

NELSON

SECURITY FLOODLIGHT with PIR SENSOR

Models: MPES69B & MPES69BWP &
MPES69WWP

Introduction

The Security Light incorporates a PIR (Passive Infra Red) sensing device which continuously scans a preset operating zone and immediately switches the light on when it detects movement in that area.

This means that whenever movement is detected within range of the sensor the light will switch on automatically to illuminate pathways, steps, patios, porches or whatever area you have selected to light for the reasons of safety, convenience or security. While there is movement within the range of the unit the light will remain on.

WHERE TO FIT YOUR SECURITY LIGHT

To achieve best results, we suggest you take into account the following points:

- Ideally the Security Light should be mounted 1.8 to 2.5 metres (6 to 8ft) above the area to be scanned (refer Fig. 1A).
- 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 barbecues, air conditioners, other outside lighting, moving cars and flue vents
- To avoid nuisance triggering, keep away from areas of strong electromagnetic disturbance..
- Do not aim towards reflective surfaces such as smooth white walls, swimming pools, etc. The Security Light 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 your Security Light you should note that movement across the scan area is more effective than movement directly toward or away from the sensor. (refer Fig. 1B). 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. 1C)
- The MPES69BWP model sensor lamp may be mounted in a position where the sensor is exposed to intermittent rain. Always mount the MPES69B sensor light in a sheltered position. i.e. Under the eaves of the house.

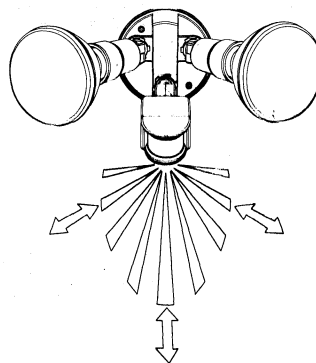
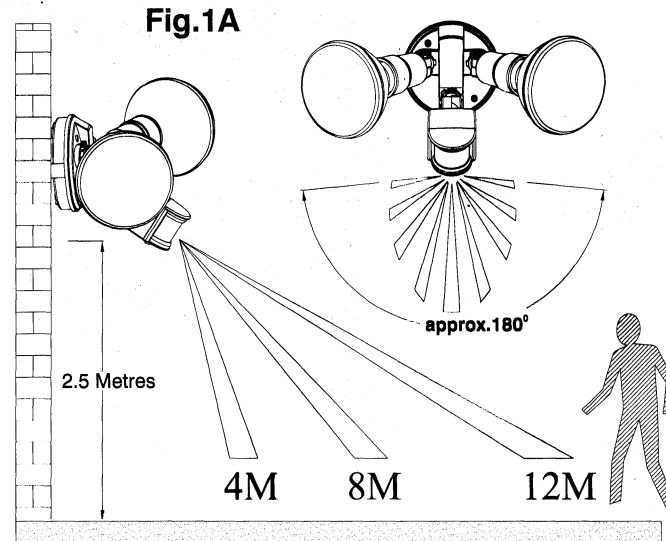


Fig.1C
LOWEST SENSITIVITY

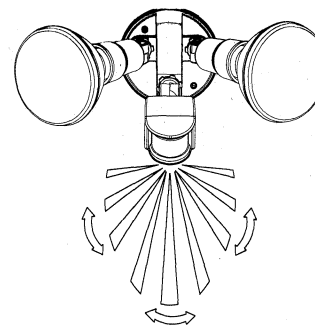


Fig.1B
HIGHEST SENSITIVITY

5. Use the plastic back plate to mark the position of screw holes onto mounting surface.
Drill the wall to depth of about 4cm and fit the wall plugs (supplied). Care should be taken to avoid drilling or screwing into concealed electrical wiring.
6. Connecting the power cable to the **Terminal Block**, see the relative symbol in Fig.2, ensure the cable passes through the **Cable Gasket**.
7. Affix the back plate to the mounting surface with **Mounting Wall Screws** (supplied).
8. Re-fit the **Terminal Block** and **Cable Anchorage**.
9. Re-fit the cover.
10. Insert the PAR38 bulbs (not supplied), please ensure the sealing rubber (supplied), is placed on the lamp holder prior to installation of PAR38 lamp.

