

IDS Training Guide

OPTEX SHIELD RANGE



SOUTH AFRICA'S LEADING MANUFACTURER AND DISTRIBUTOR OF
ELECTRONIC SECURITY PRODUCTS

Introduction

IDS have innovatively introduced their Xwave² wireless technology to the well-renowned and trusted Optex Detectors.

This guide provides basic steps to configure the IDS Optex Shield Detectors. The guide will cover installing your detector correctly, and what situation each detector is designed for. Although this guide does give detailed steps, an understanding and knowledge of alarm systems and concepts should be known.



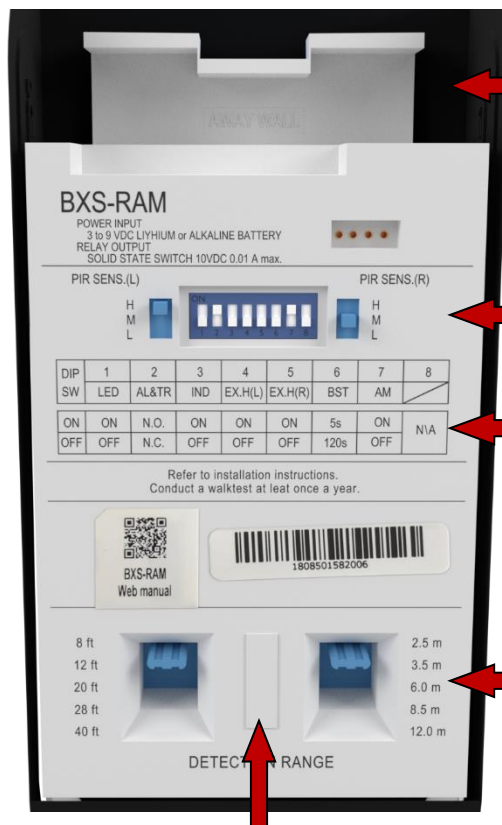
1. BXS Range

The BX Shield series is a range of curtain outdoor motion sensors with up to 12 meters of detection on each side. The BX Shield is ideal for detecting people in the immediate boundary of your home or office building. They feature four PIRs, two on each side. For total control the left and right detection areas can be set up completely independently from each other. The BXS-RAM is the wireless model with anti-masking.

The 862-01-BX-80NRC is designed to be wall-mounted centrally on a building. It gives up to 24 metres of protection, 12 metres on either side of the detector



1.1. Hardware



Tamper Switch

Away Wall

The detection curtains run at 0° from the wall. Lift the adjuster up so you can see the 'Away Wall' sign to give an angle of 3° from the wall.

PIR Sensitivity

Change the sensitivity of the PIRs to High, Medium or Low for either side of the detector.

Dipswitches

Use these dipswitches to change the detectors settings.

Detection Range

Change the detection distance from 12m down to 2.5m on either side of the detector independently.

1.2. Dipswitches



Dip Switch 1 - LED

Position	Function
ON	Enables the LED.
OFF	Disables the LED. To lengthen battery life.

Dip Switch 2 – Alarm & Trouble Type

Position	Function
ON	Sets the alarm type to Normally Open (N.O.)
OFF	Sets the alarm type to Normally Closed (N.C.)

Dip Switch 3 – Individual Outputs

Position	Function
ON	Triggers the individual outputs for left and right respectively.
OFF	Triggers both outputs irrespective of detection side.

Dip Switch 4 – PIR Extreme High - Left

Position	Function
ON	Detects very subtle changes in temperature on the left PIR.
OFF	Detects only larger changes in temperature on the left PIR.

*Use in conjunction with PIR Sensitivity switch

Dip Switch 5 – PIR Extreme High - Right

Position	Function
ON	Detects very subtle changes in temperature on the right PIR.
OFF	Detects only larger changes in temperature on the right PIR.

*Use in conjunction with PIR Sensitivity switch

Dip Switch 6 – Battery Saving Time

Position	Function
ON	Even if there are continuous alarms, the alarm is only generated once every 5 seconds.
OFF	Even if there are continuous alarms, the alarm is only generated once every 120 seconds. To lengthen battery life.

Dip Switch 7 – Anti-Masking

Position	Function
ON	Enables anti-masking. A trouble is generated after 20 seconds of masking.
OFF	Disables anti-masking. A trouble is generated after 3 minutes of masking.

