



thermoscreens®

C EE RANGE AIR CURTAINS

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION

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UN-PACKING YOUR C AIR-CURTAIN

The following items are supplied and packaged within the boxes.

■ C Air Curtain



Please note end caps are supplied loose and can be fitted during installation

■ Remote Control

Electric



Ambient/LPHW



■ Wall Brackets & Fixing Bolts



(additional bracket and bolts supplied for C1500/C2000 models)

Note Optional filters are available on Water and Ambient models only and are packed separately.

If anything is missing or damaged please contact your place of purchase immediately.

For your records

Date of Purchase.....
Place of Purchase.....
Serial Number.....

For warranty purposes proof of purchase is necessary so please keep a copy of your invoice.

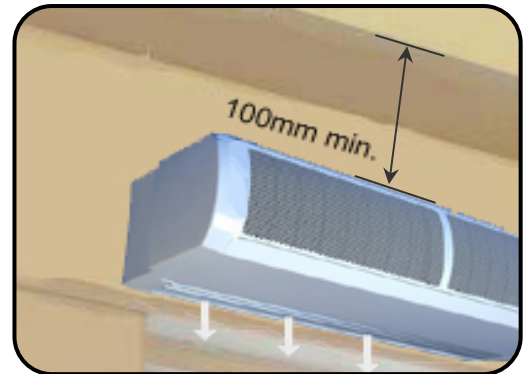
(All documentation supplied with each unit should be stored and kept for future reference).

INSTALLATION OF YOUR HORIZONTAL APPLICATION C AIR-CURTAIN

The C air curtain has been designed for surface mounting only inside of the building.

Location

Ensure that the unit is mounted within its height specification of 1.8m minimum to 3.0m maximum (from floor level to the underside of the unit) and that it is situated as close to the door as possible with a 100mm air gap above the air curtain (see adjacent figure). In some cases it may not be possible to mount the air curtain as close to the door as possible as the air stream may strike the top edge of the doorway, a structural beam or a door opening device etc, therefore this will have to be taken into account when locating the unit.



Wall Fixing

Bolt the wall brackets to the rear face of the unit as shown in the adjacent figure (using the bolts supplied). Before fitting the unit to the wall obtain suitable fixing bolts, taking into account wall type and unit weight (see table 1).

Step 1. Refer to Figure 1 for mounting details and drill the wall accordingly.

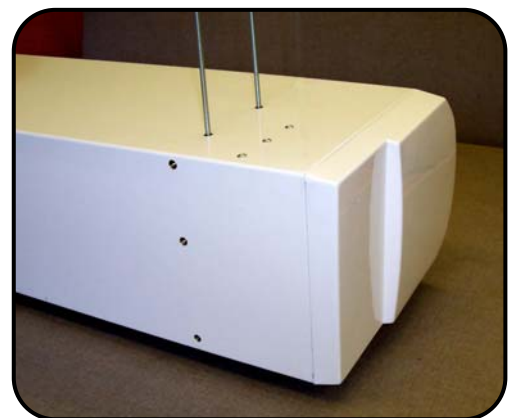
Step 2. Screw in the top bolts leaving a small gap between the head and the wall; lower the unit onto the bolts via key hole slots in the top of the wall brackets and then screw in the bottom bolts.

Step 3. Ensure all fixing bolts are tightened to stop the unit being lifted off the wall.



