



RECESSED CEILING HEATERS INSTALLATION AND OPERATING MANUAL

**CATALOGUE NUMBERS:
HE7230SL, HE7245SL, HE7260SL,
HE7230RX, HE7245RX, HE7260RX**

INSTALLATION AND OPERATING MANUAL

All electrical appliances produced by the Company are guaranteed for one year 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 grille must not be obstructed during use. Any modifications made to the unit not approved by Consort 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 anchoring 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. It is recommended that the ceiling heater is installed within the ceiling void or roof space. Care must be taken to allow complete free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. If the HE7230SL/RX or HE7245SL/RX heaters are mounted close to the wall or corner the discharge opening should be facing the wall. The minimum distance from the wall or corner is 0.8m or 1.2m for the HE7260SL/RX.

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 CLAUDGEN Recessed Warm Air Ceiling Heaters. 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, 4.5kW or 6kW rating
- Quiet operation
- Fan only setting for air circulation (for RX models)
- Sealed heater box for improved energy efficiency
- LED indicator light
- Complete with white aluminium diffuser

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

2.2 SL wireless controllers

The heaters HE7230SL, HE7245SL and HE7260SL can be controlled by any CONSORT 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.

2.3 RX wireless controllers

The heaters HE7230RX, HE7245RX and HE7260RX can be controlled by a CONSORT wireless RX controller. (CRXSL or HRXSL). Each RX controller can control any number of heaters providing they are within the 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.

2.5 Electrical connections

These units are suitable for connection to a 230/240 Volt 50 Hz single phase supply. The maximum cable inlet size is 4mm².

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 to connect the supply from the controls prior to refitting the cover. Wire in accordance to the wiring diagrams.

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

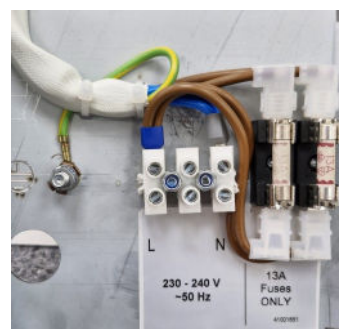


Fig.1.1 Terminal cover detail

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 HE7230SL/RX, HE7245SL/RX and 2.5m for the HE7260SL/RX. The recommended mounting height is 3m for the HE7230SL/RX, 3.3m for the HE7245SL/RX and 3.6m for the HE7260SL/RX.

