

Installation & Service Instructions

Osprey CF 125 – 220

About the Boiler

See inside cover for models covered by these instructions.
This Floor Standing Cast Iron Gas Boiler is available as Conventional Flue.
This boiler is for use with Natural Gas (G20) at 20mbar or Propane Gas (G31) at 37mbar and for use in GB & IE.

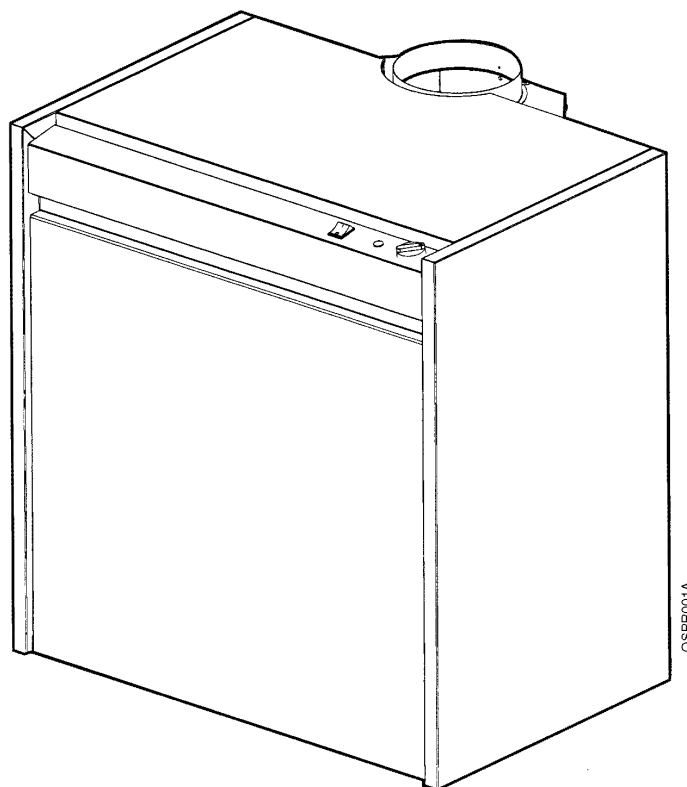
About Safety

The Gas Safety (Installation and Use) Regulations 1994 (As Amended) & The Gas Safety (Installation and Use) (Amendment) Regulations 1996.

“ In your own interest, and that of safety, it is 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.”

Installation must be in accordance with the Installation & Service Instructions and the rules in force.

Leave these instructions with the user for use on future calls.



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The models covered by these instructions are:-

Osprey 125 - G.C. No. 41 589 33
 Osprey 150 - G.C. No. 41 589 44
 Osprey 180 - G.C. No. 41 589 45
 Osprey 220 - G.C. No. 41 589 62

The boiler model and serial number are given on the boiler data label which is located on the front outer casing fixing bracket.

Boiler Data Label

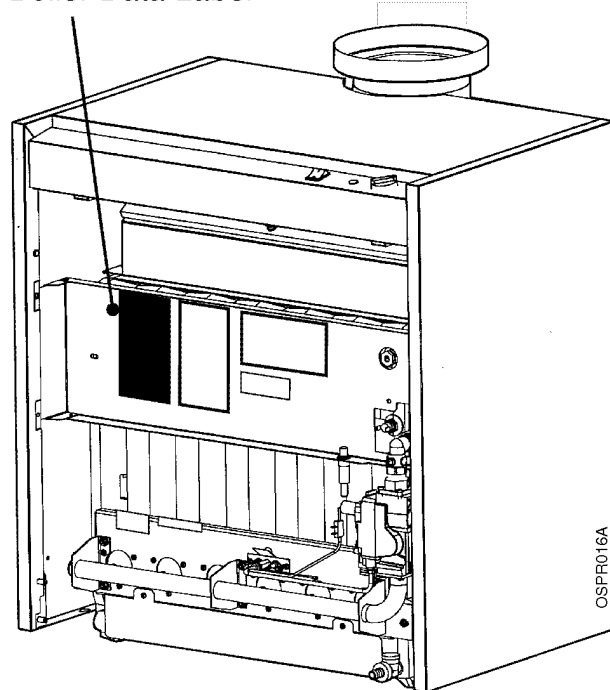
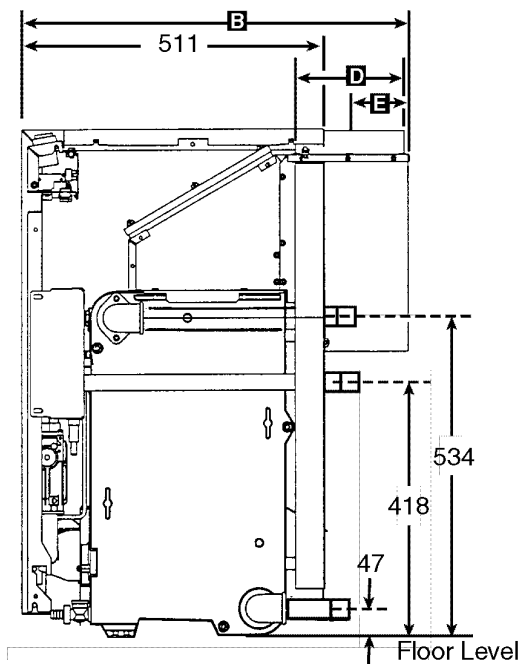


Fig. 1

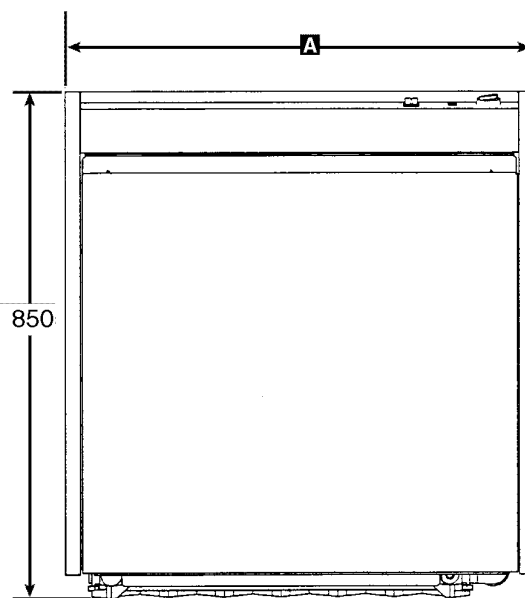
SAFETY, PERFORMANCE & QUALITY

Osprey boilers have been assessed by a Government appointed Notified Body and shown to meet the 'Essential Requirements' of the European Gas Appliance Directive. The Directive lays down requirements for the safety and efficiency of the appliance, together with its design, construction, and use of materials. It also requires the production process to be covered by an approved and monitored system of quality assurance.

