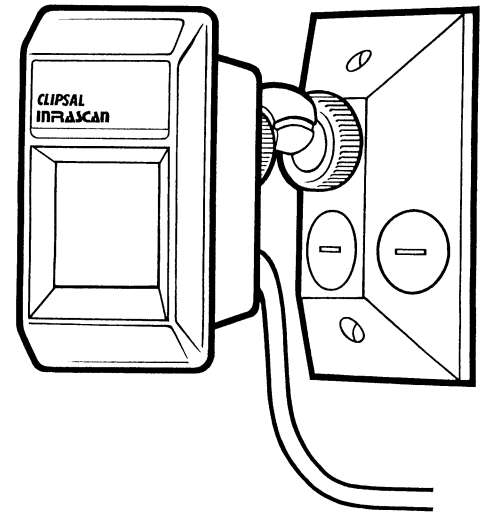


## Outdoor Infrascan

### Installation Instructions

### 750WP & 750WPR



Products of Gerard Industries Pty Ltd ACN 007 873 529  
12 Park Terrace, Bowden, South Australia 5007  
Telephone (08) 8269 0511 Facsimile (08) 8340 1724  
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*Please leave these instructions  
at the installation site*

## WARRANTY

- 1 The benefits conferred herein are in addition to, **and in no way shall be** deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to this Clipsal Electronic Product, which the consumer has under the Commonwealth Trade Practices Act or any other similar State or Territorial laws.
- 2 The warrantor is **Gerard Industries Pty Ltd** 12 Park Terrace, Bowden, South Australia, 5007. Telephone (08) 8269 0511.  
With registered offices in all Australian States.  
**NSW** 24 Canterbury Road, Padstow 2200 Telephone (02) 9794 9200  
**VIC** 81-89 Queens Parade, North Fitzroy 3068  
Telephone (03) 9207 3200  
**NT** 16 Albatross Street, Winnellie 0820 Telephone (08) 8947 0278  
**QLD** Brisbane - 919 Nudgee Road, Nudgee 4014  
Telephone (07) 3244 7470  
Townsville - 5 Leyland Street, Garbutt 4814  
Telephone (077) 25 1822  
**WA** 23 Truganina Road, Malaga 6090 Telephone (08) 9442 4444  
**TAS** Hobart - 55 Lampton Avenue, Derwent Park 7009  
Telephone (03) 6272 3177  
Launceston - 63 Boland Street, Launceston 7250  
Telephone (03) 6331 6951
- 3 This Clipsal Electronic Product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.
- 4 Gerard Industries Pty Ltd reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.
- 5 This warranty is expressly subject to the Clipsal Electronic Product being installed, wired, tested, operated and used in accordance with the manufacturer's instruction.
- 6 All costs of a claim shall be met by Gerard Industries Pty Ltd, however, should the product that is the subject of the claim be found to be in good working order all such costs shall be met by the claimant.
- 7 When making a claim the consumer shall forward the Clipsal Electronic Product of the nearest office of Gerard Industries Pty Ltd together with adequate particulars of the defect within 28 days of fault occurring.

## DESCRIPTION OF THE INFRASCAN INTRODUCTION

The Clipsal 750WP and 750WPR automatic light switching devices represent our fourth generation of pacesetting sensor technology, providing benefits in security, energy management, hospitality and convenience.

Advanced circuit technology and a new flat multi-segmented lens divides the 'Field of View' into 48 zones at 4 different levels, ensuring immediate reaction to body movement.

This has led to a much improved density of the detection field.

The 750WP does not require a neutral connection and is referred to as a 'two-wire' device.

### HOW IT WORKS:

With power applied and a suitable load connected, the Infrascan will be able to detect any moving Infra-red source that may intrude upon its 'Field of View'.

The Infrascan has three adjustments on the underside of the sensor head for 'Light Level', 'Time-On' and 'Sensitivity'.

Activation of the load will depend on the ambient light level in the 'Field of View' and the setting of the light sensor adjustment. This adjustment can be set to allow the Infrascan to operate the load at any light level between full daylight and almost complete darkness.

