

Baxi Solo

WM RS S.S.

gas fired

central heating boiler

G.C. No 41 077 56.57.58.59 & 60

Additional information for Sealed System variants of the Baxi Solo RS wall mounted boiler

These instructions must be read in conjunction with the main instructions for installation and servicing provided with your Baxi Solo RS wall mounted boiler.

Please leave these instructions with the user. 7/90

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Baxi heating is one of the leading manufacturers of domestic heating products in the U.K.

Our first priority is to give a high quality service to our customers. Quality is built into every Baxi product - products which fulfil the demands and needs of modern consumers, offering choice, efficiency and reliability.

To keep ahead of changing trends, we have made a commitment to develop new ideas using the latest technology - with the aim to continue making the products that customers want to buy.

Baxi is also the largest manufacturing partnership in the country. Everyone who works at the company has a commitment to quality because, as shareholders, we know that satisfied customers mean continued success.

We hope you get a satisfactory service from Baxi. If not, please let us know.

BS 5750 Company



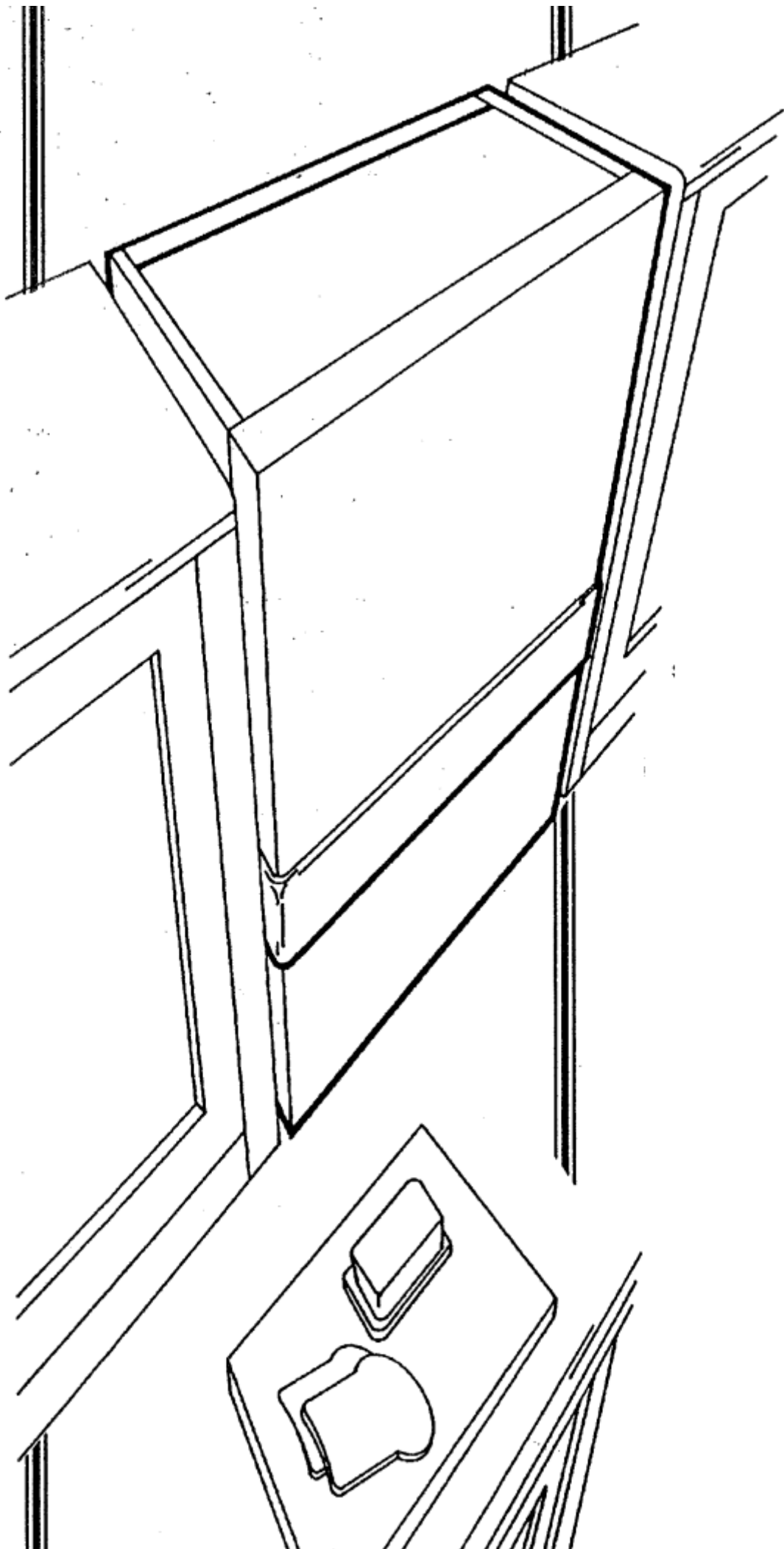
BS 5258

BS 6332

Safety and Performance

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INTRODUCTION



The procedure for installation, commissioning and the majority of servicing are precisely as described in the main instructions.

The necessary additional information for Sealed Systems and maintenance of additional boiler controls is contained within these supplementary instructions.

Where necessary, reference is made to the main instructions for installation and Servicing by page number.

Description

The Baxi Solo is a wall mounted room sealed central heating boiler. The appliance is set at its MAXIMUM heat input rating and is designed for use on NATURAL GAS only.

The boiler is suitable for use on fully pumped central heating and domestic hot water systems, both open vent and sealed systems. This model incorporates an overheat cut - off device for use on sealed systems or where additional control protection required. THE BOILER IS NOT SUITABLE FOR USE ON GRAVITY WATER CIRCULATION SYSTEMS.

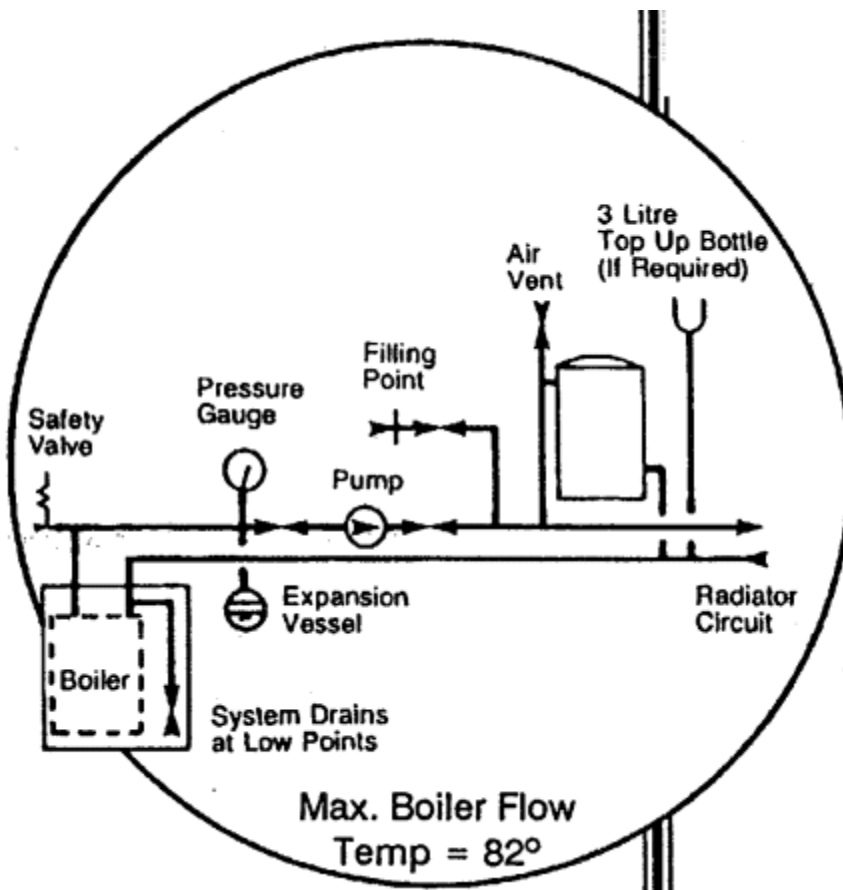
The standard flue assembly supplied is suitable for wall thicknesses between 100mm (4") and 356mm (14"). An optional flue extension kit is available for walls between 356mm (14") and 610mm (24") thickness.

A pump housing kit is also available when it is desired to fit a central heating pump within the confines of the case.

The appliance data badge is fitted to the combustion box adjacent to the burner feed, pipe.