Important: loosen all lock nuts and screws on sensor and lamp holders before making any adjustments.

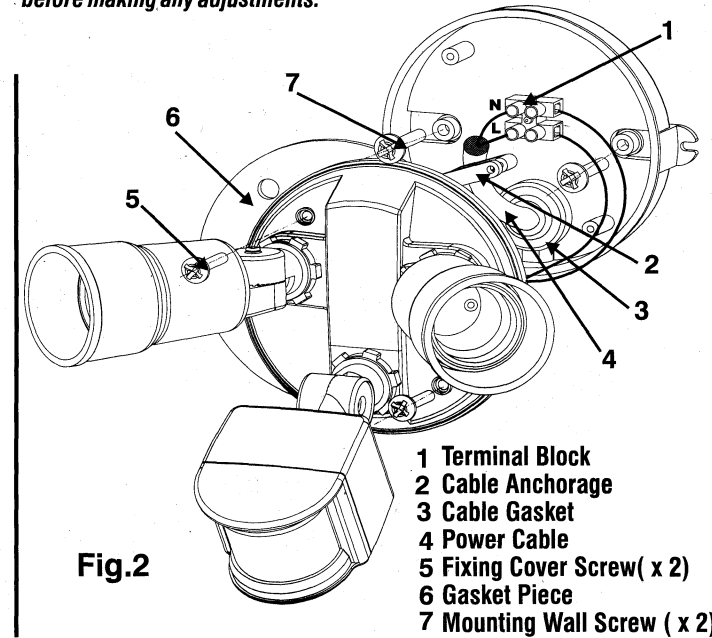
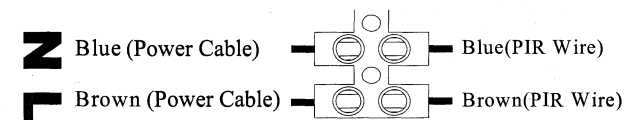


Fig.2

INSTALLATION

For installation of the Security Light, please refer to Fig.2.

1. Installation by a licensed electrician and according to IEC wiring regulation.
2. Switch power off at the meter box and ensure that there is no power to the light.
3. Unscrew the **Fixing Cover Screws** then remove the cover and **Cable Gasket**.
4. Remove the **Cable Anchorage** and **Terminal Block**.



Understanding the controls

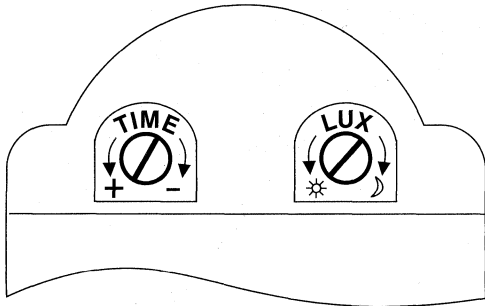
ADJUSTING THE DURATION TIME:

The length of time that remains switched on after activation can be adjusted from (10±5) seconds to (3±1) minutes. Rotating the TIME knob clockwise from (+) to (-) will reduce the duration time.

Note: Once the light has been triggered by the PIR sensor any subsequent detection will start the timed period again from the beginning.

ADJUSTING THE LUX CONTROL LEVEL:

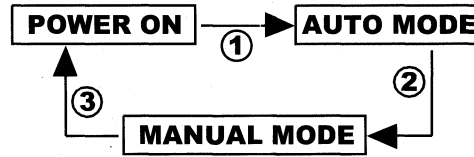
The Lux control module has a built-in sensing device (photocell) that detects daylight and darkness. Rotating the LUX knob clockwise is from light (☀) to dark (☾). The (☀) position denotes that the floodlights will work at day and night, and the (☾) position will only work at night. You can set the unit to operate at the desired level by adjusting the LUX knob.



