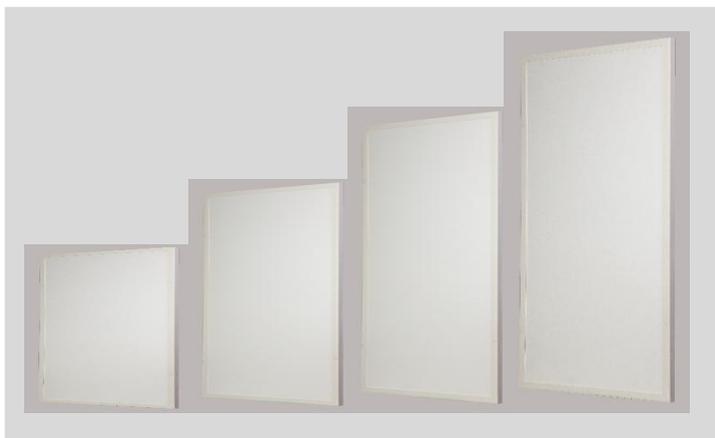


# SSH HEAT

HEATING



## SSH INDOOR SERIES

### MODELS

60-150    60-120  
60-90    60-60



Manual updated on 4 January 2016

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: [www.ssheat.co.uk](http://www.ssheat.co.uk) or directly through your  
distributor.

Thank you.

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# 1. Safety warnings

## BEFORE YOU CONNECT THE DEVICE, READ THIS MANUAL CAREFULLY

### WARNINGS

- ⊘ Do not spray the panels with water or detergents during cleaning.
- Spilling water or detergents on the panels may result in colour changes and stains.
- ⊘ Do not cover the surface of the SSH panel while it is switched on.
- This may result in reduced performance and malfunction due to overheating.
- ⊘ Make sure you connect the SSH panel to the mains and install a differential circuit breaker as well as switches or chrono-thermostats.
- Misuse may result in accidents due to malfunction, such as electric shock, fire and others.
- ⊘ Since the SSH panel is designed to be used while hanging from the ceiling, it must not be mounted on the floor or on a wall.
- If you do not follow these instructions, you run the risk of burns.
- ⊘ Install wires appropriately and attach the electrical connection so that it is not exposed to moisture.
- If you do not follow these recommendations, it may result in electric shock due to malfunction of the SSH panel.
- ⊘ Do not use sprays or flammable insecticides near the SSH panel.
- If you do not follow these recommendations, it may result in fire and explosions.
- ⊘ Do not place flammable substances near the SSH panel, such as oils, gas containers, sprays, etc.
- If these recommendations are not followed, it may result in explosions or fire.
- ⊘ Do not strike the SSH panel.
- If you do not follow the instructions appropriately, there may be some risks due to malfunction.
- ⊘ The panels are not designed to be used by children or ill people with limited abilities.
- Use of SSH panels must be supervised by a responsible person in order to guarantee that the device can be used safely.
- ⊘ Do not touch the SSH panel 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.
- ⊘ If the wiring becomes damaged or broken, contact technical support or qualified personnel so it can be replaced.
- Do not disassemble the panel. Opening the panel and touching the electrical wires may result in electric shock.
- ⊘ 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.
- ⊘ Do not use the SSH panel in areas where it may be splashed by water.
- To use SSH panels 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.

### **Damaged or defective SSH panels 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 SSH panel is damaged by removal, disassembly and reassembly.
- The SSH panel is damaged due to handling, the insertion of foreign substances or perforation of the panels.
- The device is reinstalled without supervision by certified installers.
- Damages to the SSH panel or its components due to misuse by the customer.
- Flooding, earthquakes, fire, etc.

### **Thermostats**

In case the installation include optional thermostats:

- Follow the instructions in the manual for the thermostat.
- Keep flammable substances away from the Thermostats
- In the event that the maximum capacity of the thermostat as specified on the SSH panel is exceeded, a magneto-thermal switch must be used.
- Misuse of the thermostat may result in accidents.

### **Storage**

- Do not place heavy items on the SSH panel for storage as they may cause damage or malfunction of the SSH panel.
- For storage, do not stack more than 10 plates at the same time.
- Keep stored plates away from moisture.

## **2. User's guide and guarantee**

### **Components included in each box**

- 4 X SS HEAT direct heat radiation plate
- 4 X Plastic trims to cover the screw holes after installation.
- 1 X this instruction manual.

