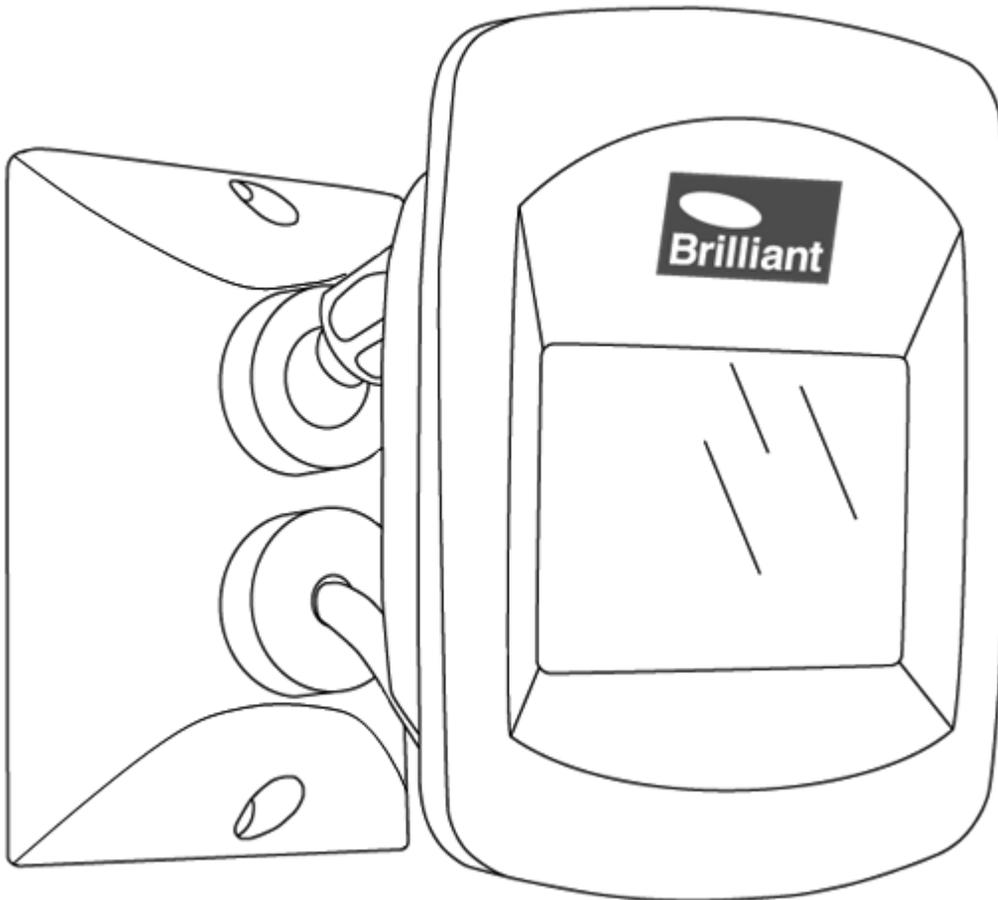


Thank you for purchasing a Brilliant Flexiscan Outdoor Security Sensor. The Flexiscan sensor helps to safeguard your home or business by sensing movement, and switching lighting devices on to illuminate the source of the movement. The Flexiscan is intended for installation in a fixed location by a Licenced Electrical Contractor

THIS FITTING MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR in accordance with the latest AS/NZS 3000 and relevant amendments

For Your Safety

- To prevent electrical shock, please ensure that power is DISCONNECTED before installing.
- Be aware of the height of your installation. Refer to 'Working at Heights ' guide from your local or State Authorities.
- Any alterations or additions to building wiring must be completed by a licensed electrician or person authorised by legislation to work on the fixed wiring of any electrical installation.



Before first using your new Brilliant Flexiscan Outdoor Security Sensor, it is most 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.



Flexiscan II

Outdoor Security Sensor - 18562

Introduction

Please read these instructions carefully prior to installation and operation. Care should be taken when installing to prevent damage to the unit.