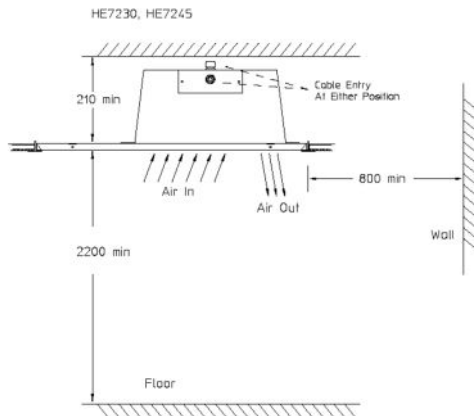


Fig.2.0 HE7230 & HE7245 mounting specifications

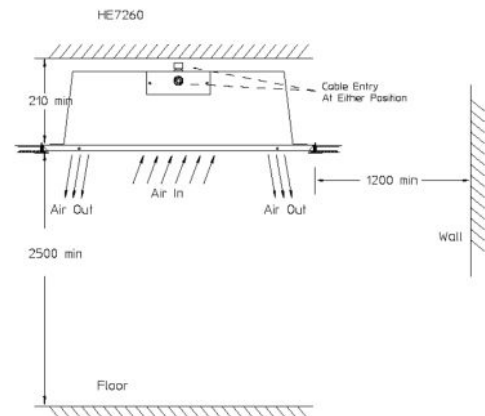


Fig.2.1 HE7260 mounting specifications

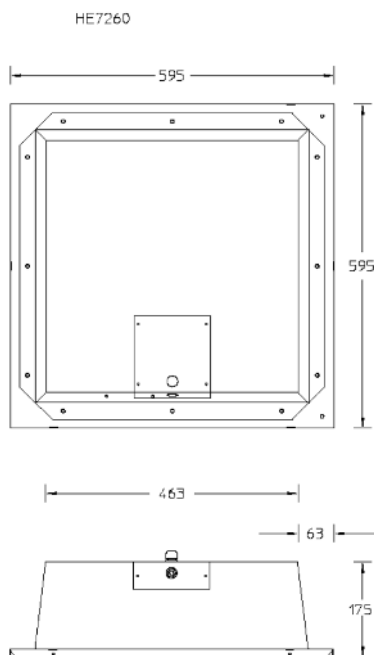


Fig.2.2 HE7230 & HE7245 Dimensions

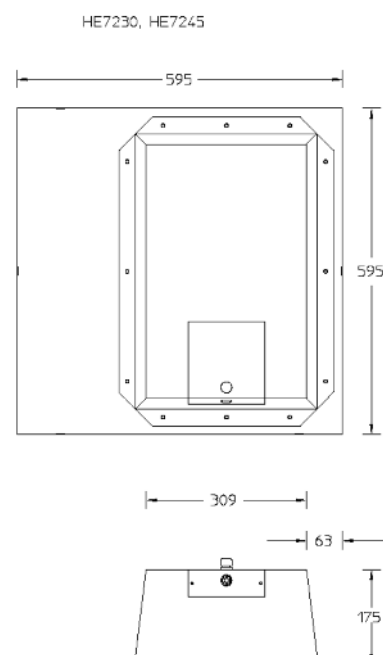


Fig.2.3 HE7260 Dimensions

4. Installation Details

4.1 Mounting

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 complete 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 self-adhesive 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 from vibration. The discharge grille and diffuser assembly can now be fitted into the ceiling frame.

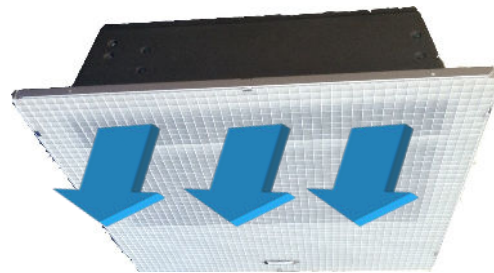
The weight of the HE7230SL/RX, HE7245SL/RX is 7kg

The weight of the HE7260SL/RX is 10kg

The Claudgen recessed ceiling heaters are designed to fit in place 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 HE7230SL/RX and HE7245SL/RX



! ENSURE THE AIR OUTLET OF HE7230SL/RX AND HE7245SL/RX IS NEAREST TO THE WALL OR CORNER. !

Fig.3.1 Air discharge of HE7260SL/RX

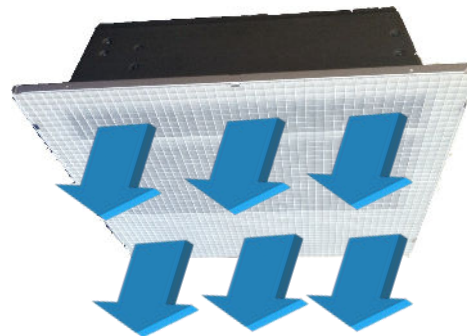
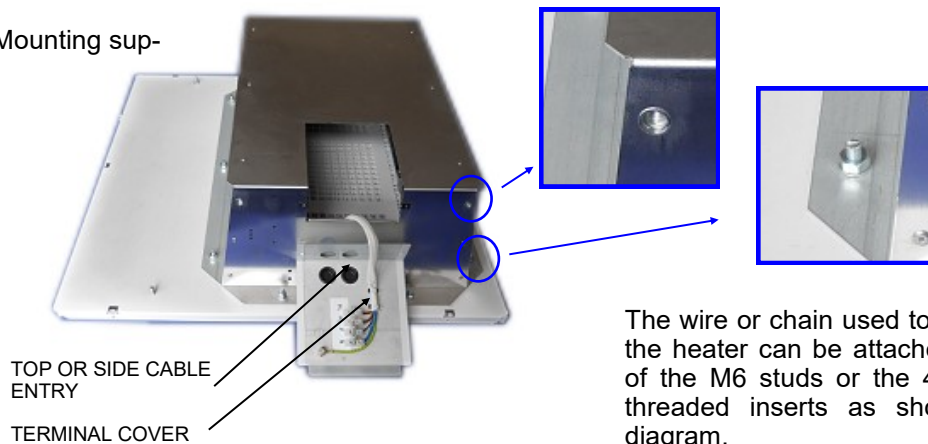


Fig.3.2 Mounting supports



The wire or chain used to mount the heater can be attached to 4 of the M6 studs or the 4 x M6 threaded inserts as shown in diagram.