1.3. LED

Alarm Condition – Red LED turns on for 2 seconds

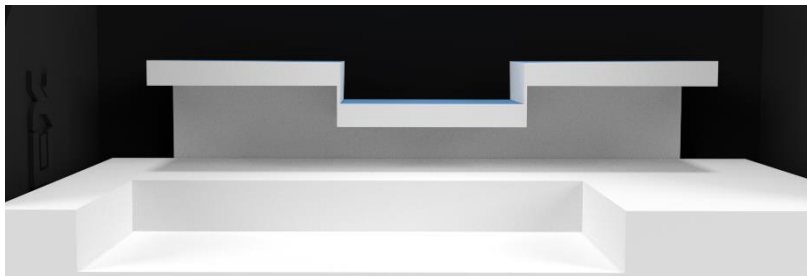


Masking Detection – Red LED blinks 3 times and then repeats

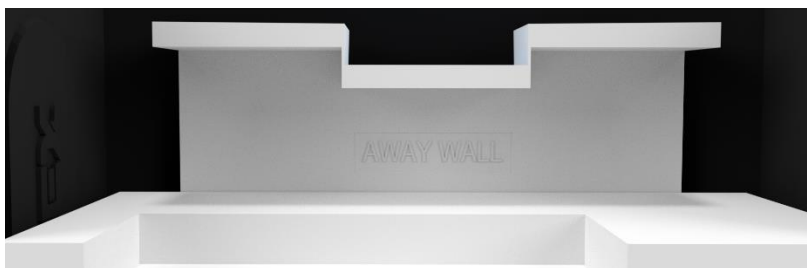
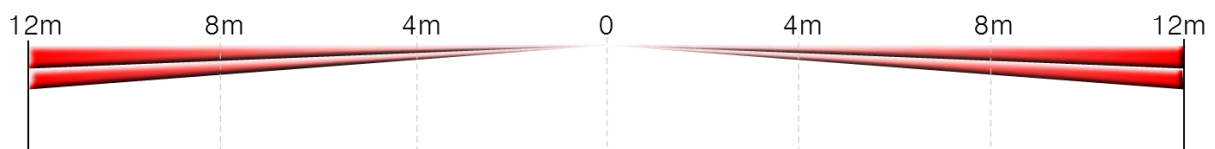


1.4. Detection Area

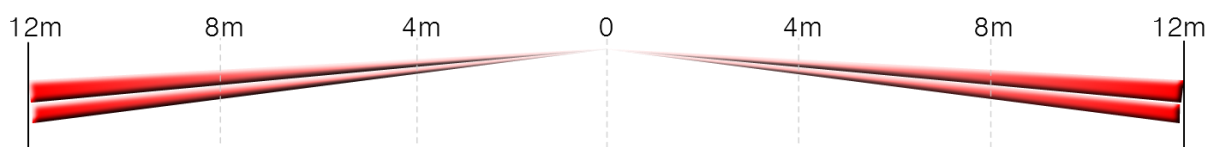
The detection curtains run at 0° from the wall. Lift the adjustor up so you can see the 'Away Wall' sign to give an angle of 3° from the wall.



