

## Models TSF24K, TSF32K, TSF42K

AC only

### IMPORTANT INSTRUCTIONS: RETAIN FOR FUTURE REFERENCE.

These instructions should be read carefully and retained for future reference. Note also the information given on the appliance.

1. THIS HEATER IS **VERY HEAVY**, BEFORE INSTALLING ENSURE THAT THE SUPPORTING SURFACE IS STRONG ENOUGH TO SUPPORT THE WEIGHT OF THE HEATER (SEE BELOW "INSTALLED WEIGHTS"). IN ORDER TO MAINTAIN STABILITY AND TO ENSURE ITS FUTURE SAFETY IN USE, IT IS ESSENTIAL THAT IT IS SECURED TO A SOUND WALL BY MEANS OF THE FIXING SUPPLIED. IRREGULAR SURFACES SUCH AS MAY RESULT FROM CARPETS OR TILED SURROUNDS PARTIALLY PROTRUDING UNDER THE HEATER SHOULD BE AVOIDED.

#### IMPORTANT: ACCESSORY FEET

ACCESSORY FEET ARE AVAILABLE TO FIT THESE HEATERS, AND SHOULD BE USED WHERE THE HEATER WILL STAND ON THICK PILE CARPETS OR IN A SITUATION WHERE OTHERWISE THE OUTLET GRILLE MAY BE OBSTRUCTED.

#### Installed Weights

Model	Weight
TSF24K	137 kg
TSF32K	176 kg
TSF42K	215 kg

2. All installations must be supervised by a qualified electrician. Installations and wiring must be conform to the current IEE regulations (UK), local or appropriate regulations (other countries).

**PLEASE NOTE: THESE HEATERS MUST NOT BE CONNECTED TO A 30 AMP RING CIRCUIT.**

3. For assembly of the heater the following tool is required:  
Screwdriver Torx 20

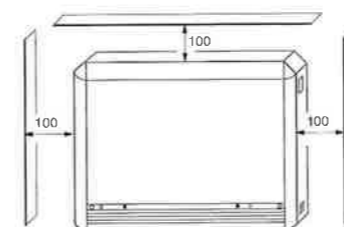
4. The minimum clearances given below must be strictly adhered to. DO NOT POSITION THE HEATERS UNDER WINDOWS WHERE CURTAINS MAY CONTACT THE HEATER.

BELOW SHELF, OVERHANG:  
Minimum clearances of 100 mm above and to both sides of the heater must be maintained.

PARTLY CONCEALED BY FASCIA PANEL.

NB air ducts ① and ② must be maintained.

D E R B Y

### Conditions under which despatched

The heater set and bricks are supplied separately. The heater set is mounted on a wooden pallet for transit and consists of the following:





1. Heater case
2. Heating element set containing: elements  
accessory bag with wall fixing, charge control knob,  
wall bracket screws
3. 3 Wall spacer brackets: packed on top of heater case

**CAREFULLY UNPACK HEATER SET AND CONFIRM THAT PARTS ARE COMPLETE BEFORE REMOVING PACKAGING FROM SITE.**

Bricks are supplied in boxes of 3, marked 328 600.

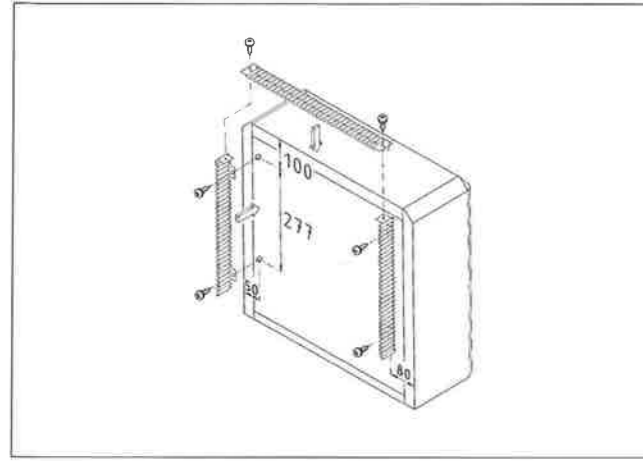
MODEL	TSF24K	TSF32K	TSF42K
BRICKS SUPPLIED	6 Packs	8 Packs	10 Packs