Setting the controls

- Turn the Lux control knob to light (☀) position, turn the wall switch on and wait half a minute for the control circuit to stabilize. At this stage ensure that the TIME control knob is set at minimum (-). The floodlights on the security light will now switch on and will remain on for about 30 seconds (within 60 seconds).
- Direct the sensor toward the desired area to be scanned by adjusting the elbow joint and the swivel joint on the sensor arm.
Important: loosen all lock nuts and screws on sensor and lamp holders before making any adjustments.
- Have another person move across the centre of the area to be scanned and slowly adjust the angle of the sensor arm until the unit senses the presence of the moving person, causing the floodlights to switch on. (Refer Fig. 1B)
- Adjust time control to required setting.
- To set the light level at which the floodlights will automatically switch "on" at night, turn the LUX control knob from daylight to night. If the floodlights are required to switch on earlier, e.g. Dusk, wait for the desired light level, then Slowly turn the LUX control knob towards daylight while someone walks across the centre of the area to be detected. When the floodlights switch on, release the LUX control knob. You may need to make further adjustments to achieve your ideal light level setting.

How to change into MANUAL CONTROL MODE



- When power is first switched on, the PIR detector enters into the "WARM-UP" period for about 1 minute, then automatically changes into AUTO MODE.
- During AUTO MODE, by switching off the ON/OFF main switch for **about 4 seconds** then switching on, the PIR detector will automatically change into MANUAL MODE from AUTO MODE. In MANUAL MODE, the floodlights will remain ON, not affected by duration time and Lux control level.

- During MANUAL MODE or AUTO MODE, by switching off the ON/OFF main switch over 30 seconds and then on again, the PIR detector will reset to WARM-UP period.

Important: when adjusting lamp holders, ensure that the PAR38 lamps are not touching or in close proximity to sensor head, heat from the PAR38 lamps may distort the unit.

To avoid dust build-up and ensure proper functioning of the security light, wipe the sensor lens lightly with a damp cloth every 3 months. But never modify the unit, there are not any user serviceable parts inside.

SPECIFICATIONS:

Detection range: Max. 12 metres at 180° scan.

Duration Time adjustment: (10±5) seconds to (3±1) minutes.

Detection circuitry: Passive Infra Red (PIR).

Power required: 230- 240V~50Hz, 4 watt consumption (sensor head only).

Maximum load: 2 x 150 Watt PAR38 bulbs.

Weatherproof: Model MPES69BWP and MPES69WWP =Sensor Head IP44 and Lamp Holder IP44.

TROUBLE SHOOTING AND USER HINTS

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. Globes faulty or missing.	Check. Replace.
	3. Nearby lighting is too bright.	Redirect sensor or relocate the unit.
	4. Controls set incorrectly.	Readjust sensor angle or control knob.
	5. Sensor positioned in wrong direction.	Redirect sensor and/or adjust.
Light switches on for no apparent reason. (False triggering)	1. Heat from globe activating sensor.	Adjust lamp holders to allow a minimum gap of 40mm between PAR38 globe and sensor head.
	2. Heat sources such as air con, vents, heater flues, barbecues, other outside lighting, moving cars are activating sensor.	Adjust direction of sensor head away from these sources.
	3. Animals/birds e.g. possums or domestic animals.	Redirecting sensor head may help.
	4. Interference from on/off switching of electric fans or lights on the same circuit as your security floodlight. (this problem does not always occur but a faulty switch or noisy fluorescent light may cause the security floodlight to switch on.	Should the false triggering become troublesome, consider: (a) Replacing a faulty switch. (b) Replacing noisy fluorescent tubes or starters. (c) Connecting the security floodlight 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 sensor.
Light remains on.	1. Continuously false triggered.	Redirecting sensor head may help.
	2. Time is set too long.	Reduce time.
Light switches on during daylight hours.	1. LUX control knob is set to daylight position.	Turn the LUX control knob to desired light setting.
When setting controls in daylight the detection distance becomes shorter.	1. Interference by sunlight.	Re-test at night.

NOTE: ALL PASSIVE INFRA RED DETECTORS ARE MORE SENSITIVE IN COLD WEATHER THAN WARM WEATHER.