

INSTALLATION AND OPERATING MANUAL

Recessed Warm Ceiling Heaters

ACT03, ACT04, ACT06

WARNINGS

Nortek Global HVAC (UK) Limited equipment must be installed and maintained in accordance with the requirements of the Codes of Practice or rules in force. All external wiring MUST comply with the codes of practice or rules in force in the country of installation.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

Read instructions before installing or servicing this equipment.

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1. General Information

1.1 Introduction

This instruction manual describes the Reznor 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.

1.2 General

All installations must be in accordance with the regulations in force in the country of use.

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 in force in the country of use.

To ensure continued and safe operation it is recommended that the appliance is serviced annually.

The heater outlet / inlet must not be obstructed during use.

1.3 Electrical Supply

Electrical supply is 230/240V single phase, Neutral and Earth. The maximum cable inlet size is 4mm².

It is recommended that the electrical supply to the base unit in the heater is via an appropriate switched isolator in accordance with the regulations in force in the country of use and must be via a fused isolator having a contact separation of greater than 3mm on all poles.

All units must be wired in accordance with I.E.E regulations for the Electrical Equipment of Buildings and the installer should ensure that a suitable isolating switch is connected in the mains supply.

1.4 Controller `RX` models

The ACT03 – RX, ACT04 – RX, ACT06 – RX heaters are supplied without a controller. The `RX` models will not work without the controller. See section 5.2 for more details.



Consort Wireless controller CRX2

1.5 Location

All units should be installed horizontally. It is recommended that the ceiling heater is installed within the ceiling void or roof space.

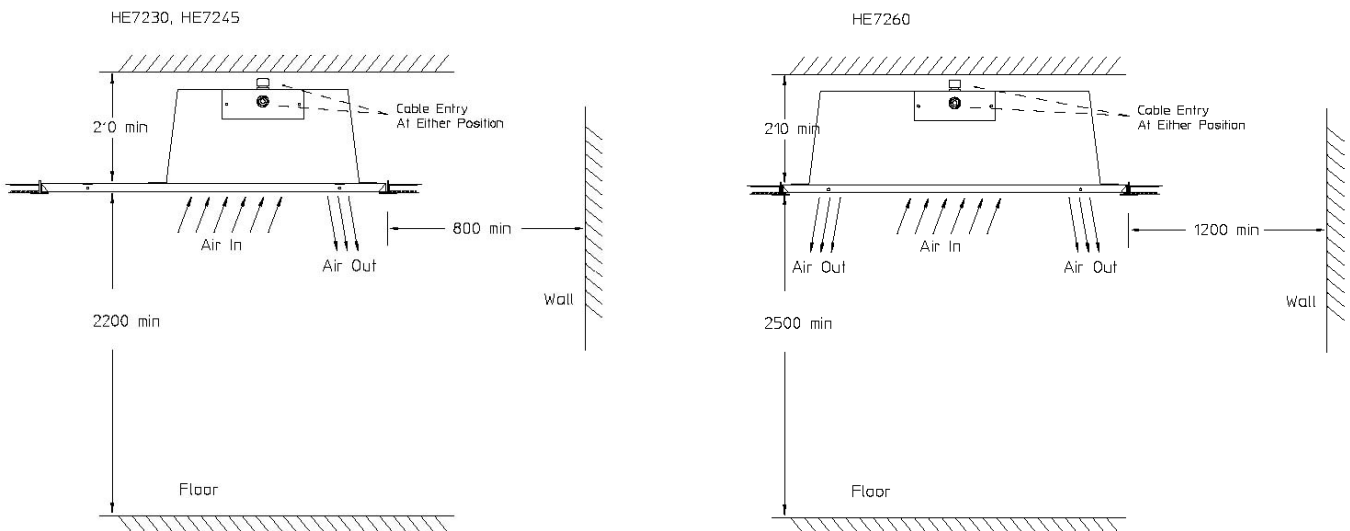
Care must be taken to allow complete free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. If the ACT03 – RX or ACT03 – RX/ ACT04 – RX heaters are mounted close to the wall or corner the discharge opening should be facing the wall. The minimum distance from the wall or corner is 0.8m or 1.2m for the ACT06 – RX.

1.6 Clearance distances

It is recommended that a minimum clearance of 50mm is allowed around the case and 30mm 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 ACT03 – RX, ACT04 – RX and 2.5m for the ACT06 – RX. The recommended mounting height is 2.5m for the ACT03 – RX, ACT04 – RX and 3m for the ACT06 – RX.