Rating label

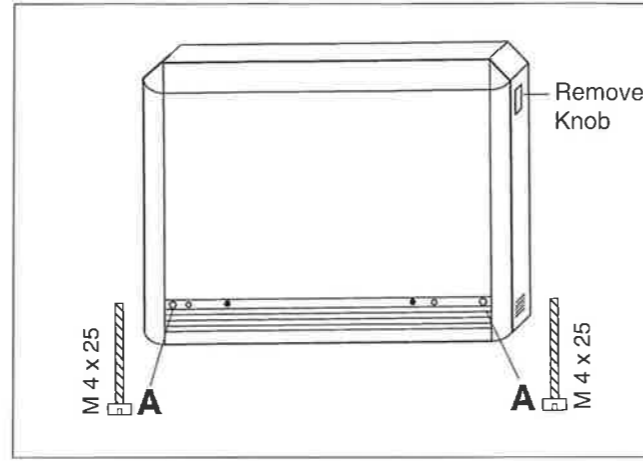
  	1L/N/EARTH 240V/50Hz		1L/N/EARTH 240V/50Hz	<b>TSF 32K</b>
	7 h		1500 W	176 kg
	4571 W		15 W	
Typ: S30 E	32 kWh		E-Nr.: 46/2548	FD:
Made in Germany				

 weight
  charge acceptance
  control part
  auxiliary heating
  fan

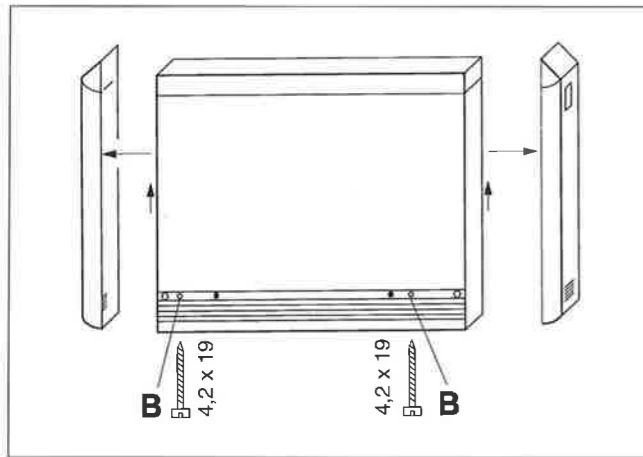
## Unit assembly



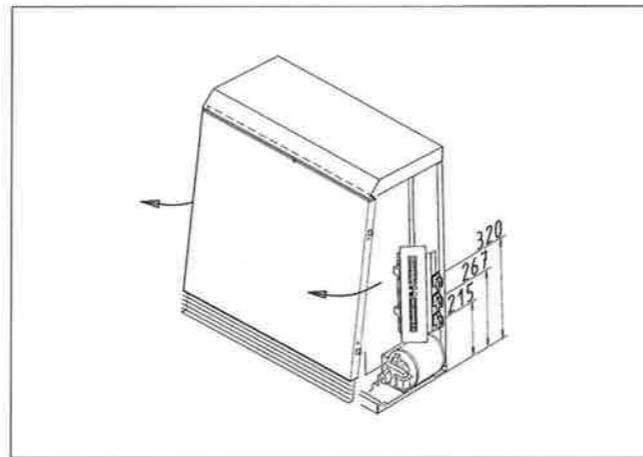
1. Take the heater out of its packaging. Dispose of the packing material in an appropriate way. Screw the two side wall contact strips onto the back panel of the heater. Screw the upper wall contact strip onto the two wall contact strips on the sides.



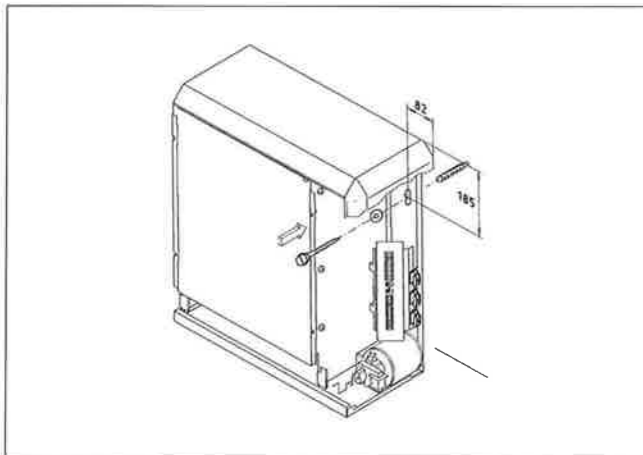
2. Remove thermostat knob on the right side panel. Remove the fastening screws for the two side walls.



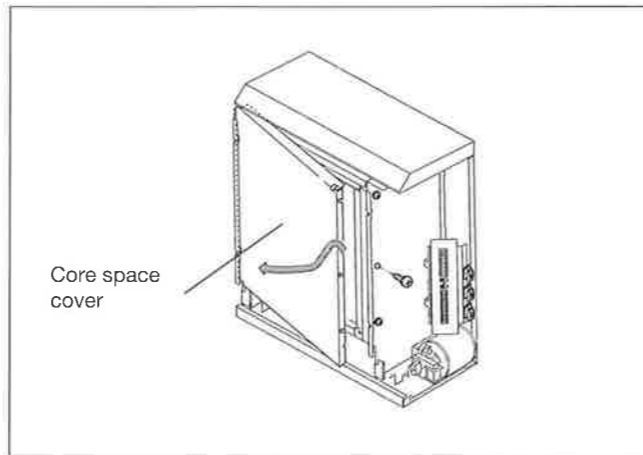
3. Note: The side panels have keyhole-shaped cutouts. For more clearness see also step 19 on page 5. Push the left-hand and right-hand side walls vertically about 5 mm upwards and then pull off sideways. Undo the fastening screws for the front panel.



