

INSTALLATION INSTRUCTIONS

MAL546



**MOVEMENT ACTIVATED
WIDE ANGLE COMPACT SENSOR**

HARDWIRE INSTALL BY QUALIFIED ELECTRICIAN



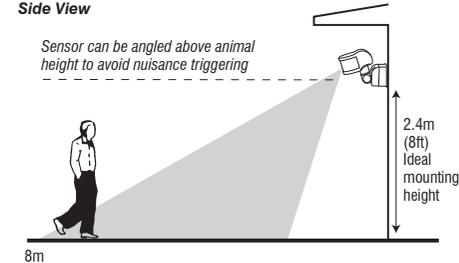
IMPORTANT! PLEASE READ THESE INSTRUCTIONS CAREFULLY.

WHERE TO FIT YOUR SECURITY SENSOR

To achieve best results for outside use the Arlec Security Sensor should be mounted on a wall, or under eaves of a building, generally used to control an existing light fitting. Ideally the Security Sensor should be mounted 2.4 metres (8ft) above the area to be scanned (Refer Fig.1).

To avoid damage to the unit – do not aim the sensor towards the sun. Sensor can be angled above animal height to avoid nuisance triggering.

Figure 1. Side View

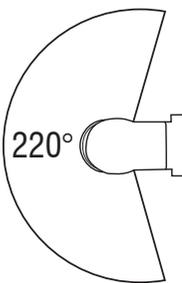


To avoid nuisance triggering, the sensor should be directed away from heat sources such as barbecues, air conditioners, other outside lighting, moving cars and flue vents.

Do not aim towards reflective surfaces such as smooth white walls, swimming pools, etc. The Arlec Compact Sensor scanning specifications are as follows: Approximately 8m distance at 220° on HIGH sensitivity mode and 3m at 220° on LOW sensitivity mode. Sensitivity is set by pressing "SENS" button (Refer Fig 4). Sensitivity may also vary slightly depending on the mounting height and location.

The detection range of the unit may also alter with temperature change. Before selecting a place to install the Arlec Security Sensor, you should note that movement across the scan area is more effective than movement directly toward or away from the sensor (Refer Fig. 2A). If movement is made walking directly toward or away from the sensor and not across it, the apparent detection range will be substantially reduced (Refer Fig. 2B).

Figure 2. Top View



WHERE TO FIT YOUR SECURITY SENSOR

Figure 2A Best sensitivity

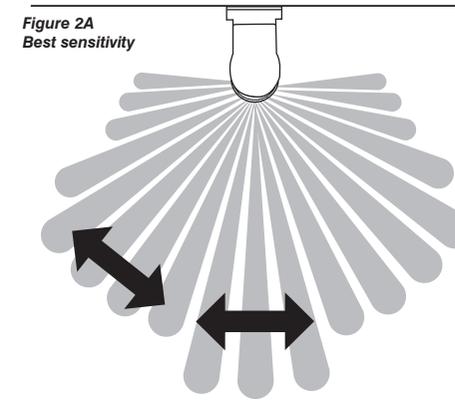
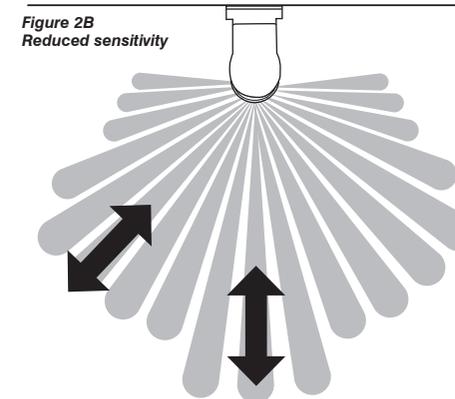


Figure 2B Reduced sensitivity



INSTALLING YOUR SECURITY SENSOR

WARNING: Must be installed by a licenced electrician or other person authorised by legislation to work on fixed wiring of an electrical installation.

1. Using the base as a template, mark and drill the four holes for the masonry plugs or screws. (More holes maybe needed for cable entry and exists. Care should be taken to avoid drilling into concealed electrical wiring.)
2. Run the cable through the rubber grommits located in the mounting base.
3. Terminate all wires in accordance with Fig.3.
4. Re-assemble sensor.
5. Add silicone at rear of base around cable entry holes.
6. Mount the unit using screws provided.

Figure 3.



NOTE FOR ELECTRICIAN:

The security Sensor must be wired to its own switch. Before installation/maintenance, the electrical supply must be isolated. Switching off the wall switch is NOT sufficient isolation to prevent electrical shock.

UNDERSTANDING THE CONTROLS

LIGHT LEVEL ADJUSTMENT CONTROL

Adjusts the light level at which the Security Sensor operates. Adjust to ☀, the unit will operate day and night. Adjust to ☾, the unit will operate only at night when movement is detected.

