TIMEGUARD®

360° Flush Mount Wall PIR Light Controller

Model: PDFM1500

Installation & Operating Instructions

1. General Information

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

2. 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.

3. Technical Specifications

- 230V AC 50 Hz
- This PIR is of Class ll Construction and must not be earthed
- Motion Detection Range: Up to 10 metres diameter (4.5m Radius) at a 3m mounting height
- Presence Detection Range: Up to 3 metres diameter (1.5m Radius) at a 3m mounting height
- Detection Angle: 360°
- Maximum Switching Load: 1500W Halogen/Fluorescent Lighting
  420W LED Lighting
  420W Discharge Lighting (SON, HQI)
  250W Fan Load
- Time ON Adjustment: 1 minute to 30 minutes
- Dusk Level Adjustment: Day and Night or Night time only operation
- IP44 Rated suitable for restricted internal applications
- CE Compliant
- EC Directives: Conforms to latest directives
- Multiple PIR Sensor Switching: A maximum of 4 PDFM1500 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 PDFM1500 unit).

4. Selecting a Location

- The motion detector has a number of detection zones, at various vertical and horizontal angles as shown (see diagram "A").
- The best all-round coverage is achieved with the unit mounted at the optimum height of 3m.
- Careful positioning of the sensor will be required to ensure optimum performance. See diagram "A" & "B", detailing detection range and direction.
- The sensor is more sensitive to movement ACROSS its field of vision than to movement directly TOWARDS (See diagram "B"). Therefore position the unit so that the sensor looks ACROSS the likely approach path.
- Reflective surfaces (i.e. pools of water or white-painted walls) may cause false activation under extreme conditions.

Diagram A

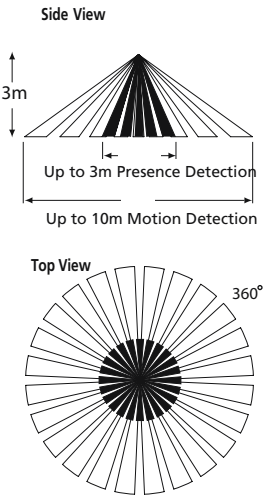
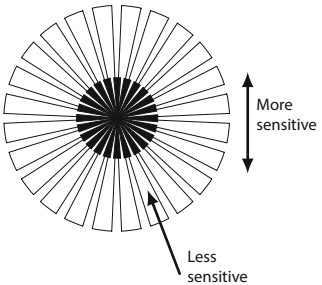


Diagram B



5. 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 and OFF for maintenance purposes.
- Mark the position of the 65mm diameter locating hole centre, taking care to avoid ceiling joists and other obstructions within the 65mm diameter.
- Drill a pilot hole to take the centre shaft of the hole cutter.
- Use the hole cutter to cut the required 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).
- When wiring is complete, fit the cable clamp wiring cover to the sensor unit with the 2 screws provided (See diagram "E").
- The adjustment knobs located beneath the sensor head (see diagram "C") are factory set to "Walk Test Mode". Double check they are set as follows;

  TIME – Fully anti-clockwise (Test mode).
  DUSK – Fully clockwise.

Note: Make sure the Lux and Time controls are located at the bottom of the product.

- Fit the sensor to the wall box and secure it with the two fixing screws provided.