4. Swing the front panel forwards and remove it from the upper edge. Insert the connecting cables and strain-relieve (see also electrical connection page 7). The connecting leads should be cut to a suitable length so that they cannot come into contact with any hot surfaces of the heater. No loops of cable should be left behind or underneath the unit.



5. Stability  
**The heater must be fixed securely to a solid wall to prevent movement.**  
A screw with wall plug is provided in the accessory pack to secure the heater.  
The assembled heater must be able to resist a horizontal pull of at least 200N on its upper edge without toppling or shifting. If the required stability cannot be achieved with the supplied accessories, e.g. in the case of light-construction walls, the installer must select a suitable wall fixing method.

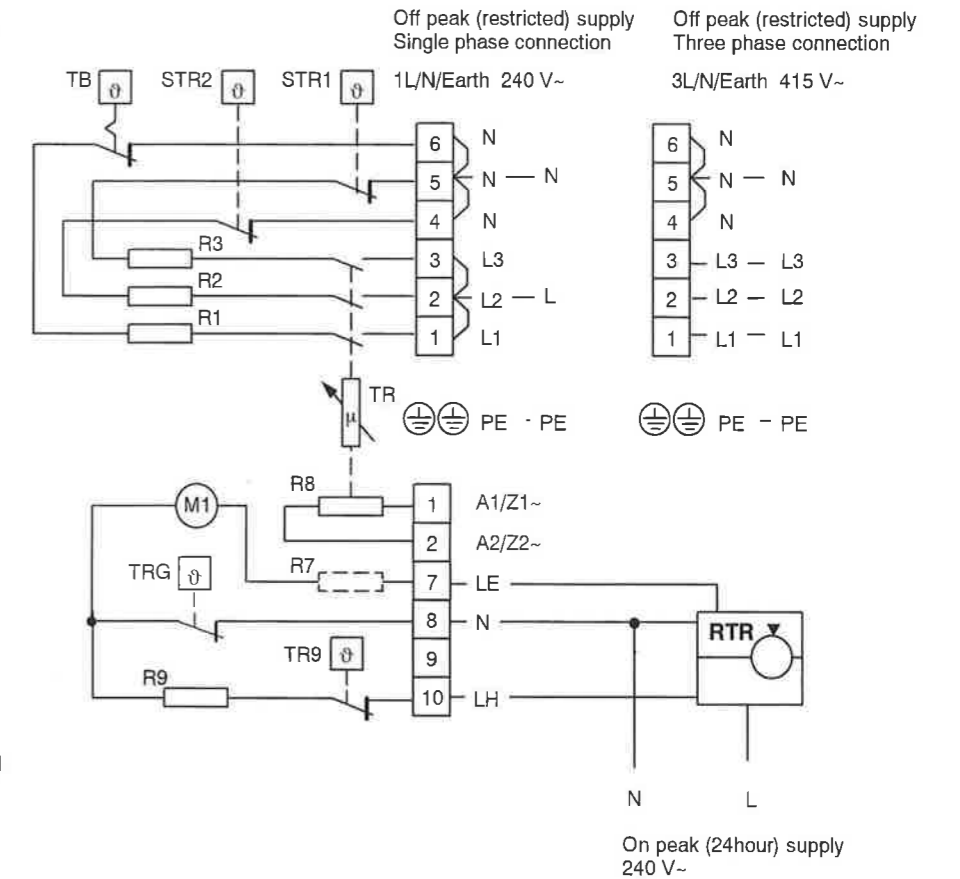


6. Remove core space cover. For this purpose, unscrew the middle fastening screw, swing the core space cover out slightly on the right-hand side and pull it to the right. Lay the cover down in such a way as not to damage the thermal insulation.

## 2. Wall mounted room thermostat (optional)

A1/Z1~ Automatic charge control  
A2/Z2~ (not available in UK)

E Earth  
L1 Live  
L2  
L3  
LE Thermostat controlled discharge supply  
LH Auxiliary heater supply  
M1 Fan  
N Neutral  
R1 Heating elements  
R2  
R3  
R7 Fan resistor (TSF42K only)  
R8 Charge control resistor  
R9 Auxiliary heater  
RTR Room temperature control  
STR1,2 Thermal cutout (automatic reset)  
TB Thermal cutout  
TR Charge control thermostat  
TR9 Temperature control, auxiliary heater  
TRG Temperature control, air grille



## Commissioning Heater

When all the installation work is complete, test heater for operation.

**Note:** During initial operation some odour may be noticed due to the newness of the materials used in manufacture. This is normal and will disappear after a short period of use. It is, however, advisable to keep the room well ventilated.

It is also recommended that the fan is run to ensure that any dust particles that have accumulated in the heater are ejected. Clean the outlet grille and adjacent surfaces after first operation.