Heat Input & Efficiency figures are quoted as gross		Boiler models			
Maximum Rate		125	150	180	220
Output	kW	35.0	43.0	52.8	64.5
	Btu/h	119,420	146,716	180,154	220,074
Input	kW	43.09	53.12	64.79	79.77
	Btu/h	147,020	181,245	221,063	272,171
Gas rate (G20)	m3/h	4.10	5.06	6.17	7.60
	ft3/h	145	179	218	268
Injector Size	mm	2.6	2.6	2.6	2.6
Burner Pressure	mbar	12.8	12.2	13.3	13.8
Permanent Pilot Injector	mm	2 Holes Ø 0.29			
Combustion Product Rate	g/s	30.56	33.89	39.44	47.50
Primary Flue Temp. °C		170	165	150	155
LPG Gas Rate(G31)	kg/h	3.01	3.7	4.6	5.6
Injector Size	mm	1.75	1.75	1.75	1.75
Burner Pressure	mbar	36.5	36.5	36.5	36.5
Permanent Pilot Injector	mm	1 Hole Ø 0.24			
Efficiency (Gross)	%	81.2	80.9	81.5	80.9
Injector Size	mm	1.75	1.75	1.75	1.75
Water Content	Litres	24	29	33	38
Appliance Weight	kg	135	165	195	225
Nominal flow for temp. diff. of 11K	l/min	45.6	56.0	68.8	84.0
Pressure Loss for temp. diff. of 11K	mbar	9.7	18.7	27.5	55.9
Maximum Working Head		30m (3 bar)			
Minimum Working Head		0.5m			
Gas Supply Pressure		G20 - 20mbar G31 - 37mbar			
Gas Supply Connection		22mm Copper pipe with female compression fitting			
Maximum Flow Temperature		85°C			
Flow Connection		1 1/4" Steel pipe, taper thread			
Return Connection		1 1/4" Steel pipe, taper thread			
Electricity Supply		230v ~ 50Hz Fused at 3A			
Power Consumption		10 Watts (excluding pump)			
Classifications		CAT 11 2H 3P - B11Bs - IP20			



All Dimensions
in mm



Front View

Model	No. of Elements	Dimensions in mm					
		A	B	C	D	E	F
125	5	600	600	332.5	130	76	(6")
150	6	695	600	380	150	86	(6")
180	7	790	650	427.5	180	99	(8")
220	8	885	650	475	200	109	(8")

F = Separate Flue Spigot

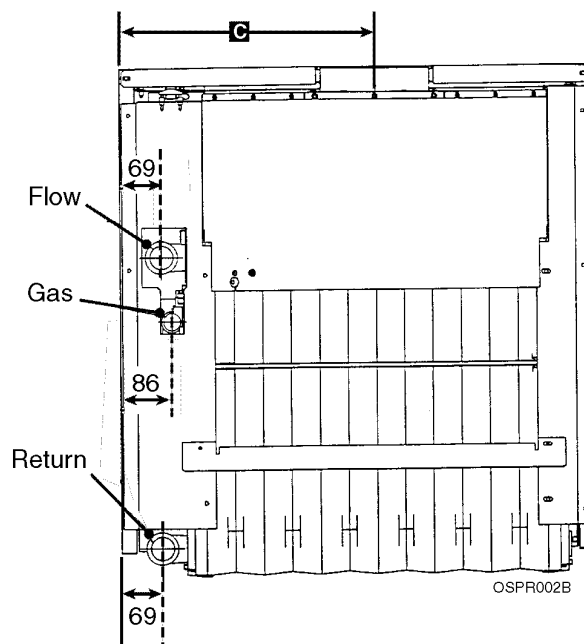
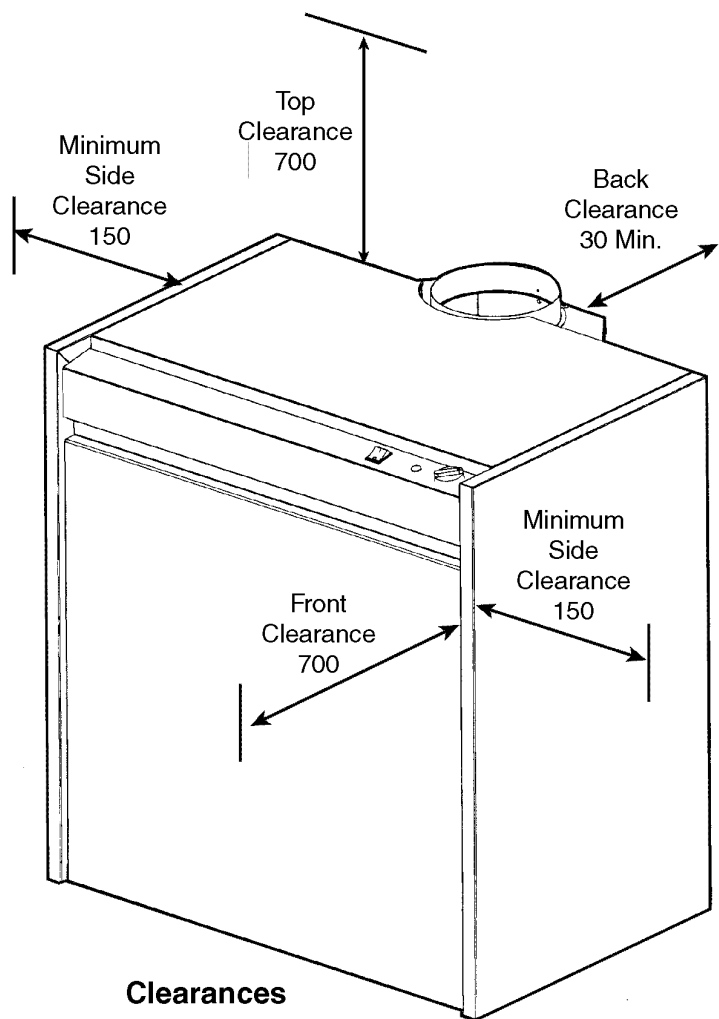


Fig. 2

Introduction - Page 3

The Gas Safety (Installation and Use) Regulations 1994 (As Amended) & The Gas Safety (Installation and Use) (Amendment) Regulations 1996.

This appliance must be installed and serviced by a competent person, in accordance with the above regulations.

In the UK 'Corgi' Registered Installers (including the regions of British Gas Plc) undertake to work to a safe and satisfactory standard.

Failure to install appliances correctly could lead to prosecution.

It is in your own interest, and that of safety, to ensure that the regulations are complied with.

Osprey boilers are fully automatically controlled, floor standing, conventional flued appliances using a cast iron heat exchanger and are available in outputs ranging from 35.0 - 64.5 kW.

