



thermoscreens®

THERMOSCREENS PSI-RANGE

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION

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UN-PACKING YOUR PSI AIR-CURTAIN

The following items are supplied.

■ PSI Air curtain



■ Remote switch unit

Fan switch



Heat switch
(Electrically
heated only)



■ Wall bracket(s) & fixing bolts



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 the unit should be stored accordingly)

INSTALLATION OF YOUR PSI AIR-CURTAIN

The PSI air curtain has been designed for surface mounting only

■ Location

Ensure that the unit is mounted within its height specification of 3.0m to 6.0m (from floor level to the underside of the unit) and that it is situated as close to the door as possible as shown in the adjacent picture. 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.

Note: It is possible to install the PSI water heated and ambient range in a vertical position providing they have been suitably modified at the factory (standard vertical water heated units are suitable for installing upon the right hand side of the door only, this is due to bleed valve positioning in the case of an air lock, if a left hand unit is required then the air curtain coil will require modification at the factory).

When mounting vertically the units should be positioned with the discharge as close to the vertical upright of the doorframe as possible.

Vertical units are not free standing and should be bolted to the wall as described in the section below.

■ Wall fixing

Bolt the wall brackets to the rear face of the unit (using the bolts supplied as shown in the adjacent picture).

*Before fitting the unit to the wall suitable fixing bolts should be used, taking into account wall type and unit weight (For unit weights see table 1).

Step 1. Drill and fix the bolts into the wall.

Step 2. Tighten the bolts leaving a small gap between the head and the wall on the top fixing bolts; proceed to lower the unit onto the bolts via the wall brackets.

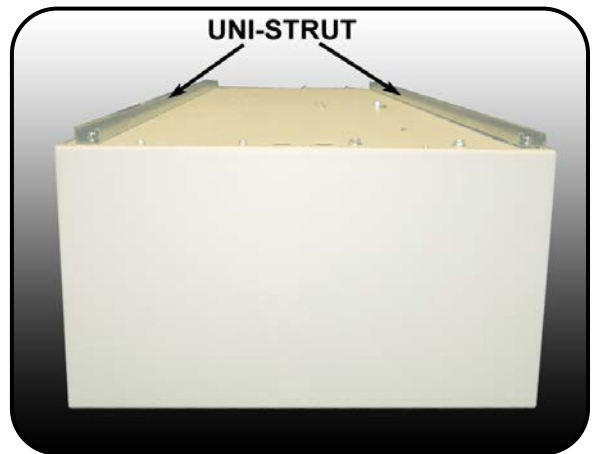
Step 3. Ensure the final fixing bolts are screwed in and tightened to stop the unit being lifted off the wall (For fixing details regarding the above see Diagram on page 4).

*It is the sole responsibility of the installer to ensure that the fixing points and bolts used are suitable for the air curtain being installed.

