where you plan to install detectors. Check that the Control Panel acknowledges the signal from the

Remote Control each time the 'DISARM' button is pressed.

5. Press to return to the top level menu of TEST MODE.

## PASSIVE INFRARED DETECTORS

PIR detectors are designed to detect movement in a protected area by detecting changes in infra-red radiation levels caused, for example, when a person moves within or across the devices field of vision. If movement is detected an alarm signal will be emitted, (if the system and alarm zone is armed).

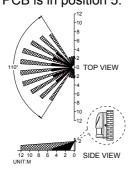
**Note**: PIR detectors will also detect animals, so ensure that pets are not permitted access to areas fitted with Passive Infra-Red Detectors when the system is armed.

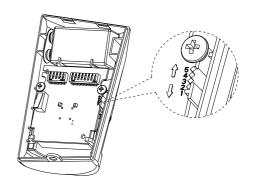
Any number of PIR Detectors can be used with your system, providing they are all coded with the system house code and are mounted within effective radio range of the Control Panel.

The PIR Detector adopts a PP3 Alkaline battery which under normal conditions will have typical life in excess of 2 years. When the battery level drops, with the PIR in normal mode and the battery cover fitted, the LED behind the detection window will flash. When this occurs the batteries should be replaced as soon as possible.

## **CHOOSING A MOUNTING LOCATION**

The recommended position for a PIR Detector is in the corner of a room mounted at a height between 2 and 2.5m. At this height, the detector will have a maximum range of up to 12m with a field of view of 110 °. The position of the PCB inside the PIR can be set to 5 different positions to adjust the range of the detector. Setting the PCB in position 3 will reduce the range to 9m approximately, with position 1 providing a range of 6m approximately. The recommended position setting for the PCB is in position 5.



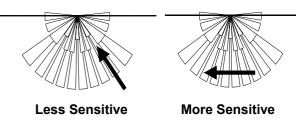


| PCB Position | Range |
|--------------|-------|
| 1            | 6m    |
| 3            | 9m    |
| 5            | 12m   |

**Note:** The range as indicated above refers to the linear distance in front of the PIR sensor.

When considering and deciding upon the mounting position for the detector the following points should be considered to ensure trouble free operation:

- Do not locate the detector facing a window or where it is exposed to or facing direct sunlight. PIR Detectors are not suitable for use in conservatories.
- 2. Do not locate the detector where it is exposed to ventilators.
- 3. Do not locate the detector directly above a heat source, (e.g. fire, radiator, boiler, etc).
- 4. Where possible, mount the detector in the corner of the room so that the logical path of an intruder would cut across the fan detection pattern. PIR detectors respond more effectively to movement across the device than to movement directly towards it



- 5. Do not locate the detector in a position where it is subject to excessive vibration.
- Ensure that the position selected for the PIR detector is within effective range of the Control Panel, (refer to 'Testing the Control Panel & Remote Control').

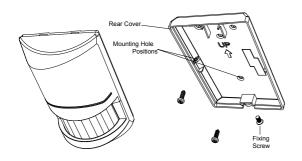
**Note**: When the system is armed, household pets should not be allowed into an area protected by a PIR detector as their movement would trigger the PIR and generate an alarm.

**Note**: DO NOT fix the detector to metalwork or locate the unit within 1m of metalwork (i.e. radiators, water pipes, etc) as this could affect the radio range of the device.

### INSTALLING THE PIR DETECTORS

#### Ensure that the system is in Test Mode.

 Undo and remove the fixing screw from the bottom edge of the PIR. Carefully pull the bottom edge of the detector away from the rear cover and then slide down to release the top clips.

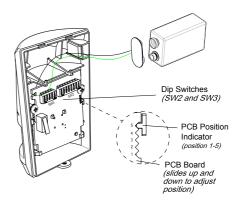


- the rear cover using a 3mm drill according to whether the unit is being mounted in a corner or against a flat wall.
- 3. Using the rear cover as a template, mark the positions of the fixing holes on the wall.
- 4. Fix the rear cover to the wall using the two 18mm No.4 screws and 25mm wall plugs, (a 5mm hole will be required for the wall plugs). Do not over-tighten the fixing screws as this may distort or damage the cover.
- Configure the PIR detector as described below. Remember that on initial installation that the device needs to be tested and should therefore be set in Walk Test Mode.
- Check that the detector PCB is located and set in the correct position to give the detection zone pattern required.

To adjust the PCB position, simply slide it up or down ensuring that the location legs are aligned with the required position number marked on the board. 7. To refit the PIR detector to the rear cover, offer the detector up to the rear cover and locate the clips in the top edge into the rear cover. Push the lower edge of the detector into place and refit the fixing screw in the bottom edge of the PIR to secure in position. Do not over-tighten the fixing screws as this may damage the casing.