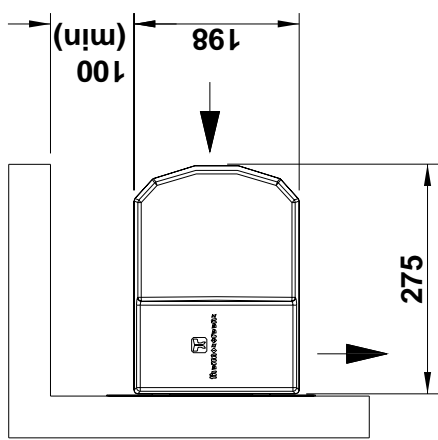
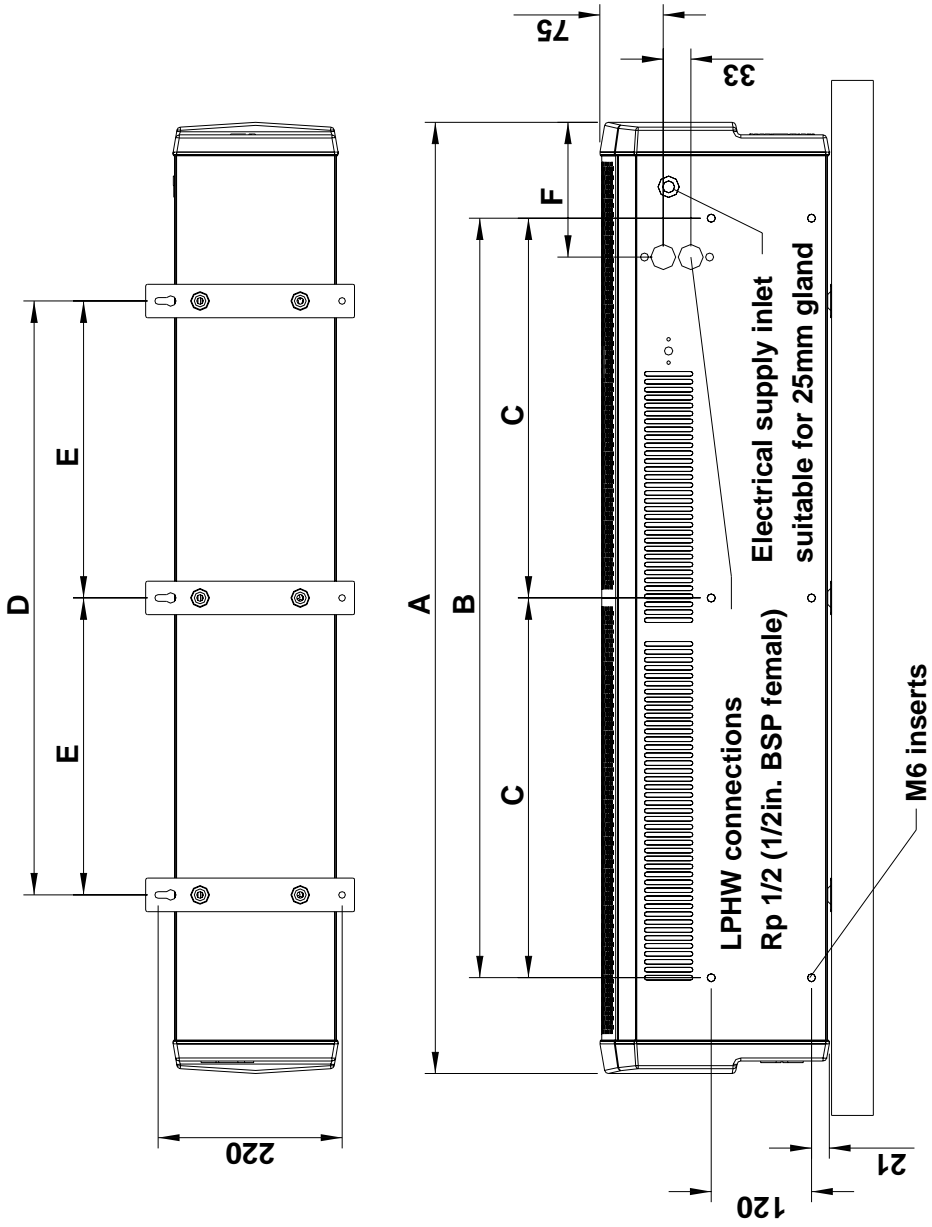
Ceiling Suspension

6mm threaded inserts are provided in the top face of the casing (4 x M6 on the 1m and 6 x M6 on the 1.5/2m models, for dimensions see Figure 1) allowing the unit to be suspended on threaded rod (threaded rod is not provided). Ensure each of the threaded rods are secured on to a suitable structure that can support the weight of the unit (for unit weights see Table 1)*. When fitting the threaded rod ensure that it does not interfere with internal components. Fit locking nuts (not supplied) and ensure they are engaged by a minimum of 20mm to stop the threaded rod rotating and coming away from the casing.