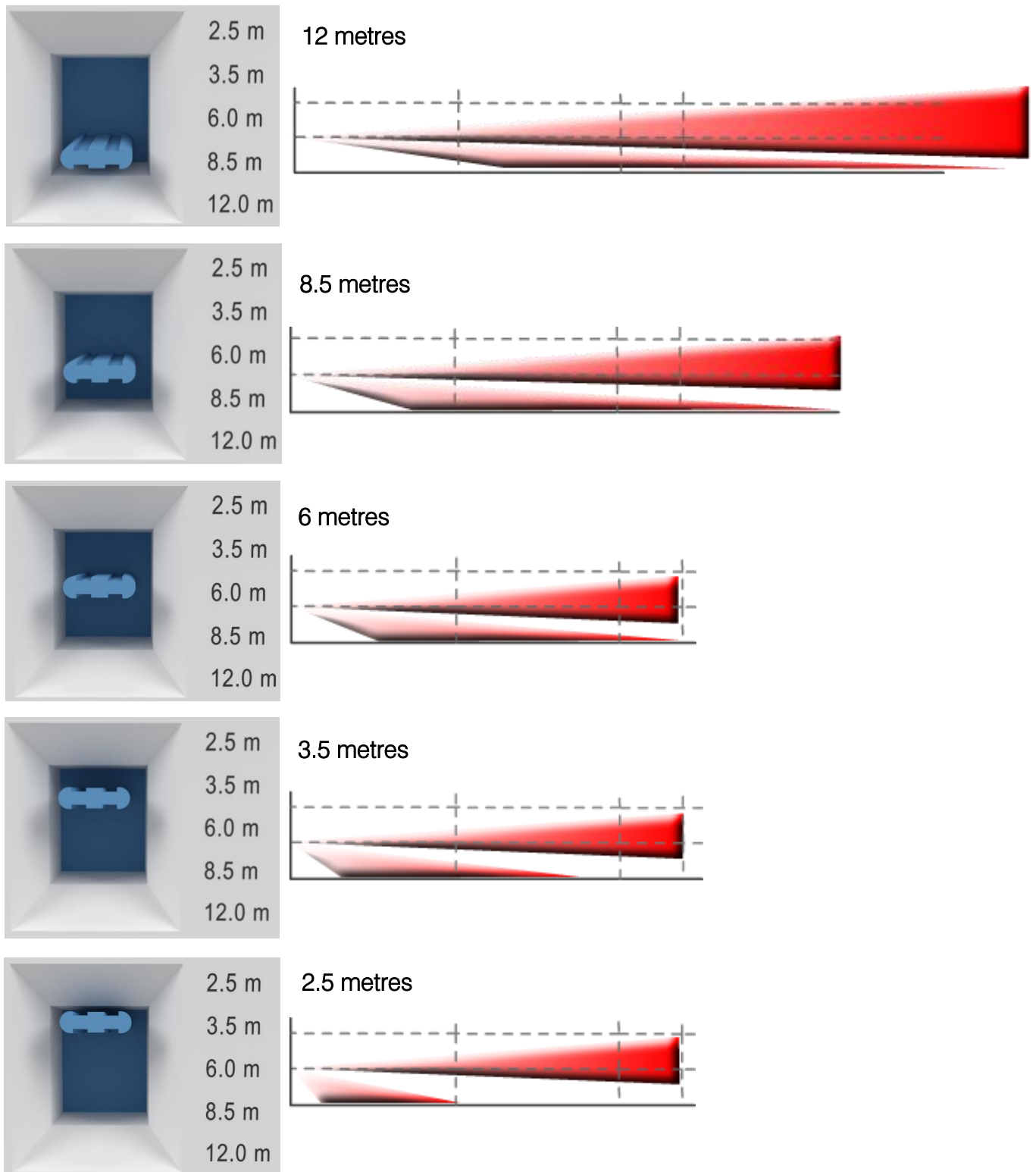
Detection Area at 0°



Detection Area at 3°



The upper detection beam stays parallel to the ground, to adjust the detection length you must slide the lower lens up or down to the appropriate position.



1.5. Installation

Decide where to mount your BXS-R, keeping in mind the detector detects on both sides of the detector.

The suggested mounting height is 0.8m –1.2m.

Set the dipswitch settings, and adjust the sensitivity of the PIRs to your needs for each side of the detector.

Do a thorough Walk Test, the detector goes into walk test for 3 minutes after closing the cover. Walk in the areas that require detection and make sure the LED turns on for 2 seconds to indicate detection. Then walk in the areas that do not require detection and make sure the LED does not turn on. The detector will automatically exit walk test after the 3 minutes time.

2.VXS Range

Featuring a customisable design and accurate detection, VX Shield is a series of short range outdoor intrusion detection sensors providing reliability, convenience and security. The VXS series is used to generate an early intrusion alarm, protecting buildings, sites and roofs.



2.1. Hardware

Dipswitches

Use these dipswitches to change the detectors.

PIR Sensitivity

Change the sensitivity of the PIRs to High, Medium or Low.

Tamper Switch

Microwave Sensitivity Adjustment

Change the detection distance from 12m down to 2.5m.

PIR LED Indicator

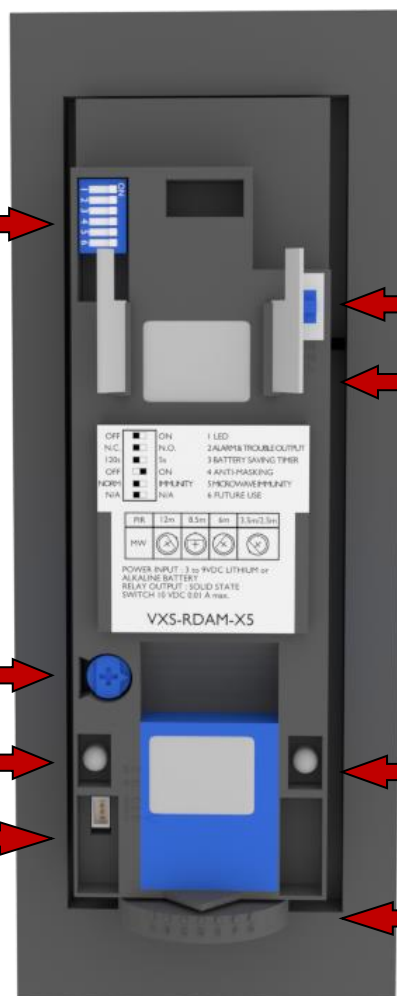
Microwave LED Indicator

Detection Range

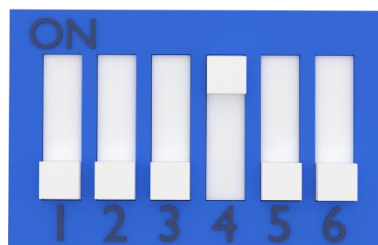
Change the detection distance from 12m down to 2.5m.

Area Angle Adjustment

Adjust the horizontal angle to cover any 90° section.



2.2. Dipswitches



Dip Switch 1 - LED

Position	Function
ON	Enables the LED.
OFF	Disables the LED. To lengthen battery life.

Dip Switch 2 – Alarm & Trouble Output

Position	Function
ON	Sets the alarm type to Normally Open (N.O.)
OFF	Sets the alarm type to Normally Closed (N.C.)

NB: This settings must be set to ON, or Anti-Masking and Tamper conditions will not be sent from the Wireless Transmitter.

