

INSTALLATION INSTRUCTIONS

MAL343
SERIES 2



**MOVEMENT ACTIVATED
COMPACT SENSOR**

HARDWIRE INSTALL BY QUALIFIED ELECTRICIAN



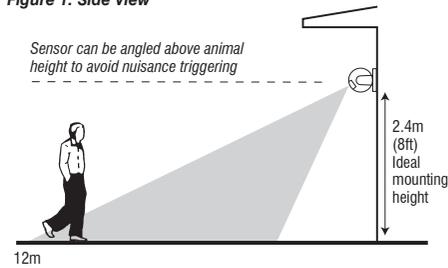
IMPORTANT! PLEASE READ THESE INSTRUCTIONS CAREFULLY.

**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. 1A).

Always mount with the adjustable controls for LUX and TIME facing downward.

Figure 1. Side View



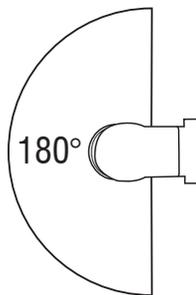
To avoid damage to the unit – do not aim the sensor towards the sun. Sensor can be angled above animal height to avoid nuisance triggering.

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 Security Sensor scanning specifications (approximately 12 metres at 180°) may 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

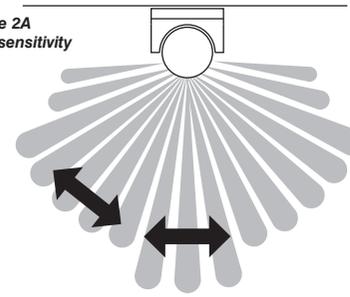
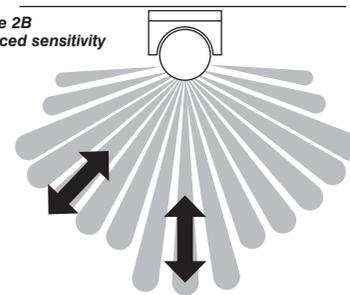


Figure 2B
Reduced sensitivity

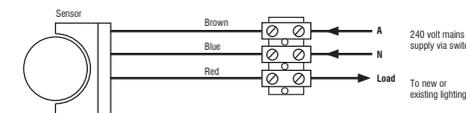


**INSTALLING YOUR
SECURITY SENSOR**

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

1. Remove junction box base and position against wall or eaves.
2. Using the base as a template, mark and drill the two 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.)

Figure 3.



3. Run the mains lamp cable through the rubber grommits located in the mounting base.
4. Add silicone around rear of base and cable entry holes.
5. Mount the base using screws provided.
6. Terminate all wires in accordance with Fig. 3.
7. Re-assemble sensor and put plastic plugs into assembly screw holes to weatherproof the unit.

NOTE FOR ELECTRICIAN:

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

**UNDERSTANDING
THE CONTROLS**

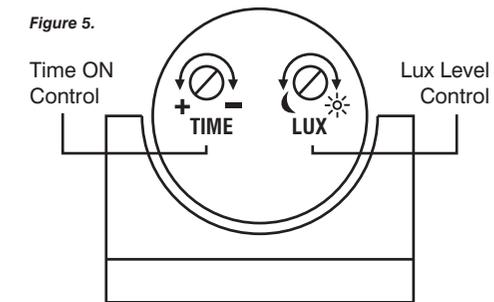
LUX LEVEL ADJUSTMENT CONTROL

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 10 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.

Figure 5.



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 and time control knobs fully clockwise.
3. Turn the wall switch ON, light will come ON for 30 seconds and then go OFF, provided that there is no movement in the 150° 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 anti-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 and back ON within one second. Your Security Sensor will now hold your light ON continuously just like a normal light. This override function can be selected during daytime or night time. To return your sensor to the automatic mode, switch your wall switch OFF for at least 20 seconds, then switch it ON again. To switch your security sensor and lights OFF completely, switch your wall switch OFF.

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.

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.

ARLEC

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

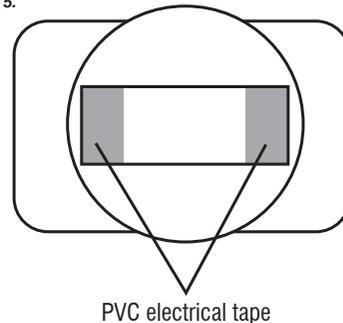
Customer Service: (03) 9982 5111

Building 3, 31 – 41 Joseph Street, Blackburn North, Victoria, 3130
Blackburn North LPO, P.O. Box 1065, Blackburn North, 3130
Email: custservice@arlec.com.au

REDUCING DETECTION AREA

To reduce the 150° wide angle detection area, stick PVC electrical tape on the left, right or both sides of the sensor lens. This will reduce 150° detection in extremities of area to be scanned. After adding PVC tape some further adjustment of light level control maybe necessary.

Figure 5.



SPECIFICATIONS

Detection range	12 metre at 180° scan (Approx)
Time Adjustment	10 seconds to 7 minutes (Approx)
Detection Circuitry	Passive controlled infra red motion sensor
Power Required	230-240 volt, 50Hz, 6 watt Consumption
Rating	1000 watt max Incandescent load, 500 fluorescent load.*
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 20 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.