Your Flexiscan Outdoor Security Sensor incorporates a highly sensitive PIR (Passive Infra Red) sensor which continuously scans the selected detection area and immediately activates connected lighting devices when it detects movement within the detection area. Ideal for pathways, entrance, driveways, patios and any area you need to improve safety and security.

The Flexiscan uses a relay to automatically switch loads when it detects movement. The load can be all type of light fittings, ceiling Fans, exhaust Fans, etc

The Flexiscan sensor has three adjustable controls: Sensitivity, Time and LUX knobs.

Selecting a Location

To achieve best results, please read the following carefully, and save these instructions for future reference.

- Best results are achieved when detection occurs when movement is across the scanning beam, rather than directly towards or away from it. Select a mounting position where detection will occur across the scanning area.
- Your Brilliant Flexiscan should be mounted 1.8 to 2.5 metres above the selected area. The sensor detection area will vary depending on mounting height and location.
- The detection range of your sensor may alter with changes in temperature and ambient light.
- DO NOT direct the sensor toward the sun.
- To avoid false detection's, your sensor should be directed away from sources of heat and movement such as barbecues, air conditioners, street lighting, moving cars, fountains, sprinklers or flue vents.
- To avoid false detection your sensor should be kept away from sources of strong electromagnetic fields and disturbances.
- DO NOT direct your sensor towards reflective surfaces such as swimming pools and spa's, white walls, shiny floor boards etc.

Please consider your neighbours when selecting a suitable location for any attached security lighting.

IMPORTANT:

To achieve best results, please read the following carefully, and save these instructions for future reference.

- **IMPORTANT:** This product has to be installed by a Qualified Electrician.
- This product must be used only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- **ALWAYS** ensure the power is **OFF** before the installation or adjustment.
- **ALWAYS** install in a manner to prevent water ingress into the base of the sensor unit.
- During installation, take great care not to damage or scratch the sensor window on the front of the unit.
- The Flexiscan sensor and attached load devices **MUST** be wired to their own individual switch.
- Take care not to exceed rated load for Incandescent Lighting (10A) and inductive loads (5A) or LED load (300W). Failure to do so will void warranty.
- IP66 weatherproof rating depends on the waterproofing method of during installation procedure.

Installation

The Flexiscan can be installed in a vertical manner; such as on walls, facias, etc. Alternatively the sensor can be installed on horizontal surfaces such as ceilings and under eaves.

When installing 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 unit through the use of a silicon or similar sealant compound. A foam sealing gasket is provided for all other installation types.

MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR !

- 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 surface. The distance between the mounting holes is 84mm.
- 3) Drill suitable size hole in mounting surface for electrical connections (C). Fit the supplied plastic wall plugs. Wall plugs must be flush. NOTE: Take care not to drill into concealed electrical wiring.
- 4) Remove protective backing from self-adhesive foam gasket (D). Attach the self-adhesive foam gasket to the mounting surface, aligning holes in the gasket (E) to the wall plugs.
- 5) Pull through electrical wiring in preparation for connection to the sensor.
- 6) Connect the Active incoming supply connection to the terminal block connection marked "Lin", as per FIG 2, Fig 3.
- 7) Wire the incoming supply Neutral and the load Neutral connection to the terminal block connection marked "N", as per FIG 2, Fig3.
- 8) Wire the load active connection to the switched Active output connection on the terminal block, marked "Lout", as per FIG 2 Fig 3.

Fig 3a shows an example when one load is switched with two sensor.

NOTE: Installation must be carried out according to Australian Wiring Rules (AS/NZS 3000). Please refer to the wiring diagram in FIG 3.

