



# Technical Data

## Guardian 5100

### Brief product description:

A comprehensive range of high quality outdoor and indoor security lighting.

Combined decorative bulkhead and passive infra-red detector

### Features:

- Detector weatherproof to IP44
- 60 Watt incandescent
- Adjustable sensitivity control
- Adjustable timer from 20 seconds to 10 minutes
- 8 metre detection range with a 90° angle of detection
- Over-ride facility enables permanent on operation of controlled lighting
- Integral light sensor ensures unit will only operate during darkness
- Prewired and ready to install
- Lamp not included

### Product Images



NGD950

### Technical Specifications

Power	220-240V 50Hz
Operating Temperature	-20 to 40°C
Max. Load	60W incandescent
Detection Range	8M/ 90 Degree
Time Adjustment	10 secs to 10 mins
Lux Level (Min to Max)	5 LUX to 2000 LUX
IP Rating	IP44
CE Approval	Yes

### Packaging Information

Cat No.	Description	Packaging Type			Pack Quantity			Barcode		
		Product	Inner Box	Outer Box	Each	Inner Box	Outer Box	Individual	Inner Box	Outer Box
NGD950	Guardian 5100	Printed Box		Plain Outer	1		12			

# Guardian 5100

## Weights & Dimensions

Cat No.	Description	Dimension (W x L x H) cm			Weight (g)			CMB (m <sup>3</sup> )
		Product	Inner Box	Outer Box	Each	Inner Box	Outer Box	Outer Box
NGD950	Guardian 5100	21.5x27.2x11		28.9x59.3x45.1	810		10300	3.2

## Installation Information

### Safety Warning

Before use please read carefully and use in accordance with these safety wiring instructions.

Before commencing any electrical work ensure the supply is **switched off at the mains**. Either by switching off the consumer unit or by removing the appropriate fuse.

Wiring should be in accordance with the latest edition of the IEE regulations (BS 7671).

### Wire Identification – Twin & Earth Cable

**EARTH** = Green/Yellow Sleeving

**NEUTRAL** = Black (pre Apr 04) / Blue (after Apr 04)

**LIVE** = Red (pre Apr 04) / Brown (after Apr 04)



**Technical Helpline: 0845 194 7584**  
If in doubt consult a competent electrician.

The ends of the individual conductors should have the insulation removed by approx. 12mm. Any bare earth conductors should be sleeved to within 12mm of the ends. (These details are for general information only and conductor lengths may need to be trimmed in certain installations).

### Introduction

The Guardian 5100 is a combined Passive Infra-red Motion Sensor and 60W Bulkhead fitting which activates on detection of a moving heat source i.e. human body heat. The unit has a built-in Photo Electric Cell to automatically inhibit operation during daylight hours and stays on for an adjustable pre-set time (20 seconds to 10 minutes.) The distance of detection can also be regulated allowing a maximum range of 8 metres.

### Planning Your Installation

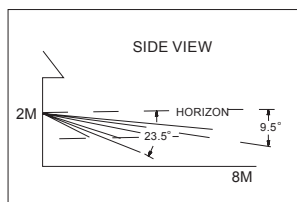
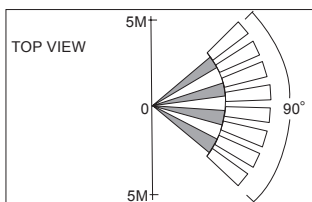
First decide on the location of the Guardian 5100 bearing in mind that the unit will perform best if mounted between 2 and 2.5 metres from the ground. It is also important to remember not to position the unit where it will reach areas such as Public Footpaths and Roads as this will result in unwanted activations from passers-by.

The unit works better when a person moves across its field of vision as opposed to walking straight towards it.

The unit cannot see through solid objects including glass so care must be taken to insure it has a clear view unobstructed by trees, bushes and parked cars etc.

### IMPORTANT

The unit must be mounted well clear of Central Heating Boiler Outlets as the hot air movement will cause continual unwanted activation.