1.7 Clearance distances



1.8 Health and Safety

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.

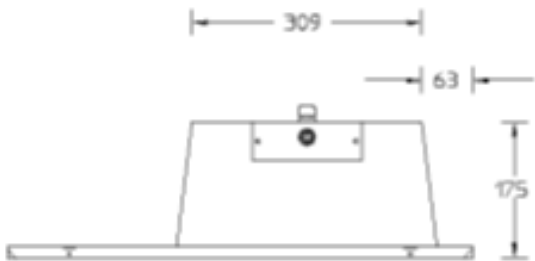
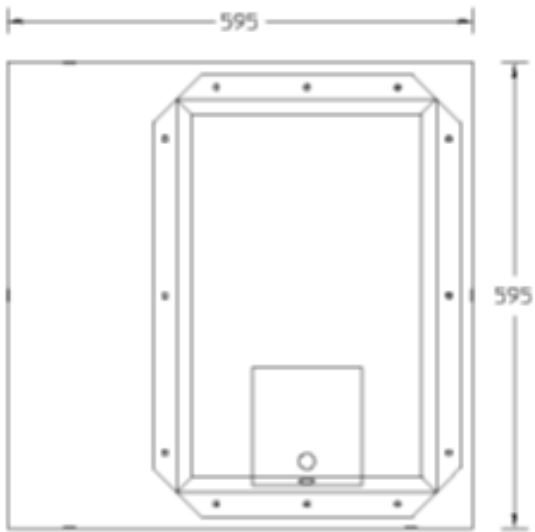
Do not rest anything especially ladders against the product.

1.9 Standards

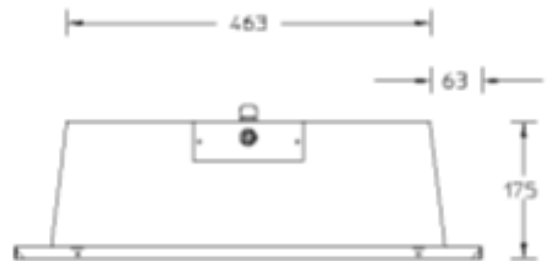
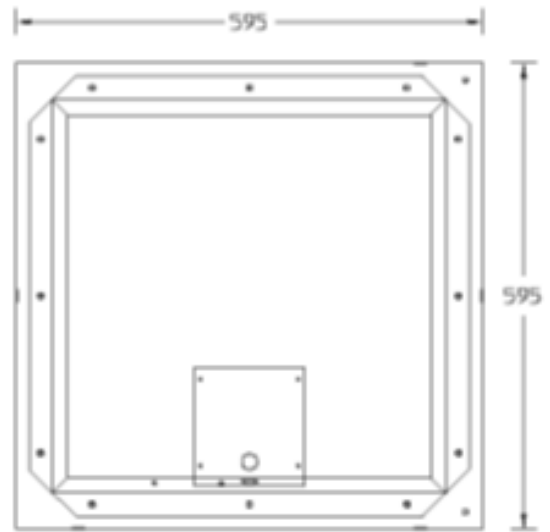
Units conform to the European electrical standard BS EN 60335–2–30

2. Dimensions

ACT 03/04



ACT 06



3. Installation Details

3.1 Mounting

The Reznor recessed ceiling heaters are designed to fit in place of a standard 600mm ceiling panel.

It is essential that the ceiling frame is adequately supported to support the weight of the heater, or that the heater is individually supported. There is provision on the heater for chain or wire, support or mounting.

- The weight of the ACT03 – RX, ACT04 – RX is 7kg
- The weight of the ACT06 – RX is 10kg

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.