In cases where unauthorised persons may tamper with the control knobs it is possible to remove the control knobs once the controls have been put to the correct setting, and fill the openings with the plastic caps supplied (see stage 18 overleaf).



Resetting the thermal cutout (when there has been a fault):  
 This should only be done by a skilled person !  
 – Isolate the storage heater from the power supply  
 – Remove the right-hand side panel  
 – Allow the unit to cool down sufficiently  
 – Press the reset button, e.g. using the blade of a screwdriver

23. Finally, disconnect the electricity supply and connect each supply cable to a suitable double pole switch adjacent to the appliance. The heater is now ready for operation and the supply may be reinstated.

Important: Commissioning heater – see overleaf.

## Circuit diagrams for Fan storage heaters Models TSF24K, TSF32K, TSF42K

1. Integral room thermostat (factory supplied)

A1/Z1~ Automatic charge control  
 A2/Z2~ (not available in UK)

E Earth

L1 Live

L2

L3

LE Thermostat controlled  
 discharge supply

LH Auxiliary heater supply

M1 Fan

N Neutral

R1 Heating elements

R2

R3

R7 Fan resistor  
 (TSF42K only)

R8 Charge control resistor

R9 Auxiliary heater

RTR Room temperature control

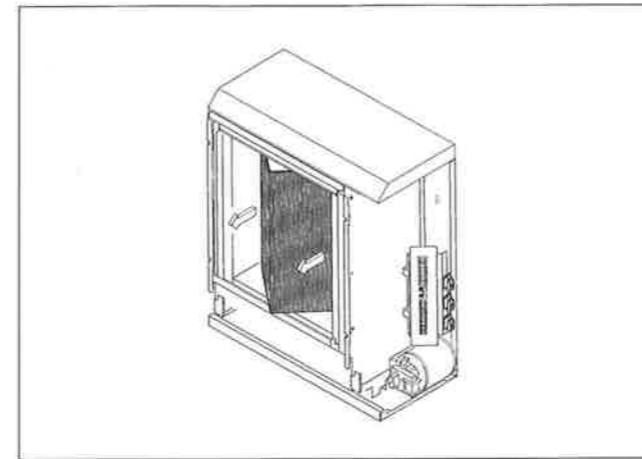
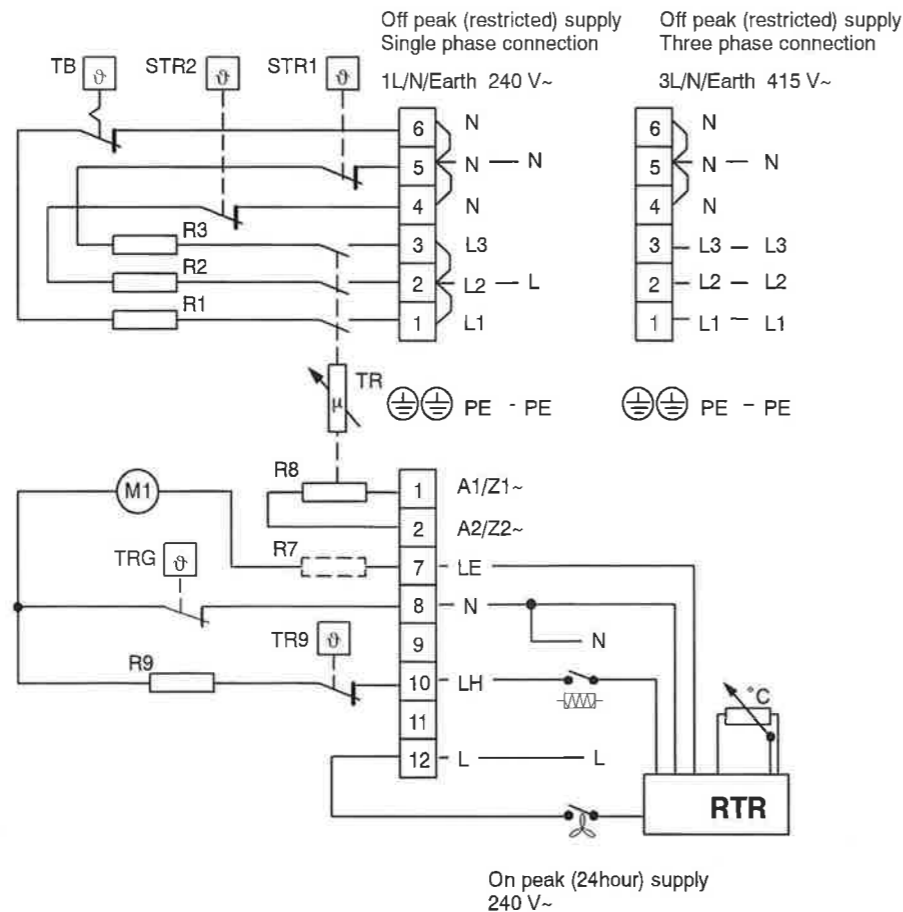
STR1,2 Thermal cutout  
 (automatic reset)