NOTE: Thermocouple output 12 - 18mv.

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Method of determining minimum value of expansion vessel volume for sealed systems using Baxi boilers

Vessel Charge Pressure (Bar)	Initial System Pressure (Bar)	Multiply Total Water Content Of System by (Litres)
0.5	0.5	0.067
	1.0	0.112
	1.5	0.207
	2.0	0.441
1.0	1.0	0.087
	1.5	0.152
	2.0	0.330
1.5	1.5	0.125
	2.0	0.265

Example:- System volume = 75 litres
 Vessel charge pressure = 1.0 bar
 Initial system pressure = 1.5 bar
 Then:- $75 \times 0.152 = 11.4$ litres
 Expansion Vessel Volume

NOTE
 Where a vessel of the calculated size is not obtainable then the next available larger size should be used.

Sealed Systems

SAFETY VALVE

A safety valve complying with the requirements of BS 6750 Part 1 must be fitted close to the boiler on the flow pipe by means of a horizontal or vertically upward connection with no intervening valve or restrictions and should be positioned to facilitate testing. The valve should be pre - set and non - adjustable to operate at a pressure of 3 bar (45 lbf/in²).

It must be arranged to discharge any water or steam through a pipe to a safe outlet position.

PRESSURE GAUGE

A pressure gauge of minimum range 0.4 bar (6.0 lbf/in²) with a fill pressure indicator must be fitted to the system, preferably at the same point as the expansion vessel in an easily visible position

EXPANSION VESSEL

An expansion vessel complying with the requirements of BS 4814 must be fitted to the system by means of a connection close to the inlet side of the circulation pump in accordance with the manufacturers instructions, the connection pipe being unrestricted and not less than 15mm (1/2in) normal size. The volume of the vessel should be suitable for the system water content and the nitrogen or air charge pressure should not be less than the system static head. Further details of sealed system design can be obtained from BS 5449: Part 1 and the British Gas publication entitled "Specifications For Domestic Wet Central Heating Systems".

FILLING POINT

A filling point and an approved stop valve to BS 1010 must be fitted at low level and the method used for filling the system should be approved by the local water undertaking. For further details see BS 6798.

MAKE UP SYSTEM

A method of replacing water lost from the system should be provided either by means of a make up vessel of not more than 3 Litres (5 pints) capacity, mounted above the highest point of the system.

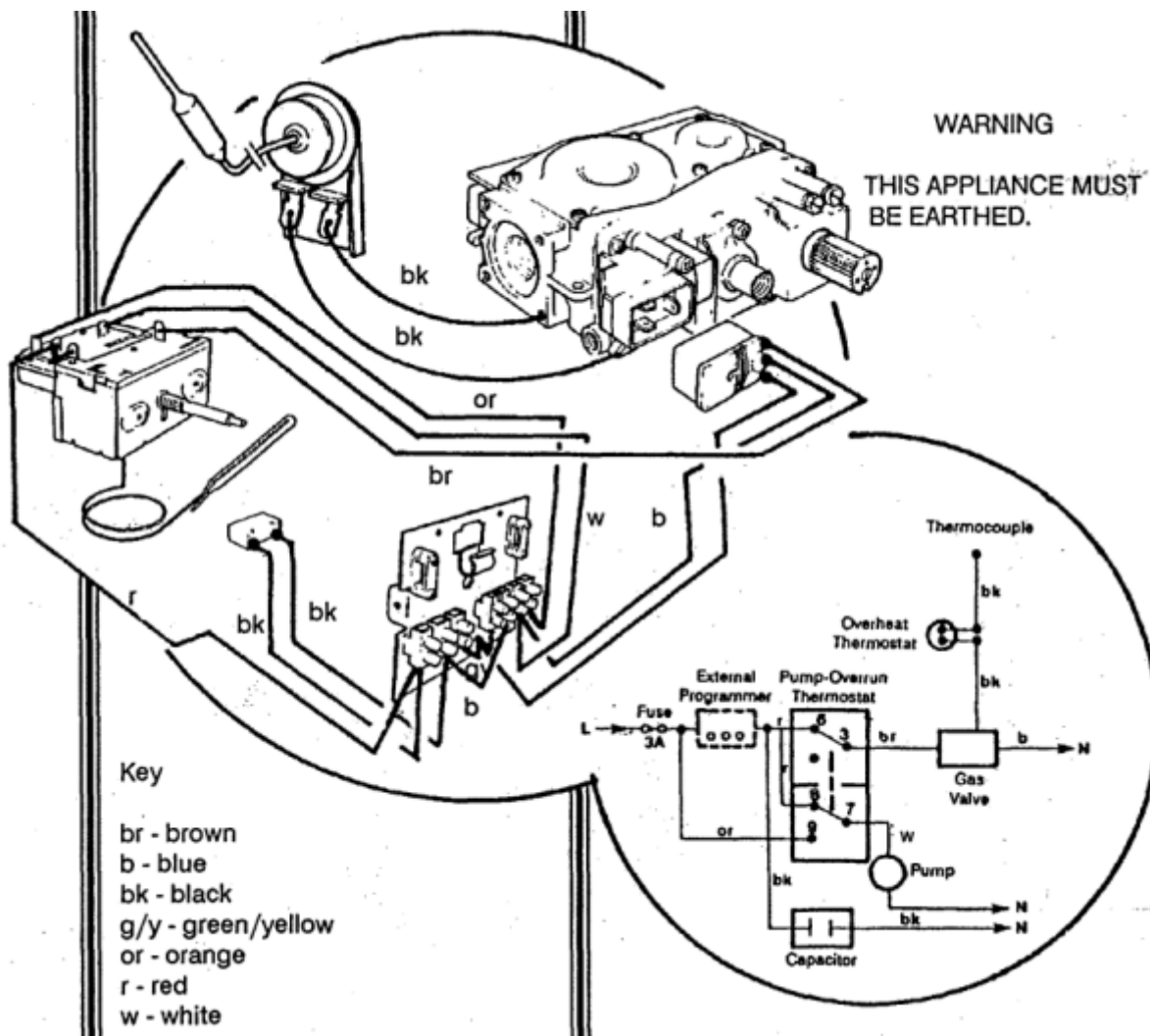
VENTING

A method of venting the system during filling and commissioning must be provided by fitting automatic air vents or by venting manually.

HOT WATER STORAGE

The hot water storage vessel must be of the indirect coil type. All components used in the system must be suitable for operation at 110°C (230°F) and at the pressure allowed by the safety valve.

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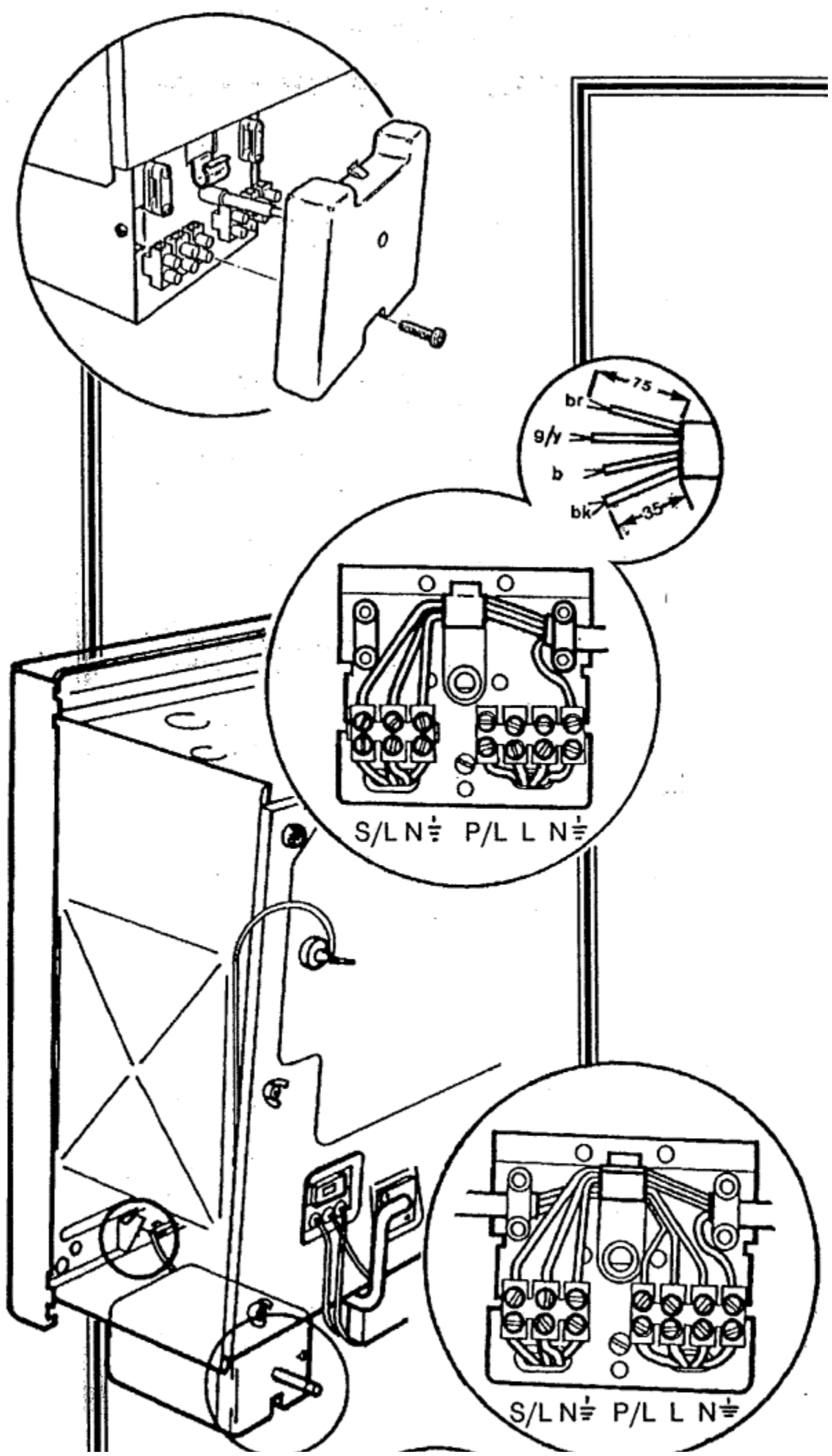
Electrical Supply

