DIY FITTING A TRUMA BLOWN-AIR HEATER

Plenty of hot air

It's not too early to prepare for winter now, says Sam George. This month, he shows how to fit a Truma blown-air heater
Time Two days **Difficulty** 7/10

You will need Power drill, 10mm drill, jigsaw or padsaw, short straight-edge, tape measure, bradawl, screwdrivers, 60mm, 64mm and 70mm diameter hole cutters with arbor, file or power file, spanners, pipe cutter, 8mm (5/16in) copper pipe, 8mm straight or Tee compression fitting to connect heater to existing gas pipe, cable clips and/or ties, 10 amp – minimum – three core cable, junction box, wire cutter/stripper/crimper, 12v connectors, Stanley knife, hacksaw, mastic.
Cost Trumatic S 3002 Ultra £405.79; front case £64.93; Roof flue kit £59.77; TEB-2 Trumavent fan £145.47; 65mm ducting £5.59/metre; ducting clips £0.62 each; BE air outlets £4.29 each; EN end air outlet £2.23 each; EM nut for end air outlet £1.50 each; blanking plug for BE air outlet £1.11 each. To be on the safe side, also allow £20 for incidentals.

1 **Basic kit comprises: Trumatic S 3002 Ultra GE heater c/w automatic igniter, thermostat and installation box and inner shell, plus a choice of a brown or grey front case.**

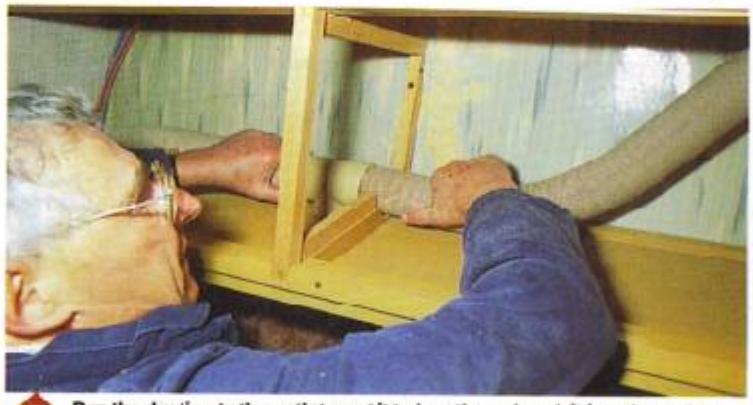
TOP TIP We would recommend that the height of the opening for the heater should be 465mm and not 480mm as stated in the kit's instructions.

Our thanks to D J Russell (Sales) Ltd for their assistance.

2 **Carefully mark the cut-out for the heater, 465mm high x 480mm wide. Note, however, that the overall width needs to be 500mm to accommodate the front case of the heater.**

3 **Cut the opening slightly undersize and use a file or powerfile, to open it to the correct size.**

4 **Use a 64mm hole cutter to make the holes for the blown-air outlets. The outlet nut is then put through the hole and screwed into the air outlet. Use a 70mm hole cutter to cut the holes where the ducting is to pass through partitions, seat ends etc.**



5 **Run the ducting to the outlets, cut it to length, and push it into the outlet. Use ducting clips as necessary to secure the ducting to the floor. At the heater end, make sure you allow sufficient ducting to connect to the fan, prior to cutting off any excess.**

6 **Use the paper template supplied to trim the carpet to size. You also need to decide if the heater controls are to be right-hand or left-hand mounted, as this affects the position of the floor cut-out. We chose right-hand.** ☛

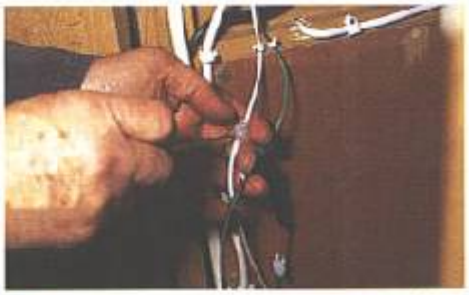
7 Drill 10mm diameter holes in the corners of the cut-out and use a bradawl to pre-start the five holes for the heater's fixing screws. Then use a jigsaw to cut the opening.

