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TIMEGUARD STFM360 360° Flush Mount PIR Sensor Instruction Manual

Contents

**TIMEGUARD STFM360 360° Flush Mount PIR Sensor**

General Information
These instructions should be read carefully and retained for further reference and maintenance.

Safety

- Before installation or maintenance, ensure the mains supply to the PIR sensor is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- It is recommended that a qualified electrician is consulted or used for the installation of this PIR sensor and install in accordance with the current IEE wiring and Building Regulations.
- Check that the total load on the circuit including when this PIR sensor is fitted does not exceed the rating of the circuit cable, fuse or circuit breaker.

Technical Specifications

- 230V AC 50 Hz
- This PIR sensor is of class II construction and must not be earthed
- Motion Detection Range: Up to an 6m diameter
  at a 3m mounting height
- Detection Angle: 360°
- Maximum Switching Load: 1000W Halogen lighting,
  200W Fluorescent & LED lighting
- Time ON Adjustment: 3 seconds to 18 minutes.
- Dusk Level Adjustment: 10 to 1000 Lux, day and night
  or night time only operation
- Manual Override: 6 hours max
- Warm-up Time: 60 seconds
- Operating Temperature: -20°C to + 40°C
- Ceiling Cut-out: 60mm
- IP44 Rated suitable for restricted internal applications

- CE Compliant
- Dimensions: H=76.5mm, W=82mm, D=82mm
- Multiple PIR Sensor Switching: A maximum of 5 STFM360 PIR sensors can be wired in parallel, to enable any detector to turn ON all the lights connected.
  The total load must not exceed the lamp rating of a single STFM360 unit.
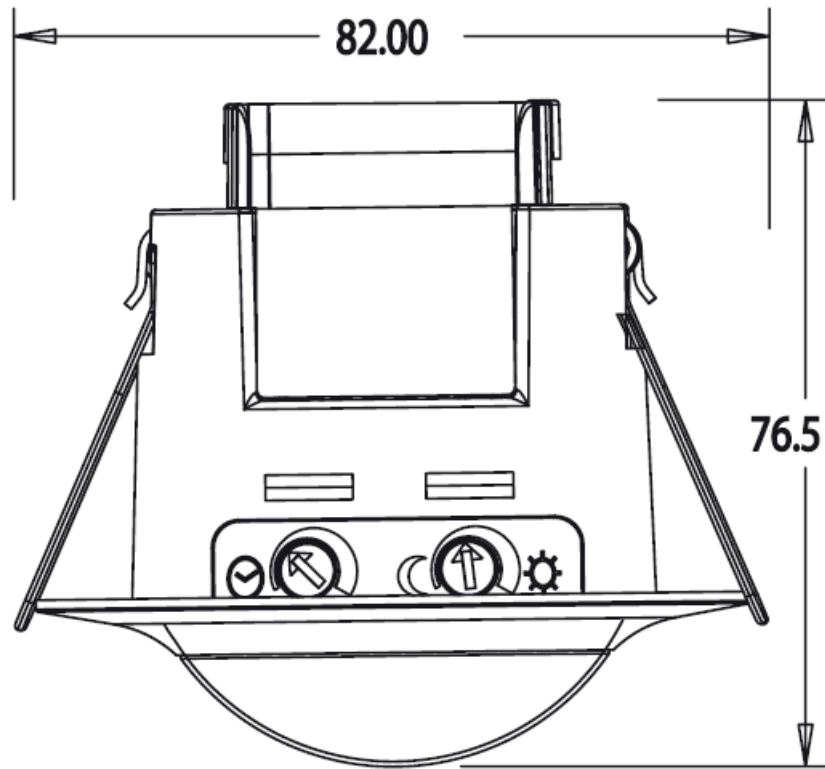
Dia 82mm x 76.5mm

