

AC3CN Recessed Ceiling Heater / Over Door Heater

# Recessed Ceiling Heater / Over Door Heater

## Model: AC3CN

Model	Loading (kW)	Current (amps)	Voltage (volts)	Weight (kg)
AC3CN	3	13	~ 230-240	8.7

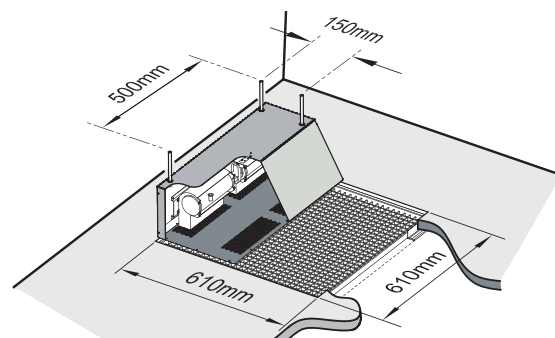


Fig. 1

**IMPORTANT: THESE INSTRUCTIONS SHOULD BE READ CAREFULLY AND RETAINED FOR FUTURE REFERENCE**

### Important Safety Advice

**Warning - Disconnect from the mains supply before carrying out maintenance.**

**DO NOT COVER OR OBSTRUCT** the air inlet/outlet ceiling grille. A minimum distance of 1.5 metres must be observed between the ceiling grille and any furniture, combustible material or furnishings. This appliance must not be installed less than 1.8 metres above the floor.

**WARNING: ENSURE THIS PRODUCT IS EARTHED.**

Ensure the supply cables are of adequate current carrying capacity and are protected by a suitable fuse.

A suitable termination to the fixed wiring of the premises must be provided adjacent to the final position of the Switch Panel. This heater must not be located immediately above or below a fixed socket outlet or connection box.

This product must not be subjected to water spray or immersion and should be mounted such that no part of it can be touched by a person using a fixed bath or shower.

**DO NOT** use the heater in the immediate surroundings of a bath, a shower or a swimming pool.

**DO NOT** use this heater in areas where excessive dust exists.

This product should be mounted safely into ceiling areas only.

The ceiling can be either of a plasterboard (or similar) construction, or of suspended 600 x 600mm ceiling tiles.

**DO NOT** store or use any flammable materials or sprays in the vicinity of the heater – **FIRE HAZARD.**

**DO NOT** insert any foreign objects into the heater openings.

Risk of injury, electric shock or damage to the heater may occur.

Ensure proper manual handling procedures are observed at all times.

**WARNING:** Ensure power cable path does not come into contact with internal heater elements or fans.

Make connections as per wiring Diagram (see Fig. 3) and replace the base cover and access cover.

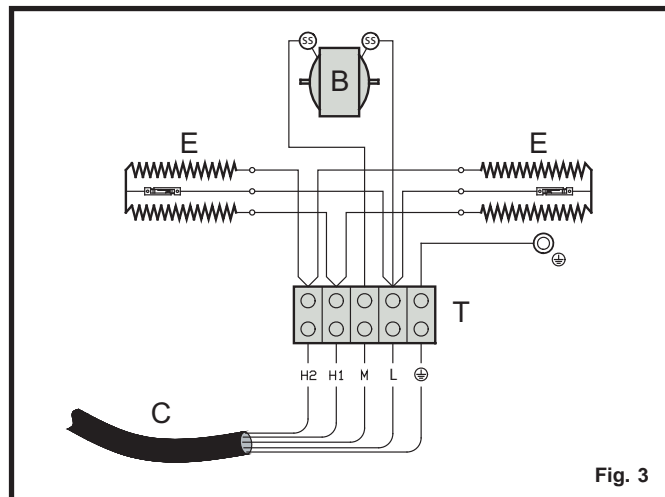


Fig. 3

Label	Description
B	BLOWER MOTOR
E	HEATER ELEMENT
T	TERMINAL BLOCK
C	POWER CABLE FROM SWITCH PANEL (5 core - NOT SUPPLIED)

### Connection of Switch Panel

The mains electrical supply cable and power cable to this heater (neither supplied) should be connected as per the wiring diagram shown in Fig. 4 (see Fig. 5 for Switch No.'s).

