OWPIRODLO / OWPIRODLOBK

Motion Sensor Passive Infrared Outdoor IP66 3 Wire 110 Degrees 18 Metre Detection Less Override

Specifications

Supply Voltage	220-240V AC 50Hz
Maximum Incandescent Lighting Load	10A 2400W
Maximum Inductive Load	5A 1200W
Maximum SBL-LED	400W
Sensor Power Consumption	0.7W
Detection Method	Passive Infrared
Weatherproof Rating	IP66
Time Delay	5 to 10 seconds Warm up to 30 seconds
Detection Angle	Up to 110°
Detection Distance	Up to 18m

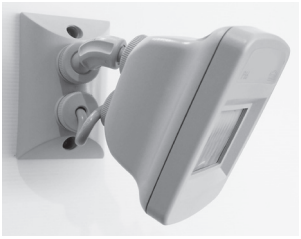
Safety Information

The OWPIRODLO is a mains connected device and is intended for installation in a fixed location by a Licensed Electrical Contractor in accordance to applicable Australian wiring rules. The product must be installed and used in conjunction with detail provided in the enclosed instructions, failure to do so may cause serious injury. The product contains no user servicable parts and must be returned to GSM Electrical (Australia) Pty Ltd (GSME) if the product is damaged and requires repair.

Installation

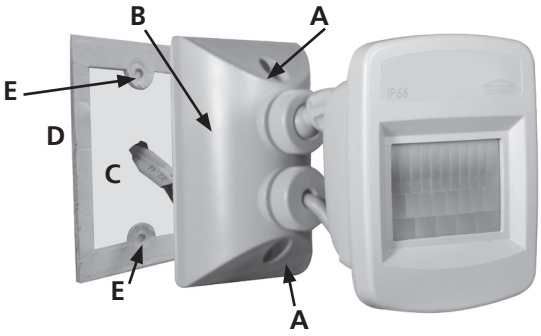
Before installing your new Arctic Owl (OWPIRODLO) Outdoor PIR Sensor Less Override function, it is most important that you read and follow these instructions, even if you feel you are quite familiar with this type of product. Keep this document handy for future reference. (If you are the electrical contractor, please leave the instructions with the client after installation for their future reference).

When operating with standard lighting loads, ensure the lights are pointing away from the sensor head. Light from the lamps may cause false re-triggering and heat from globes may harm the sensor unit if too close. The base of the Arctic Owl can be installed in a vertical manner; such as walls, fascias, or alternatively it may be installed on horizontal surfaces such as ceilings and under eaves.



When installing onto porous, rough or uneven surfaces (such as brick walls), care should be taken to ensure that water and dust will not gain ingress into the base of the unit through the use of a silicon or similar sealant compound. A foam sealing gasket is provided for all other installation types. It may also be necessary to install the base onto a conduit box or surface mounting block depending on location.

FIG 1

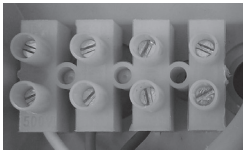


Steps for Installation:

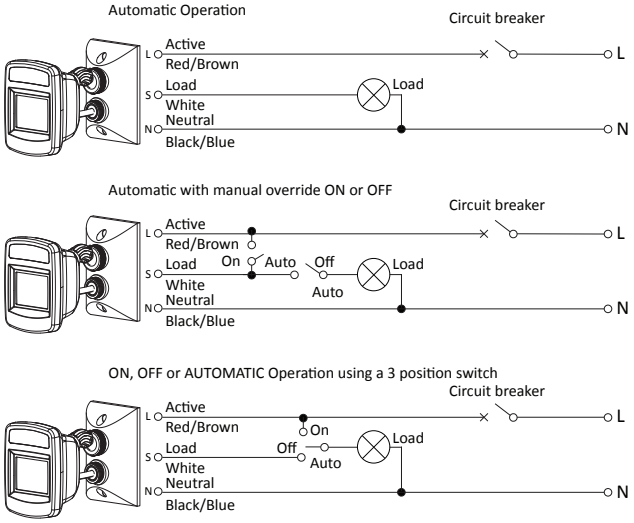
1. Switch power OFF at meter box or switchboard.
2. Refer to FIG 1. Use the holes (A) on the Mounting Base (B) to mark the fixing screws position on the selected mounting surface.
3. If wall plugs are to be used for securing the mounting base, drill to a depth of approximately 40mm, and fit the supplied plastic wall plugs until flush with wall. Take care not to drill into concealed electrical wiring or other services.
4. Drill suitable sized hole in mounting surface to allow for cabling between the other two mounting holes for electrical connections (C).
5. Ensure gasket is positioned over wiring before connecting (D).
6. Pull through electrical wiring in preparation for connection to the sensor.
7. Connect the Active incoming supply connection to the terminal block connection marked "L'', as per FIG 2.
8. Wire the incoming supply and load Neutrals to the terminal block connection marked "N'', as per FIG 2.
10. Wire the load active connection to the switched Active output connection on the terminal block marked "S", as per FIG 2.
    NOTE: Installation must be carried out according to Australian Wiring Rules (AS/NZS 3000). Please refer to the wiring diagram in FIG 3.
11. Remove protective backing from self-adhesive foam gasket (D) as per FIG 1.
12. Attach the self-adhesive foam gasket to the mounting surface or rear of base, aligning holes in the gasket (E) to the wall plugs as per FIG 1.
13. Fit the mounting base (B) to the wall using screws provided and ensure tightly secured to maintain IP rating. Also tighten adjusting nuts to seal the cable and lock the head in place.
14. Ensuring that associated lighting loads are correctly installed according to Australian Wiring Rules.
15. Reconnect power.

