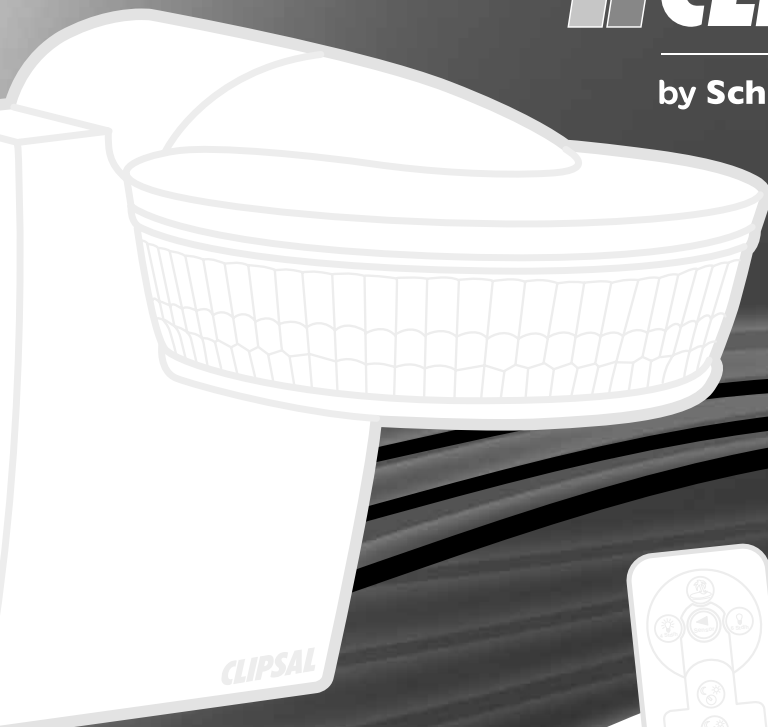# CLIPSAL®

by Schneider Electric

Infrascan®
Passive Infrared Motion Sensor
with Remote Control

757SRR Series

Installation Instructions

Contents

1.0   Product range

757SRR Infrascan Passive Infrared Motion Sensor with Remote Control, 3-Wire design, Colour options: Black, White Electric

Optional Accessories:
*   757MBA Corner-Wall Mounting Bracket for 757SRR Infrascan, Colour options: Black, White Electric

*   757FRM Floating Relay Module for 757SRR Infrascan. Suitable for operating independent devices or systems.
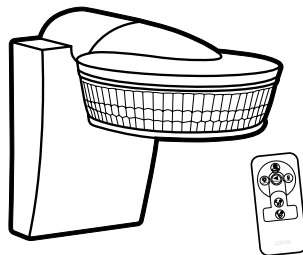
2.0   Principle of Operation

Congratulations on purchasing your new Clipsal Infrascan Surface-Mount Passive Infrared Motion Sensor. You have chosen a high-quality product that has been manufactured, tested and packed with the greatest care. Please familiarise yourself with these instructions before attempting to install the sensor, as prolonged reliable and trouble-free operation will only be ensured if it is fitted properly.

⚠ Safety Warning

Installing the sensor involves work on the mains power supply. This work must therefore be carried out by a licensed electrician, in accordance with applicable national wiring regulations and electrical operating conditions. Only select time and lux level setting with the lens in place.

This Passive Infrared Motion sensor is suitable for switching on lights automatically, when movement is detected. The unit is equipped with pyro sensors that detect the invisible heat emitted from moving objects (people, animals etc.). The heat detected is electronically converted into a signal that switches on connected loads (e.g. a light).
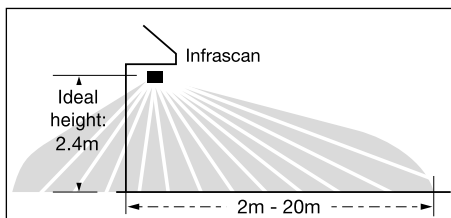
3.0   Field of View

The Infrascan 757SRR has Field of view of 300° with 3-zone adjustment.