5. Heater operation and Status light

5.1 Difference between SL and RX models

The RX and SL models are similar in terms of performance however, there are differences in RF range, controls and fault diagnostic. The type of the heater could be identified by status light.

Upon powering up the unit:

- A purple light LED will flash thrice for RX models.
- A solid green LED will show for SL models

5.2 Controls

There is a significant difference in RF range when comparing RX and SL models due to the signal type they use. RX heaters have significantly better RF range where controller can be installed further from the heater. All Consort controllers can control SL heaters, while only some will work with RX 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 SL models would be suitable. However, if it's a large room where the controller is further than 10m away from the heater then RX models would be more suitable. Each controller can control multiple heaters in the same zone.







5.3 SL models

The SL models can be controlled by any Consort RF controllers but only basic functionality is available, heaters can only be switched on and off by the controller. The status light can only indicate if the heating is active showing red light or standby showing green light.

5.4 RX models

The RX models can be controlled by CRXSL & HRXSL controllers with more sophisticated controls, specifically fan only and more heat settings option. The RX models use advanced electronic with self diagnostic and fault reporting functions.

5.5 Status lights RX models

Light colour	Heater status
	Heater is in stand-by mode/ not receiving signal from controller. Heater is ready for pairing with controller.
	Heater paired successfully - Solid Purple light for 5 seconds
	Half heat output
	Full power heat output
	Heater is in fan only mode
	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.

5.6 Pairing heater to controller



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



In order to pair the SL or RX ceiling heaters to a controller will require cycling the power to the heater then, depending on the controller in use, the pairing sequence buttons would be pressed within 20 seconds of cycling power.

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
SL heaters - solid red light
RX heaters - purple followed by red light
5. Heater is now ready to use.

6. Fault detection / Indication

6.1 Faults on RX models only

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

Number of flashes	Fault
1	Overheating detected Response: Power reduced until heater cools down
2	Temperature measurement fault Response: Intelligent speed control disabled, fan speed increased
3	Power not detected when heat switched ON Response: Fan operates as normal Possible causes: missing phase, blown fuse, faulty electronics
4	Problem with motor Response: Heater will not work
5	Power detected when not switched ON Response: Fan runs continuously
6	Motor slow Response: Heater stops

6.2 Thermal cut-outs

The units are protected by thermal cut-outs from overheating in the event of fan failure or an obstruction of airflow.

If this happens the thermal cut-outs switch off the heating element. The appliance will not operate until the heater is disconnected from the mains supply and has cooled down.

6.3 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 from overheating in the event of fan failure or an obstruction of the free airflow, by thermal cut-outs. If this happens the thermal cut-outs switch off the appliance. The appliance will not operate until the heater is disconnected from the mains supply and it has cooled down.

The cause of cut-outs operating should be investigated before resetting.

6.4 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.

