

Solaira SMRTOCC60 PIR Controller

Installation & User Manual, 6kW

Issue 2

Feb-16

SAFETY WARNING!

- **ALL INSTALLATIONS/SERVICE MUST BE PERFORMED BY A LICENCED/CERTIFIED ELECTRICIAN**
 - **KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE**
-

SHOCK AND FIRE HAZARD:

- Serious injury or death could occur.
- Disconnect ALL power sources before removing cover. Power should only be re-connected after electrical installations are complete and cover replaced.
- Be certain the power source conforms to specifications outlined on heater label.
- Assure to connect green wire from heater to ground connection from electrical supply, not to a live or “hot” conductor.
- Follow state, provincial, local and national electric codes (NEC) including field certifications.
- Do not use locations containing hazardous or explosive atmospheres.

ELECTRICAL RATING:

- 208-240VAC 50/60Hz.

WARNING SERIOUS INJURY OR DEATH COULD OCCUR,
DISCONNECT ALL POWER PRIOR TO SERVICE



SPE-1000 Certified

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Introduction

The SMRTOCC60-6kW is part of a family of controllers designed to provide energy saving when used with quartz infrared halogen lamps or other heating and lighting products. The 'P' model has a built in PIR sensor allowing the lamps to automatically switch on only when people are present. In addition to the PIR, a temperature sensor monitors the outside temperature and inhibits the lamps when the temperature exceeds a pre-determined set point of between 5°C and 25°C.

The microcontroller-based unit incorporates zero-voltage switching and a soft-start function to eliminate the lamps' initial high inrush current – potentially increasing lamp life by as much as 30%. The lamps are switched on for a user-settable time period of between 5 and 30 minutes. This period is reset each time the PIR detects any further movement. Installation of the unit is simple and once installed is relatively maintenance-free.

Product Features

- Energy saving – only provides heat when people are present.
- Extends lamp Life.
- Temperature sensor – lamps inhibited when ambient temperature exceeds set point.
- Control up to 4 x 1500W lamps.
- Soft-start/zero-voltage switch-off.
- Low-cost.
- Easy to install.

Applications: patio areas, smoking shelters, restaurants, warehouses, workshops and garden Lighting.

Installation

Important: Read carefully the following information before installing the unit.

The passive infrared sensor (PIR) fitted in this unit detects changes of infrared energy through the Fresnel lens on the front face of the unit. The detection area and range depend significantly on its mounting position.

The PIR not only detects movement of the human body, but also other heat sources similar to the human body. To prevent false activation, the unit must not be located directly facing or in close proximity to the heater lamps. Avoid locating the unit near to heating flues/exhausts, air conditioning units, moving trees/bushes and reflective surfaces.

Note: The PIR cannot detect the presence of a human body that is not moving.

To prevent malfunction of the PIR sensor, avoid subjecting it to rapidly-changing temperatures, strong shock or vibration or high humidity and temperature.

Commissioning

Turn the lamp on-time preset (VR2) fully anti-clockwise to select 'walk test' mode (see diagram opposite).

Check the PIR sensitivity preset (VR3) is set to approximately the half-way position (default). The temperature set point preset (VR1) is ignored in 'walk west' mode – adjust this later.

Replace the lid and switch on the mains supply to the unit. The controller will remain idle for 60 seconds to allow the PIR sensor to stabilise. After 60 seconds, the detection area should be walk tested to verify the PIR's coverage. Each time the PIR detects sufficient movement, the lamps switch on for 5 seconds.

Note: Each time the lamps switch off, the PIR is inhibited for 5 seconds to prevent the change in infrared energy given off by the lamps from causing a false activation.

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Wiring

SAFETY FIRST

The Solaira SMaRT Timer is a high power electrical device and MUST ONLY BE INSTALLED BY A CERTIFIED ELECTRICIAN TO LOCAL AND NATIONAL ELECTRICAL CODE.

Warning! Isolate the mains supply before commencing any work on this unit. Ensure all earth wires are connected to maintain earth continuity to the lamp fittings.

Warning! Isolate the mains supply before commencing any work on the unit. Failure to do so could result in serious injury or fatality.

The unit is fitted with three cable glands. Only one cable should be fitted per gland to prevent degrading the unit's IP rating. To connect 4 lamps, refer to the 'Wiring Diagram' on the next page for an alternative configuration using two junction boxes.