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

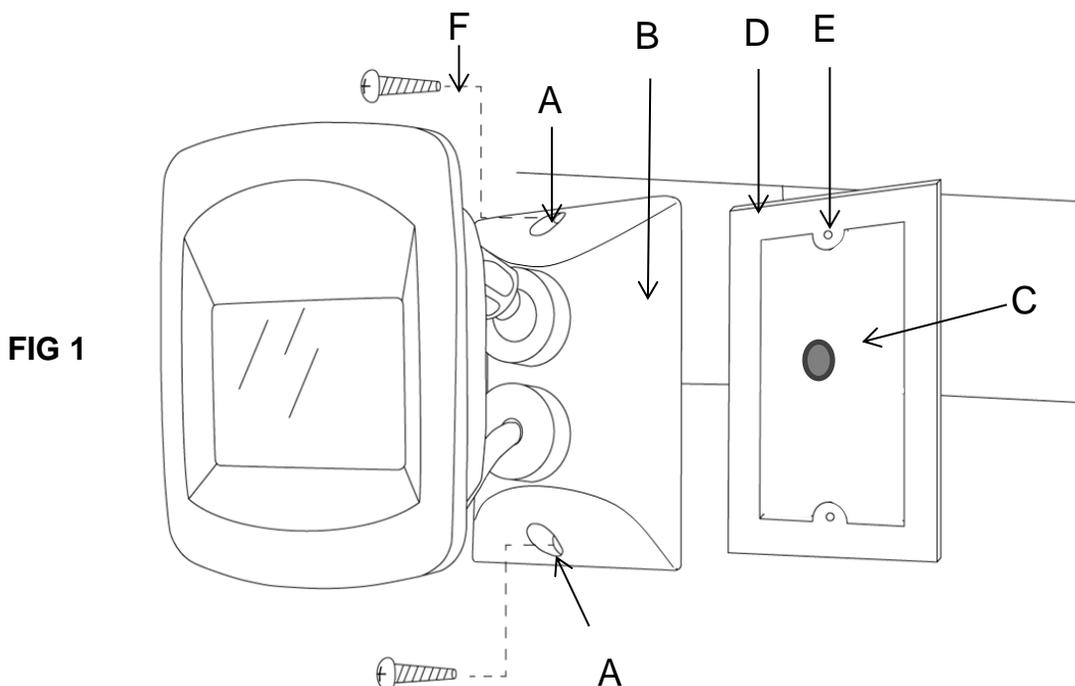


FIG 2 – terminal block

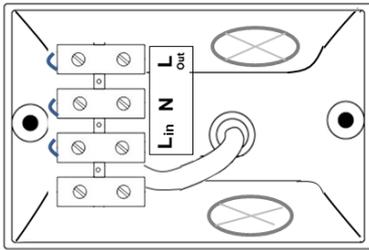
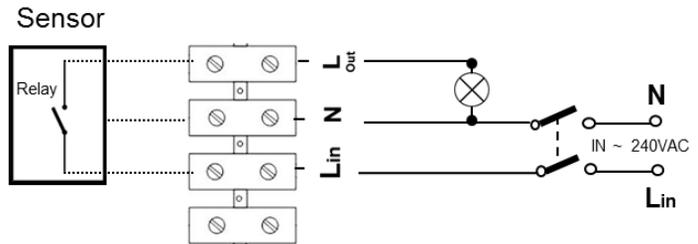


