



THE TOTAL ELECTRIC HEATING SOLUTION



Recessed Warm Ceiling Heater

Installation and Operating Manual

Model:

HSRCH3000RF

All electrical appliances produced by the company are guaranteed for two years against faulty materials or workmanship. This applies only if the appliance has been used for purposes in accordance with the instructions provided and has not been connected to an unsuitable electricity supply, or subject to misuse, neglect, damage or modified or repaired by any person not authorised by us. This guarantee is offered to you as an extra benefit and does not affect your legal rights. The correct electricity supply voltage is shown on the rating label attached to the appliance. Reasonable care has been taken to ensure that this guide is accurate at the time of printing. In the interest of progress the company reserve the right to vary specifications from time to time without notice.

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1. General Information

1.1 Warnings

All installations must be in accordance with the regulations. These instructions must be handed to the user on completion of the installation. Installers and service engineers must be able to demonstrate competence and be suitably qualified in accordance with the regulations. To ensure continued and safe operation, it is recommended that the appliance is serviced annually. The heater's outlet/inlet grilles must not be obstructed during use. Any modifications made to the unit and not approved by Heatstore will void manufacturer's warranty and potentially create a hazard. The appliance is NOT intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge unless they have been given instruction concerning use of the appliance by a person responsible for their safety.

1.2 Health and Safety

Please read these instructions thoroughly before installing the appliance. Sole liability rests with the installer to ensure that all site safety procedures are adhered to during installation. Sole liability rests with the installer to ensure that protective safety wear such as hand, eye, ear and head protection is used during installation of the product. Ensure that all anchorage points are suitable for the weight of the appliance. Do not rest anything, especially, ladders against the product.

1.3 Location

All units should be installed horizontally. Care must be taken to allow completely free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. If the HSRCH3000RF is heaters are mounted close to the wall or corner, the discharge o



WARNING
THIS HEATER SHOULD NOT
BE INSTALLED WHERE THERE IS
A CORROSIVE ATMOSPHERE
OR EXCESSIVE DUST.



2. Introduction

2.1 Introduction

This instruction manual describes the Heatstore Recessed Warm Air Ceiling Heater. The heater is designed for discreet positioning in a suspended 600mm ceiling within retail or commercial premises. It can fit a recess as shallow as 210mm.

- 3kW rating
- Quiet operation
- Sealed heater box for improved energy efficiency
- LED indicator light
- Complete with white aluminium diffuser

Controllers aren't supplied with the heaters and have to be purchased separately.

2.2 RF wireless controllers

The heaters HSRCH3000RF, can be controlled by any Heatstore wireless controller. Each controller can control any number of heaters providing they are within the 10m RF range. For more details please follow the instructions supplied with the controller.

The heaters will not work without a controller.

2.4 Electrical Supply

Electrical supply is 230/240V single phase, Neutral and Earth. The maximum cable inlet size is 4mm². Electrical connection are located under the cover on the side of the heater.

The appliance shall be connected to the supply via an appropriate switched fused double pole isolator having a contact separation of greater than 3mm.



There are no exceptions.

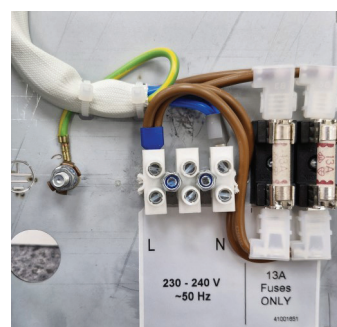


For connection to the mains supply it will be necessary to open the terminal cover at the side/back of the unit. For safety reasons, a sound earth connection must always be made to the unit before it is put to use. The unit should be wired in accordance with IEE Regulations for the Electrical Equipment of Buildings.

Fig.1.0 Heater with terminal cover open



Fig.1.1 Terminal cover detail



3. Dimensions & Fixing locations

It is recommended that a minimum clearance of 50mm is allowed around the case and 35mm above the heater. The clearance allows for cable entry and prevents combustible surfaces overheating. The minimum mounting height (floor to grille) is 2.2m for the HSRCH3000RF.