Diagram C

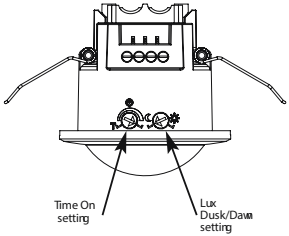


Diagram D

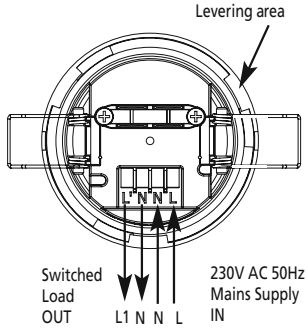
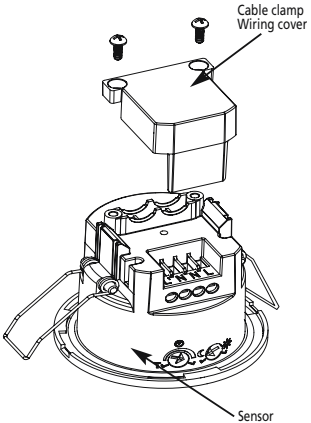
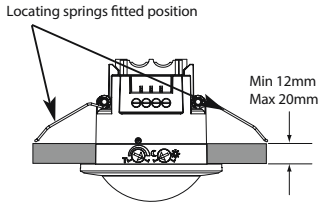
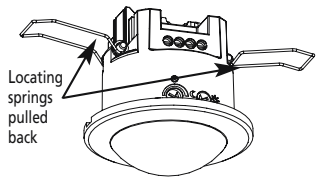


Diagram E

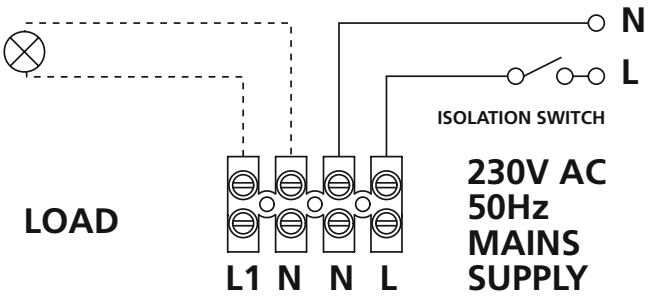






6. Connection Diagram

- Connect cables to the terminal block as follows;



230V AC 50Hz Mains Supply Live (Brown or Red) to **L** Neutral (Blue or Black) to **N**	Load Switch Live (Brown or Red) to **L1** Neutral (Blue or Black) to **N**

7. Setting Up

Walk Test Procedure

- 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. 5 seconds each time. This allows testing to be carried out to establish whether the sensor is covering the required area.
- Walk across the location the sensor is fitted, to establish the detection area.
- The sensor will detect you approximately up to 9 metres forward at mounting height of 1m.
- As you cross a detection "zone" the lamp will illuminate. Now stand still until the lamp extinguishes (this should take approx. 5 seconds).
- Start moving again after 2 seconds. As you cross each "zone" 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

- When walk tests are complete, the unit can be adjusted for automatic operation.
- The TIME setting controls how long the unit remains illuminated following activation and after all motion ceases.
- Use a thin flat blade screwdriver to make adjustments.
- The Time control knob at fully anti-clockwise is Test Mode, slightly adjust to above the T is minimum time approx. 1 min, whilst the maximum time (fully clockwise) is approx. 30 minutes.
- Set the control to the desired setting between these limits.
- The DUSK control 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 control knob fully anti 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 in a clockwise direction until a point is reached where the lamp illuminates.
3. Leave the control 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 slightly anti-clockwise. If the unit starts to operate too late (i.e. when it is very dark). Adjust the control slightly clockwise.
- Continue to adjust until the unit operates as desired.
- Once the unit is set up as desired, ease the unit back into position under spring pressure.

8. Troubleshooting

Problem	Solution
• The lamp stays ON all the time at night.	Cover PIR lens with a thick cloth. If the light turns out, check detection area for heat or reflective source. If the light stays ON, check 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 light activates, check area for false activation from heat, wind or 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 (See section 6. Wiring Diagram). Check the lamp. If the lamp has failed, replace. Ensure that 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 setting. During the hours of darkness, adjust the DUSK control slowly clockwise until the lamp illuminates (See section 7. Setting Up).
• The unit activates during the daytime	Adjust the DUSK Control setting anti-clockwise to lower the level of ambient light required for activation.

3 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 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 years 2 and 3 or any difficulty in the first year, 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.

TIMEGUARD®

A theben Group Company

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TW September 2021

67-058-425 (Issue 3)