The boilers are designed for use on fully pumped open vented or sealed water systems with an indirect hot water cylinder.

THEY MUST NOT BE CONNECTED TO A DIRECT CYLINDER.

The boilers are for use on Natural Gas (G20) and LPG (G31).

Samples of the Potterton Osprey gas boilers have been examined by Ctif, a France Notified Body. The range is certified to comply with the essential requirements of the Gas Appliance Directive 90/396/EEC, the Low Voltage Directive 72/23/EEC and shows compliance with the Electro Magnetic Compatibility Directive 89/336/EEC and are therefore permitted to carry the CE Mark.

Delivery & Kits Available

The unit is delivered in one package, the boiler with fittings and the flue spigot.

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 and 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 cause 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.

Codes of Practice

The boiler must be installed in accordance with: The Gas Safety (Installation and Use) Regulations 1994 (As Amended) & The Gas Safety (Installation and Use) (Amendment) Regulations 1996. and the current issue of:-

The Building Regulations, Building Standards (Scotland) Regulations, Local Building Regulations, Model and local Water Undertaking Bye-laws, IEE Wiring Regulations and Health & Safety Document No. 635 "The Electricity at Work Regulations 1989".

IMPORTANT

This appliance has been certified for safety. It is therefore important that no external control device (e.g. flue dampers, economisers, etc.) be directly connected to the appliance unless covered by these Installation & Service Instructions or otherwise recommended in writing.

Any direct connection of a control device not approved by Potterton Myson Ltd, could invalidate the CE Certification and normal appliance warranty.

1. Installation Requirements - Page 6

1.1 Gas Supply

The meter and supply pipes must be capable of delivering the required quantity of gas in addition to the demand from any other appliances in the house and must be governed at the meter.

If this is not achieved the local gas supplier must be contacted.

A minimum 22mm gas supply pipe should be used up to the inlet connection of the gas cock on the boiler. The pipe diameter required will depend upon the length - see Section 2. and BS 5449: 1990 - Appendix B.

The complete installation must be tested for gas soundness and purged as described in BS6891.

1.2 Electricity Supply

230V ~ 50Hz via a fused double pole switch with a contact separation of at least 3 mm in both poles adjacent to the boiler. Power consumption is approximately 10W. There must be only one common isolator for the boiler and its control system and it must provide complete electrical isolation. A plug complying with the requirements of BS 1363 (if fitted) must be accessible to the user after installation of the appliance.

Fuse the supply at 3 A. The minimum requirement for the power supply cable is that it should be a PVC sheathed cord at least 0.75 mm² (24 x 0.2 mm) (code designation HO5 VV-F or HO5 VVH2-F) as specified in table 16 of BS6500:1984.

All wiring external to the boiler shall comply with the latest IEE Wiring Regulations, and any local regulations which apply.

WARNING: THIS APPLIANCE MUST BE EARTHED.

In the event of an electrical fault after installation of the boiler, preliminary electrical systems checks must be carried out i.e. Earth Continuity, Short Circuit, Polarity and Resistance to Earth.

1.3 Location of Boiler

The boiler is not suitable for external installation. The boiler must stand firm and level on a non combustible surface. 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 10mm thick.

The boiler must be installed so that the draft diverter is in free air according to the clearance dimensions shown in Fig. 2.

The flue duct should not be closer than 25 mm to combustible material. A metal sleeve should be installed to surround the flue duct to provide a 25mm annular space. Further guidance is given in BS5440:1:1990, sub-clauses 3.3 and 4.2.5.

If the boiler is to be installed in a timber framed building it should be fitted in accordance with the British Gas publication- Part 19 - Building and Kitchen Work. If in doubt advice must be sought from Potterton Myson.

Conventional flue boilers can be installed either in a kitchen or utility room or (125 and 150 models only) inside a suitably ventilated, purpose designed or modified compartment.

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 compartment used to enclose the boiler is only allowed if the clearances shown in Fig. 2 and the air requirements of BS 5440 Part 2 are followed to allow correct functioning of the draft diverter (**125 and 150 models only**).

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.

The boiler requires the clearances shown in Fig. 2.

Conventional Flue Models

1.4 Air Supply

The air requirements must meet BS 5440 Part 2 & BS 6644.

The room in which the boiler is installed must be ventilated. Ventilation of the room containing the boiler shall include air for combustion and correct operation of the flue (ie Draft Diverter dilution).

A permanent air vent shall be provided in an outside wall of the building either at high or low level in accordance with Table 1 - Osprey 125 & 150 Only. The Osprey 180 & 220 must have high and low level vents in accordance with Table 1a.

The opening may be:

- Directly into the room or space containing the boiler (all models) or indirectly via an opening of at least the same area (125 & 150 models only).
- Via a duct either directly into the room or space (all models) or indirectly via an opening of at least the same free area (125 & 150 models only).

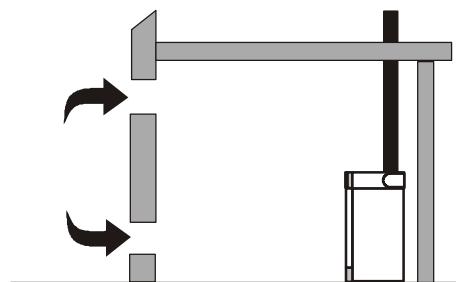
Where air is drawn indirectly from outside through more than two air vents refer to BS 5440 Part 2 - Osprey 125 & models 150 only.

Where an extraction fan is fitted in the room containing the boiler, special ventilation requirements must be implemented. Refer to BS 5440 Part 2 and BS 6644.

Any grille and/or duct should be so sited and of a type not to become easily blocked or flooded and should offer low resistance to airflow.

If the boiler is installed in a compartment, permanent air vents are required in the compartment, one at high level and one at low level (Table 2), either direct to the outside air or to a room Osprey 125 & 150 Only. The Osprey 180 & 220 cannot be installed in a compartment except those specified in BS 6644 using a monodraught system. Both high level and low level air vents must communicate with the same room or must be on the same wall to outside air (125 & 150 models only).

Ensure that all air inlets and outlets are always completely free from obstruction.



Open Flue
Boiler In Room

Table 1

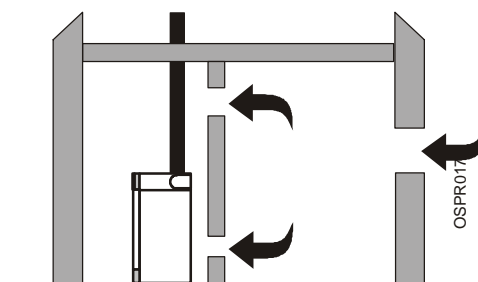
Combustion Air

Model	Output kW	Free Area cm ²
Osprey 125	35	163
Osprey 150	43	208

Table 1a

Combustion Air - High and Low Level

Model	High Level cm ²	Low Level cm ²
Osprey 180	281	562
Osprey 220	315	630



Open Flue Boiler Compartment
Ventilated From Inside

Table 2

Compartment Ventilation - Free Area

Model	High Level cm ²	Low Level cm ²
Osprey 125	388	776
Osprey 150	478	958

Fig. 3

1.5 Flue Systems

A flue system (lined throughout its length) must be provided to evacuate the flue products of combustion from the boiler. Reference should be made to the building regulations and BS 5440:1. and the flue system efficiency should be checked in accordance with BS 5440 and BS 6644.

