



Installation, operation and Maintenance Manual

Unit: ACE Over door heater

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1 Pre Installation.

1.1 Delivery Check.

On receipt of delivery check the unit and packaging for any damage. Report any transport damage to Diffusion immediately, or within three working days.

Make sure that all ordered parts have been delivered. Any shortfall should be reported to Diffusion immediately.

1.2 Handling.

The unit must be handled with care, to avoid damage. Distortion of the chassis and damage to the internal components may occur as a result from impact.

1.3 Storage.

Units should not be stacked. The units should be carefully stored under dry and dust free conditions in their packaging until required.

2 Installation.

2.1 General.

Make sure that the structure on which the unit will be mounted is capable of supporting the weight of the unit. The weight is shown on the G/A drawings.

The front of the unit is the air inlet, therefore do not obstruct in any way, as unit failure will result.

The electrical connections are within the unit, and are accessed via the removable front panel.

The unit should be positioned above the door at a maximum height of 2.5m from the finished floor level.

The unit has one front access panel that is fixed by setscrews. The panel can be removed to access all internal components.

2.2 Supporting the unit.

The unit is to be mounted and levelled using the four fixing holes which are located on each side of the unit rear panel for this purpose.

2.3 Electrical connections.

The unit requires a 230V/1ph/50Hz electrical supply that is terminated within the unit and should be connected in accordance with the current IEE regulations.

The unit must be wired in accordance with, and with reference to, the relevant wiring diagram.

Warning: This unit must be earthed and a mains isolator must be fitted. Make sure that the mains supply you are working on is switched off.

3 Operation.

3.1 Safety Instructions.

Warning:

DO NOT insert any objects into the inlet or discharge openings.

Never block the inlet or discharge openings.

During operation the surface of the unit can become hot.

Make sure mains power supply is switched off, whilst working on the unit.

When the unit is switched off, residual heat will be present for a period of time, DO NOT remove the access panel or carry out any maintenance until the heat has dissipated sufficiently to a level where it is safe to do so.

3.2 Unit operation.

The unit is supplied with a fan on/off and heating on/off switches. These switches are located on a panel at the right hand side of the discharge grille.

To switch on the unit press the switch labelled “fan” to the on position, the fan will start and the unit will be powered. To switch on the heating, press the switch labelled “3kW” to the on position, this will power the 3kW heater element, the heating will now operate. If the unit is a 6kW version, to switch on the additional 3kW element press the switch labelled “+3kW” to the on position, this will now power the extra 3kW element and give 6kW of heating.

To run the unit in an ambient air only operation (no heating), press the heating switch/s to the off position and leave the fan switch at the on position. This will allow fan only operation with no heating. To turn the unit off, press the fan and heating switches to the off position, this de-energises the unit. The fan and heating elements will now be off.

Should the airflow fail, or reduce to dangerously low levels due to obstruction or fan failure, the manual over heat safety cut out will operate. This cuts the electrical power to the heating elements and shuts them down, which prevents the unit from seriously over heating and becoming a safety hazard.

4 Maintenance and Servicing.

4.1 Safety Instructions.

Warning: Before maintaining/servicing the unit:

Make sure mains power is switched off, (i.e. fused spur or main circuit breaker).

Wait until fans/motors have stopped rotation.

Allow the unit to cool down after operation to allow dissipation of residual heat.

Element fins can be sharp, great care must be taken when handling.

Use all necessary safety equipment required by current HSE legislation.

4.2 General maintenance.

Access to all the internal components can be made by removing the front access panel.

Fans

To remove the fan deck, disconnect the motor from the mains supply and the speed switches. Loosen the setscrews located at either end of the deck and slide back along the keyhole slots. Remove the deck by tilting up and pulling forward out through the access panel. Re assembly is the reversal of the above.

The impeller blades should be lightly brushed/cleaned at regular intervals; this is to remove any dust that has gathered. The fan motor has sealed for life bearings and therefore requires no lubrication or maintenance. The fan blades are manufactured from aluminium; therefore great care must be taken when cleaning to prevent serious damage occurring.

The fan motor is 230V/1ph/50Hz.

Electric Elements.

To remove the electric elements, unscrew the two setscrews holding the discharge grille in position. Partially drop the grille and remove the spade connectors on the back of all the switches and remove the grille fully. Disconnect the element from the mains electrical supply (two cables). Unscrew the two locking back nuts located on the threaded bushes of the elements and remove fully. Pull the element into the element box so that the threaded bushes clear the holes, then threading the cables through the same holes withdraw the element out through the underside of the element box. Re assembly is the reversal of the above.

The fins should be lightly brushed/cleaned at regular intervals; this is to remove any dust that has gathered. **DO NOT** use water or any other liquid or spray to clean the elements, as serious damage will result.

Element fins can be sharp, great care must be taken when handling.

The elements are 230V/1ph/50Hz.

5 Spares Parts.

5.1 Spares lists

Contact spares department.

6 Drawings.

6.1 G/A Drawings

As attached drawings

6.2 Wiring Diagrams

As attached drawings

7 General information.

The goods supplied are subject to et Environmental standard terms and conditions of sale, a copy of which is available on request. If anything in these installation operation and maintenance instructions conflicts with the terms and conditions, then the terms and conditions will apply.

Each unit is individually tested both mechanically and electrically. A test label is attached to each unit signed by the tester for each test completed.

Liability for the contents of this guide:

However much care might have been taken in ensuring the correctness and, where necessary, completeness of the description of the relevant parts, et Environmental disclaims all liability for damage resulting from any inaccuracies and/or deficiencies in this guide.

Should you detect any errors or ambiguities in this guide then we would be pleased to hear from you: it helps us to improve our documentation even further.

et Environmental has a policy of continuous development and therefore reserves the right to alter information contained in this literature without prior notice.

If you require any further information please contact the following:

Diffusion
47 Central Avenue
West Molesey
Surrey KT8 2QZ

Tel: 0208 783 0033

email: diffusion@etenv.co.uk

Fax: 0208 783 0140

Web: www.diffusion-group.co.uk

Declaration of Conformity

This certificate declares that the following et Environmental plc products:

Over door heaters, space heating units, fan convectors and vent units.

Have been designed and manufactured in accordance with the requirements of the council directive 89/336/EEC relating to Electromagnetic Compatibility by the application of the following EMC generic standards.

EN50 081.1 1992

EN50 082.1 1992

Providing installation is carried out in compliance with BS 5345 & BS 6959 and that correct EMC practices are applied, and that any cable glands and connections to the units are approved for use in the relevant environment.