The mains supply connects to the terminal block marked '**LINE**'. Connect the supply **LIVE** to the '**L**' terminal, **NEUTRAL** to the '**N**' terminal and **EARTH** to the '**E**' terminal.

The lamps connect to the terminal block marked '**LOAD**'. Connect the load **LIVE** to the '**L**' terminal, **NEUTRAL** to the '**N**' terminal and **EARTH** to the '**E**' terminal.

Important! Ensure all earth wires are connected to maintain earth continuity to the lamp fittings.

Check all wiring and make sure the cable glands are tightened.

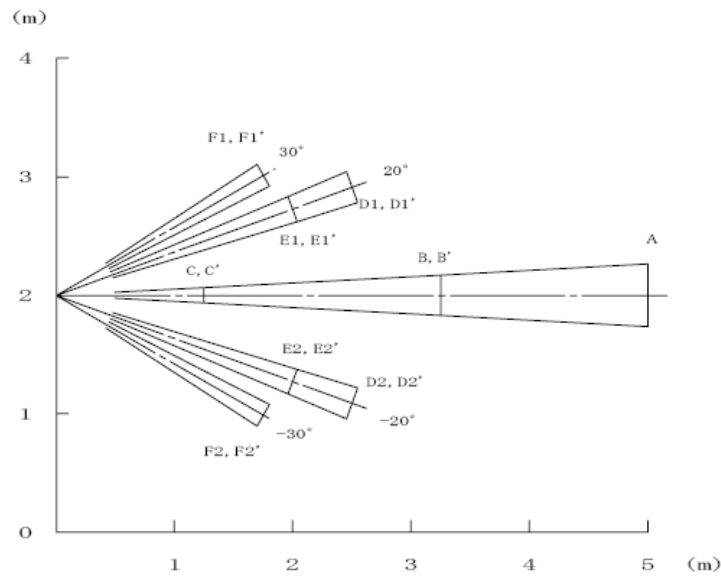
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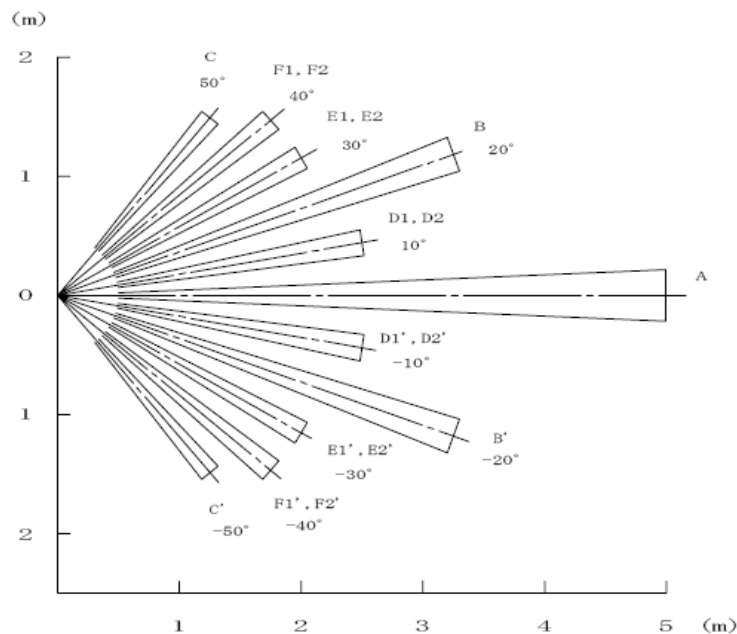
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PIR Detection area



Vertical



Horizontal

Positioning

The Infresco-P 6kW can be wall or ceiling-mounted. For wall-mounting, the unit should be positioned 1 to 3 metres high. The diagram above shows the PIR's detection area.

The unit should be fixed securely using the four mounting holes accessible from the front of the unit. Remove the lid to access the mounting holes. To ease installation, a mounting template is provided on the next page to locate the 4 mounting hole centres.