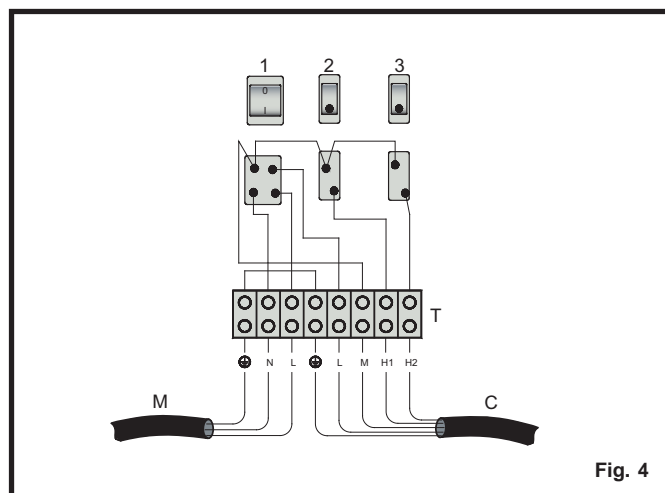


Fig. 4

Label	Description
1	ON - OFF (Double Pole Switch)
2	HALF HEAT (Single Pole Switch)
3	SECOND HALF HEAT (Single Pole Switch)
T	TERMINAL BLOCK
C	POWER CABLE TO HEATER (5 core - NOT SUPPLIED)
M	MAINS IN POWER CABLE (NOT SUPPLIED)

\* Test all switch settings once installation is complete \*

### General

The carton contains: -

- 1 AC3CN heater
- 1 Ceiling grille assembly (frame + egg crate core)
- 1 Switch Box

This Recessed Ceiling Heater / Over Door Heater is a robust heater intended for installation into a suspended or plasterboard ceiling.

For optimum results, do not install this product in ceilings higher than 3 metres. If multiple heaters are installed, generous spacing should be provided between heaters to achieve an even heating distribution.

### Electrical Connection

The Electrical Connection of this product should be carried out by a competent electrician and be in accordance with the current IEE wiring regulations.

A suitable local isolating switch must be provided in the electrical supply circuit with at least 3mm clearance on each pole.

### Connection of Heater

Gain access to the terminal block (see 'y' in Fig. 2) by removing the access panel (see 'x' in Fig. 2) and feeding an appropriate cable through the cable gland. Alternatively remove the base panel and feed an appropriate cable through the cable gland.

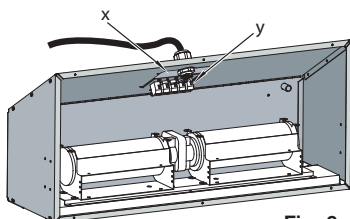


Fig. 2

## Installation of Switch Panel

**WARNING:** The Switch Panel should not be installed in a toilet or washroom.

The backing box (standard B.S. double gang as shown in **Fig. 5**) should be rebated into a suitable wall. The box should be fitted so that the switch panel will be flush with the wall. Suitable wall conduit should be used where applicable to carry the cable between the heater and the switch panel.

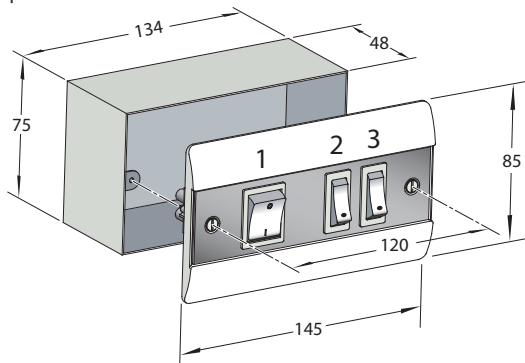


Fig. 5

## Installation of Heater

The Installation of this product must only be carried out by a prescribed competent person in accordance with Building Regulations and the current IEE Wiring Regulations for electrical equipment.

This heater can either be installed into a suspended or plasterboard ceiling. First it is necessary to ensure that 200mm of sufficient space exists above the ceiling for the Installation of this product (see **Fig. 1** and **Fig. 7**).

This product is designed to be suspended by threaded rod or wires/chains. Always ensure this unit is adequately supported when installed.

## Mounting of Heater

### Installation in a plasterboard (or similar) Ceiling

A hole (610x610mm) as indicated in **Fig. 1** and **Fig. 6** must be cut into the ceiling.

It may be necessary to fix an internal supporting frame around the newly cut aperture in a plasterboard ceiling.