*Please note it is the sole responsibility of the installer to ensure that the fixing points and suspension system used are suitable for the air curtain being installed.

Figure 1



	C1000	C1500	C2000
A(mm)	1137	1669	2200
B(mm)	908	1408	1928
C(mm)	N/A	704	964
D(mm)	710	1208	1748
E(mm)	N/A	604	874
F(mm)	161	170	161

■ Safety and Electrical Connections

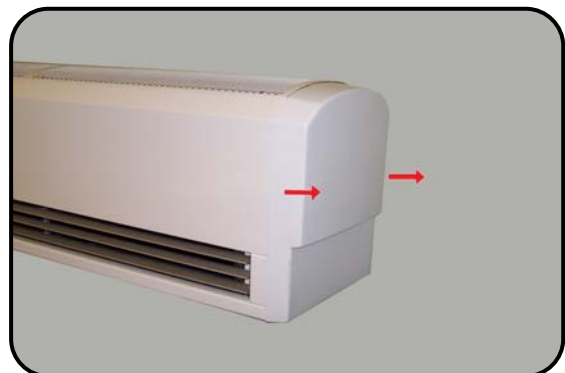
All electrical wiring and connections MUST be carried out by a competent qualified electrician in accordance with the latest edition of the IEE wiring regulations and/or local statutory regulations.

- A single phase or 3 phase local isolator with a contact separation of at least 3mm in all poles must be fitted to the supply wiring (the isolator must be fitted within an accessible position).
- The air curtain must be earthed.
- The appliance must be connected by means of wires having an appropriate temperature rating (heat resistant) (electric models only).
- Ensure that the supply cables, circuit breakers and other electrical installation equipment are correctly sized for the air curtain being installed; see Table 1 for Power Ratings. See also data badge on the left hand side of unit under end cap.
- On a 3 phase electrical supply the unit requires a neutral connection (3N~).
- Cable glands used for the Electrical Input must be rated IP21 or higher.

Table 1

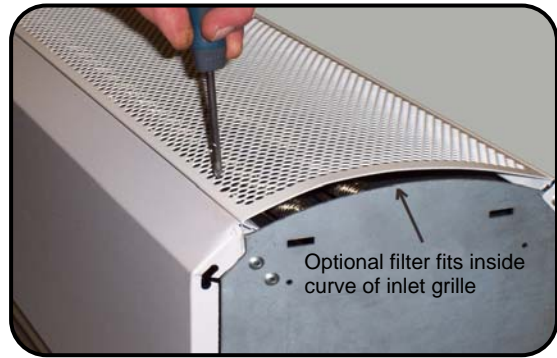
Air Curtain	Electrical Supply (V/ph/Hz)	Rated Power Input (kW)	Current per phase (A)	Heat Output (kW)	Weight (kg)
C1000A	230/1/50	0.15	0.7	N/A	15
C1500A	230/1/50	0.20	0.9	N/A	21
C2000A	230/1/50	0.25	1.1	N/A	31
C1000W	230/1/50	0.15	0.7	6.0	16
C1500W	230/1/50	0.20	0.9	9.0	23
C2000W	230/1/50	0.25	1.1	12.0	33
C1000E	400/3/50	9.15	13.7	4.5/9.0	18
C1500E	400/3/50	12.20	18.3	6.0/12.0	26
C2000E	400/3/50	18.25	27.2	9.0/18.0	37

- To gain access to the electrical connections the air intake grilles must be removed. Ensure electrical mains supply to the unit is isolated. If end caps are already fitted, remove them from the air curtain first (see insert).



Two air inlet grilles are fitted on 1m, three on 1.5m and four on 2.0m models.

Remove intake grilles by unfastening two screws on each grille; M4 x 10mm Pozi No.2 screws accessed via larger hole in the bottom of the grille (see adjacent figure).



Access can now be gained to make the electrical connections. Once connections have been completed the inlet grilles should be refitted and if fitted the end caps clipped into place (see insert).