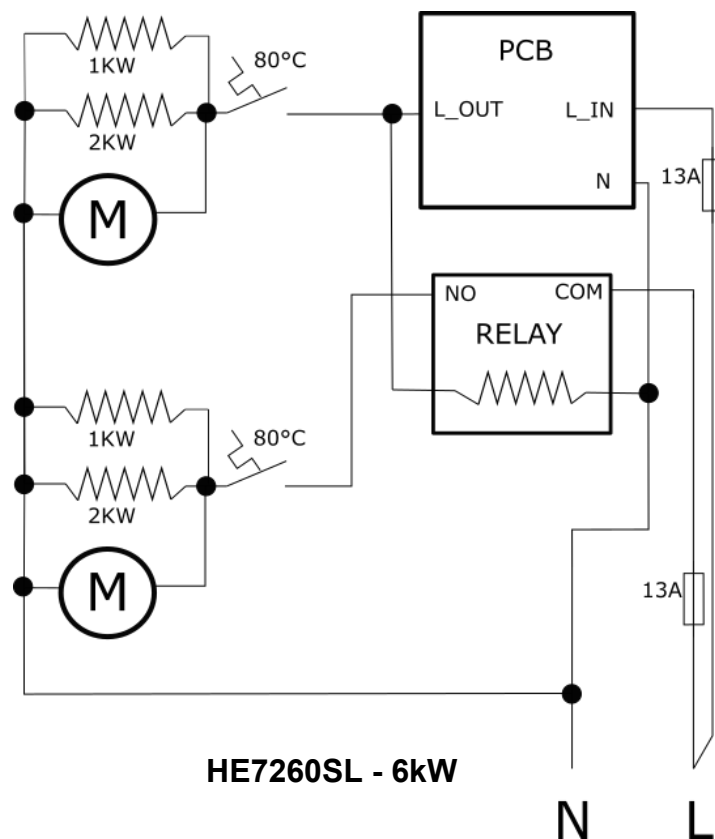
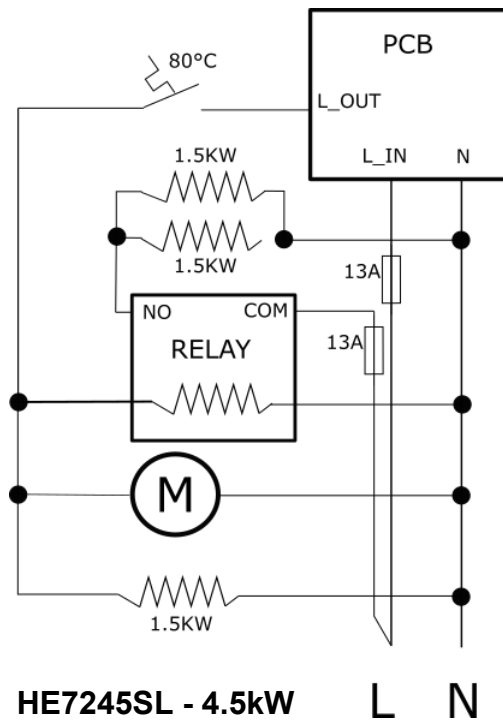
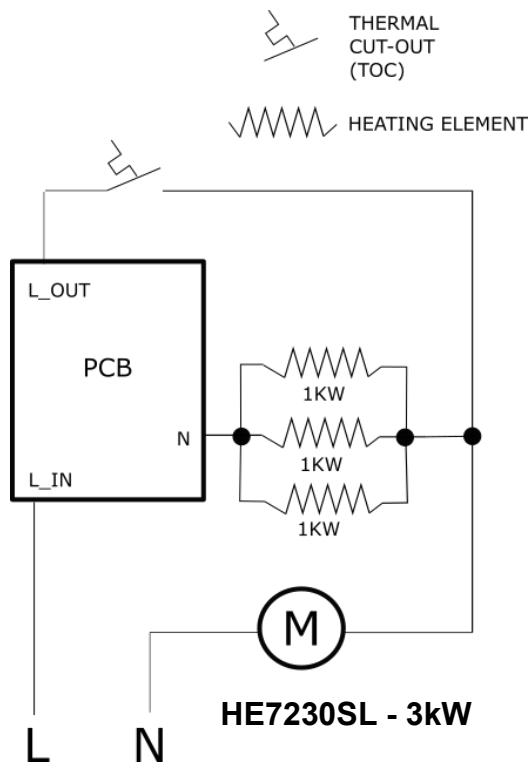
Cleaning of the fan is best carried out with a soft brush.