The recommended cable for connection to the appliance terminal strip is 0.75mm² (24 x 0.2mm dia) P.V.C. heat resistant grade to BS 6141 table 15.

External wiring must be correctly earthed and polarised and in accordance with current I.E.E. wiring regulations.

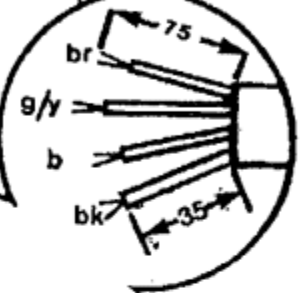
The mains supply required is 240v ~ 50Hz fused at 3A.

NOTE: The method of connection to the electricity supply must facilitate complete electrical isolation of the appliance. Connection must be made by a fused double pole isolator with a contact separation of at least 3mm in all poles and serving the appliance controls only.



S/LN $\frac{1}{2}$ P/L L N $\frac{1}{2}$


S/LN $\frac{1}{2}$ P/L L N $\frac{1}{2}$

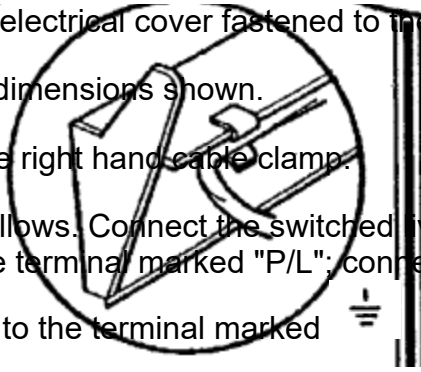


Remove the securing screw and electrical cover fastened to the thermostat box.

Bare back the input cable to the dimensions shown.

Secure the cable in place with the right hand cable clamp.

Fit the electrical input cable as follows. Connect the switched live to the terminal marked "S/L"; connect the permanent live to the terminal marked "P/L"; connect the supply neutral to the terminal marked "N" and the supply earth to the terminal marked 

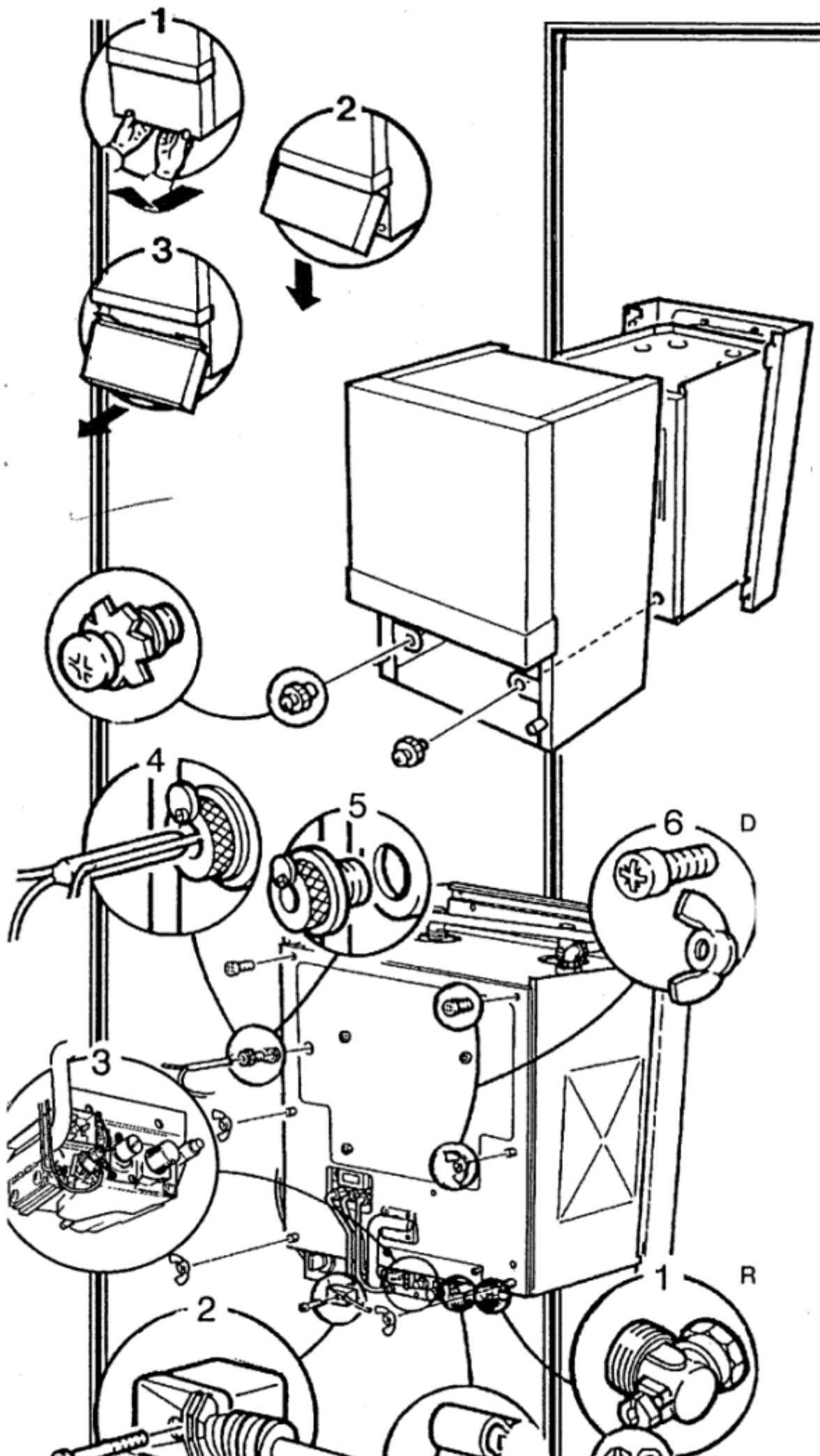


Fit the pump outlet as follows: Connect the pump earth to the terminal marked "N"; Connect the pump neutral to the terminal marked "N"; Connect the pump live to the terminal marked "L". Secure the cable in place with the left hand cable clamp.

Replace the electrical cover and securing screw.

To avoid contact with hot surfaces, lay the input cable through the clip fitted on hook bracket.

In the event of an electrical fault after installation of the appliance, preliminary electrical system checks should be carried out:-earth continuity, polarity and resistance to earth.



ANNUAL SERVICING

For economy and safety reasons, it is important to service the appliance regularly.

Isolate the electrical supply to the boiler.

Remove lower door panel following the sequence of diagrams.

To remove the outer case from the boiler, take out two screw / washer assemblies. Pull bottom of the outer case forward and lift to clear lower tabs and hooks on mounting plate. Draw outer case forward and clear of the boiler.

