SECURITY SENSOR FLOODLIGHT

<u>ARLEC</u>

INSTALLATION INSTRUCTIONS

IMPORTANT PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE FIRST USE.

INTRODUCTION

The Arlec MAL320RV and MAL321RV Movement Activated Floodlight is a compact sensor light unit. It controls wo PAR38, floodlight bulbs for wide area illumination. The MAL320RV and MAL321RV can be used to provide ighting for security and general purposes in a variety of locations around the home or workplace.



Note: Installation and wiring must be performed by a licensed Electrician.

IMPORTANT: Loosen screws on sensor and lamp holders before making any adjustments. Fit weatherproof seal between the lampholder skirt and lamp to prevent water ingress.

NOTE: Always face control knobs on sensor downwards to ensure correct operation.

LOCATION OF UNIT

To achieve best results for exterior use, your Movement Activated Floodlight should be securely mounted to a wall or under eaves.

For ideal operation the sensor head should be located approx 2.5m above the area where movement is to be sensed. This will provide the best scanning sensitivity and detection area.

- Although this product is weatherproof it is preferable to mount your Floodlight in a sheltered or semi-sheltered location with lampholder axis below horizontal.
- To avoid damage to unit do not aim the sensor towards the sun.
- To avoid nuisance triggering, the sensor should be directed away from heat sources such as BBQ's, air conditioners,other outside lighting, flue vents and moving cars.
- Do not aim towards reflective surfaces such as smooth white walls or swimming pools etc.
- The scanning specifications (10m at 180° scan) may vary slightly depending on the mounting height and location. (Refer Fig. 2) The detection range of the unit may also alter with temperature change.
- Before selecting a place to install the Floodlight, you should note that movement across the scan area is more effective than movement directly toward or away from the sensor. (Refer Fig. 3A). If movement is made walking directly towards or away from the sensor and not across, the apparent detection range will be substantially reduced (Refer Fig. 3B).
- Avoid locating your Floodlight in close proximity to fluorescent light fittings or ceiling fans on the same electrical circuit. RFI interference may cause the Floodlight to switch on inadvertently.



Sensor can be angled above animal height to avoid nuisance triggering of lights



INSTALLATION

Installation and wiring must be performed by a licensed Electrician.

WALL MOUNTING

Place the junction box over the position for mounting and mark the screw holes. Use the two mounting holes on the inside of the junction box. and ensure the "TOP" marking points upwards. Drill suitable holes, then feed the supply cable through the rubber seal on the rear of the junction box. Before fixing the junction box in place, seal any hole in the wall through which the supply cable passes so as to weatherproof it. Now fit screws to fix junction box to the surface, again ensuring the 'UP' marking is pointing upwards.



Rubber seal cable entry

Screw holes for mounting junction box to surface

EAVE MOUNTING

Use a similar procedure to wall mounting, but the "TOP" marking should point towards the outside of the eave. We suggest 2 x spring toggle screws (not supplied) be used to mount your Floodlight under eaves. Take care not to damage or pierce concealed wiring with mounting screws. particularly when mounting under eaves.



Your Floodlight must be wired to its own switch. Do not interconnect with other lights on same switch. For installation/maintenance purposes the electrical supply must be isolated at the switchboard by removing the fuse or switching the circuit breaker OFF. Simply isolating the electrical supply at the wall switch is not sufficient isolation to prevent an electrical shock. The Switched Active (white) is permanently wired to the light fittings. NOTE: DO NOT attempt to modify the Switched Active circuit. Connect in accordance with below figure.



After wiring fit the Floodlight mounting base onto the junction box using screws provided. Ensure that the mounting base is in the correct direction so that the sensor head controls will face downwards (See Fig. 5 and 6), and that the rubber seal on the rear of the mounting plate is correctly positioned.

FIGURE 4

SETTING UP

Do not overtighten or use excessive force when adjusting sensor head or lamp holders. Loosen elbow/joint screws to make adjustment and swivel at base.

- A. Adjust the direction of the sensor arm and lampholders to suit the desired detection area. Loosen elbow screws on lampholder before making any adjustments. Do not use excessive force when making adjustments to lampholders (See Fig. 7).
- B. Angle sensor slightly downward towards the detection area. The sensor joint should be rotated to adjust the sensor to face the required detection area. If necessary, loosen sensor arm joint clamp screw.
- C. Angle lampholders from mounting surface and direct them approximately downwards away from sensor head.
- D. Fit PAR38 globes and weatherproofing rubber seals- do not overtighten.
- E. Ensure that globes are positioned 40mm or more from the sensor head or mounting surface as shown in (Fig. 8). The globes become hot , and must not be touching or too close to sensor head.
- F. After fitting globes, tighten elbow screws - do not overtighten.







OPERATION

UNDERSTANDING THE CONTROLS TIME - TIME "ON" ADJUSTMENT

The time "ON" control adjusts the time that the lights will remain on after the unit has sensed movement. To increase time, turn the knob clockwise. To decrease, turn knob anti-clockwise.

LUX - LIGHT LEVEL ADJUSTMENT

The "Lux" control adjusts at what level of light the unit starts sensing at dusk. This control can be also used for testing the unit during daylight hours. To test unit, or operate during the day, turn control knob all the way clockwise to the 读 position. Once unit has been tested the "Lux" control should be set to approx. half way, and adjusted later if required.

SENS - SENSITIVITY ADJUSTMENT

The Sensitivity control adjusts the level of sensitivity of the infrared Sensor. This controls the amount of movement that is required to switch the lights on. With the knob set to minimum (anticlockwise), the unit will only detect large amounts of movement. It is recommended that in most situations the unit be operated with the "Sens" control set to half.