8 Insert the half frames into the opening and use small screws to secure them in position.

9 Having checked to make sure there are no internal or external obstructions, drill a pilot hole up through the roof, not less than 55mm from the side walls. From the outside, use a 60mm hole cutter to open the hole up. Apply mastic round the flange and push cowl through into the van. After tightening retention ring, lock with the screw provided.

10 It's now time to think about fitting the heater, but first you need to punch out perforated knock-outs for the exhaust duct and air intake for the fan in the outer and inner installation box shells. Then assemble the shells using the five self-tapping screws provided. Finally, secure the fan unit to the outer shell with three screws.

11 The heater should now be laid on the floor in front of the opening and the control box and its cable placed inside the wardrobe. The installation box can then be fitted. Bend the appropriate tab at the top of the installation box down and feed the plug for the fan control through to the front of the unit. Assemble the thermostat probe and screening plate and fit the assembly into the attachment housing at the bottom of the heater. Under the caravan, connect the heater to the van's existing gas pipe via an 8mm compression fitting.

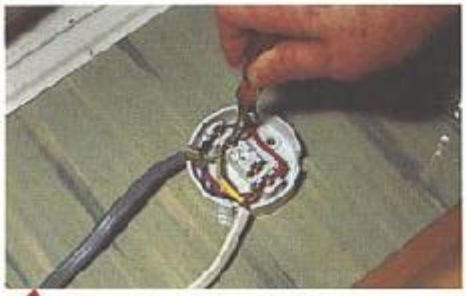


12 The mains control box should be screwed in position where it can be reached easily. The wiring instructions are clear and easy-to-follow. One cable plugs into the top socket on the Trumavent fan and connects to terminals 10 and 11 in the control box. Also on this plug are two short lengths of 12v cable. These will need extending to connect to an existing 12v supply. The lower socket on the Trumavent is for the cable which plugs into the fan control on the top of the front case.

13 Drill a 10mm diameter hole through partition adjacent to the heater at a height the wall switch is to be fitted. Feed the 3-core cable though and then connect it to the three terminals on the switch. Secure the switch to the partition and refit the cover and control knob. The cable is pushed through the entry at the left-hand side of the control box.

14 Feed the metal exhaust duct through the hole in the installation box and up to the exhaust cowl. This will give you an idea of its final length. Withdraw it and, having allowed for a small amount of excess, cut it to length. Next, cut the outer insulation duct to the same length and fit it over the exhaust duct.

15 Feed the complete assembly through hole in installation box and up to the exhaust cowl. The exhaust duct is pushed into the cowl and the insulation duct pushed over the threads. At the bottom end, slide sealing plate over exhaust duct, with the claw facing heater exhaust outlet. Fit the pressure ring and then the rubber O ring. Bend exhaust duct and push it into heater's exhaust outlet. Push O ring home, followed by pressure ring and tighten screw on sealing plate. Ensure O ring fits to stop fumes escaping. Fit the blown-air ducts by pushing them into outlets on the Trumavent.



16 The maximum output of the heater on electricity is almost 9 amps. If possible, it should be connected to its own 10-amp circuit in the consumer unit. If this isn't possible, cut into a suitable circuit at a convenient point and fit a junction box. Connect a length of 3-core cable with a minimum 10-amp rating to the junction box.

17 From the junction box, run the cable to the control box. The cable enters via the right-hand entry and connects to terminals L1, N, earth. Use cable clips to secure the cable at intervals.

18 Fit the igniter batteries into their compartment at the base of the heater. Fit the igniter control knob sleeve into appropriate hole in the front case. Then fit the Trumavent control and cable and use the blanking covers to seal off the unused holes. Engage the casing in the lugs at the bottom of the installation box and insert the igniter push rod. Press the casing home ensuring that it registers correctly with the spring clip at each side. Finally, push igniter control knob over the push rod with the arrow pointing to the '0' position. The system is now ready for testing.