Ideally a flue should rise vertically and any terminal or termination point shall be positioned so that combustion products can disperse safely at all times. Therefore for practical purposes, the flue should have the shortest possible run to external atmosphere within the limit of the minimum length of 1 metre, with as near vertical rise as possible, 90° bends should be avoided. The terminal must be at least above roof level and of a type approved by British Gas.

There should be at least 1000mm of vertical flue from the boiler flue socket.

Horizontal runs should be avoided, however if a near horizontal flue run is unavoidable, the total vertical height necessary should be calculated in accordance with BS 5440:1 and BS 6644.

If an existing chimney is used, ensure that it is thoroughly swept before lining or connecting the boiler. Care should be taken to avoid condensation in the flue.

In the case of a pre-lined chimney, it must be connected to the socket of the boiler flue hood with a length of purpose made flue.

Where a chimney lined with a vitreous enamelled flue liner is used, connect and seal a short length of purpose made flue into the base of the pre-lined flue, to connect to the boiler.

The flue diameter should never be less than the diameter of the flue spigot on the draft diverter.

Note: A separate 6 - 8" flue adaptor is supplied with the boiler.

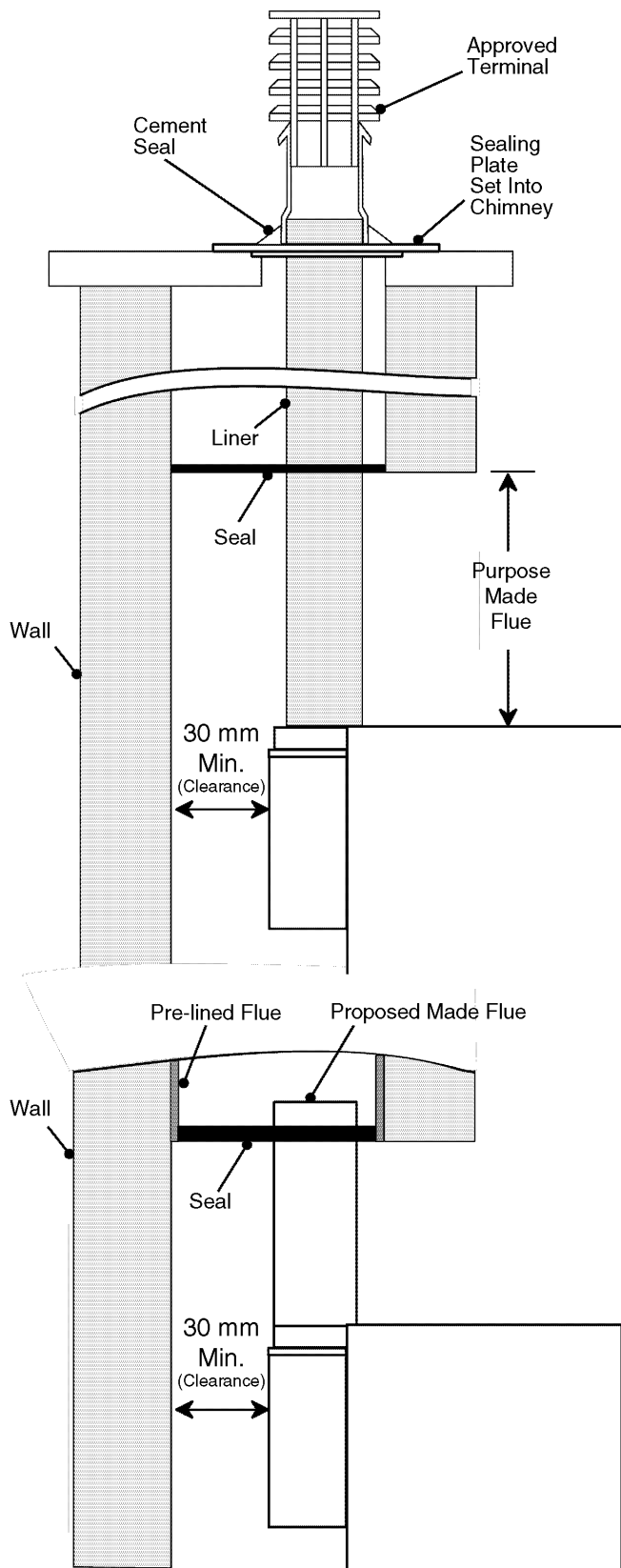


Fig. 4

1.6 The System

When installing the boiler on an existing system, the system should be chemically cleaned prior to installation.

The boiler must be used on INDIRECT hot water systems only. It is suitable for use only on fully pumped systems which may be sealed or open vented.

The system should be designed so that the maximum static head does not exceed 30m and a minimum of 500mm. See Fig. 6.

The pump should preferably be fitted in the flow, though installation in the return is acceptable providing care is taken to ensure air is not drawn into the system due to the negative pressure effects of the pump. Isolating valves must be fitted as close as possible to allow replacement without system draining.

Drain off taps should be fitted in the pipework close to the boiler and in the low points of the system.

Fully Pumped Systems

The pump must be wired directly to the terminal block (See Fig. 12) as it will allow the pump to be controlled by the over-run device. This will ensure that the pump will continue to run after boiler shuts down thus preventing nuisance operation of the overheat thermostat.

Systems fitted with controls which allow the boiler to operate when both the hot water and central heating circuits are closed i.e. mechanically operated thermostatic control valves, must be fitted with a by-pass circuit capable of:-

1. Dissipating a minimum of 2kW.
2. Maintaining a minimum water flow through the boiler of 8 L/min.

A suggested method of meeting these requirements by using a bathroom radiator fitted with two lockshield valves is shown in Figs. 6 & 7.

Diagrammatic layouts of a fully pumped open system and a fully pumped sealed system are shown in Figs. 6 & 7. The central heating should be designed as such that the minimum flow through the boiler is above 8 L/min.

Sealed Systems (Fully Pumped)

Installation

The installation must comply with the requirements of BS 6798: 1987 and BS 5449: 1990. The British Gas publication "British Gas Specification for Domestic Wet Central Heating Systems" should also be consulted.

