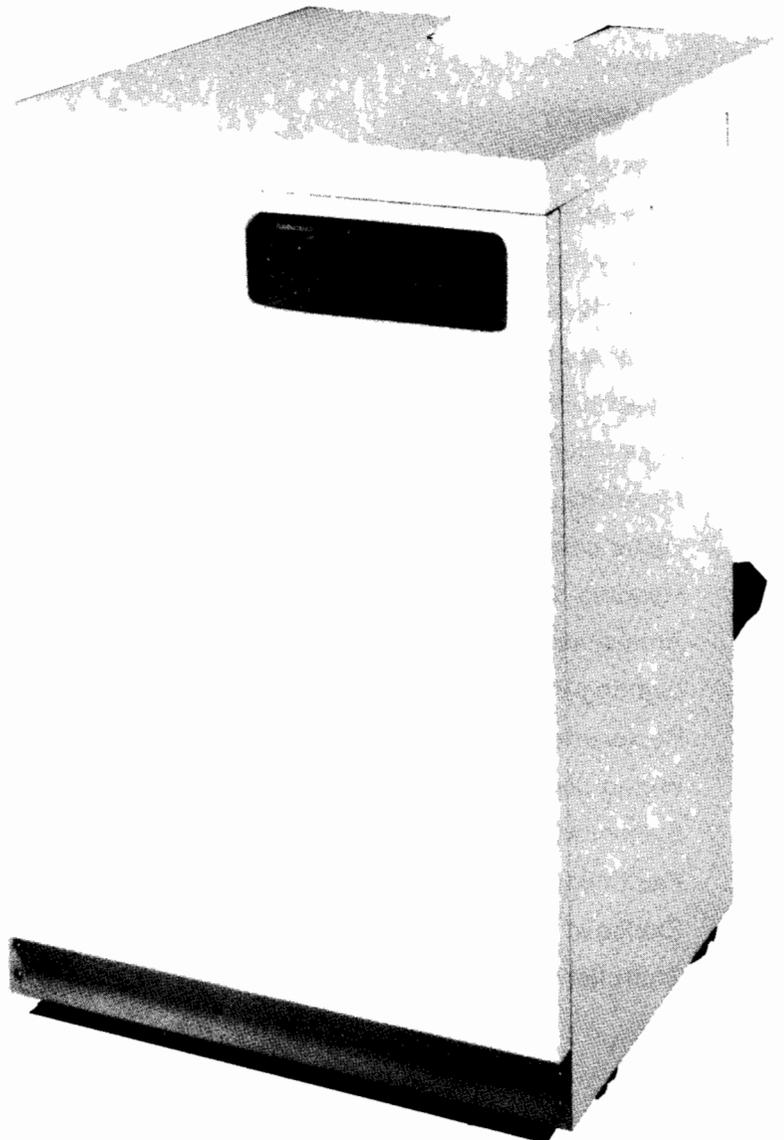


OMYSON

Installation and Servicing Instructions

Marathon 1500C Floor standing gas boiler

G.C. Appliance No: Marathon 1500C 41 494 20



FOR USE WITH NATURAL GAS (G20) ONLY

Read these instructions thoroughly before working on the boiler.
Leave the instructions adjacent to the gas meter.



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1. INTRODUCTION

This open flue floor standing boiler is for use on natural gas only.

The Marathon 1500C is range rated from an output of 33.12 to 41.47 kW (113 000 to 141 500 Btu/h)

The Marathon 1500C is factory set to the maximum output.

The boiler is designed for use with an open central heating system and an indirect domestic hot water cylinder. IT MUST NOT BE CONNECTED TO A DIRECT CYLINDER.

The boiler is supplied for use on a gravity hot water system. If it is to be used on a fully pumped system a selector plug (in the control box) must be changed.

BLUE for gravity hot water, RED for fully pumped. See page 8.

2. TECHNICAL DATA

For boiler model and serial no. see data plate above gas valve.

Boiler	Marathon 1500C	
Burner	Three Bray AB20030 LR	
Burner injector	7 x 1.32	
Pilot burner spring	Bray IB3063	
Pilot burner head	Bray IB3235	
Pilot injector	Bray 968/10	
Pilot flame	Approximately 20 mm long	
Spark gap	4.0 to 5.0 mm	
Ignition	Piezo push button	
Dry weight with case	159 kg (350 lb)	
Water content	12.3 litre (2.7 gal)	
*Head loss	0.25 m (10 in)	
Maximum static head	30.5 m (100 ft)	
Minimum static head	1.0 m (39 in) above top of white case	
Height	850 mm (33½ in)	
Width	600 mm (24 in)	
Depth	735 mm (29 in)	
Clearance required for servicing and ventilation	Top	300 mm (12 in)
	Front	450 mm (18 in)
	Sides	60 mm (2½ in)
Flue size	153 mm (6 in) dia.	
Water connections	Two Rc 1½ flow, one Rc1 gravity return and one Rc1 heating return	
Gas connection	Rc¾	

*Head loss is given between the heating flow and return tapings, for a temperature rise across the boiler of 11°C (20°F).

The pump used must be capable of delivering 3410 litres/h (750 gal/h) against the resistance of the boiler and system. A lower flow rate may be used if a higher temperature rise over the boiler is acceptable.

The pump MUST be connected to the boiler terminal block, to allow the pump overrun to function.

NOMINAL BOILER RATINGS

Boiler	Output		Input		Burner setting pressure	
	kW	Btu/h	kW	Btu/h	mbar	in wg
Marathon 1500C	33.12	113 000	46.65	159 150	11.7	4.7
	41.47	141 500	54.95	187 500	16.0	6.4

3. GENERAL REQUIREMENTS

The boiler must be installed in accordance with: The Gas Safety (Installation and Use) Regulations 1994, and the current issue of the Building Regulations, Building Standards (Scotland) Regulations, Local Building Regulations, Model and local Water Undertaking Byelaws and IEE Wiring Regulations. Detailed recommendations are stated in the following British Standard Codes of Practice: BS6891, BS6798, BS5546, BS5440:1, BS5440:2 and BS5449:1

Note: Gas Safety Regulations: It is the law that all gas appliances are installed by competent persons in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution. It is in your own interest, and that of safety to ensure that the law is complied with.

4. DELIVERY

The boiler is delivered in two packages (1) the uncased boiler and (2) the case parts.

A plug in programmer kit is available, if required, to fit within the boiler case. The programmer simplifies wiring and is suitable for use with all external control systems shown in the system wiring diagrams shown on page 22.

5. GAS SUPPLY

The Marathon 1500C requires 5.24 m³/h (185 ft³/h) of natural gas. The meter and supply pipes must be capable of delivering this quantity of gas in addition to the demand from any other appliances in the house.

The complete installation must be tested for gas soundness and purged in accordance with BS6891.

A gas supply pressure of 20 mbar is required at the inlet to the appliance. Performance data is based on G20 reference gas.

6. ELECTRICITY SUPPLY

A 240 volts~ 50Hz, single phase electricity supply fused to 3 amperes, must be provided in accordance with the latest edition of the I.E.E. Wiring Regulations and any other local regulations that may apply. The current rating of the wiring to the boiler must exceed 3 amperes and have a cross sectional area of at least 0.75 mm² in accordance with BS.6500. Table 16.

The supply to the boiler and its associated equipment should be controlled by an exclusive 3A fused double pole switch (having at least 3 mm contact separation in both poles) so that complete isolation from the supply can be achieved to enable servicing work to be carried out in safety.

The appliance must be earthed.

Warning

Electrical installation, commissioning and servicing should be carried out by a competent person in accordance with the I.E.E. Wiring Regulations.

7. AIR SUPPLY

The Marathon 1500C requires at least 60 mm (2½ in) clearance at each side for air movement.

The boiler must not be boxed in tightly with kitchen units.

Air supply for combustion and ventilation must be provided in accordance with BS5440:2.

1. If the boiler is installed in a room, the room must have a permanent air vent either direct to the outside air or to an adjacent room which itself has a permanent air vent to the outside air. The minimum effective area of the air vent(s) required is 216 cm² (33 in²).

2. If the boiler is installed in a cupboard or compartment, permanent air vents are required in the cupboard or compartment, one at high level and one at low level, either direct to the outside air or to a room. Both high and low level air vents must communicate with the same room or must be on the same wall to outside air. The minimum effective areas required are given in the following table:

Vents to outside air	High level	247 cm ²	(38 in ²)
	Low level	495 cm ²	(75 in ²)
Vents into a room	High level	495 cm ²	(75 in ²)
	Low level	990 cm ²	(150 in ²)

Where the cupboard or compartment is ventilated to a room, the room itself must have an air vent direct to outside air of minimum effective area as given in paragraph 1.

Ensure that there is at least 100 mm (4 in) clearance in front of the boiler for air movement.

Note: Air vents in internal walls should not communicate with a bedroom, toilet, bathroom or kitchen.

3. IMPORTANT: The above areas are for natural circulation. If there is any type of extract fan fitted in the premises, there is a possibility that if adequate air inlet areas from outside are not provided, spillage of products from the boiler flue could occur when the fan is in operation. Where such installations occur, a spillage test with the fan running must be carried out as described in BS5440:1, Appendix B. The air inlet areas given above may have to be increased to prevent spillage.

8. FLUE SYSTEM

The boiler must be connected to a suitable flue which will provide a consistent updraught without undue cooling of the flue gases. The requirements of BS5440:1 should be followed. Horizontal flue runs should be avoided and the flue should terminate above roof edge level in accordance with the relevant recommendations given in BS5440:1. The flue must be fitted with a terminal, preferably one which has been tested and found satisfactory by British Gas.

Existing chimneys may be suitable but must be swept first and require an approved liner to be fitted. If in doubt regarding the suitability of a flue, consult the local Gas Region for advice.

If the flue is required to be taken through the wall behind the boiler, there should be a minimum of 600 mm (2 ft) of vertical flue directly above the draught diverter prior to any bend.

A minimum clearance of 25 mm should be maintained between the flue pipe and any adjacent combustible material.

Note: When the flue is taken through the ceiling and into the roofspace, or the room above, it must be provided with a sleeve of non-combustible material sufficient to allow an air space between the sleeve and flue of 25 mm (1 in) minimum. A suitable non-combustible plate must be fitted to centre the flue and maintain the 25 mm air gap.

If a twin wall insulated flue is used it may be necessary to use an appliance connector, available from the flue manufacturer. Nominal flue size: 153 mm (6 in).

9. BOILER LOCATION

The boiler is not suitable for external installation.

The boiler must stand firm and level. No special floor protection is needed, but finishes which soften when warm, e.g. linoleum and plastic floor tiles, should be removed, or may be protected by an insulating sheet at least 10 mm thick. The boiler should not be installed in a bedroom and must not be installed in a room containing a bath or shower or in a garage.

Where the installation of the boiler will be in an unusual position, special procedures may be necessary and BS6798 and BS5546 give detailed guidance on this aspect.

A cupboard or compartment used to enclose the boiler must be designed and constructed specifically for this purpose. Details of essential features of cupboard/compartment design including airing cupboard installations are given in BS6798 and BS5546 and should be complied with.

If the boiler is to be fitted in a run of kitchen units it is recommended that the boiler is fitted first or the adjacent units removed.

10. WATER CONNECTIONS

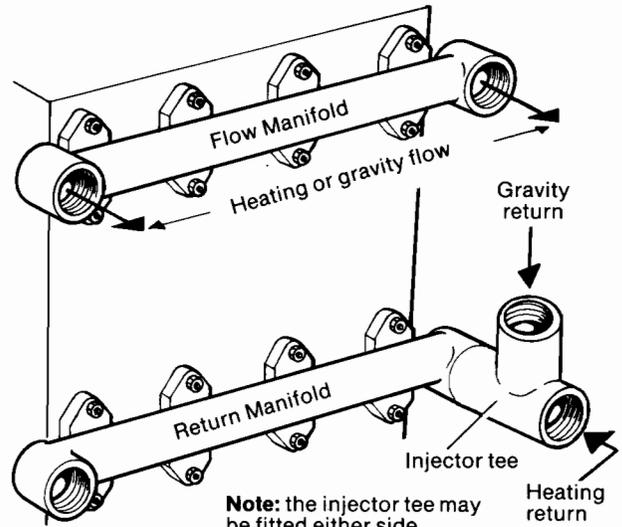
The water connections are via manifolds on the back of the boiler as shown opposite. See section 11 for their position. All unused tappings must be plugged.

Important: On gravity systems, both pumped and gravity returns **MUST** be connected to the injector tee.

Note: For fully pumped systems the injector tee is not required and should be discarded.

A by-pass must be fitted between the flow and return at least 3 m from the boiler.

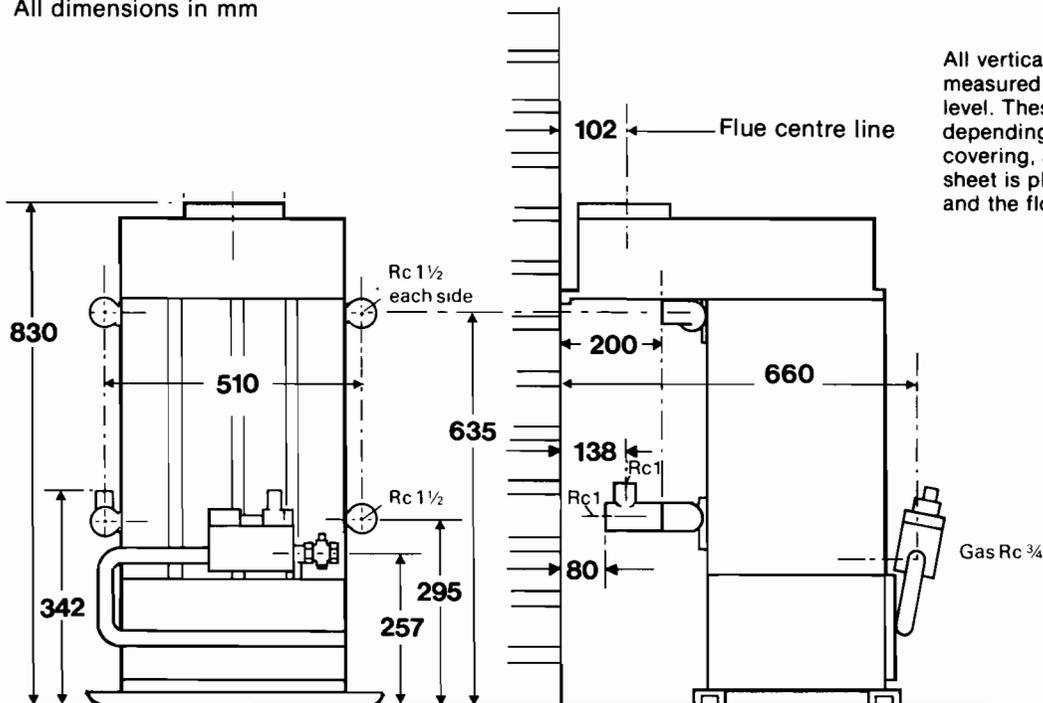
Fit one or more draining taps (BS2879) to enable the water system to be fully drained.



Back view of boiler

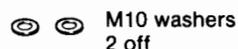
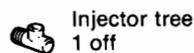
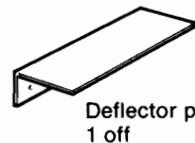
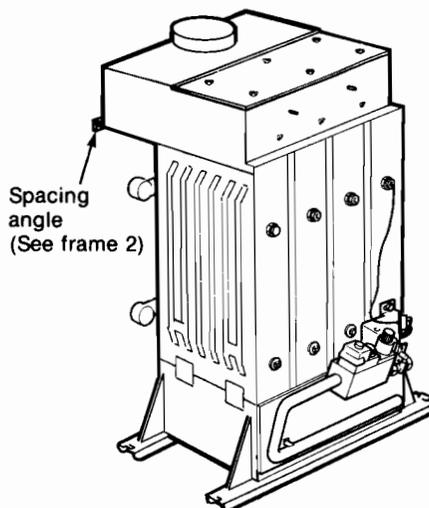
11. POSITION OF WATER, FLUE AND GAS CONNECTIONS

All dimensions in mm



1 UNPACK THE BOILER

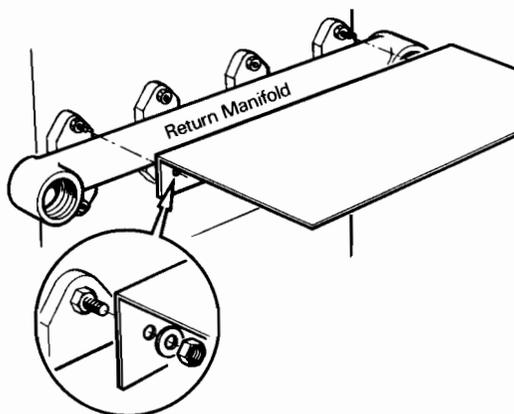
1. Carefully unpack the boiler. Do not discard the packing until all the items are found.
2. Remove the wooden transit packing from the base of the boiler.
3. Place the case top safely aside to avoid possible damage.



