AUX: Programmable NC/NO SS Relay, 100mA ALM: Switched -ve MOSFET, 100mA max LUX: (Day/Night) Switched -ve MOSFET, 100mA max
Supply Voltage	9 – 24 V DC or AC (12V DC nominal)
Quiescent Current	17mA
Alarm (LED enabled)	49mA
Alarm (LED disabled)	13mA
LED Control = 0V LED	Enabled
LED Control = 12V / NC	LED Disabled
Pulse Count	Digital
Start-up Time	60 seconds
Alarm Time	Programmable 2 – 300 seconds
Target Speed	0.3m/s - 3.0m/s (at 45° to detector, >3°C temp diff)
Dimensions	(hwd) mm 200 x 107 x 110
Operating Temperature	-20°C to +55°C
Storage Temperature	-35°C to 60°C
Maximum Humidity	95% non-condensing
Housing Material	High Density ASA / High Impact Zinc Alloy
High Density ASA:	
Product Weight	400g
Packed Weight	560g
High Impact Zinc Alloy:	
Product Weight	1250g
Packed Weight	1400g
Maintenance Annual	Installer Check

XD2-DT (as XD-2 above) except:	
Microwave Frequency	24.15 - 24.25 GHz
Quiescent Current	23mA
Alarm (LED enabled)	78mA
Alarm (LED disabled)	18mA
Maintenance	Annual Installer Check

Warranty

The XD2 and XD2-DT are guaranteed against defects in material or faulty workmanship for a period of 2 years from the date of purchase.

Disclaimer: Orisec will not accept any liability based on a claim that the XD2 or XD2-DT failed to perform correctly as they are component parts of an installation and not a complete intruder alarm system.



Designed and Manufactured in the United Kingdom

Manufacturer: Orisec Ltd, 1 St Crispin Way, Haslingden, Lancashire. BB4 4PW. United Kingdom.

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Standards and Approvals

Security
PD 6662:2017
XD2: EN 50131-2-2:2017 Grade 2, Class IV
XD2-DT: EN 50131-2-4:2008 Grade 2, Class IV
(These are standards for Internal PIRs which the XD2 and XD2-DT meet.)

EMC / False Alarm Immunity
EMC Immunity: EN 50130-4:2011
Radiated Immunity: 80MHz to 2.7GHz
Electrostatic Discharge: +/- 8kV
Conducted Immunity: 0.15MHz to 100MHz
Fast Transient Immunity: 2kV
Conducted & Radiated Emissions: EN 55032:2015

Conforms to European Union (EU) Radio Equipment Directive 2014/53/EU, Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU and EN 50130-4:2011+A1:2014
EMC Environment: Residential / Commercial / Light Industrial / Industrial



CE: You can view the product EC Declaration of Conformity here: orisec.co.uk/compliance

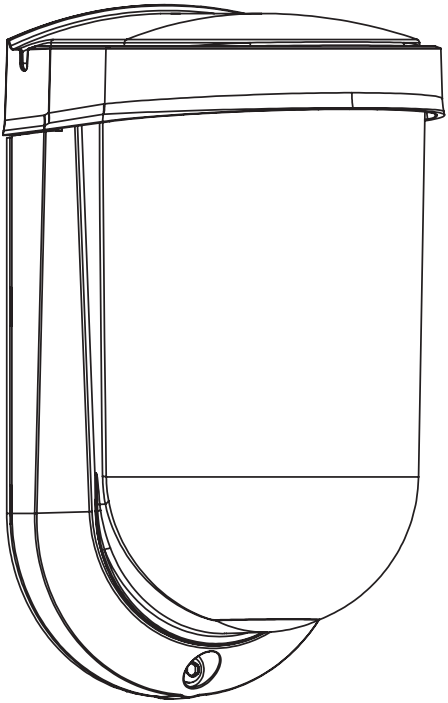
Regulatory

 WEEE Directive: 2012/19/EU Compliant: This symbol indicates that according to local laws and regulations, this product should not be disposed of as municipal/household waste. Instead, it should be disposed of at the appropriate collection points designated for the recycling of electrical and electronic equipment, or returned to Orisec upon purchase of new replacement products. This will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

RoHS RoHS Directive: 2011/65/EU Compliant:
Orisec declares that this product complies with and conforms to RoHS legislation that it does not contain more than the agreed levels of: Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Cr6+), Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE)



