

ACT

RECESSED CEILING TILE HEATER & SURFACE MOUNTED STOCKROOM HEATER

INSTALLATION AND OPERATING MANUAL



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WARNINGS

- 1 This appliance must only be installed by a competent person in accordance with the requirements of the Codes of Practice or the rules in force.
- 2 All external wiring MUST comply with the current IEE wiring regulations.
- 3 Warning this appliance must be earthed.

1. General Information.

Introduction

This instruction manual describes the Airbloc ACT range of Recessed Ceiling Tiles and Surface Mounted Stockroom Heaters from 3 to 6kW.

The Airbloc ACT range are electric heater that directs a down-flow of warm air from overhead, delivering immediate heat where required and rapidly creating a comfortable environment for staff and customers.

The Airbloc ACT recessed ceiling heater is designed to fit in place of a standard 600mm ceiling panel. It is supplied complete with a remote mounting control box.



The Airbloc ACT surface mounted ceiling heater is designed for suspension from a ceiling using threaded bar. It is supplied with stud bar mounting kit, painted enclosure and remote mounting control box.



The ACT is supplied with a remote control box which houses 2 rocker switches. These switches give ambient airflow and full heat switching options.



For further details please refer to section 6 - User instructions in this manual.

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 manufacturer, offers a maintenance service. Details are available on request.

Electrical

This unit is suitable for connection to 230/240V 50Hz supplies.

The ACT3 has a full heating load of 3kW.
The ACT4-5 has a full heating load of 4.5kW.
The ACT6 has a full heating load of 6kW.

The connection to be made between the heater and the remote control box are shown in figures 3 & 4. An earth terminal is adjacent to the terminal block and is clearly marked with the symbol.

Warning

For safety reasons a good earth connection must ALWAYS be made to the heater and control box.

The unit 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.

Fixing Details

The fan heater box can only be fitted one way round (See figure 5), as two of the studs are off-set. This ensures that the fan outlet lines up with the discharge grille and also that the wiring is always sited the same side.

The diffuser is attached to the discharge grille with four small clips, which can be removed if necessary.

The discharge grille has four additional studs, plus nuts/washer, to enable the unit to be chained mounted, if required.

There are also extra holes in the box to enable the unit to be suspended via wires.

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.

Standards

Units conform to the European electrical standard BS EN 60335-2-30:1997 and to the following European CE directives. 73/23/EEC low voltage.

2. Dimensions.

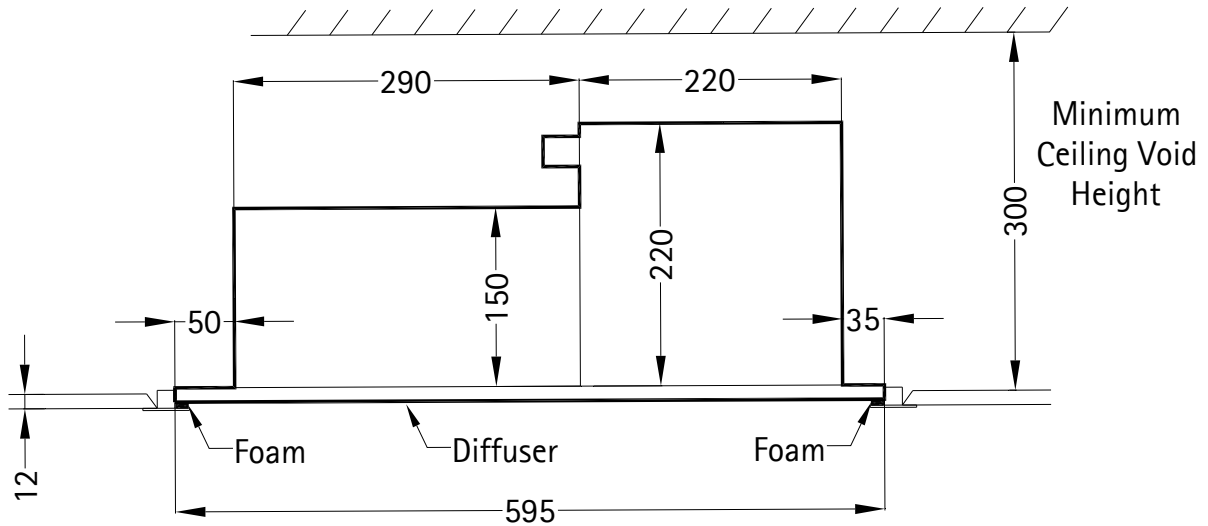


Figure 1. ACT Recessed Ceiling Tile dimensions.