Find these parts in the pack

2 PREPARE AND INSTALL THE BOILER

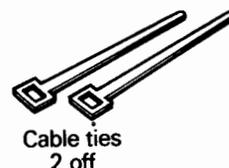
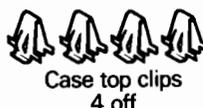
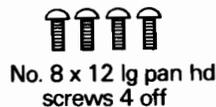
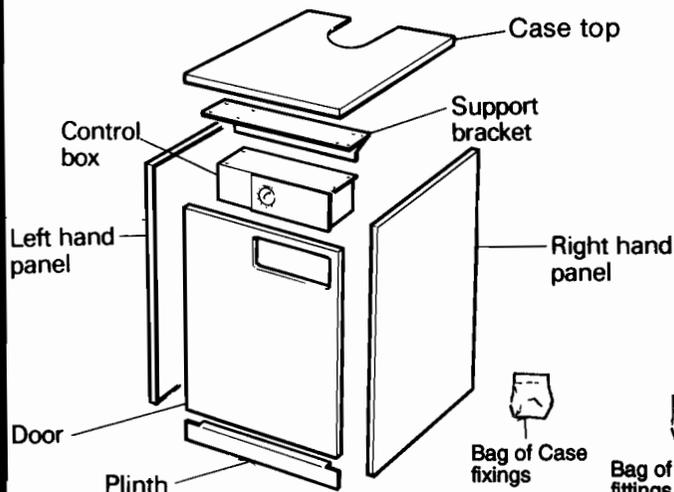
1. If the injector tee is to be used fit it to the return manifold using jointing compound. Fit the water fittings to the flow and return manifolds using jointing compound (see section 10, page 5).
2. Fit the deflector plate to the boiler. The two lugs fit over the extended studs. Secure with two M10 nuts and washers supplied.
3. Stand the boiler on the floor, on an insulating sheet if required (see section 9, page 5), with the spacing angle (see diagram above) on the back of the draught diverter touching the wall. Check that the boiler is standing firm and level.
4. Connect the first length of flue to the socket on top of the boiler. Pack the joint with a suitable caulking string and seal with a suitable fire cement.
5. Connect the water system pipework to the fittings previously fitted.
6. Connect the gas supply to the boiler service cock on the gas valve inlet.
DO NOT TURN ON THE GAS SUPPLY AT THIS STAGE.
7. Thoroughly flush the whole system with cold water without the pump in position (temporarily replace the pump with a suitable piece of pipe). Ensure all valves are open. With the pump fitted, fill, vent and check for water soundness, rectifying where necessary.



Back view of boiler

3 UNPACK THE CASE

Carefully unpack the case. Do not discard the packing until all the items are found.



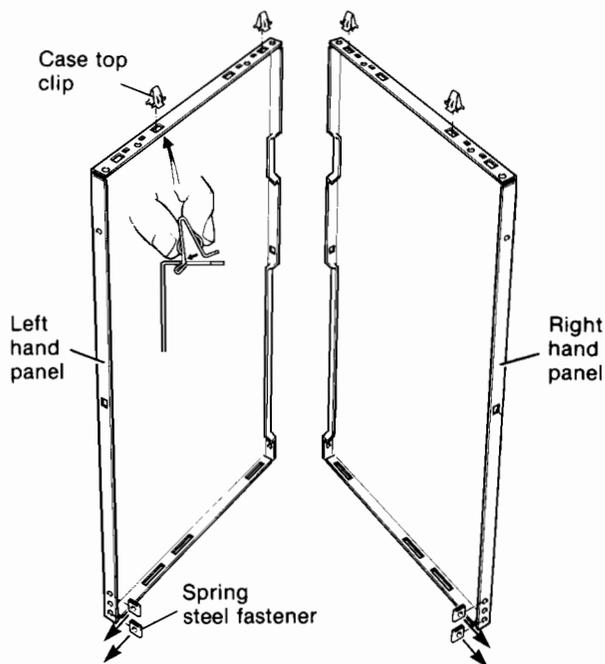
Contents of fixings bag

Find these parts in the pack

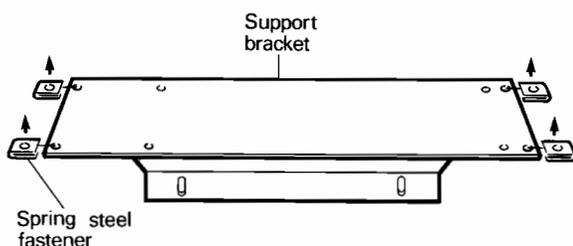
4 ASSEMBLE THE CASE PARTS

1. Fit the four case top clips, supplied with the case, to the case side panels in the holes shown.
2. Fit four of the spring steel fasteners, supplied with the case, to the bottom of the side panels in the holes shown.

Note: When fitting the spring steel fastener, ensure that the flat side faces outwards (in the direction of the arrow).



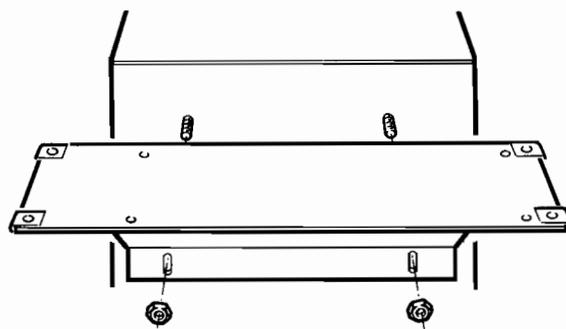
5 Assemble the case parts — continued



3. Fit four of the spring steel fasteners, supplied with the case, to the ends of the support bracket as shown.

Note: When fitting the spring steel fasteners, ensure that the flat side faces outwards (in the direction of the arrow).

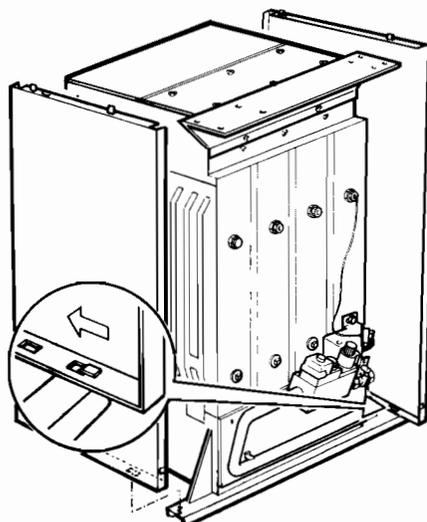
6 Assemble the case parts — continued



4. Fit the support bracket to the two studs on the front of the flue box as shown. Loosely secure in position with two M5 nuts, supplied with the case, nuts to be finger tight only.

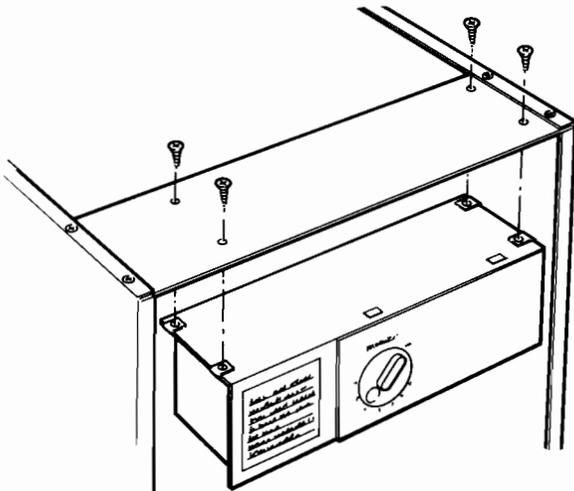
7 FIT THE CASE SIDES

1. Fit the right hand side panel with the bottom slots over the raised lugs on the base channels and push the panel backwards to locate it under the raised lugs.
2. Bring the side panel up vertical over the top of the support bracket and secure using two of the No. 8 x 12 lg countersunk screws supplied with the case.
3. Repeat operations 1 and 2 for the left hand side panel.
4. Tighten the M5 nuts securing the support bracket.



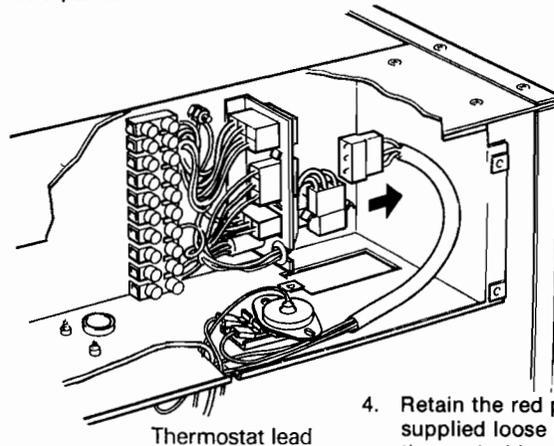
8 FIT THE CONTROL BOX

1. Place the control box below the support bracket as shown and secure in position with four No. 8 x 12 lg countersunk screws, supplied with the case.



9 Fit the Control Box — continued

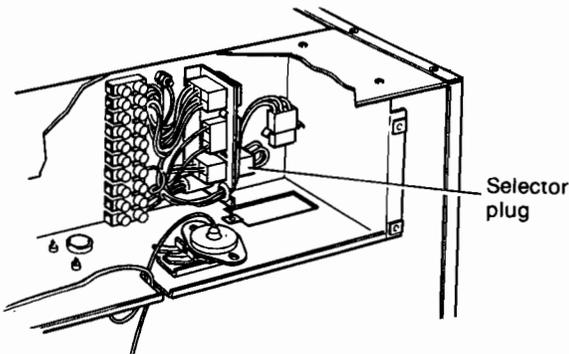
2. Remove the four screws securing the fascia panel.
3. Disconnect the 3-way plug and socket and remove the fascia panel.



4. Retain the red plug supplied loose inside the control box. See frame 10.

10 WIRING SELECTOR PLUG

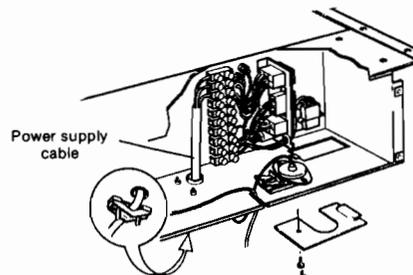
The boiler is supplied with the Blue plug fitted. This allows the boiler to be used on a gravity hot water system. If the boiler is to be used on a fully pumped system the Blue plug must be removed and replaced with the Red plug supplied loose in the control box.



Remember—BLUE for gravity hot water systems
RED for fully pumped systems

11 CONNECT THE POWER SUPPLY CABLE AND GAS VALVE LEAD

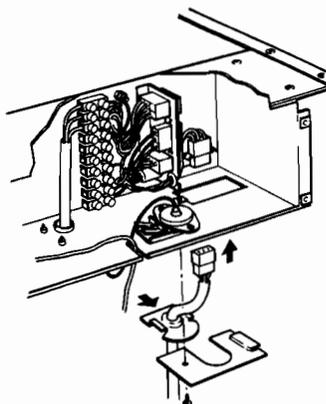
1. Slacken the two screws in the cable clamp underneath the control box. Feed the power supply cable under the cable clamp and through the bush. Connect the wires, Brown to L, Blue to N and Green and Yellow to \perp on the terminal block.
Note: When connecting the power supply cable to the terminal block, ensure that the length of the earth wire is such, that if the supply cable slips out of the cable clamp the live and neutral wires become taut before the earth wire.
2. Tighten the cable clamp screws to secure the power supply cable.
3. Pass any external wiring through the bush in the back of the control box and connect to the terminal block. See wiring diagram.



4. Remove the gas valve lead clamping bracket from underneath the control box.
DO NOT SWITCH ON THE ELECTRICITY SUPPLY AT THIS STAGE

12 Connect the power supply cable and gas valve lead — continued

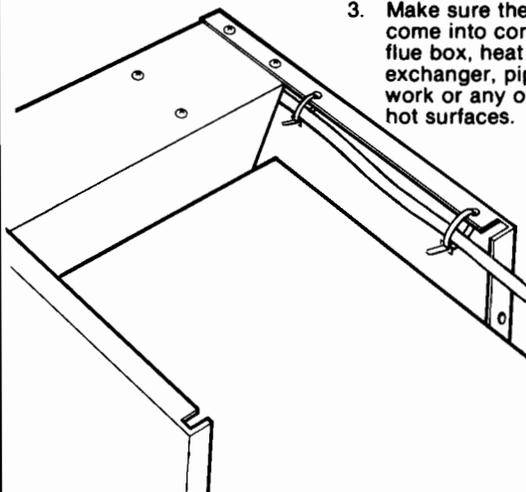
5. Push the cable bush support (fitted to the gas valve lead) into the U slot in the clamping bracket.
6. Pass the gas valve lead plug through the base of the control box and connect it to the 3-way socket.
7. Secure the clamping bracket in position on the control box base.



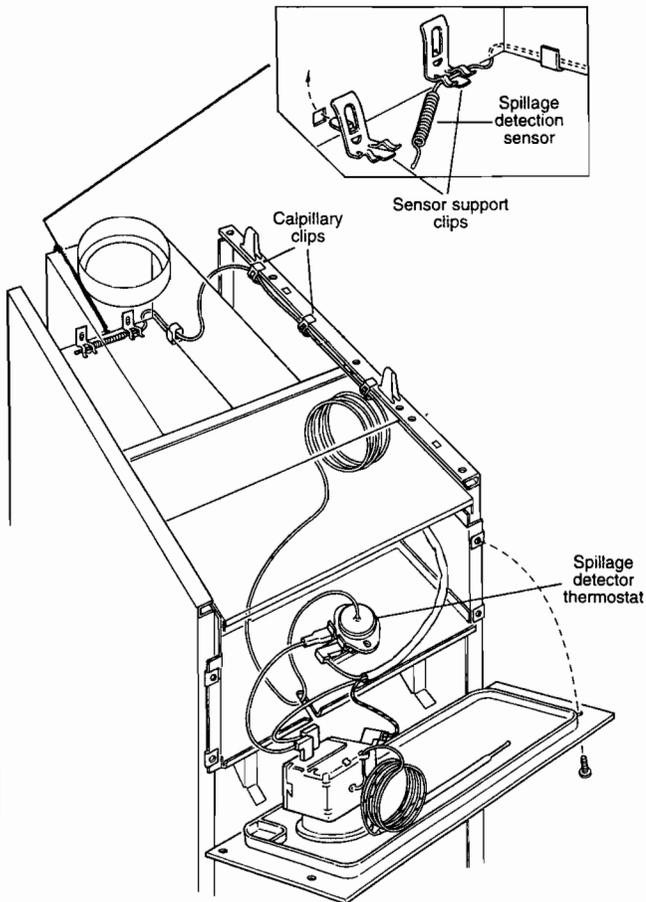
Gas valve lead

13 SECURE THE WIRING

1. Bind together all cables leading to the control box and secure to the case side with the cable ties, supplied with the case.
2. Clip the cables to the wall behind the boiler.
3. Make sure the cables do not come into contact with the flue box, heat exchanger, pipe-work or any other hot surfaces.



14 FLUE PRODUCTS SPILLAGE DETECTOR

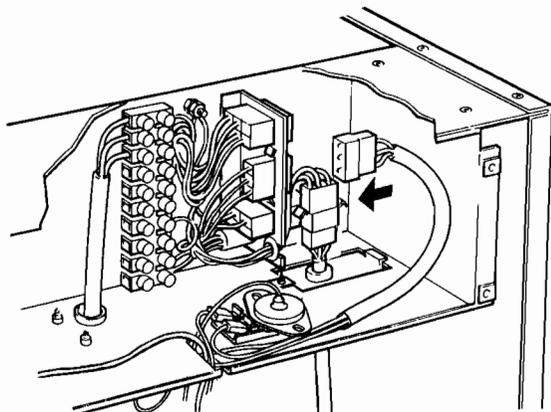


1. Run the capillary of the spillage Detector Thermostat to the rear of the appliance using the capillary support clips to secure it to the top of the right hand casing and to the down/draft/diverter. (d/d/d)
2. Remove the two sensor support clips from the poly bag. From inside the down/draft/diverter (d/d/d) insert the clips into the 2 x 5.7mm square holes in the rear of the d/d/d.
3. Slide the sensor into the clips ensuring that the capillary is taken out of the d/d/d directly by bending the capillary 90 degree out of the sensor support clip as shown above.
- 4) If a programmer kit is to be fitted proceed to frame 15 otherwise proceed to frame 17.

17 FIT THE FACIA PANEL (If the programmer kit is not used)

If the Marathon programmer kit is not used, replace the facia panel as follows:

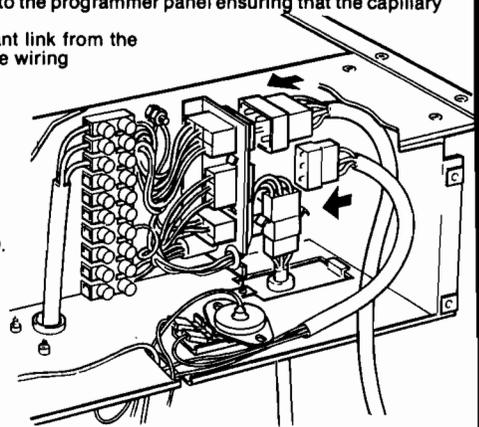
1. Connect the 3-way plug and socket as shown.
2. Secure the panel in position with the four screws removed in frame 9.
Ensure that the thermostat capillaries pass through the cut-out in the control box base.



15 FIT THE PROGRAMMER KIT (if used)

If the Marathon programmer kit is used, the boiler thermostat must be removed from the facia panel and fitted to the programmer as follows:

1. Remove the thermostat knob by carefully pushing with a screwdriver through the cutouts in the back of the facia panel.
2. From the front of the panel remove the two screws securing the thermostat.
3. Fit the thermostat to the programmer panel ensuring that the capillary is uppermost.
4. Remove the relevant link from the terminal block. See wiring diagram.
5. Connect the 3-way and 6-way plug and sockets.
6. Secure the programmer panel in position with four screws removed in frame 9. Ensure that the thermostat capillaries pass through the cut out in the control box base.