TB Thermal cutout

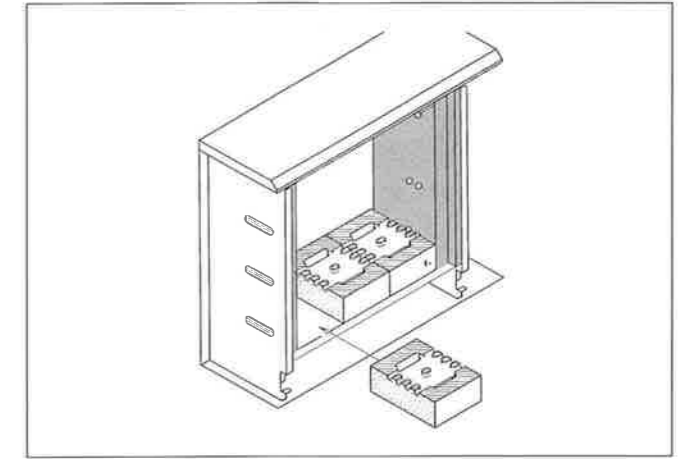
TR Charge control thermostat

TR9 Temperature control, auxiliary heater

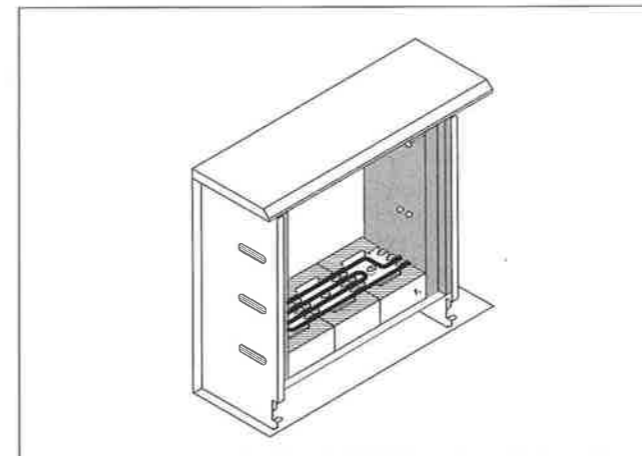
TRG Temperature control, air grille



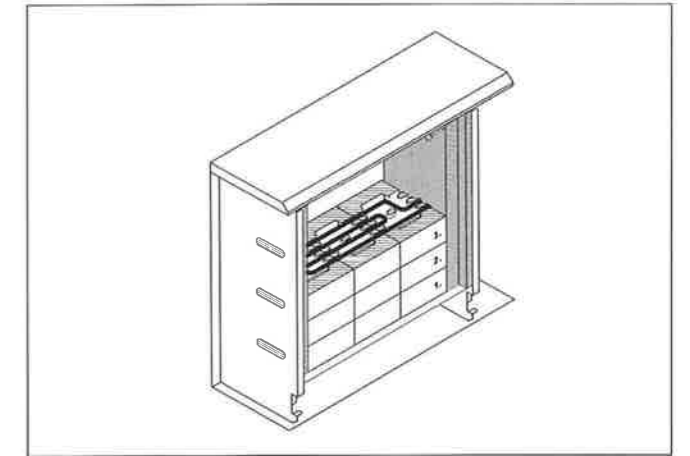
7. Remove the transport protection (folded cardboard).



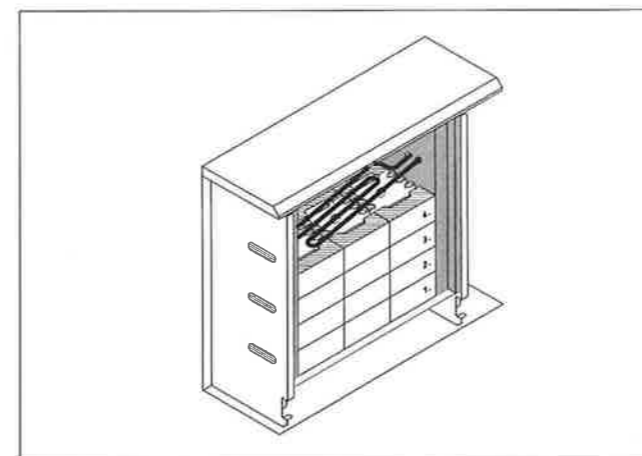
8. Put in the lower row of storage bricks. Begin at the right-hand side. Element slots must always face upwards.