### **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 similar to the sun. Take into account that, when 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 SSH panel while reducing electrical consumption**

- This device contains no control device. Optionally, it can be connected to thermostats or domotic systems for automatic connexion and temperature control.
- 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 SSH panel, as described in this manual. Only the substitution, repair or replacement of the SSH panel are included.
- In the event of an incident during the guarantee period, you must contact the installer of the equipment and give a copy of the receipt. The receipt must show the serial number.
- SS Heat assumes no liability for any problems caused by power surges in the mains.
- Damages caused to the plate caused by any of the following are expressly excluded from the guarantee: Accidents, fire, liquids, chemical products, other substances, flooding, vibrations, electrical overloads, excessive or incorrect voltage, radiation, electrostatic discharges including rays, other external forces and impact.

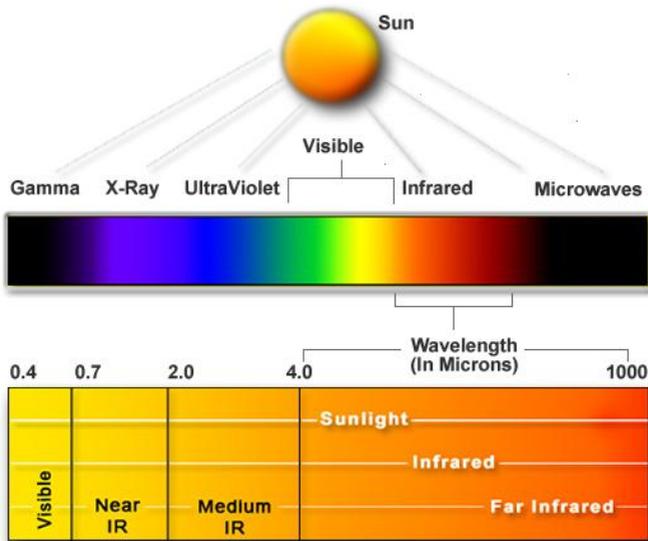
## **3. Information about technology and technical specifications of the device**

### **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 savings of 35% to 50% compared to other heating systems.



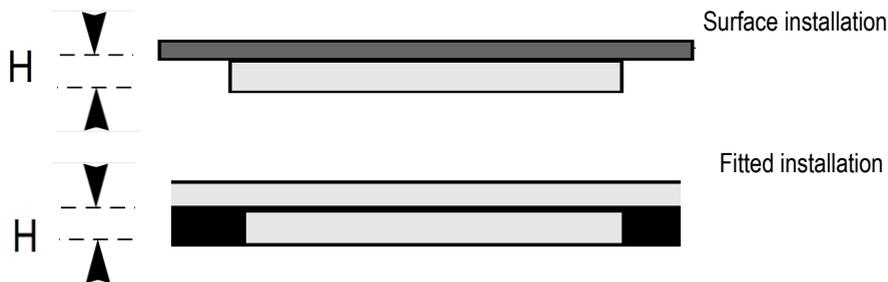
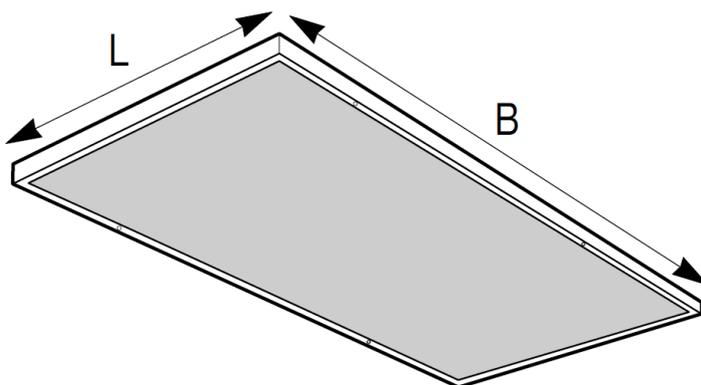
Smart Sun Heat emits heat in the low portion of the long-range infrared spectrum, between 4 and 14 $\mu$ m, using the invisible wavelength used by the sun to heat items, offering, in addition to significant energy savings, some of the health benefits of the sun without any of the risks. This is due to 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

- Green technology that reduces energy consumption, not consuming oxygen or emitting any type of polluting gas.
- Maximum safety as it does not require any flammable fuel or reach high temperatures.
- 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, between 4 and 14 nano-meters.
- 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.
- 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:

SSH PANEL MODEL	SSH SERIES INDOOR	POWER Wh	INTENSITY Amps	SIZE B x L x H Cm	WEIGHT kg
60-60 SR/3	SMART	450	2.0	59.8 x 59.8 x 2	1.8
60-90 SR/4	SMART	600	2.6	89.8 x 59.8 x 2	2.4
60-120SR/5	SMART	800	3.5	119.8 x 59.8 x 2	3.1
60-150SR/6	SMART	900	3.9	149.8 x 59.8 x 2	3.8



## 4. Installation

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

SS Heat puts its technical department at your disposal to advise you about the optimal size and location for your installation.