Dip Switch 3 – Aux Input

Position	Function
ON	OR mode. Triggers if aux OR detector triggers.
OFF	AND mode. Triggers if aux AND detector triggers.

Dip Switch 4 - Anti-Masking

Position	Function
ON	Enables anti-masking. A trouble is generated after 20 seconds of masking.
OFF	Disables anti-masking. A trouble is generated after 3 minutes of masking.

NB: Be careful not to leave any objects within 1 metre of the detector. Anti-Masking is sent as a tamper to the X-Series Panel.

Dip Switch 5 – Microwave Immunity

Position	Function
ON	Microwave Immunity logic is activated. Use this setting in harsher environments, such as moving trees or bushes.
OFF	Microwave Immunity logic is deactivated.

2.3. LEDs

Warm-up – Red and Yellow LEDs blink for approximately 60 seconds



PIR Detection – Red LED turns on for 2 seconds



Microwave Detection – Yellow LED turns on for 2 seconds



Masking Detection – Red LED blinks 3 times then repeats



2.4. Detection Area

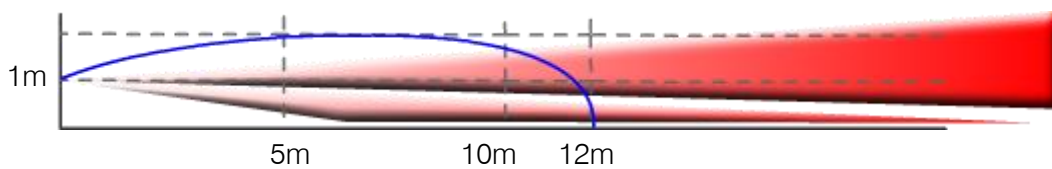
The VX Shield series has a detection range of up to 12 metres at a 90° angle. The detection area is customisable to suit most situations. There are 3 ways in which you can customise the detection area; detection length, area angle, and area masking.

The detection length can be adjusted by moving the Detection Length Adjustment up or down. The detector needs both PIR lenses to trigger to generate an alarm; the VXS-RDAM requires the microwave sensor to also trigger. This allows for the detection length to be adjusted by only changing the angle of the lower PIR, and microwave sensitivity for the VXS-RDAM.

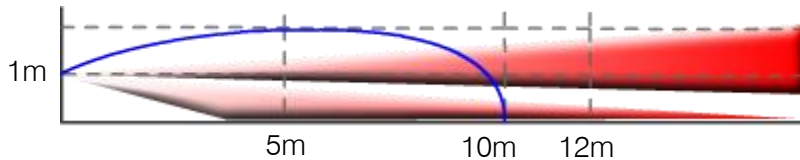
The red beams represent the top and bottom PIR detection zones; the blue line represents the microwave detection zone. The microwave sensitivity adjustment must be adjusted in accordance with the detection length position. The microwave sensitivity adjustment position can be seen to the right of each image.



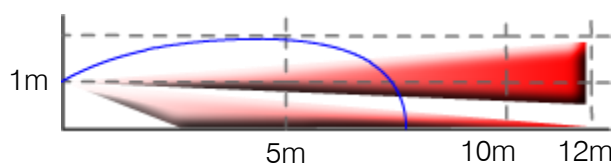
Position 1



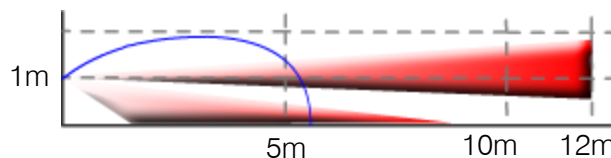
Position 2



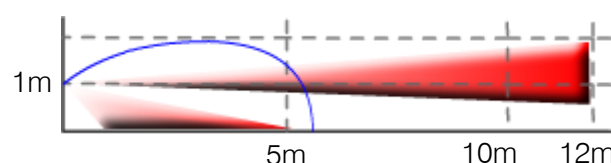
Position 3



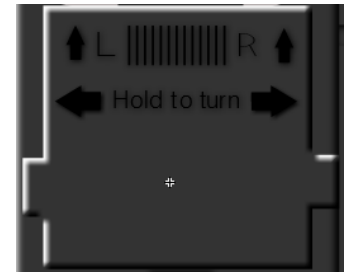
Position 4



Position 5

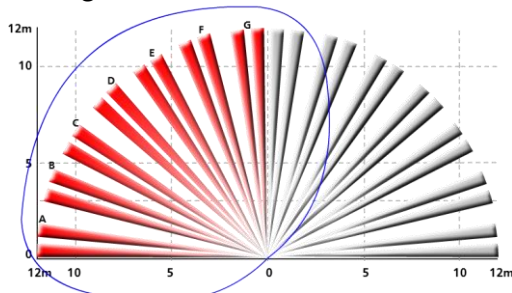


The detection area angle can be adjusted by holding where it says 'Hold to turn' and turning the sensor plate left or right. The Area Angle Adjustment indicates what angle you have selected.