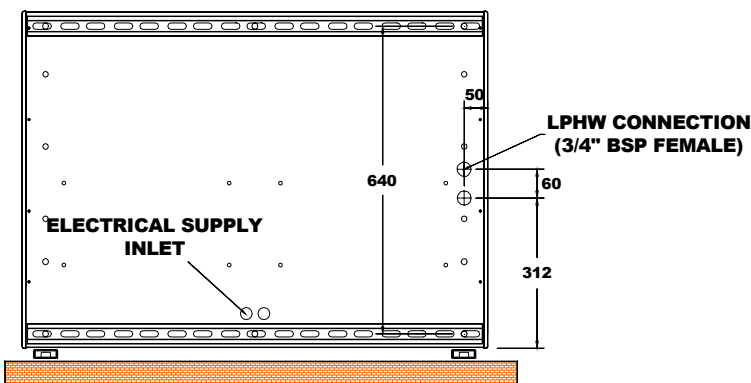


■ Ceiling suspension

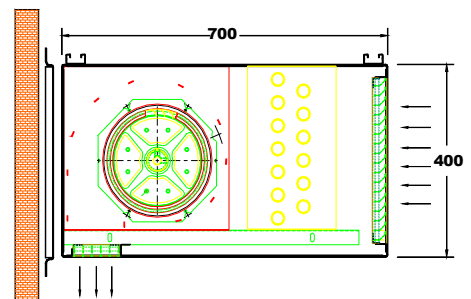
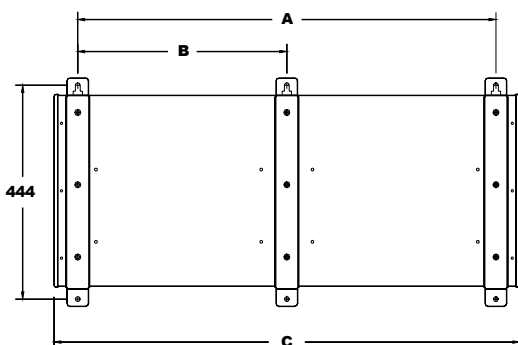
Two uni-strut sections are fitted to the top face of the air curtain to provide fixing points for threaded rod/spring loaded brackets (not supplied) or custom made brackets (not supplied) for dimensions see Diagram below. When fixing ensure that the threaded rods/custom brackets are secured on to a *suitable structure that can maintain the weight of the unit (for unit weights see table 1). When fitting the threaded rod/spring loaded brackets ensure that locking nuts are fitted (not supplied) to stop the threaded rod rotating and coming away from the spring-loaded brackets.



*It is the sole responsibility of the installer to ensure that the fixing points and bolts used are suitable for the air curtain being installed.



	PSI1000	PSI1500	PSI2000
A(mm)	898	1398	1898
B(mm)	N/A	699	949
C(mm)	1000	1500	2000



■ Safety and Electrical connections

Units should only be wired by a competent electrician in accordance with the latest edition of the IEE wiring regulations and/or local statutory regulations

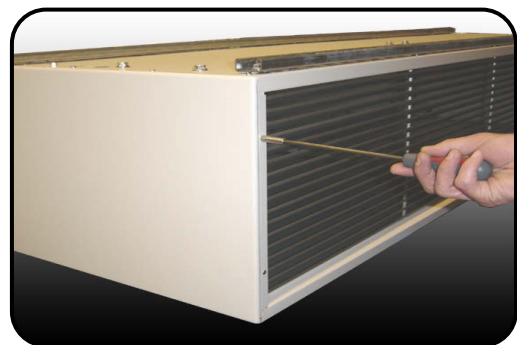
- A single phase or 3-phase isolator as appropriate must be fitted to the supply wiring with a contact separation of at least 3mm in all poles (the isolator must be fitted within an accessible position).
- The product must be earthed
- Ensure that the supply cables and circuit breakers are sufficient for the air-curtain being installed, for loadings see table below.
- The appliance must be connected by means of wires having an appropriate temperature rating (heat resistant) (electric models only).
- On a 3 phase supply the unit requires a neutral connection (3N~).
- Cable glands used for the Electrical Input must be rated IP21 or higher.