XD2 & XD2-DT
Installation Instructions



Scan to view installation video



External PIR & Dual Technology Detectors

www.orisec.co.uk

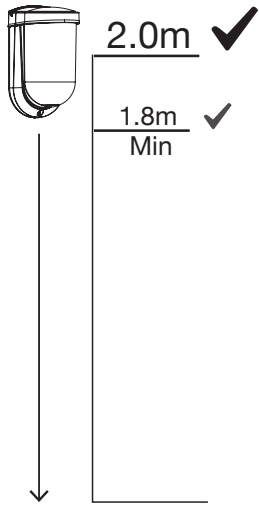
1 Location

The detector should be mounted at a height of **1.8m to 2.0m** on a stable, vertical surface.

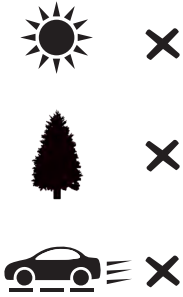
Avoid common false alarm sources, such as:

- Sunlight – direct or reflected
- Moving objects such as trees, cars etc

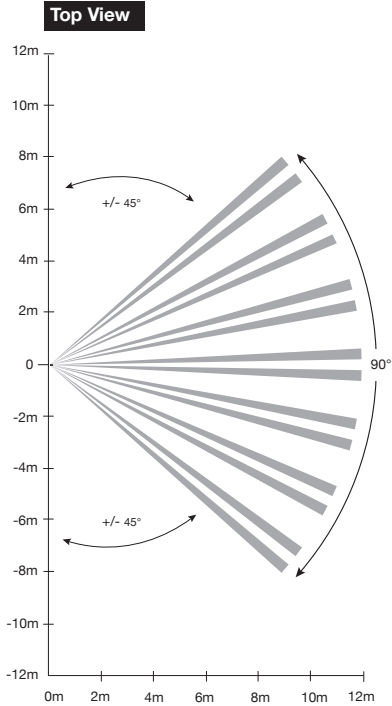
Mounting Height



Location Warning



The XD2 detectors have a **90°** coverage angle which may be adjusted over **180°** by rotating the chassis.



2 Mounting

The detector has a central keyhole slot and four rotating mounting feet to aid installation. An adjustable wall tamper dial allows for reliable detection of removal from the mounting surface.

1. To open the detector undo the locking screw by turning it anti-clockwise, then slide the front cover down and away from the backplate.
2. Before fixing the detector to the wall ensure that the tamper dial is not protruding out of the back of the detector (turn anti-clockwise if necessary).
3. Fix the detector to the wall by screwing through the keyhole slot and rotating mounting feet.
4. Turn the tamper dial clockwise until it touches the surface of the wall. **Do not over tighten.**
5. Secure the tamper dial with a fixing screw through the centre of the dial.

The Orisec XD2 Series of external detectors provide reliable detection and exceptional false alarm immunity.