Installation

- Ensure the mains supply is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- An isolating switch should be installed to enable the power to be switched ON an OFF for maintenance purposes and to activate the manual/auto override function.
- Mark the position of the 60mm diameter fixing hole centre taking care to avoid ceiling joists and other obstructions within the 60mm diameter.
- Using a pad saw or suitable hole cutter cut out a 60mm diameter hole
- Pass the 230V 50Hz mains supply and load cables through the hole and prepare for termination.
- Terminate the cables into the terminal block ensuring correct polarity is observed and that all bare conductors are sleeved
 (See section 6. Connection Diagram).
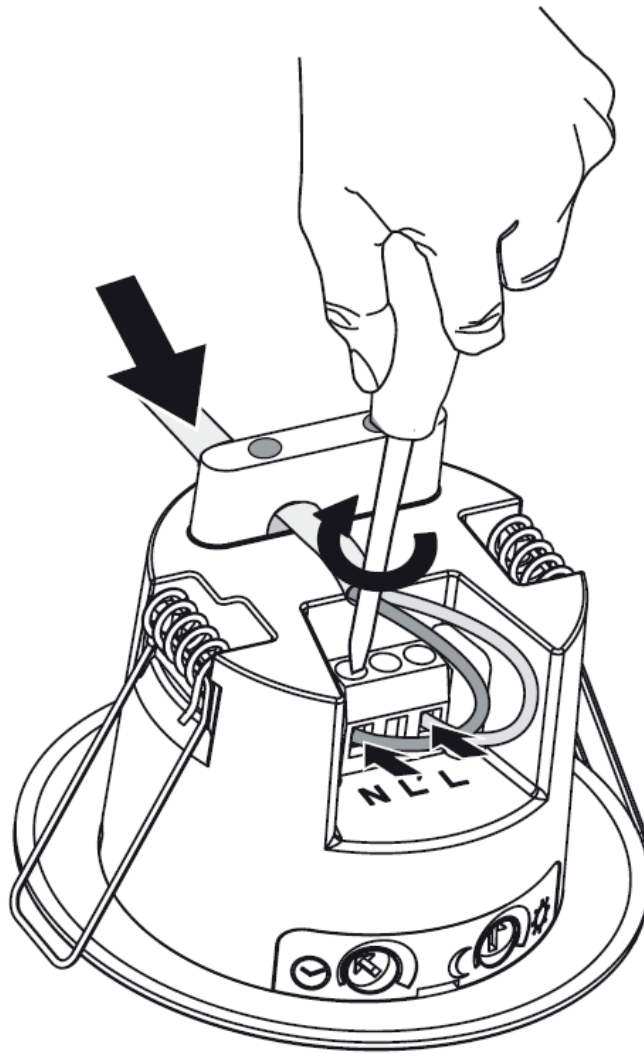
Selecting a Location

- The motion detector has number of detection zones, at various vertical and horizontal angles as shown (See image "A").
- The best all-round coverage is achieved with the unit mounted at the optimum height of 3m metres.
- Careful positioning of the sensor will be required to ensure optimum performance (see image "A" and "B" detailing detection range and direction).
- The sensor is more sensitive to movement ACROSS its field of vision than to movement directly TOWARDS (See image "B"). Therefore position the unit so that the sensor looks ACROSS the likely approach path.
- Avoid positioning the sensor where there are any sources of heat in the detection area (extractor fans, tumble dryer exhausts etc.) including opposite any other light sources.
- Reflective surfaces (i.e. white painted walls) may also cause false activation.