Field of View

3 zone adjustment

Sensing Range

Infrascan

Ideal height: 2.4m

2m - 20m
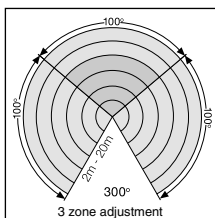
The sensing range in each zone can be adjusted from 2-20m. The Infrascan provides high resolution due to the use of 4 passive infrared sensors and 1360 switching zones with 10 detection levels.

By means of a zone masking foils (included in the packaging) the angle of coverage can be restricted to suit the application requirements.

4.0 System Components and Installation

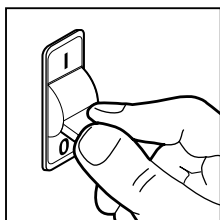As displayed on page 5.

l Mains power supply lead, concealed

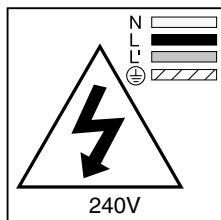ll Mains power supply lead, surface-mounted

① Wall mount/ceiling mount

② Water drainage hole

③ Plug-type terminals

As displayed on page 6.

④ Sensor unit

⑤ Safety screw

⑥ Slot for optional floating relay module 757FRM

⑦ No function

⑧ Lux level setting

⑨ Time setting

⑪ Zone masking foils

Warning

The mains lead consists of a three-wire cable.

L = Active

N = Neutral

PE = Earth ⏚

Ø 6 mm

I

Sensor

Modul

9–10mm
0,37"

N N N E L L
↑ ↑ ↑ ↓ ↑ ↑

1

3

N L

Sensor

Modul

9–10mm
0,37"

1

2

Ø 5mm

Modul

II

Sensor

Modul

9–10mm
0,37"

N N N E L L
↑ ↑ ↑ ↓ ↑ ↑

1

3

L
N

L
N
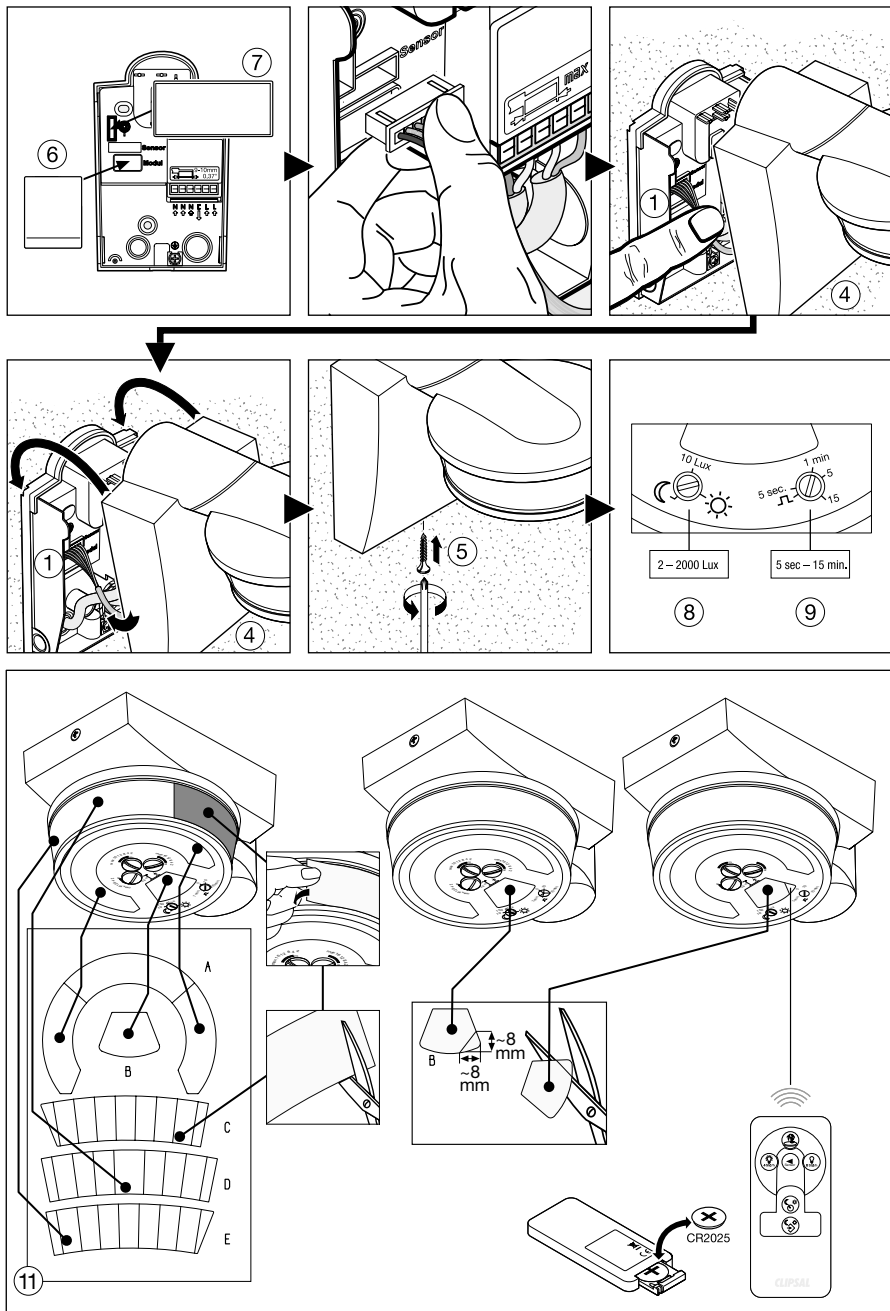
Installation, operation and maintenance:

