

SSH HEAT
HEATING



SSH OUTDOOR ECO SMART SERIES

MODELS

O 60-18

O 100-18

O 150-18



Thank you for purchasing SS Heat Products.
Our products have the highest certifications worldwide and are
manufactured under the strictest quality standards.

Before installation, please read this guide carefully for
an appropriate installation and later use.

If you have any questions regarding the installation or
use of the product, please contact us through our
website: SSHEAT.CO.UK or directly through your
distributor.

Thank you.

SMART SUN HEAT
Unit 4, Townley Park
industrial estate, Middleton,
Manchester, M24 2UF
www.ssheat.co.uk

Manual updated on 4 January 2016

CONTENTS

- 1. Safety warnings**
- 2. User's guide and guarantee**
- 3. Information about technology and technical specifications**
- 4. Installation**

1. Safety warnings

Before you connect the device, read this manual carefully.

CAUTION FOR HEATING PANELS

- ⊘ Do not spray the product with water or detergents during cleaning. Spilling water or detergents on the product may result in damage, such as colour changes and stains.
- ⊘ Do not cover the surface of the product while it is switched on. This may result in reduced performance and malfunction due to overheating.
- ⊘ Do not strike or place heavy objects on the product for storage. If these recommendations are not followed, it may result in damages and malfunction of the product.
- ⊘ If you see smoke when you first switch on the product, this is not due to it being defective or a malfunction. It is simply part of the initial process. If smoke appears, you must ventilate the room for at least 30 minutes.
- ⊘ Make sure you connect the product to the mains and install a differential circuit breaker as well as switches or chrono-thermostats.
- ⊘ Install wires appropriately and attach the electrical connection so that it is not exposed to moisture.
- ⊘ Do not use or store flammable substances, such as oils, insecticides, gas containers, etc. near the product. If these recommendations are not followed, it may result in explosions or fire.
- ⊘ Do not touch the product with your hands or other items while the plate is switched on. If you do not follow this recommendation, you run the risk of skin burns.
- ⊘ Do not disassemble or reassemble the panel. In particular, opening the panel and touching the electrical wires may result in electric shock. If the wiring becomes damaged or broken, contact the manufacturer, technical support or qualified personnel so it can be replaced. Do not damage the panels either by puncturing them, cutting them or striking them.
- ⊘ Do not cover the panels with other materials (clothing, adhesive tape, etc.). In addition to lowering efficiency, it may cause an accident and damage the system.
- ⊘ Panels are not designed to be used by unqualified persons such as people with physical, sensory or mental disabilities or minors, unless supervised or familiar with their use and accompanied by a person responsible for their safety.
- ⊘ Do not let children play with the device.
- ⊘ To use it in a bathroom, you must install the device in compliance with current regulations, so that switches and other controls are not within an area with a risk of splashing water or short-circuits.

WARNINGS FOR OPTIONAL THERMOSTATS

- ⊘ Keep them away from petrol or flammable substances.
- ⊘ In the event that the maximum kW capacity of the thermostat as specified on the product is exceeded, a magneto-thermal switch must be used.
- ⊘ Misuse, such as hitting or puncturing the thermostat may result electrical damage or accidents.
- ⊘ Follow the instructions in the manual for the thermostat.

2. User's guide and guarantee

Use of the device

- Switch on the panels using the switch, thermostat or timer. The heat will become more noticeable 5 minutes after turning on the device.
- To heat the room, the device emits infrared rays just like the sun. Take into account that, if you install the device on the ceiling, this must be done at an appropriate distance so as to maximise its effect. (For more details, refer to the "Installation" section).
- To switch off the heating panels, disconnect it from the mains using the switch, timer or thermostat connected to the device.

How to use the product while reducing electrical consumption

- This device contains no control device other than the one inside it. Optionally, it can be connected to indoor or outdoor temperature-control devices.
- Adjust the thermostat to the desired temperature. It is also possible to programme a schedule so it switches on and off automatically, reducing energy use.

Guarantee

- The guarantee period is of 2 years after receiving the device, subject to it being installed according to the guidelines in the installation manual, the user's guide and considering the normal use of the product, as described in this manual. Only the substitution or replacement of the product is included.
- For the guarantee to be valid and monitored, send a copy of your receipt to info@ssheat.co.uk.
- In the event of an incident during the guarantee period, you must contact the installer of the equipment and show a copy of the receipt. The receipt must show the serial number.