### **Electrical requirements**

- SS Heat panels must be connected to an 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.
- The energy source for the infrared panels is electricity. Please review this manual or the website to get to know the specifications of each of the panels.
- Before installation, review the electrical capacity and existing consumption. Capacity will depend on the diameter of the electrical conductor and the internal wiring.
- SS Heat recommends that you obtain advice from a certified electrical installer.
- If necessary, it is recommended for you to define independent electrical circuits (this will depend on the number of heating panels and electricity requirements).
- It is not recommended for the circuit to be shared with other electrical equipment.
- Disconnection means must be incorporated into the wiring according to safety regulations.
- The mains cable must 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.

### **Precautions for the choice of location**

- The SSH panel must be installed more than 2.5 metres from the ground and at least 40 cm away from the wall.
- The SSH panel must be installed horizontally.
- The SSH panel must be kept at a minimum distance of 100 cm from flammable products.
- Please check cables and connection to the power supply before installation.
- Do not install the thermostat in warm and humid places. (However, the thermostat must be placed close to the SSH panel installation).
- The SSH panel must be installed with individual wiring as it is not convenient for the SSH panel and the switch to be installed in the same place.
- Please be careful not to contaminate the surface of the SSH panel during installation. (Use appropriate clean gloves to handle the SSH panel).
- Please follow the instructions in the manual for installation or consult SS HEAT authorised installers.
- The SSH panel should not be installed under a mains socket.
- If you need to replace the wiring, contact the manufacturer, technical support or an authorised distributor.

## Recommendations for the location of panels

- SS HEAT panels are heating systems that use direct heat irradiation so it is recommended for you to install them on ceilings either as the main heating system or as supplementary heating.
- In small spaces, the installation of the panel at the centre of the ceiling will offer greater heating efficiency.
- Avoid installing panels above large windows or sliding doors.
- Do not install lights or any other item on heating plates.
- If possible, install the panel over 50 cm away from each wall.
- The plates must be installed a minimum of 10 cm away from lighting systems.
- The SSH panel must be kept at a minimum distance of 100 cm from flammable products.

## Recommended plate locations:

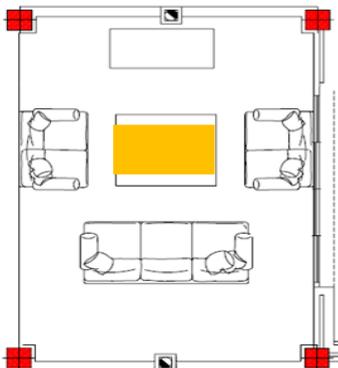


Figure 1

As long as this does not affect the aesthetics of the room, it is recommended for the narrower side of the plate to be placed parallel to the window, as shown in figure 1.

If the larger side is installed parallel to the window (figure 2), there will be greater losses as infrared rays can go through glass.

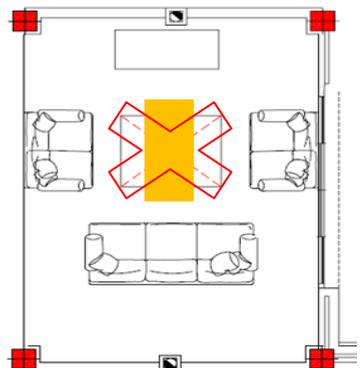


Figure 2

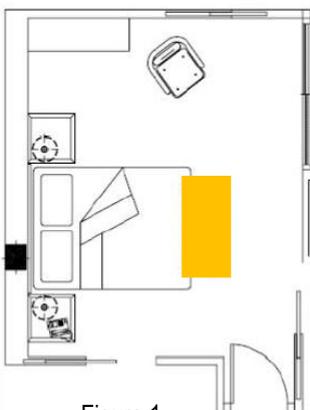


Figure 1

In the bedroom, you must prevent the greatest heat to be produced on the bed. Therefore, it is recommended for the plate to be installed at the foot of the bed, as shown in figure 1.

If it is installed as in figure 2, comfort will be reduced as heat will be radiated directly to people at night.