Safety Valve

A non-adjustable spring-loaded safety valve, preset to operate at 3 bar (45lbf/in²) shall be used. It must comply with BS 6759: Pt 1. and include a manual testing device. It shall be positioned in the flow pipe either horizontally or vertically upwards and close to the boiler. No shut-off valves are to be placed between the boiler and the safety valve. The valve should be installed into a discharge pipe which permits the safe discharge of steam and hot water such that no hazard to persons or damage to electrical components is caused.

Pressure Gauge

A pressure gauge incorporating a fill pressure indicator, covering the range 0 - 4 bar (60 lbf/in²) shall be fitted to the system. It should be connected to the system, preferably at the same point as the expansion vessel. Its location should be visible from the filling point.

Expansion Vessel

A diaphragm type expansion vessel to BS 4814: Pt 1. shall be fitted close to the inlet side of the pump on the flow from the boiler before any valves. The connecting pipework should not be less than 15mm. Pipework connecting the expansion vessel should not incorporate valves of any sort. Methods of supporting the vessel are supplied by the vessel manufacturer. The nitrogen or air charge pressure of the expansion vessel shall not be less than the hydrostatic head, (height of the top point of the system above the expansion vessel).

To size the expansion vessel it is first necessary to calculate the volume of water in the system in litres. The following volumes may be used as a conservative guide to calculating the system volume.

Boiler Heat Exchanger:	See Technical Data
Small Bore Pipework:	1 litre per kW of system output
Micro Bore Pipework:	7 litres
Steel Panel Radiators:	8 litres per kW of system output
Low Water Capacity Radiators:	2 litres per kW of system output
Hot Water Cylinder (Secondary Store):	2 litres

If the system is extended, the expansion vessel volume may have to be increased unless provision has been made for extension. Where a vessel of the calculated size is not available, the next available larger size should be used. The boiler flow temperature is controlled at approximately 85°C.

The vessel size can now be determined from the information in Table 4 where V = System volume in litres.

Vessel Charge Pressure (bar)	0.5	10.
Initial System Pressure (bar)	1.0	1.0
Expansion Vessel Volume (litres)	V x 0.11	V x 0.087

Table 4.

Circulation Pump Selection

The resistance through the heat exchanger when operating with a water flow rate producing an 11°K temperature rise at maximum boiler output are shown in Table 5. If other controls such as 2 position valves are used in the system, the resistance through them, quoted in their manufacturers literature must be taken into account. The pump may be fitted on either flow or return and MUST be wired directly to the boiler terminal block. It must be fitted with two isolating valves which are positioned as close to the pump as possible. Closing of any valve must always leave the open vent and pressure relief valve unobstructed.

Table 5. Hydraulic Resistance for 11k Temp. difference

Boiler Output kW	Water Flow Rate L/min	Hydraulic Resistance	
		mbar	m
35.0	45.6	9.7	0.1
43.0	56.0	18.7	0.19
52.8	68.8	27.5	0.27
64.5	84.0	55.9	0.56

Cylinder

The hot water cylinder must be an indirect coil type or a direct cylinder fitted with an immersion calorifier suitable for operating at a gauge pressure of 0.3 bar (5 lbf/in2) in excess of safety valve setting. Single feed indirect cylinders are not suitable for sealed systems.

Method of Make-up

Provision shall be made for replacing water loss from the system either:-

- from a make-up vessel or tank mounted in a position higher than the top point of the system, and connected through a non-return valve to the system on the return side of the hot water cylinder or the return side of all heat emitters.
- where access to a make-up vessel would be difficult by using the mains top up method or a remote automatic pressurisation and make-up unit as shown in Fig. 8.

Mains Connection

There shall be no connection to the mains water supply or to the water storage tank which supplies domestic hot water even through a non-return valve, without the approval of the Local Water Authority.

Filling Point

The system shall be fitted with a filling point always on the return at low level which incorporates a stop valve to BS 1010 and a double check valve (approved by the National Water Council) to be fitted in this order from the system mains, see Fig. 8.