FIG 3 - connections



Switching load with multiple sensors

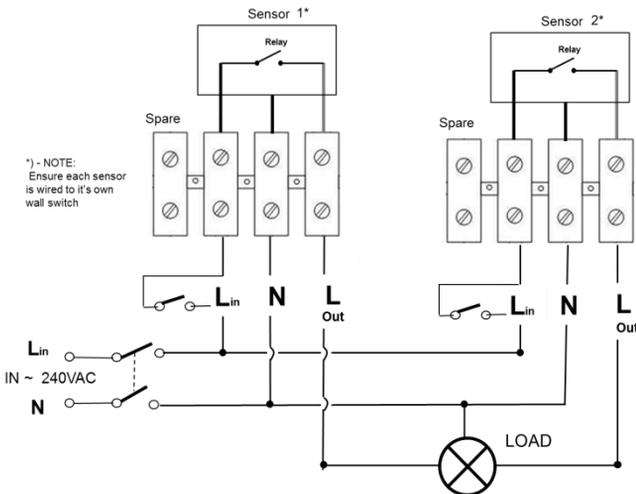


FIGURE 3a

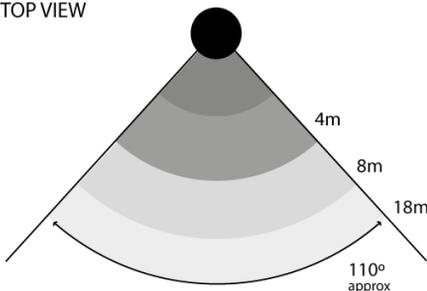
Same load can be switched with multiple sensors if required.

Figure 3a. shows two sensors switching one load.

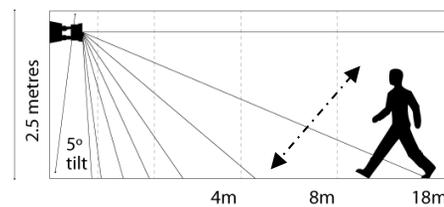
Operation

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

TOP VIEW



SIDE VIEW



The Flexiscan Sensor will provide optimal performance and range when installed in a vertical polarisation approx 2.5m above the ground, as is shown in diagrams in FIG 4.

The Flexiscan sensor head can be adjusted to allow optimal coverage of the detection area.

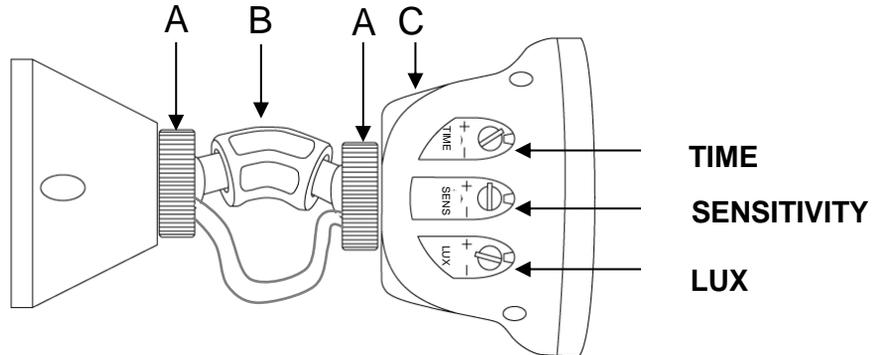
FIG 4 – Field of detection

To adjust sensor head (refer to FIG 5):

Simply loosen the two ball joint locking nuts(A), located at either end of the sensor arm (B), adjust sensor head (C) and tighten nuts (A).

NOTE: Always loosen locking nuts on sensor before adjusting. Failure to do so can damage the sensor.

FIG 5. – Adjustment of sensor and controls



SENSOR CONTROLS

TIME Duration: The length of time the sensor will activate the light or other load after detection can be adjusted to: 10 seconds, 1minute, 3min, 5min, 10min, 15min and 20 minutes respectively. Rotating the TIME knob towards (+) will increase the time and towards (-) will reduce the duration time.

TIME Restarts function: After any subsequent detection the Timer restarts again from the beginning.

For example: Time is set for 10 minutes. The sensor detects motion after 6 minutes. The total time the sensor will be on is 6'+10'=16min.

SENSITIVITY: The SENSITIVITY control allows you to adjust the sensitivity of the Infra-red detector. This adjustment is useful to adjust the sensitivity of the PIR to prevent false triggering and to adjust the detection range. Unless required, the sensitivity adjustment should be operated with the knob turned towards (+) increase sensitivity or towards (-) decrease sensitivity.

LUX level: The Flexiscan sensor has a built in photoelectric cell that automatically detects daylight and darkness levels. Rotating the LUX control knob towards (-) the sensor will only work at night. Rotating the LUX control knob towards (+), the sensor will work in both daylight and at night. Note: (+) setting is primarily used for testing the sensor after installation.

Manual Override

This sensor has Manual Override function which means that the light can stay permanently ON.

