

Thank you for purchasing this Arctic Owl OWPIROD180 IP44 rated Outdoor PIR Sensor. This sensor helps to safe-guard your home or business by sensing movement, and switching lighting devices on to illuminate the source of the movement. The OWPIROD180 and OWPIROD180BK is intended for installation in a fixed location by a Licenced Electrical Contractor



#### OWPIROD180/ OWPIROD180BK

Motion Sensor Passive Infrared Outdoor IP44 180 Degrees  
12 Metre Detection

Before first using your new Arctic Owl (OWPIROD180) Outdoor PIR Sensor, it 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.

### Product Specifications

Power Source	220-240V/AC
Power Frequency	50Hz
Power Consumption	0.75W
Rated Load	1200W max Tungsten/Incandescent 300W max Fluorescent 100W LED (SBL)
Detection Angle	180°
Working Temperature	-10°C ~ +40°C
Working Humidity	<93%RH
Installation Height	1.8m~2.5m
Detection Motion Speed	0.6-1.5m/s
Weather Protection	IP44
Time Delay	min:10sec±3sec max: 10min±2min Light-control : <3LUX- daylight (adjustable) Detection

### Installation

**MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR.**

The base plate of the OWPIROD180 and OWPIROD180BK can be removed and installed on walls or under eaves. Avoid positioning in direct sunlight. Care must be taken for correct orientation with the rounded corners towards the top and the cable entry to the right side when installing so that the product is in the correct orientation when assembled. The product is IP44 and must not be positioned in areas exposed to extreme weather.

Care should be taken to ensure that water and dust will not gain ingress into the base of the unit, by using a silicone or similar sealant compound.

When installing on to 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 by unit. Using a silicone or similar sealant compound.

Avoid facing the sensor towards exterior appliances such as air conditioners or heaters where sudden changes in temperature can occur. Avoid facing towards areas where pets or trees may set off the sensor and also avoid facing towards swimming pools that may cause nuisance triggering with reflection or water movement.

1. Switch power OFF at meter box.
2. Refer to FIG 1. use the holes (A) on the Mounting base (B) to mark the position of the fixing screws on the selected mounting surface.
3. If wall pugs are to be used for securing the base of the unit, drill to a depth of approximately 40mm, and fit the supplied plastic wall plugs. Take care not to drill into concealed electrical wiring. Wall plugs must be pushed in until flush.
4. Drill suitable sized hole for cabling in mounting surface near the bottom right corner in shaded area in FIG 1 (If wiring through the rear drill out back of mounting plate and seal with silicone).
5. Pull through electrical wiring in preparation for connection to the sensor, place the silicone gasket over the wire to seal.
6. Align holes in the back plate (B) to the wall plugs.
7. Wire the Active incoming supply connection to the terminal block connection marked "L", as per FIG 2.
8. Wire the incoming supply Neutral and the load Neutral connection to the terminal block connection marked "N", as per FIG 2.
9. Wire the load active connection to the switched Active output connection on the terminal block marked "<A", as per FIG 2.

**NOTE: Installation must be carried out according to Australian Wiring Rules(AS/NZS3000). Please refer the wiring diagram in FIG 2.**

10. Fit the sensor mounting base (B) to the wall using screws provided (F).
11. Ensuring that load fitting is correctly installed according to Australian Wiring Rules.
12. Reconnect power.