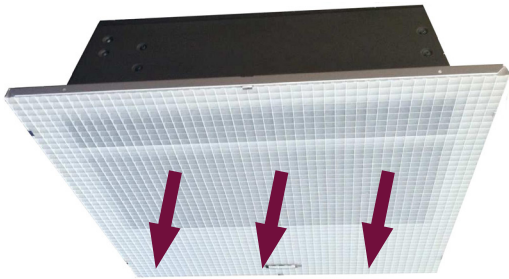


Fig.1 Air discharge of ACT03 – RX and ACT04 – RX

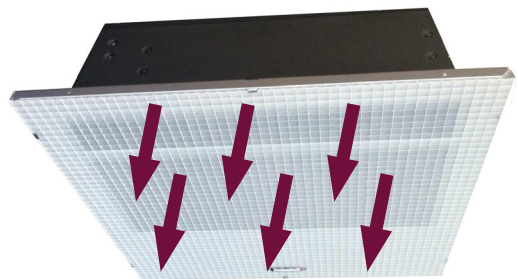


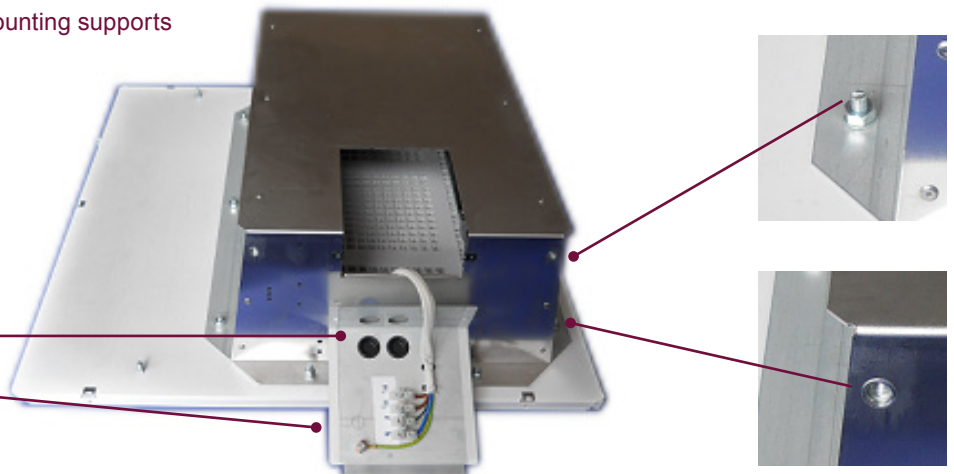
Fig.2 Air discharge of ACT06 – RX

Ensure the air outlet of ACT03 – RX and ACT04 – RX is nearest to the wall or corner.

Fig.3 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.

Top or side cable entry
Terminal cover



4. Electrical Connections

4.1 Electrical Connections

These units are suitable for connection to a 230/240 Volt 50 Hz single phase supply.

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.

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.

4.2 Electrical connections for RX models

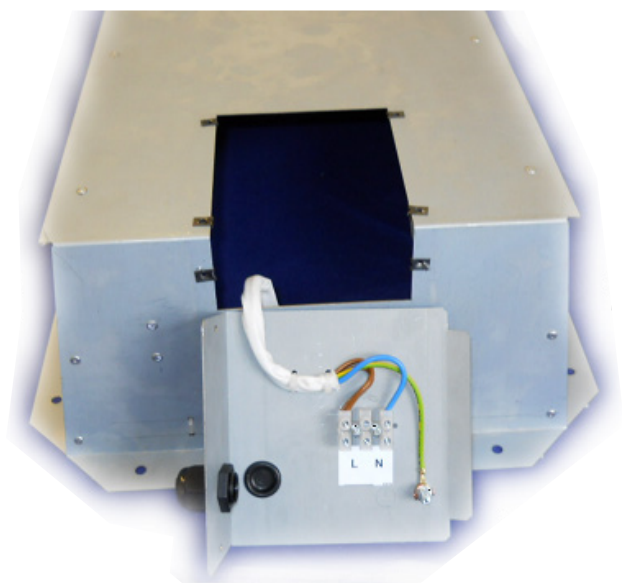


Fig.8 Heater with terminal cover open

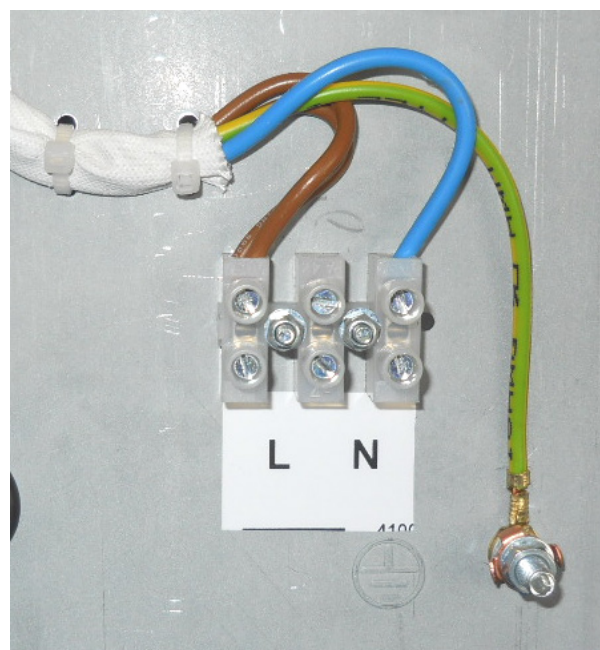


Fig.9 Terminal cover detail

5. Operation

5.1 RX Models ACT 03/04/06 – RX

The heaters ACT03 – RX, ACT04 – RX and ACT06 – RX can be controlled by CONSORT wireless controller CRX2.

