



SCREENZONE WARM AIR CURTAINS

**CATALOGUE NUMBERS:
HE7402RX & HE7420RX**

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.

Contents

1 General Information

- 1.1 Warnings
- 1.2 Health and Safety
- 1.3 Location

2 Introduction

- 2.1 Introduction
- 2.2 HRXSL or CRXSL controllers
- 2.3 Electrical connections

3 Dimensions and Fixing locations

4 Installation details

- 4.1 Mounting
- 4.2 Installation

5 Heater operation and Status light

- 5.1 Models for wireless controls
- 5.2 Status lights on RX models
- 5.3 RX Controller Location
- 5.4 Pairing heater to controller
- 5.5 Noise Levels

6 Fault Detection and Indication

- 6.1 Fault Indication
- 6.2 General
- 6.3 Thermal and Fault Protection
- 6.4 Maintenance
- 6.5 Replacing the fan heater

7.1 Wiring Diagrams

7.2 Blower Connections

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

These units are 622mm 3kW & 4.5kW model heaters designed for mounting above doorways or may be used as space heaters. 1040mm 4.5kW and 6kW models are also available.

2. Introduction

2.1 Introduction

This instruction manual describes the CLAUDGEN heaters designed for mounting above doorways or may be used as space heaters.



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



This heater should not be installed where there is a corrosive atmosphere or excessive dust.



The heaters will not work without a controller.

2.2 HRXSL or CRXSL controllers

The heater HE7402RX, HE7420RX can be controlled by a CONSORT wireless HRXSL or CRXSL controller. Each 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.

For a detailed guide on how to pair follow user instruction supplied with the controller. For the heater to pair the power to the heater must be off at the start of the sequence.

Turn power to the heater on. The light should flash purple 3 times and then change to a solid green. Now, the heater is ready for pairing for the next 20 seconds. After 20 seconds, it will return to normal operating mode and pairing will not be possible. (The heater must be powered off, and then back on again in this case) If the pairing was successful, the light will show purple for 5 seconds, and the heater will be active.

2.3 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. Test for correct operation and refit the cover.



There are no exceptions.

For connection to the mains supply it will be necessary to open the front cover of the unit to connect the supply from the mains prior to re-fitting 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 Heater with front cover open