FIG 1

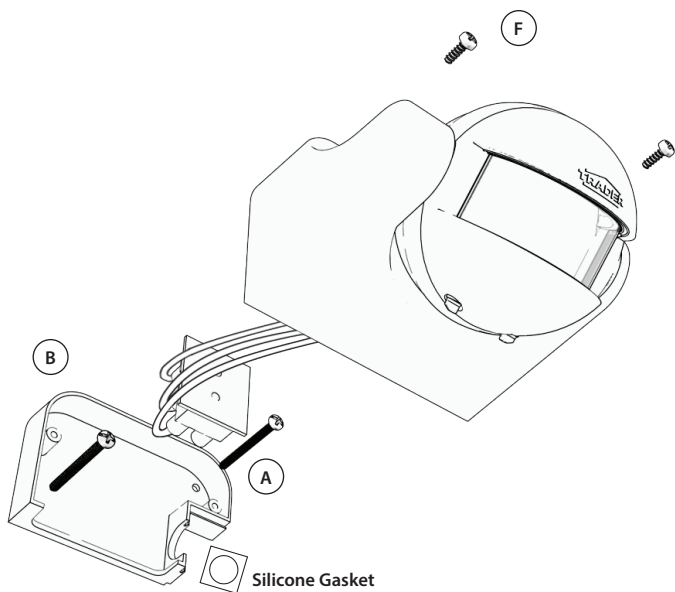
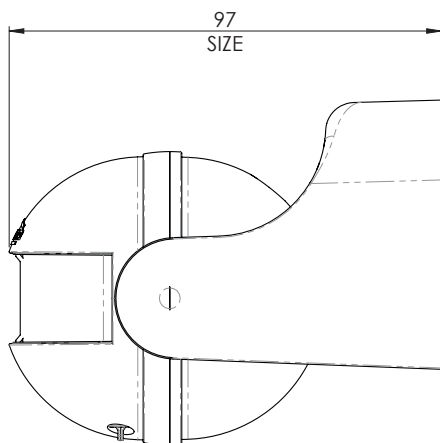
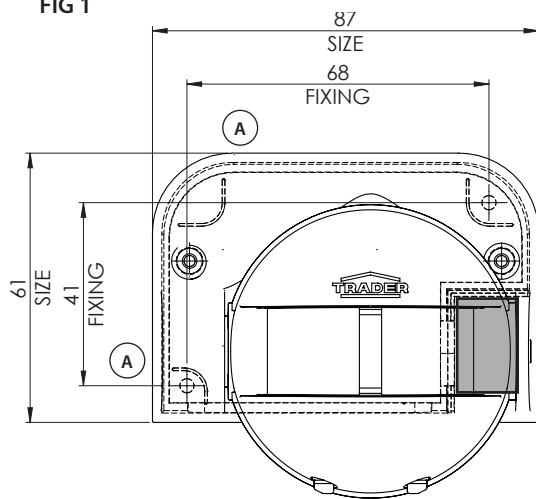
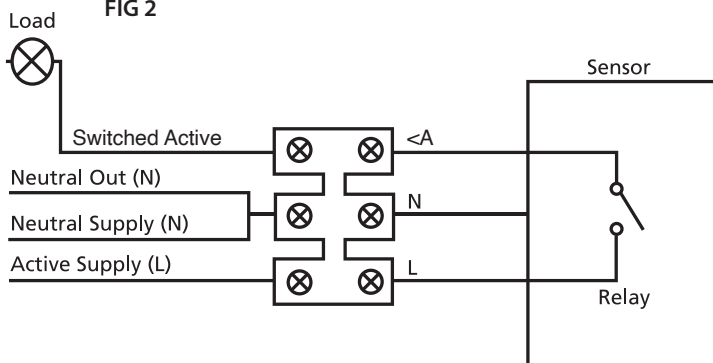


FIG 2



## Operation and Set Up

The Arctic Owl OWPIROD180 Outdoor Security Sensor is equipped with a high sensitivity PIR (passive Infra-red) motion detector. A multi-cell technology Fresnel lens is used to divide the sensors basic detection range 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.

### Test and set up:

Turn the time control to minimum and turn the LUX control (FIG 3) to daylight so that the sensor will function in any condition. This is often referred to as the test set up and is used to ensure the product is functioning and switching on and off.

### Walk Test:

Position the sensor facing the area where the required field of triggering is to occur. Turn on the control switch for the sensor, the light connected should turn on immediately and remain on for approximately 40 seconds while the unit warms up and then it will turn off. With the settings for time at minimum and lux set for daylight. Take a walk across the zone where the sensor is facing, moving in, and out whilst stopping and starting immediately to determine the unit is picking up movement correctly. Adjust where required and if some areas need to be removed from the field of view, small clip in blinkers are available in the pack to block these regions.

FIG 3



The OWPIROD180 will identify day and night automatically: The light level can be adjusted as required by turning the pot under the head either towards the SUN(max), it will work day and night, when turn it to MOON (min), it will only work in the light-control less than 3 LUX.

### Time setting:

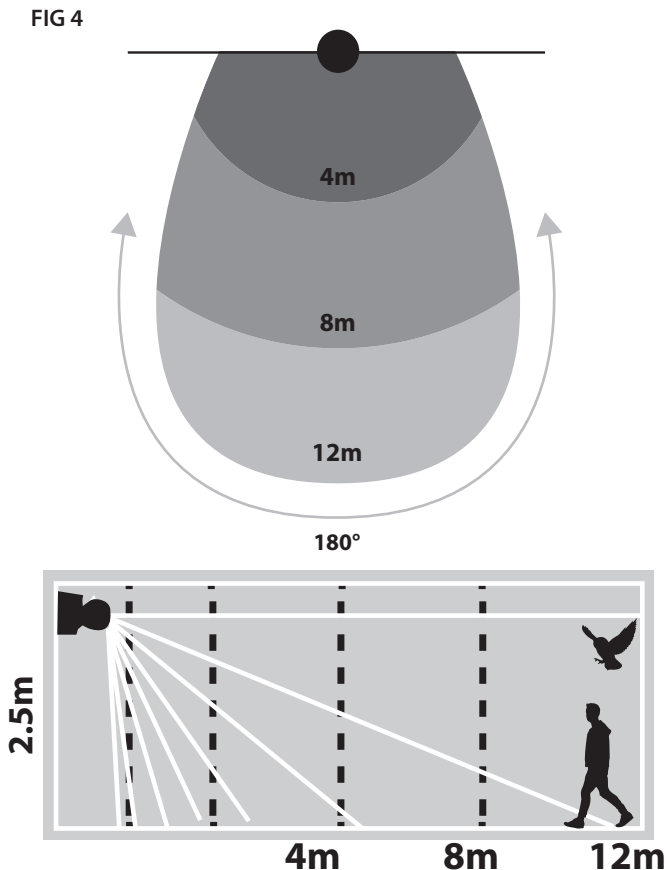
The time adjustment controls how long the lights will stay on after movement is detected. The minimum setting when the pot is wound anticlockwise to the negative is  $10s \pm 3s$ , and the maximum is  $10min \pm 2min$  in the clockwise direction. Time-on is added continually when it receives the further detection signals after the initial detection.