FIG 2

Removable terminal block



Different Control Configurations
FIG 3

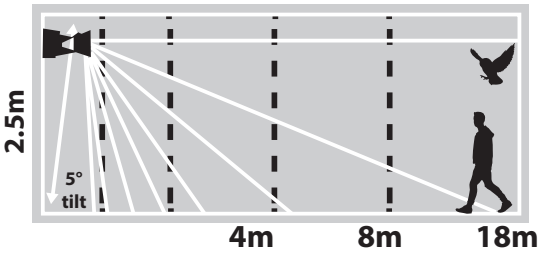


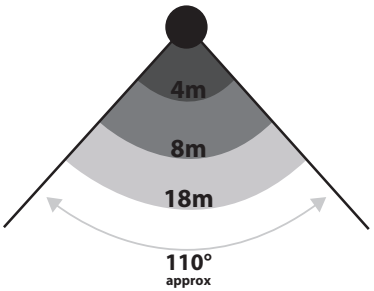
Set Up & Operation

The Arctic Owl OWPIRODLO Outdoor Sensor Less Override function is equipped with a highly sensitive PIR (Passive Infrared) motion detector. A multi-cell technology fresnel lens is used to divide the sensors basic detection range into multiple separate segments or zones. The sensor automatically scans for movement between zones, and then will activate connected devices (such as security lighting) as a result.

The OWPIRODLO Outdoor Sensor Less Override function will provide optimal performance and range when installed in a vertical position approximately 2.5m above the ground; as is shown in the diagrams in FIG 4 below. The sensor head can be adjusted to allow optimal coverage for the zone of the detection area by adjusting the head. The horizontal coverage zone can reach up to 18m with an angle of 110° from the lens.

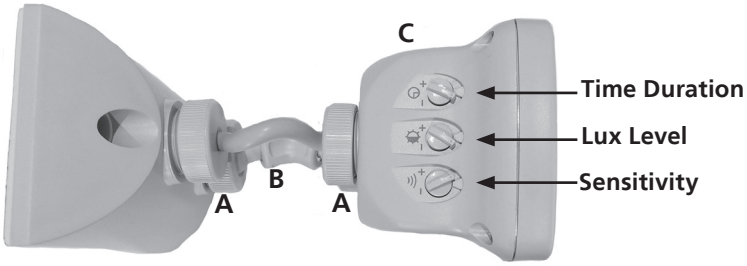
FIG 4





To adjust sensor head (refer to FIG 5):
Simply loosen the two ball joint locking nuts (A), located at either end of the sensor arm (B), adjust sensor head (C) and tighten nuts (A).
NOTE: Always loosen locking nuts on sensor before adjusting. Failure to do so can damage the sensor or crack the lock nut.

FIG 5



Time Duration: The length of time the sensor will activate a light or other load after detection can be adjusted from 10 seconds to 30 minutes. Rotating the time knob (marked with the clock) anti-clockwise will reduce the duration time.

LUX Level: The sensor has a built in photoelectric cell that automatically detects daylight and darkness levels. Rotating the lux control knob anti-clockwise (marked with the day/ night image), will ensure that the sensor only works at night. By rotating the lux control knob clockwise, the sensor will work in both daylight and at night depending on the application - this setting is primarily used for testing the sensor after installation.

Sensitivity: The sensitivity control (marked with the sensor symbol) allows you to adjust the sensitivity of the Infrared detector. This adjustment is useful to adjust the sensitivity of the PIR to prevent false triggering and to adjust the detection range. Unless required, the sensitivity adjustment should be operated with the knob turned fully clockwise.

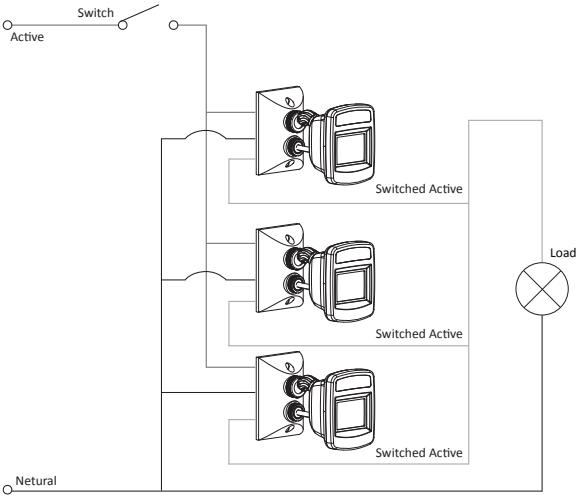
Connecting Multiple PIR's in a Circuit

In order to have more than one motion sensor or motion detector turn on the same group of lights it is necessary to wire the motion sensors in parallel with each other, in the same manner as the lights are wired. While at least one motion sensor is detecting motion, the lights will remain on.