Table 1

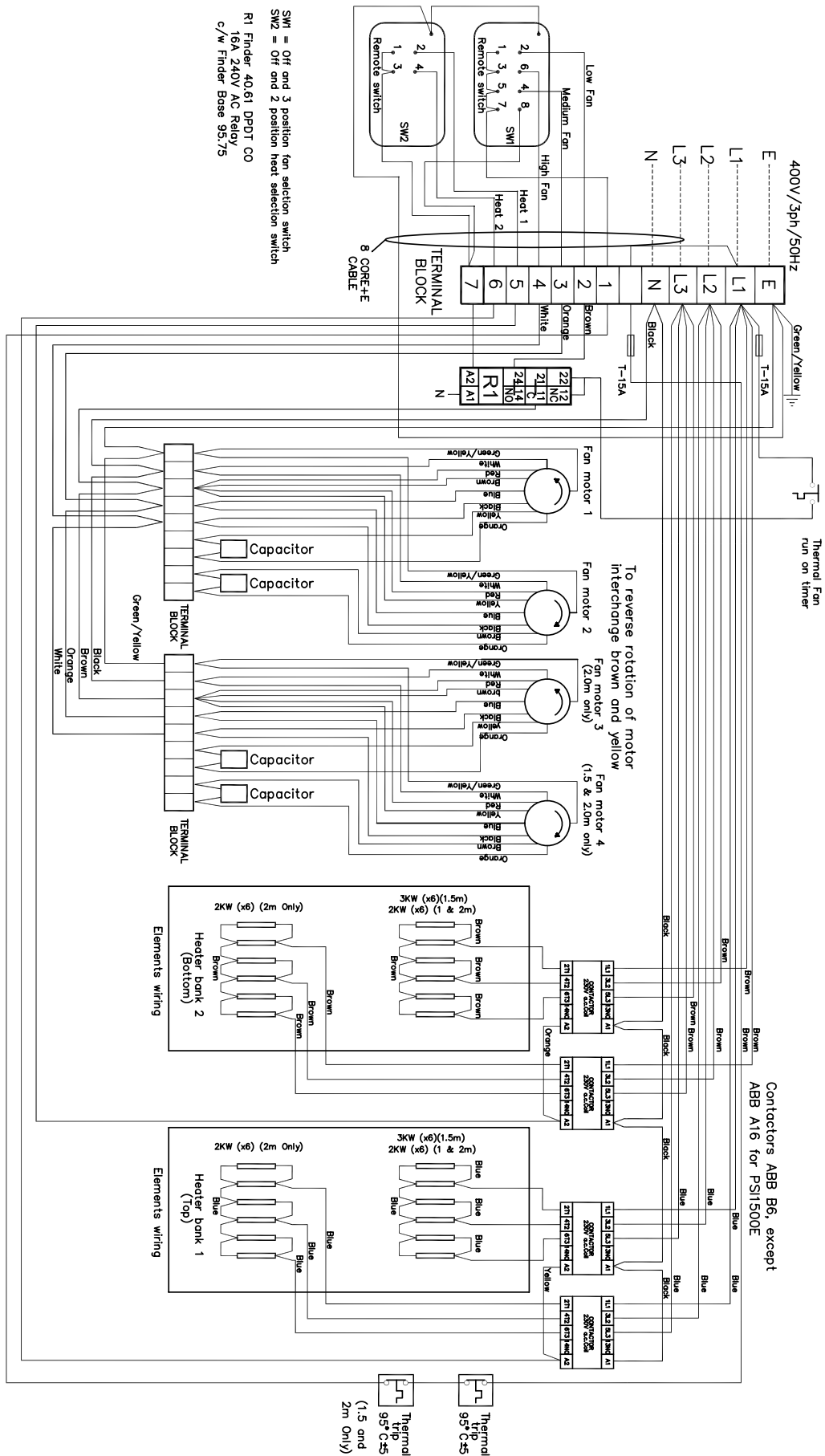
Air-curtain	Supply	Heat output	Input A (*Per phase)	Weight
PSI1000A	230/1/50	N/A	5.0A	58.0kg
PSI1500A	230/1/50	N/A	7.5A	80.0kg
PSI2000A	230/1/50	N/A	10.0A	110.0kg
PSI1000W	230/1/50	24kW	5.0A	63.0kg
PSI1500W	230/1/50	36kW	7.5A	86.0kg
PSI2000W	230/1/50	48kW	10.0A	110.0kg
PSI1000E	400/3/50	12/24kW	*37.0A	63.0kg
PSI1500E	400/3/50	18/36kW	*55.5A	86.0kg
PSI2000E	400/3/50	24/48kW	*74.0A	110.0kg