Hydraulic Resistance through Osprey CF Range

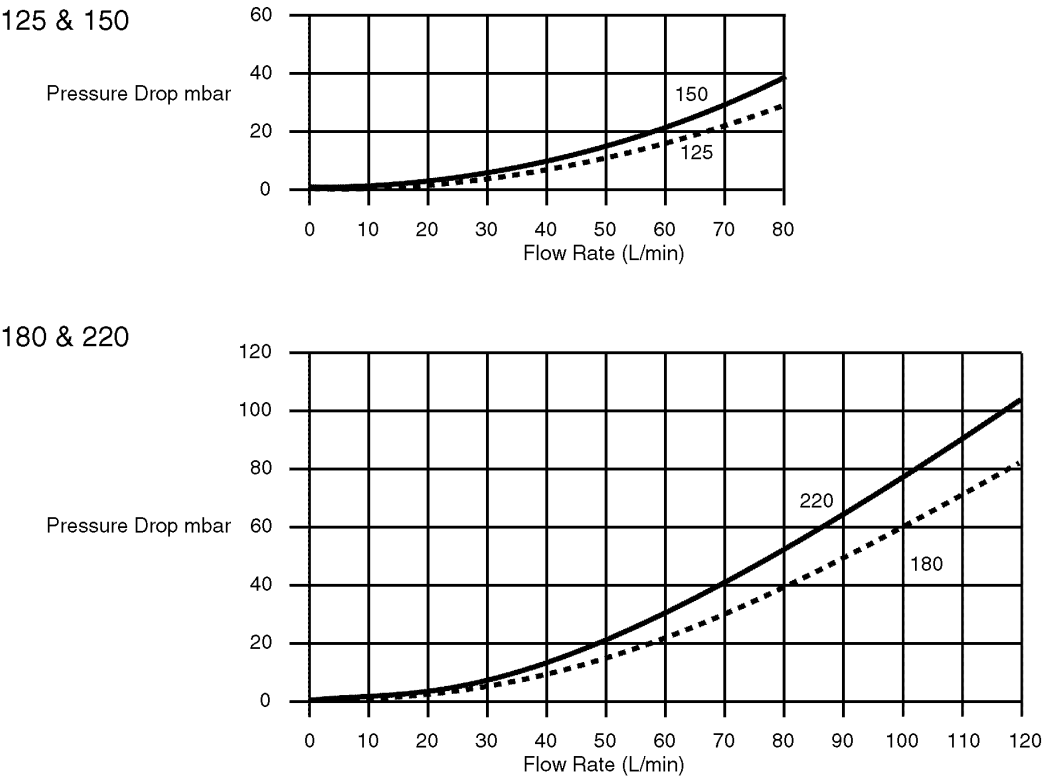


Fig. 5

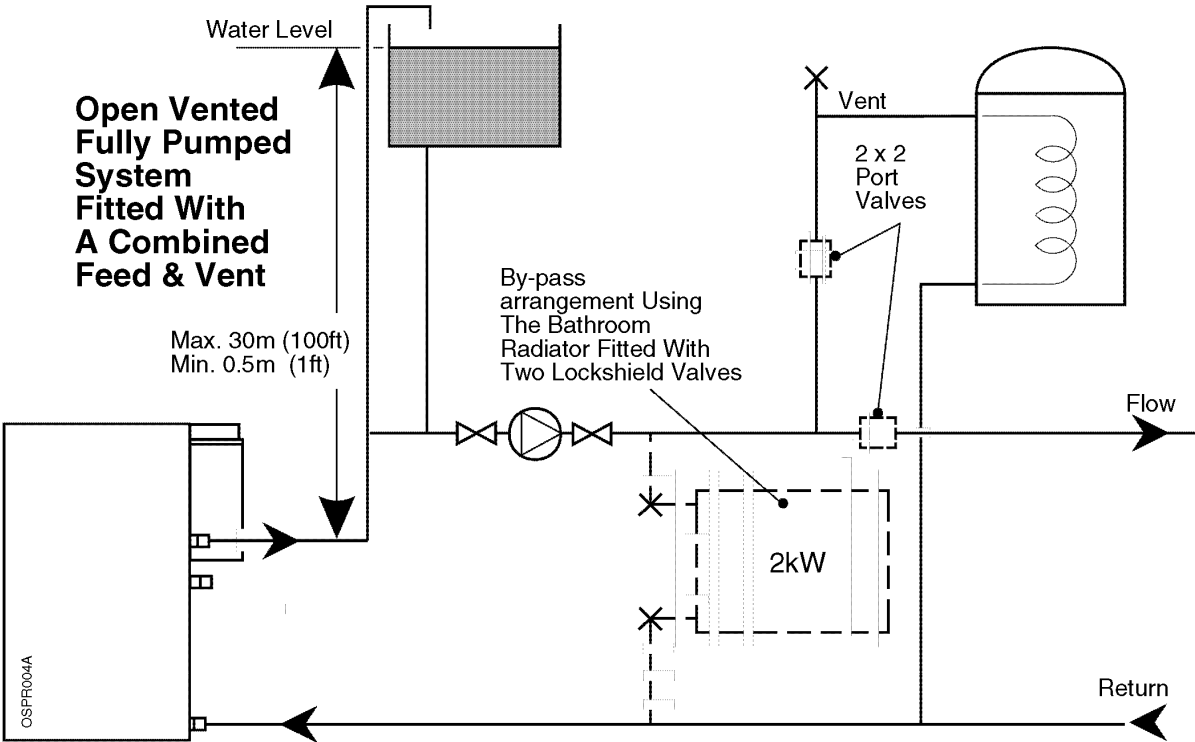


Fig. 6

Fully Pumped
Sealed System

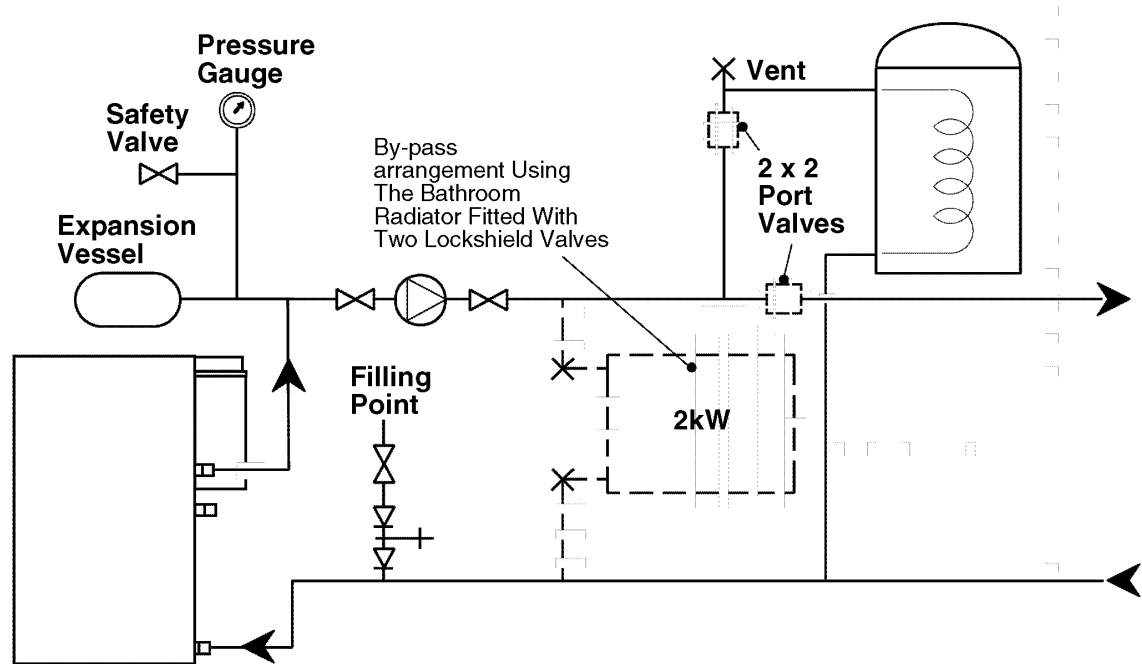


Fig. 7

Filling A Sealed Water System
(Method 1)

Mains Topping-Up Method
Note: This Method Of Filling A Sealed System May Only Be Used If Acceptable To local Water Undertaking

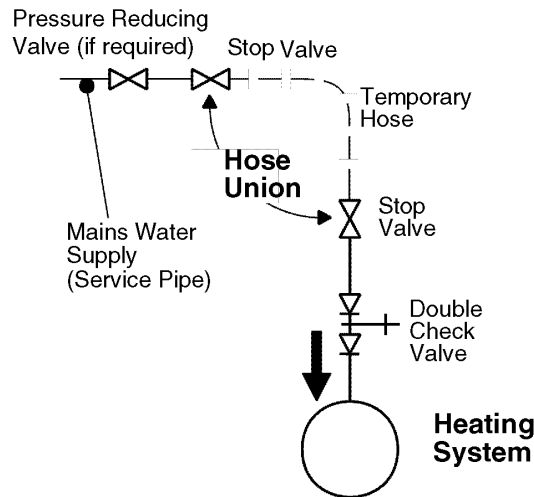
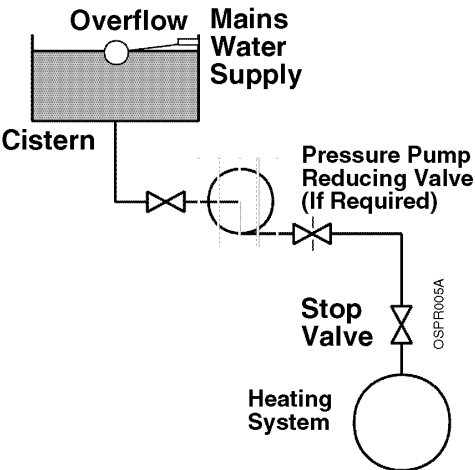


Fig. 8

Filling A Sealed Water System
(Method 2)

Cistern Filling Method
Note: Cistern To Be Supplied Through A Temporary Connection From A Service Pipe Or Cold Water Distributing Pipe



2. Installation - Page 13

2.1 Prepare the boiler

These instructions assume you have decided on where the boiler will be located.