A

Side View

3m

6m
Up to 6m Motion Detection

Top View

360°

B

More sensitive

Less sensitive
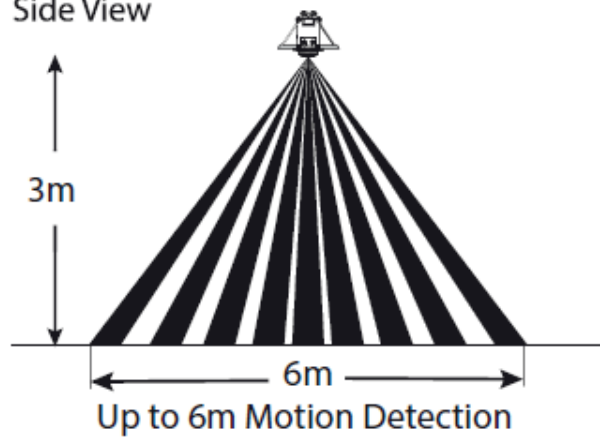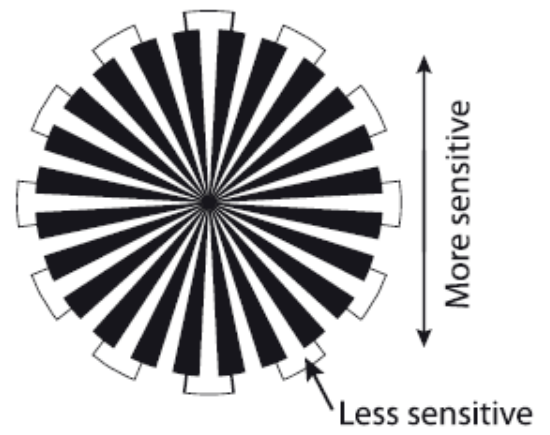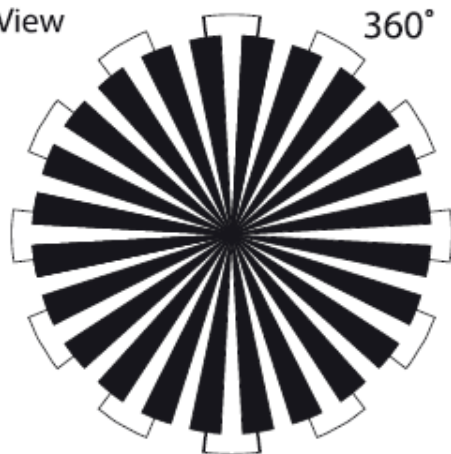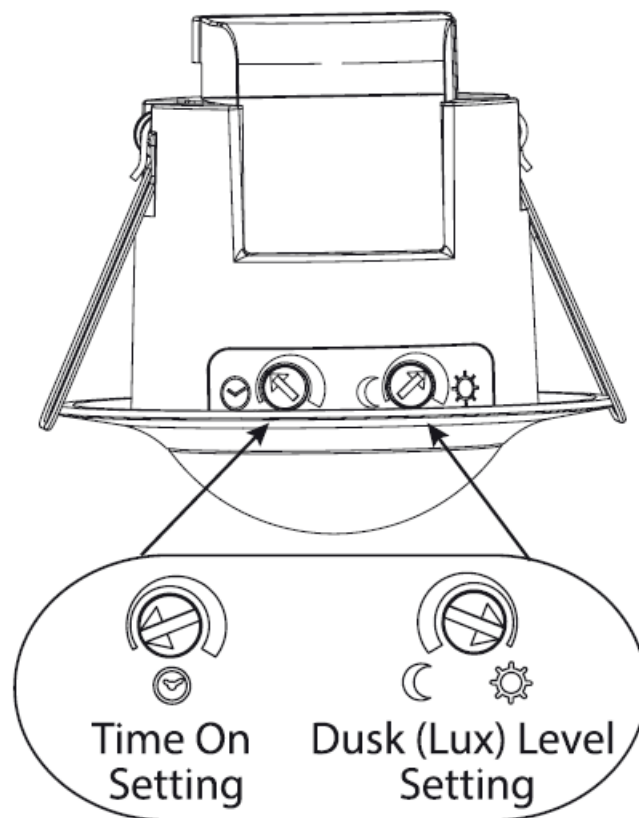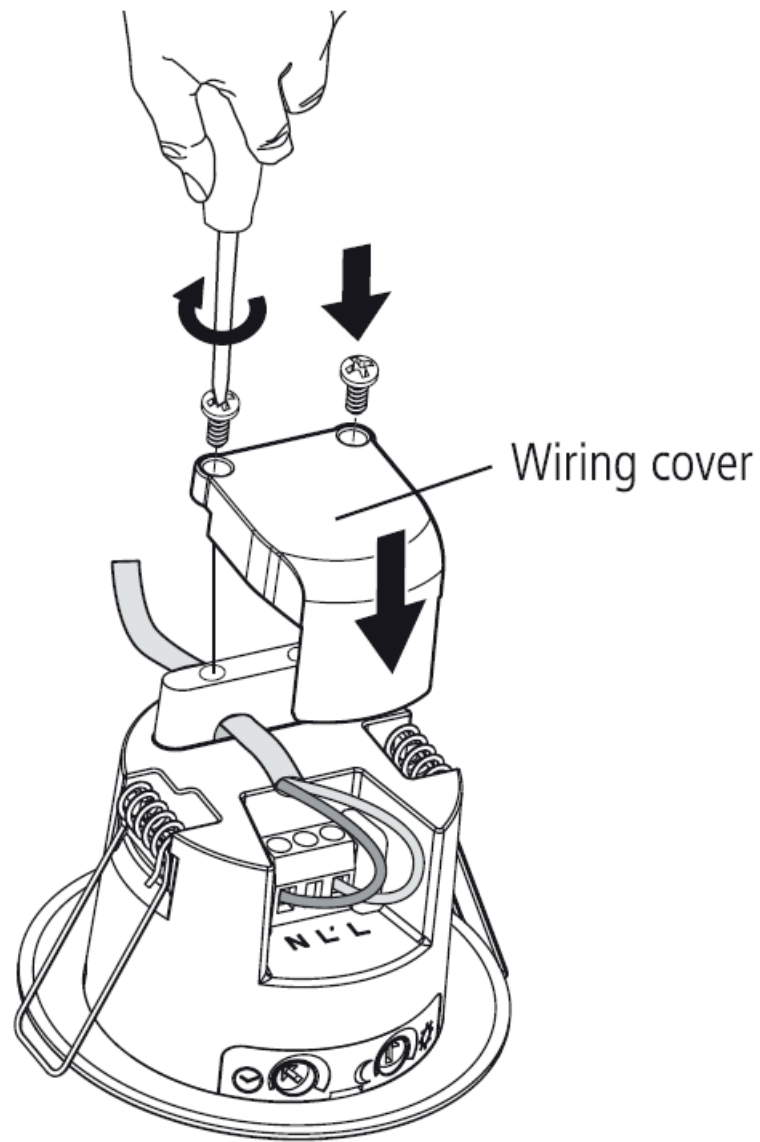
- The adjustment knobs located beneath the sensor head are factory set to "Walk Test Mode". Double check they are set as follows;
    - Time ON setting –
    - fully anti-clockwise
    - Dusk (Lux) level setting –
    - fully clockwise