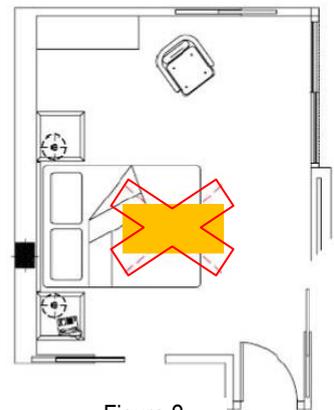
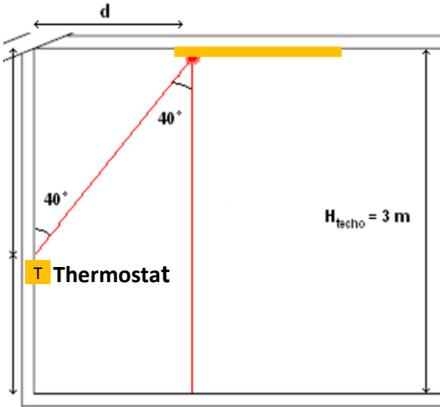


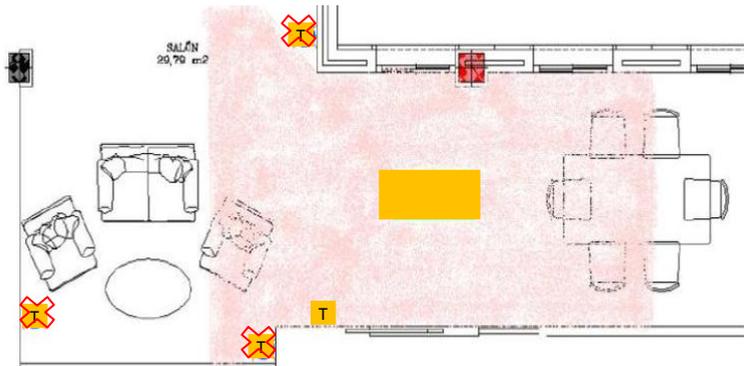
Figure 2

## Location of the thermostat

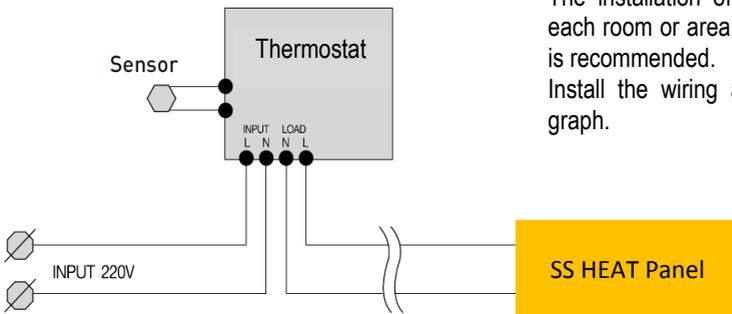


SS HEAT heating panels only heat air indirectly. Therefore, for the thermostat to function properly, it is essential for it to be placed in the area that heat reaches directly. Taking into account that the aperture angle of the area heated by each plate is of 40 degrees, according to the example, on a ceiling with a height of 3 metres and a distance between the plate and the wall of 150 cm, the thermostat must be placed over 130 cm from the ground.

Install the thermostat within the visible area of the panel. Avoid installing it in corners or places far away.



## Thermostat installation



The installation of a thermostat in each room or area you wish to heat is recommended.

Install the wiring according to the graph.

## Installation of plates

Using your clean hands or gloves:

1. Remove elements protruding from the ceiling, dirt and any other element that could prevent the appropriate attachment of plates to the ceiling.
2. Mark the position of the plate, marking the location of fixing screws. Drill the appropriate holes and use appropriate and high-quality anchors according to the type of ceiling and weight of the plates.
3. While disconnected from the mains, connect the installation wires to the plate wires using an approved screw terminal.
4. Secure the plate to the ceiling using appropriate screws that match the anchors used. If installed suspended from the ceiling, use steel wire or steel rods to ensure that the plates are at the recommended height, lower than 2.8 m if possible.
5. While disconnected from the mains, connect the plate wires to the wires that connect the plate section on the ceiling to the thermostat.
6. Cover the screw holes with the trim caps included in the box and clean the plate.
7. Connect the wires to the thermostat or home automation system, close the covers, connect to the mains, verify that the plates are working correctly and programme the thermostat (see thermostat programming recommendations in the next section).



## Thermostat programming recommendations.

SS HEAT systems do not move air so that the thermal sensation at the same temperature is greater than that from other heating systems (preventing the effect of fans in the summer). Therefore, a comfort temperature of 20 to 24 °C and a savings temperature of 17 to 19 °C are recommended, usually: 17 °C.

These recommended temperatures are only guidelines. The final optimal temperatures will depend on the room type, relative humidity in the air and the preferences of each user.



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