1. Carefully unpack the boiler.
2. Do not discard any packaging until all the items are accounted for.
3. Position the boiler to ensure the draft diverter is the required distance from the wall.
4. Remove the top panel - 2 screws.
5. Remove the front door - unhook and lift off.
6. Fit the flue spigot (supplied separately inside the case) to the draft diverter.

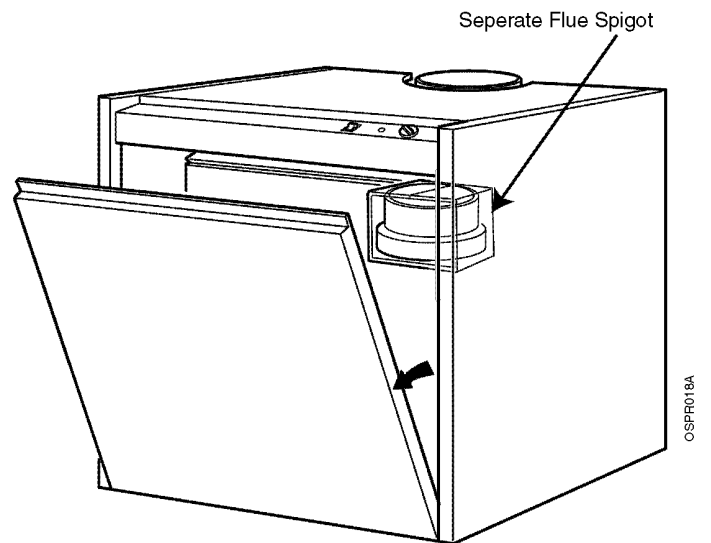
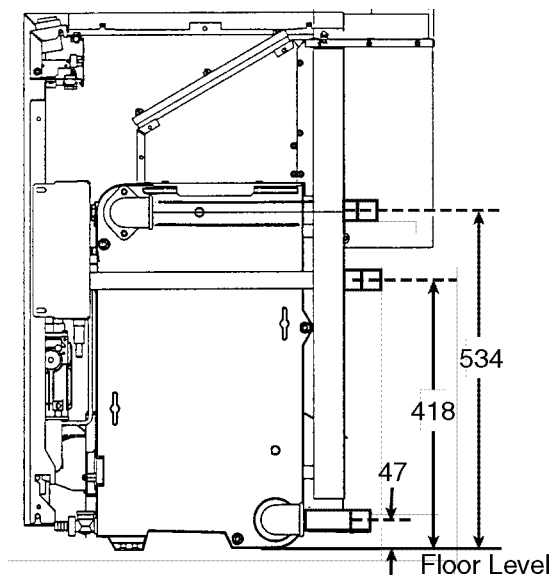
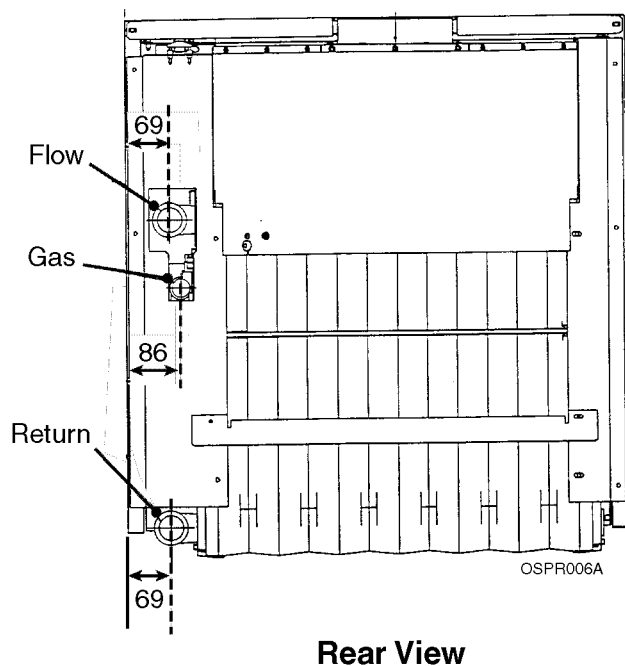


Fig. 9



Side View

All Dimensions
in mm



Rear View

2.2 Connect the Gas Supply

1. Ensure that the gas supply is isolated.
2. Connect the gas supply to the gas cock using a 22mm copper pipe, sliding it in from the back panel to the gas cock.

The pipe diameter required will depend on the boiler model and the pipe length from the gas meter. Ensure that the gas supply pipe is selected in accordance with BS 6891 so that an adequate gas supply to the boiler is provided.

Do not turn the gas supply on at this stage.

2.3 Connect the Water System

1. Connect system pipework to the boiler. Arrange pipework to ensure correct venting of pipes and boiler.

The pipe diameter required will depend on boiler model and system design and may not be the same as boiler flow and return tapings.

Note: Drain off taps should be installed at the lowest points in the system.

The flow and return pipes on the boiler are made of steel with a conical 1 1/4" male thread.

Fig. 10

2.4 Connect the Power Supply Cable

1. The mains supply should be 230V 50Hz and fused at 3A.
2. The mains wiring to the boiler has to be connected inside the control panel

Access to the Control Panel Wiring Block

- a. Open the top panel of the boiler by unscrewing the rear screws.
 - b. Turn the blocking bracket 'A' to the inside of the boiler.
 - c. Open the control panel and turn as shown in Fig. 11.
 - d. Remove the 2 screws 'B'.
 - e. Lift metallic strip to enable access to the wiring block 'C'.
- Note:** When connecting the power supply cable, ensure that the length of the earth wire is such, that if the power supply cable pulls out of the cable clamp the live and neutral wires become taut before the earth wire.
4. The pump wiring should be routed as the mains wiring, through the cable clamps and connected to the terminal connections PL and PN - Fig. 12.
 5. Take up excess slack in the cables between the terminal block and the cable clamp, then tighten the cable clamp screws. Ensure sufficient slack is available to the cable clamps to allow the control panel to hinge freely. Check by opening the control panel.
 6. Close the back panel of the control board and secure using the two screws - see Fig. 12.
 7. Close the control panel by turning it upwards and pushing it onto hinge D.
 8. Carry out preliminary electrical system checks i.e. Earth Continuity, Short Circuit, Polarity and Resistance to Earth.