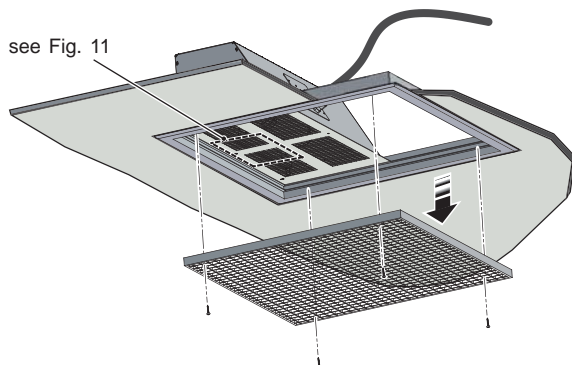


Fig. 6

To mount the unit into the ceiling void, use lengths of threaded bar or hooks (not supplied) screwed into the M8 threaded inserts located in the top side of the heater (see **Fig. 1** for dimensions). Adjust the height of the heater so the air inlet/outlet panel is positioned inside the grille frame and no more than 70mm above the installed height of the egg crate grille which allows access for future maintenance. The unit should also be positioned inside the grille opening to achieve optimum air-flow effect, as shown in **Fig. 8**.

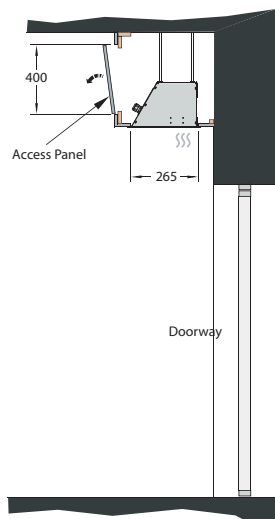


Fig. 7

### Installation in a Bulk Head (over doorway)

A hole (576x265mm) as indicated in **Fig. 7**, must be cut into the ceiling of the bulk head. Drop rods should be used to mount the appliance in such a position, as to have the base flush with the ceiling. An access panel should also be provided on the front of the bulkhead. This provides access to the top of the appliance and the access plate for wiring the appliance.

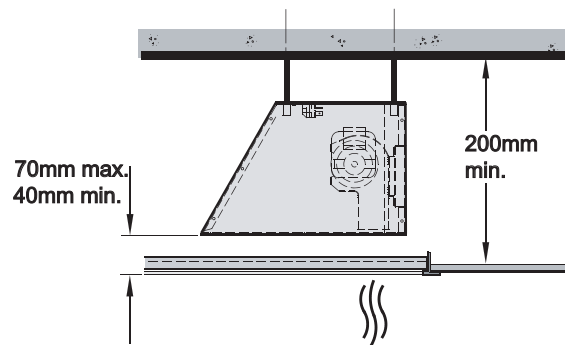


Fig. 8

## Installation in a Suspended Ceiling

A standard 600 x 600mm ceiling tile needs to be removed as close to the final position of the product as possible.

There are four options for mounting the appliance in a suspended ceiling:

1. Use suitable length M8 threaded bar and screw into the threaded inserts provided on the top of the heater - see **Fig. 1** for dimensions.
2. Bend up the 'Wire Hooks' as shown in **Fig. 9** and use suitable suspended ceiling wire to suspend the heater. (Note the appliance should be mounted as to prevent swaying of the product during operation).

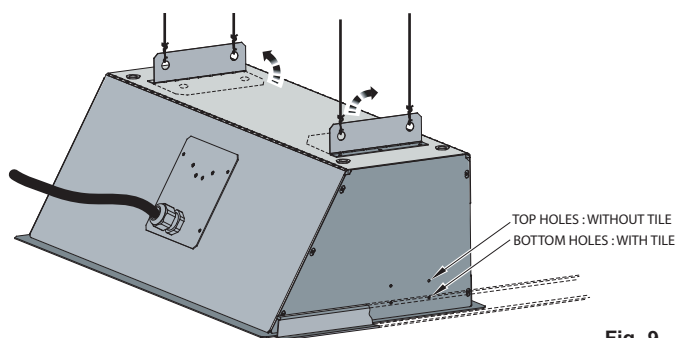


Fig. 9

3. **Without Egg Crate Grille:** Use the rail brackets provided. Bend the rail brackets as shown in **Fig. 10**. The appliance should be placed directly onto the suspended ceiling structure in the desired location. Using the screws provided screw the rail brackets onto the heater (Top Holes - see **Fig. 9**) so that it grips the suspended frame (see **Fig. 10**) Close the remaining space around the heater with a cut ceiling tile.