- The site of installation should be at least 50cm away from a light, as the heat it radiates may activate the system.

- It is the installer's responsibility to maintain IP rating of the installed Infrascan and mounting bracket to suit the application. It may be required to seal the cable gland. Where condensation is a concern, water drainage holes should be considered.

- The sensor does not detect heat radiated from behind obstacles, such as walls or panes of glass. Heat radiation of this type will therefore not activate a light.

- Weather conditions may affect the way the motion detector works. Strong gusts of wind, snow, rain or hail may cause the light to come on when it is not wanted, because the sensor is unable to distinguish sudden changes of temperature from sources of heat.

- The unit is not suitable for burglar alarm systems as it is not tamper-proof in the manner prescribed for such systems.

- The detector lens may be cleaned with a damp cloth if it gets dirty (please avoid using aggressive cleaning agents).

Walking Direction

- In order to achieve the maximum sensing range, the Infrascan needs to be installed in a way that the movement direction is tangential rather than radial (towards the sensor).
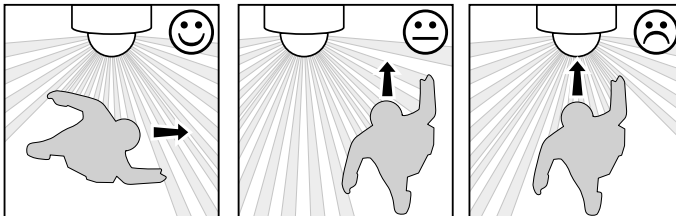
5.0 Wiring Diagram

Below wiring example shows the installation of the 757SRR Infrascan with an external wall-switch. The external wall-switch needs to be closed for normal sensor operation.
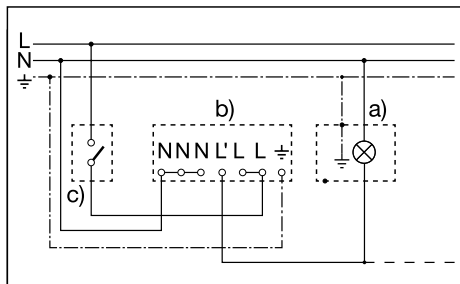
a) Load (see Technical Specifications)

b) Sensor connection terminals

c) Switch

Description of sensor initialisation-phase:

- There is a sensor initialisation-phase of about 40 seconds. During this period the connected load will be activated (light is ON). The initialisation-phase can be recognised by a slowly flashing red LED in the sensor element.