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

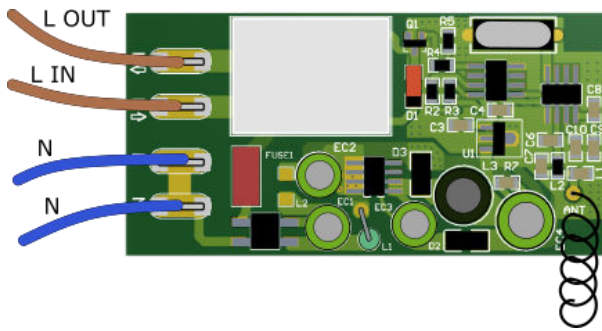
6.5 Replacing the Fan Heater

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

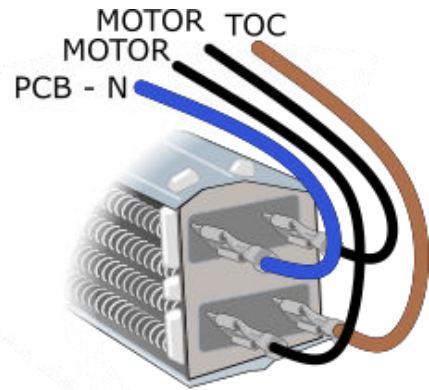
7.1 Wiring Diagrams - SL Models



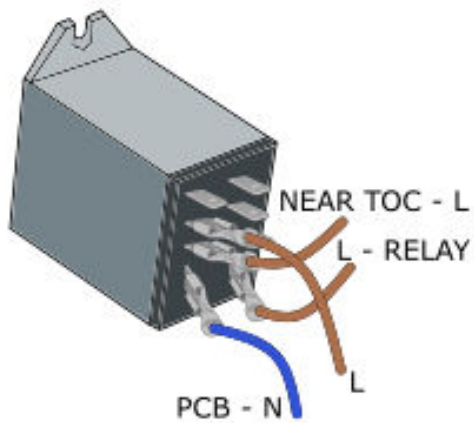
7.2 Heater Connections - SL Models



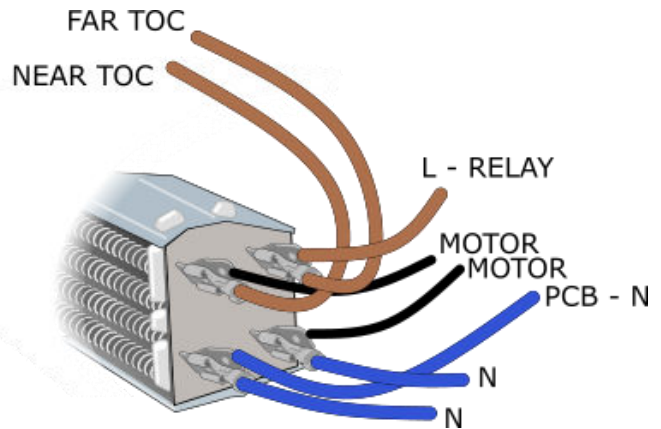
EBSL PCB board



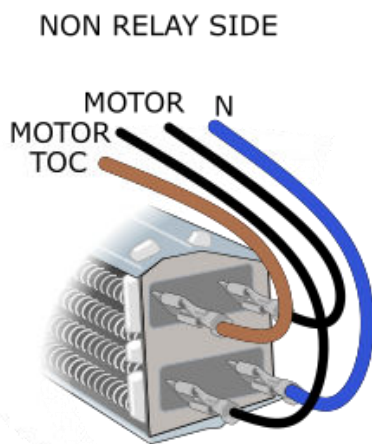
HE7230SL - 3kW



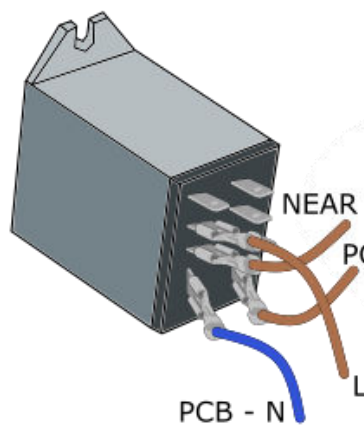
HE7245SL - 4.5kW



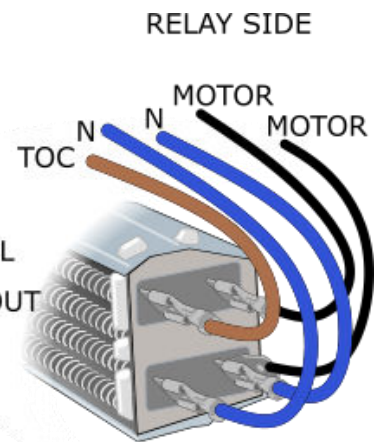
HE7245SL - 4.5kW



HE7260SL - 6kW

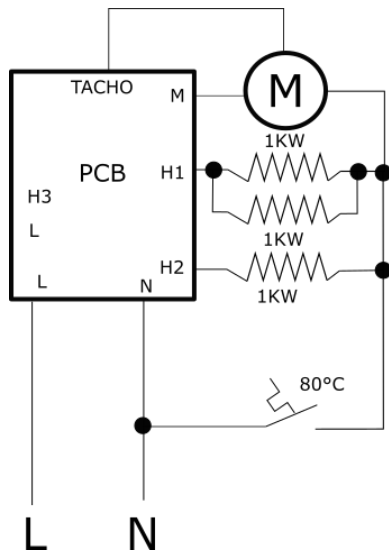