Heaters are not covered by the guarantee whenever:

- The damage has been caused by environmental conditions.
- Damages are caused by variations in the mains supply.
- The product is damaged by removal, disassembly and reassembly.
- The product is damaged due to handling or inserting foreign substances.
- The device is reinstalled without supervision by certified installers.
- The product or its components are damaged due to misuse by the customer, flooding, earthquakes, fire, etc.

3. Information about technology and technical specifications

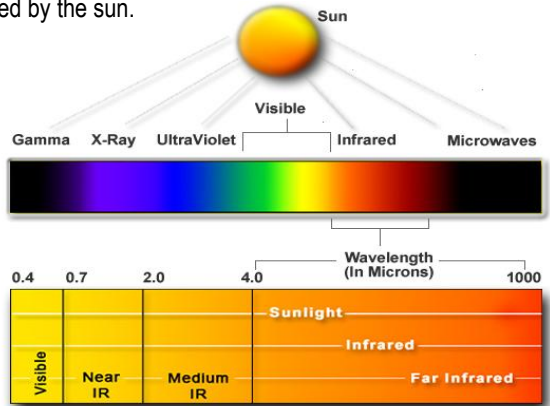
SS Heat Technology

This is an innovative heating system based on pioneering research on heat transfer. The main innovation is that it achieves significant savings by using 95% of the energy, mainly due to the fact that, instead of using air as a means to transfer heat, it directly heats the surfaces of bodies, the ground, walls, objects, people, etc., which, in turn, heat the environment in a healthy and natural way.

SS Heat technology offers significant savings of up to 50% compared to other heating systems.

Smart Sun Heat emits heat in the low portion of the long-range infrared spectrum, using the invisible wavelength used by the sun to heat items, offering, in addition to significant energy

savings, some of the health benefits of the sun without any of the risks. This is due to the emission of this special type of low-frequency, long-distance infrared waves, which are similar to some of those emitted by the sun.



SS Heat Technology Advantages

- Low investment and fast amortisation due to its low energy consumption.
- It imitates the process used by the sun to heat the Earth, emitting heat in the low range of the infrared spectrum.
- Energy savings.
- It increases available space as it does not require boilers, radiators, split units, compressors or gas bottles.
- Maximum energy efficiency
- Completely silent heating that generates no noise or vibrations.
- Electrical heating suitable for use in high-moisture environments (IP 55 certification), reducing moisture in the walls and floors of the room.
- It requires no maintenance, reviews or inspections as it features no moving parts.
- It requires no construction work or pre-installation, it just needs to be connected to the mains.
- It heats bodies without generating draughts. Therefore, it does not move dust around, making it particularly beneficial for people with breathing problems or allergies.
- Reduced size and low weight.
- It improves aesthetics as it does not require the installation of radiators or split units.

Technical specifications by model:

MODEL	POWER	CURRENT	DIMENSIONS	WEIGHT	OUTSIDE AREA HEATED	
OUTDOOR S	Wh	Amperes	cm	kg	Fom m2**	Up m2 **
O 60-18 SR/52	1100	4,8	60 x 18 x 7	4	4	7
O 100-18 SR/51	2000	8,7	150 x 18 x 7	6	8	13
O 150-18 SR/53	2600	11,3	150 x 18 x 7	8,3	10	17

**The estimated coverage area of each panel will depend on: the climatic zone, whether there are partial enclosures, etc. Authorised installers and our technical department will offer you the best solution.

4. Installation

ALL ELECTRICAL CONNECTIONS AND INSTALLATION MUST BE CARRIED OUT BY A COMPETENT AND CERTIFIED ELECTRICIAN IN ACCORDANCE WITH CURRENT LEGISLATION/REGULATION

Box contents

- 1 X SS HEAT heating panel.
- 2 X sliding brackets.
- 2 X large adjustable perforated brackets, to attach to the wall.
- 2 X small adjustable perforated brackets, to attach to the panel.
- 4 X screws + 4 nuts, to join both perforated brackets.
- 4 X nuts, to attach the sliding brackets to the small perforated brackets.
- 1X this manual.

Electrical requirements

SS Heat panels must be connected to an earthed electrical circuit for each area, activated by a differential circuit breaker and protected by magneto-thermal switches at the control panel for the room. In the case of using multiple panels within a single area, it is recommended for them to be installed in two lines, each of them supplying power to alternating panels with an independent magneto-thermal switch so that, if less power is required, only half the panels can be activated.

