

**TIMEGUARD®**

## 2300W PIR Light Controller

Model: MTLW3000 - White



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 II Construction and must not be earthed
- Motion Detection Range: Up to 12 metres at a 2.5m mounting height
- Detection Angle: 200°
- Maximum Switching Load: 2300W Halogen Lighting  
500W Fluorescent Lighting  
140W LED Lighting  
150W Discharge Lighting (SON, HQI)
- Time ON Adjustment: 5 seconds to 18 minutes
- Dusk Level Adjustment: Day and Night or Night time only operation
- IP55 Rated suitable for restricted external applications
- CE Compliant
- Manual Override
- Multiple PIR Sensor Switching: A maximum of 8 MTLW3000 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 MTLW3000 unit).

## 4. Selecting a Location

- The motion detector has 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 2.5 metres.
- Careful positioning of the sensor will be required to ensure optimum performance (see diagram "A" & "B" detailing detection range and direction).
- The unit will not detect through glass (e.g. in a glazed porch).
- 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.
- 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 such as other security lights.
- Reflective surfaces (i.e. pools of water or white painted walls) may cause false activation under extreme conditions.

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Diagram A

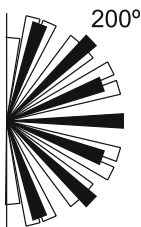
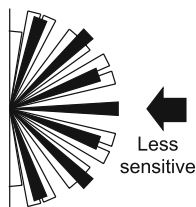
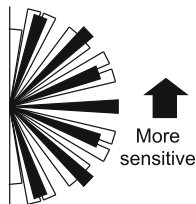


Diagram B



SIDE VIEW



## 5. Installation

- Ensure the mains supply is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- This product is designed to be mounted on walls or under eaves (See diagram "C"). The sensor can be rotated through 180 degrees to direct detection where required.
- An isolating switch should be installed to enable the power to be switched ON and OFF for maintenance purposes and to activate the manual/auto override function.
- Unscrew the wiring box fixing (See diagram "D"). This screw is captive, do not fully remove.
- Detach the wiring box by gently pulling it away from the PIR sensor body.
- Mark the position of the fitting holes using the wall plate as a template. Drill out the mounting holes taking care to avoid any joists, electrical cables or water/gas pipes that may be hidden beneath the surface. Insert the rawl plugs into the holes.
- Pass the cables through the cable entry points on the wiring box, ensuring the grommet(s) is used to maintain the IP rating of the PIR sensor.
- Fix the wall plate to the wall using the correct screws for the rawl plugs installed (See diagram "E").
- This unit features an installation aid. Simply hang the PIR sensor onto the wall plate by use of the clip arrangement on the wall plate (See diagram "F"). This allows you to use your hands to hold the screwdriver, and install the incoming cables with ease.
- Terminate the cables into the terminal block ensuring correct polarity is observed and that all bare conductors are sleeved (See section 6. Connection Diagram).
- Ensure the connections are secure, and that the terminal blocks are attached to the mounting posts in the PIR sensor body.
- Un-hook the sensor unit and re-attach to the wiring box, ensuring none of the wires are trapped.
- Align the PIR sensor centrally over the wiring box, and attach the top edge of

the PIR sensor to the wiring box (See diagram "G"). There will be an audible click indicating that the top clips are secure in place.

- Slowly rotate the PIR sensor body downwards, and back upwards to double check that no wires are trapped.
- Fully tighten the fixing screw (See diagram "D").

Diagram C

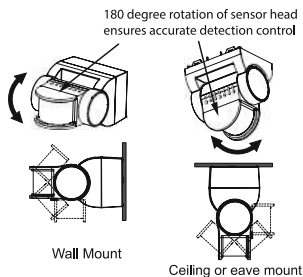


Diagram D

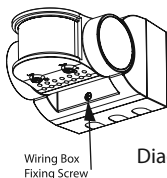


Diagram E

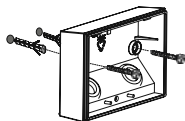
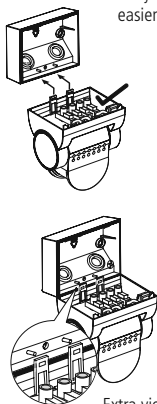
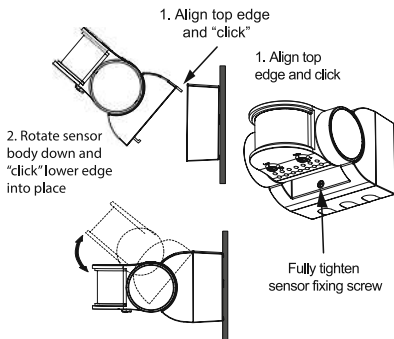


Diagram F Installation aid, clip main body onto wall plate for easier wiring



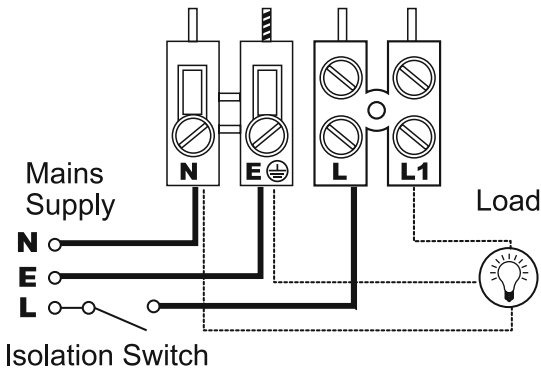
Extra view shows detail of clip arrangement

Diagram G



## 6. Connection Diagram

- Connect cables to the terminal block as follows;



### Mains Supply

Live (Brown or Red) to L

Neutral (Blue or Black) to N

A 'Loop Terminal' is provided should a 3 core cable be used, which is marked E.