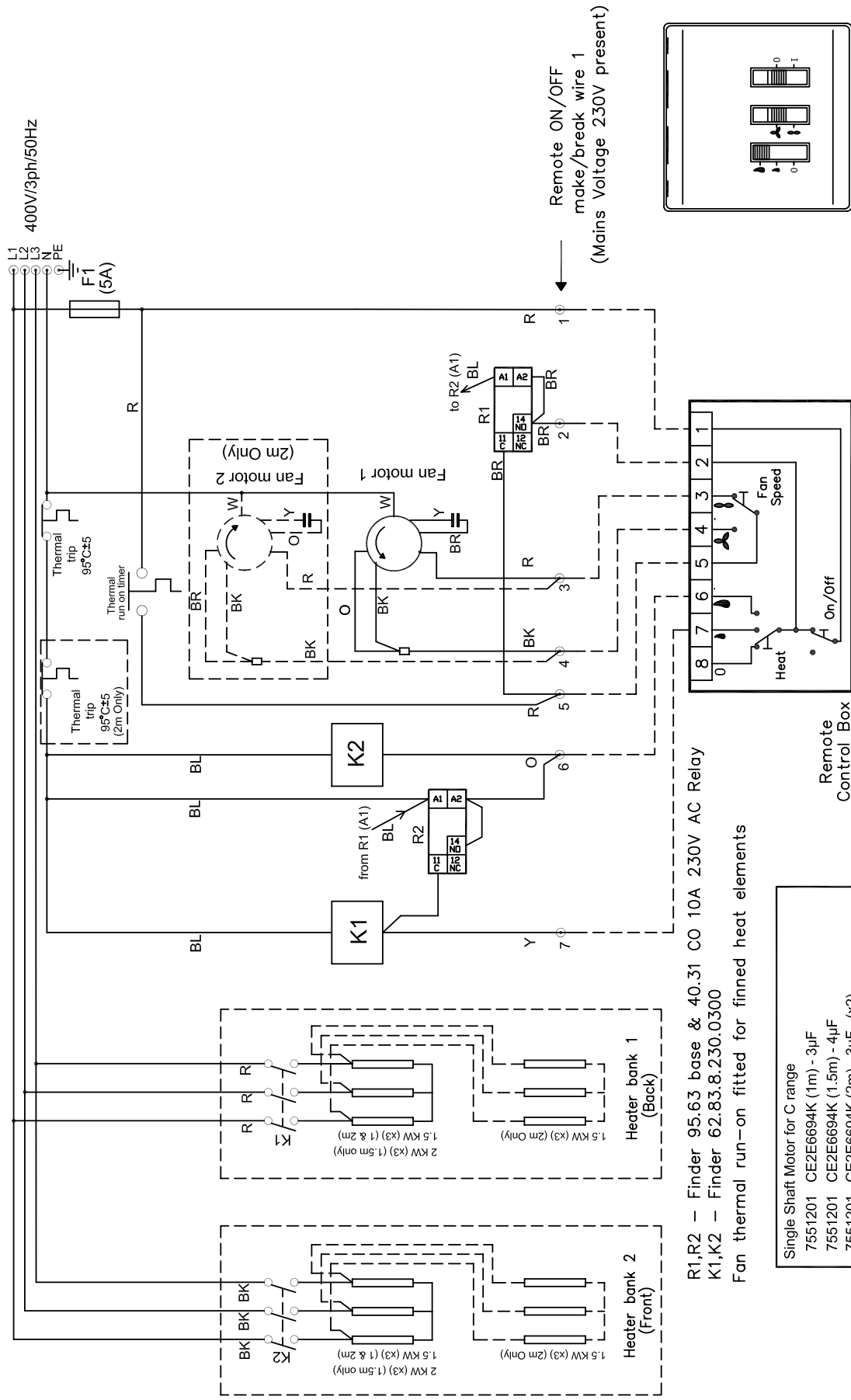


Please note the panels of the air curtain are coated in a protective film which should be removed before use.

■ LPHW Models

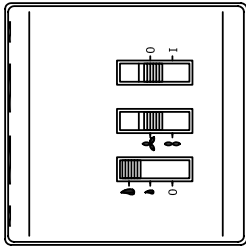
For LPHW models ensure suitable water mains isolation valves are fitted in the flow and return pipework.