- After the initialisation-phase the load will be ON for additionally 5 sec - 15 min (depending on the selected time period), even if no movement is detected. During this time the red LED is not visible.

- The Infrascan is now in normal sensor operation: The connected light will be off, unless movement is detected (indicated by a flashing red LED), which leads to the activation of the connected load.

Please note:

- The behaviour of the Infrascan and the activation of the connected load in the sensor initialisation-phase is particular relevant for installations with 2-way position switches (not illustrated).

- If sensors are connected in parallel (not illustrated), it is important not to exceed the sensor's maximum rating. In addition, all units must be connected to the same phase.

Warning:

- It is illegal for persons other than licensed electricians or persons authorised by legislation to work on fixed wiring of any electrical installation.

- Installation must be carried out in accordance with local wiring rules (AS/NZS3000 Australia and New Zealand).

6.0 Functions

## **6.1** Manual Override Switch (as per wiring diagram in chapter 5)

a) Change from normal Sensor operation to Manual override: Light ON for 4 hours

Switch the external wall-switch 4 times - i.e. switch OFF, ON, OFF, ON - in rapid succession (change each status within 0.5 sec - 1 sec). The manual override is now enabled and the load will be activated for 4 hours (Light will be ON for 4 hours). Normal sensor operation resumes after these 4 hours have elapsed.

2 x OFF/ON

4 hours
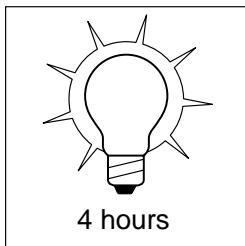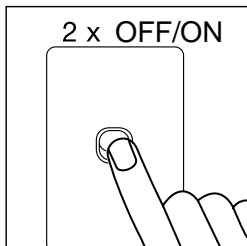
b) Change from Manual override to Normal sensor operation: Movement detection

Switch the external wall-switch 2 times – i.e. switch OFF, ON – in rapid succession (change each status within 0.5 sec - 1 sec). Normal sensor mode is now enabled and the load will be activated after movement detection for the selected time period (5 sec - 15 min).


1 x OFF/ON
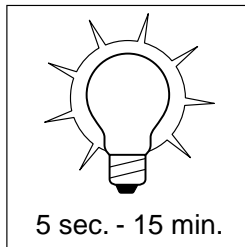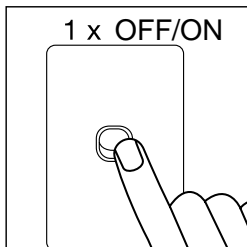
5 sec. - 15 min.

c) Switch light ON for selected time period. While the load is OFF, switch the external wall-switch 2 times – i.e. switch OFF, ON. The load will be activated for the selected time period (5 sec - 15 min).

d) Deactivation of sensor operation: Light permanently OFF. To switch the light permanently OFF, switch OFF the wall-switch.

Please note:

If the wall-switch is switched OFF for longer than 5 seconds, the sensor initialisation-phase as described in the previous chapter will be activated, as soon as the switch is closed again.
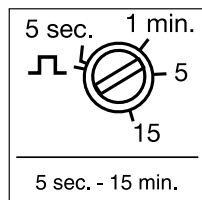
6.2 Lux Level Setting (figure 8, page 6)
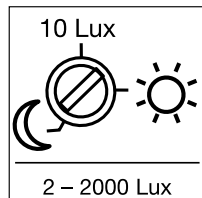
⑧ Factory setting: daylight operation 2000 lux.

The sensor's response threshold can be set to between approx. 2 lux and 2000 lux.

Note: The desired lux level value can also be set by remote control.

```
10 Lux

2 – 2000 Lux
```

6.3 Time Setting (figure 9, page 6)

⑨ Factory setting: approx. 10 sec.

The desired duration of illumination of the connected light is adjustable between approx. 5 sec. to max. 15 min.