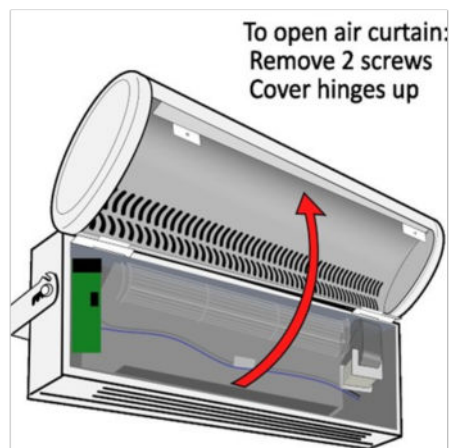
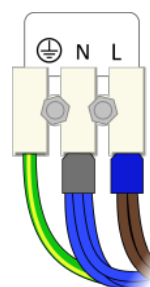
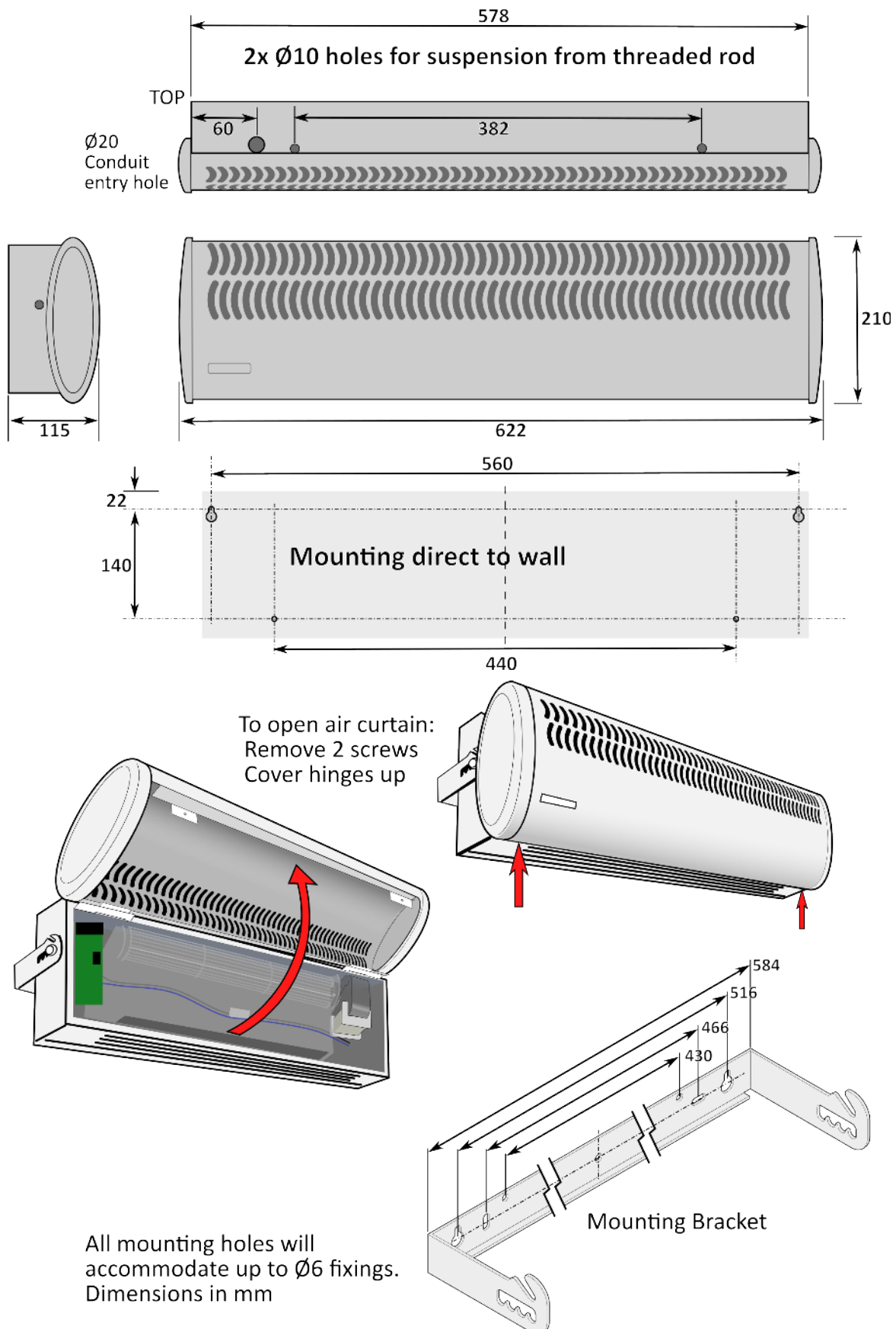


Fig.2 Terminal wiring detail



3. Dimensions & Fixing locations

The unit should be positioned so that the airflow is not obstructed by any part of the doorframe. When installed the top of the heater case should be a minimum of 200mm from the ceiling.



4. Installation Details

4.1 Mounting

When mounted over a standard doorway the unit should be fitted as low as possible and not more than 2.3 meters from ground level.

The unit should be positioned so that the airflow is not obstructed by any part of the doorframe. When installed the top of the heater case should be a minimum of 200mm from the ceiling.

4.2 Installation

Step 1

Carefully unpack the heater. Loosen mounting screws, allowing the mounting bracket to be removed from the unit.

Step 2

Remove the front cover by loosening the 2 screws at the bottom of the heater, on the left, right side of the grille, as shown in Section 3.

Step 3

For suspending from the ceiling:

Either drop rods or catenary wire can be used to fasten the air curtain to the ceiling support structure. The mounting points can be seen in Section 3.

Using supplied bracket:

Making sure that the mounting bracket is horizontal, fix the bracket to the wall using appropriate fasteners. Place the unit on the mounting bracket ensuring the washers are spaced (a plain washer either side of the mounting bracket).

For direct wall mounting:

The heater can be fixed to the wall using 6mm holes provided.

Mark and drill required holes and fix heater to the wall using appropriate fasteners.

It is the sole responsibility of the installer to ensure that the points of attachment to the building are sound. Consultation with the consultant/architect or owner of the building is recommended to ensure that a sound, mechanically stable installation is achieved.

All attachments must be capable of supporting the weight of the product.

Step 4

Connect electrical supply to appropriate terminals.

Step 5

Test the heater.

Step 6

Refit the heater front cover.