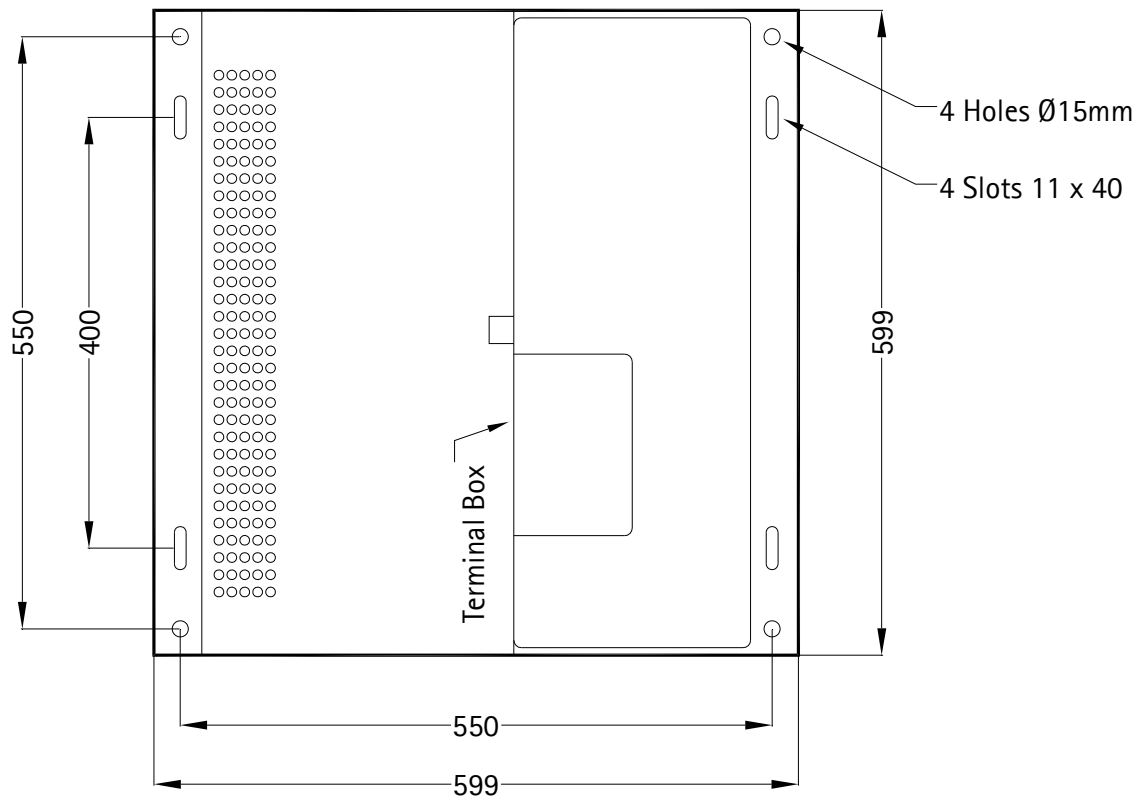


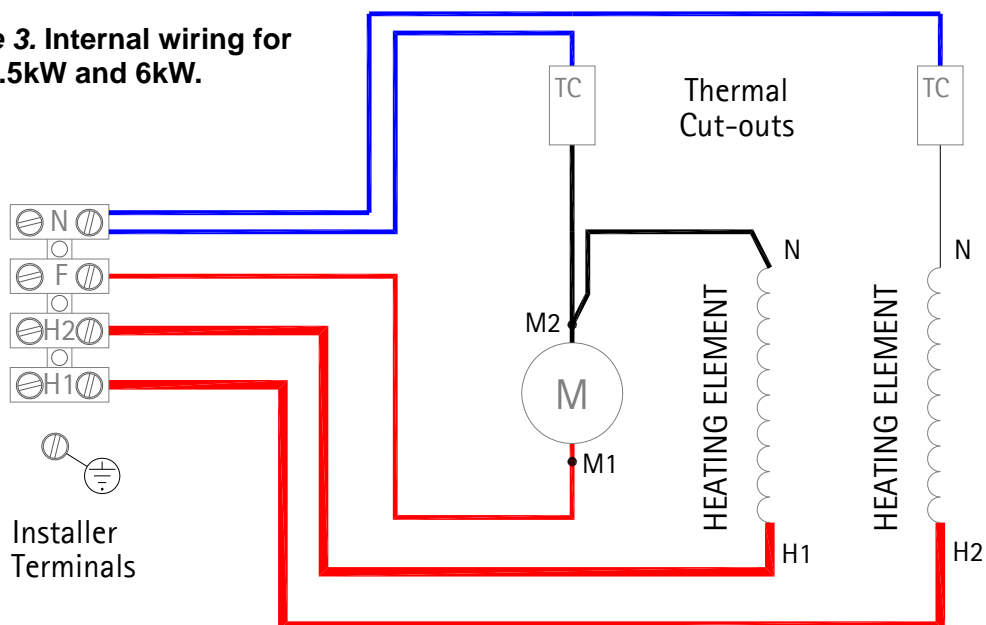
Figure 2. ACT Surface Mounted Stockroom Heater dimensions.