Time On Setting

Dusk (Lux) Level Setting

- Fit the wiring cover and secure into place using the 2 fixing screws supplied, making sure not to over tighten.

Wiring cover

- Push back the locating springs and feed the unit into the ceiling void via the 60mm hole. The locating springs will now fold back and hold the STFM360 in place.

Locating
springs
pulled
back

Locating springs
fitted position
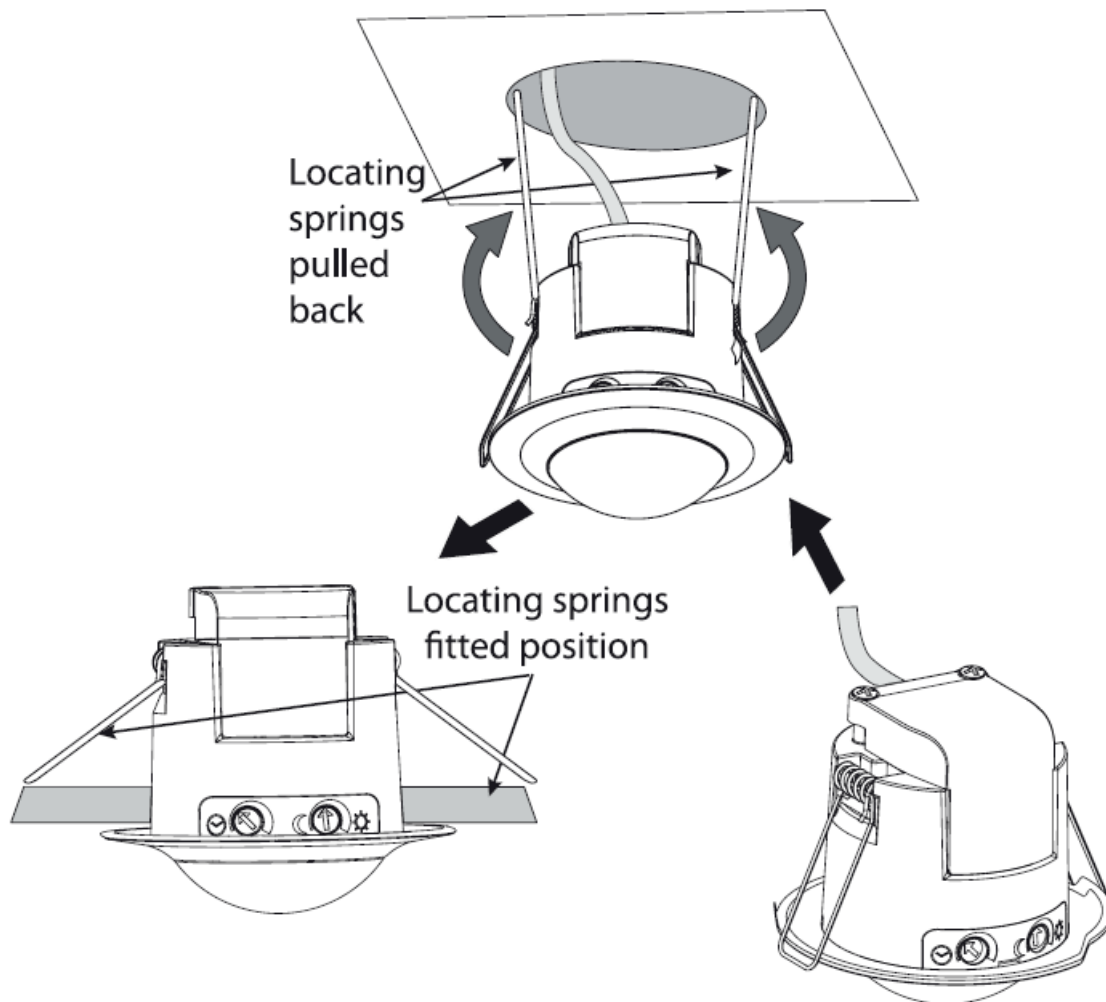
Connection Diagram

Connect the 230V 50Hz mains supply and load cables into the terminal block as follows;

