

# GX 250

## 12-volt external PIR detector for CCTV

### OPERATING / INSTALLATION INSTRUCTIONS.

#### FORWARD

The GX250 detector is like an infra-red camera and can sense small changes in temperature such as a human body crossing in front of its field of view. In order for the detector to distinguish between a person or just a change in air temperature the detectors field of view is split into segments with a Fresnel lens. The GX250 has double edge detection "pulse counting" to minimise false alarms caused by extraneous conditions such as reflections of strong sun light and fast cloud movement, also tree and shrub movement on windy days. The double edge detector can be set to single or double edge detection as required, this will make the GX250 respond very quickly to movement for special applications. E.G. detecting movement of vehicles.

The GX250 detector is available in three different lens types.

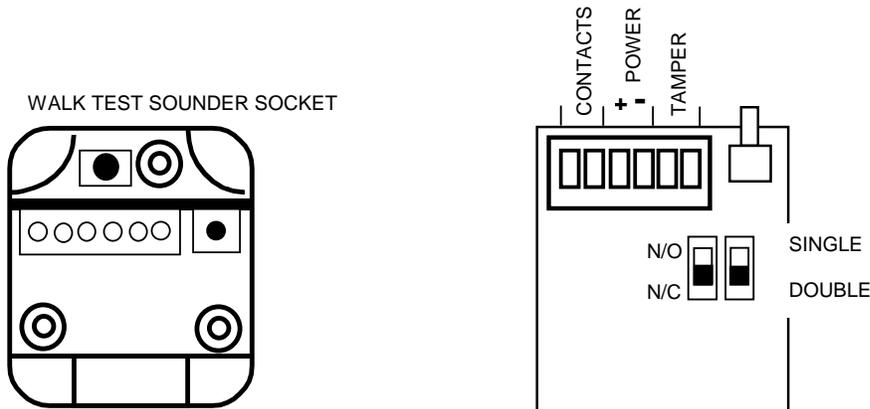
Standard 15 meter 90 deg. Long range 40 meter 1 deg. Curtain 12 meter 90 deg.

#### PLANNING YOUR INSTALLATION.

First decide on the location of the detector, which should be positioned to cover the required area without over reaching areas such as footpaths and roads. The detector can be angled down to reduce the long-range coverage. The detector should be positioned where it can detect people and vehicles crossing in front of it and not walking towards it. Avoid potential false alarm situations; see "AVOIDING FALSE ALARMS".

#### FIXING TO THE WALL

Remove the front cover (fig.1) to reveal the connection terminals inside the detector mounting housing. There are four "screw fixing tunnels" on the corners of the detector (fig.2) into which you should insert No8 countersunk screws and tighten the detector to the wall.



#### WIRING

The **CONTACTS** terminals can either be "normally closed" or "normally open". This is selected with a slide switch as shown.

Each detector requires 12 volts DC in order to operate and this is connected to the **POWER** + and - terminals.

The **TAMPER** contacts are open circuit when the front cover is removed.

#### WALK TESTING

Switch on the control unit and allow about two minutes for the detectors to settle. During this settling period the detectors will activate a number of times. Now observe the red indicator above the connector terminals, which will light each time movement is detected. Walk about within the detection area and make angle adjustments to the detector until satisfied with the coverage. The red indicator may be hard to see during day light and therefore if available use, use an EX6 walk test sounder which can be plugged into the available socket as shown.

#### AVOIDING FALSE ALARMS.

Careful positioning of the detector will greatly reduce false alarms. Do not let foliage grow around or in front of the detector. Avoid central heating outlets or other sources of heat extraction. During daylight, problems can arise with reflective surfaces such as strong sunlight reflecting of cars or windows.

Having taken these preventative measures you can further reduce false alarms by reducing sensitivity or selecting double edge detection.

## **NORMALY OPEN/ NORMALY CLOSED CONTACTS**

The contacts can be set as N/O (normally open) or N/C (normally closed) with the selector switch as shown.

## **DOUBLE EDGE PULSE COUNTING.**

The GX250 has optional double edge detection for reducing false alarms. The selector switch is located behind the connector terminals. When "SINGLE" is selected the detector will be highly sensitive. This is useful for detecting motor vehicles. When "DOUBLE" is selected the detector will still detect genuine alarm situations but will be much less likely to respond to false alarm situations as described under "AVOIDING FALSE ALARMS".

## **LENS OPTIONS.**

The GX250 is available in three different lens options.

15M	STANDARD 15 Meter 90 deg.
40M	LONG RANGE 40 Meter 1 deg.
CL	CURTAIN 12 Meter 90 deg.

### **(15-Meter Lens.)**

Mount this detector approximately 2 - 2.5 meters above the ground for optimum results. The 90 deg angle makes this lens the most popular choice.

The detector will not respond very quickly if you walk straight towards it. Always position the detector so that you walk across its field of view.

### **(40-Meter Lens.)**

Mount this detector approximately 2 - 2.5 meters above the ground for optimum results. The 1 deg angle of detection gives a spread of about 4 meters at its furthest range. Careful adjustment is required with this model as a tiny angle or tilt adjustment on the detector will result in a large change in the viewing area 40 meters away.

### **(Curtain Lens.)**

#### ***Vertical* mounted "Curtain Lens" detector.**

For covering across a flat wall of a building, mount the detector as shown in (fig.10) so that it looks straight down giving coverage across windows and doors but not looking out further than 1 meter. This lens is ideal for alleys and side ways or for short front gardens.

IMPORTANT, when fitting the detector in the VERTICAL position the head should be rotated 180 deg. This allows water to run off the sloping top of the detector.

#### ***Horizontal* mounted "Curtain Lens" detector.**

This lens does not have any *creep zones* therefore if the detector is fitted about 1.5 - 2 meters above the ground it will detect in a similar way to the standard lens detector but will not view the ground area. This can be useful if there are animals wandering around, as the detector will not be able to see them. The detector will not respond very quickly if you walk straight towards it. Always position the detector so that you walk across its field of view.

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