3. Technical Specification.

		ACT03	ACT04	ACT06
General Data				
Maximum height	M	3.0	3.5	
Heat medium		Electric heated		
Maximum heat capacity	kW	3.0	4.5	6.0
Heat setting		1		
Heat setting	kW	3.0	4.5	6.0
Fan type		Crossflow		
Fan dia	mm	60		
Fan settings		1		
Air outlet		Fixed vent		
Switching type		Remote switchbox		
Weight Recessed / Surface Mounted	kg	10 / 13	11 / 14	13.5 / 19
Electrical Data				
Maximum heat capacity	kW	3.0	4.5	6.0
Supply voltage		230V 1ph 50Hz		
Total load	amps	13	20	27
Cable size		2 x 2.5mm ² + E	2 x 4.0mm ² + E	2 x 6.0mm ² + E
External fuse size amps	amps	16	25	32
Switch box wiring		2 x 2.5mm ² + E	2 x 4.0mm ² + E	2 x 6.0mm ² + E
Mains terminal block position		Inside cover		
Control terminal block position		Inside cover		
Air Data				
Fan setting		1		
Noise level	dBA	44	52	
Dims Data				
Length	mm	600		
Depth	mm	600		
Total Height (incl terminal box)	mm	220		

4. Internal Wiring Diagram.

Figure 3. Internal wiring for ACT 4.5kW and 6kW.



5. Installer Wiring Details.

Figure 4. ACT 4.5kW and 6kW Switchbox interconnecting wiring.

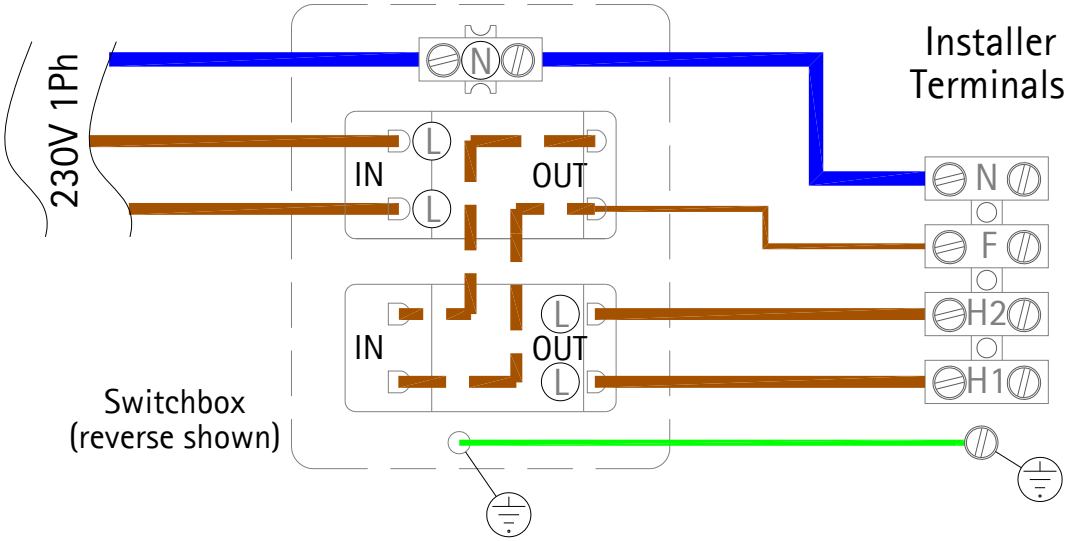


Figure 5. Internal wiring for ACT 3kW.