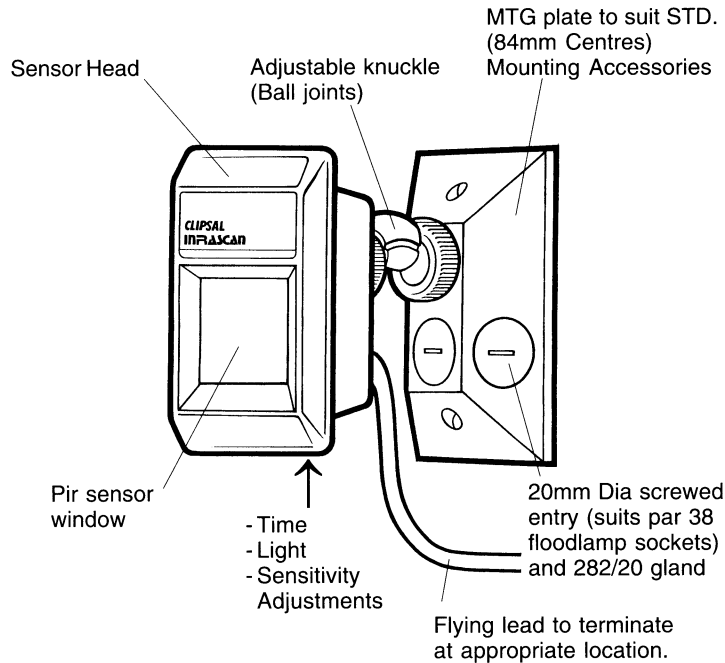
The 'Time-on' adjustment varies the time span that the load will remain on after the Infra-red source moves out of or stops moving within the 'Field of View'. Any period between 5 seconds and approximately 8 minutes may be set by the time adjustment screw.

The 'Sensitivity' adjustment determines how sensitive the Infrascan becomes. The more positive the setting, the higher sensitivity, resulting in a greater detection range.

### NOTE:

1. When making adjustments do not attempt to force adjustment screws past stops.
2. A small plastic screwdriver is supplied for all the above adjustments or a standard screwdriver may be used.

## IDENTIFICATION OF PARTS



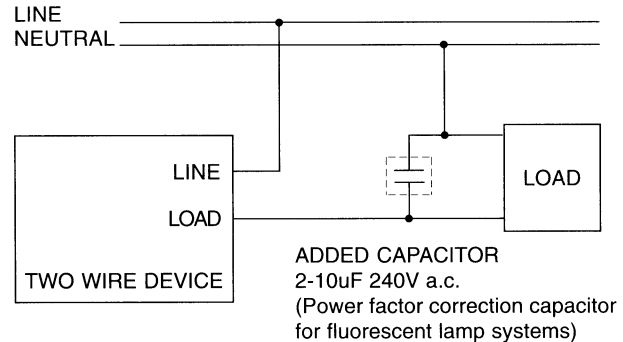
**NOTE:** The sensor head lens is specially designed to give optimum performance. Under no circumstances should it be tampered with.

## WARNING 751WP

The product is a two wire device. Two wire devices draw their power through the load. As such, this device is intended for use with incandescent and conventional power factor corrected fluorescent lighting loads as well as other purely resistive loads.

If this device is used in conjunction with a load which can not provide enough continuous load current in the off state, or the load is sensitive to a high off-state leakage current (for example: relays, contactors, various loads with built-in electronic control etc.), a mains rated capacitor with a value of 2 to 10uF must be connected in parallel with the load.

A convenient capacitor can be selected from the range of products used for power factor correction in conventional fluorescent lamp fittings.



In very rare cases when the load is highly inductive (large contactors or lightly loaded transformers) a resonance can occur between the added capacitor and the load. This will be observed as a high off-state voltage across the load. If resonance occurs the value of the added capacitor should be modified (doubled or halved for instance).

## TECHNICAL SPECIFICATIONS

	750WP	750WPR
Operating Voltage Range	200-265 V 50Hz a.c.	
Maximum Load Current	5A	10A
Maximum Off State Leakage Current	*2mA	0
Minimum Load Current	20mA	0
Operating Temperature Range	0° to +50°	
Rated Detection Field at Maximum Sensitivity	18m Radius x 110°	
Timer Delay Relay	5 sec to 8 min. Adjustable	
Light Level Inhibit Threshold	Continuous from below 1 Lux to full sunlight	
Mounting Surface	Wall and ceiling Mounting	
Mounting Height for Rated Detection Field	2.4 metres with sensor head vertical	
Number of Detection Zones	18 Long Range 16 Intermediate Range 10 Short Range 4 Ultra short Range	
International Protection Rating	IP66	

**\*Note:** The 750WP derives its power through the load and thus the load is never completely un-energised when off, as with switch contacts. This may cause misbehaviour of certain loads such as - relays, contactors, compact fluorescent lamps, electronically ballasted fluorescent lamps without a power factor correction capacitor fitted. If misbehaviour does occur, it is recommended that a 470nF or greater X class 250V~ rated capacitor be fitted across the load.