- Before installation, verify the proper operation of the earth connection, electrical capacity and existing consumption.
- SS Heat assumes no liability for any problems caused by a defective installation or due to installation without adequate earthing.
- If necessary, it is recommended for you to define independent electrical circuits (this will depend on the number of heating panels and electricity requirements). Disconnection means must be incorporated into the wiring according to safety regulations.
- It is not recommended for the circuit to be shared with other electrical products.
- It is essential to connect the system to earth and dimensioned differential circuit breakers, according to the specifications of each device installed.
- Please check cables and connection to the power supply before installation.
- If the mains cable becomes damaged, the panel must be replaced to prevent hazardous situations.

Installation with respect to lighting systems

- The plates must be installed a minimum of 30 cm away from lights.
- Do not install lights or any other item on heating plates.

Location of the plates and warnings.

- SS HEAT panels are infrared heating systems designed to be installed mainly on ceilings, either as main or complementary heating (they are recommended for covered terraces, homes, warehouses, greenhouses, etc.).
- In small spaces, the installation of the panel at the centre of the ceiling will offer greater heating efficiency.
- In installations inside buildings, avoid installing panels above large windows or sliding doors.

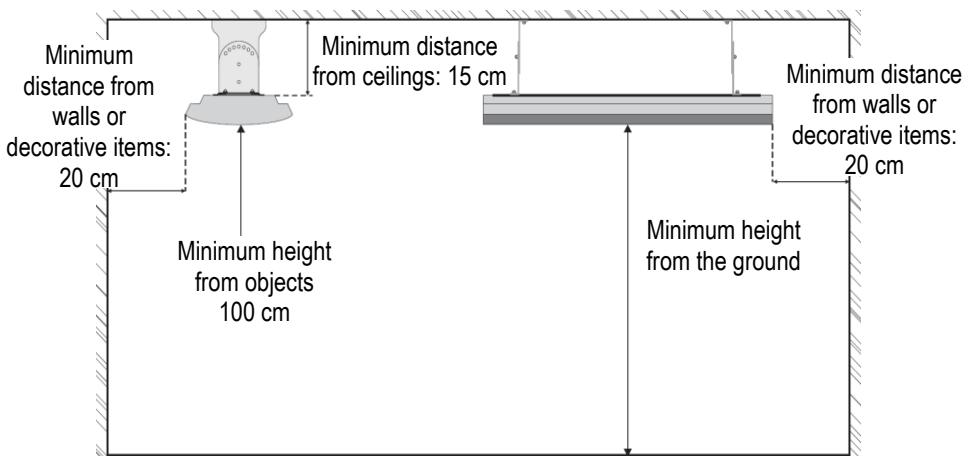
- Do not damage or puncture plates.
- To prevent overheating, do not cover the plates.
- Keep flammable products away from the heating panels.
- This appliance is not designed to be used by people with physical, sensory or mental disabilities or lacking experience and knowledge, unless supervised or instructed about the use of the appliance by a person responsible for their safety.
- These heaters feature IP 55 water protection, which means they are protected from water and they are not affected by rain, snow or humidity. To maintain this water resistance, the plates must be installed perpendicularly to the ground or at a maximum inclination of 30 degrees on a line perpendicular to the ground.

Warnings about the choice of location and minimum separation distances from wall or ceiling brackets

- The product must be kept at a minimum distance of 100 cm from flammable products.
- If you install a thermostat, do not install it in hot or humid places and always inside the area of influence of 40 degrees within the area of heat projection.
- The product should not be installed under a mains socket.
- If you need maximum humidity protection, the maximum inclination must be 35 degrees from a vertical line from the ground.

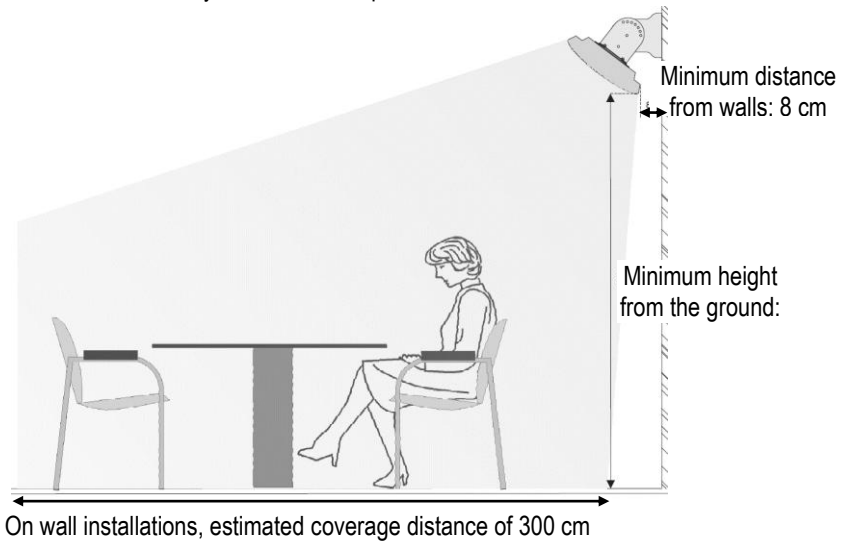
Location of heaters on ceilings and structures

