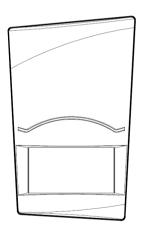


# 433MHz Wire Free PIR Detector LHD100SU



Instruction Guide

# LuxHome 433MHz Wire Free PIR Detector

These instructions should be read in conjunction with your System Installation and Operating Instructions and be retained for future reference.

#### Introduction

The LuxHome PIR Detector is designed for use with LuxHome wire free Intruder Alarm Systems operating on 433MHz only.

PIR Detectors are designed to detect movement in a protected area by detecting changes in infrared 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 triggered (if the system and alarm zone is armed).

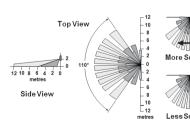
**Note:** PIR Detectors will also detect animals, so ensure that pets are not in areas fitted with PIR Detectors when the system is armed.

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.

The PIR Detector is powered by a PP3 alkaline battery. Under normal operating conditions this will provide an expected life up to one year. When the battery level becomes low the PIR Detector will flash a red LED behind the lens. When this occurs the battery should be replaced as soon as possible.

# Choosing a Position for the PIR Detector

The recommended position for a PIR Detector is in the corner of a room mounted at a height of between 2 and 2.5m. At this height, the PIR 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 PIR 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.



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

When deciding upon the mounting position for the PIR Detector the following points should be considered to ensure trouble free operation:

- Do not position the PIR Detector facing a window or where it is exposed to or facing direct sunlight. PIR Detectors are not suitable for use in conservatories or for external use.
- 2. Do not position the PIR Detector where it is exposed to ventilation facilities.
- 3. Do not position the PIR Detector directly above a heat source (e.g. fire, radiator, boiler, etc).
- 4. Where possible, mount the PIR 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.
- Do not locate the PIR Detector in a position where it is subject to excessive vibration.
- 6. Ensure that the position selected for the PIR Detector is within effective range of the System.

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

Note: DO NOT fix the PIR 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 and Configuring the PIR Detectors

#### Ensure that the system is in Test or Service Mode

- 1. Undo and remove the fixing screw from the bottom edge of the PIR Detector. Carefully pull the bottom edge of the PIR Detector away from the rear cover and then slide down to release the top clips.
- 2. Carefully drill the required mounting holes in the rear cover using a 3mm drill relevant to whether the PIR Detector is being mounted in a corner or against a flat wall
- 3. Using the rear cover as a template, mark Fixing Screw

Mounting Hole

Positions

Rear Cover

- 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.

Note: The wall plugs supplied with the product are not suitable for plasterboard walls, if mounting the PIR Detector onto plasterboard use appropriate wall plugs.

- 5. Configure the PIR Detector as described below. Remember that on initial installation the device needs to be tested and should therefore be set in Walk Test Mode
- 6. Check that the PIR Detector PCB is located and set in the correct position to give the detection zone pattern required.

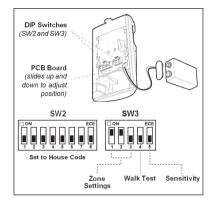
To adjust the PCB position, simply slide it up or down ensuring that the location legs are aligned with the required position number marked on the board.

7. To refit the PIR Detector to the rear cover, offer it up to the rear cover and locate the clips in the top edge into the rear cover. Push the lower edge of the PIR into place and refit the fixing screw in the bottom edge to secure in position. Do not overtighten 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). When setting Dip Switches to House Code, hold the PIR Detector 'upside down' as shown in the diagram on the right:

- 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.
- Set the alarm zone which the PIR
   Detector will operate on, with DIP
   switches 1-3 of SW3 as follows:



#### Setting for Siren only Alarm System

For a Siren only Alarm System, DIP switches 1-3 of SW3 must be set as follows:

DIP 1	DIP 2	DIP 3
ON	ON	OFF

### Setting for an Alarm System with a Control Panel

If your system has a Control Panel, DIP Switches 1-3 of SW3 should be set 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.

DIP 4 of SW3	Mode	Trigger reaction on LED	
ON	Walk Test	LED single flash when movement detected: implies the sensor is set to high sensitivity      LED flashes three times and illuminates once: implies the sensor is set to low sensitivity	
OFF	Normal Position	LED will not light up (unless the battery in the PIR is low)	

**Note:** On initial installation the PIR Detector should be set to Walk-Test mode ready for testing.

4. The PIR Detector incorporates a sensitivity 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 "Detection Sensitivity" and may be set to Standard or High Sensitivity.

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

The recommended setting is Standard Sensitivity. If set to High Sensitivity, in some cases extreme environmental problems could cause unexplained false alarms. If this is experienced it may be necessary to reset the PIR Detector to Standard Sensitivity.

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

OFF	Standard Sensitivity	
ON	High Sensitivity	

5. 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 Detector**

Before testing the PIR Detector ensure that the system is in Test mode (for a Control Panel System) or Service Mode (for a Siren only System).

With the PIR Detector set in Walk Test mode (Switch 4) and mounted in position on the wall, allow 2-3 minutes for the PIR Detector to stabilize before commencing the Walk Test.

 Walk into and move slowly around the protected area, each time the PIR Detector senses your movement the LED behind the Lens will flash.

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

Reconfigure the PIR Detector for normal operation mode by setting DIP4 of SW3 to OFF and refit in position.

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

**Note:** When the PIR 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).

## **Disposal and Recycling**



Disposal of this product is covered by the Waste Electrical or Electronic Equipment (WEFF) Directive

It should not be disposed of with other household or commercial waste.

At the end of its useful life the packaging and product should be disposed of via a suitable recycling center. Please contact your local authority or the retailer from where the product was purchased for information on available facilities.

#### Guarantee

The product is guaranteed for one year from the date of purchase against faulty materials and workmanship. No liability can be accepted for any problems caused by fair wear and tear, buyer's negligence, improper fitting or use, wilful or accidental damage, or any consequential loss or damage howsoever caused. This guarantee does not affect your statutory rights and is valid for the country or region of your purchase.

If you believe the product to be faulty or in the unlikely event of the product developing a fault during the warranty period, then please contact your supplier for product assistance. Product repair or replacement will be offered for faulty products only with our prior agreement. Should you need to return a product then:

- 1. Contact your supplier and obtain a Return Authorisation Number.
- 2. Adequately package your product to prevent damage in transit and include the following:
  - a. A copy of your original invoice/receipt.
  - b. A covering letter giving your full contact details, including email address (if applicable).
  - c. A description of the fault or problem.

# **LuxHome Alarm Systems**

Manufactured by Everspring
Copyright © 2013. All Rights Reserved.

Everspring Industry Co., Ltd.
Website: www.everspring.com
Service Support: sales@everspring.com