16 FIT THE PUMP OVERRUN THERMOSTAT PHIAL

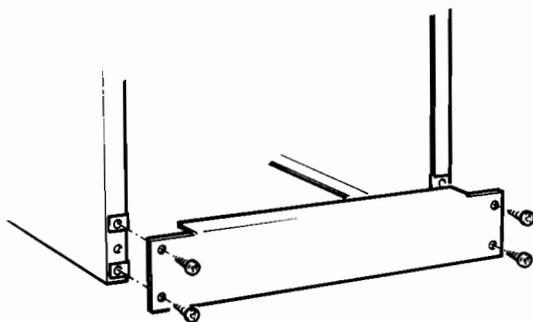
The pump overrun thermostat is positioned on the left, inside the control box.

1. Refer to frame 21 for the pump thermostat phial position.
2. Remove the thermostat phial fixing (screw or split pin) from the required pocket on the front of the heat exchanger and insert the pump overrun thermostat phial into the pocket. Secure in position with the fixing previously removed.
3. Position the thermostat capillary in the cut-out in the control box base.

18 FIT THE BOILER THERMOSTAT AND LIMIT THERMOSTAT PHIALS

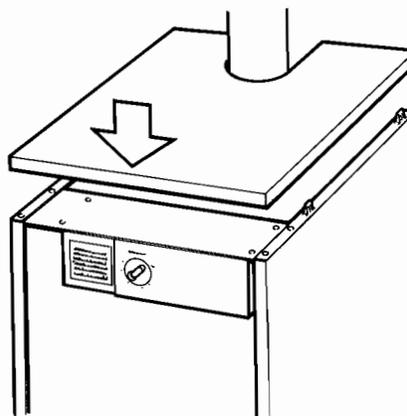
1. Refer to frame 21 for the boiler thermostat and limit thermostat phial positions.
2. Remove the thermostat phial fixings (screw or split pin) from the required pockets on the front of the heat exchanger. Insert the boiler thermostat and limit thermostat phials into the pockets. Secure in position with the fixings previously removed.

19 FIT THE PLINTH



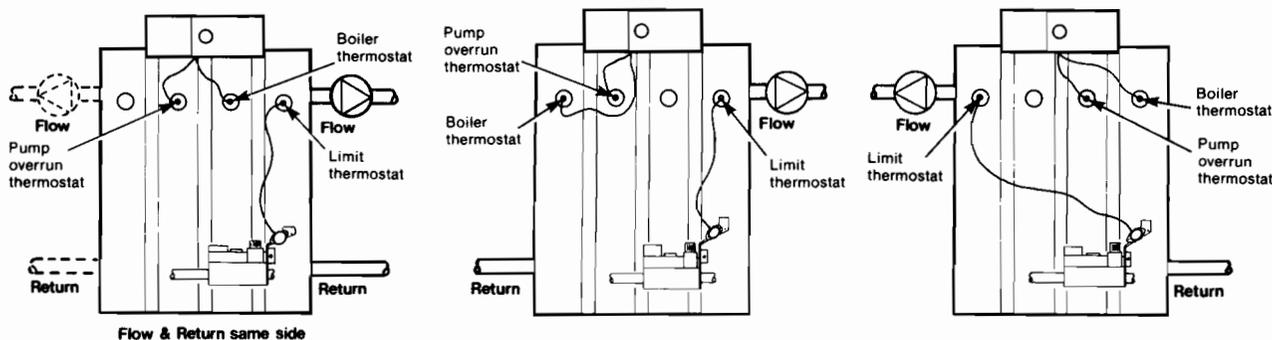
Secure the plinth to the bottom of the case side panels as shown using four No. 8 x 12 lg pan hd screws, supplied with the case.

20 FIT THE CASE TOP



Engage the case top onto the spring clips on the top of the case sides and press down to secure.

21 It is **important** that the thermostat phials are located in the correct pockets to suit the pipework connections. The diagram below shows the four methods of connection to the boiler, along with the relevant positions of the thermostat phials.



13. COMMISSIONING

See page 11 for boiler controls

1. Test for soundness and purge the gas supply

a. With the boiler service cock closed (the slot in the operating head indicates the direction of flow through the cock), pressure test the gas supply and inlet pipework connection to the boiler service cock for soundness in accordance with BS6891.

b. Loosen the gas inlet pressure test point screw one turn. Ensure the gas supply is on and open the boiler service cock to purge in accordance with BS6891.

c. Retighten the test point screw. Test around the test point screw and service cock to gas valve joint for gas soundness using a suitable leak detecting fluid.

2. Light the pilot

With the gas supply on, electricity supply off and the boiler thermostat turned to OFF:

a. Fully depress the gas valve operating button and keep it pressed in. At the same time operate the igniter button to light the pilot. If the pilot does not light, operate the igniter button repeatedly until it does.

b. When the pilot lights continue to hold the gas valve operating button in for a further 10 to 20 seconds, then release it slowly.

Caution: If the pilot does not stay alight, release the gas valve operating button and turn it in the direction of the arrow. Wait for 3 minutes and repeat operation 2a until the pilot is lit. Continue to hold the gas valve operating button in for a little longer then release it slowly. If the pilot goes out or fails to light, check that the limit thermostat reset button is pressed in and relight the boiler.

3. Test the pilot supply for gas soundness

Test the pilot connections at the gas valve and burner door for gas soundness using a suitable leak detecting fluid.

4. Check the pilot flame

The pilot throttle is factory set fully open. Check that the pilot flame (approximately 20 mm lg) envelops the thermocouple tip. Adjust if necessary (clockwise to reduce the flame).

5. Light the main burner

With the pilot alight:

a. Switch on the electricity supply, set the programme selector switch to Continuous, if a programmer is fitted and check that all system controls are calling for heat.

b. Turn the boiler thermostat to position 7 and check that the main burner lights smoothly from the pilot flame. Test the main burner supply to gas valve connection for gas soundness using a suitable leak detecting fluid.

6. If the main burner fails to light, turn the boiler thermostat to the 'off' position and check that the spillage detector thermostat reset button (see fig 14) is pressed in and then repeat operation 5. If the reset button has to be pressed in again within a short time or the burner fails to light, consult the fault finding chart on page 23.

7. Check the main burner setting pressure

After the main burner has been alight for at least 10 minutes.

a. Turn the boiler thermostat to OFF. Loosen the burner setting pressure test point screw one turn and connect a pressure gauge.

b. Turn the boiler thermostat to position 7 and if necessary adjust the burner setting pressure to give the heat input required. Turn the pressure adjusting screw clockwise to decrease the setting pressure.

Note: The boiler is factory set to the maximum input. See Technical Data, page 3, for the boiler ratings and setting pressures.

c. Turn the boiler thermostat to OFF, disconnect the pressure gauge and retighten the pressure test point screw. Turn the boiler thermostat to position-7 to light the main burner and test for gas soundness around the pressure test point screw using a suitable leak detecting fluid.

d. Remove the self-adhesive arrow from the inspection ticket tied to the burner supply pipe and stick it to the Date Plate (positioned Above gas valve) to indicate the appropriate burner setting pressure.

8. Check the flue

Check the flue for correct operation as described in BS5440:1.

9. Set the clock and programme (if a programmer is fitted)

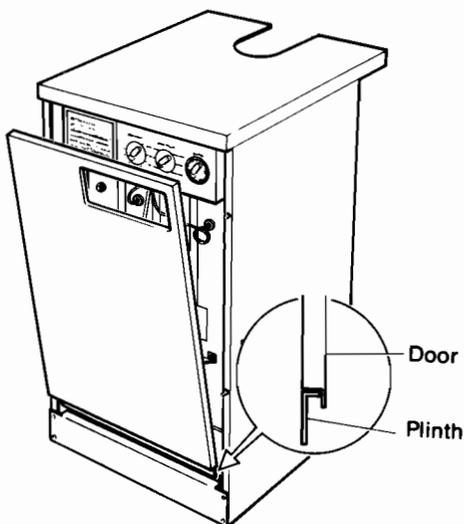
Set the clock to the correct time (do not rotate the dial anticlockwise) and the programme and selector switches to the required settings. See User instructions.

10. Final water system check

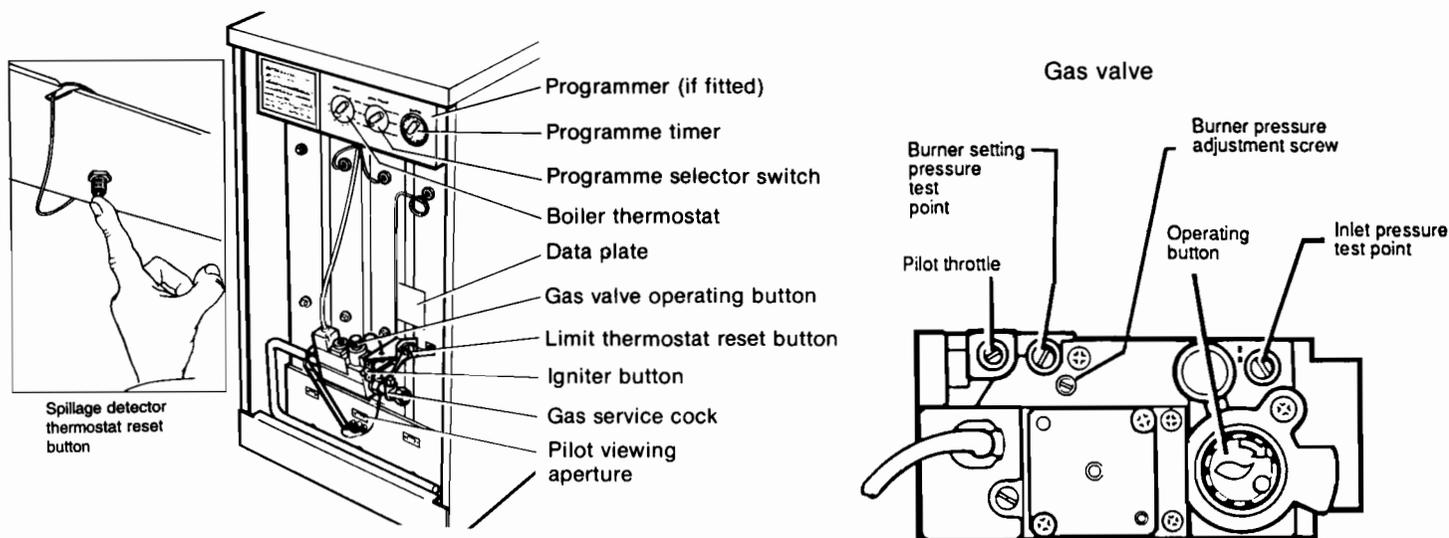
When the system has been tested, drain the water while it is still hot in order to complete the flushing process. Refill, vent and make a final check for water soundness. Remove the temporary label from the top of the casing, having checked compliance with the information it contains.

11. Fit the case door

Locate the bottom edge of the door panel over the plinth, as shown below, and carefully push the door onto the fixings on the case sides.



14. BOILER CONTROLS (Case door removed)



15. HANDING OVER THE INSTALLATION

Hand over the User instructions to the User and instruct in the safe operation of the boiler and controls.

Advise the User of the precautions necessary to prevent damage to the system and to the building in the event of the system remaining inoperative during frost conditions.

Advise the User that for continued efficient and safe operation of the boiler it is important that adequate servicing is carried out at least once a year by a qualified service engineer or the local Gas Region.

Leave a permanent card attached to the boiler giving:

1. Name and address of installer.
2. Date of installation.
3. A wiring diagram of the circuit.

16. ANNUAL SERVICING

The following aspects of the boiler and installation should be examined, and rectified as necessary.

1. Run the boiler and check the operation of its controls, observe the flame picture and ensure that the boiler responds to any switches and programmer.
2. Check the condition of the flue and ensure it is not obstructed.
3. Remove the flue box cover and check if the heat exchanger requires cleaning.
4. Examine the main injectors to ensure they are clear and undamaged.
5. Remove any build up of carbon deposits from the thermocouple tip.
6. If a sufficiently large pilot flame cannot be achieved examine the pilot injector orifice to ensure it is clear and undamaged.

On completion of the service run the boiler and ensure that it operates satisfactorily.

The boiler data plate is positioned above the gas valve.

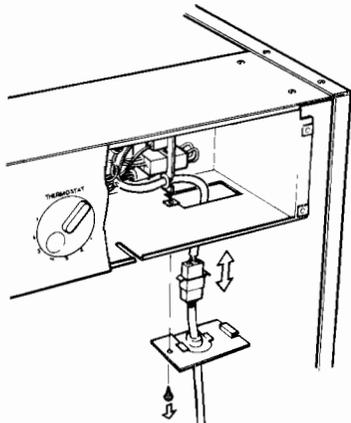
The procedure for Annual Servicing is given in frames 22 to 32.

Warning: Before commencing work remove the case door by carefully pulling it forwards at the top to disengage the fixings and lifting it over the plinth, turn the gas valve operating button in the direction of the arrow to turn off the boiler. Turn off the electricity supply and isolate the gas supply at the boiler service cock. Allow the boiler to cool.

Important: Always test for gas soundness after completing any servicing and carry out functional checks of controls.

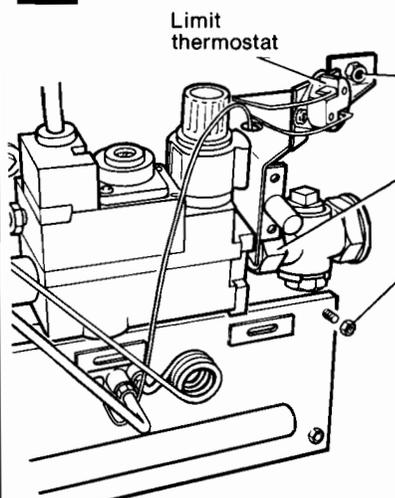
22 DISMANTLING

1. Remove the case top by carefully pulling it upwards.

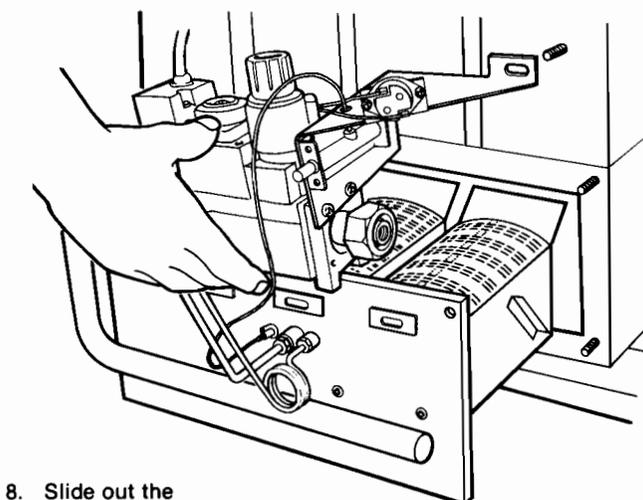


2. Remove the screw securing the gas valve lead clamping bracket to the base of the control box.
3. Carefully withdraw the lead and disconnect the 3-way plug and socket.

23 Dismantling — continued

- 
- A line drawing of the boiler's internal components, focusing on the limit thermostat. A label 'Limit thermostat' points to a cylindrical component. A nut and washer are shown being removed from the gas valve bracket. A union is shown being disconnected from the boiler gas service cock. Four nuts are shown being removed from the burner door. A screw or split pin is shown being removed from the limit thermostat phial fixing pocket on the heat exchanger.
4. Remove the nut and washer securing the gas valve bracket.
 5. Disconnect the union at the boiler gas service cock.
 6. Remove the four nuts fixing the burner door (one at each corner).
 7. Remove the limit thermostat phial fixing, (screw or split pin) from the pocket on the front of the heat exchanger, and carefully withdraw the phial. Make a note which pocket it is to ensure correct replacement.

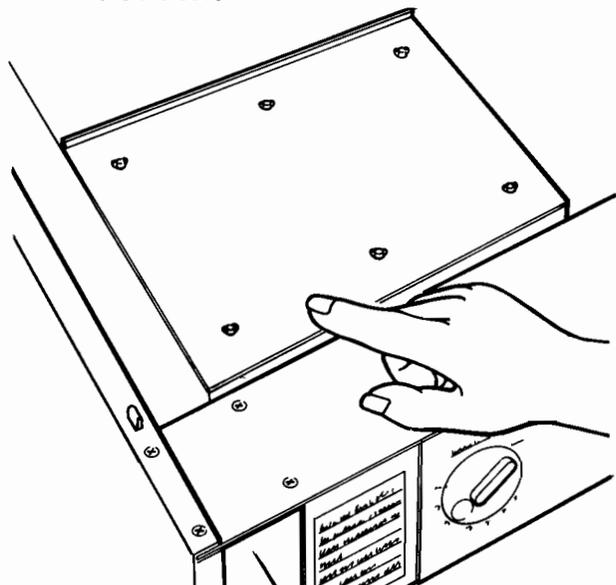
24 Dismantling — continued



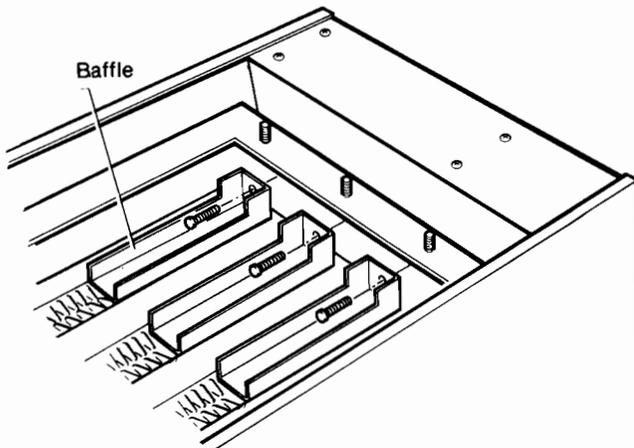
8. Slide out the complete burner and gas valve assembly.