Pulse mode: "⊓" The output is switched on for approx. 2 sec. (e.g. for an automatic stairwell system). Afterwards, the sensor does not react to movement for approx. 8 sec.

```
5 sec.    1 min.
                  5
          15
5 sec. - 15 min.
```

6.4 Sensing Range Adjustment (figure 10, page 11)
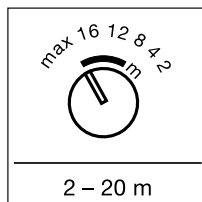
⑩ Factory setting: max. sensing range.

The sensing range can be adjusted in 3 directions by 3 control dials (100° respectively) independent from one another. The table shows the ranges with different mounting heights and tangential walking direction. The values apply with flat terrain and a temperature of 20°C.

```
max 16 12 8 4 2 m

2 – 20 m
```

Setting, control dial / mounting height	1.8m	Standard 2.5m	3m	5m
2	2m	2m	3m	4m
4	4m	4m	7m	12m
8	8m	7m	12m	>20m
12	13m	12m	>20m	>20m
16	19m	16m	>20m	- *
max.	>20m	>20m	- *	- *

* Not recommended, restricted detection.

Sensing Range Adjustment
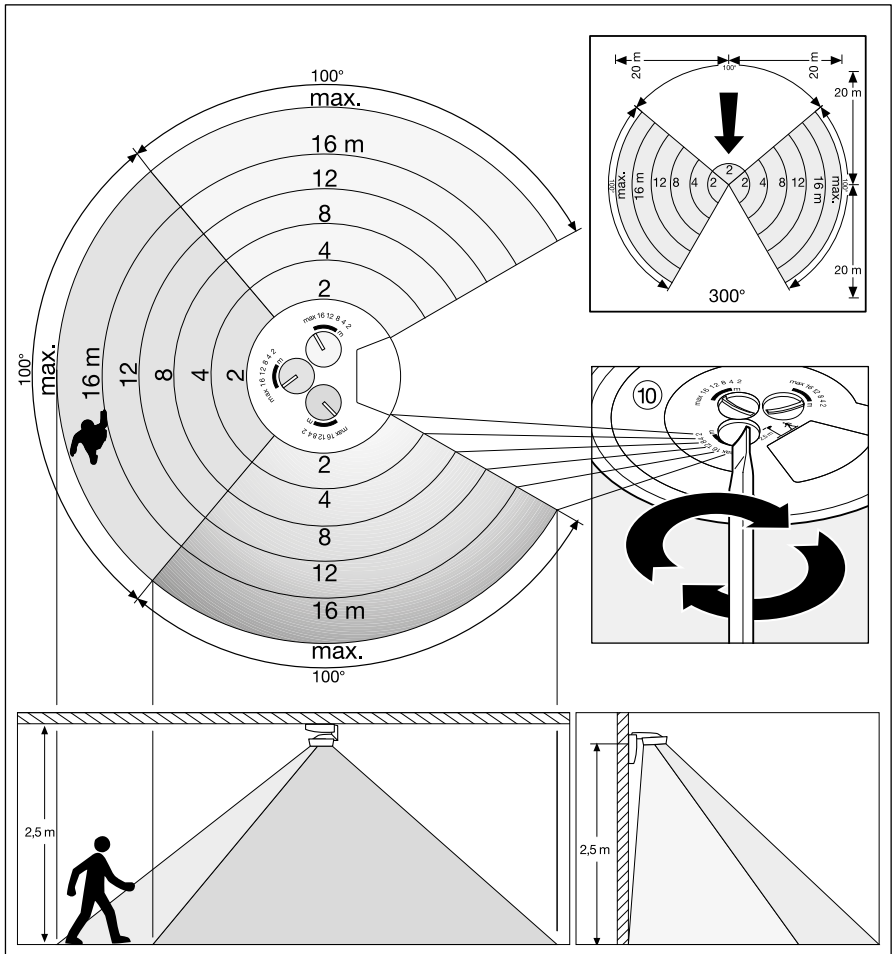
Zone Mask ⑪

If the independent setting capability of the three sensors is not sufficient, you can additionally apply zone masks (C), (D) and (E) to limit the detection zone in the way you require (see illustration on page 6). Zone masks (A) + (B) under the sensor significantly impair the detection of small animals. This will, of course, prevent detection by these lenses, particularly the anti-creep guard.