### Load

Switch Live (Brown or Red) to L1

Neutral (Blue or Black) to N

A 'Loop Terminal' is provided should a 3 core cable be used, which is marked E.

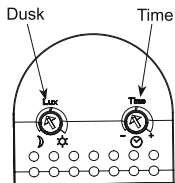
## 7. Operation and Testing

### Walk Test Procedure

- The adjustment knobs located beneath the sensor head (see diagram "H") are factory set to "Walk Test Mode" i.e. LUX set to the 'Sun' symbol and the Time set to the minimum.
- Turn the power to the unit ON. The lamp will illuminate for approximately 1 minute. This indicates the unit is wired correctly and the unit is in Test Mode.
- Adjust the sensor head to the desired direction for best coverage (See diagram "C").

Note: Angling downwards will limit forward looking range.

Diagram H



## Test Mode

- The unit will now operate during daytime as well as at night, illuminating the lamp for approx. 5 seconds each time movement is detected. This allows testing to be carried out to establish the best position for the PIR sensor.
- Walk across the detection area approximately 5 metres from the unit. Each time you are detected the lamp will illuminate. Now stand still until the lamp extinguishes (this should take approx. 5 seconds)
- Start moving again, when you are detected again the lamp will illuminate.
- Repeat the above, walking at various angles and distances to the unit. This will help you to establish the detection pattern.
- If the detection area is too small for your requirements, try angling the sensor head up.
- Angling the head downwards will reduce the detection area should a smaller range be required.

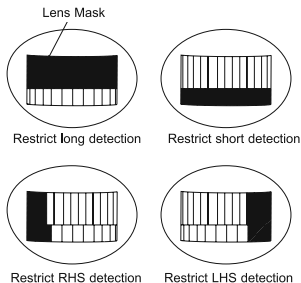
## Setting Up for Automatic Operation

- When the 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.
- The minimum time (fully anti-clockwise) is approx. 5 seconds, whilst the maximum time (fully clockwise) is approx. 18 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.

## Masking the Sensor Lens

- To restrict the sensor coverage, preventing detection in unwanted areas, mask the sensor lens using the masks provided in the accessory pack (See diagram I).
- The top section of the lens covers long range detection, the bottom covers short range. Similarly the left and right lens sections cover the left and right detection areas respectively.





## 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 internal wall switch or circuit breaker.

- Switch the internal wall switch/circuit breaker twice (OFF/ON, OFF/ON) within 2 seconds.
- The unit will now illuminate continuously until dawn or until it is switched back into Auto Mode.
- To switch the unit back into Auto Mode, flick the internal wall switch/circuit breaker (OFF/ON) once within 1 second. The unit will return to Auto Mode.

## 8. Troubleshooting

### Problem

### Solution

- The lamp stays ON all the time at night.  
The unit may be suffering from false activation. Cover the sensor lens completely with a thick cloth. This will prevent the sensor from “seeing” anything. If the unit now switches off after the set time duration and does not re-activate, this indicates that the problem was caused by false activation. The problem may be solved by slightly adjusting the direction/angle of the sensor head (See section 4. Selecting a Location).
- The PIR keeps activating for no reason at random.  
You may not be allowing the unit time to complete its warm-up period. Stand well out of the detection range and wait (the warm-up period should never exceed 5 minutes). Occasionally, wind may activate the PIR. Sometimes passages between buildings etc. can cause a ‘wind tunnel’ effect. Ensure the unit is not positioned so as to allow detection of cars/people using public thoroughfares adjacent to your property.

- The PIR will not operate at all.  
Check that the power is switched ON at the circuit breaker/internal wall switch. Turn OFF the power to the unit and check the wiring connections as per the diagram (See section 6. Connection Diagram). Ensure no connections are loose. 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. Refer to previous section for more details.
- The unit activates during the daytime  
Adjust the setting anti-clockwise to lower the level of ambient light required for activation.
- The PIR coverage is poor/sporadic.  
Unit may be poorly located (See section 4. Selecting a Location) and re-locate the unit.
- The detection range varies from day to day.  
The PIR sensors are influenced by climatic conditions. The colder the ambient temperature, the more effective the sensor will be. You may need to make seasonal adjustments to the sensor head position to ensure trouble-free operation all year round.

## 5 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 5 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 2,3,4 and 5 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](mailto:helpline@timeguard.com)

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



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