HE7260SL - 6kW

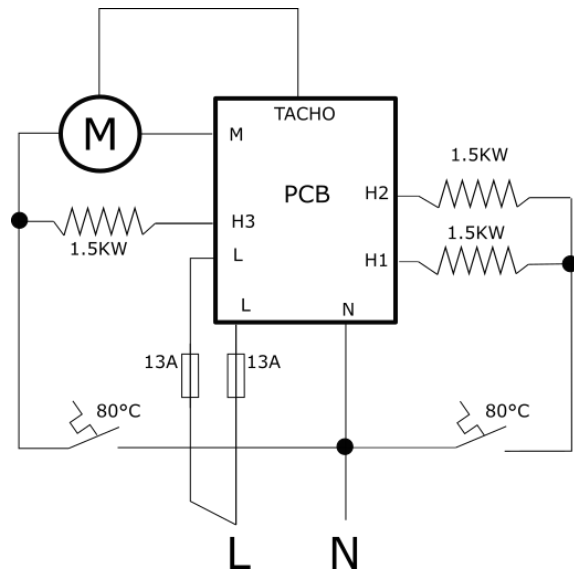


HE7260SL - 6kW

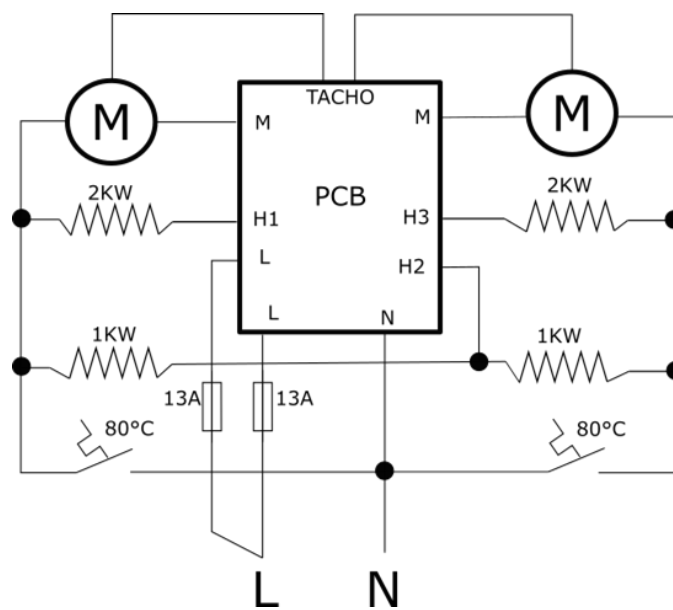
7.3 Wiring Diagrams - RX Models



HE7230RX - 3kW

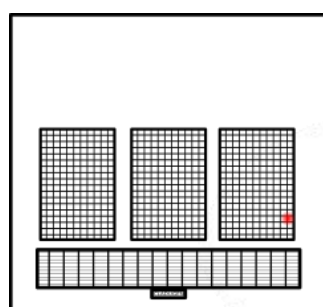
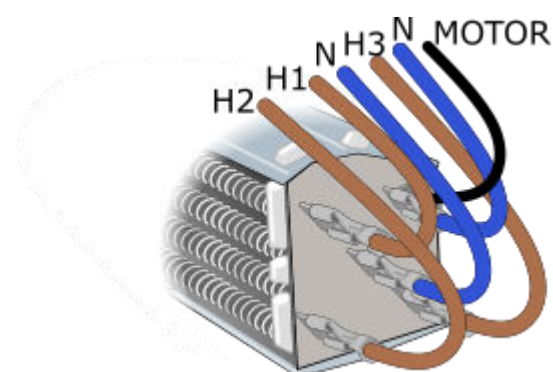
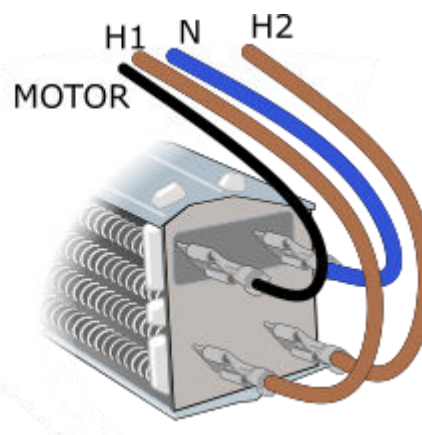
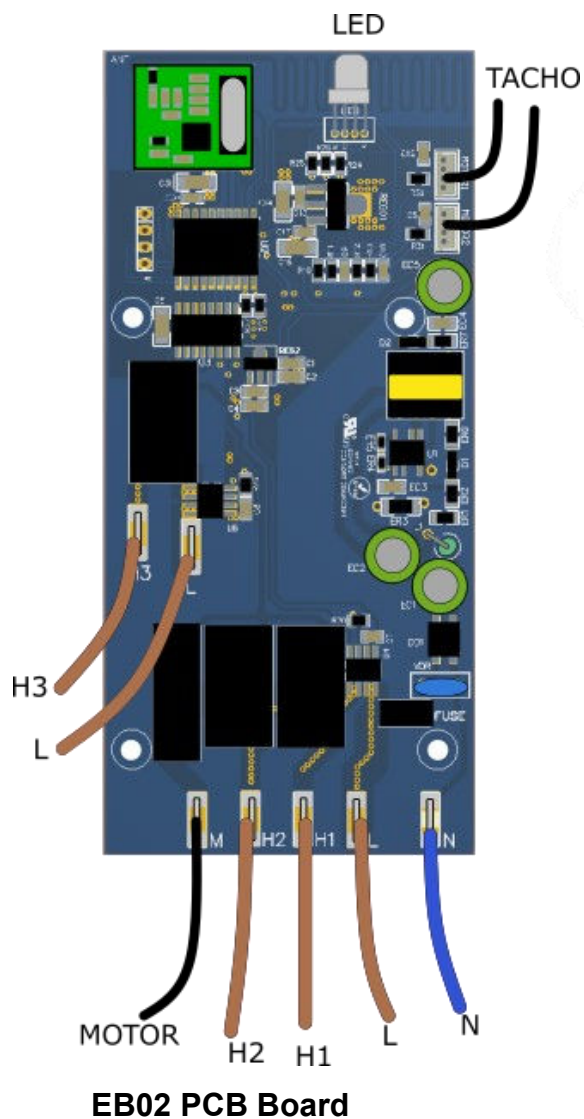


HE7245RX - 4.5kW



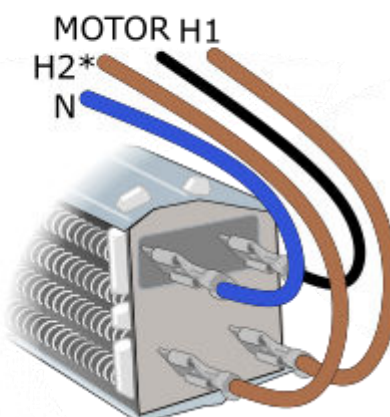
HE7260RX - 6kW

7.4 Heater Connections - RX Models

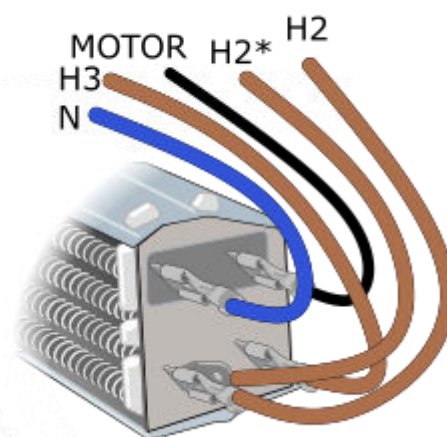


LED location
(RX models only)

NON PCB SIDE



PCB SIDE



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 301489.1 & .3 | • EN 60730-2-9 (2010) |
| • BS EN 300220.1 & .2 | • EN 60730-1 (2011) |
| • BS EN 60730.2.9 | • ETSI EN 300 220-1 V3.1.1 (2017-02) |
| • BS EN 60335.1 (2012) | • ETSI EN 300 220-2 V3.2.1 (2018-06) |
| • BS EN 60335.2.30 (2009) | • ETSI EN 301 489-1 V2.2.2 (2019) |
| • ETSI BS EN 303645 | • ETSI EN 301 489-3 V2.1.1 (2019) |

PART NUMBER AND DESCRIPTION OF APPLIANCE: **HE7230SL, HE7245SL, HE7260SL, HE7230RX, HE7245RX, HE7260RX**

NAME OF RESPONSIBLE PERSON:

POSITION:

DATE:

DAVID O'SULLIVAN

OPERATIONS MANAGER

03/07/24



FM 12671

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