SETTING THE CONTROLS

- 1. Turn the "LUX" control (light level control) to position, the "TIME" control to minimum and the "SENS" control to minimum.
- Turn the wall switch ON and wait for half a minute for the control circuit to stabilise. Unit will now turn on and stay on for few seconds.
- Direct the sensor toward the desired area to be scanned by adjusting the elbow joint and base joint on the sensor arm. Loosen screws before attempting to adjust sensor arms.



OPERATION



NOTE: Always tilt sensor unit head below horizontal for weather proofing

- 4. Have another person move across the centre of the area to be scanned and slowly adjust the "SENS" control toward maximum until the unit senses the presence of the moving person, causing the Floodlights to switch on.
- 5. Adjust time control to required setting.
- 6. To set the light level at which the Floodlight automatically switches "ON" at night, turn the "LUX" or light control (. If the Floodlight is required to switch on earlier, e.g. dusk, simply wait for the desired light level, then slowly turn the "LUX" or light control towards ??" while someone walks across the centre of the area to be detected. When the Floodlight switches "ON" release the "LUX" or light control knob. You may need to make further adjustments to achieve your ideal light level setting.

IMPORTANT: When adjusting lamp holders, ensure that PAR38 lamps are not touching or in close proximity to sensing unit. Heat from the PAR38 lamps may distort the sensor unit or damage the lead. Allow 40mm minimum between sensor and PAR38 lamps.

MAINTENANCE

To avoid dust build-up and ensure proper functioning of the Arlec Floodlight wipe the sensor lens lightly with a damp cloth every

3 months. Do not use solvents or abrasive cleaners on any part of your Floodlight.

REDUCING DETECTION AREA

To reduce the 180° wide-angle detection area, stick PVC electrical tape on the left, right or both sides of sensor lens. This will reduce 180° detection in extremities of area to be scanned. After adding PVC tape, further adjustment to sensor direction may be necessary.

MANUAL OPERATION (AUTOMATIC OVERRIDE)

To override the automatic mode, the light must be switched ON in the "Automatic" mode. Now switch your wall switch OFF and back ON within two seconds. Your Floodlight will now stay on continuously, just like a normal light. This override function can be selected during daytime or night time.

To return your Floodlight to the "Automatic" mode, switch your wall switch OFF for at least ten seconds, then switch it on again. To switch your Floodlight off completely, switch your wall switch OFF.

AUTOMATIC MODE

Turn your wall switch ON. This will put the sensor into'automatic' mode. Light unit will first turn on and stay on for few seconds. 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.

SPECIFICATIONS

Detection Range	10 metres at 180° scan	
Time Adjustment	5 seconds to 5 minutes (approx.)	
Detection Circuitry	Passive controlled infra red motion sensor	
Power Required (Sensor head only)	230-240 Volt~, 50Hz, 4W consumption (Sensor head only)	
Maximum Load	2 × MAX 150W or with 2 x 15W LED bulbs, 5700K Daylight white	
Weatherproof Rating	IP44	

TROUBLE SHOOTING GUIDE



PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Light does not switch ON when there is movement in the detection area.	1. No mains voltage.	Check all connections, and fuses/switches.
	2. Globe(s) faulty or missing or incorrectly fitted.	Check. Replace.
	3. Nearby lighting is too bright.	Redirect sensor or relocate unit.
	4. Controls set incorrectly.	Refer to section "Setting the controls".
	5. Sensor positioned in wrong direction.	Re-locate sensor (Refer Fig. 3).
Light switches ON for no apparent reason. 2 Heaven out acti 3. An do 4. Int of cir proc fau ma	1. Heat from globe activating sensor.	Adjust lamp holders to allow a gap between globe and sensor lens.
	2 Heat sources such as aircon. vents, heater flues, barbecues, other outside lighting, moving cars are activating sensor.	Adjust sensitivity. Reduce detection area of lens using PVC tape.
	3. Animals/birds e.g. possums or domestic animals.	Probably unavoidable but redirectin sensor may help.
	4. Interference from on/off switching of electric fans or lights on the same circuit as your Sensor Floodlight. (This problem does not alwâys occur but a faulty switch or noisy fluorescent light may cause the Sensor Floodlight to	Should the false triggering become troublesome, consider:
		(A) Replacing a faulty switch.
		(B) Replacing noisy fluorescent tubes and/ or starters.
analog on De Marcele. Analog of De Marcele. Andres des Analog of Dialog. Batere estate.	switch on.)	(C) Connecting the Sensor Floodlamp to a separate circuit.(In most cases where one or more of the above suggestions have been carried out, false triggering has been reduced.)
	5. Reflection from swimming pool or reflective surface.	Redirect or reduce sensitivity.
	6. Interference from power surges, mobile phones, CB's, Taxis, etc.	Try reducing sensitivity.
Light remains ON.	1. Wall switch is in override "ON" mode.	Switch light OFF for at least 10 seconds, then return to ON position.
	2 Time adjustment is set too long.	Reduce time by turning ON-TIME control anti-clockwise.
Lights switch ON during daylight hours.	Daylight sensor control is set to 🔆 position.	Turn light level control towards (position.
When setting controls Interference by sunlight. daylight the detection distance becomes shorter.		Re-test at night.

NOTE: All passive infrared detectors are more sensitive in cold weather than warm weather and more sensitive at night than daytime.



PRODUCT 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").

Arlec Australia Pty. Ltd.

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

Customer Service: **1800 826 859** New Zealand Toll Free: **0800 003 329**

Caribbean Park, 36 Lakeview Drive, Scoresby, Victoria 3179

P.O. Box 2596, Rowville, Victoria 3178

Email: custservice@arlec.com.au

© This instruction is subject to copyright and must not be reproduced, copied or otherwise used in any way or for any purpose without the consent in writing of the owner, Arlec Australia Pty Ltd (ACN 009 322 105).

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.