Each of the motion sensors must be individually rated to handle the total power load of all of the lights that you wish to turn on. The example shows three PIRs but more may be used if necessary. The OWPIRODLO is a 3-wire device and is switching a relay and the labeling shows the ratings for the different load types suited.

The diagram FIG 6 shows a schematic example of the wiring of three motion sensors to a group of lights and there are some fine-tuning factors that need to be considered to enable them to function well as a group.

FIG 6



Each sensor in the group will trigger independently, so they need to have their settings adjusted to work as a team.

Time duration and lux level need to be set as close as possible to each other to ensure the consistent performance. Detail on these can be read in the instructions.

Walking the Zone to Commission Installation

1. Rotate the lux knob fully clockwise for daylight operation, set the time control to min (Anti-clockwise) and the sensitivity to maximum (clockwise).
2. Turn on the power at the isolating switch. The load device should turn on for a short period of time.
3. Wait 30 seconds for the circuit to stabilise.
4. If not already adjusted, direct the sensor toward the desired area, adjusting the elbow joint on the sensor arm. Loosen all nuts on sensor before adjusting.
5. Have another person move across the centre of the detection area and slowly adjust the angle of the sensor arm until the light is switched on. Your sensor is now aimed at your selected area.
6. Adjust the time control to the desired level.
7. Adjust the sensitivity (if required) to limit detection range. This can be tested via walk testing.
8. Adjust the lux control by rotating anti-clockwise to revert to night time operation. If the lights are required to switch on earlier, e.g. dusk; wait for the desired light level, and slowly turn the lux knob clockwise while someone walks across the centre of the detection area. When the lights switch on, release the lux control knob.

After Installation & Set Up

To ensure the installation is functioning properly and meets the security/lighting needs, further adjustments may be required to maintain ideal light level and sensitivity settings.
To ensure a continued high level of performance, ensure the sensor head lens area is regularly cleaned (3 monthly intervals) from spider webs and dust using a damp cloth.

Troubleshooting

Problem	Reason	Solution
Unit will not operate during daylight.	Sensor not in daylight operation mode.	Rotate lux control fully clockwise.
Sensor false triggering.	Unit may be suffering from false activation.	1. Cover sensor unit with a black cloth for a period of 5 min to check that the light does not trigger. Occasionally, winds and drafts may activate the sensor. Sometimes passages between buildings etc. can cause a "wind tunnel'' effect. 2. Ensure the unit is not positioned so as to allow detection of cars/people using public thoroughfares adjacent to the property. Adjust the sensitivity control accordingly to decrease range of sensor or adjust direction of sensor head.
Sensor not turning off.	Sensor re-triggering during operation.	Stand well out of the detection range and wait (the warm-up period should never exceed 1 minute). Then check for any extra sources of heat or movement within the detection area such as animals, trees, light globes etc. and adjust sensor head and controls accordingly.
PIR will not operate at night.	Too much ambient light.	The level of ambient light in the area may be too bright to allow operation. Adjust lux level control accordingly and remove any other sources of ambient light.
PIR sensor will not operate at all.	No power.	Check that the power is switched ON at the circuit-breaker or internal wall switch. Ensure that connections are not loose.
Unit activates during the daytime.	Low level of ambient light or lux level control set incorrectly.	The level of ambient light in the area may be too dark to allow operation in night time only mode. Re-adjust the lux control accordingly.

TRADER®

ARCTIC OWL™

5 Year Manufacturer's Warranty

This product has been manufactured to the highest quality standards.
This product is warranted to the original purchaser and is not transferable.

The product is guaranteed to be free from defects in workmanship and parts for a period of 5 Years from the date of purchase. Defects that occur within this warranty period, under normal use and care will be repaired, replaced or refunded. The benefits conferred by this warranty are in addition to all other rights and remedies of the consumer under Commonwealth, State and Territory laws in relation to the goods or services to which this warranty relates and Australian Consumer Law. Risk in regard to the product to be repaired shall at all times remain with the Purchaser. The warranty is given on the condition that the product to which it applies is used for the purpose and in the manner intended by its construction and for no other purposes whatsoever. GSM Electrical (Australia) Pty Ltd shall not be responsible for damage of any kind, caused by accidents, power surges, electrical storm damage, incorrect power current, infestation (vermin or insect), incorrect installation, incorrect electricity or plumbing installation, improper use of controls or failure to use the product in accordance with the operating instructions, general misuse or abuse or from normal wear and tear. Any attempt by an unauthorised person to repair or tamper with the equipment shall render the warranty null and void.

GSM Electrical (Australia) Pty Ltd's liability under this warranty is limited to the replacement and/or repair of the defective parts within the warranty period and does not extend to installation or removal of the product. Acceptance of liability by GSM Electrical (Australia) Pty Ltd contained herein is to the exclusion of any other remedy whatsoever and howsoever arising in respect of any equipment to which it applies.

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