LIST	PART NAME	QUANTITY L	IST	PART NAME	QUANTITY
A	Lantern	1	D	Screw A	2
B	Diffuser	1	E	Screw B	2
C	Backplate	1	F	Wall Plug	2

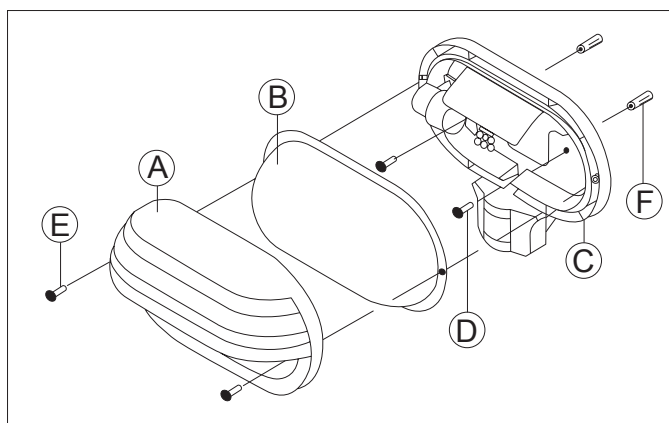


Fig. 1

### Installation

**IMPORTANT:** - ISOLATE MAINS SUPPLY BEFORE WIRING OR MAKING ANY INTERNAL ADJUSTMENTS.

IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN.

ALL WIRING MUST COMPLY WITH THE LATEST WIRING REGULATIONS.

It is recommended the supply to the detector and light fitting is via a fused double pole switched spur fitted with the appropriate rated fuse depending on switching load.

# Guardian 5100

## Installation Information

### Procedure

**NOTE: To wire the unit into an existing wiring system it is recommended the work be carried out by a qualified electrician.**

1. Remove top and diffuser from unit.
2. Pass supply cable (1.5mm twin core) through centre of grommet in backplate. Mount backplate to wall with fixings provided bearing in mind previous installation instructions. **IMPORTANT** Ensure fixings are horizontal. (see figs 2 and 3)
3. Pass cable through cord grip and wire into terminal block (see fig. 4). Tighten cord grip ensuring all wiring is kept clear of lamp.
4. Fit lamp 60W max.
5. Replace diffuser and top and secure with screws provided, ensuring unit is watertight.

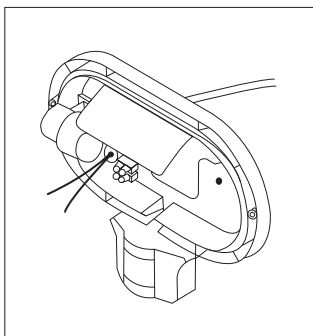


Fig. 2

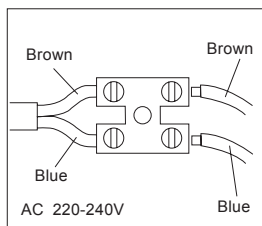


Fig. 4

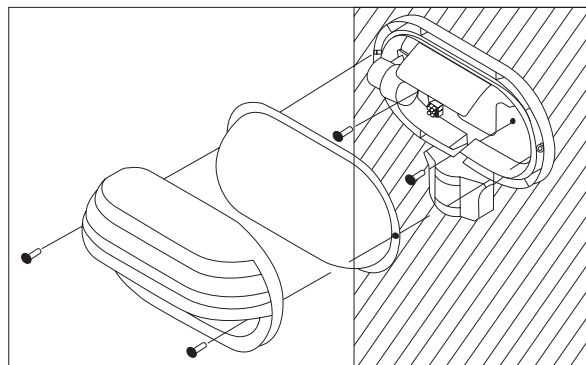
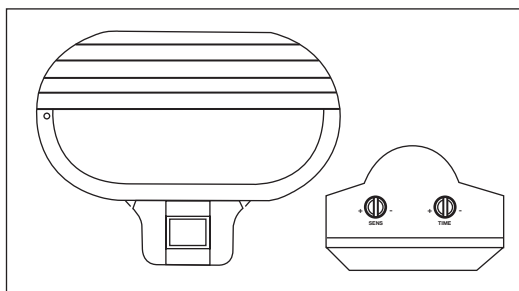