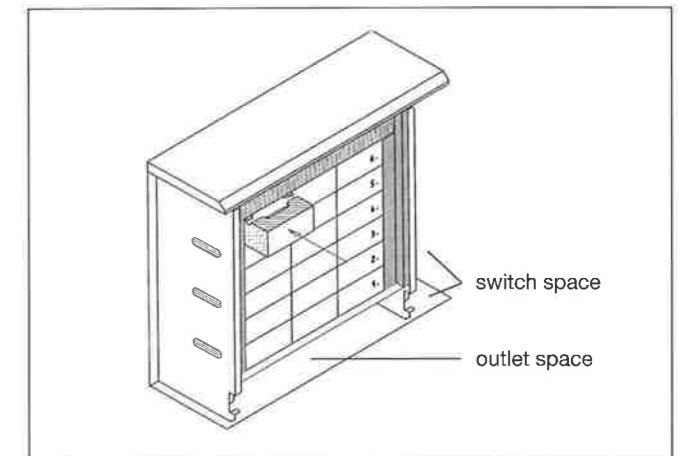
9. After putting in the lower row of bricks, install the first heating element.



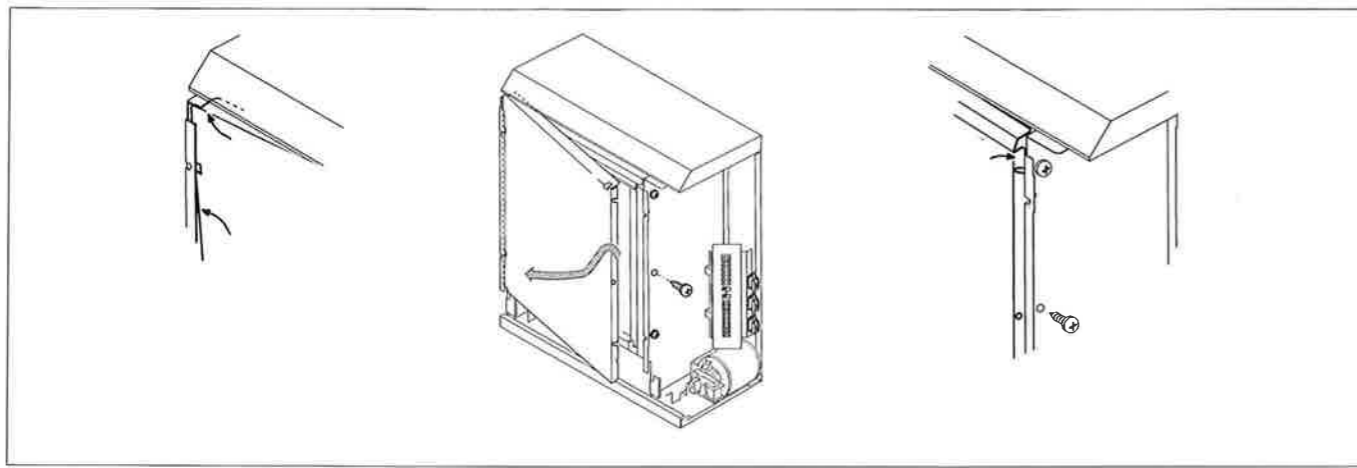
10. Put in the second and third rows of bricks. Install second element.



11. After putting in the fourth row of bricks, the third element must be installed. Then slide the fifth row of bricks sideways under the third element.



12. Put in the last row of bricks (6 rows of bricks in all). Clean the air outlet space and the switching space.



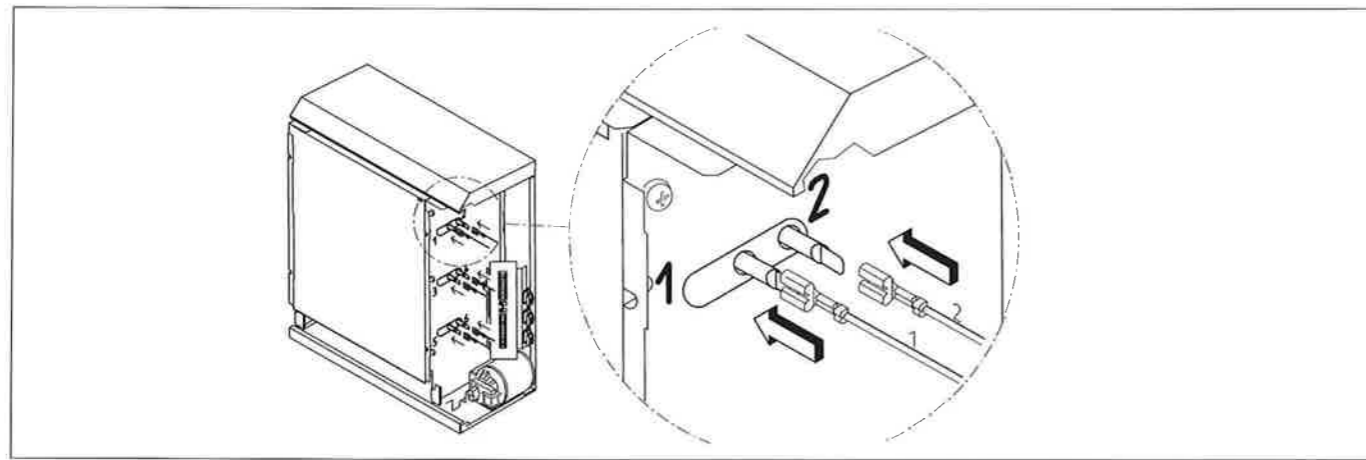
13. Refit core space cover.