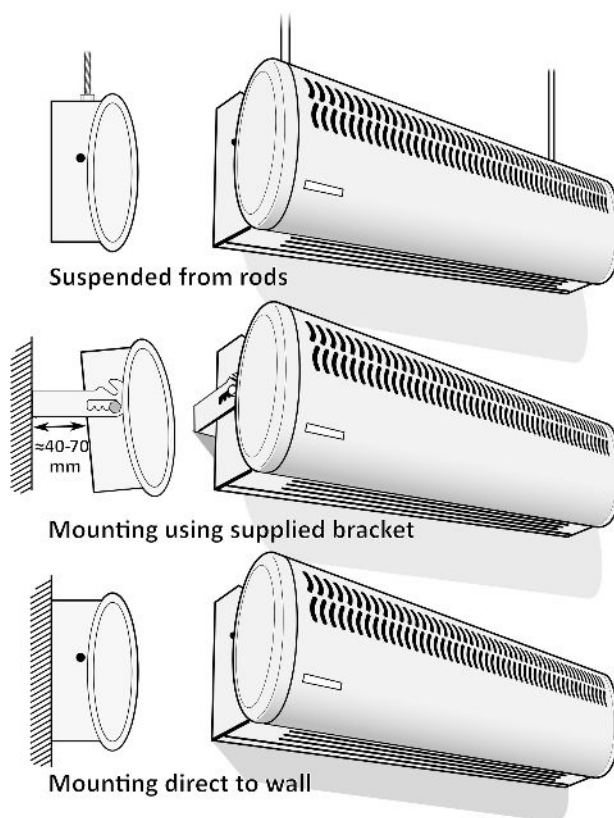


Fig.3 Various Heater mountings

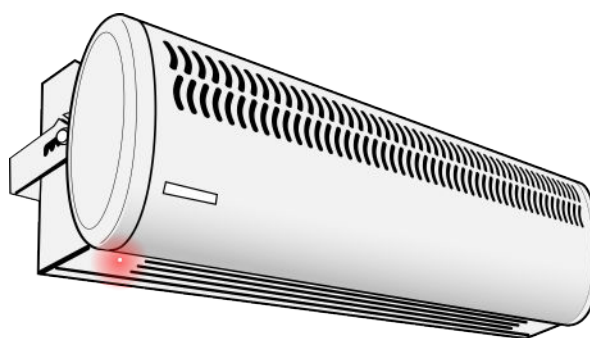
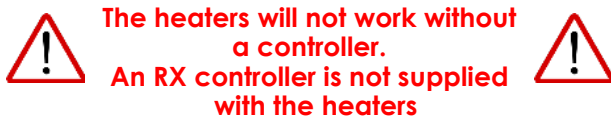


Fig.4 Status light location

5 Heater operation and Status light

5.1 Models for wireless controls

The wireless controlled models HE7402RX and HE7420RX can only be controlled by CONSORT wireless controller CRXSL or HRXSL.



Each controller has a unique identification code, it can control an unlimited number of heaters in the same room and will not interfere with other controllers within the building. For more details, please follow the instructions supplied with the controller.



Fig.16 CRXSL & HRXSL wireless controllers

5.2 Status lights on RX models

The heater will display a status light depending on what the heater is doing. These are the options below.

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.

5.3 RX Controller Location

It is essential the Controller is positioned in the same room as the air curtain. It should be where its temperature will not be changed by local effects. Avoid:

- Draughty places near windows or doors
- Places near the air curtain itself or any other heat sources in the room
- Places where the sun will shine on it
- Places where it may get wet

5.4 Pairing heater to controller

In order to pair the RX 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.

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

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; pressing the pairing button/buttons
4. The heater status light should display a purple light followed by red
5. Heater is now ready to use.

5.5 Noise Levels

Sound pressure levels dBA are measured at a 3m distance with a single air curtain mounted at its maximum mounting height, operating in a room with average acoustic characteristics as defined in CIBSE Guide B5 (reverberation time 0.7s at 1kHz) and a room size equivalent to 8 air changes per hour (ac/h).

The dB meter must not be in the direct airflow of the heater. Care needs to be taken when selecting air curtains for an installation as noise levels can be several dB higher if the mounting height is reduced, if the room is more 'live' (i.e. hard surfaces, no furnishings or absorbent materials), if the room is smaller than 8 ac/h equivalent or a combination of these factors.

Noise levels will also increase if more than one air curtain is installed at the same doorway (e.g. +3dBA for 2 equal point sources: direct field).

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 by a flashing white status light located at the bottom of the heater. The LED will flash one of the sequences as shown in the table below. The sequence is repeated every few seconds.

Number of flashes	Fault
1	<u>Overheating detected</u> If light is blue, heater has detected overheating and is cooling down. After 10 minutes, it will return to normal operation. If light is green, the thermal cut-out has operated. Isolate power and allow heater to cool for 10 minutes.
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	<u>Motor slow</u> Response: Heat reduced.