Trigger from PIR
sensor

N   L'   L

Switched Load
(Light Source)
OUT

N   L'   L

Mains
Supply
IN

N

L

Mains
Supply

Isolation
Switch
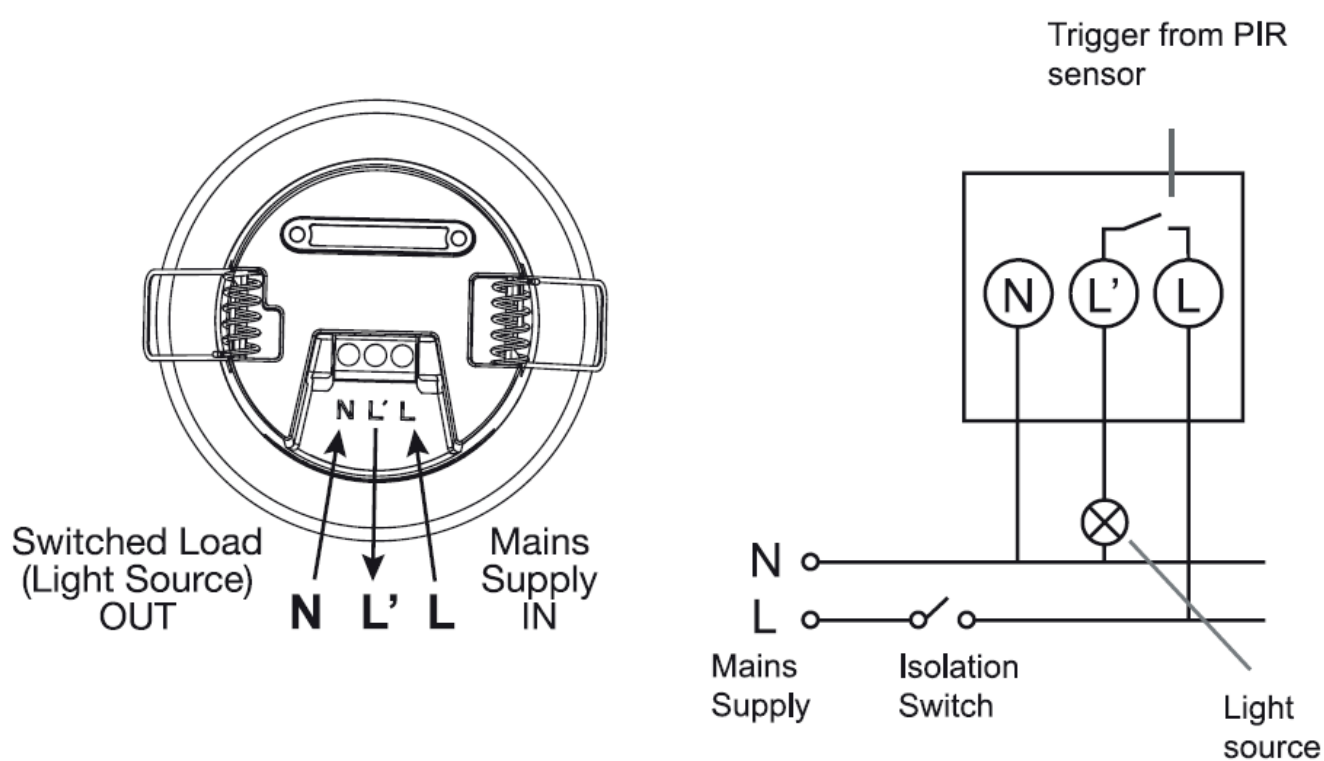
Light
source

230V 50Hz Mains Supply
Live Supply (Brown or Red) to L
Neutral Supply (Blue or Black) to N

Load (Light Source)
Switch Live (Brown or Red) to L'
Neutral Load (Blue or Black) to N

Walk Test Procedure (Test Mode)

- Turn the power to the unit ON. The lamp will immediately illuminate as the unit goes through its "warm-up" period. After approximately 1 minute the lamp will extinguish. This indicates the unit is wired correctly and the unit is in Test Mode.
- Try to remain outside the detection area during the warm-up period.
- The unit will now operate during daytime as well as at night, illuminating the lamp for approx. 3 seconds each time. This allows testing to be carried out to establish whether the sensor is covering the required area.
- Walk around the sensor to establish the detection area. The sensor will detect within an approximate 6 metre diameter circle from the centre of the sensor location, with a 3m ceiling height. As you cross a detection area the lamp
  will illuminate.
- Now stand still until the lamp extinguishes (this should take approx. 3 seconds). Start moving again after 2 seconds. As you cross each through the detection area the lamp will illuminate.
- Repeat the above, walking at various distances and angles to the unit.
  This will help you to confirm the detection pattern.