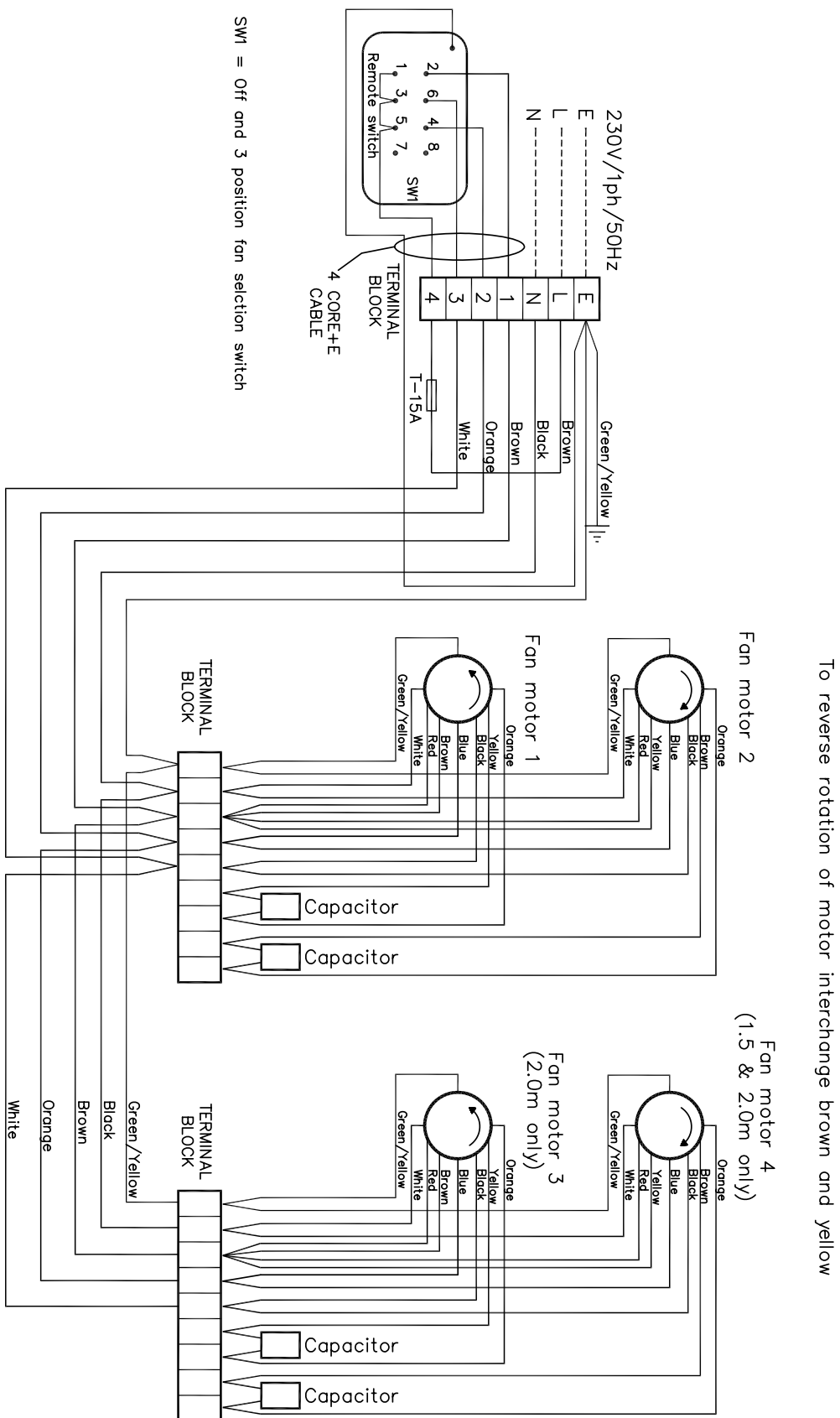
- To gain access to the electrical connections the intake grille and bottom panel must be removed, to remove the intake grille undo the 4 x ¼ turn fasteners (2 either end) that are located within the grille assembly, the grille can then be lifted clear. To remove the bottom panel unscrew the 8 x screws and lift the panel clear (*note: a transit angle is fitted to give protection to the air curtain, when refitting the panel this item should be removed*). Access can now be gained to make the electrical connections. Once connections have been made refit the bottom panel and inlet grille in reverse procedure as described above (Please note: when refitting the grille ensure that the 45° louvers are facing upwards).

Attention: The panels of the air curtain are coated in a protective film this should be removed before use



PSI1000E, PSI1500E & PSI2000E





■ Controls

■ Electrically heated units

All PSI electrically heated units are supplied with two remote switches (1 x fan selection switch, off with 3 speed and 1 x heat selection switch, off with 2 stages).



■ Ambient and water heated units

All PSI Ambient and water heated units are supplied with one remote switch (1 x fan selection switch that gives off and 3 speeds).



■ Fault conditions

In the event of a fault the thermal cut out(s) (electrically heated models) or internal fuse may operate. The thermal cut out(s) are located directly under the element bank (2 on 2m units, 1 under each bank), the internal fuse is located within the control panel (centrally fitted on 1 & 1.5m units and fitted upon the left hand side in a 2m unit).

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 engineer 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, proceed to reset/replace the thermal cut out/fuse and function test the unit.

■ Service & Maintenance

Always disconnect/isolate the mains electricity supply before installing, maintaining or repairing this equipment (Note: All maintenance/repairs should be carried out by a competent electrician or Thermoscreens service agent)

To ensure the air curtain operates at full efficiency the inlet/outlet grilles, impellers, housings and motors must be kept free of dust and debris. Build up of dust on the 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).

Once the mains supply is isolated, the intake grille and bottom panel will need to be removed, to remove the intake grille undo the 4 x ¼ turn fasteners (2 either end) that are located within the grille assembly, the grille can then be lifted clear. To remove the bottom panel unscrew the 8 x screws and lift the panel clear

Vacuum and clean the built up dirt and debris within the air-curtain (*please note that the motor(s) are permanently lubricated and require no additional lubrication*). 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.

Re-install the bottom panel and inlet grille (when refitting the inlet grille ensure that the 45° louvers are facing upwards and that the ¼ turn fasteners have been tightened locking the grille in place).

Reconnect the power and fully function test the air-curtain to ensure correct operation (for operation guide see page 8).

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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