1 Turn off gas supply at the service tap and disconnect the union.

2 Undo the screw and disconnect the electrical plug on the gas valve by pulling forward. Remove wire from clip at front of gas valve.

3 Disconnect the two wires from the overheat thermostat at the spade connections on the valve.

4 Loosen the screw on the capillary retaining washer, allowing the washer to move freely. Remove both phials from the thermostat pocket. Release the capillaries from the clips on the side of the combustion box.

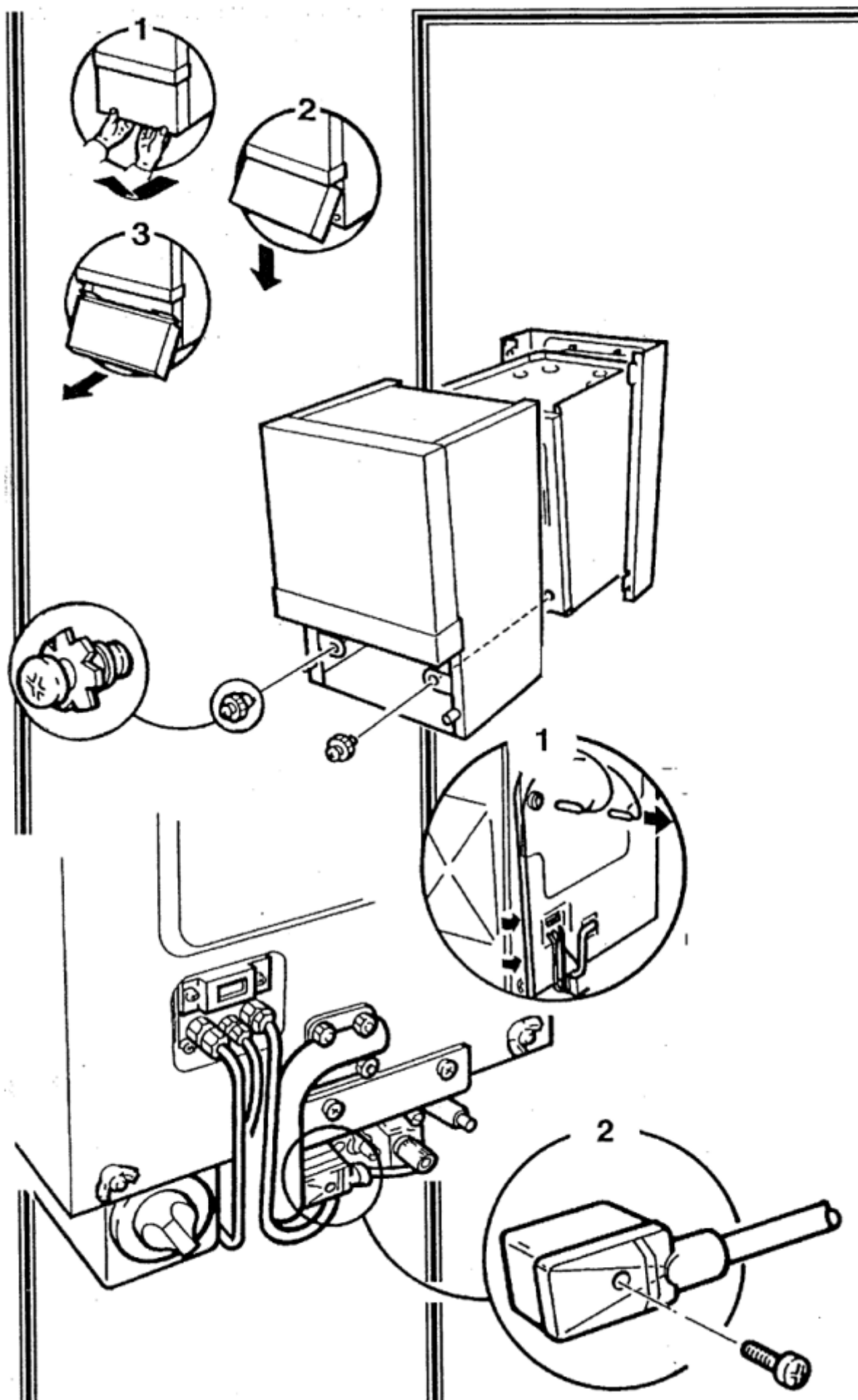
5 Remove brass sealing plug with fibre washer.

6 Unscrew the four wing nuts and two screws.

Remove the controls door complete with the burner.

Continue with servicing the boiler as described on page 25 and 26 of the main instructions for Installation and Servicing.

NOTE: When re - assembling, care must be taken to align the overheat thermostat capillary with the groove in the main thermostat phial.



CHANGING COMPONENTS

When changing components ensure that electrical and gas supplies are isolated.

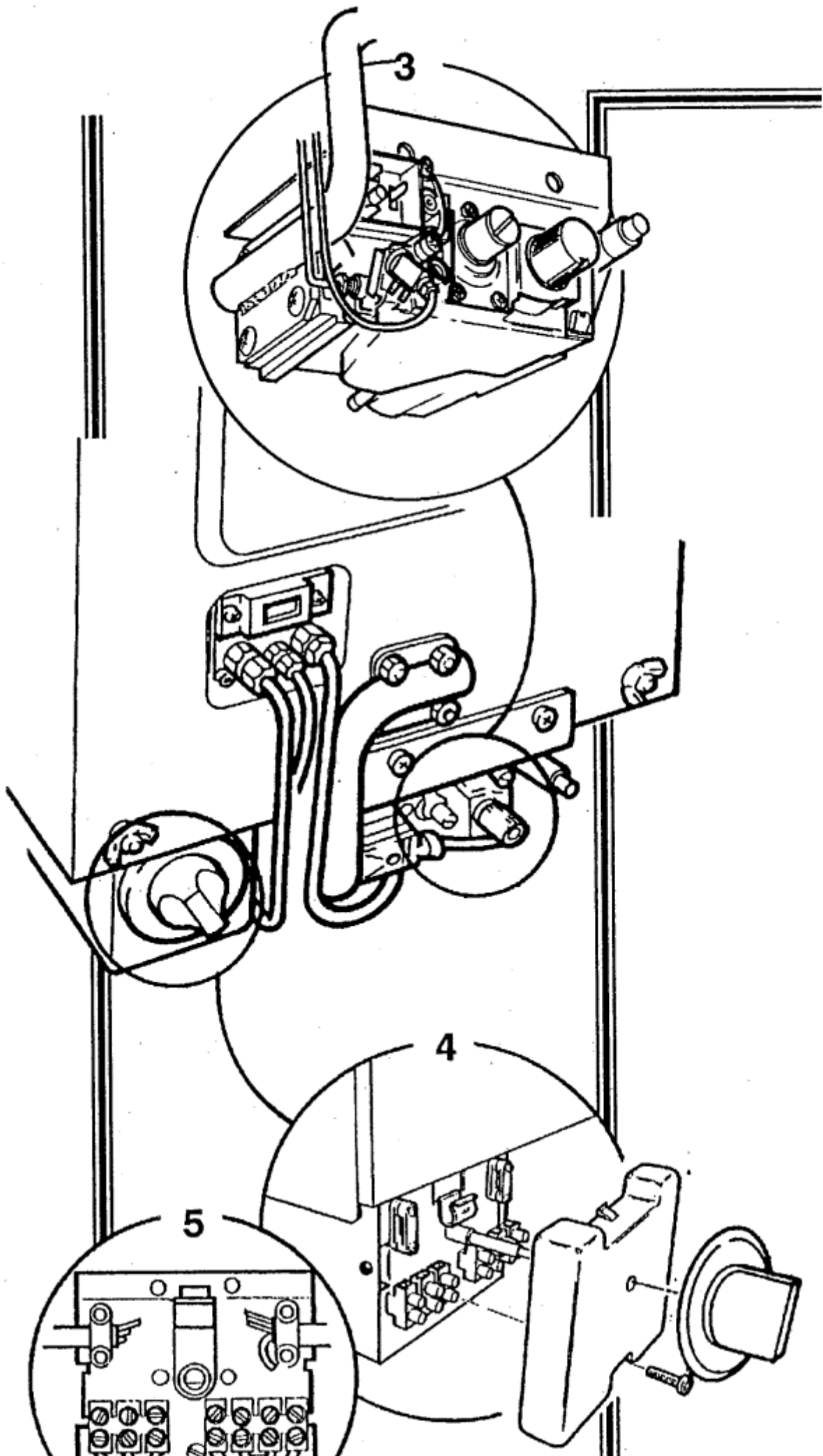
Remove lower door panel following the sequence of diagrams.