Setting Up for Automatic Operation (Auto Mode)

- When the walk tests are complete, the unit can be adjusted for automatic operation.
- The Time ON setting controls how long the unit remains illuminated following activation and after all motion ceases.
- The minimum time (fully anti-clockwise) is approx. 3 seconds, whilst the maximum time (fully clockwise) is approx. 18 minutes. Set the control to the desired setting between these limits.
- Dusk (Lux) level setting determines the level of darkness required for the unit to start operating. The setting is best achieved by the procedure below;
  1. Set the Dusk (Lux) level setting knob fully clockwise.
  2. When the ambient light level reaches the level of darkness at which you wish the lamp to become operative (i.e. at dusk) SLOWLY rotate the control knob in an anti-clockwise direction until a point is reached where the lamp illuminates.
  3. Leave the control knob set at this point.
- At this position the unit should become operative at approximately the same level of darkness each evening.
- Observe the operation of the unit. If the unit is starting to operate too early (i.e. when it is quite light) adjust the control knob slightly anti-clockwise.
  If the unit starts to operate too late (i.e. when it is very dark).
  Adjust the control knob slightly clockwise.
- Continue to adjust until the unit operates as desired.

Manual Override Mode

The light can be switched ON for longer time periods by use of the Manual Override Mode. This can be activated at night by using the isolation switch.

- Switch the isolation switch once (OFF/ON) within 1.5 seconds.
- The unit will now illuminate continuously for approximately 6 hours or until it is switched back into Auto Mode.
- To return to Auto Mode switch the isolation switch OFF and then back ON again within 1. 5 seconds.

Troubleshooting

Problem	Solution
The lamp stays ON at night.	Cover the PIR lens with a thick cloth. If the light turns OFF, check the detection area for heat or a reflective source. If the light stays ON, check the wiring (See section 6. Connection Diagram).
The PIR keeps activating for no reason at random.	Turn OFF at the isolation switch. Turn back ON again after 30 seconds. Leave for approximately 15 minutes. If the light activates, check for false activation from heat, wind or a reflective source.
The PIR will not operate at all.	Check that the power is switched ON at the power supply or isolation switch. Turn OFF the power to the unit and check the wiring connections. Check the lamp (if it's changeable). If the lamp has failed, replace. Ensure the lamp is seated correctly in the lamp-holder. Please note that the unit will not detect through glass (e.g. in a glazed porch).

- The PIR sensor will not operate at night.

  The level of ambient light in the area may be too bright to allow operation at the current Dusk (Lux) level setting.
  During the hours of darkness, adjust the Dusk (Lux) level setting control knob slowly anti-clockwise until the lamp illuminates.

- The PIR coverage is poor/sporadic.

  The PIR may be poorly located (See section 4. Selecting a location) and re-locate the unit.

2 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 2 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge.

For the second year or any difficulty in the first, telephone the helpline on 020 8450 0515.
Note: A proof of purchase is required in all cases. For all eligible replacements (where agreed by Timeguard) the customer is responsible for all shipping/postage charges outside of the UK. All shipping costs are to be paid in advance before a replacement is sent.

If you experience problems, do not immediately return the unit to the store. Telephone the Timeguard Customer Helpline;

HELPLINE
020 8450 0515
or email **helpline@timeguard.com**

Qualified Customer Support Co-ordinators will be on-line to assist in resolving your query.

For a product brochure please contact:
Timeguard Limited.
Victory Park, 400 Edgware Road, London NW2 6ND
Sales Office: 020 8452 1112 or email **csc@timeguard.com**
www.timeguard.com
67.058.589 (Issue 1)

Documents / Resources

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