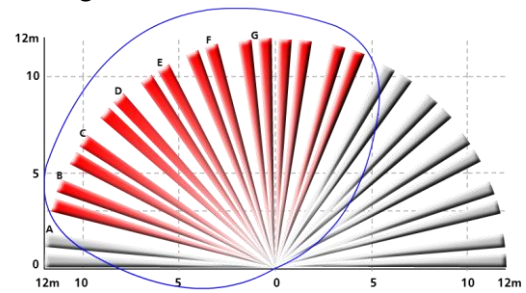


There are 16 zones of PIR detection on all angles except angle A and G, which only have 14 zones of PIR detection. The red beams represent the PIR detection zone. The blue line represents the microwave detection area.

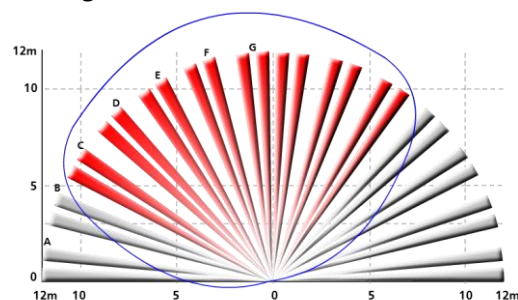
Angle A



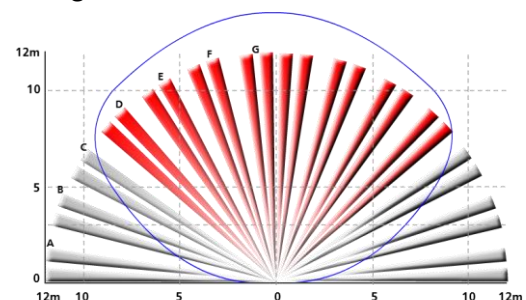
Angle B



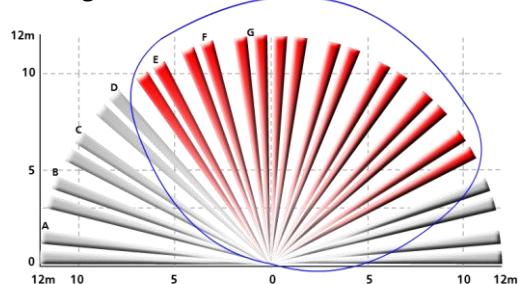
Angle C



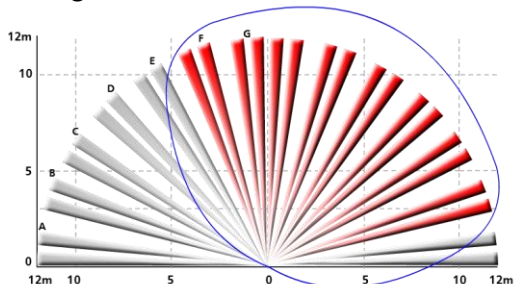
Angle D



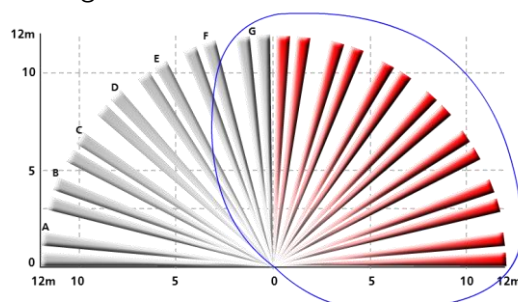
Angle E



Angle F



Angle G



2.5. Area Masking

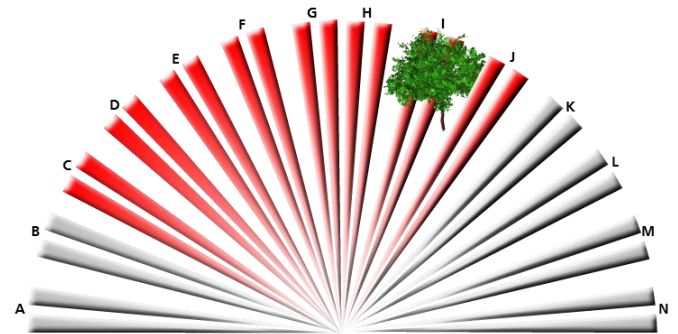
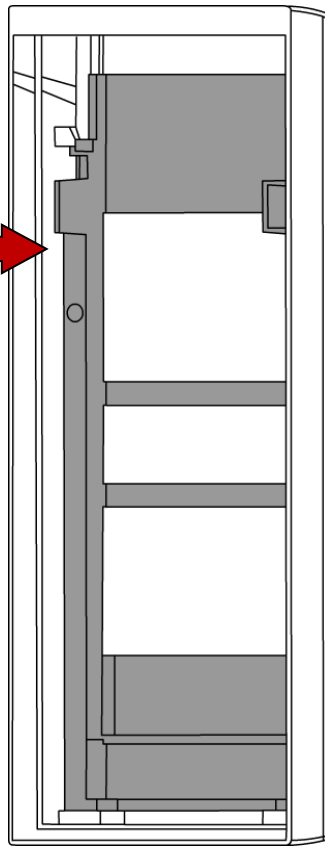
In the event that there are objects, such as a bush or a pool, inside the detection area, you are able to block certain zones by applying an area masking label.