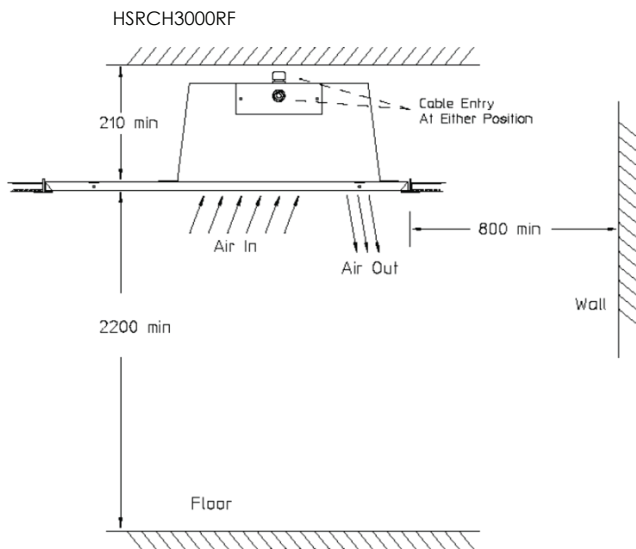


Fig.2.0 HSRCH3000RF
mounting specifications

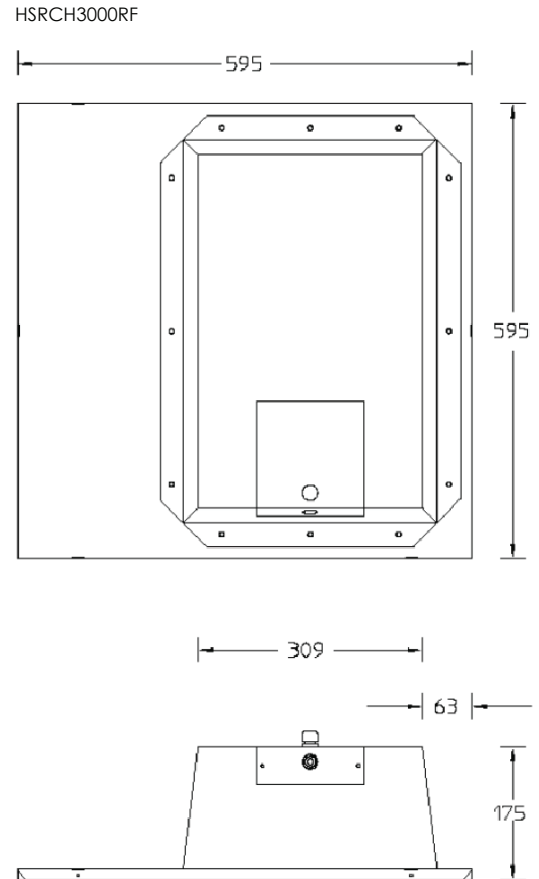


Fig.2.1 HSRCH3000RF
dimensions

4. Installation Details

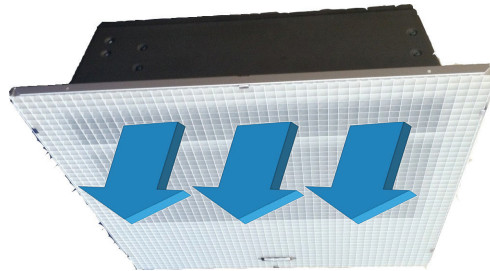
It is the sole responsibility of the installer to ensure that the points of attachment to the building are sound. Care must be taken to allow completely free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. Carefully unpack the unit. The unit is supplied with a length of selfadhesive foam strip. This can be cut into lengths and is to be laid on the 4 sides of the ceiling frame. This will ensure that the unit assembly is free of vibration. The discharge grille and diffuser assembly can now be fitted into the ceiling frame.

The weight of the HSRCH3000RF is 7kg

The Heatstore recessed ceiling heater is designed to fit in space of a standard 600mm ceiling panel.

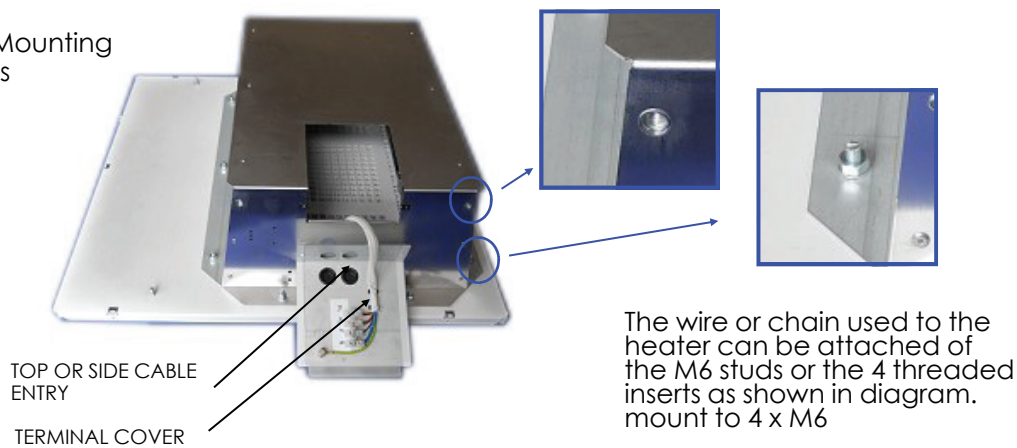
IT IS ESSENTIAL THAT THE CEILING FRAME IS ADEQUATE TO SUPPORT THE WEIGHT OF THE HEATER, OR THAT THE HEATER IS INDIVIDUALLY SUPPORTED. THERE IS PROVISION ON THE HEATER FOR CHAIN OR WIRE, MOUNTING OR SUPPORT.