To remove the outer case from the boiler, take out two screw / washer assemblies, Pull the bottom of the outer case forward and lift clear of the lower tabs and hooks on the mounting plate. Draw the outer case forward and clear of the boiler.

To change either the main thermostat or overheat thermostat proceed as follows:

1 Loosen the screw on the capillary retaining washer, allowing the washer to move freely. Withdraw both thermostat phials from the thermostat pocket. Free the capillaries from the clips on the left hand side of the combustion box.

2 Disconnect the electrical plug and cable on the gas valve.



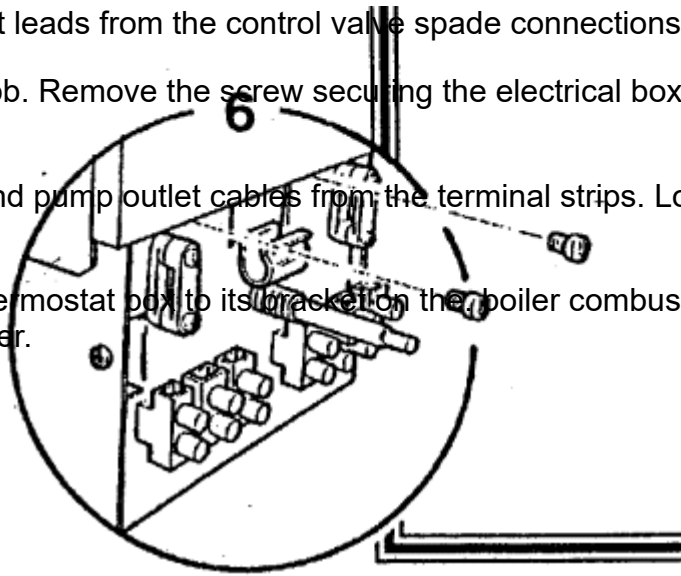
3 Disconnect the overheat thermostat leads from the control valve spade connections.

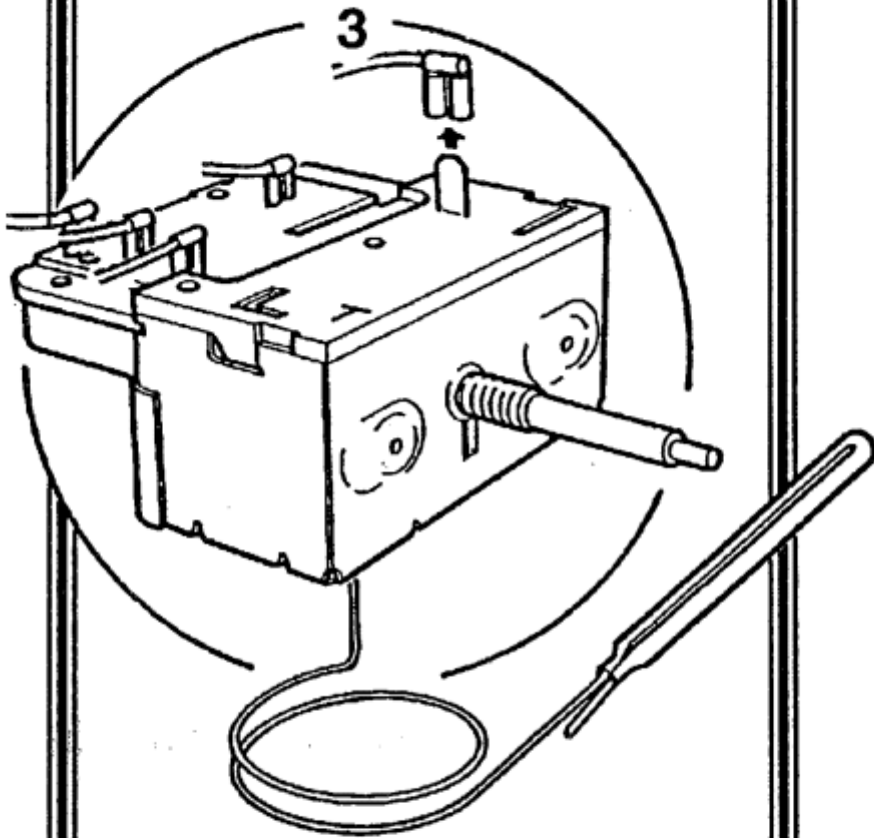
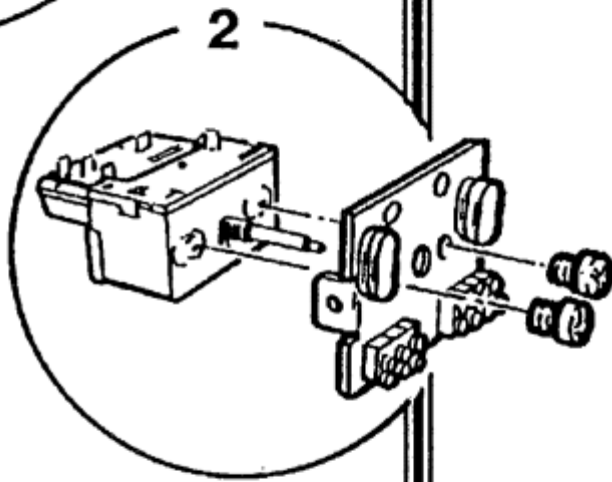
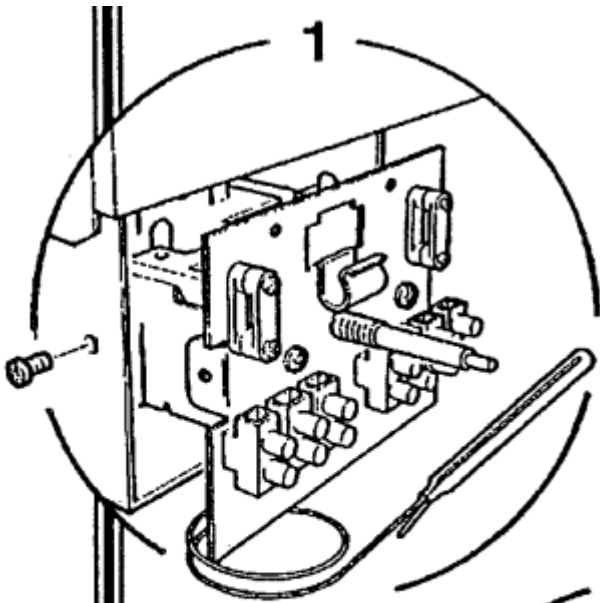
4 Carefully pull off the thermostat knob. Remove the screw securing the electrical box cover, remove cover.

5 Disconnect the wires of the input and pump outlet cables from the terminal strips. Loosen the screws on the cable clamps.

6 Unfasten the screws holding the thermostat box to its bracket on the boiler combustion box. The thermostat box is now free of the boiler.

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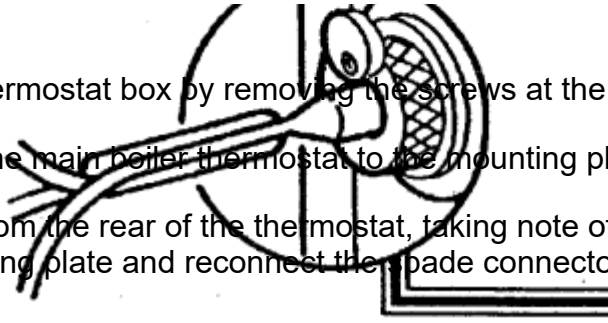