The heaters will not work without a controller. Each controller has unique identification code, it can control unlimited number of heaters and will not interfere with other controllers within the building.

For more details please follow the instructions supplied with the controller.



Consort Wireless controller CRX2

6. Servicing & Maintenance

6.1 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.

6.2 General

If the heater does not operate a competent service engineer should be called to identify the nature of the fault.

All heaters are fitted with motor thermal protection.

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 cut-out

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.

If this fault re-occurs again, refer to the section '6.4 fault finding'.

6.4 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.

6.5 Replacing the Fan Heater

Please follow the steps below to safely replace the fan heater.

1

Begin by removing the grille.

2

Disconnect the internal wiring from the blower

3

Remove the four screws fixing the fan heater assembly to the back of the case.

4

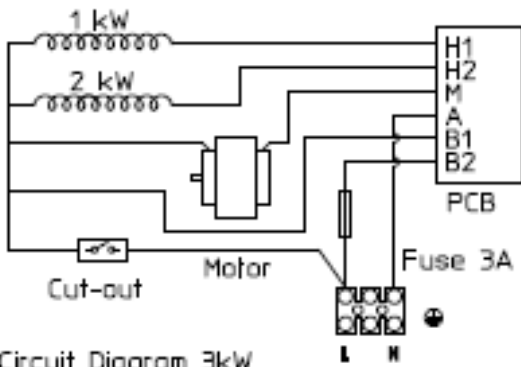
The fan heater assembly can now be eased forward and removed from the heater case.

5

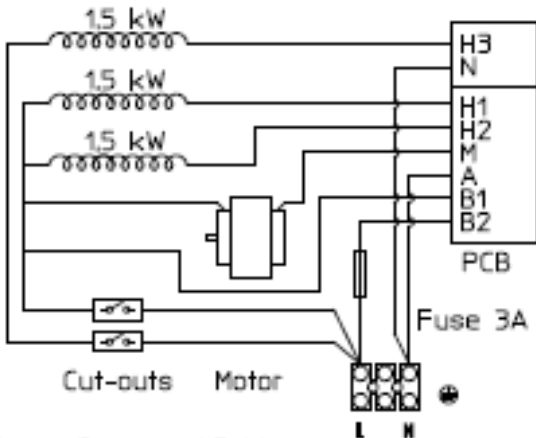
Fit the replacement fan heater.

6

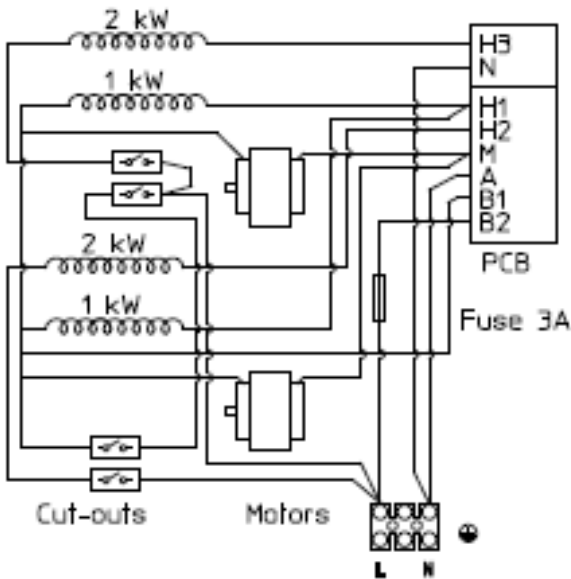
Reassemble in reverse order.



Circuit Diagram 3kW
Heaters for RX Wireless Controls



Circuit Diagram 4.5kW
Heaters for RX Wireless Controls



Circuit Diagram 6kW
Heaters for RX Wireless Controls

6.6 Spares

It is essential when ordering spares or replacement parts to state the model number and the serial number on the rating label fixed to the side of the unit below the terminal cover.

In the interest of progress the Company reserve the right to vary specifications from time to time without notice.

The material listed is offered subject to the Company's General Conditions of Sale, a copy of which can be obtained on request.

Current full Part No. Reznor, Recessed Ceiling Heater, EIN, Mar, 18, D301048



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