25 Dismantling — continued

9. Remove the six wing nuts securing the flue box cover and remove the cover.

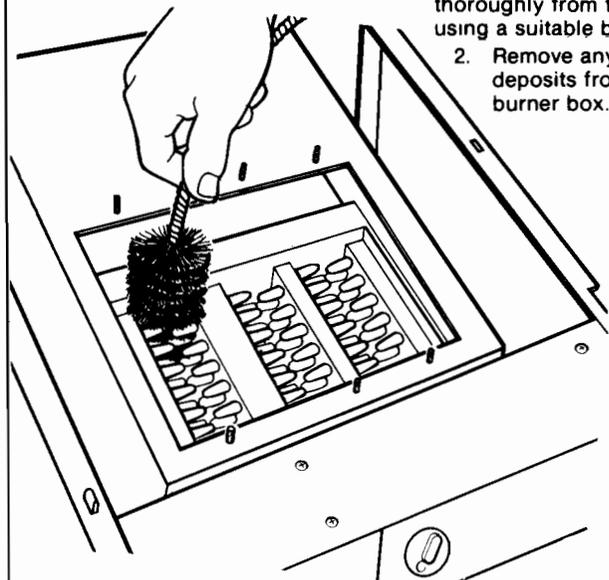


26 Dismantling — continued



10. From inside the flue box remove the screws securing the baffles to the front of the flue box and lift out the baffles.

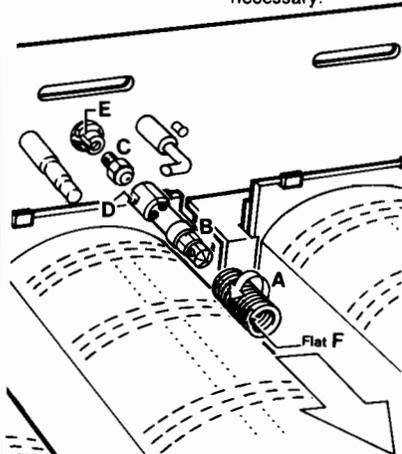
27 CLEANING THE HEAT EXCHANGER



1. Brush all flueways thoroughly from the top using a suitable brush.
2. Remove any fallen deposits from the burner box.

28 CLEANING THE PILOT AND THERMOCOUPLE

1. Twist and pull off the pilot spring A.
2. Pull off the pilot burner head B. Check that the slots and ports are clear. Clean with a fine wire brush if necessary.
3. Unscrew the pilot injector C. Clean the injector by blowing through or washing. Do **NOT** clear the injector with a pin or wire.



4. Clean the thermocouple tip with a fine wire brush.
5. Replace the pilot injector and pilot burner head. Make sure the key D lines up with the key way E.
6. Replace the pilot spring. Push on and twist, with the flat F at the end nearest the pilot flame.
7. Check that the spark gap is 4 to 5 mm.

To replace the pilot filter in the gas valve refer to frame 50

29 CLEANING THE BURNERS

On each burner:

1. Remove the two screws or nuts and sealing washers fixing the burner end plate. Remove the end plate and gasket.
2. Carefully slide out the lint filter. Clean the filter by brushing carefully with a soft brush, aided by blowing through the mesh.
3. Brush the burner top and check that the flame ports are clear. Any blockage may be removed using a fine wire brush. Remove any deposits inside the burner by tapping the open end down.
4. Replace the lint filter. Slide the filter in carefully against the top of the burner and on top of the side flanges. Push fully home.
5. Replace the end plate and gasket and secure in position. Ensure that the sealing washers are used.

30 CLEANING THE MAIN INJECTORS

1. Disconnect the pilot supply and thermocouple from the burner door.
2. Disconnect the electrode lead from the piezo unit
3. Remove the two nuts securing the burner manifold to the burner door and separate the manifold from the door.
4. Unscrew the injectors from the manifold. Clean by blowing through or washing. Do **NOT** clear the injectors with a pin or wire. Replace the injectors with new sealing washers if necessary.
5. Secure the manifold to the burner door with two nuts previously removed.
6. Re-connect the electrode lead to the piezo unit and re-connect the thermocouple and pilot supply to the burner door.

31 REASSEMBLY

1. Replace the baffles into the top of the heat exchanger and secure in position with the screws previously removed.
2. Replace the flue box cover, ensuring the gasket is intact and secure with the wing nuts previously removed.
3. Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
4. Reconnect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
5. Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable leak detecting fluid.
6. Reconnect the gas valve lead plug and socket and secure the clamping bracket to the base of the control box.
7. Replace the case top.

32 Reassembly — continued

8. Light the pilot, test the pilot supply for gas soundness, check the pilot flame, light the main burner, test the main burner supply for gas soundness, check the main burner setting pressure, set the clock and programmer (if fitted) and replace the case door as described in the commissioning instructions, page 10.
9. Before leaving the site, the service engineer should check that:
 - a) no flammable material is left in contact with the boiler shell, eg. paper or textiles which have fallen behind the boiler.
 - b) ventilation requirements remain at the required standard, by venting the room.
 - c) the gaps between the case sides and the wall or kitchen units are not obstructed. This is the means of entry for combustion air.

17. LIGHTING INSTRUCTIONS

See page 11 for boiler controls

With the gas supply on, electricity supply off and the boiler thermostat turned to OFF:

1. Fully depress the gas valve operating button and keep it pressed in. At the same time operate the igniter button to light the pilot. If the pilot does not light, operate the igniter button repeatedly until it does.
2. When the pilot lights, continue to hold the gas valve operating button in for a further 10 to 20 seconds, then release it slowly.

Caution: If the pilot does not stay alight, release the gas valve operating button and turn it in the direction of the arrow. Wait for 3 minutes and repeat operation 1 until the pilot is lit. Continue to hold the gas valve operating button in for a little longer, then release it slowly.

When the pilot remains alight:

3. Switch on the electricity supply, set the programmer selector switch to Continuous, if a programmer is fitted and check that all system controls are calling for heat.
4. Turn the boiler thermostat to position 7 and the main burner will light.
5. If a programmer is fitted, ensure that the clock is set to the correct time (do not rotate the dial anticlockwise) and the programme and selector switches are set to their previous settings.

N.B. Diagnostic aid on page 23.

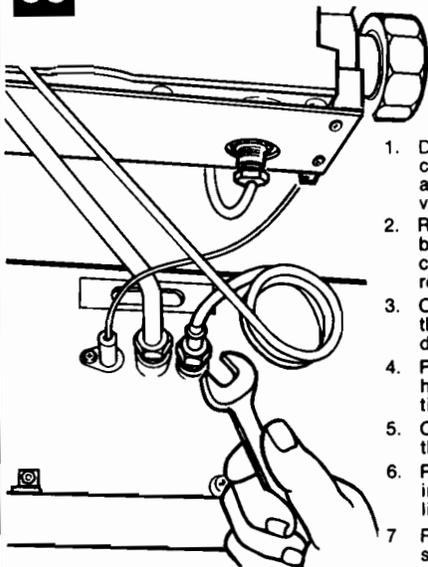
18. REPLACEMENT OF PARTS

The procedure for the replacement of parts is given in frames 33 to 52.

Warning: Before commencing work remove the case door carefully pulling it forwards at the top to disengage the fixings and lifting it over the plinth, turn the gas valve operating button in the direction of the arrow to turn off the boiler. Turn off the electricity supply and isolate the gas supply at the boiler service cock. Allow the boiler to cool.

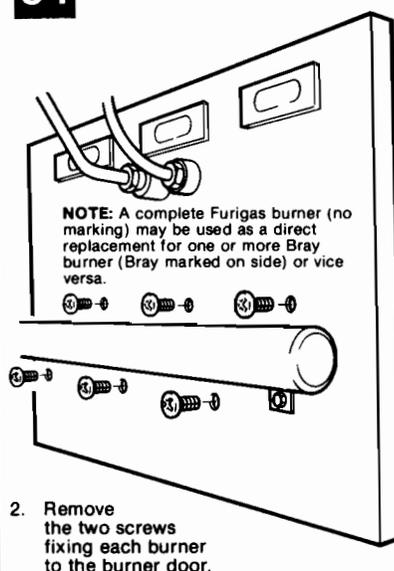
Important: Always test for gas soundness after completing any exchange of gas carrying components and carry out functional checks of controls.

33 TO REPLACE THE THERMOCOUPLE



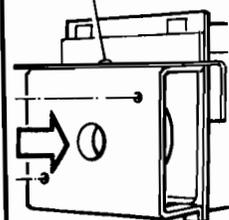
1. Disconnect the thermocouple from the burner door and the LH end of the gas valve.
2. Remove the union from the burner end of the thermocouple and fit this to the replacement thermocouple.
3. Carefully bend the new thermocouple to match the discarded one.
4. Push the thermocouple fully home in the burner door then tighten the union.
5. Connect the thermocouple to the gas valve.
6. Refer to the lighting instructions, above, and light the boiler.
7. Replace the case door, see page 11.

34 TO REPLACE THE BURNERS



1. Remove the burner and gas valve assembly as described in frames 22 to 24.

Anti-flashover shield fixing screw.



3. Remove the burners by pulling backwards off the injectors.

35 Burners — continued

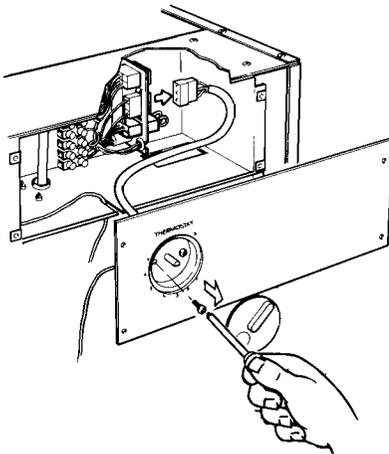
4. Remove the anti-flashover shields from the front of the burners and fit them to the new burners.
5. Fit the new burners and retain with two screws per burner.
6. Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
7. Connect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
8. Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable leak detecting fluid.
9. Reconnect the gas valve lead plug and socket and secure the clamping bracket to the base of the control box.
10. Refer to the lighting instructions, page 14 and light the boiler.
11. Replace the case door, see page 11.

36 TO REPLACE THE LINT FILTERS

Note: the burners may be either Bray or Furigas. When replacing components they are NOT interchangeable.

1. Remove the burner and gas valve assembly as described in frames 22 to 24.
2. Remove the lint filters from the burners as described in frame 29.
3. Fit the new lint filters and reassemble the burners as described in frame 29.
4. Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
5. Reconnect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
6. Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable leak detecting fluid.
7. Reconnect the gas valve lead plug and socket and secure the clamping bracket to the base of the control box.
8. Refer to the lighting instructions, page 14 and light the boiler.
9. Replace the case door, see page 11.

37 TO REPLACE THE BOILER THERMOSTAT



1. Remove the four screws securing the facia panel.
2. Disconnect the 3-way thermostat plug and socket (also disconnect the 6-way plug and socket if a programmer is fitted).
3. Remove the thermostat knob by carefully pushing with a screwdriver through the cut outs in the back of the facia panel.
4. From the front of the panel remove the two fixing screws and remove the thermostat.
5. Remove the thermostat phial fixing (screw or split pin) from the

thermostat pocket on the front of the heat exchanger. Withdraw the phial from the pocket. Make a note of which pocket contained the thermostat phial to ensure correct replacement.

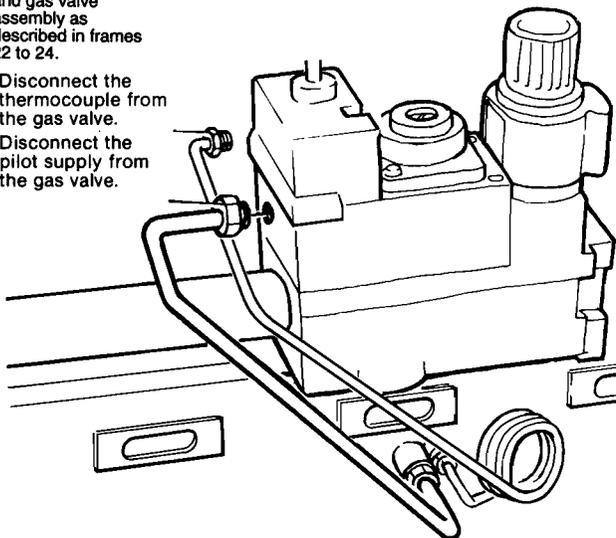
38 Boiler Thermostat — continued

6. Disconnect the leads from the old thermostat, noting their position, and connect to the new one. See wiring diagram.
7. Carefully bend the capillary to match the discarded one.
8. Secure the new thermostat to the facia panel with two screws. Ensure that the capillary is uppermost.
9. Re-connect the 3-way plug and socket, (and 6-way plug and socket if a programmer is fitted).
10. Replace the facia panel ensuring that the capillaries pass through the cut out in the control box base. Secure the panel with four screws and replace the control knob.
11. Insert the thermostat phial into the pocket on the front of the heat exchanger and secure in position with the fixing previously removed. See page 10 for the correct position of the thermostat phials.
12. Refer to the lighting instructions, page 14 and light the boiler. Allow the boiler to heat up and check that the thermostat will switch the boiler off when turned to a low setting.
13. Replace the case door, see page 11.

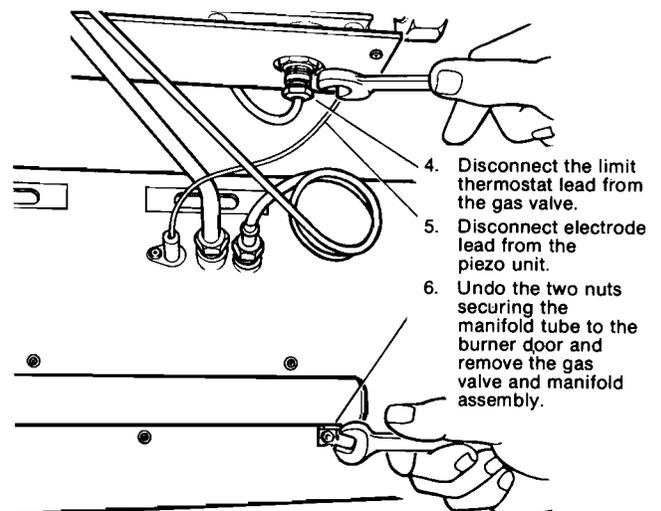
39 TO REPLACE THE GAS VALVE

ENSURE THAT THE GAS SUPPLY IS OFF

1. Remove the burner and gas valve assembly as described in frames 22 to 24.
2. Disconnect the thermocouple from the gas valve.
3. Disconnect the pilot supply from the gas valve.

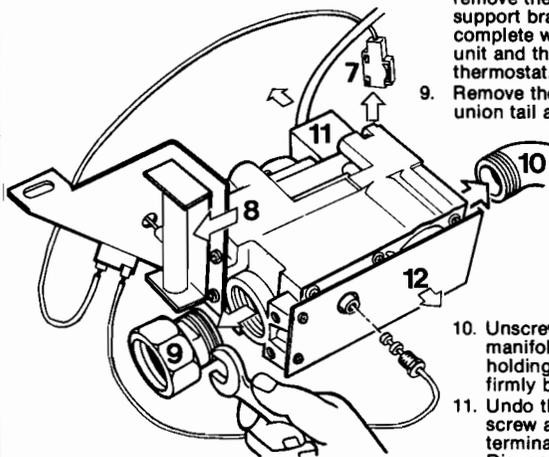


40 Gas Valve — continued



4. Disconnect the limit thermostat lead from the gas valve.
5. Disconnect electrode lead from the piezo unit.
6. Undo the two nuts securing the manifold tube to the burner door and remove the gas valve and manifold assembly.

41 Gas Valve — continued



12. Undo the four screws securing the heat shield and remove heat shield.

7. Lift out the limit thermostat lead.
8. Undo the two screws and remove the gas valve support bracket, complete with the piezo unit and the limit thermostat.
9. Remove the gas cock union tail and nut.

10. Unscrew the burner manifold tube, holding the assembly firmly by the tube.
11. Undo the fixing screw and lift the terminal cover up. Disconnect the push-on terminals, noting their positions, unscrew the earth terminal and remove the cable and cover.

42 Gas Valve — continued

13. Refit the parts removed from the gas valve to the replacement valve. Use jointing compound on the threads of the service cock union and the manifold tube.
14. Reassemble the gas valve and manifold tube to the burner door and reconnect the thermocouple, pilot supply and the electrode lead.
15. Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
16. Reconnect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
17. Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable detecting fluid.
18. Reconnect the gas valve lead plug and socket and secure the clamping bracket to the base of the control box.
19. Light the pilot, test the pilot supply for gas soundness, check the pilot flame, light the main burner and test the burner supply to gas valve connection for gas soundness, check the main burner setting pressure and replace the case door as described in the commissioning instructions, page 10.