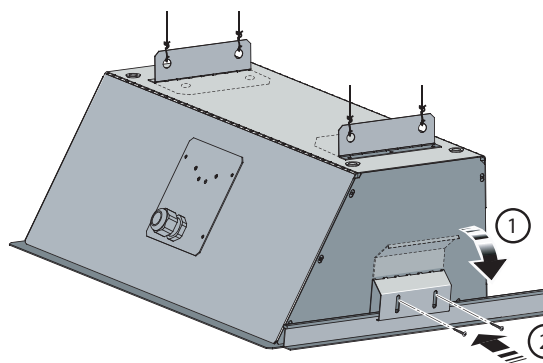


Fig. 10

4. **With Egg Crate Grille:** Use the rail brackets and ceiling tile provided. Pick a location to mount the heater. Remove the existing ceiling tile and replace with metal tile supplied. The appliance should be placed directly onto the metal ceiling tile. Using the screws provided screw the rail brackets onto the heater (Bottom Holes - see **Fig. 9**) so that it grips the suspended frame (see **Fig. 10**).

Note: Please ensure that the ceiling structure can withstand the weight of the appliance.

## Operation of Switch Panel

Switch on electrical supply (MAINS IN) to the Switch Panel.

Switching the switch marked 'I' (see '1' in **Fig. 5**) energises the fan and switches on the electrical supply to the heater.

The heat selection switches allow heat settings to be chosen as shown below:

Settings -	I	Fan Only
	I + ●	1/2 Heat
	I + ● ●	Full Heat

The desired setting can be obtained through switch selection.

## Maintenance

**WARNING: ALWAYS DISCONNECT HEATER FROM THE POWER SUPPLY BEFORE ATTEMPTING ANY MAINTENANCE.**

### Thermal Safety cut-out(s)

The power supply to the heating elements will be interrupted if one or a combination of the following abnormal events occur:

1. Air inlet/outlet panel is obstructed.
2. Internal ventilation is impaired due to build up of dust and fluff.
3. Blower unit stalls.

**Note :** If the cut-out operates, the fan may continue to run impairing the performance of the heater. The heater must be turned off immediately and the cut-out(s) reset following the 'Procedure for resetting cut-out(s)'.

### Procedure for resetting cut-out(s)

Establish cause and eliminate.

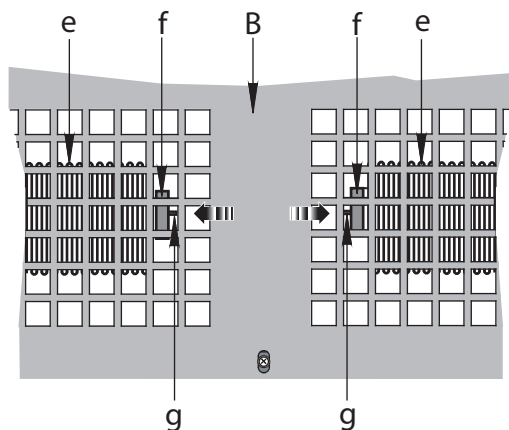
You need to reset thermal cut-out(s), located behind the Air Inlet/Outlet panel (for detail view see **Fig. 11**).

To reset the thermal safety cut-out, press the black reset button (see 'g' in **Fig. 11**) on the side of the cut-out (see 'f' in **Fig. 11**) as described in steps 2 - 4 :-

#### Steps to reset cut-out(s)

1. Disconnect power supply.
2. Pass small flat head screwdriver through Air Inlet/Outlet panel 'B' to button side of cut-out (see 'g' in **Fig. 11**) avoiding contact with element (see 'e' in **Fig. 11**).
3. Press reset button in direction shown in **Fig. 11** to reset cut-out. (Cut-out clicks when reset)
4. Remove screwdriver carefully.
5. Turn on supply.

If the cut-out continues to operate intermittently, the heater should be switched off and a service agent contacted.



**Fig. 11**

## Cleaning of Heater / Switch Panel

External and grille appearance can be maintained by occasionally vacuuming or wiping with a light duster. External appearance of the Switch Panel can be maintained by wiping occasionally with a light duster or for stain removal, a weak soap solution can be applied with a cloth and the surface wiped dry.

**Note: Care must be taken to avoid any moisture ingress into the switch panel.**

## After Sales Service

Your product is guaranteed for one year from the date of purchase.

Within this period, we undertake to repair or exchange this product free of charge provided it has been installed and operated in accordance with these instructions.

Your rights under this guarantee are additional to your statutory rights, which in turn are not affected by this guarantee.

Should you require after sales service you should contact our customer services help desk on 0845 600 5111. It would assist us if you can quote the model number, series, date of purchase, and nature of the fault at the time of your call. The customer services help desk will also be able to advise you should you need to purchase any spares.

Please do not return a faulty product to us in the first instance as this may result in loss or damage and delay in providing you with a satisfactory service.

Please retain your receipt as proof of purchase.



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