Main Thermostat

1 Remove the rear part of the thermostat box by removing the screws at the side.

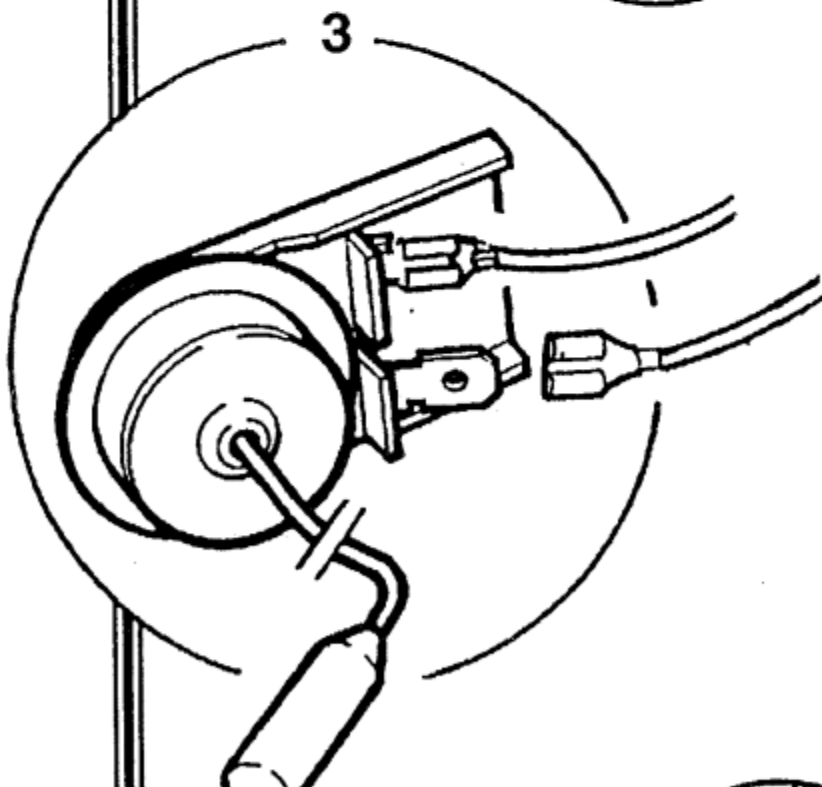
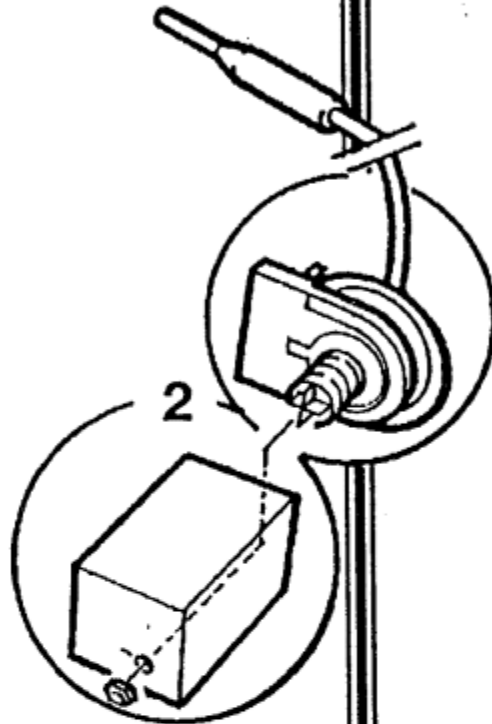
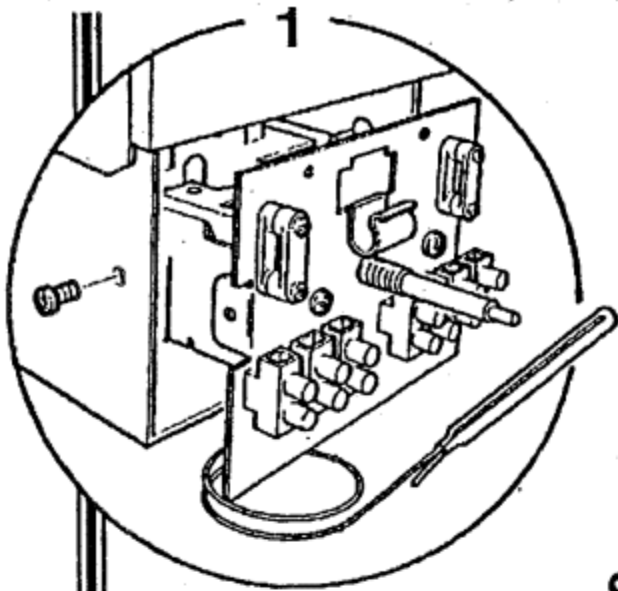
2 Release the screws securing the main boiler thermostat to the mounting plate.

3 Pull off the spade connectors from the rear of the thermostat, taking note of their orientation. Fit the new thermostat to the mounting plate and reconnect the spade connectors to the appropriate terminals.



Reassemble all the components in the reverse order to dismantling.

NOTE: When reassembling, care must be taken to align the overheat thermostat capillary with the groove in the main thermostat phial.



Overheat Thermostat

- 1 Remove the rear part of the thermostat box by removing the screws at the side.
- 2 Remove the locknut holding the overheat thermostat in place and withdraw from the control box.
- 3 Disconnect the two wires from the overheat thermostat and refit them to the new component.

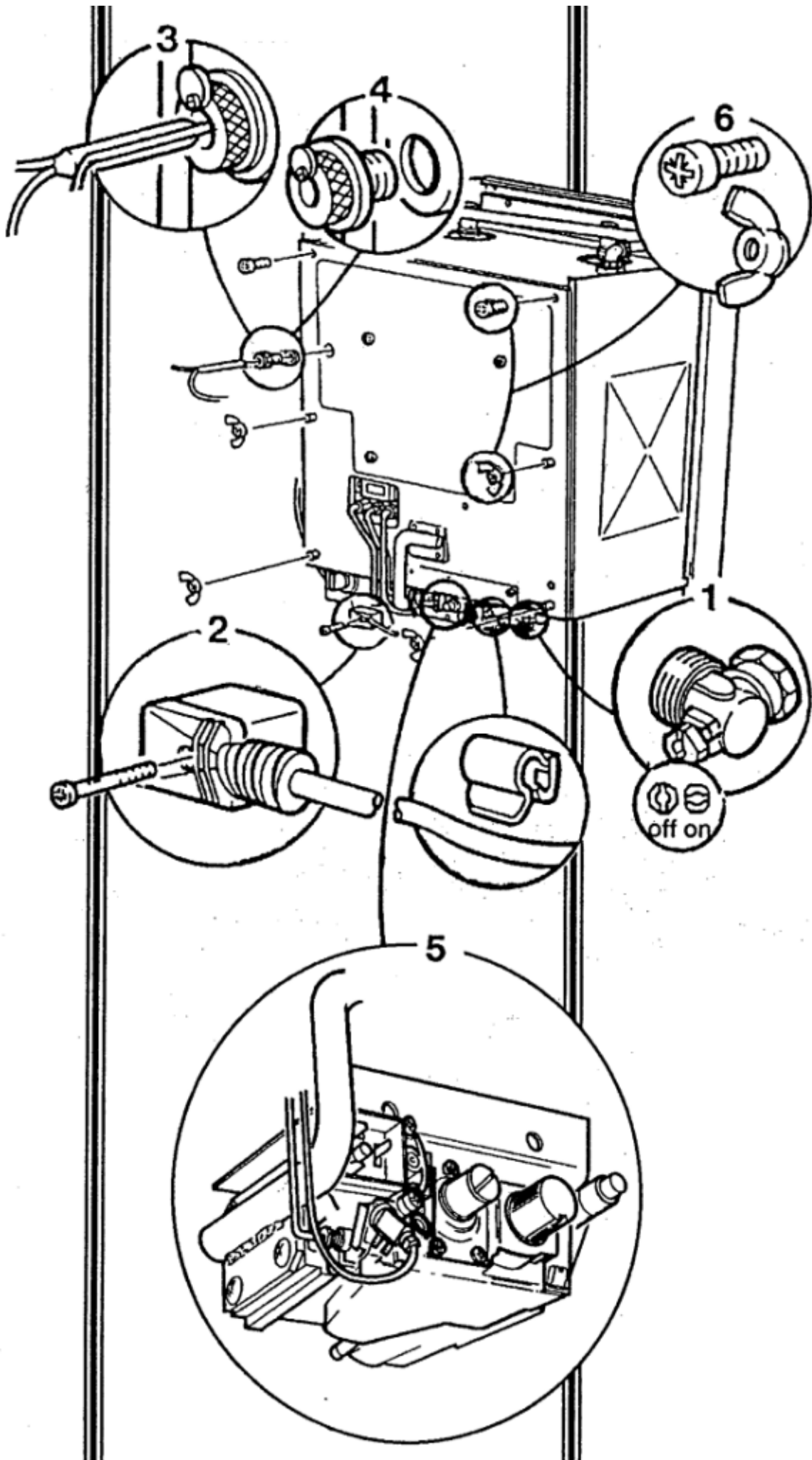
Fix the new overheat thermostat in position in the control box and lock in place with locknut.

NOTE: The overheat thermostat capillary may be somewhat longer than necessary. Excess length should be tidied up by making a neat coil.

Contact with the side of the combustion box should be avoided.

Reassemble all the components in the reverse order to dismantling.