43 TO REPLACE THE PILOT COMPONENTS

Refer to the diagram in frame 28

1. Remove the burner and gas valve assembly as described in frames 22 to 24.
2. Twist and pull off the pilot spring A.
3. Pull off the pilot burner head B.
4. Unscrew the injector C and fit a new one.
5. Replace the pilot burner head. Make sure that the key D lines up with the keyway E.
6. Replace the pilot spring. Push on and twist, with the flat F at the end nearest the pilot flame.
7. Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
8. Reconnect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
9. Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable leak detecting fluid.
10. Light the pilot, check the pilot flame and replace the case door as described in the commissioning instructions, page 10.

44 TO REPLACE THE PUMP OVERRUN THERMOSTAT

The pump overrun thermostat is positioned on the left inside the control box.

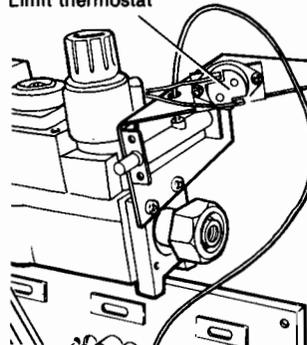
1. Remove the four screws securing the fascia panel and carefully lower it.
2. Disconnect the leads from the pump overrun thermostat, noting their positions.
3. Remove the two screws underneath the control box securing the thermostat and remove the thermostat.
4. Remove the thermostat phial fixing (screw or split pin) from the thermostat pocket on the front of the heat exchanger. Withdraw the phial from the pocket. Make a note of which pocket contained the thermostat phial to ensure correct replacement.
5. Carefully bend the new thermostat capillary to match the discarded one.
6. Secure the new thermostat to the control box with the screws previously removed.
7. Refer to the wiring diagram and connect the leads to the thermostat.

45 Pump Overrun Thermostat — cont.

8. Replace the fascia panel ensuring that the capillaries pass through the cut out in the control box base. Secure the panel with four screws.
9. Insert the thermostat phial into the pocket on the front of the heat exchanger and secure in position with the fixing previously removed. See page 10 for the correct position of the thermostat phials.
10. Refer to the lighting instructions, page 14 and light the boiler. Allow the boiler to heat up fully. Switch off the boiler at the programmer of external controls and check that the pump runs for a few minutes.
11. Replace the case door, see page 11.

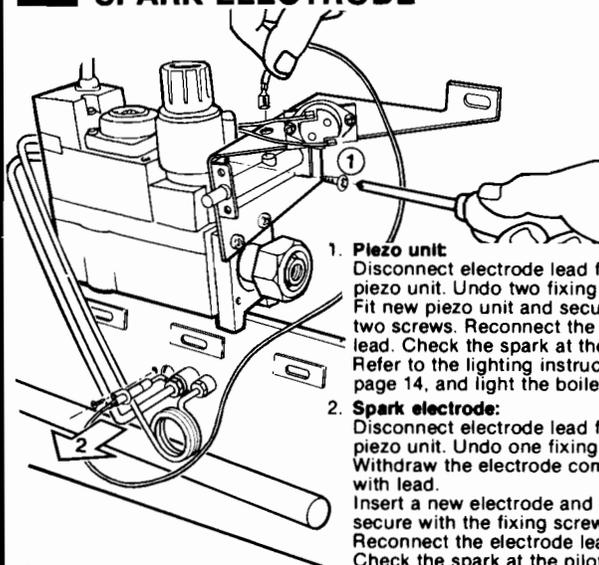
46 TO REPLACE THE LIMIT THERMOSTAT

Limit thermostat



1. Disconnect the leads from the limit thermostat, the polarity is not important.
2. Remove the two fixing screws and remove the thermostat from the bracket.
3. Remove the thermostat phial fixing (screw or split pin) from the thermostat pocket on the front of the heat exchanger. Withdraw the phial from the pocket. Make a note of which pocket contains the thermostat phial to ensure correct replacement.
4. Carefully bend the new thermostat capillary to match the discarded one.
5. Secure the new thermostat to the bracket with the screws previously removed and reconnect the leads.
6. Insert the thermostat phial into the pocket on the front of the heat exchanger and secure in position with the fixing previously removed. See page 10 for the correct position of the thermostat phials.
7. Refer to the lighting instructions, page 14 and light the boiler.
8. Replace the case door, see page 11.

47 TO REPLACE THE PIEZO UNIT OR SPARK ELECTRODE



- Piezo unit:** Disconnect electrode lead from the piezo unit. Undo two fixing screws. Fit new piezo unit and secure with two screws. Reconnect the electrode lead. Check the spark at the pilot. Refer to the lighting instructions, page 14, and light the boiler.
- Spark electrode:** Disconnect electrode lead from the piezo unit. Undo one fixing screw. Withdraw the electrode complete with lead. Insert a new electrode and lead, and secure with the fixing screw. Reconnect the electrode lead. Check the spark at the pilot. Refer to the lighting instructions, page 14, and light the boiler.

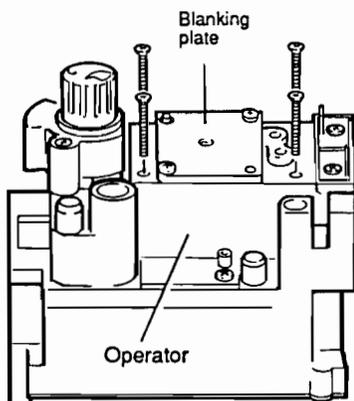
3. Replace the case door, see page 11.

48 TO REPLACE THE BURNER INJECTORS

- Remove the burner and gas valve assembly as described in frames 22 to 24.
- Remove the injectors as described in frame 30 and replace with new injectors and sealing washers.
- Reassemble the burner and gas valve assembly as described in frame 30.
- Replace the burner and gas valve assembly and secure the burner door in position with the nuts previously removed. Ensure that the limit thermostat phial is replaced in the correct pocket, see frame 21.
- Reconnect the boiler service cock union and replace the nut and washer securing the gas valve bracket.
- Turn on the gas supply and test the boiler service cock connection for gas soundness using a suitable leak detecting fluid.
- Reconnect the gas valve lead plug and socket and secure the clamping bracket to the base of the control box.
- Light the pilot, test the pilot supply connection at the burner door for gas soundness and replace the case door as described in commissioning instructions, page 10.

49 TO REPLACE THE GAS VALVE OPERATOR

ENSURE THAT THE GAS SUPPLY IS OFF

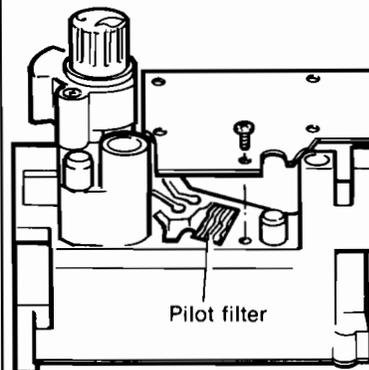


- Undo the fixing screw and lift the terminal cover up. Disconnect the push-on terminals, noting their positions, unscrew the earth terminal and remove the cable and cover.
- Remove the four screws securing the operator to the gas valve and lift-off the operator.
- Remove the two screws securing the blanking plate and gasket to the operator and carefully fit it to the new operator.

- Fit the new operator using a new gasket and rubber sealing washer.
- Connect the leads and replace the terminal cover.
- Refer to the lighting instructions, page 14 and light the boiler.
- Test for gas soundness around the operator using a suitable leak detecting fluid.
- Check the burner setting pressure and replace the case door as described in the commissioning instructions, page 10.

50 TO REPLACE THE PILOT FILTER

NOTE: It is extremely unlikely that the pilot filter will become blocked. If the pilot injector and pilot supply are clear and the filter is still suspect proceed as follows:
ENSURE THE GAS SUPPLY IS OFF.



- Remove the gas valve operator, see frame 49.
- Remove the one remaining screw securing the plate under the operator and carefully remove plate and gasket.
- Remove the pilot filter and replace with a new one.
- Reassemble in reverse order taking care not to damage the gaskets.
- Refer to the lighting instructions, page 14 and light the boiler.
- Test for gas soundness around the operator using a suitable leak detecting fluid.
- Replace the case door, see page 11.

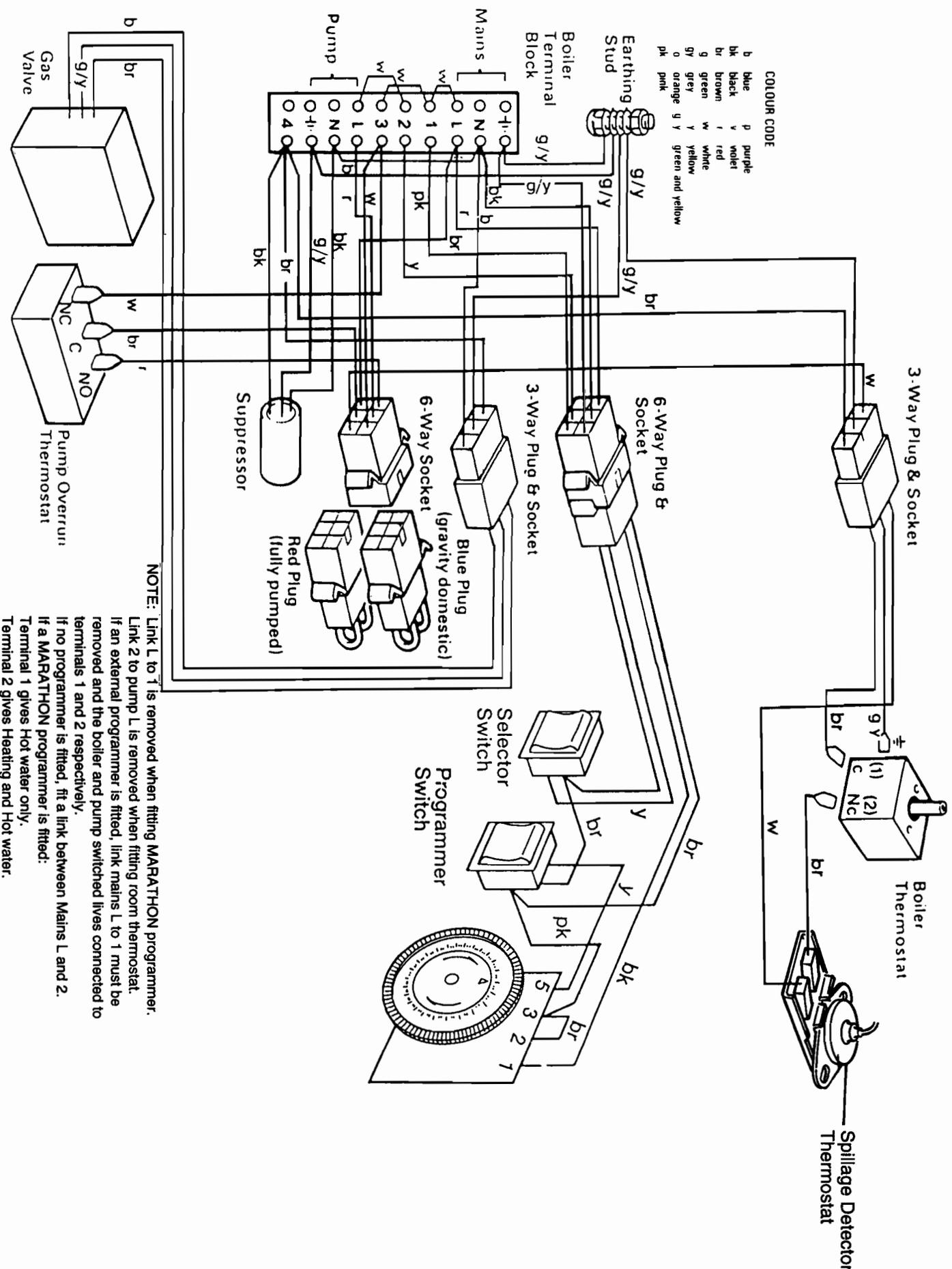
51 TO REPLACE THE PROGRAMMER (if fitted)

- Remove the facia panel and boiler thermostat as described in frame 37.
- Fit the boiler thermostat to the new programmer assembly, ensuring the capillary is uppermost and reassemble in reverse order.
- Refer to the lighting instructions, page 14 and light the boiler.
- Replace the case door, see page 11.

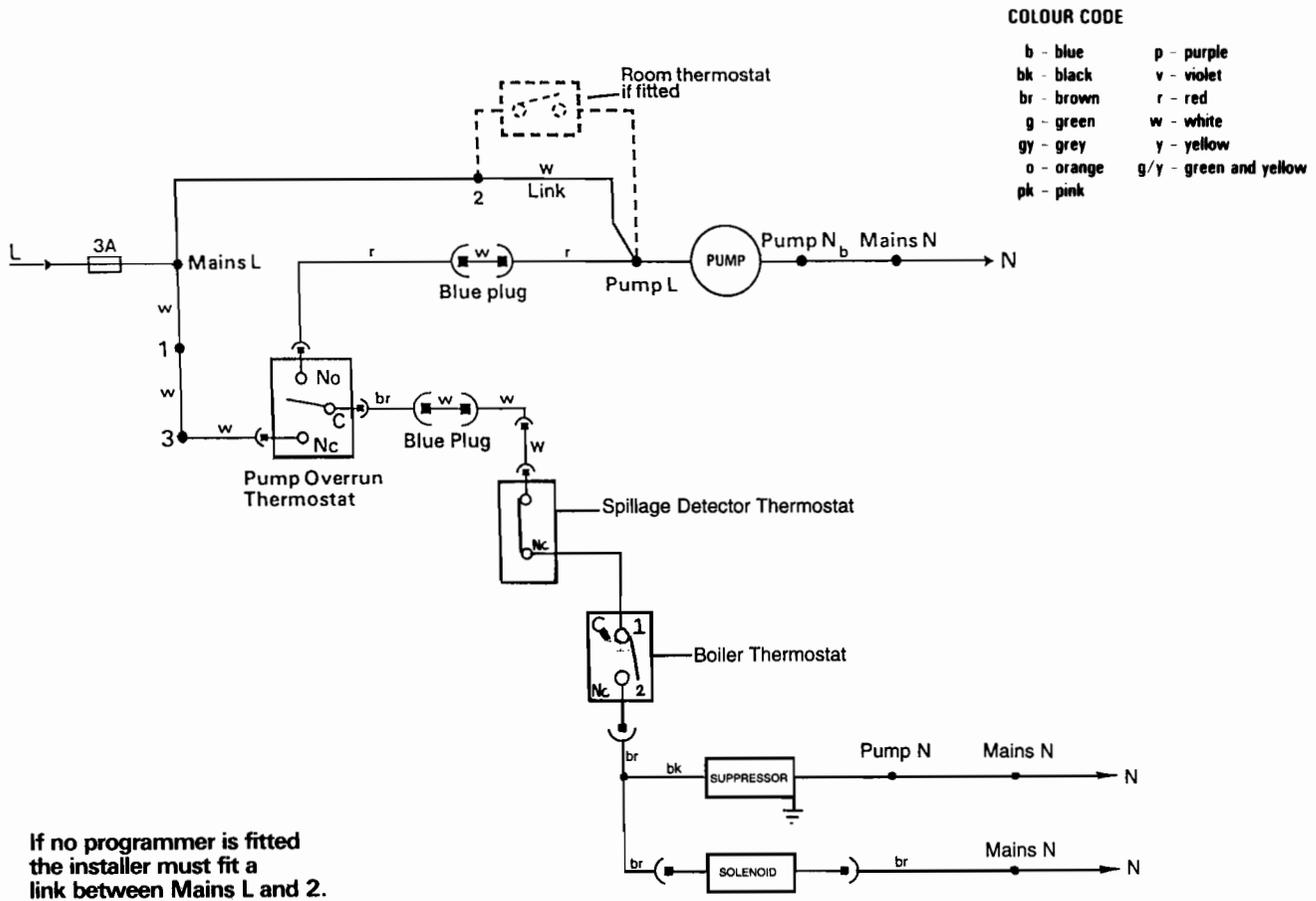
52 TO REPLACE THE SPILLAGES DETECTOR THERMOSTAT (see frame 14)

- Remove the four screws securing the facia panel.
- Disconnect the leads from the (S.D.T.) thermostat, the polarity is not important.
- Remove the securing nut holding the thermostat and remove the thermostat from the control panel.
- Remove the thermostat sensor from the support clips in the d/d/d (see frame 14). Carefully remove the capillary from the support clips on the casing.
- Carefully bend the new thermostat capillary to match the disconnected one.
- Secure the new thermostat to the control box base in the reverse order to dismantling.
- Connect the leads to the thermostat.
- Secure the facia panel ensuring that the thermostat capillaries pass through the cut out in the control box base.
- Refer to the lighting instructions, page 14, ensure that the thermostat reset button has been pressed, and light the boiler.
- Replace the case door.