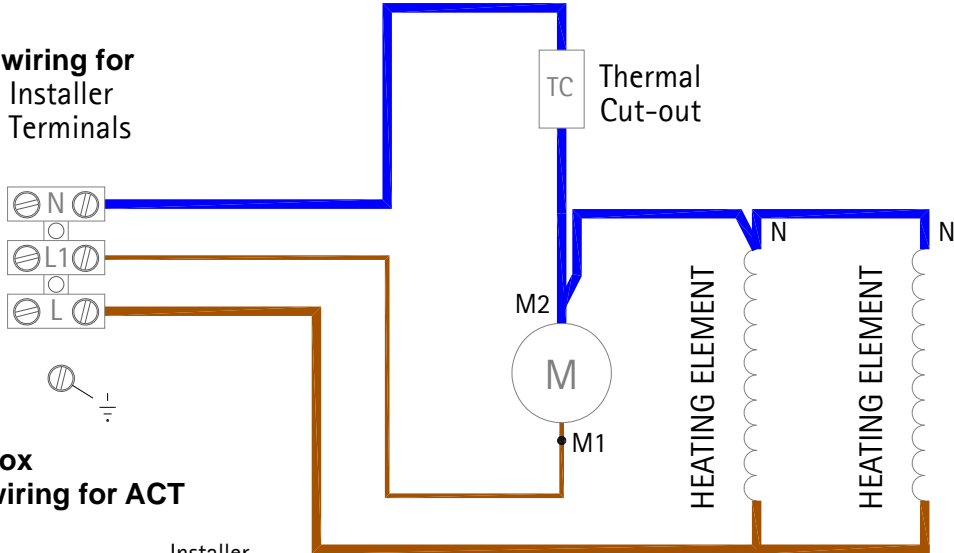
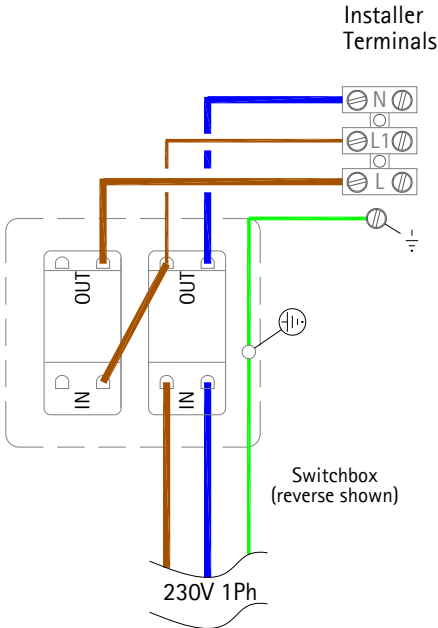


Figure 6. Switchbox interconnecting wiring for ACT 3kW



6. Installation Details.

Mounting

The fan heater box can only be fitted one way round (see fig.6), as 2 of the studs are offset. This ensures that the fan outlet lines up with the discharge grille and also that the wiring is always sited the same side.

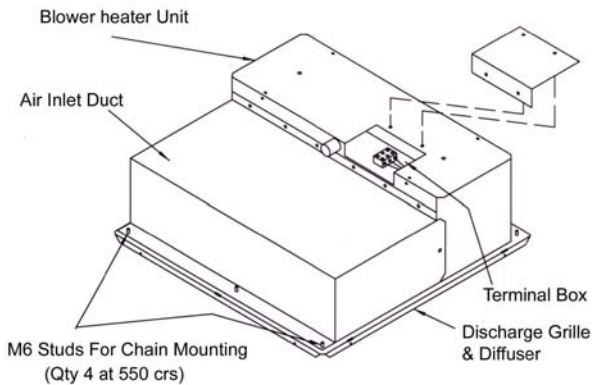


Figure 6. Recessed Ceiling Tile detail.

The diffuser is attached to the discharge grille with 4 small clips, which can be removed if necessary.

The discharge grille has 4 additional studs, plus nuts/washer, to enable the unit to be chain mounted, if required.

There are also extra holes in the box to enable the unit to be suspended via wires.

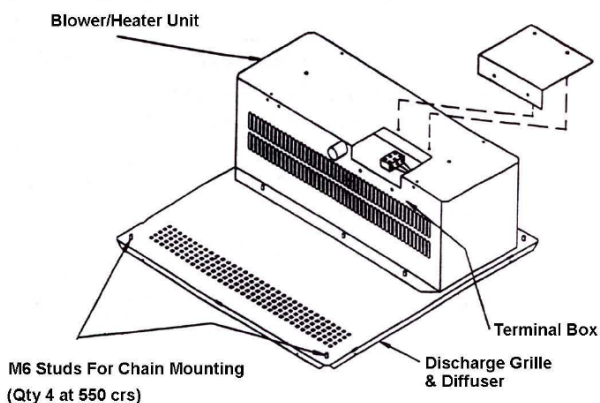


Figure 7. Surface Mounted Heater detail.

Installation / Hanging. (Surface Mounted only)

- **Split and remove shroud**

A pair of machine screws hold each shroud half together at each joint.

A machine screw secures each shroud half to each appliance beam.