## INSTALLATION AND WIRING

### LOCATION

An Infracan must be positioned correctly to ensure effective operation. The recommended mounting height is 2.4 metres. The 'Field of View' is optimum when the sensor head is mounted in a vertical position at a height of 2.4 metres and the 'approach path' is across the face of the sensor.

### NOTE:

1. Do not mount the Infracan close to objects which can create rapid temperature changes eg. air conditioning vents, heater flues, moving water ie. fountains and sprinklers.
2. Do not mount the Infracan on any surface that is subject to movement due to wind or other causes.
3. In all cases, locate the Infracan so that the 'approach path' is across the 'Field of View' and not directly towards the Infracan.

### FIELD OF VIEW

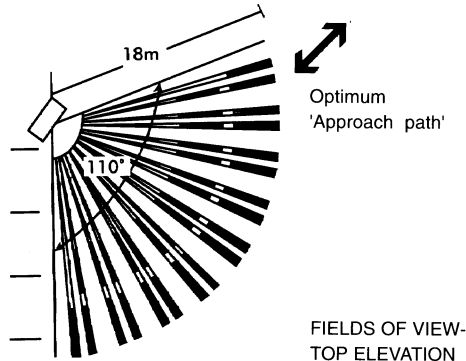
(at maximum sensitivity)

Ultra short zones  
nominal range 1.2m

Short range zones  
nominal range 4m

Intermediate zones  
nominal range 8m

Long zones  
nominal range 18m



Head vertical

2.4m



There may be noticeable differences in the range due to differing conditions (background temperature, speed of movement, types of clothing worn, etc).

## INSTALLATION AND WIRING (Cont.)

### MOUNTING AND TERMINATION PROCEDURE:

The Infracan can be mounted on a vertical or horizontal surface. Simply loosen the clamping nuts at each of the ball joints, allowing the knuckle assembly to rotate. This enables the Infracan to be mounted on walls or ceilings as shown in Figure 2.

Caps are provided to cover screw heads when mounted.

Electrical connections are made via a flexible lead:

1. Using the loose terminals supplied and passing the cable through a gland into a standard surface mounting box.
2. Using the loose terminals supplied and passing the cable through a gland directly into the mounting plate.
3. Termination can be carried out in a junction box mounted in a ceiling space or wall cavity.

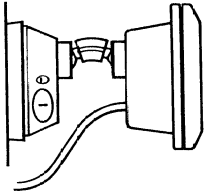
### NOTE:

If using option 1 or option 2, the supplied gasket must be used and all surfaces must be adequately sealed to ensure IP66 rating.

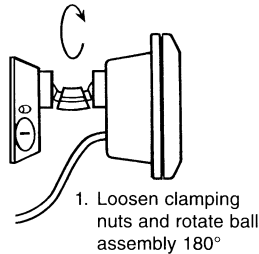
## WALL MOUNT TO CEILING MOUNT

WALLMOUNT (Figure 2.)

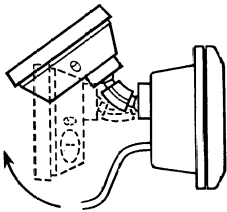
1.



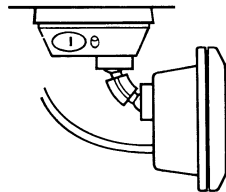
2.



3.