Fig.3.0 Air discharge of HSRCH3000RF



ENSURE THE AIR OUTLET OF HSRCH3000RF IS NEAREST TO THE WALL OR CORNER.

Fig.3.1 Mounting supports



5. Heater operation and Status light

5.1 Controls

All Heatstore controllers can control RF heaters. It is important to choose the correct model depending on the application. If the application is a room where the controller is at furthest 10m away from the heater, then RF models would be suitable. Each controller can control multiple heaters in the same zone.

5.2 RF models

The RF models can be controlled by any Heatstore RF controller but only basic functionality is available. Heaters can only be switched on and off by the controller. The status light shows status and faults.

5.3 Status lights on HSRCH3000RF

Light colour	Heater status
	Heater is in standby mode/ not receiving signal from controller. Heater is ready for pairing with controller.
	Heater paired successfully - two cyan light flashes.
	Full power heat output.
	If the LED is flashing white, there is a fault. The unit will continue to function in restricted mode. However, in specific circumstances, the unit will stop running.

5.4 Pairing heater to controller



Heaters have to be paired with the controller otherwise they will not work.



To pair the HSRCH3000RF ceiling heater to a controller will require cycling the power to the heater then, depending on the controller in use, the pairing sequence should be completed within 20 seconds.

1. Ensure controller is powered.
2. Cycle power to the heater (wait until status light disappears before reenergising the heater).
3. Within 20 seconds of powering the heater, depending on controller, press and hold the pairing button/buttons.
4. The heater status light should show.
RF heaters - two cyan flashes followed by red light.
5. Heater is now ready to use.

6. Fault detection / Indication

6.1 Fault indication

Heaters are equipped with electronic fault detection. In the event of a fault being detected, the heater will show the nature of the fault via a flashing white status light located at the front of the heater. The LED will flash one of the sequences shown in the table. The sequence is repeated every 5 seconds.

Number of flashes	Fault
1	<u>Overheating detected</u> Heater has detected overheating and is cooling down. After 10 minutes, it will return to normal operation.
2	<u>Temperature measurement fault</u> Cause: Faulty temperature sensor. Response: Will operate as normal. However, overheating protection will not work.
3	<u>Low power detected</u> Cause: low supply voltage, TOC tripped, blow fuse, faulty heating element, faulty PCB, power measurement fault. Response: Heater inoperative.
4	<u>Problem with motor</u> Cause: Faulty motor, RPM sensor fault, low supply voltage (following power-cut). Response: Heater inoperative.
5	<u>High power detected</u> Cause: Stuck relay, overvoltage. Response: Heater inoperative.

6.2 Fault Finding

If the heater will not operate, disconnect it from the mains and arrange for a certified electrician to attend and investigate the reason.

The units are protected by thermal cutouts from overheating in the event of fan failure or an obstruction of the free airflow. If this happens the thermal cutouts switch off the appliance. The appliance will not operate until the heater has been disconnected from the mains supply and it has cooled down for at least 10 minutes.

THE CAUSE OF CUTOUTS OPERATING SHOULD BE INVESTIGATED BEFORE RESETTNG.

6.3 Maintenance

ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE COMMENCING ANY MAINTENANCE ON THIS HEATER.