In this situation you have a small tree that will give you false alarms if not masked.

1. First you must slide the lens holder and remove it from the cover.

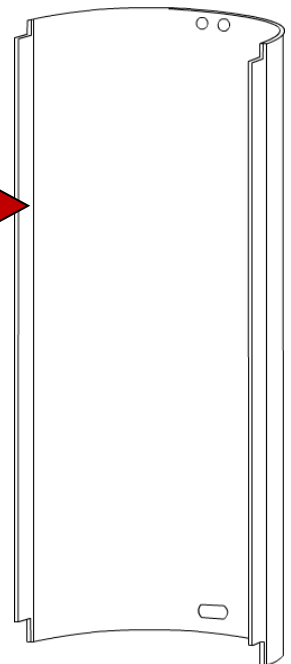
Lens Holder

Slide up and remove from lens cover



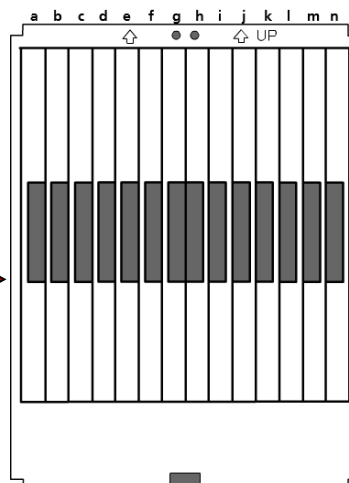
2. Then remove the lens from the cover.

Lens

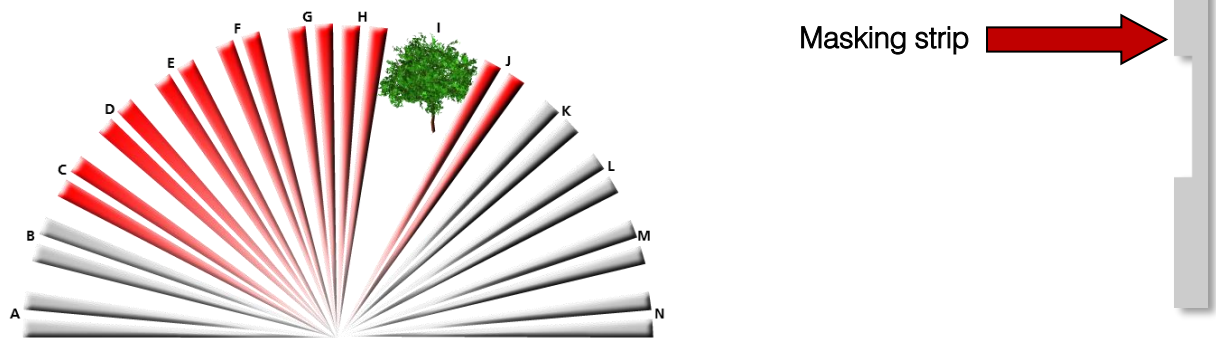


3. Decide which zone you need to mask, and remove the corresponding strip. (In this case we need to mask zone I)

Masking Sheet 1



4. Place the strip in the I zone of the lens, and replace the lens and lens holder back into the cover.



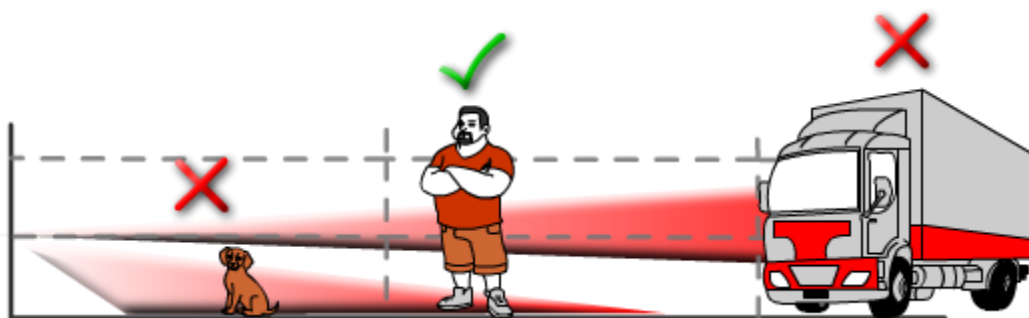
This will now mask the I zone, preventing the tree from causing any alarms.

2.6. Installation

Decide where to mount your VX Shield detector, mounting height must be 0.8m – 1.2m. Choose and set the detection length and area angle you require. Mask any trouble areas that may cause false detection.

Do a thorough Walk Test, the detector goes into walk test for 3 minutes after closing the cover. Walk in the areas that require detection and make sure the LED turns on for 2 seconds to indicate detection. Then walk in the areas that do not require detection and make sure the LED does not turn on. The detector will automatically exit walk test after the 3 minutes time.