4. CEILING MOUNTING



2. With clamp nuts still loose rotate mounting plate 90° as indicated by arrow. Tighten clamp nuts.

## TROUBLE SHOOTING

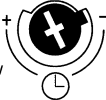


Problem	Possible cause	Possible action
1. Light turns on for no apparent reason.	<ul style="list-style-type: none"> <li>a Momentary power</li> <li>b Unseen target.</li> <li>c Extreme draughts of hot &amp; cold air</li> <li>d Trees/Brushes moving in the wind.</li> <li>e Vehicular or pedestrian traffic on edge of 'Field of View'.</li> </ul>	<ul style="list-style-type: none"> <li>a None, unit will reset after 'Time Out'.</li> <li>b Check for animals e.g. dogs/cats, etc.</li> <li>c Check doors, windows, or air-conditioning outlets.</li> <li>d Reduce Sensitivity, Re-aim Sensor Head.</li> <li>e Reduce Sensitivity Re-aim Sensor Head.</li> </ul>
2. Light turns on during daylight.	<ul style="list-style-type: none"> <li>a Wrong setting on 'Light Adjustment.'</li> </ul>	<ul style="list-style-type: none"> <li>c Reset according to 'Commissioning' Instructions.</li> </ul>
3. Lights not on in Dim & Dark conditions	<ul style="list-style-type: none"> <li>a As above (#2).</li> <li>b Light globe 'blown'.</li> </ul>	<ul style="list-style-type: none"> <li>c As above (#2).</li> <li>b Replace light globe.</li> </ul>
4. Light remains on permanently.	<ul style="list-style-type: none"> <li>a Manual over-ride switch fitted &amp; set to 'manual'.</li> <li>b Moving Infra-red being detected</li> </ul> <p><b>Note:</b> Do not mount close to objects which can change temperature rapidly e.g. air-conditioning vents, heater flues, moving water i.e. fountains, sprinklers.</p>	<ul style="list-style-type: none"> <li>a Reset according to</li> <li>b Reduce Sensitivity - Blank off viewing window: Light should turn off after 'Time-Out'. If light still remains on; call installer.</li> </ul>

**\*NOTE:** Take care not to scratch or damage the translucent window on the front of the Infracan as it forms part of the optical detection system. For continued optimum performance ensure that the window is cleaned periodically with mild soap, water and a soft cloth.

## COMMISIONING

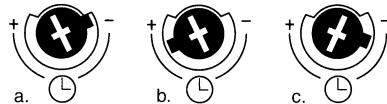
When setting the 'Time On', 'Light-Level' or 'Sensitivity' adjustments keep clear of the 'Field of View' when assessing the effect of the adjustment.

### SET UP FOR WALK TEST:

1. Set 'Time-On' adjustment fully anti-clockwise. 
2. Connect power to unit and allow approximately 30 seconds plus time-on period for the sensor to stabilise before conducting any tests.
3. Set 'Light-Level' sensor adjustment fully anti-clockwise. 
4. Set 'Sensitivity' adjustment fully clockwise. 
5. Remove card from the sensor head and confirm that the load turns on. Replace card and confirm load turns off after approximately 5 seconds.
6. Loosen the clamp nuts, aim the sensor head towards the desired 'Field of View'. Tighten clamp nuts and remove card.
7. Walk slowly around the area in the desired 'Field of View' to confirm the load is activated in the required area. If necessary, re-aim the sensor head.

### ADJUSTMENT OF 'TIME-ON', 'LIGHT LEVEL' AND SENSITIVITY TIME -ON

Rotate clockwise to set the required time period.

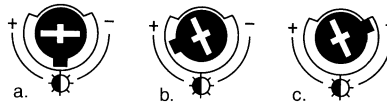


#### EXAMPLES

- a. Minimum setting
- b. Constant occupation but infrequent movement.
- c. Less occupation but constant movement.

### LIGHT LEVEL

Rotate clockwise to avoid having load activated when natural light is adequate.



#### EXAMPLES

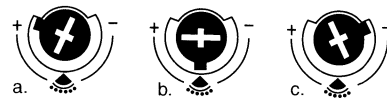
- a. Load activated at dusk.
- b. Load activated at night only.
- c. Load activated at both night and day.

### SENSITIVITY

Rotate anti-clockwise to set required detection range.

#### EXAMPLES

- a. Maximum detection range.
- b. Mid detection range.
- c. Minimum detection range.



## KNUCKLE ADJUSTMENTS

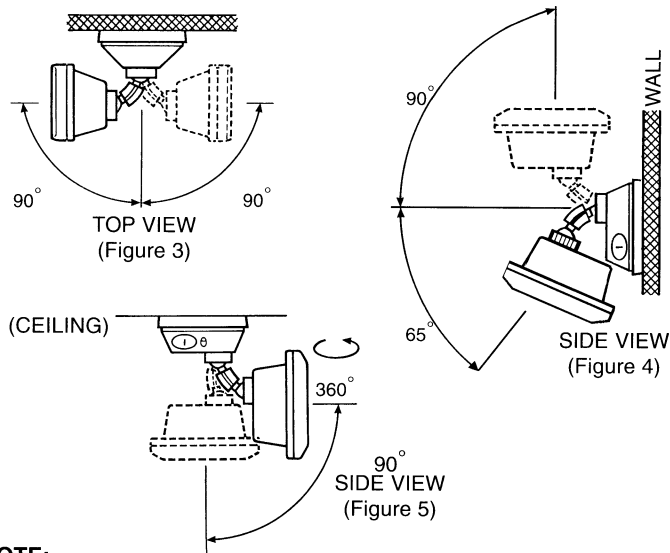
Clipsal's unique knuckle adjustment design incorporates the use of ball joints at each pivot point, enabling the sensor head to be located in almost any position.