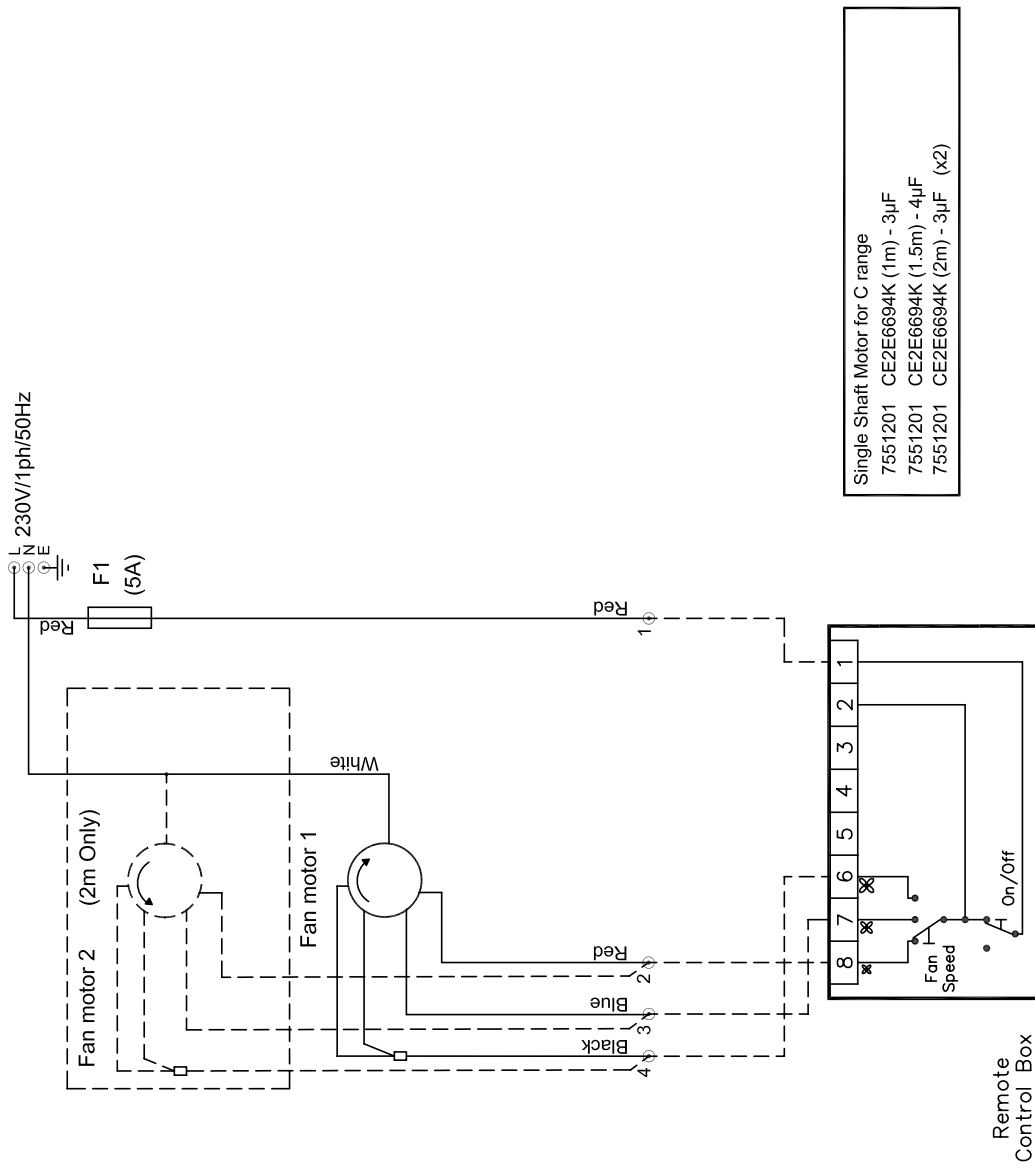
Air Curtain	Water Flow Rate (l/s) 82/72°C	Coil Water Pressure Drop (kPa)
C1000W	0.14	2.77
C1500W	0.21	6.74
C2000W	0.29	13.40