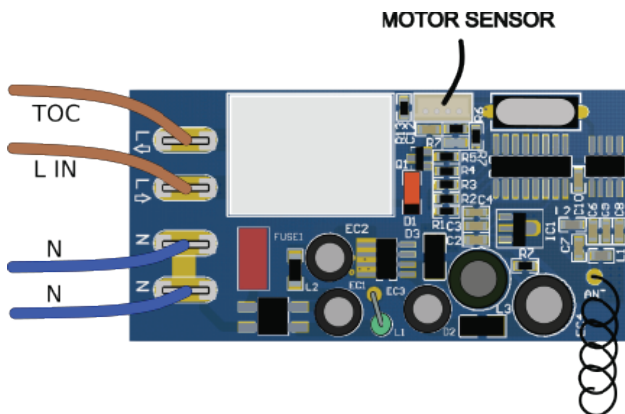
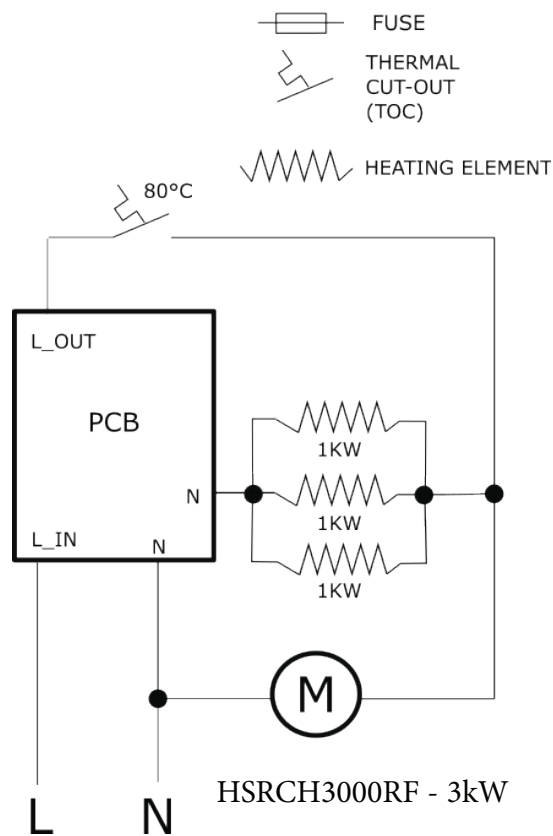
To obtain the best results from the heater, it is essential to avoid the accumulation of dust and dirt within the unit on the air inlet and discharge grilles. For this reason regular cleaning is necessary. Cleaning of the fan is best carried out with a soft brush.

The product should be serviced annually. Servicing shall be undertaken by a competent person.

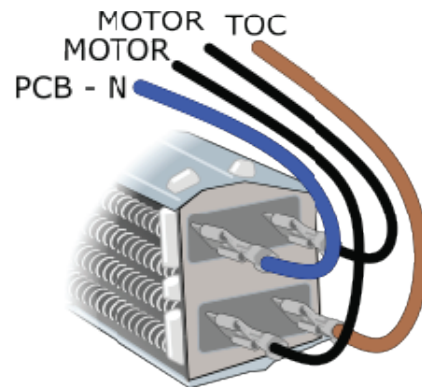
6.4 Replacing the Heater Fan

1. Split and remove shroud.
2. Remove the grille.
3. Disconnect the internal wiring from the blower.
4. Remove the four screws fixing the heater fan assembly to the back of the case.
5. The heater fan assembly can now be eased forward and removed from the heater case.
6. Fit replacement heater fan and reassemble in reverse order.

7.1 Wiring Diagrams - HSRCH3000RF



EBSL PCB board



Heater Connections

Declaration Of Conformity

In accordance with UK Government Guidance.

WE HEREBY CERTIFY THAT THE APPLIANCES DETAILED HEREON HAVE BEEN INSPECTED AND TESTED, AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING UK STATUTORY INSTRUMENTS WHERE APPLICABLE:

Electrical Equipment (Safety) Regulations 2016 SI. 2016 1101
Electromagnetic Compatibility Regulations 2016 SI. 2016 No. 1091
Radio Equipment Regulations 2017 SI. 2017 No. 1206
The Ecodesign for Energy Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. SI. 2010 2617
The Restriction of use of Certain Hazardous Substances. SI. 2012 No. 3032
The Waste Electrical and Electronic Equipment Regulations 2013. SI. 2013 No. 3113
Security Requirements for 'Connectable Products' PTSI Act 2022
The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023

Transposed standards used:

· BS EN 55014 (2006)	· EN 50663 (2017)
· BS EN 301 489.1 & .3	· EN 6073029 (2010)
· BS EN 300 220.1 & .2	· EN 607301 (2011)
· BS EN 60 730.2.9	· ETSI EN 300 2201 V3.1.1 (201702)
· BS EN 60335.1 (2012)	· ETSI EN 300 2202 V3.2.1 (201806)
· BS EN 60335.2.30 (2009)	· ETSI EN 301 4891 V2.2.2 (2019)
· ETSI BS EN 303645	· ETSI EN 301 4893 V2.1.1 (2019)

PART NUMBER: HSRCH3000RF

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