- In ceilings and structures, the ideal mounting height **to obtain maximum efficiency should be from 2.2 to 2.5 metres** from the ground to the bottom of the plate. However, in well insulated indoor spaces, this height may be up to 2.9 metres. Outdoors, this height may be reduced to no less than 2 metres in cold areas, if you need to increase thermal sensation.



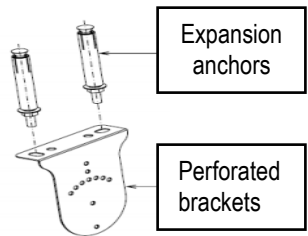
Recommended distances for placing heaters on walls:

- In walls and lateral extructures, the ideal mounting height to obtain maximum efficiency should be from 2 to 2.2 meters from the ground to the bottom of the plate. However, in well insulated indoor spaces, this height may be up to 2.6 m. Outdoors this point it may be reduced to not less than 1.8 meters in very cold areas if required increase the thermal sensation.

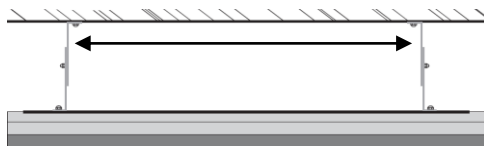


Installation Steps

- To attach to the wall or ceiling, attach the two larger perforated brackets from the 4 supplied brackets using expansion anchors. These anchors will depend on the material where the panel is mounted and must withstand the weight of the device. Therefore, they are not supplied with the device. Likewise, in exceptional cases, anchors must withstand part of the heat from the panel, so the use of metal anchors is recommended.

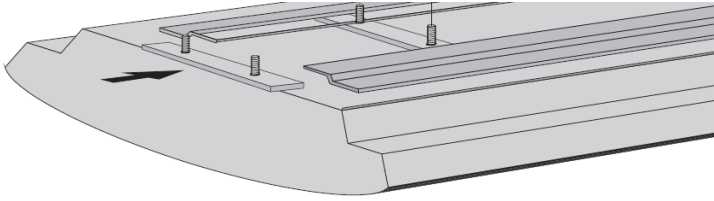


The distance between both brackets must comply with the maximum and minimum distances required depending of each SS HEAT model:

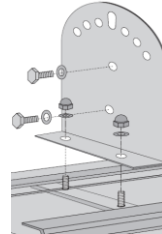


SS HEAT MODELS	MAXIMUM	MINIMUM
O 60 / O 70	370 mm	300 mm
O 100 / O 110	850 mm	350 mm
O 150 / O 160	1250 mm	450 mm

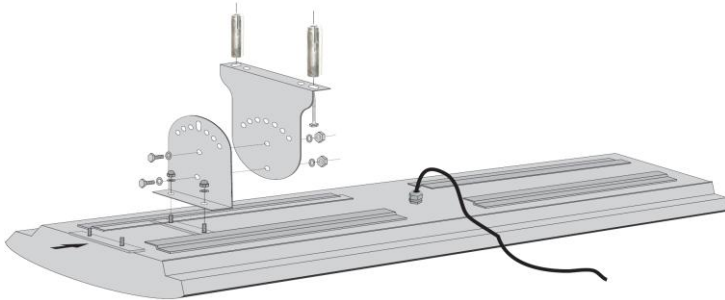
- Installation of the sliding bracket with two heads screwed to the heater.



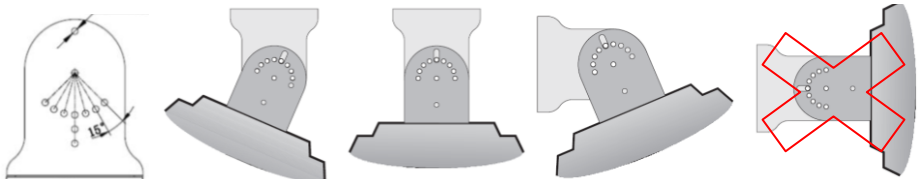
- Attach the sliding bracket to the smaller adjustable perforated bracket at an incline, using the supplied screws.