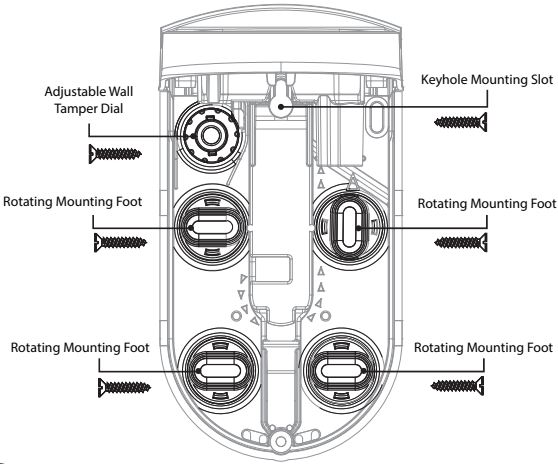
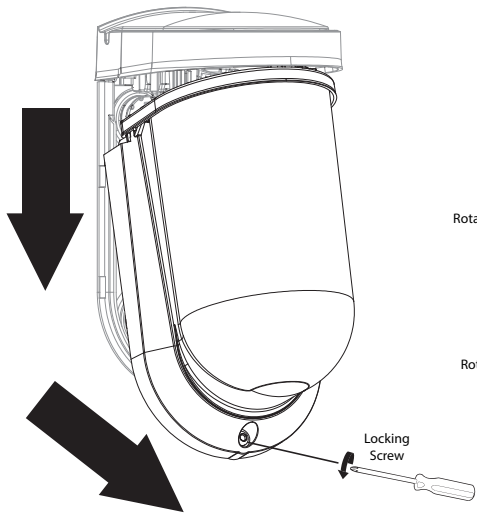
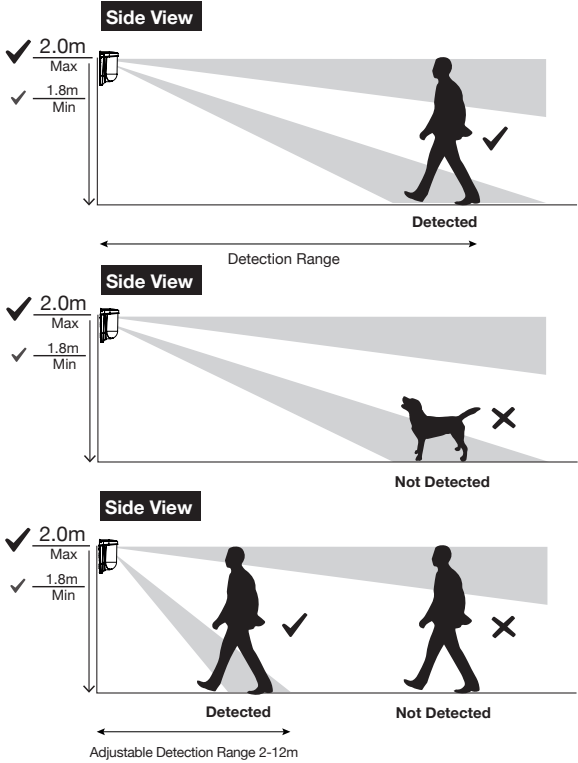
The detectors feature two independent PIR sensors with non-overlapping fields of view. An alarm is signalled only when both the upper and lower detectors trigger at around the same time.

The detection range may be adjusted by altering the angle of the lower detector.

There are selectable EOL outputs for use with alarm panels.

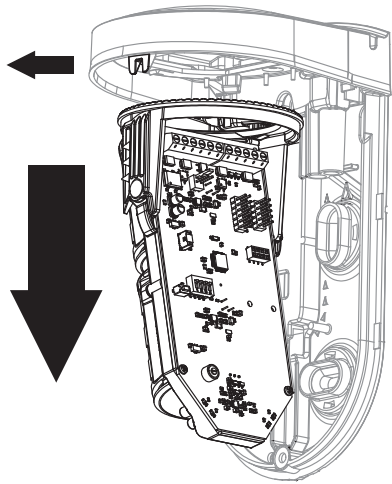
There are NO/NC relay outputs for use with CCTV & Lighting applications.

There are switched -ve outputs for alarm and LUX.

