TIMEGUARD®

360° Surface Mount Ceiling PIR Light Controller

Model: PDSM1500

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 mounting height of 3 metres
- Presence Detection Range: Up to 3 metres diameter (1.5m Radius) at mounting height of 3 metres
- 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
- Minimum depth of Back Box: 16mm
- IP55 Rated suitable for restricted internal applications
- CE Compliant
- EC Directives: Conforms to latest directives

- Multiple PIR Sensor Switching: A maximum of 4 PDSM1500 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 PDSM1500 unit).

4. Selecting a Location

- Careful positioning of the sensor will be required to ensure optimum performance (See diagram "A" & "B" detailing detection range and direction).
- The best all-around coverage is achieved with the unit mounted at the optimum height of 3 metres.
- 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.
- During extreme weather conditions the motion sensor may exhibit unusual behaviour. This does not indicate a fault with the sensor. Once normal weather conditions return, the sensor will resume normal operation.

Diagram A

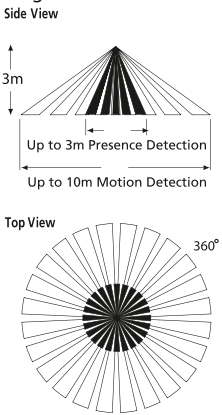
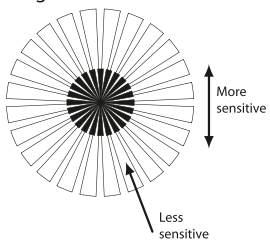


Diagram B



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.
- Terminate the230V 50Hz mains supply and load cables into the terminal block ensuring correct polarity is observed and that all bare conductors are sleeved (See section 6. Connection Diagram).
- 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.
- Fit the sensor to the wall box and secure it with the two fixing screws provided.

Diagram C

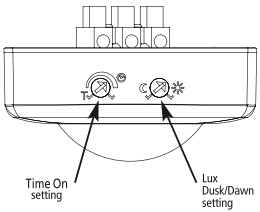
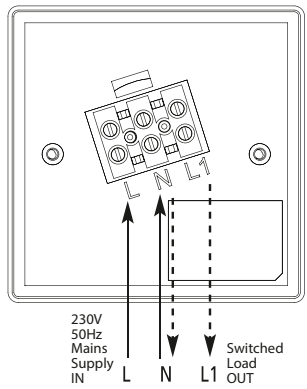
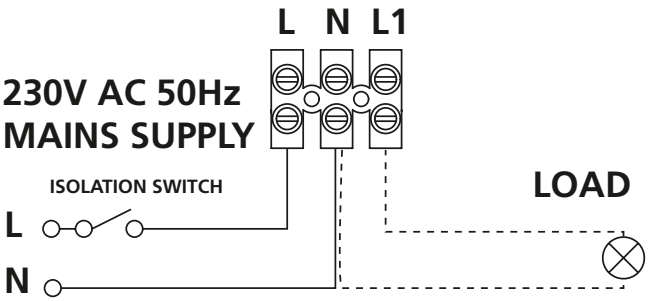


Diagram D



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 & 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.

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.

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

HELPLINE

01582 544 548

or email helpline@timeguard.com

Qualified Customer Support Coordinators will be online to assist in resolving your query.

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