6.2 General

If the air curtain does not operate after switching on, then a suitably competent service engineer should be called to identify the nature of the fault.

Other faults in relation to the element, motor and wiring should be identified using conventional fault finding techniques.

In the event that electrical components are replaced, please ensure that electrical safety checks in accordance with the regulations in

force in the country of use are undertaken.

6.3 Thermal and Fault Protection

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 effectively switch off the appliance by disconnecting power to the control circuit. The appliance will not operate until the thermal cut-outs have been disconnected from power; then allowed to cool for 15 minutes. This should be done by a competent electrician.

The heaters are also protected by thermal fuses to prevent catastrophic failure. The thermal fuse will trip and disconnect power to the affected heater. Thermal fuses are not resettable.



THE CAUSE OF CUT-OUTS OPERATING SHOULD BE INVESTIGATED BEFORE RESETTNG



6.4 Maintenance



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



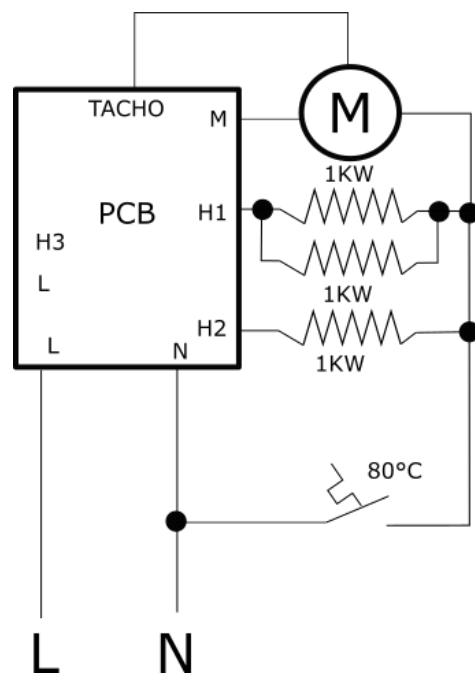
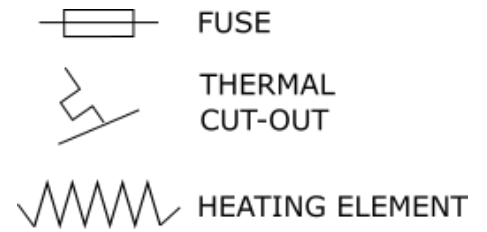
To obtain the best results from the heater, it is essential to avoid the accumulation of dust and dirt within the unit on the air inlet and discharge grilles. For this reason regular cleaning is necessary, paying particular attention to the removal of dirt build up on the rotor blades.

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.

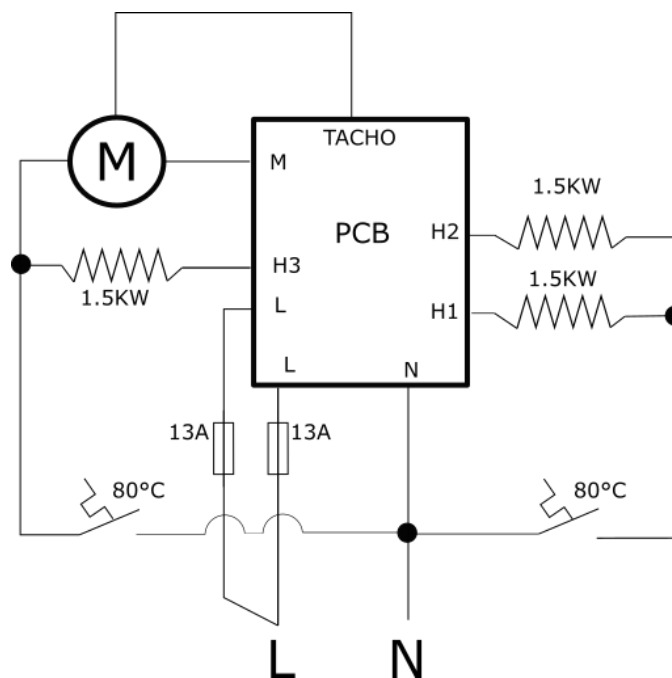
6.5 Replacing the Fan Heater

1. Remove the front cover.
2. Disconnect the internal wiring from the main terminal block.
3. Remove the five nuts and washers fixing the fan heater assembly & bracket 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