**Left-hand side:**

The lip at the top of the core space cover must lie on the left-hand partition. The side edge of the core space cover must be pushed behind the lip of the left-hand partition.

**Right-hand side:**

Insert side flange of the core space cover between the thermal insulation and the partition, paying attention to the guide slots. Tightly press the core space cover and screw it tightly to the right-hand partition.



14. Connect the element tails to the cable harness.

For this purpose, place the numbered connecting cables on the terminal ends of the elements. The partition is also marked with the corresponding numbers. Fasten loose cables to the cable harness to avoid contact to the hot ends of the heating elements.

## Electrical connection

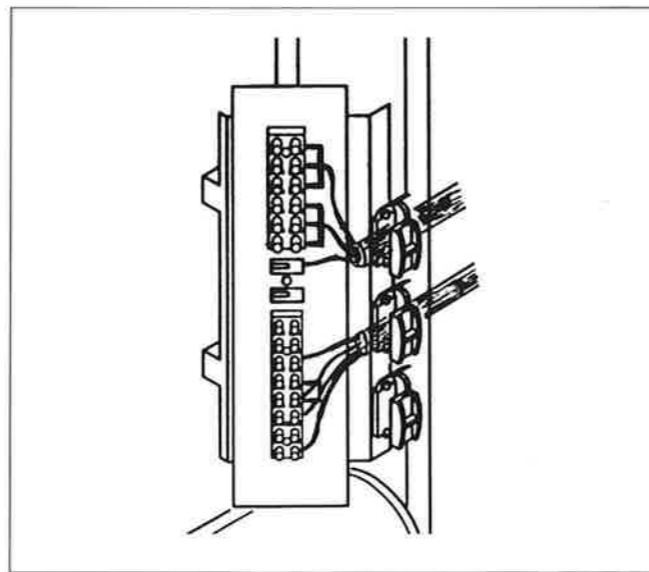
15. **NOTE:** Two supplies are taken into the heater, an off-peak supply to the heating element circuit and a separate on-peak supply to the fan circuit (see wiring diagram). Refer to rating label on front of heater case for the loading of heater and fan circuits on the appliance supplied.

Introduce mains supply cables through the cable clamps in the back panel, to the terminal area, and connect in accordance with the terminal markings and wiring diagrams. Heat resisting cable must be used. Ensure that cable is clamped so that there is no excess cable in the terminal area. **CHECK ALL ELEMENT AND SUPPLY CONNECTIONS FOR TIGHTNESS.**

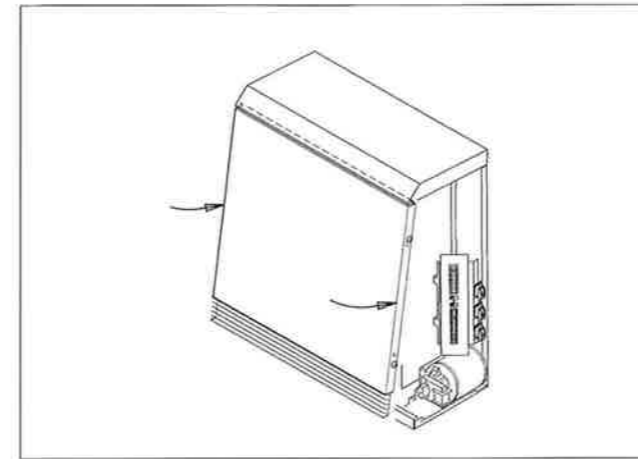
**On no account should any surplus cable be pushed inside or behind the heater. The appliance must be earthed.**

**Special instructions: 3 phase supply**

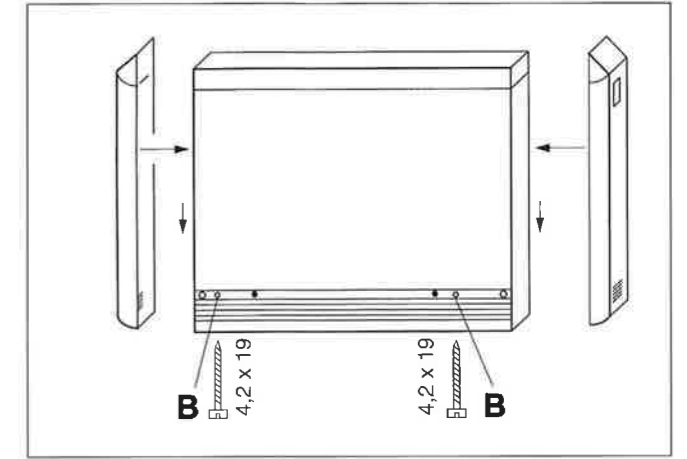
The heater is factory supplied for connection to a single phase 240 volt supply. The heater may alternatively be connected to a 3 phase, 415 volt supply by removal of bus-bars, as shown on the wiring diagram.