NOTE: When reassembling, care must be taken to align the overheat thermostat capillary with the groove in the main thermostat phial.



Gas Valve

To change the gas valve proceed as follows:

Remove the controls door panel by:

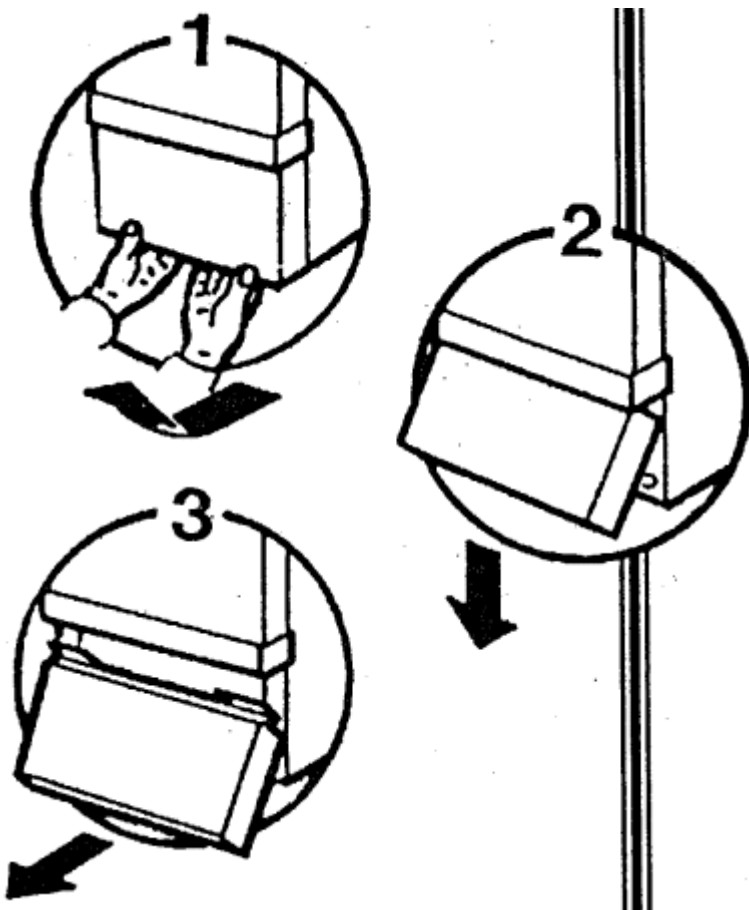
- 1 Disconnect the gas union.
- 2 Disconnect the electrical cable at the gas valve. Pull the clip at the front of the gas valve forward and ease the wire from its clip.
- 3 Loosen the screw on the capillary retaining washer, allowing the washer to move freely. Remove both phials from the thermostat pocket.
- 4 Remove the brass sealing plug and fibre washer.
- 5 Disconnect the overheat thermostat leads from the control valve spade connections.
- 6 Unscrew the four wing nuts and two screws holding the controls assembly door in place. Remove the controls door.

Follow the instructions on page 31 of the main instructions for Installation and Servicing to replace the control valve.

NOTE: When reassembling, care must be taken to align the overheat thermostat capillary with the groove in the main thermostat phial.

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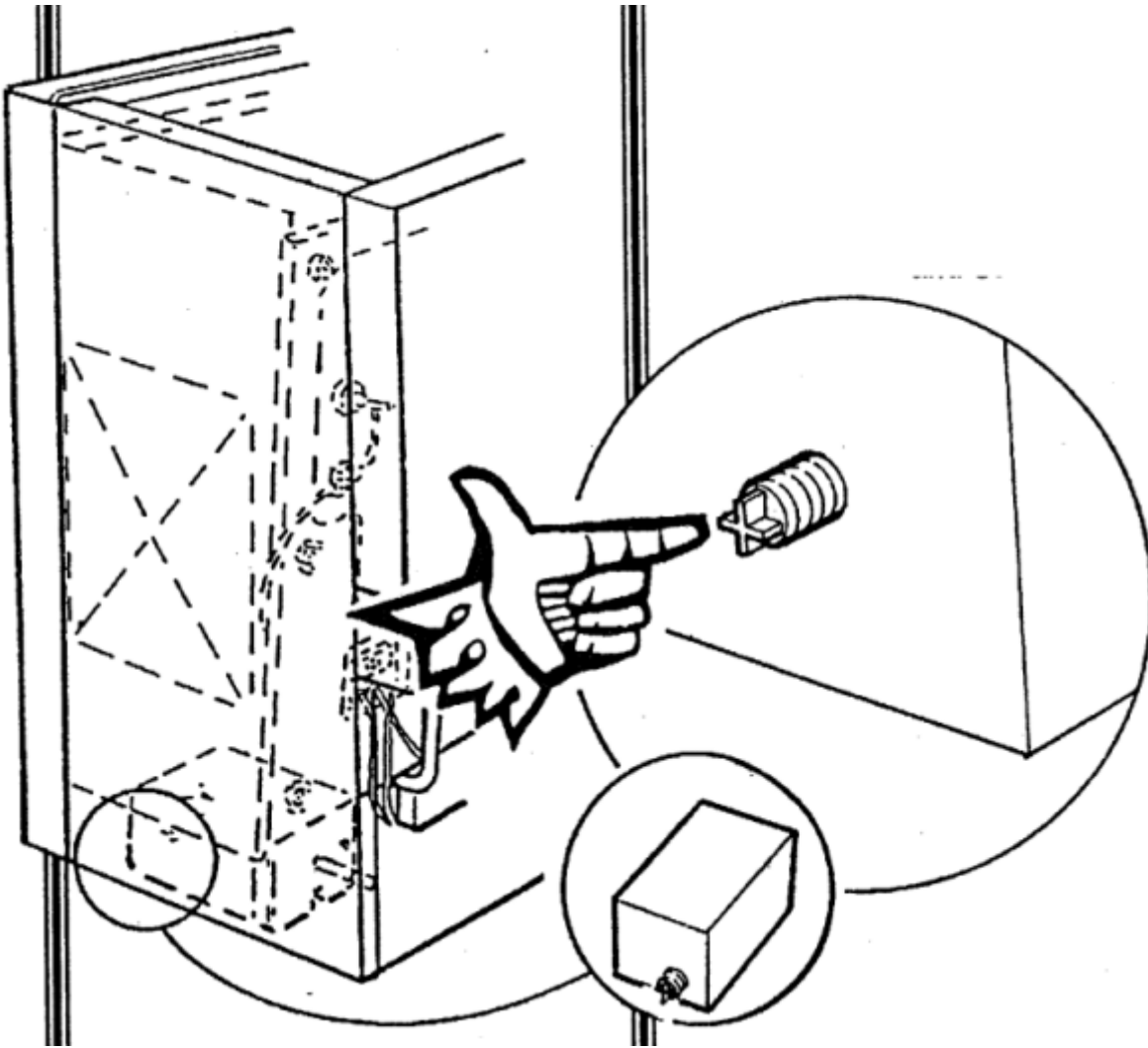
OVERHEAT CUT-OFF DEVICE



Operation

The overheat cut-off device is of the manual reset type and therefore it is important that the user knows how to reset the control should it ever cut out.

Remove the lower door panel by following the sequence of diagrams.



Reach into the outer case and locate the reset button at the rear of the control box. Press the button to reset the overheat thermostat.