Note: Use of the zone mask (A) may prevent the remote control from working (see Fig. ⑪).

Hint: Apply a little water with mild cleaning agent to the lens and subsequently apply the zone mask. In this way, the mask does not firmly adhere immediately and you can conveniently make fine adjustments. Once the cleaner is dry, the mask adheres.

6.5 Remote Control Function

The Remote Control functions are described below.

Note: Any number of the Infrascan's can be controlled by remote control. Each Infrascan has a maximum of one remote control. When the remote control is used for the first time, the latter must be "taught". In order to do this, button **3** must be pressed within 10 min. of switching on the supply voltage. This operation can be repeated as often as desired. The last remote control saved always applies.

LED display

Each valid press of the button is indicated by a single flash of the red LED behind the lens. The LED sensor display is subsequently deactivated for approx. 5 sec. If the remote control has not yet been "taught", the LED flashes rapidly 3x at each press of the button.
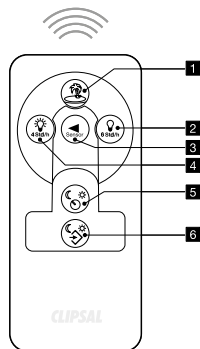
The following are special functions:
Holiday Function:	LED flashes rapidly 3x every 5 sec.
Manual Override:	LED permanently ON
Permanent Light OFF:	LED flashes every 2 sec.

1 Holiday Function
The Holiday Function simulates presence. Once the lux level threshold is reached, the connected load is programmed to switch ON and OFF for periods of approx. 3 hours. Normal sensor mode remains active.

LED displays: 3 x rapid flashing every 5 sec.

2 Light OFF for 6 hours (Manual Override)
By pressing, the connected light fixture is switched OFF for 6 hours. The sensor subsequently returns to sensor mode automatically.

LED display: flashes every 2 sec.

3 Reset Function
Press once to quit the Holiday, Manual Override and Permanent Light OFF functions. the previously set values apply again.

4 Light ON for 4 hours (Manual Override)
By pressing, the connected light fixture is switched ON for 4 hours. The sensor subsequently returns to sensor mode automatically.

LED display: permanently ON.

5 Lux Level Setting by the Potentiometer on the Device
By pressing the button, the twilight value set on the sensor is applied again. As soon as you change the Lux level setting on the device, this value will be adopted. Any adjustments of the remote control are ineffective.

6 Lux Level Setting by memory button
Under desired light conditions in which the sensor should subsequently react to movement, the button should be pressed. The current Lux level value is saved.

7.0 Troubleshooting

Malfunction	Cause	Remedy
Infrascan without power	• Fuse faulty, not switched ON, break in wiring.	• New fuse, turn on power switch, check wiring with voltage tester.
	• Short circuit.	• Check connections.
Infrascan will not switch ON	• Lux control set to night-time mode during daytime operation.	• Adjust setting.
	• Bulb faulty.	• Change bulb.
	• Power switch OFF.	• Switch ON.
	• Fuse faulty.	• Fit new fuse, check connection if necessary.
	• Detection zone not properly targeted.	• Re-adjust.
Infrascan will not switch OFF	• Permanent movement in the detection zone.	• Check zone or mask, adjusting if necessary.
	• Light being operated in the detection zone causing sensor to respond as a result of change in temperature.	• Change zone or mask.
	• Light being operated is in the manual override mode (LED ON).	• Deactivate manual override.
Infrascan keeps switching ON/OFF	• Lamp being operated in the detection zone.	• Change zone, mask or increase distance.
	• Animals moving in the detection zone.	• Change zone or mask.