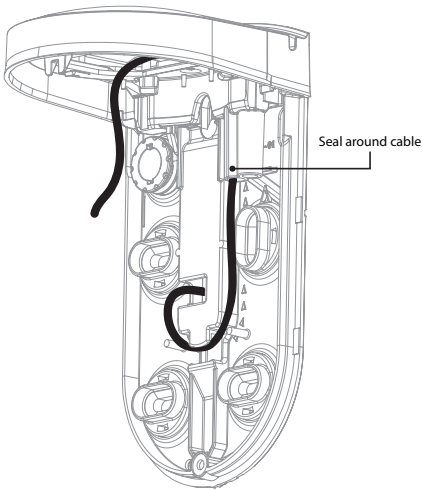


3 Detector Wiring

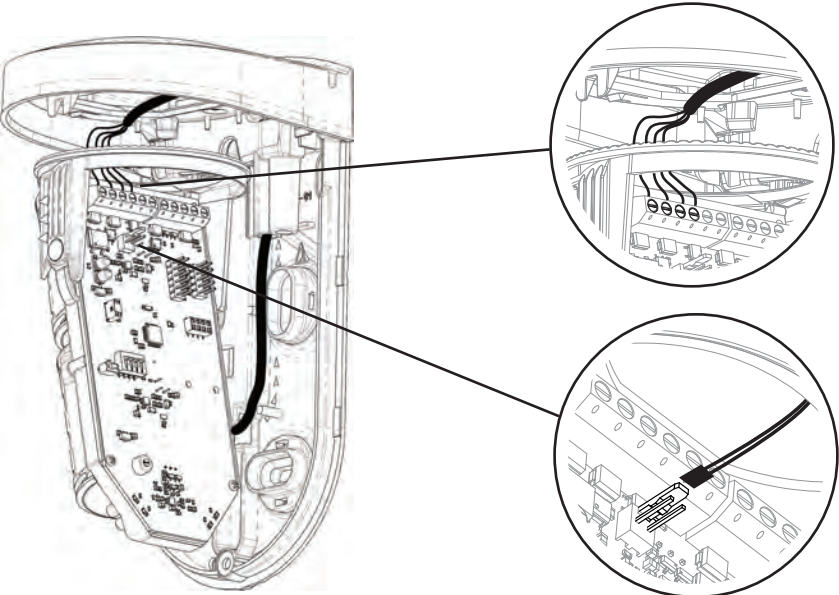
The detector assembly may be removed from the backplate to ease installation.



To ensure that water does not get into the detector follow the dedicated cable route. Bring the cable in through the back following the route shown with arrows, up the cable channel tube and out over the top. See diagram below.



Connect the cable cores into the terminal blocks and push the detector assembly up into the back plate. Connect the tamper cable to the two-way pin header as shown below.



Tamper cable

4 Programming

The 4-way bit switch (address) is used to select the desired programming menu. Once the menu is selected the status LEDs indicate the current setting. The “Prog” button is then used to change the selected menu options:

Address	Switch	Menu	Options	LEDs
0		Wireless Learn & Walk Test Select	To learn the detector onto the system press the “Prog.” button for 1s. To invoke detector “Walk Test” mode press and hold the “Prog.” button for 3s.	4 2 1
1		LED & Walk Test Sounder Control	LEDs Off, Sounder Off LEDs On, Sounder Off LEDs On, Sounder in Walk Test LEDs On, Sounder On	
2		PIR Pulse Count Number of detection pulses required to generate alarm signal. For Long Range and Vertical Beam detectors a Pulse Count of 1 is recommended)	1 Pulse 2 Pulses 3 Pulses 4 Pulses	
3		Pulse Count Time Window Time window the pulses must occur within	2 Seconds 4 Seconds 6 Seconds 8 Seconds 10 Seconds	
4		Microwave Sensitivity There are three microwave sensitivity settings. It is also possible to set the microwave so that it is only active when there has been a recent PIR activation. This allows multiple units to be installed in close proximity if desired.	High Normal Low High + PIR Normal + PIR Low + PIR	
5		Lux Level	1 2 3 4 5 6 7	
6		24h / Night Only	24h Both Alarm 1 Night Only AUX Night Only Alarm 1 & AUX Night Only	
7		Address for W-KF-WT Wireless Walk Test Fob	1 2 3 4 5 6 7	
8		Alarm Detection Window (Between Upper & Lower PIRs)	0.5 Seconds 1.0 Seconds 1.5 Seconds 2.0 Seconds 2.5 Seconds 3.0 Seconds 5.0 Seconds	
9		AUX Relay NC/NO	Normally Closed Normally Open	
10		AUX Relay Time	2 Seconds 5 Seconds 10 Seconds 20 Seconds 30 Seconds 90 Seconds 300 Second (5 min)	

Bold indicates default settings

5 Walk Testing

To ensure reliable detection it is essential to thoroughly walk test the detector upon installation. **To enter Walk Test Mode press and hold the Prog button for 3 seconds.** Replace the front cover before walk testing. The detector will automatically exit Walk Test Mode after five minutes.

In "Walk Test Mode" the following apply:

- Walk test sounder is enabled
- LED Control is enabled
- Alarm Relay 2 Time is set to 2 seconds
- Day/Night mode is set to 24h both

A Wireless Walk Test Fob (W-KF-WT) is available separately to aid walk testing in bright conditions. A Wireless Access Point (W-AP) should be fitted to the detector. This enables the fob to indicate detection by vibrating and illuminating an LED.

Range Adjustment

The PIR range may be adjusted between **2m** and **12m** by sliding the lower lens up and down. On dual-technology versions the microwave range may be adjusted with the trimmer pot. Rotate clockwise to increase MW range.