Remove these machine screws and slide each shroud half off the appliance base panel.

Note: The base panel fits inside the shroud halves.

The diffuser is already clipped into and under the base panel and need not be removed.

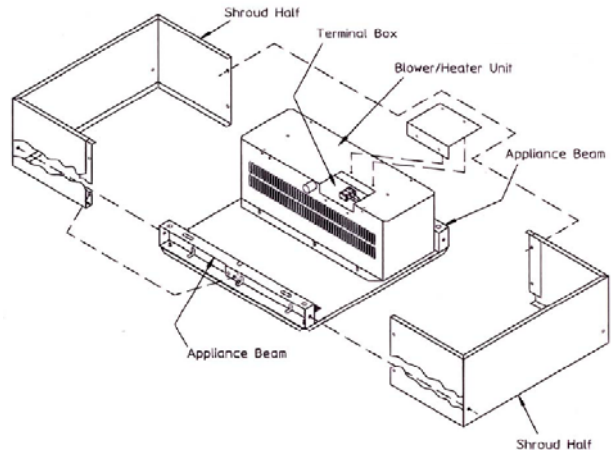


Figure 8. Surface mount location holes.

- **Hanging Rod Positions**

With the shroud removed the two appliance beams reveal the holes/slots shown and dimensioned below. It is required that two $\varnothing 10$ mm hanging rods (stud bars) support each appliance beam. The rods pass through and into each appliance beam. Support washers together with nuts locate and lock the appliance beams after adjustment to level the appliance.

- **Replace Shroud Halves**

The reverse of '1' above. Slide shrouds beneath and around base panel. Secure each shroud half to each appliance beam with machine screws. Screw shroud halves together at each joint.

Electrical Connections

The electrical connection is via a suitable single phase supply. Wiring connections between the Switchbox and the unit are shown in diagrams 3 and 4 in section 4.

7. User Instructions.

Control

The remote control box houses 2 switches, a double pole and a single pole, and gives the following functions:

- Switch 1 Off/Fan Only
- Switch 2 Full Heat

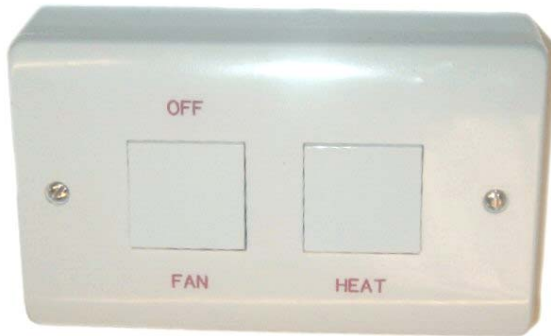


Figure 9. Remote Control Box

Protection

The unit is protected in the event of fan failure, or an obstruction of the free air flow, by a thermal PTC Self Hold Cut Out.

Having tripped the PTC Cut Out remains open, effectively switching off the heating elements, as long as mains power is available inside the appliance.

The PTC Cut Out will only reset when the appliance is switched OFF and allowed to cool for at least 20 minutes.

To reset the PTC Self Hold Cut Out

- a) The cut-out is reset by switching OFF mains power to the appliance.
- b) Allow the appliance to cool for 20 minutes.

Re-start, switch ON the appliance. If the Cut-out trips again, a qualified electrician should be consulted.

8. Maintenance

! ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE COMENCING 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.

A single drop of light oil should be applied to the motor bearing from time to time.

9. Spares & Servicing

It is essential when ordering spares or replacement parts to state the model number and the serial number on the rating label adhered to the rear of the unit.

The heater should be serviced annually. Airbloc offer a service facility, call 01384 489700.

Servicing shall be undertaken by a competent person.

Any repair or alteration carried out to this product without the prior authority from Ambi-Rad will invalidate warranty.

Refer to Air Curtain Installation and Operating Instruction manual for details.

! Ensure electrical power is isolated from the product.

10. Replacements

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

TO REPLACE A FAN/HEATER ASSEMBLY

- Switch off the mains supply.
- Release the air inlet duct from both the fan heater box and the discharge grille panel.
- Release the six nuts and washers fixing the fan heater box to the discharge grille panel.
- Disconnect the fan heater wiring from the mains terminal block and earth stud.
- Remove the fan heater from the box (four screws).
- Fit replacement unit and re-assemble in the reverse order.

TO REPLACE A SWITCH IN THE CONTROL BOX

- Switch off the mains supply.
- Remove the switch box cover.
- Disconnect the wiring to the switch.
- Remove the appropriate fixing screw(s) and push out the switch.
- Fit the replacement switch, reconnect the wiring and replace the cover.



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