To turn the sensor into MANUAL MODE (in which it won't be affected by Time or LUX or Sensitivity settings) turn the wall switch 'OFF' then 'ON' **twice** within 3 seconds (OFF^{1sec} → ON^{1sec} → OFF^{1sec} → ON).

OFF ^{1sec}→ ON ^{1sec}→ OFF ^{1sec}→ ON

 within 3sec but not less than 1sec.

The light will turn 'ON' and stay 'ON' for maximum 8 hours. After 8 hours the sensor will automatically RESET itself back into 'AUTO MODE'.

Note that sensor will not enter 'Manual Mode' if switch is actuated too quickly (e.g. switched 'OFF' then 'ON' twice in less than 1second).

PROCEDURE to change from MANUAL MODE back to AUTO MODE before expiry of 8 hours:

Repeat the same switch sequence: 'OFF-ON-OFF-ON', or switch the power 'OFF' for more than 5sec.

Note that the sensor will reset into WARM-UP mode when sensor is switched 'OFF' (either in MANUAL or AUTO MODE) for more than 5 seconds.



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Commissioning – walk testing

1. Rotate the LUX knob fully clockwise for daylight operation (towards +), set the TIME control to minimum (-) and the SENSITIVITY to maximum (+).
2. Turn 'ON' the power at the isolating switch. The load should turn on for a short period of time.
3. Wait approx. 30-60 seconds for the circuit to stabilise.
4. If not already adjusted, direct the sensor toward the desired area, adjusting the elbow joint on the sensor arm. Loosen all nuts on sensor before adjusting.
5. Have another person move across the centre of the detection area and slowly adjust the angle of the sensor arm until the light is switched on. Your sensor is now aimed at your selected area.
6. Adjust the time control to the desired level.
7. Adjust the sensitivity (if required) to limit detection range. This can be tested via walk testing.
8. Adjust the LUX control by rotating anti clockwise (-) to revert to night time operation. If the lights are required to switch on earlier, e.g. dusk; wait for the desired light level, and slowly turn the LUX knob clockwise while someone walks across the centre of the detection area. When the lights switch on, release the LUX control knob.

Important Note:

- Further adjustments may be required to maintain your security at ideal light level and sensitivity settings.
- 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.
- To avoid dust build up and maintain proper performance, clean the sensor lens lightly with a damp cloth every 3 months.
- There are NO user serviceable parts inside.

Specifications:

Model number:	18562/06 -Black and 18562/09 -Beige
Voltage:	240VAC, 50 Hz
Maximum Load [W] :	2400W ,10A max incandescent lamp 1200W (5A) max. Fluorescent lamp 300W max. LED lamp
Detection range:	110°, Max: 18m
Duration Time:	10 sec, 1min, 3min, 5min, 10min, 15min, 20min. Warm up 30-60 seconds.
Lux control level:	Day & night or night only operation
Weatherproof Protection:	IP66 suitable for outdoor use
Manual override:	Yes
Time restart:	Yes -Timer restarts after each detection
Max time in manual override mode	8 hours, after resets into AUTO Mode automatically
Sensor power consumption	0.7W