#### LUX setting:

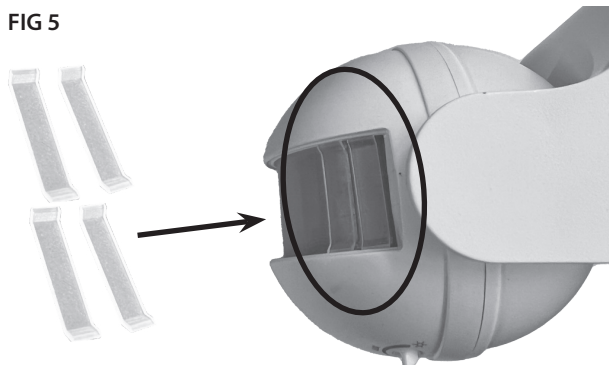
The LUX adjustment controls the light level at which the OWPIROD180 will switch on and function in Auto Mode. When wound fully clockwise the sensor will operate in all conditions and this is used for test and set up. When wound in the anti-clockwise position the sensor will only operate in lower light conditions down to 3 Lux when fully adjusted. It is necessary to adjust the LUX level to suit the required operation conditions.

#### Range setting:

The OWPIROD180 does not have a sensitivity setting adjustment and the range must be altered by positioning the angle of the head up and down to alter the range of detection. Sensing pattern shown in FIG 4.



Detection field of the OWPIROD180 covers a wide detection range up and down, left and right (see the diagram above). If for some reason there are issues with interference or the field of detection needs to be reduced, there are four plastic blinker mouldings provided that can be inserted in front of areas of the Fresnel lens to reduce the angle of detection or cover problem areas such as bushes or moving cars driving past as the head is not able to be adjusted sideways once installed. As shown in FIG 5 below.



## Manual Override

When the power is initially turned ON, the fitting operates in AUTO mode. In this mode, the sensor turns the light ON and OFF automatically.

The MANUAL OVERRIDE function means that the fitting can be put permanently 'ON'. In this mode, the PIR sensor is disabled and the light stays on.

#### Setting Manual Override(MO)

The lamp must be on to initiate MO. Turn the wall switch 'OFF' and 'ON' twice (with 2 second wait between each action).

Wall switch action: OFF>ON>OFF>ON

To change back to 'AUTO MODE', turn the power 'OFF' and wait for 10 seconds, then turn it back 'ON' again.

Wall switch action: OFF>Wait 10 Secs>ON

It is important to note that the wait time between switch actions is critical for this to function correctly. This tolerance on timing is tight to reduce the potential nuisance triggering of this function.

It may take several attempts to get used to setting manual override.

Wall switch action: OFF, wait 10 seconds, ON

The PIR sensor will enter into the "Warm-up" mode and the lights will stay "ON" for 10 seconds, then will turn "OFF".

Now wait for about 10 seconds for the circuit to stabilise and the fitting will operate now in "AUTO MODE".

#### WARNING

- The manual override function is linked to the lux level of the sensor. If the lux level is set too low than the conditions the manual override will not function. (If set to 'low level night' on the setting, the lights will not turn on during the day with the manual override and the unit will only work in low light conditions.)
- Manual override when in operation will time out after 8 hours and switch back to AUTO.

### Important Note:

1. Further adjustments may be required to maintain your security at ideal light level and sensitivity settings.
2. When operating with standard lighting loads, ensure the lights are pointing away from the sensor head. Heat from globes may harm the sensor unit and can cause false re-triggering.
3. To avoid dust build up and maintain proper performance, clean the sensor lens lightly with a damp cloth every 3 months.
4. There are NO user serviceable parts inside.

## Trouble Shooting

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.	Cover sensor unit with a black cloth for a period of 5 min to check that the light does not trigger. Occasionally, winds and draughts may activate the sensor. 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. 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), check for any extra sources of heat or movement within detection area such as animals, trees, light globes, etc. 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.

### 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.