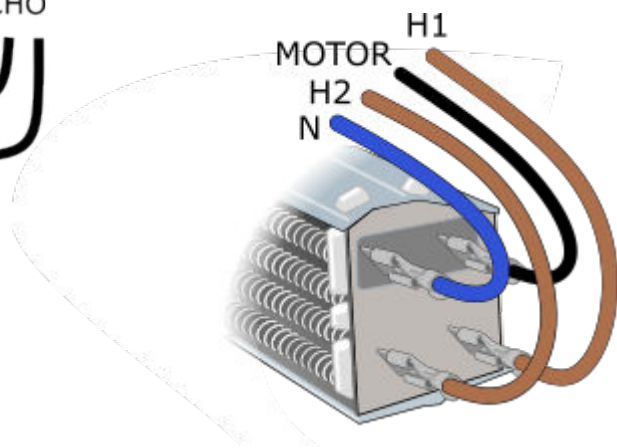
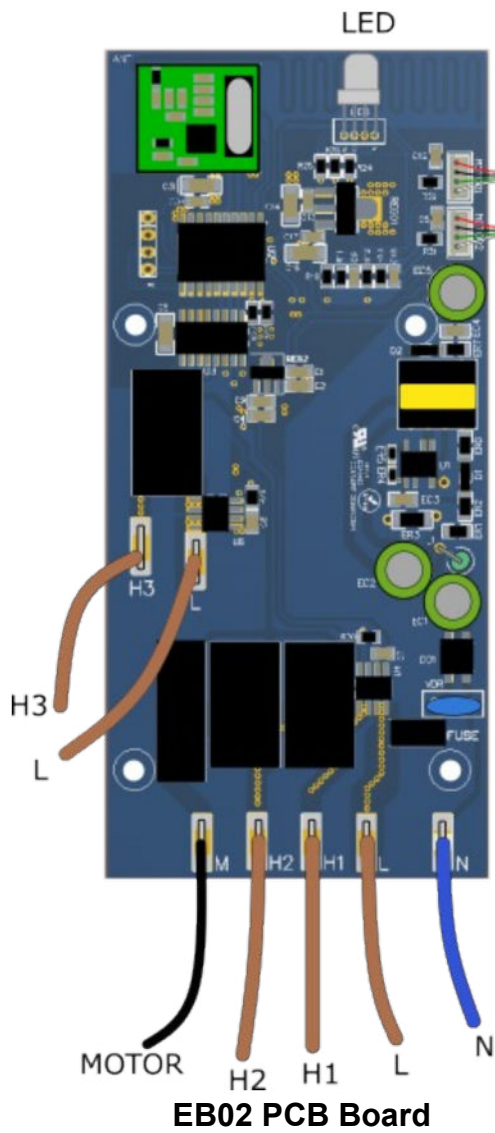


HE7402RX

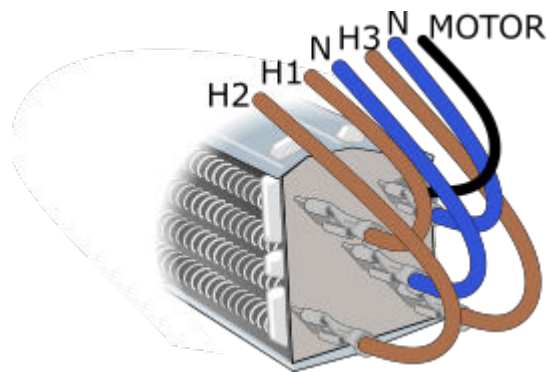


HE7420RX

7.2 Blower Connections



HE7402R



HE7420RX

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 & 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)**
- **BS EN 301489.1 & .3**
- **BS EN 300220.1 & .2**
- **BS EN 60730.2.9**
- **BS EN 60335.1 (2012)**
- **BS EN 60335.2.30 (2009)**
- **ETSI BSEN 303 645**
- **EN 50663 (2017)**
- **EN 60730-2-9 (2010)**
- **EN 60730-1 (2011)**
- **ETSI EN 300 220-1 V3.1.1 (2017-02)**
- **ETSI EN 300 220-2 V3.2.1 (2018-06)**
- **ETSI EN 301 489-1 V2.2.2 (2019)**
- **ETSI EN 301 489-3 V2.1.1 (2019)**

PART NUMBER AND DESCRIPTION OF APPLIANCE:

HE7402RX, HE7420RX

NAME OF RESPONSIBLE PERSON:

POSITION:

DATE:

DAVID O'SULLIVAN

PRODUCTION AND QUALITY MANAGER

20/06/24



FM 12671

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