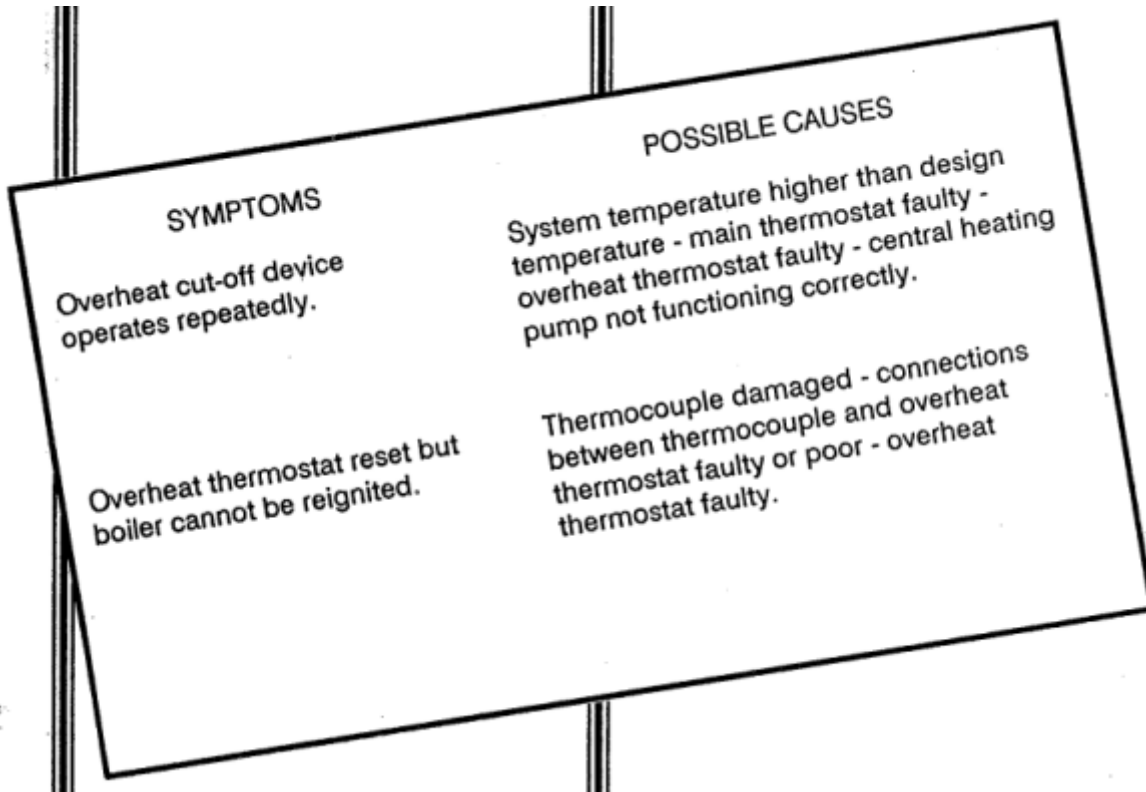
The boiler must be reignited manually. Refer to page 21 of the main instructions for Installation and Servicing, or the user label on the rear of the lower panel door.

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FAULT FINDING

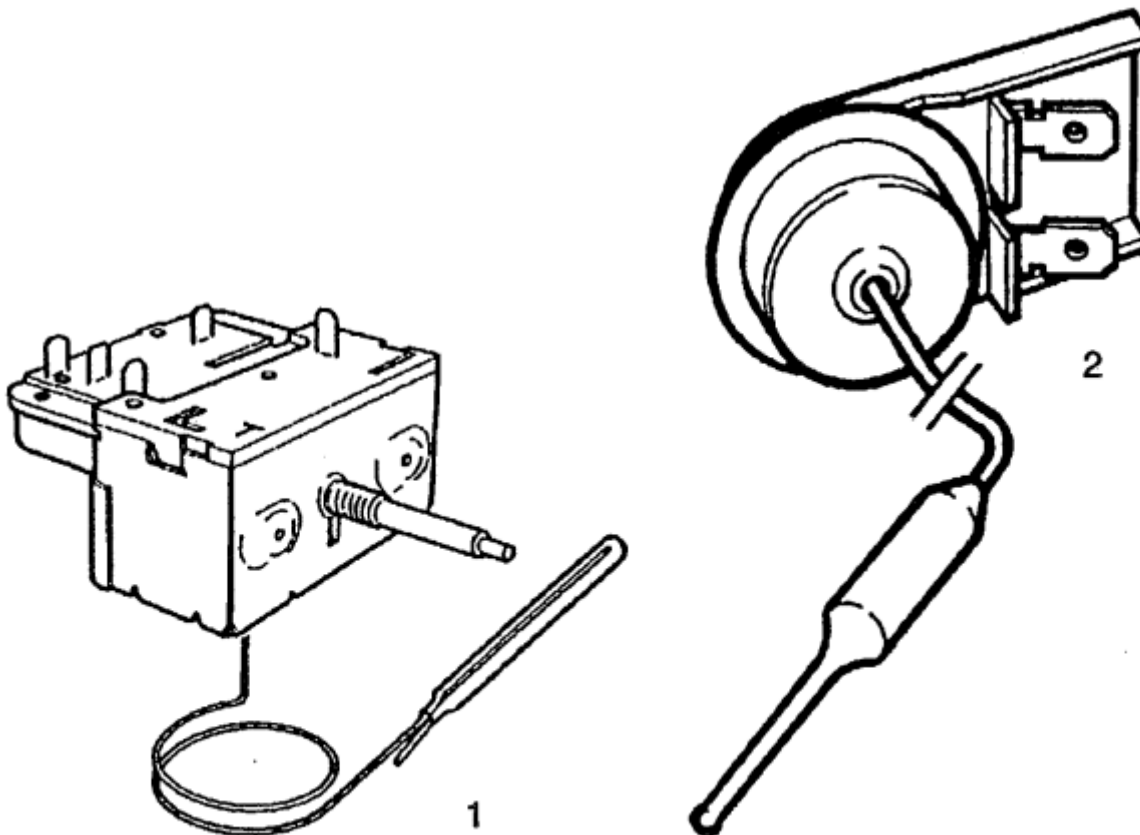
If the overheat thermostat drops out repeatedly, then a fault is indicated. The following information in conjunction with the fault finding section of the main instructions for Installation and Servicing, should be used to help trace the fault.

Overheat Thermostat

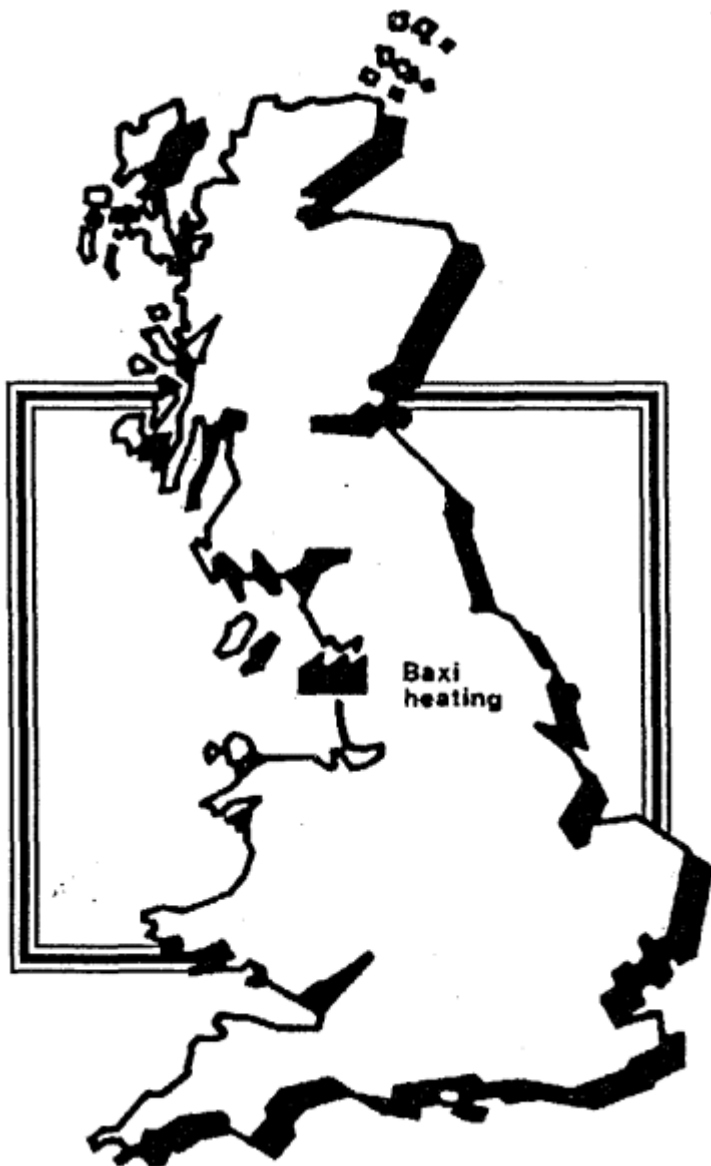


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SHORT PARTS LIST



Key No	G.C. No	Description	Manufacturers Part No
1	397874	Thermostat	227786
2	397875	Overheat Thermostat	227799



Baxi heating manufacture a comprehensive range of products for the domestic heating market:

- Gas Central Heating Boilers (Wall, Floor and Fireside models).
- Independent Gas Fires.
- Gas Heaters.
- Solid Fuel Fires.

If you require information on any of these products, please write to the Sales Department at the address below.

Baxi heating, Bamber Bridge, Preston. PR5 6SN. Lancashire. Telephone: (0772) 36201 Telex: 677168 Fax: (0772) 315998