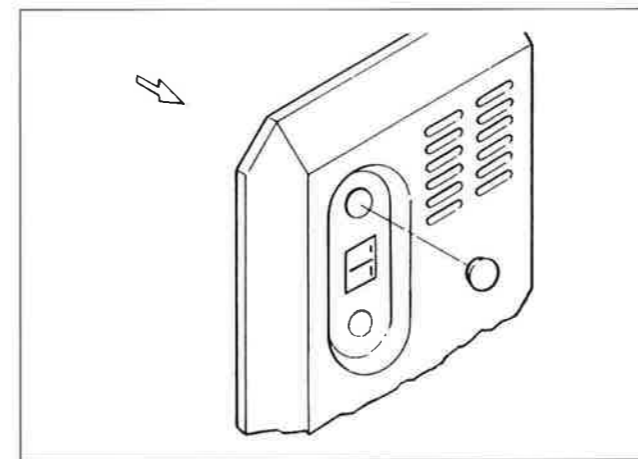
## Completion of heater assembly



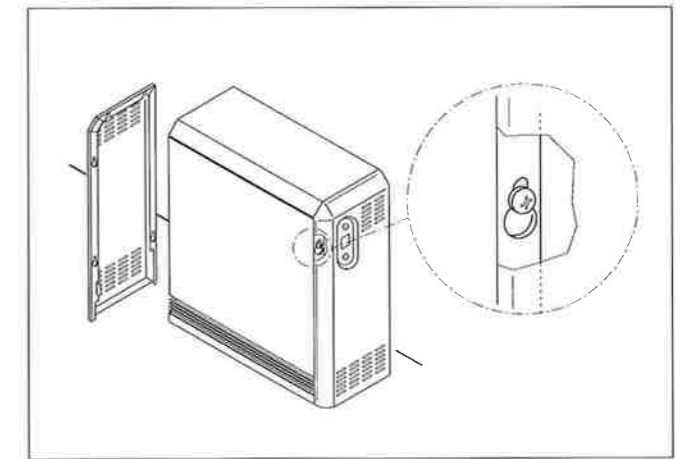
16. Insert the front panel into the folded edge on the cover, raising the cover slightly in doing so.



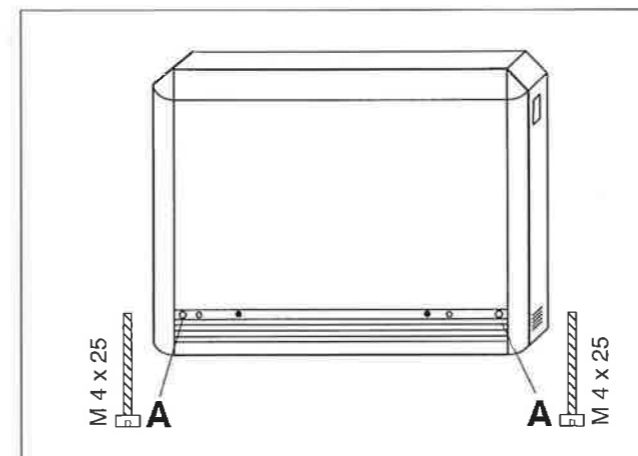
17. Screw the front panel tightly (screw B). **DO NOT OVERTIGHTEN THE SCREWS.**



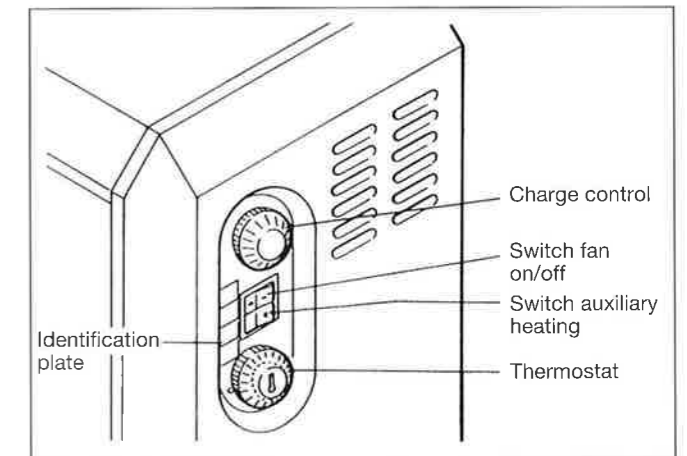
18. Before fitting the right-hand side panel knock out the plastic bungs which blank off the charge control knob aperture.



19. The side panels have keyhole-shaped cutouts. Push the side panels over the screws and push downwards.



20. Screw the side panels tightly (screw A). **DO NOT OVERTIGHTEN THE SCREWS.** Assembly is now finished.



21. Fit the charge control knob and room thermostat control knob over their spindles in the right-hand side panel.