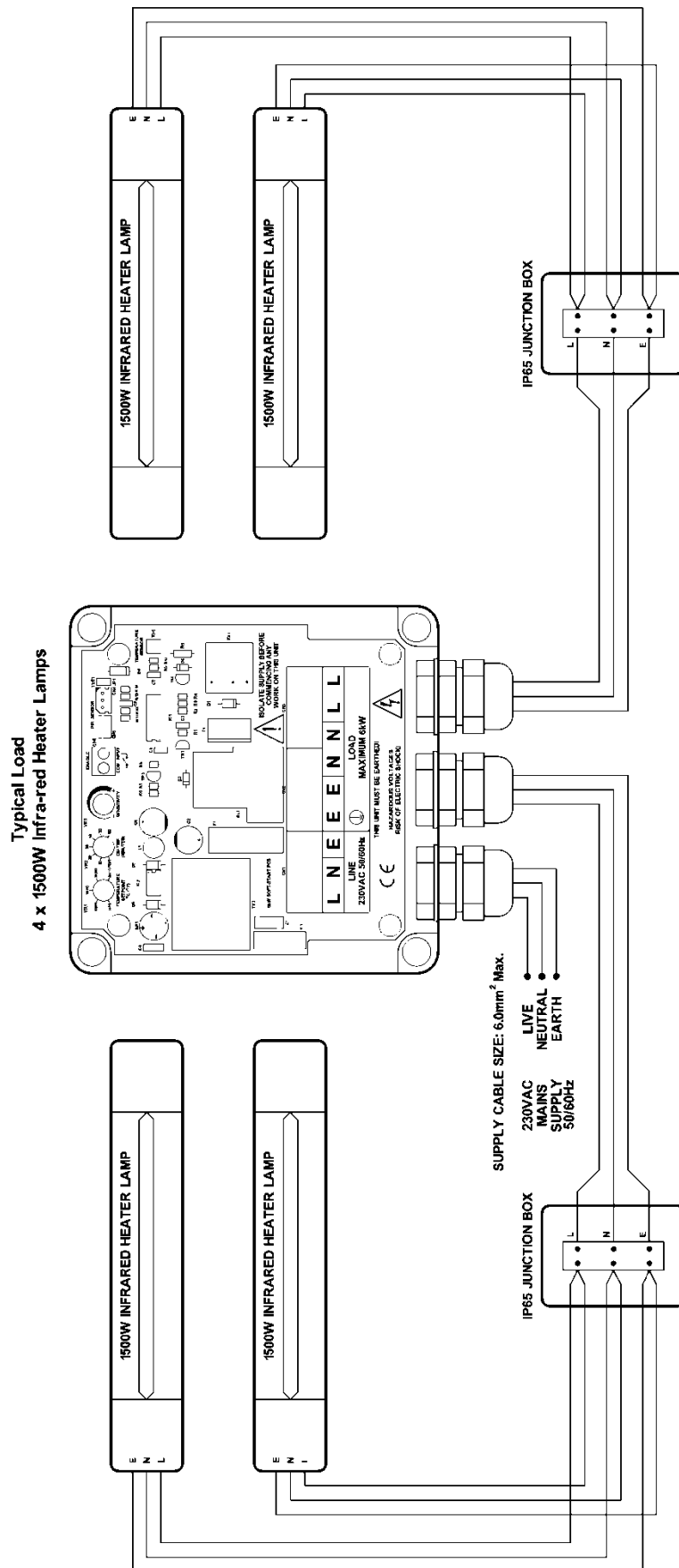
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Wiring Diagram