Malfunction	Cause	Remedy
Infrascan responds when it should not	• Wind is moving trees and bushes in the detection zone.	• Change zone.
	• Cars in the street are being detected.	• Change zone.
	• Sunlight shining on the lens.	• Mount sensor in a protected place or change zone.
	• Sudden temperature changes due to weather (wind, rain, snow) or air expelled from fans, open windows.	• Change zone, change site of installation.
	• Unseen targets	• Check for animals, e.g. dogs or cats.
Change in sensing range	• Differing ambient temperatures.	• Adjust range by range controller ⑩, apply mask foils ⑪ if appropriate.
LED flashes rapidly when a remote control button is pressed	• Remote control not "taught".	• Disconnect the sensor from the power supply for approx. 5 sec. Switch on the voltage again and press the ◀(SENSOR) button on the remote control within 10 min.

8.0 Technical Specifications

Parameter	Value		
Nominal Operating Voltage	240 V∿		
Nominal Operating Frequency	50Hz		
Wiring Configuration	3-Wire Design		
Terminals Accommodate	1 x 2.5mm² (max)		
Compatible Loads		Incandescent Lighting Halogen 240V Lamps	2400W
		Fluorescent Lamps* (10AX @ cosφ 0.85) - Conventional Ballast (uncompensated, cosφ < 0.5) - Conventional Ballast (compensated, 45.6μF max) - Electronic Ballast (176μF max, 8 x 58W Ballasts)	1000W
		Low voltage lighting with electronic transformers (176μF maximum capacitive loading) (8 x LED Drivers maximum loading)	1000W
		Low voltage lighting with iron-core transformers	2000VA
		Compact Fluorescent Lamps (8 x CFL lamps maximum loading)	20W x 8 max.
Incompatible Loads	M	Small Motor Loads	N/A
Field of View	300° with 180° angle of aperture as well as anti-creep zone for coverage directly below the sensor. Capability of masking out individual segments.		
Sensing Range	2m – 20m.** Independently adjustable in 3 directions.		
Sensor Technology	Passive Infrared 4 sensors, 6 levels for long distance and 5 for anti-creep, 1360 switching zones.		
Time Setting	5 seconds – 15 minutes Pulse Mode (approx. 2 seconds)		
Lux Level Setting	2 – 2000 lux		
Manual override	ON: Selectable (4 hours)		
	OFF: Selectable (6 hours)		
Operating Temperature Range	-20 to 50°C		
Operating Humidity Range	10 to 90% R.H.		
International Protection Rating	IP54		
Dimensions (H x W x D)	144mm x 113mm x 172mm		
Safety Compliances	AS/NZS3100, IEC60669-2-1		
EMC Emission Compliance	AS/NZS CISPR15, IEC61000-3-2		
Specifications Typical @ 240V∿ 25°C			
No User Serviceable Parts Inside			

* Derate for use with fluorescent loads (cosφ < 0.5, 1000W max).

** The Infrascan incorporates temperature-stabilisation technology, however the sensing range may still vary depending on the operating temperature.

9.0 Three-Year Warranty

This Clipsal 757SRR Series Infrascan with Remote Control carries a three-year warranty against manufacturing defects.

Warranty Statement

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 the Clipsal by Schneider Electric product, that the consumer has in the location where the product is sold.

The warrantor is Schneider Electric (Australia) Pty Ltd, a member of Schneider Electric Industries SAS, with offices worldwide.

This Clipsal by Schneider Electric product is guaranteed against faulty workmanship and materials for a period of three (3) years from the date of purchase.

Schneider Electric (Australia) 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.

This warranty is expressly subject to the Clipsal by Schneider Electric product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions. Any alterations or modifications made to the product without permission of Schneider Electric (Australia) Pty Ltd might void the warranty.

Schneider Electric (Australia) Pty Ltd shall meet all costs of a claim. 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.

When making a claim, the consumer shall forward the Clipsal by Schneider Electric product to the nearest Clipsal by Schneider Electric office. Provide adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of the load and circumstances of the malfunction.

For all warranty enquiries, contact your local Clipsal by Schneider Electric Sales Office. The address and contact number can be found at the website www.clipsal.com/locations