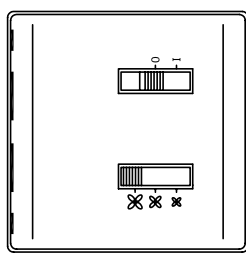
R1,R2 – Finder 95.63 base & 40.31 CO 10A 230V AC Relay
 K1,K2 – Finder 62.83.8.230.0300
 Fan thermal run-on fitted for finned heat elements

Single Shaft Motor for C range	
7551201	CE2E6694K (1m) - 3µF
7551201	CE2E6694K (1.5m) - 4µF
7551201	CE2E6694K (2m) - 3µF (x2)





Single Shaft Motor for C range
 7551201 CE2E6694K (1m) - 3µF
 7551201 CE2E6694K (1.5m) - 4µF
 7551201 CE2E6694K (2m) - 3µF (x2)



Commissioning

Set the discharge grille vanes so they point straight downwards over the doorway. Once the air curtain is functioning check that the fans operate, there is no excessive mechanical noise coming from the fans and that all fans are working. If the unit is electric heated or water heated check that the air stream from the discharge grille warms up across the whole length of the air curtain when heating is selected. Check that heating increases as higher heat is selected and feel to see that the warm air stream is reaching across the doorway with door open or closed. If necessary the vanes of the discharge grille can be angled either inwards or outwards if this gives better penetration/warming of any incoming draughts.

Before leaving site it is important that the air curtain installation is "Handed-Over" to the end user or his representative and the operation of it is fully explained and that they understand how it operates. Explain also the service intervals and that the unit must be regularly cleaned and if it has filters fitted that these require regular cleaning/replacement.

Fault Conditions

In the event of a fault the thermal cut out(s) (*Note: If the mains supply is isolated during operation then the thermal cut outs may operate*) or internal fuses may operate. The thermal cut out(s) are located on the top face of the unit directly above the element banks (one on the 1 & 1.5m and two on the 2m model).

In the case of a fault condition do not attempt to reset the thermal cut outs or replace the fuses, arrange for a Thermoscreens appointed technician or certified electrician to attend the unit to investigate the reason why the thermal cut outs/fuse(s) have operated. Once the cause has been determined and rectified, they will reset/replace the thermal cut out/fuse and function test the unit.

Service & Maintenance

Always disconnect and isolate the mains electricity supply before installing, maintaining or repairing this equipment. Note: All maintenance/repairs should only be carried out by a competent electrician or Thermoscreens appointed technician.

Once the mains supply is isolated, remove end caps from the air curtain (if fitted). Remove each air intake grille by unfastening two screws on each grille - M4 x 10mm Pozi No.2 screws accessed via the larger hole at the bottom of each grille.

To ensure the air curtain operates at full efficiency the inlet/outlet grilles, fan impellers, housings and motors must be kept free of dust and debris. Build up of dust on the fan impellers can cause vibration, noise and excessive wear on the motor bearings.

Frequency of cleaning will depend on the environment, but we would recommend that the unit be cleaned a minimum of every 3 months (failure to adequately maintain the unit and provide a suitable cleaning schedule will result in performance degradation and reduce the life expectancy of the air-curtain).

Vacuum and clean the build-up of dirt and debris within the air-curtain (*please note that the motor(s) are permanently lubricated and require no additional lubrication*). *If filters are fitted, ensure these are regularly inspected and cleaned or replaced. All dirty or blocked filters should be immediately replaced.*

Once the air curtain has been cleaned check all electrical connections within the unit ensuring terminals are tight and that crimped connections have not become loose. Refit inlet grilles and end caps. Reconnect the electrical supply and fully function test the air-curtain to ensure correct operation (See Commissioning).

If the outer casing requires cleaning this should be done using a warm soft cloth. Do not use solvents or abrasive materials.

Warranty

If any problems are encountered, please contact your installer/supplier. Failing this please contact the Thermoscreens warranty department. All units are covered by a two year warranty period.

Care has been taken in compiling these instructions to ensure they are correct, although Thermoscreens disclaims all liability for damage resulting from any inaccuracies and/or deficiencies in this documentation. Thermoscreens retain the right to change the specifications stated in these instructions.

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