#### **SETTING THE PIR DETECTORS**

Located on the PCB of the PIR Detector are two blocks of DIP switches (SW2 and SW3).



- DIP switches SW2 (numbered 1-8) are used to set the House Code for the PIR Detector and must be set to the same ON/OFF combination as the House Code DIP switches in all other system devices.
- 2. Set the alarm zone which the detector will operate on with DIP switches 1-3 of SW3 as follows:

|        | DIP 1 | DIP 2 | DIP 3 |
|--------|-------|-------|-------|
| Zone 1 | OFF   | OFF   | OFF   |
| Zone 2 | OFF   | OFF   | ON    |
| Zone 3 | OFF   | ON    | OFF   |
| Zone 4 | OFF   | ON    | ON    |
| Zone 5 | ON    | OFF   | OFF   |
| Zone 6 | ON    | OFF   | ON    |

 DIP 4 of SW3 is used to configure the PIR Detector for walk test mode, which allows the operation of the detector to be checked during installation without triggering a Full Alarm.

ON Walk Test mode
OFF Normal mode

**Note**: On initial installation the detector should be set into Walk-Test mode ready for testing.

4. The PIR Detector incorporates an anti-false alarm feature designed to compensate for situations

where the detector may be affected by environmental changes, (e.g. insects, air temperature, etc). This feature is called "sensitivity detection" and may be selected for high or low detection.

The recommended setting is for high sensitivity detection. However, in cases of extreme environmental problems or if unattributable false alarms are experienced, it may be necessary to select low sensitivity detection.

Set the required sensitivity detection using DIP 5 of SW3 as follows:

ON high sensitivity detection OFF low sensitivity detection

**Note**: The higher the sensitivity detection the less movement will be necessary before the PIR detector will trigger the alarm.

5. The setting of the DIP4 & DIP5 of SW3 can be distinguished from the LED indication as follows:

| Position | DIP4 of   | DIP5 of     | Trigger reaction of LED |
|----------|-----------|-------------|-------------------------|
| of DIP4  | SW3       | SW3         |                         |
| & 5 of   |           |             |                         |
| SW3      |           |             |                         |
| ON       | Walk Test | High        | LED will be on shortly. |
|          | mode      | Sensitivity | It implies high         |
|          |           |             | sensitivity.            |
|          |           | Low         | LED will flash three    |
|          |           | Sensitivity | times and Illuminate    |
|          |           |             | once. It implies low    |
|          |           |             | sensitivity.            |
|          |           |             |                         |
|          |           |             |                         |
| OFF      | Normal    | Low         | LED does not light up   |
|          | mode      | Sensitivity |                         |

6. Connect the PP3 Alkaline battery to the battery clip.

**Note**: When the 9V Alkaline battery is connected, the LED behind the lens will flash for 2-3 minutes until the PIR has warmed-up and stabilized. The LED will then stop flashing and turn OFF.

#### **TESTING THE PIR DETECTORS**

Ensure that the system is in Test Mode.

With the PIR detector set in Test mode and mounted in position on the wall, allow 2-3 minutes for the detector to stabilize before commencing the Walk Test.

1. Use the and buttons to scroll through the menu until 'WALK TEST' is displayed.

Press to activate Walk Test.

'Walk Test Waiting...' will be displayed.

2. Walk into and move slowly around the protected area, each time the detector senses movement the LED behind the lens will flash. In addition, the Control Panel will beep to indicate that the alarm signal has been received and the identity of the zone that the detector is configured for will be displayed.

If necessary adjust the detection range by changing the mounting position of the PCB within the PIR housing.

**Note**: In normal operation, the LED behind the PIR lens will not flash on movement detection, (unless the battery is low).

If necessary re-adjust the detection pattern by changing the mounting position of the PCB within the PIR housing.

- Remove the back cover of the PIR detector. The Control Panel should beep and display 'Accessory Tamper' to show that the detector's tamper switch has been activated.
- 4. Press to return to the top level menu of TEST MODE.
- 5. Reconfigure the PIR Detector for normal mode by setting DIP4 of SW3 to OFF and refit in position.

**Note**: When the detector is fully installed i.e. battery cover is refitted; the unit will not detect movement for approximately 45 seconds after each activation. (This feature is present to conserve battery power and maximize the battery life).

# MAGNETIC CONTACT DETECTOR(S)

The Magnetic Contact consists of two parts; a Detector and a Magnet. They are designed to be fitted to either doors or windows with the Magnet mounted on the moving/opening part and the Detector mounted on the fixed door or window frame.

The Magnetic Contact Detector is powered by two CR2032 type Lithium cells which under normal conditions will have typical life in excess of 1 year. Under normal battery conditions the LED on the