Time – time "ON" adjustment

Varies the length of time the light will stay ON from about 20 seconds to 7 minutes. Turn anti-clockwise to increase ON-time – ideal setting is about 2 o'clock position (approximately 2 minutes). Whilst there is movement within range of the unit, the light will remain ON. When no further movement is detected, the light will switch OFF after the pre-set time has elapsed.

When in standby mode the pilot lamp will flash once every 4 seconds. When movement is detected it will flash twice every second.

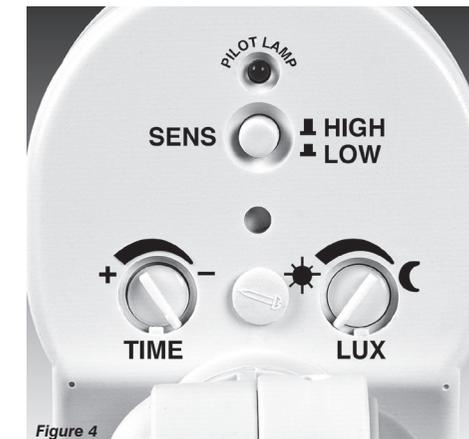


Figure 4

IMPORTANT: Be careful of electrical shock. Always remember that the light may not switch ON during daylight or the light maybe in the automatic OFF mode. Never touch live areas unless fuse is removed or circuit breaker is in OFF position at the switchboard main.

SETTING THE CONTROLS

For best results and operation the following steps should be taken:

1. Direct the sensor toward the desired area to be scanned.
2. Turn the light level control knob fully anti-clockwise, and time control knob fully clockwise.
3. Turn the wall switch ON, light will come ON for 20 seconds and then go OFF, provided that there is no movement in the 220° detection area.
4. Have another person move across the centre of the area to be scanned and tilt the sensor until the unit senses the presence of the moving person, causing the light to switch ON.
5. Adjust time control (TIME ON) to required setting.
6. Turn the light level control knob fully clockwise.
7. Your Security Sensor is now ready for use, and will automatically operate when movement is detected at night.
8. The wall switch should remain "ON" for automatic operation.

AUTOMATIC MODE

Turn your wall switch ON. This will put the sensor into 'automatic' mode and it will then start sensing after dusk. The light will switch ON and automatically switch OFF after the pre-set time elapses and will then operate automatically whenever heat movement is detected.

MANUAL OPERATION (AUTOMATIC OVERRIDE)

To override the automatic mode, the sensor must be switched ON in the automatic mode. Now switch wall switch OFF wait for 2 seconds then switch back ON. Your Security Sensor will now hold your light ON continuously just like a normal light. This override function can be selected during night time only. To return your sensor to the automatic mode, switch your wall switch OFF for at least 4 seconds, then switch it ON again. To switch your security sensor and lights OFF completely, switch your wall switch OFF.

WARRANTY

Arlec guarantees this product in accordance with the Australian Consumer Law.

Arlec also warrants to the original first purchaser of this product ("you") from a retailer that this product will be free of defects in materials and workmanship for a period of 12 months from the date of purchase; provided the product is not used or installed other than for the purpose, or in a manner not within the scope of the recommendations and limitations, specified by Arlec, is new and not damaged at the time of purchase, has been properly installed by a licensed electrician or contractor who is licensed to install electrical products in the place in which the product was installed and in accordance with Arlec's installation instructions, has been maintained in accordance with the recommendations specified by Arlec, has not been subjected to abuse, misuse, neglect or damage, has not been modified or repaired without the approval of Arlec and has not been used for, or installed in premises which are used for, commercial purposes ("Warranty").

If you wish to claim on the Warranty, you must, at your own expense, return the product or that part of the product which you believe is defective in materials and workmanship, and provide proof of original purchase, your name, address and telephone number and a certificate of installation or other document required by law for the installation of electrical products in the place in which the product was installed issued by the licensed electrician or contractor who installed the product, to Arlec at the address below within 12 months from the date of purchase. Please note that the Warranty does not cover removal or re-installation of the product or that part of the product which you believe is defective.

Arlec will assess any claim you may make on the Warranty in the above manner and if, in Arlec's reasonable opinion, the Warranty applies, Arlec will at its own option and expense replace the product (or part of the product) with the same or similar product (or part of the product) or repair the product (or part of the product) and return it to you or refund the price you paid for the product. Arlec will bear its own expenses of doing those things, and you must bear any other expenses of claiming on the Warranty.

The Warranty is in addition to other rights and remedies you may have under a law in relation to the product to which the Warranty relates.