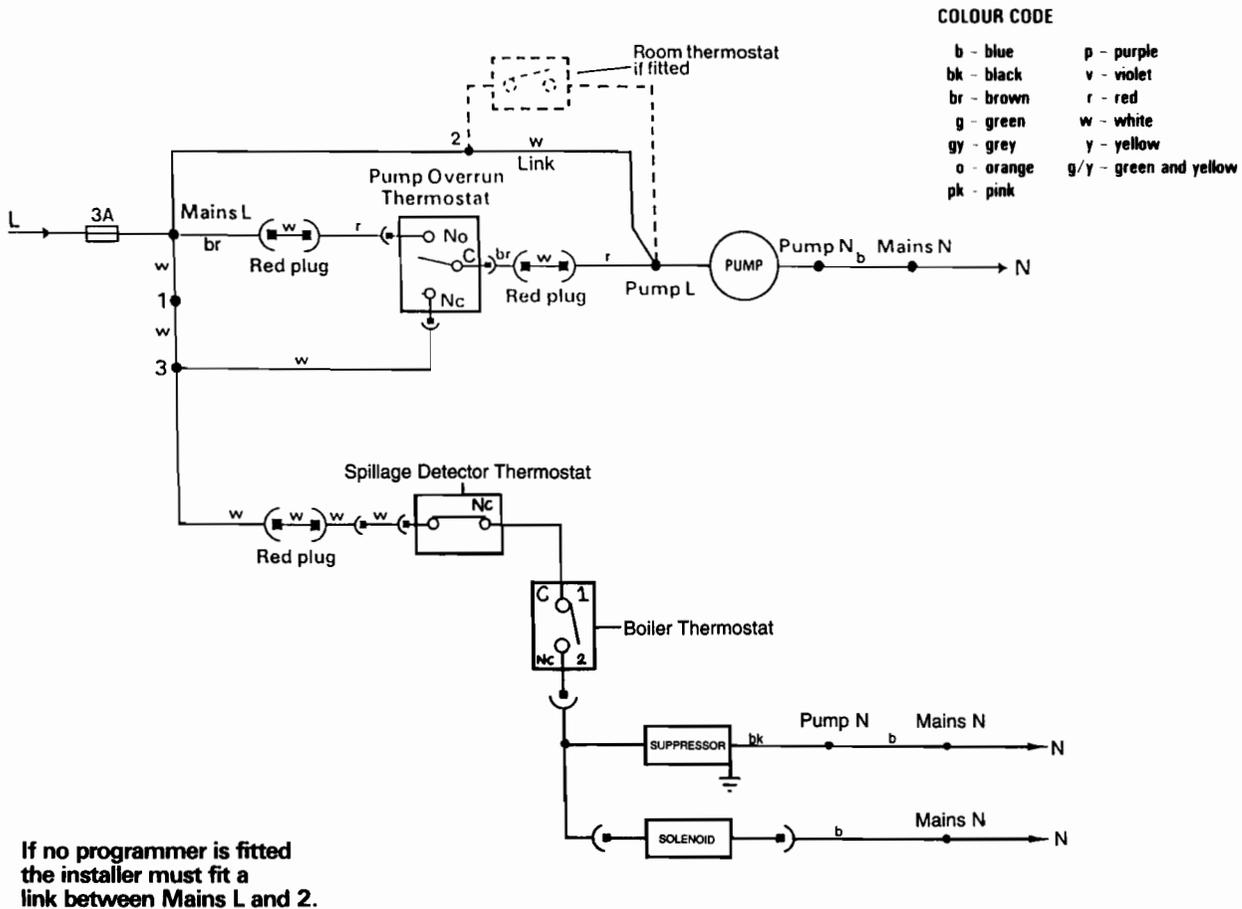
19. WIRING DIAGRAMS
a. Illustrated wiring diagram



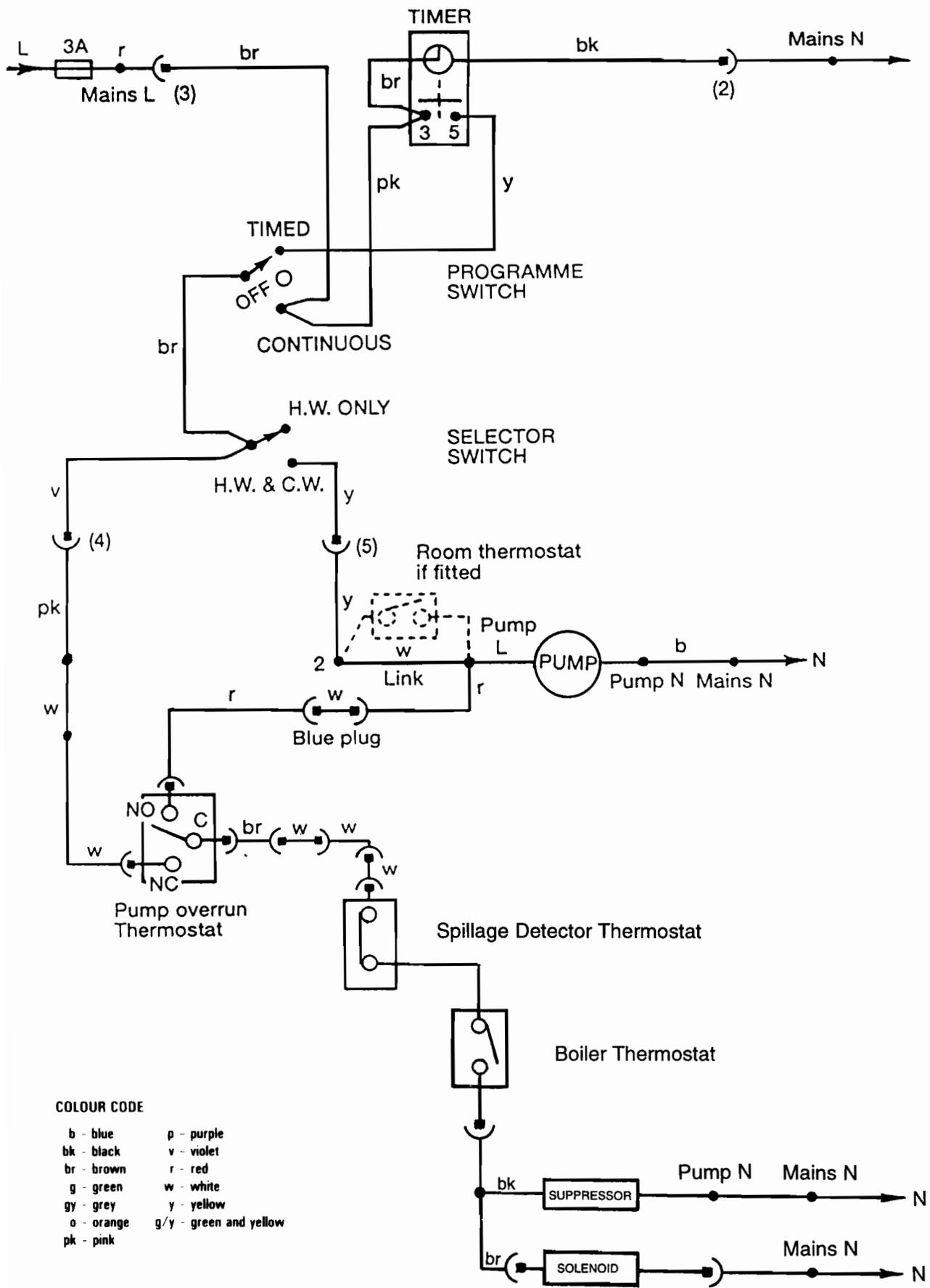
**b. Functional flow wiring diagram
Without programmer (Blue plug fitted) gravity domestic**



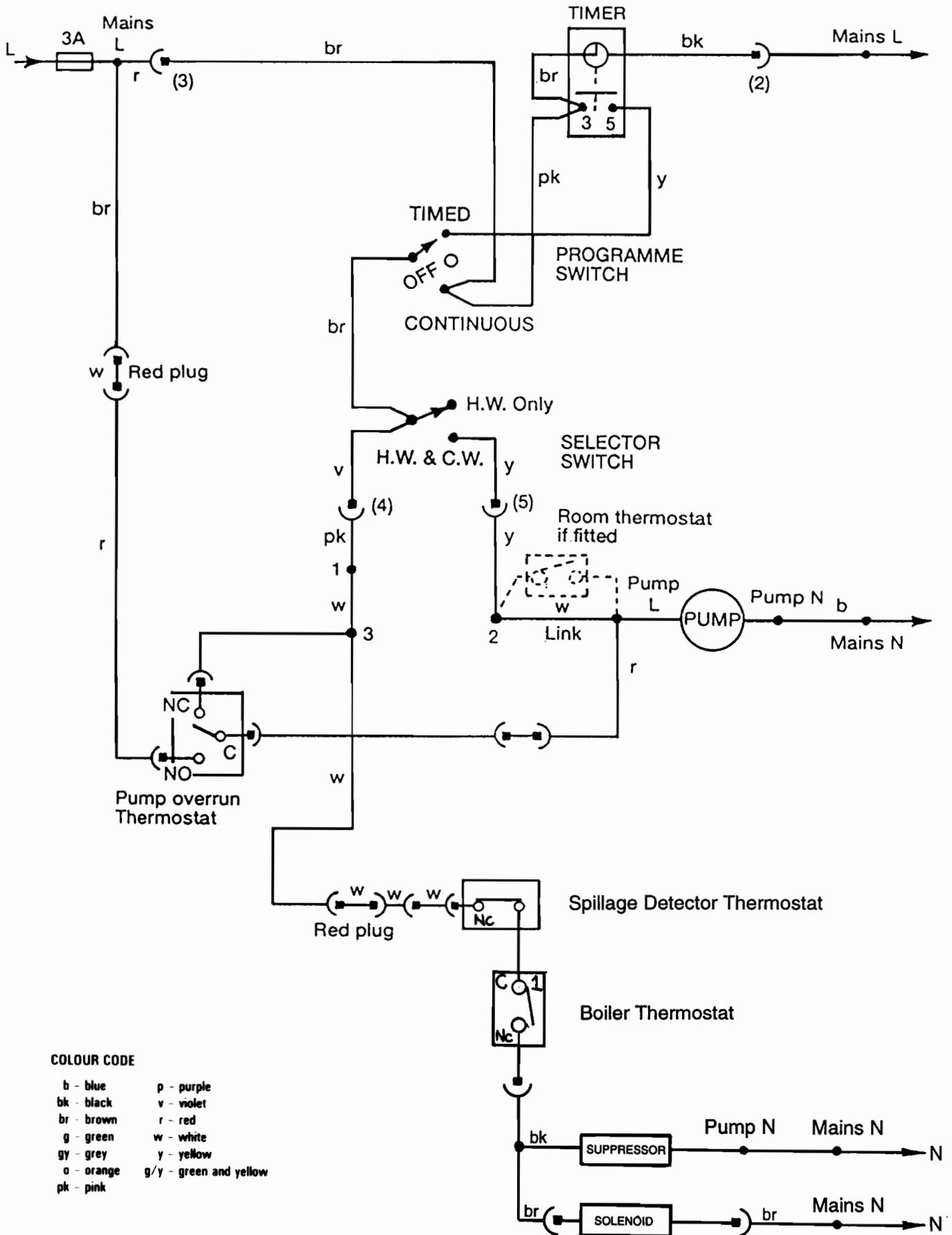
**c. Functional flow wiring diagram
Without programmer (Red plug fitted) fully pumped**



d. Functional flow wiring diagram
With Marathon programmer (Blue plug fitted) gravity domestic



e. Functional flow wiring diagram
With Marathon programmer (Red plug fitted) fully pumped



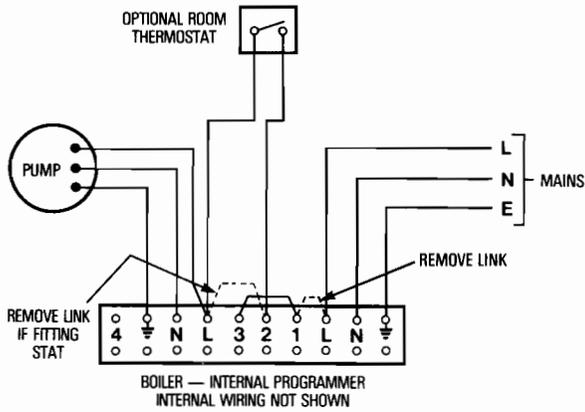
COLOUR CODE

- | | |
|------------|------------------------|
| b - blue | p - purple |
| bk - black | v - violet |
| br - brown | r - red |
| g - green | w - white |
| gy - grey | y - yellow |
| o - orange | g/y - green and yellow |
| pk - pink | |