Troubleshooting

PROBLEM	POSSIBLE REASON	POSSIBLE SOLUTION
Light does not switch ON when there is movement in the detection area	1. No mains voltage	Check all connections, fuses/switches
	2. Nearby lighting is too bright.	Redirect sensor or relocate the lamp
	3. Sensor positioned in wrong direction	Redirect sensor
	4. Lux setting is too low and Sens setting is too low	Adjust LUX and SENS settings
Sensor will not operate during daylight. (Testing mode)	1. No power 2. Sensor isn't set into daylight operation mode.	First check that the power is turned 'ON'. Check connections, fuses, circuit breakers. Check LUX control knob is fully set for 'DAY' operation (+).
Light switches ON for no apparent reason . False triggering	1. Heat sources such as air-con, vents, heater flues, barbecues, other outside lighting, moving cars, activates the sensor.	Redirect sensor away from those sources.
	2. Dogs, cats, home animals possums, birds	Adjust/Redirect/Relocate the sensor .
	3. Wind and draughts activated the sensor.	Cover sensor unit with a black cloth for a period of 5 min to check that the light does not trigger. Sometimes passages between buildings etc. can cause a "wind tunnel" effect. Adjust/Relocated the sensor.
	3. Electromagnetic interference, from other electronic devices, ON /OFF switching of existing fluorescent, LED, lights etc. wired in the same circuit with sensor, may cause to trig the sensor. For example a faulty wall switch or noisy fluorescent tubes/starters may cause to activate the sensor.	a. Replace the faulty switch. b. Replace noisy fluorescent tubes and/or starters. c. Wire the sensor into its dedicated circuit. d. Relocate the sensor.
	4. Reflection from swimming pool, or reflective surfaces (e.g. polished floors) or direct sunlight	Redirect sensor from direct sunlight otherwise the photocell may get damaged. Redirect sensor.
Sensor not turning OFF Light remains ON	1. The sensor is in 'Manual override mode'. 2. Continuous false triggering 3. Sensor is being activated again before the expire of the time set	Set the sensor back into Auto Mode. (Turn sensor OFF for 5sec or more then switch it back ON) Redirect/relocate the sensor to avoid false activation. Check for any extra sources of heat/air movement within detection area such as animals, moving objects. Adjust the sensor head and controls accordingly.
Sensor will not operate at night.	Ambient light is too high.	The level of ambient (street) light in the area may be too high. Adjust LUX level control accordingly and remove any other sources of ambient light if possible.
Sensor switches ON during daylight.	1. Low level of ambient light	The level of ambient light in the area may be too dark to allow operation in Nighttime only mode. Re-adjust the LUX control accordingly. Redirecting the sensor may help
	2. LUX control knob is set to daylight position.	Check and turn the LUX control knob to night operation
The detection distance becomes shorter	The sensor lens is dirty	Cleaning the LENS use soft cloth soaked with water, don't scratch the LENS.
	2. Warm and wet environment	Dry/clean the sensor
Sensor will not operate at all.	No power	Check that the power is switched ON at the circuit breaker or internal wall switch. Check that connections are not loose.

Note: all passive infra-red detectors are more sensitive in cold and dry weather conditions rather than in warm and wet weather. The best performance of the sensor can be achieved when the movement is across the detection areas, not when is towards it or away from it.



Flexiscan II

Outdoor Security Sensor - 18562

Warranty:

Brilliant Lighting warrants this product against defects in manufacture and workmanship for a period of 5 years from date of purchase. For products used in non-domestic or commercial applications, Brilliant Lighting warrants this product for a period of 3 months from date of purchase. This warranty is only valid for products installed by a qualified electrical contractor and operated within the guidelines specified by Brilliant Lighting, and within the correct operating voltage ranges as stated on the product's rating label.

Warranty does not include damage or loss arising from incorrect installation, operation or maintenance of this product, damage caused through modification, incorrect installation, service by unqualified or unauthorised personnel or lack of regular maintenance and cleaning. Proof of installation by qualified personnel may be required, eg. Electrical Safety Certificate. Proof of purchase must be supplied with all warranty claims.

This warranty is provided in addition to any other rights and remedies of the customer under any law. In applications not intended for household, personal or domestic use, liability is limited to replacement or reimbursement of product only.

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 compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if goods fail to be of acceptable quality and the failure does not amount to a major failure.

Any claim under this warranty must be made within the specified warranty period from date of purchase of this product. To make a claim under the warranty, take the product (with proof of purchase – receipt or similar) to the store where you purchased the product or contact Brilliant Lighting at the address below.

This warranty is given by:

Brilliant Lighting (Aust)Pty. Ltd.
ABN 37 006 203 694
956 Stud Road Rowville, VIC 3178
Phone: 03 9765 2555
Email: info@brilliant-lighting.com.au
MADE IN CHINA