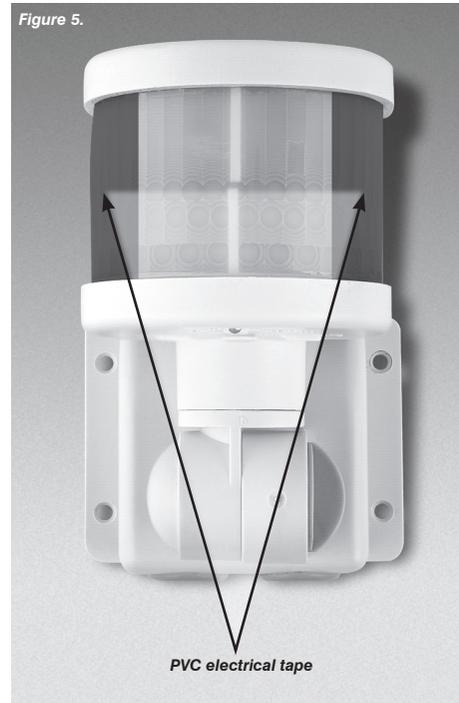
Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

MAINTENANCE

To avoid dust build-up and ensure proper functioning of the Arlec Security Sensor wipe the lens lightly with a damp cloth every three months. DO not use solvents or abrasive cleaners on any part of your Security Sensor.

REDUCING DETECTION AREA

To reduce the 220° wide angle detection area, stick PVC electrical tape on the left, right or both sides of the sensor lens. This will reduce 220° detection in extremities of area to be scanned. After adding PVC tape some further adjustment of light level control maybe necessary (Fig 5).



SPECIFICATIONS

Detection Range	8 metre at 220° scan (Approx).
Time Adjustment	MIN: 20 ± 5 seconds. MAX: 7 ± 2 minutes.
Detection Circuitry	Passive controlled infra red motion sensor.
Power Consumption	230-240 volt, 50Hz, 0.1W (standby mode) 0.45W (triggered mode).
Rating	1200 watt max Incandescent load, 300 watt Max fluorescent load.*
Supply Connection	The connecting terminals are suitable for up to 2.5mm ² cross-section conductors.
Classification	The Sensor is classified as independent lamp control gear and does not rely on a luminaire enclosure for protection against accidental contact with live parts.
Weatherproof Rating	IP44

*Power factor correction capacitors must be removed from fluorescent and connected at mains input of sensor.

TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Light does not switch ON when there is movement in the detection area.	1. No main power.	Check all connections, and fuses/switches.
	2. Globe faulty or missing.	Check. Replace.
	3. Wiring incorrect.	Re-check.
	4. Nearby lighting is too bright.	(A) Re-direct sensor or relocate unit (B) Gradually turn light level control anti-clockwise.
	5. Controls set incorrectly.	Re-adjust sensor angle.
	6. Sensor positioned in wrong direction.	Re-direct sensor by tilting.
Light switches ON for no apparent reason.	1. Heat sources such as air con, vents, heater flues, or very cold objects are near sensor.	Adjust direction of sensor head from these sources by tilting.
	2. Animals/birds e.g. possums.	Probably unavoidable but relocating sensor may help.
	3. Interference from ON/OFF switching of electric fans or lights on the same circuit as your Security Sensor. (This problem does not always occur but a faulty switch or a noisy fluorescent light may cause your lights to switch ON.)	Should the false triggering become troublesome consider: (A) Replacing a faulty switch. (B) Replacing noisy fluorescent tubes and/or starters. (C) Connecting the Security Sensor to a separate circuit. (In most cases where one or more of the above suggestions have been carried out, false triggering has been reduced.)
	4. Interference from power surges, mobile phones, CB's, Taxis, etc.	Nil
	5. Heat source, BBQ, etc.	Re-direct sensor by tilting.
	6. Reflection from swimming pool or reflective surface.	Re-direct sensor by tilting.
Poor sensitivity and range	1. Movement directly to or away from sensor	Re-direct sensor by tilting. (Refer to page 2).
	2. Higher ambient temperature	Nil. Note: All passive infra red detectors are more sensitive in cold weather than warm weather.
Light remains ON	1. Sensor is in automatic override continuous ON mode	Switch sensor OFF for 4 seconds at wall switch, and then return to ON position.
	2. Time is set too long	Reduce time by turning clockwise.
	3. Wiring is incorrect	Re-check wiring.

Should a problem still exist after following all of the above user hints, contact your nearest Arlec Service Department.

ARLEC

Arlec Australia Pty. Ltd. ACN 009 322 105 ("Arlec") gives the Warranty. Arlec's telephone number, address and email address are:

Customer Service: (03) 9982 5111

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Blackburn North LPO, P.O. Box 1065, Blackburn North, 3130

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