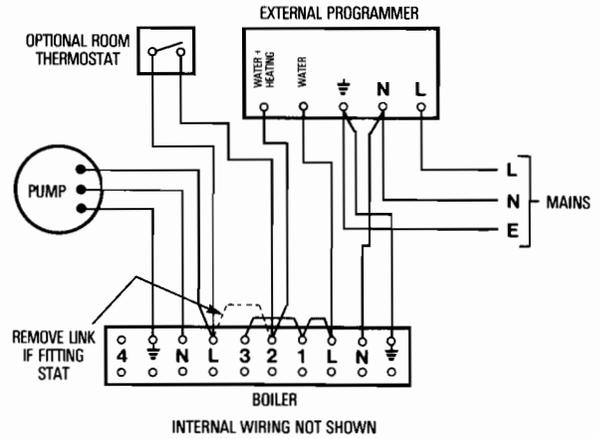
20. SYSTEM WIRING DIAGRAMS

a. Gravity systems

Myson programmer with optional room thermostat

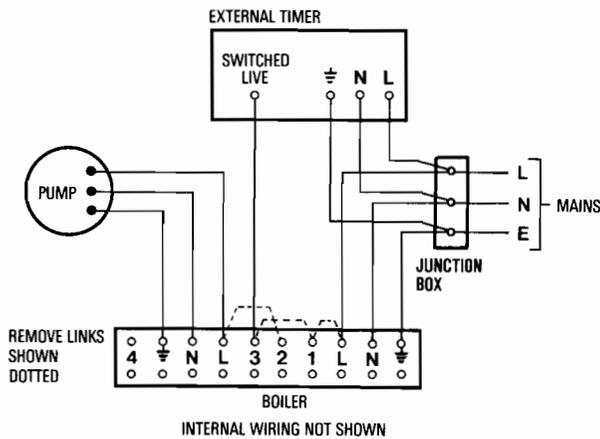


External programmer with optional room thermostat

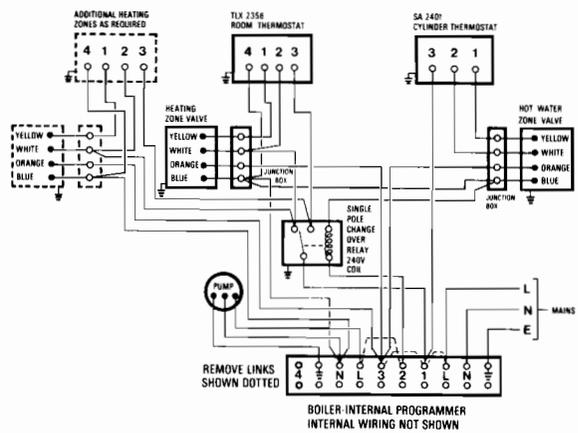


b. Fully pumped systems

External time clock and thermostatic radiator valves

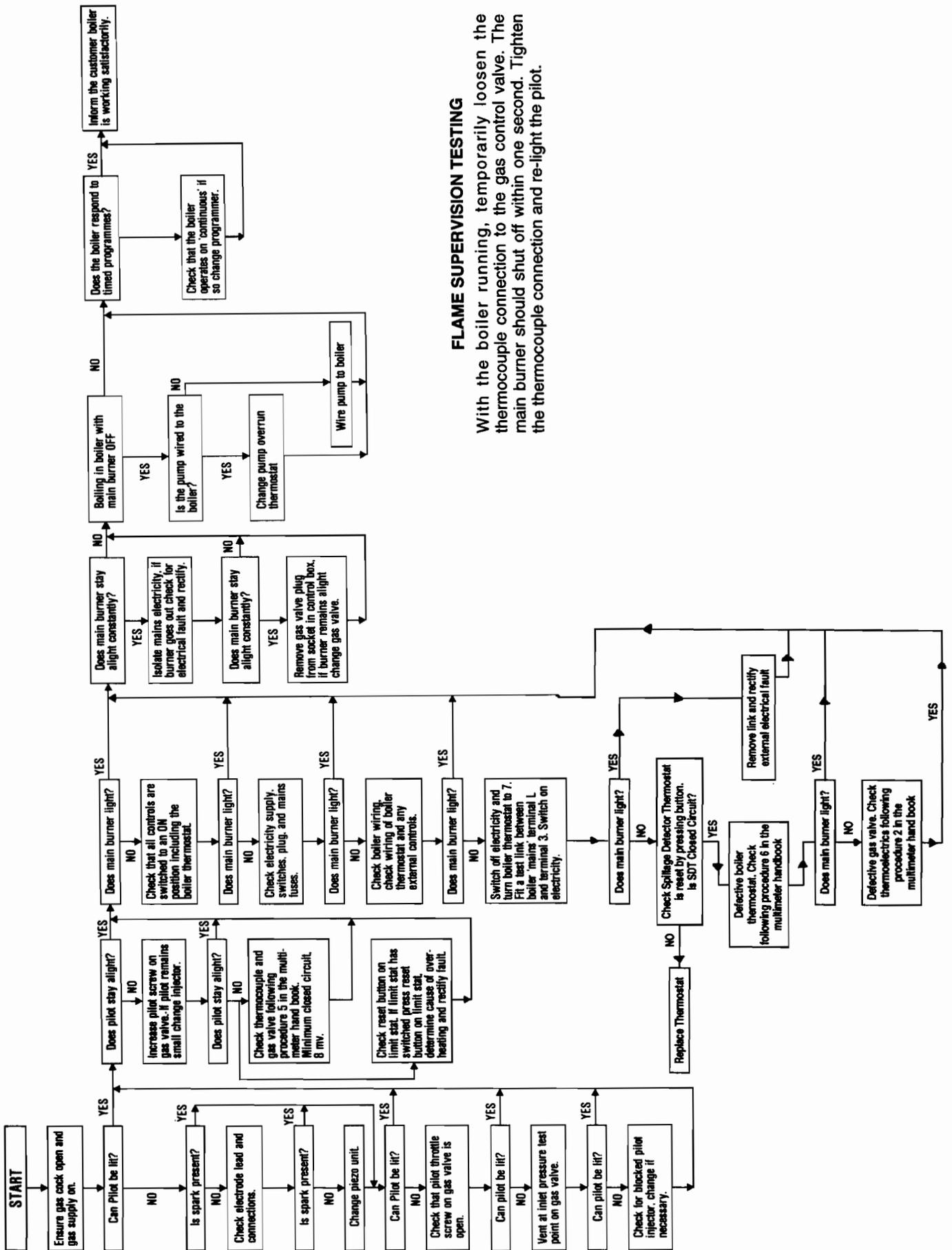


Myson programmer with Satchwell 1" body mini vals



21. FAULT FINDING GUIDE

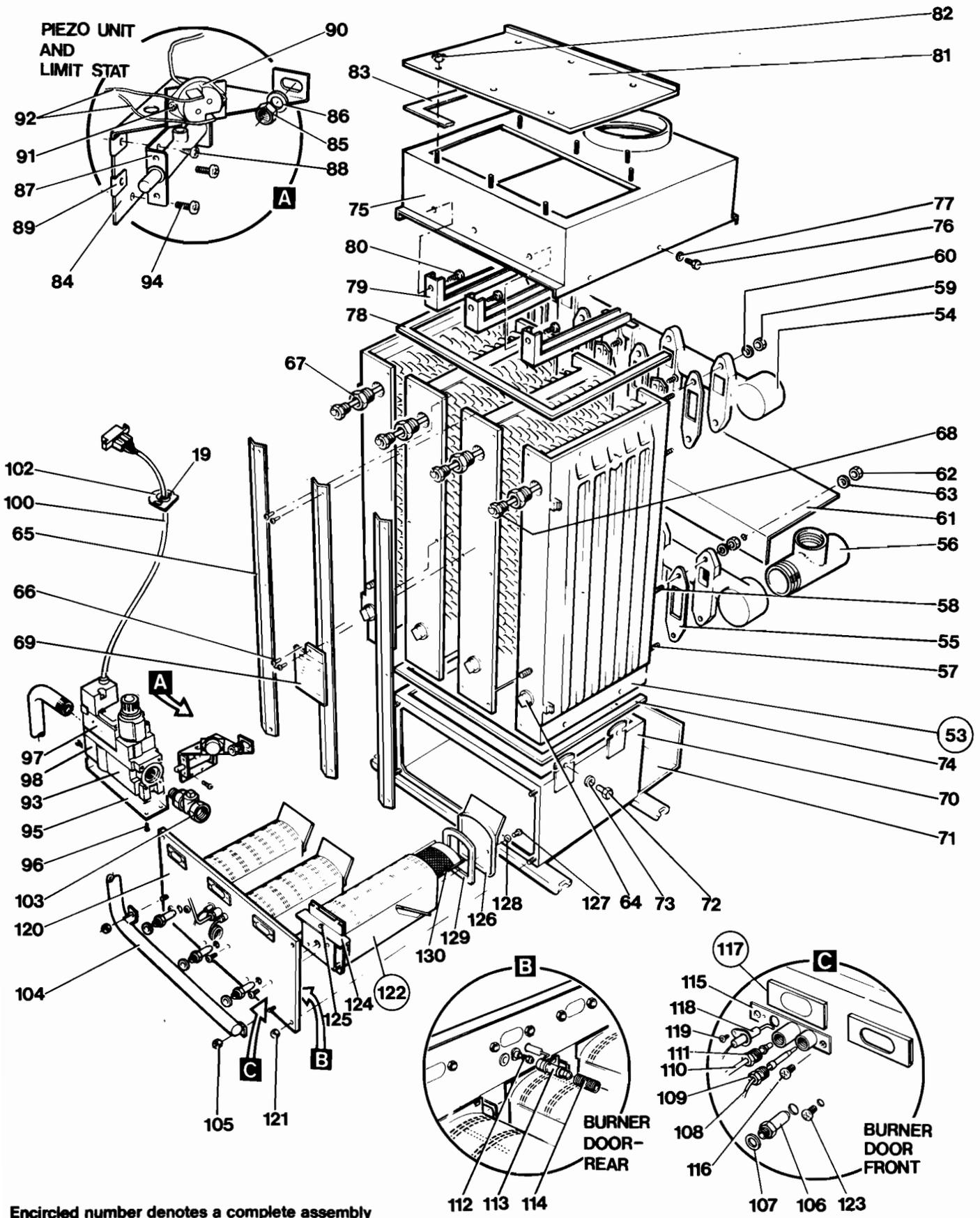
Preliminary electrical system checks as contained in the BGC multimeter instructions book are the first electrical checks to be carried out during a fault finding procedure. On completion of the service/fault finding task which has required the breaking and remaking of electrical connections, then the checks — A. Earth Continuity, C. Polarity and D. Resistance to Earth — must be repeated.



FLAME SUPERVISION TESTING

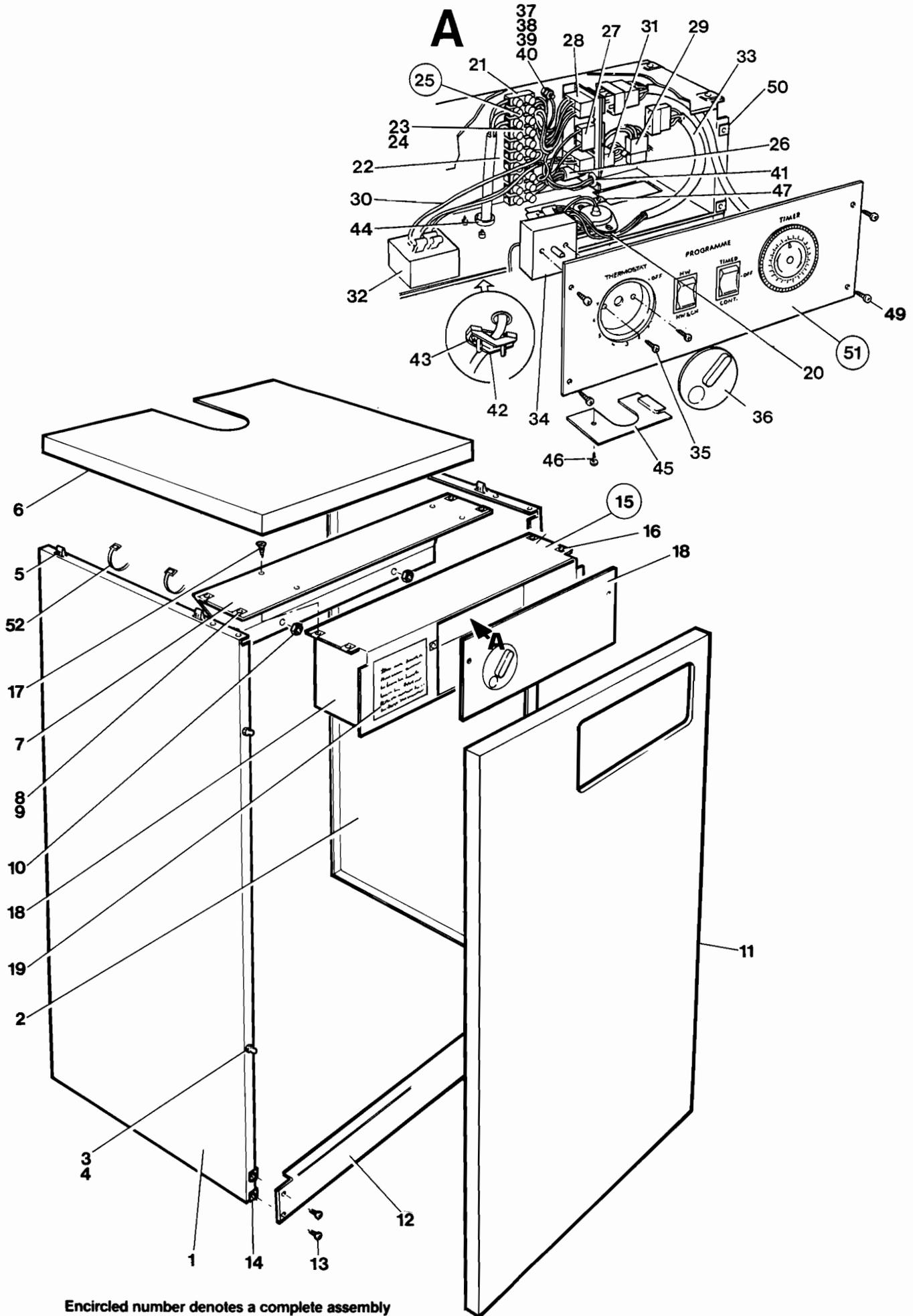
With the boiler running, temporarily loosen the thermocouple connection to the gas control valve. The main burner should shut off within one second. Tighten the thermocouple connection and re-light the pilot.

22. EXPLODED VIEWS
a. Marathon 1500C boiler



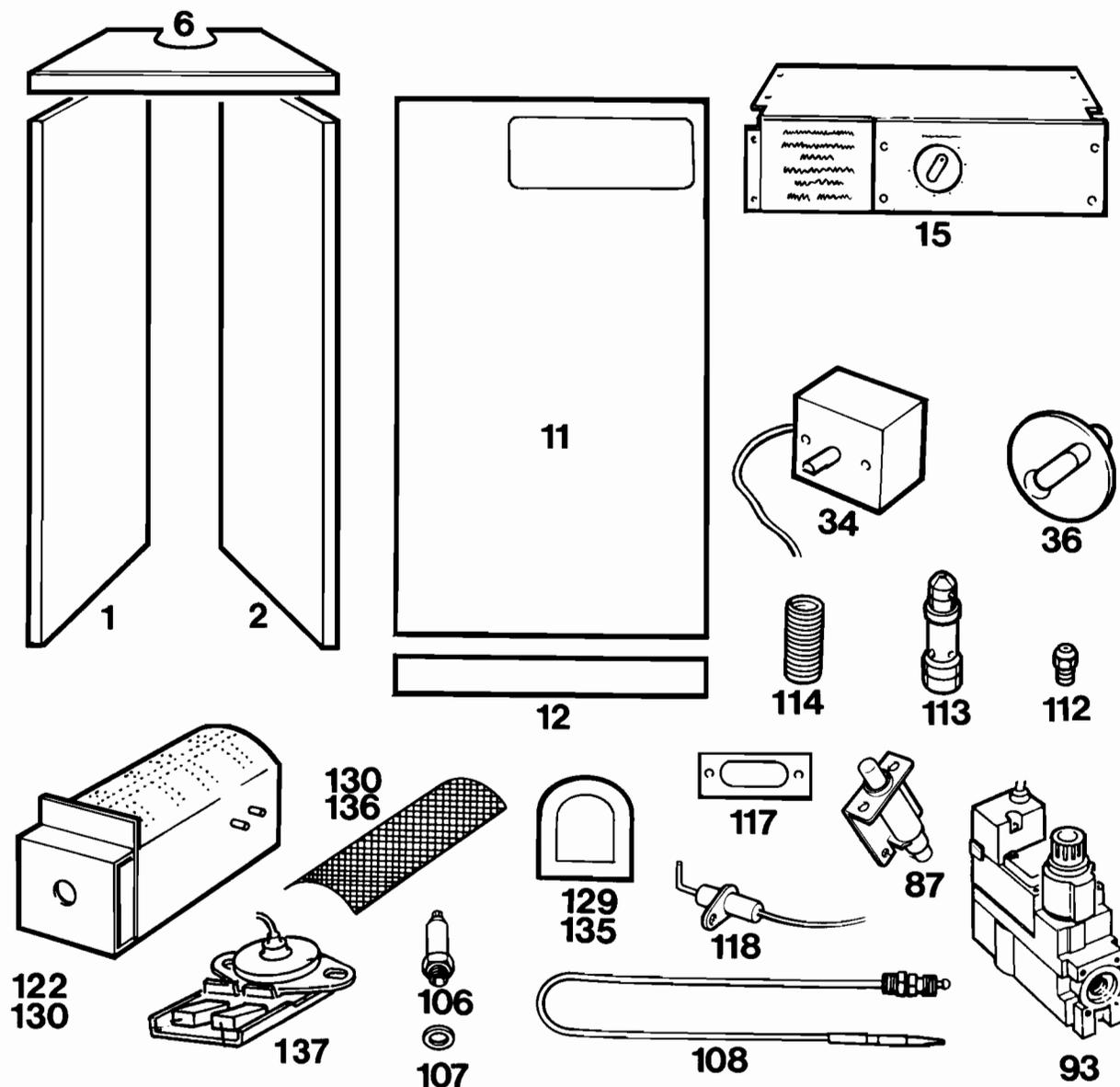
Encircled number denotes a complete assembly

b. Marathon 1500C case



Encircled number denotes a complete assembly

23. SHORT LIST SPARE PARTS



Key No.	GC No.	Description	Qty.	Part No.
1	377 181	Case side panel assembly. LH	1	305A1586
2	377 182	Case side panel assembly. RH	1	305A1585
6	377 184	Case top	1	305A1421
11	377 186	Case door	1	305A1408
12	377 187	Plinth	1	305C1430
15	377 188	Control box assembly	1	305A1402
34	381 677	Thermostat	1	CL6P0143
36	332 666	Thermostat knob with clip	1	309S371
87	393 563	Piezo unit	1	305S284
93	379 662	Gas valve	1	V4600T1045
106	338527	Burner injector	3	231947
107	323 322	Burner injector washer	3	301C247
108	391 578	Thermocouple	1	305S435
112	398 624	Pilot injector	1	305S242
113	393 371	Pilot burner head	1	305S241
114	393 372	Pilot spring	1	305S243
117	377 000	Inspection window assembly	3	402A2476
118	393 581	Spark electrode and lead	1	305S283
122	399 021	Burner. Bray	3	231333
129	393 369	Burner end plate gasket. Bray	3	305S432
130	393 370	Lint filter. Bray	3	305S434
131	382 948	Burner. Furigas	3	305S1384
135	384 713	Burner end plate gasket. Furigas	6	305S778
136	384 714	Lint filter. Furigas	3	305S776
137		Ranco Thermostat	1	404518

HEALTH AND SAFETY INFORMATION FOR THE

INSTALLER AND SERVICE ENGINEER

Under the Consumer Protection Act 1987 and section 6 of the Health and Safety at Work Act 1974, we are required to provide information on substances hazardous to health.

Small quantities of adhesives and sealants used in the product are cured and present no known hazards.

The following substances are also present.

Insulation & Seals

Material	— Ceramic Fibre; Alumino — Silicone Fibre
Description	— Boards, Ropes, Gaskets
Known Hazards	— Some people can suffer reddening and itching of the skin. Fibre entry into the eye will cause foreign body irritation. Irritation to respiratory tract.
Precautions	— People with a history of skin complaints may be particularly susceptible to irritation. High dust levels are only likely to arise following harsh abrasion. In general, normal handling and use will not present discomfort, follow good hygiene practices, wash hands before consuming food, drinking or using the toilet.
First Aid	— Medical attention must be sought following eye contact or prolonged reddening of the skin.

Thermostat

Material	— Contains very small quantity of xylene.
Description	— Sealed phial and capillary containing liquid.
Known Hazards	— Irritating to skin, eyes and throat. Vapour is harmful. Inflammable — do not extinguish with water.
Precautions	— Do not incinerate. Avoid contact with broken/leaking phials. Do not purposely puncture.
First Aid	— Eye/skin contact, wash with clean water, seek medical attention.

Sales Enquiries: Sales Department Eastern Avenue Team Valley Trading Estate Gateshead Tyne & Wear NE11 0PG	Service Enquiries: Service Operations Brooks House Coventry Road Warwick CV34 4LL	Spares Enquiries: Parts Division Queensway Leamington Spa Warwickshire CV31 3RG	Technical Enquiries: Technical Helpline Brooks House Coventry Road Warwick CV34 4LL	Training Administration: Unit 5, Titan Business Centre Spartan Close Tachbrook Park Leamington Spa Warwickshire CV34 6RS
Tel: 0191 491 4466 Fax: 0191 491 7568	Tel: 01926 496896 Fax: 01926 410006	Tel: 01926 880600 Fax: 01926 880680	Tel: 01926 410044 Fax: 01926 410006	Tel: 01926 430481 Fax: 01926 882971

Made in England by:	Potterton Myson Limited
Registered Office:	84 Eccleston Square, London SW1V 1PX
Registered No.	412935

OMYSON

All descriptions and illustrations provided in this leaflet have been carefully prepared but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet.

All goods are sold subject to our standard conditions of sale which are available on request.

OMYSON

FOR THE USER

Marathon 400, 500, 600, 700, 800, 1000 and 1500 Floor standing gas boilers

G.C. Appliance Nos.	Marathon 400B 41 494 08	Marathon 400C 41 494 14
	Marathon 500B 41 494 09	Marathon 500C 41 494 15
	Marathon 600B 41 494 10	Marathon 600C 41 494 16
	Marathon 700B 41 494 11	Marathon 700C 41 494 17
	Marathon 800B 41 494 12	Marathon 800C 41 494 18
	Marathon 1000B 41 494 13	Marathon 1000C 41 494 19
		Marathon 1500C 41 494 20

Balanced flue(B) and Open flue(C) boilers for use with Natural Gas only.

Your Marathon gas boiler will provide you with central heating and stored hot water. These notes tell you how to light and turn off your boiler and to operate it in order to achieve the working results you require.