NB: Both detection areas must be blocked for detection

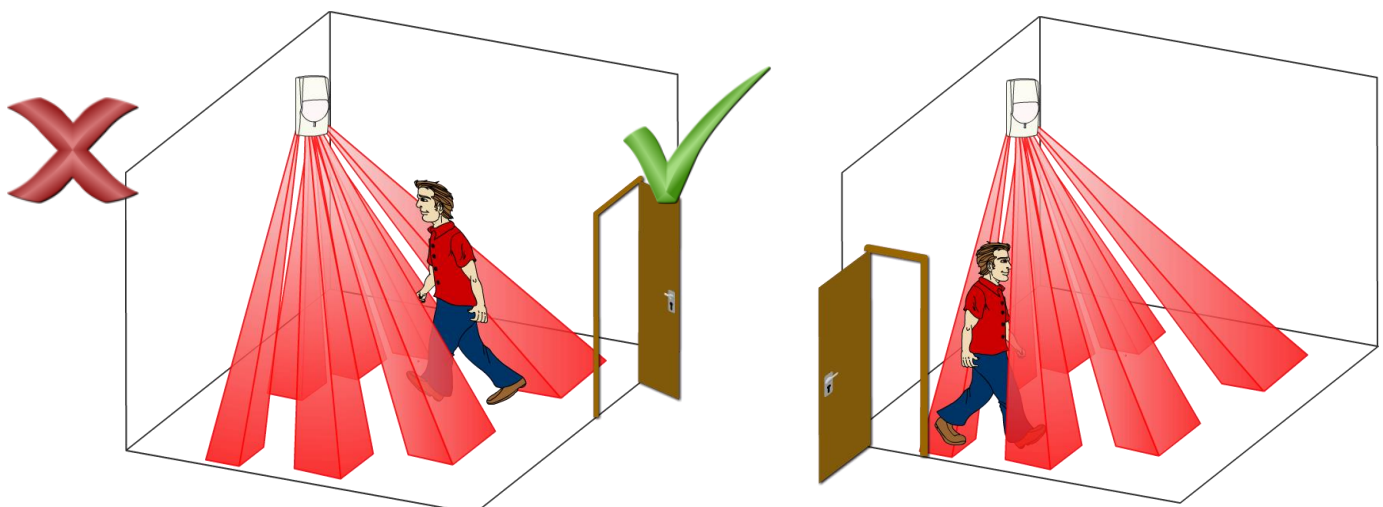
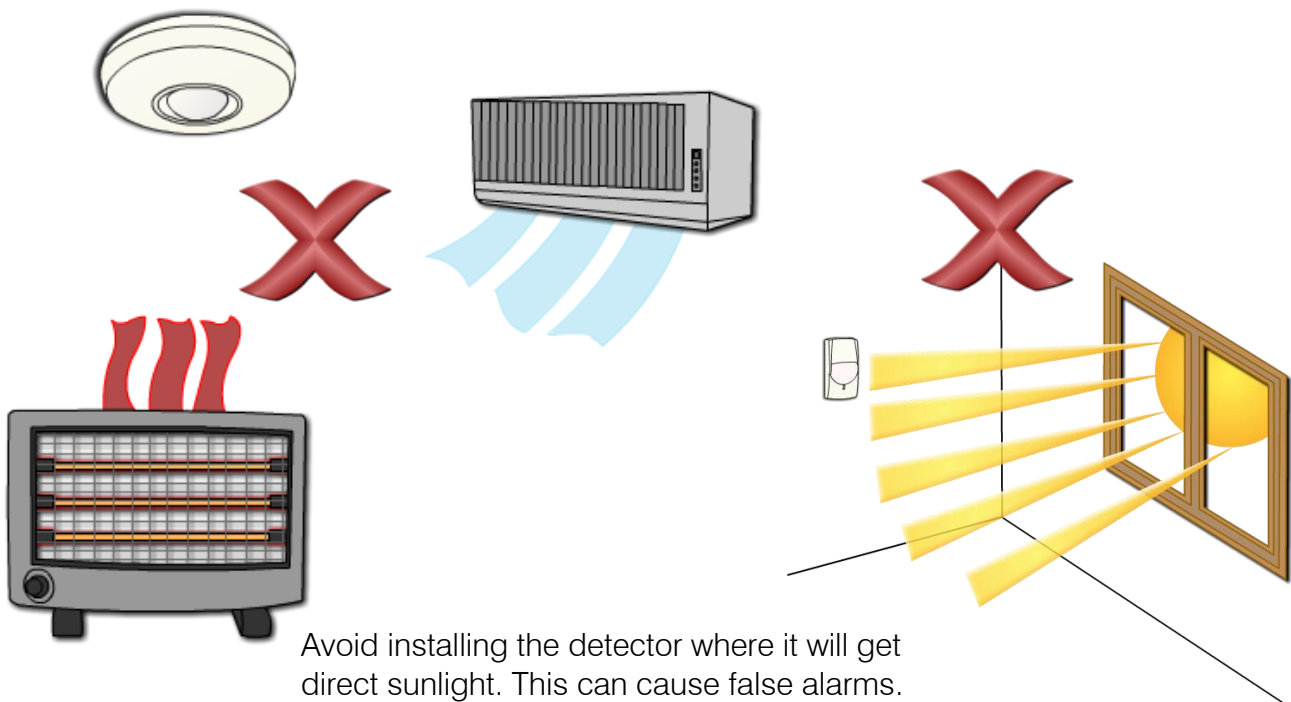


3. Installation Recommendation

For optimum performance and reduced risk of false alarms, please follow these installation recommendations.