Fig. 3

### Function & Control

1. **TIME:** Adjusts the motion sensor light's shut-off time. Light will remain on for the set time interval after last motion is detected.
2. **SENS.:** The detecting distance adjustment allows you to easily set the detecting distance. Passive infrared is more sensitive in winter than in summer, be sure to reduce the sensitivity in winter by adjusting the sensitivity knob counterclockwise to avoid false triggering.



### Operation

#### Test Mode

In Test Mode the unit will activate day or night regardless of ambient light levels. Activations during the test mode will activate the light for 5 seconds. The unit will progress to Auto Mode automatically after 5 minutes.

#### Auto Mode

In Auto Mode the unit will activate according to the settings selected on the Lux & Time adjusters. To allow the unit to work only at night turn LUX to "-" or to allow unit to operate both day & night turn to "+". For unit to operate at dusk/dawn experiment to find best midway setting.

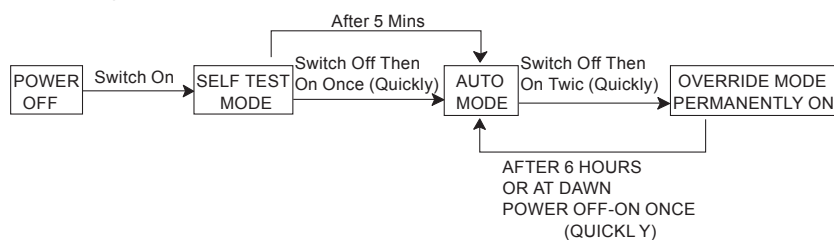
The amount of time the unit stays on after activation can be adjusted from between 20 Seconds an 10 minutes using the TIME adjuster.

#### Override Mode

In Override Mode the light will remain permanently ON until:

- a) The unit is switched Off and ON quickly.
- b) The unit has been on for more than 6 hours.
- c) Dawn arrives. (Light level over or about 300 LUX) When LUX control set to "-" position.

#### Sequence Diagram



# Guardian 5100

## Installation Information

### Specification

1. SUPPLY 240V ac.
2. TIMER 20 secs to 10 mins.
3. DAYTIME INHIBITER to prevent daytime operation.
4. SWITCHING CAPACITY 60W MAX.
5. RANGE 8M with 90 degree field of view.
6. SENSITIVITY adjuster.
7. MANUAL OVERRIDE for normal light operation.
8. WEATHER RESISTANT IP44.
9. OPERATING TEMPERATURE -20 C to 40 C.

### Fault Finding

#### Nothing Happens

1. Check supply to unit.

#### Detector Clicks But Does Not Operate

1. Check lamp not broken.

#### Lights Go On And Off Quickly

1. Ensure light is not being reflected back into sensor. Check for white or reflective surfaces in protection pattern.
2. Note the detector is more sensitive in cold weather.

#### Lights Stay On

1. Check unit has not gone into Manual Override mode.
2. Adjust time to minimum.
3. Ensure nothing in field of view activating detector.

4. Ensure unit is firmly fixed to a solid object with no moving branches etc. in field of view.
5. Ensure detector is not being activated by stray moving heat sources such as heating outlets cars etc.

#### Lights Switch On During Storms

Adverse weather conditions and temperature changes can result in unwanted activations. This can be minimised by mounting in a protected location and adjusting sensitivity control. Switch power supply off during storms.

#### Maintenance And Repair

1. Do not attempt to repair as this could invalidate warranty or result in personal injury.
2. Clean detector lens and outside casing with damp cloth.