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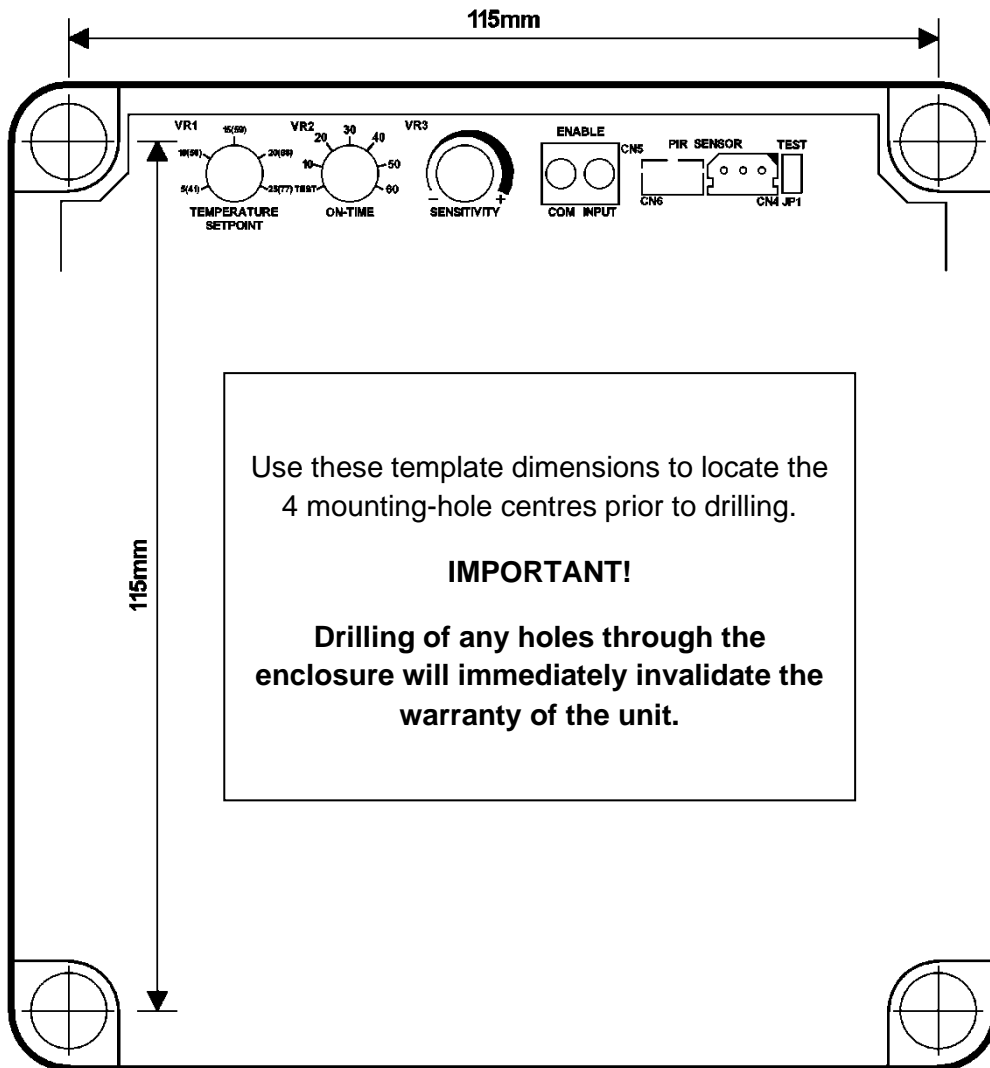
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Mounting template

IMPORTANT! When wall mounting, the unit must be orientated with the cable glands facing down.



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Warranty and Liability

LIMITATION OF LIABILITY

It is understood and agreed that seller's liability whether in contract, in tort, under any warranty, in negligence or otherwise shall not exceed the return of the amount of the purchase price paid by purchaser and under no circumstances shall seller be liable for special, indirect or consequential damages. The price stated for the equipment is a consideration in limiting seller's liability. No action, regardless of form, arising out of the transactions may be brought by purchaser more than one year after the cause of action has accrued.

WARRANTY

1. SOLAIRA CONTROL products are guaranteed to be free from mechanical and electrical defects for a period of one year from date of shipment under normal use and service provided installation is made in accordance with manufacturers' recommendations.
 2. Parts deemed defective shall be repaired or replaced at manufacturers option and at manufacturers expense but shall not include foreign or federal excise taxes, state or municipal sale or use taxes, all such taxes not limited to the foregoing being responsibility of the purchaser.
 3. No charge for travel and/or mileage will be allowed to purchaser.
 4. SOLAIRA reserves the right to make changes in design or make any improvements on any products. The right is always reserved to modify our equipment because of new technology, underwriter's requirements and/or government regulations.
 5. The following are not covered under warranty:
 - a. INSTALLATION OF CONTROL BY NON-CERTIFIED ELECTRICIAN.
 - b. Failure from neglect, abuse, careless handling and mis-application of unit.
 - c. Failure to observe guidelines for installation or improper voltage hook-up.
 - d. Failure caused by improper installation and not following local, state/provincial and federal electrical guidelines
 - e. Unless specifically allowed by SOLAIRA CONTROLS, no other charges may be included under warranty.
- Solairatm is a registered trademark of Inforesight Consumer Products Inc.
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