3.1. Indoor Detectors

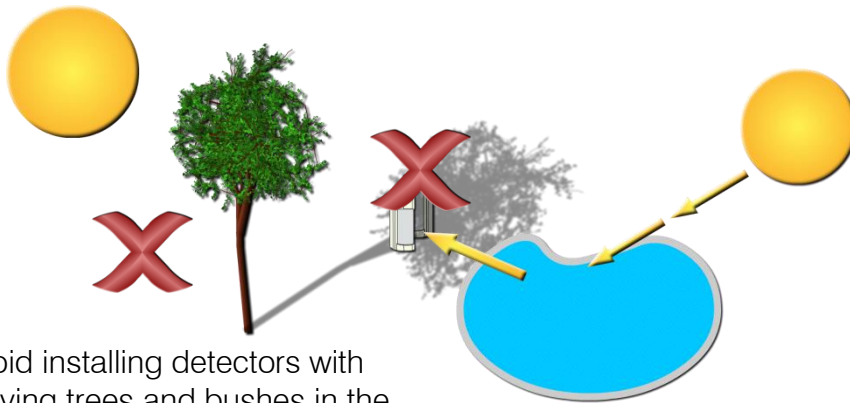
Be aware of temperature altering appliances in the detection area. Placing a heater or air-conditioner in the detection area can cause false alarms.



Place the detector where it is most likely that an intruder will walk across the detection beams, and NOT straight towards it. This will provide quicker detection at a further distance.

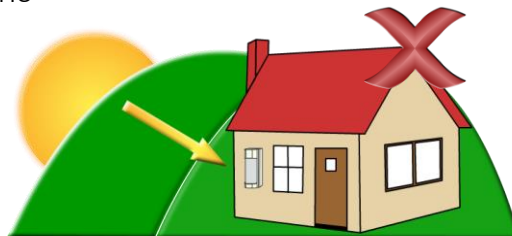
3.2. Outdoor Detectors

When installing any PIR detectors you must take into account that it detects change in temperature. This is especially important outdoors as the sun and trees move about causing these changes in temperature.

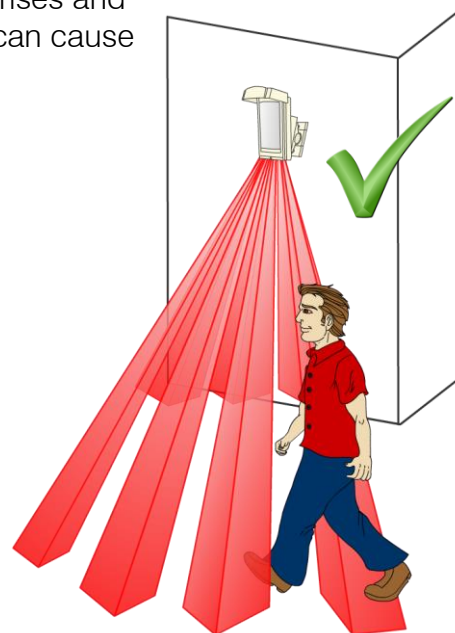
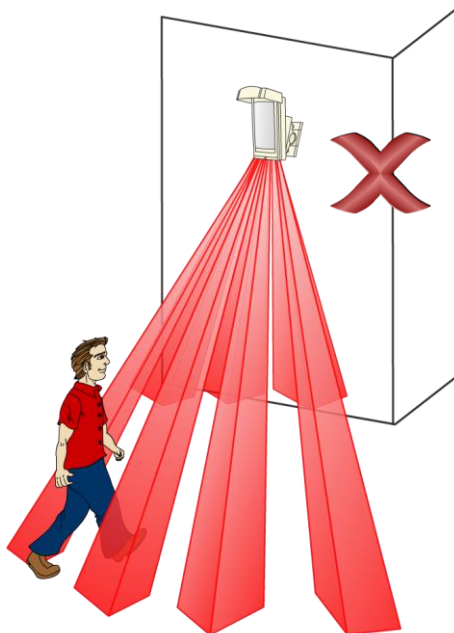


Be aware of reflective surfaces in the detection area

Avoid installing detectors with moving trees and bushes in the detection area.



Know where the sun rises and sets. Direct sunlight can cause false alarms.



Place the detector where it is most likely that an intruder will walk across the detection beams, and NOT straight towards it. This will provide quicker detection at a further distance.