- Attach both brackets screwed according to the required inclination angle.

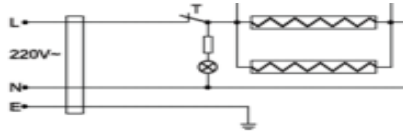


- Possible inclination angles for panels in case of installing outdoors or in places requiring the maintenance of IP55 water protection shall always have an incline lower than 35 degrees. To make adjustment easier, each screw allows for adjustment in 15-degree steps. It is not recommended for the plates to be installed vertically since, in addition to losing water protection, some of the heat will be radiated to the ceiling.



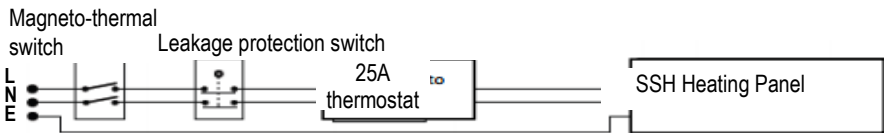
Electrical connections

- Ensure that the mains supply matches the requirements of the plate(s) to be installed, voltage and capacity, depending on the model. Also ensure that the connection is earthed.
- Install wiring for connection to the mains, using supply cables that comply with standard IEC 60245 66 and have a minimum thickness of 2.5 mm. In the case of installing multiple plates connected to the same wire, its size must match the type of installation, following the instructions of the authorised installer.
- Internal wiring diagram:

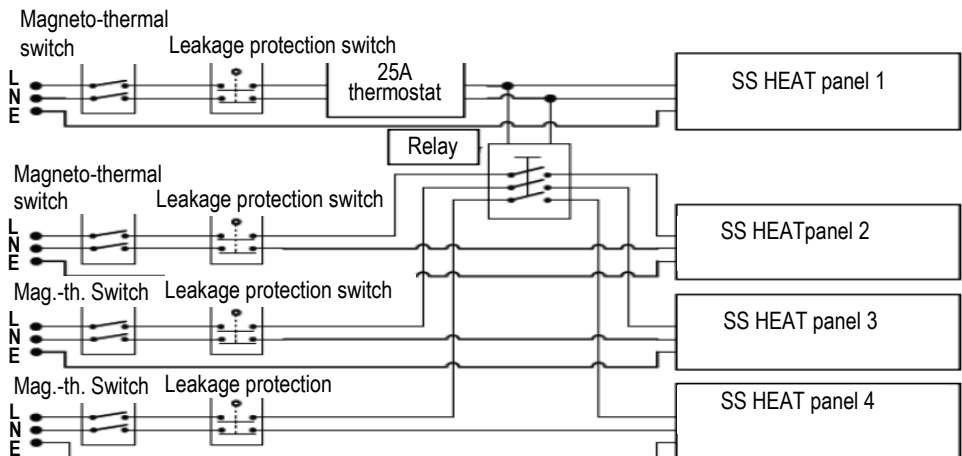


- Heaters can be controlled through optional thermostats. Speak to your authorised SS HEAT installer to obtain the most appropriate one.

Sample wiring diagram for the connection of one SS HEAT panel with a thermostat



Sample wiring diagram for the connection of several SS HEAT panels with a thermostat





SS HEAT, THE LEADING BRAND IN ENERGY-EFFICIENT HEATING SYSTEMS

WE INVITE YOU TO VISIT OUR WEBSITE
SSHEAT.CO.UK <http://www.ssheat.co.uk/>
WHERE YOU CAN ACCESS THE LATEST NEWS
ABOUT ENERGY-EFFICIENT HEATING SYSTEMS
FOR INSTALLATION
INDOORS AND OUTDOORS

This document contains confidential information property of Smart Sun Heat Ltd.
The supply of service and the performance described herein will depend on the specific conditions of each project. The use or reproduction of this document, in whole or in part, is strictly prohibited for any other purpose. To obtain authorisation for the use of this information or any additional clarification, contact:

Advice and support

SS Heat has a support and advice service available to customers and installers. If you require additional assistance or information, please contact:

Email: Info@ssheat.co.uk

Phone: 0161 6436981