If you have a Marathon programmer fitted (balance flue boiler only), your guide to this is in the Installation and Servicing Instructions Addendum.

Before starting make sure that the water system is in full working order.

The boiler must be installed by a competent installer in accordance with the Gas Safety (Installation and Use) Regulations 1994. Ensure that the boiler always has the following minimum clearances for safety and servicing:

Top: all models 300mm (12 in) or 10 mm (1/2 in) if the boiler is fitted under a removable worktop.

Front: all models 450 mm (18 in).

Each side: C models 400, 500, 600, 700 and 800 25 mm (1 in), 1000: 50 mm (2 in), 1500: 60 mm (2 1/2 in).

B models 5 mm (1/4 in).

If the boiler is fitted in a compartment, the ventilation openings provided MUST NOT be obstructed and should be checked periodically to ensure this - do not use as a storage compartment.

To identify the flue type: an open flue rises vertically from the top of the boiler. A balanced flue is fitted in the wall behind the boiler.

The boiler model can be found on the data plate on the front of the boiler.

NOTE: When the boiler is first lit, there may be a slight smell.

This will disappear with use.

ELECTRICITY SUPPLY

Connections should be made to a 240V~50Hz supply. The appliance must be protected by a 3A fuse if a 13A (BS1363) plug is used or if any other type of plug is used, by a 5A fuse in the circuit.

WARNING: THIS APPLIANCE MUST BE EARTHED

To connect a plug:

As the colour of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol \equiv or coloured green or green and yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

TO LIGHT THE MARATHON 400, 500, 600 and 700

Open the case door and refer to Fig 1. for the boiler controls

1. Make sure that the boiler thermostat is set to OFF, mains electricity is switched off and the gas supply is on. If a Marathon programmer is fitted, set the programme selector to Continuous. Other types of time control should be set to an 'on' position. Turn the room thermostat, if fitted to a high setting.

2. Fully depress the gas valve operating button and keep it pressed in. At the same time, operate the igniter button to light the pilot, which can be seen through the inspection window. If the pilot does not light, operate the igniter button repeatedly until it does. When the pilot lights, continue to hold the gas valve button in for a further 10 to 20 seconds then release it slowly.

Caution: If the pilot does not stay alight, release the gas valve operating button and slide it in the direction of the arrow and release. Wait for 3 minutes and repeat operation 2 until the pilot is lit. Continue to hold the gas valve operating button in for 20 seconds then release it slowly.

3. Switch on the mains electricity
4. Turn the boiler thermostat to position 7. The main burner will light.
5. Turn the boiler thermostat to the required setting. See section headed GENERAL.
6. If a programmer is fitted, set the heating and hot water to the programme times required.
7. **FAILURE TO OPERATE. C Models only.** If the main burner fails to light turn the boiler thermostat to the 'off' position and check that the spillage detector thermostat reset button (see Fig. 1) is pressed in and then repeat operation 4. If the reset button has to be pressed in again within a short time or the burner fails to light call your service engineer. Turn the thermostat if fitted, to the programme times required.

TO TURN OFF THE BOILER

For short periods - if a programmer is fitted, turn the programme selector to OFF. If no programmer is fitted, turn the boiler thermostat to OFF and any external controls to OFF or to the lowest setting.

To relight, return all controls to the original settings.

For long periods - slide the gas valve operating button in the direction of the arrow. Switch off the electricity. Turn the boiler thermostat to OFF or, if a programmer is fitted, turn the programme selector to OFF.

To relight, follow the full lighting instructions.

Note: If a time switch or programmer is fitted, the timer must be reset to the correct time when the electric supply is restored.

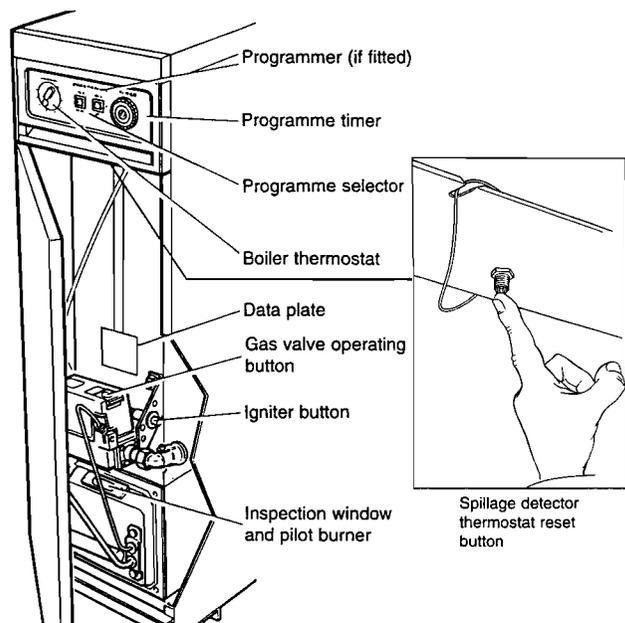


Fig. 1
Marathon 400, 500, 600 and 700 controls

TO LIGHT THE MARATHON 800 and 1000

Open the case door and refer to Fig. 2 for the boiler controls

1. Make sure the boiler thermostat is set to OFF, mains electricity is set off and the gas supply is on. If a Marathon programmer is fitted, set the programme selector to Continuous. Other types of time control should be set to an 'on' position. Turn the room thermostat, if fitted, to a high setting.

2. Fully depress the gas valve operating button and keep it pressed in. At the same time, operate the igniter button to light the pilot, which can be seen through the inspection window. If the pilot does not light, operate the igniter repeatedly until it does. When the pilot lights, continue to hold the gas valve button in for a further 10 to 20 seconds then release it slowly.

Caution: If the pilot does not stay alight, release the gas valve operating button and turn it in the direction of the arrow and release. Wait for 3 minutes and repeat operation 2 until the pilot is lit. Continue to hold the gas valve operating button in for 20 seconds and release it slowly.

3. Switch on the mains electricity.
4. Turn the boiler thermostat to position 7. The main burner will light.
5. Turn the boiler thermostat to the required setting. See section headed GENERAL.
6. If a programmer is fitted, set the heating and hot water to the programme times required.
7. **FAILURE TO OPERATE. C Models only.** If the main burner fails to light turn the boiler thermostat to the 'off' position and check that the spillage detector thermostat reset button (see Fig. 2) is pressed in and then repeat operation 4. If the reset button has to be pressed in again within a short time or the burner fails to light call your service engineer. Turn the room thermostat, if fitted, to the desired room temperature.

TO TURN OFF THE BOILER

For short periods - if a programmer is fitted, turn the programme selector to OFF. If no programmer is fitted, turn the boiler thermostat to OFF and any external controls to OFF or to the lowest setting.

To relight, return all controls to the original settings.

For long periods - turn the gas valve operating button in the direction of the arrow. Switch off the electricity. Turn the boiler thermostat to OFF or, if a programmer is fitted, turn the selector to OFF.

To relight, follow the full lighting instructions.

Note: If a time switch or programmer is fitted, the timer must be reset to the correct time when the electric supply is restored.

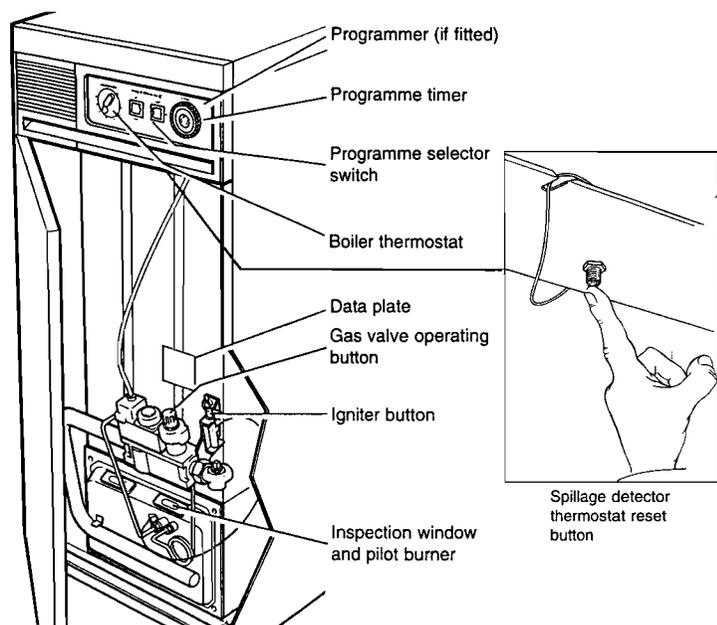


Fig. 2
Marathon 800 and 1000 controls

TO LIGHT THE MARATHON 1500

Remove the case door, see below, and refer to Fig. 4 for the boiler controls

1. Remove the case door by carefully pulling it forwards at the top to disengage the fixings and lifting it over the plinth, see Fig. 3.
2. Make sure that the boiler thermostat is set to OFF, mains electricity is switched off and the gas supply is on. If a Marathon programmer is fitted, set the programme selector to Continuous. Other types of time control should be set to an 'on' position. Turn the room thermostat, if fitted, to a high setting.

3. Fully depress the gas valve operating button and keep it pressed in. At the same time, operate the igniter button to light the pilot, which can be seen through the inspection window. If the pilot does not light, operate the igniter repeatedly until it does. When the pilot lights, continue to hold the gas valve button in for a further 10 to 20 seconds then release it slowly.

Caution: If the pilot does not stay alight, release the gas valve operating button and turn it in the direction of the arrow and release. Wait for 3 minutes and repeat operation 3 until the pilot is lit. Continue to hold the gas valve operating button in for 20 seconds then release it slowly.

4. Switch on the mains electricity.

5. Turn the boiler thermostat to position 7. The main burner will light.

6. Turn the boiler thermostat to the required setting. See section headed GENERAL.

7. If a programmer is fitted, set the heating and hot water to the programme times required. Turn the room thermostat, if fitted, to the desired room temperature.

8. **Failure to operate** - if the pilot goes out or fails to light, check that the limit thermostat reset button, see Fig. 4, is pressed in and relight the boiler. If the reset button has to be pressed in again within a short time call your service engineer.

C Models only. If the main burner fails to light turn the boiler thermostat to the 'off' position and check that the spillage detector thermostat reset button (see Fig. 4) is pressed in and then repeat operation 5. If the reset button has to be pressed in again within a short time or the burner fails to light call your service engineer.

9. Replace the case door - Locate the bottom edge of the door panel over the plinth and carefully push the door onto the fixings on the case sides, see Fig. 3.

TO TURN OFF THE BOILER

For short periods - if a programmer is fitted, turn the programme selector to OFF. If no programmer is fitted, turn the boiler thermostat to OFF and any external controls to OFF or to the lowest setting.

To relight, return all controls to the original settings.

For long periods - remove the case door and turn the gas valve operating button in the direction of the arrow. Switch off the electricity. Turn the boiler thermostat to OFF or, if a programmer is fitted, turn the programme selector to OFF. Replace the case door.

To relight, follow the full lighting instructions.

Note: If a time switch or programmer is fitted, the clock must be reset to the correct time when the electric supply is restored.

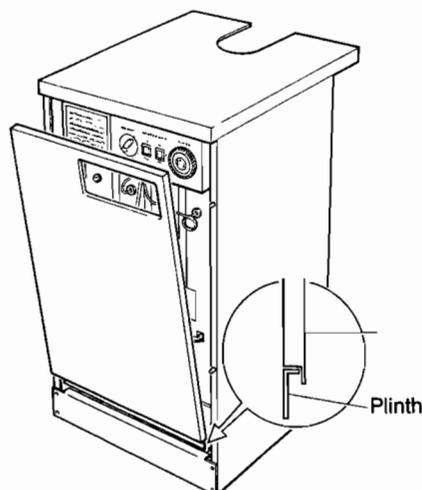


Fig. 3

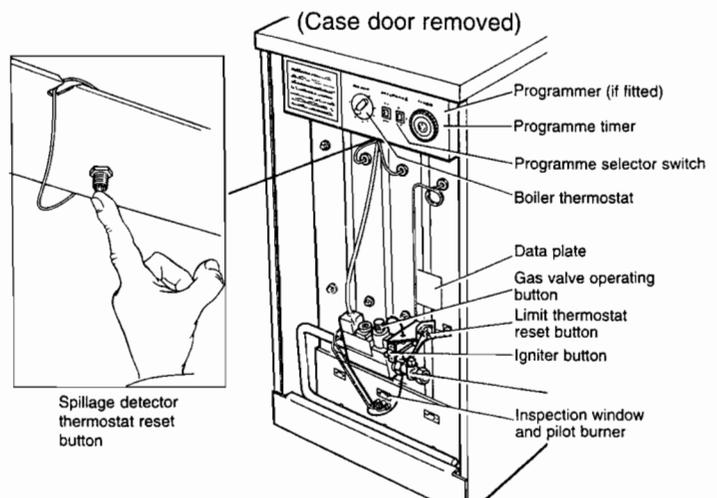


Fig. 4

Marathon 1500 controls

GENERAL

1. Boiler thermostat

For central heating in the coldest weather a thermostat setting at 6 or 7 is recommended. This may be reduced in milder weather to 5 or 6.

For hot water only, e.g. in summer, a setting at 3, 4 or 5 will usually be satisfactory.

2. Room thermostat (if fitted)

Set this control to the required room temperature. Note that the setting of the boiler thermostat will still determine the temperature of the domestic hot water supply.

3. Summer use

To turn off the central heating only, e.g. in summer, turn the programme selector to hot water only (HW), or turn the room thermostat (if fitted) to off or to the lowest setting. Reduce the setting of the boiler thermostat, as described previously, to give the required domestic hot water temperature.

4. Open flue model

Your installer will have made arrangements for an adequate supply of fresh air to the boiler, for combustion. Do not block up these airways, which may be let into a wall or door. Do not obstruct air passage around the side(s) and back of the boiler. Do not hang clothes or other flammable materials over the boiler or against the flue pipe. Do not box in tightly e.g. with a kitchen unit.

Caution: always consult your Gas Region or Service Engineer before fitting any type of extract fan in the premises.

5. Balanced flue model

This is a "roomsealed" boiler, if the flue, or the burner box cover or windows are ever disturbed or their joints broken, report the matter at once to your Service Engineer or Gas Region. Do not hang clothes or other flammable materials over the boiler.

Do not allow the terminal in the outside wall to be obstructed so as to interfere with the flow of air and flue gases.

In severe conditions check daily that the terminal does not become blocked by drifting or wind driven snow.

6. Under worksurface

Balanced flue models may be fitted under a worksurface provided that there is at least 10 mm (1/2 in) clearance between the top of the boiler case and the underside of the worktop. **THE WORKSURFACE MUST BE REMOVABLE TO ALLOW THE BOILER TO BE SERVICED.**

If a cupboard door is to be fitted in front of the boiler, contact your Installer or local Gas Region, as special clearances around the boiler and ventilation openings are required.

7. Gas Leak

If a gas leak or fault is suspected, turn off the appliance and consult your Service Engineer or local Gas Region.

CARE OF YOUR BOILER AND SYSTEM DURING THE GUARANTEE PERIOD AND BEYOND

1. Registration of Purchase

It is important to register the purchase of your Potterton boiler to ensure you receive prompt and efficient handling in the event your boiler requires attention during the guarantee period.

To register your guarantee simply complete and detach the Registration of Purchase form enclosed with these instructions. It is important to include details of your installer (if known) and to return the completed form to the Potterton Registration Department.

2. During the Guarantee Period

In the event of any problems with your system or the operation of your boiler, you should **first call your installer**. If there is a fault with the boiler under guarantee which your installer is unable to rectify, he will call Potterton Service Operations. For 12 months after the date of installation of the boiler (or 18 months from the date of manufacture, whichever is the shorter), Potterton will attend to any manufacturing defect, on the appliance only (not the system or ancillary controls), free of charge for parts and labour, subject to there being no misuse or abuse. This does not affect your statutory rights.

Service visits by Potterton Service Operations outside the terms of the boiler guarantee will be charged for both parts and labour at our normal rates for chargeable work.

During the period of the boiler guarantee, Potterton will only be responsible for the costs of work done by them or on their instructions by their Agent. We cannot accept any liability for expenditure or work done by other parties without our knowledge and/or approval.

3. Safety Check/Routine Maintenance

It is strongly recommended you have your boiler checked annually for safety and to have routine maintenance. This should be carried out by a CORGI Registered Installer/Service Agent or Potterton Service Operations to comply with the requirements of the Gas Safety (Installation and Use) Regulations 1994

4. Boiler Breakdown Insurance

We are pleased to offer you the opportunity to protect your investment once your boiler guarantee has expired, by the payment of an annual premium. You can continue with this insurance for the normal life of your boiler and you will find a special 30 day introductory offer for second year cover together with a card to register your purchase, as part of the 'User Pack' supplied with your boiler.

If you have not been handed a Registration Card/Optional 2nd Year Breakdown Insurance Offer, please contact the Potterton Registration Department for a copy by telephoning 0181 944 4972

Service Enquiries:

Service Operations
Brooks House
Coventry Road
Warwick CV34 4LL

Tel: 01926 496896
Fax: 01926 410006

Technical Enquiries:

Technical Helpline
Brooks House
Coventry Road
Warwick CV34 4LL

Tel: 01926 410044
Fax: 01926 410006

Spares Enquiries:

Parts Division
Queensway
Leamington Spa
Warwickshire CV31 3RG

Tel: 01926 880600
Fax: 01926 880680

Made in England by:
Registered Office:
Registered No.

Potterton Myson Limited
84 Eccleston Square, London SW1V 1PX
412935

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