

# MODEL SL150C OUTDOOR MOTION SENSOR LIGHT

# **SPECIFICATIONS**

- 1. POWER : 220V 240V ~ 50Hz.
- 2. 3 seconds to 10 minutes adjustable shut-off time.
- 3. 120 watts (MAX.) lighting load for halogen lights.
- 4. 90° elliptical view field, 12 metres forward.
- 5. Weather resistant.
- 6. LED Indication of PIR Stand-by and Activated Mode.
- 7. Detection range and light sensitivity adjustable.

# FUNCTION & CONTROL

- 1.TIME(②): Adjusts the infrared motion sensor's shut-off time. Light will remain on for the setting time interval after last motion is detected.
- 2.LUX(¤/D): The light sensitivity adjustment allows you to easily set the light so that it won't go on during daylight.



# **INSTALLATION**

Warning : If in doubt, the installation of the infrared motion sensor light should be carried out by a qualified electrician.

Before you begin, please verify the contents of this package. It should contain the following parts:(see Fig. 2)

LIST	PARTS NAME	QUANTITY	LIST	PARTS NAME	QUANTITY
А	Mounting Bracket	1	Н	Terminal Block	1
В	Halogen Light	1	I	Screw B	2
С	Screw A	2	J	Fixed Plate	1
D	Shakeproof Washer	2	К	Screw C	2
E	Nut	2	L	Screw D	2
F	Gland	1			
G	Rubber Washer	1			



- 1. Turn off the power at the main fuse box in your home(see Fig. 3).
- 2. Fix metal bracket on the wall with 2 Wood Screws (not included).
- 3. Fix halogen lamp to metal bracket with attached hardware.
- 4. Strip sheath and insulation of cable. Let conductors expose approximate 6 mm.
- 5. Open cover of connection box.
- 6. Lead power wire through attached grommet.
- 7. Connect wire to terminals as Fig. 4
- 8. Fix power cable (use plate. Ref K).
- 9. Close cover of connection box.
- NOTE: 1. If more range is required, try pointing the motion sensor slightly upward, so that the 3rd Level of vision can monitor an area above your head.
  - 2. Try to keep the quartz light as far away as possible from the motion sensor, as heat from the light may confuse the motion sensor.

WARNING !! THIS UNIT MUST BE EARTHED

#### CAUTION: PLEASE FOLLOW AC POWER CONNECTION LABEL MARKINGS. WRONG POWER CONNECTION WILL DESTROY THIS SENSOR UNIT.

## LOCATION SELECTION

Selecting A Location

1. When mounted at the recommended height of 2M, the detection pattern extends 12M. (see Fig. 5)











Fig. 4

- MOUNT ON STABLE SURFACE ■ AIMSENSOR DOWNWARD TO REDUCE RANGE AVOID REFLECTED LIGHT FROM ■ DON'T EXPOSE TO RAIN OR ROOFRUNOFF **BRIGHT SURFACES** 11 ■ MORE SENSITIVE TO MOVEMENT ■ POSITION SENSOR EXACTLY LEVEL ACROSS FIELD THAN INTO FIELD FROM SIDE TO SIDE ZAS ■ DON'T MOUNT ABOVE LAMPS ■ MAKE SURE LENS NEVER POINTS OR NEAR AIR VENTS DIRECTLY AT THE SUN
- 2. Before mounting the sensor on the wall or ceiling, please refer the figures below to prevent INCORRECT installation.

4

#### Adjustments:

**Time** ( $\bigcirc$ ) : The detector has an adjustable "Time ON" control from 3 sec. minimum to a maximum of 10 minutes (approx). Timer starts working after the last movement is detected.

While there is movement from a heat source in the detecting area the lighting will remain on and the time will keep resetting.

LUX(m/D) : The adjustment controls the sensitivity to the background light level at which the detector will operate automatically. It may be set to any level between 5 lux and full daylight. The unit will operate when it senses motion and the ambient light is at or below the chosen level.

#### LED Indication of PIR Stand-by and Activated Modes:

Internal LED indication (behind the lens) works with LUX(x/D) control. It will start blinking and detector will start reacting to motion objects when the ambient light level is lower than the detector's setting on LUX(x/D) control. It will remain On when detector is activated as long as the setting on Time(D) control.

NOTE: When the LED indication is Off, it means the ambient light level is higher than the detector's setting on LUX(a/D) control and detector won't react to any motion objects.



### Auto Mode.

- 1. Switch on supply and the detector will commence a 30-sec warm up period, during which the lamp may turn on and off.
- 2. Turn the "Time( $\oslash$ )" control to minimum and the "LUX(a/D)" control to maximum.
- 3. Walk in front of the detector until the light comes up. This checks the operation of the detector and the field of view. Once the light comes on, move to a new position and stand still until the light goes out, move again until the light comes on.
- 4. Repeat step 3 and adjust the angle of the detector until the optimum field of view is achieved.
- 5. Turn the "Time(O)" and "LUX(x/D)" controls to the desired positions
- 6. The detector is now in Auto Mode and will operate according to the preset time and ambient light adjustments.

#### Lights Permanently Off:

Turn the control switch OFF.

#### Light Permanently ON (Manual Override):

By flipping the connected power switch Off-On twice quickly, it will change from Auto Mode to PERMANENTLY ON Mode. Thanks to the custom designed IC for SL150C, the detector will return to "Auto Mode" i.e. light will go off automatically after two hours or by flipping power switch Off-On once instead.

IMPORTANT: If you find the light permanently On accidentally (not by the above method), please switch power Off for 3 second or so and then switch power On again, it shall return to Auto Mode and work normally.

## **Trouble Shooting:**

#### 1. Unit doesn't function at all / Lights won't come on

- Check wiring to unit to make sure that you have correct AC power at the unit.
- Check the wiring from the unit to the source of power to make sure you have wired the unit correctly.
- Check the ambient light control if it was set at your desired level

#### 2. Detector clicks but does not operate

- Check lamps are not broken.
- Check lamps tight in lampholders.

#### 3. Lights go on and off quickly

- Ensure light and heat are not being reflected back onto the detector. Check for white or reflective surfaces in protection pattern.
- Note the detector is more sensitive in cold weather

#### 4. Lights stay on

- Check unit has not gone into Manual Override mode.
- Light bulb sockets may be wired directly to the power source
- Recheck the wiring diagram
- Adjust time to minimum
- Ensure unit is firmly fixed to a solid object with no moving branches etc. in field of view.
- Ensure detector is not being activated by stray moving heat sources such as heating outlets, car etc.

#### 5. Lights switch on during storms

- Adverse weather conditions and temperature changes can result in unwanted activations.
- This can be minimized by mounting in a protected location

#### 6. Maintenance and repair

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

#### NOTE: This product is RoHS compliant

Due to our policy of continuous improvement we reserve the right to change specification without prior notice. Errors and omissions excepted. These instructions have been carefully checked prior to publication. However, no responsibility can be accepted by Challenger for any misinterpretation of these instructions.

7



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