### WALL MOUNT:

The sensor head, in the horizontal plane, can be positioned  $\pm 90$  degrees from the centre as shown in Figure 3. In the vertical plane, the sensor head can be rotated upwards 90 degrees and downwards 65 degrees as shown in Figure 4.

### CEILING MOUNT:

The sensor head, in the horizontal plane, can rotate 360 degrees. In the vertical plane, the sensor head can rotate downwards 90 degrees as shown in Figure 5.



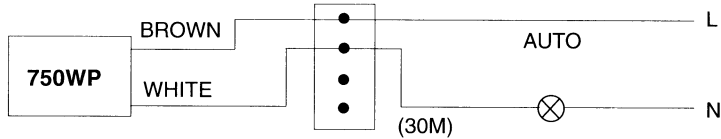
### NOTE:

The curve in the knuckle assembly must follow the direction in which the sensor head is to be directed. Do not try to force the sensor head at any time, check that the knuckle is correctly aligned.

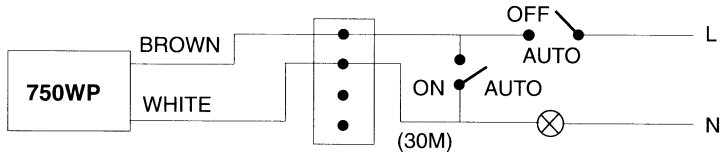
## WIRING DIAGRAMS

### 750WP

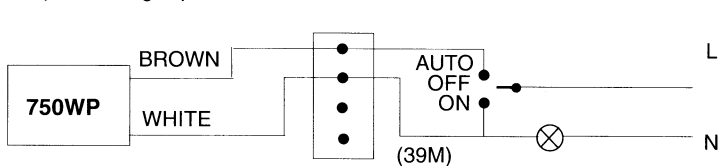
#### 1a Automatic



#### b Automatic with manual override ON or OFF



#### c Option using 3 position 39M



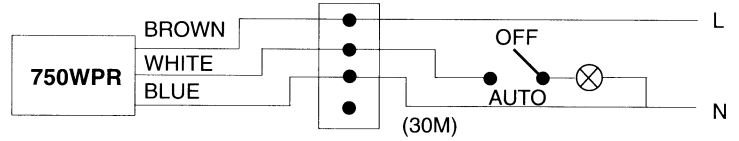
### NOTE:

When switching to AUTO for any of the above configurations the Infracan will turn on. Allow 30 seconds plus time-on period for the sensor to stabilise for normal operation. Wiring diagram 1 (a), without override switches is preferred as there is no setting period.

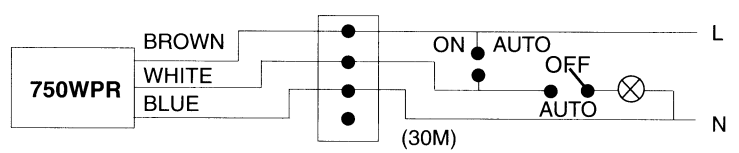
More than one 750WP CANNOT be connected in parallel to a common load. If parallel connection of multiple devices to a common load is required, use Cat. No. 750WPR.

### 750WPR

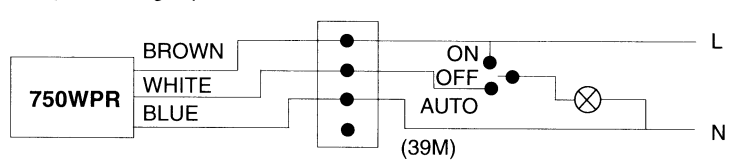
#### 2a Automatic with manual override OFF



#### b Automatic with manual override ON or OFF



#### c Option using 3 position 39M



### WARNING

It is illegal for persons other than licensed electricians or persons authorised by legislation to work on the fixed wiring of any electrical installation. Penalties for conviction are severe.