Frost Thermostat:

If a Frost Thermostat is to be fitted, the connections should be made in the wiring external to the boiler.

Do not switch on the electricity supply at this stage.

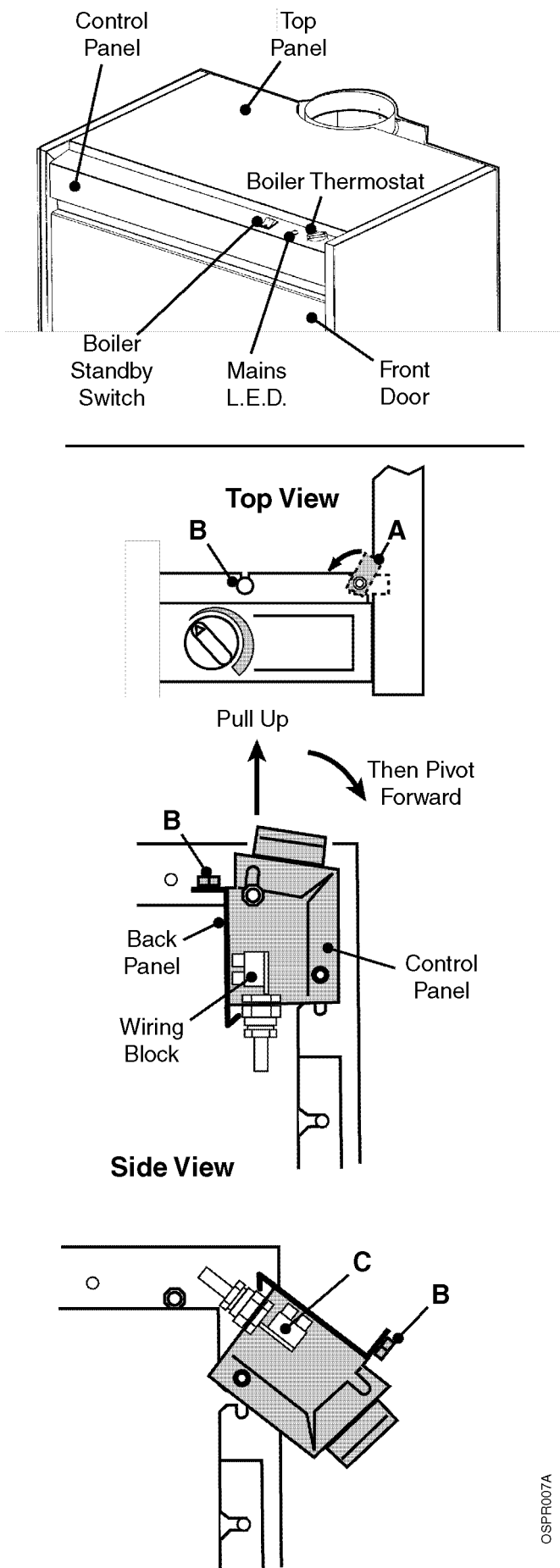
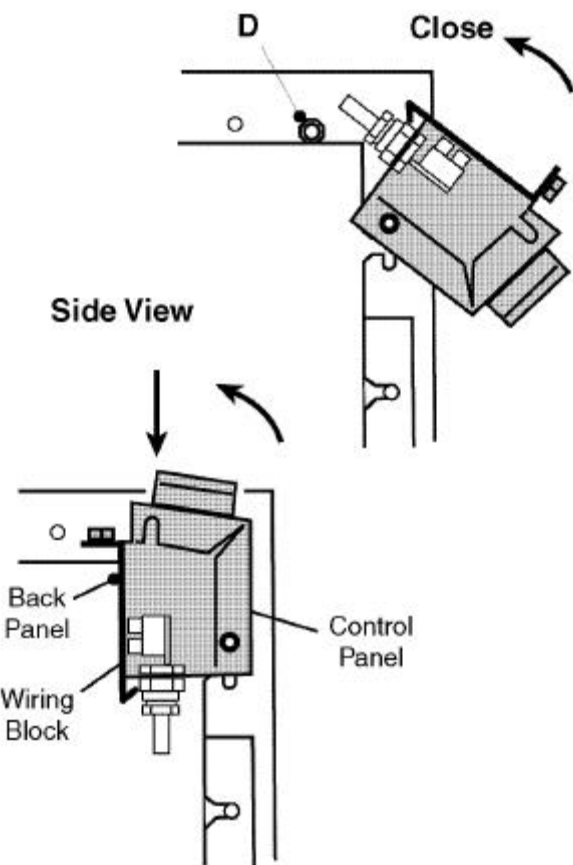
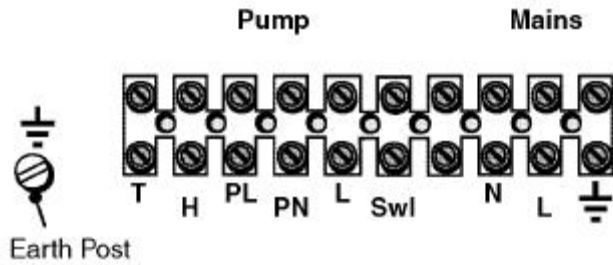
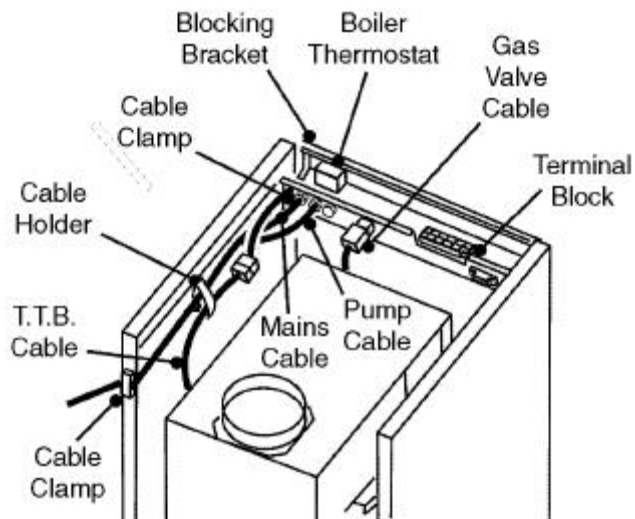


Fig. 11



2.5 Install the Room Thermostat

1. If a Room Thermostat is to be fitted, the connections should be made in the wiring external to the boiler.

2.6 Install the flue

1. Install the natural draft flue according to BS 5440 and Fig. 4.
2. The boiler is fitted with a spillage device that will trip the boiler out under adverse conditions.

Fig. 12

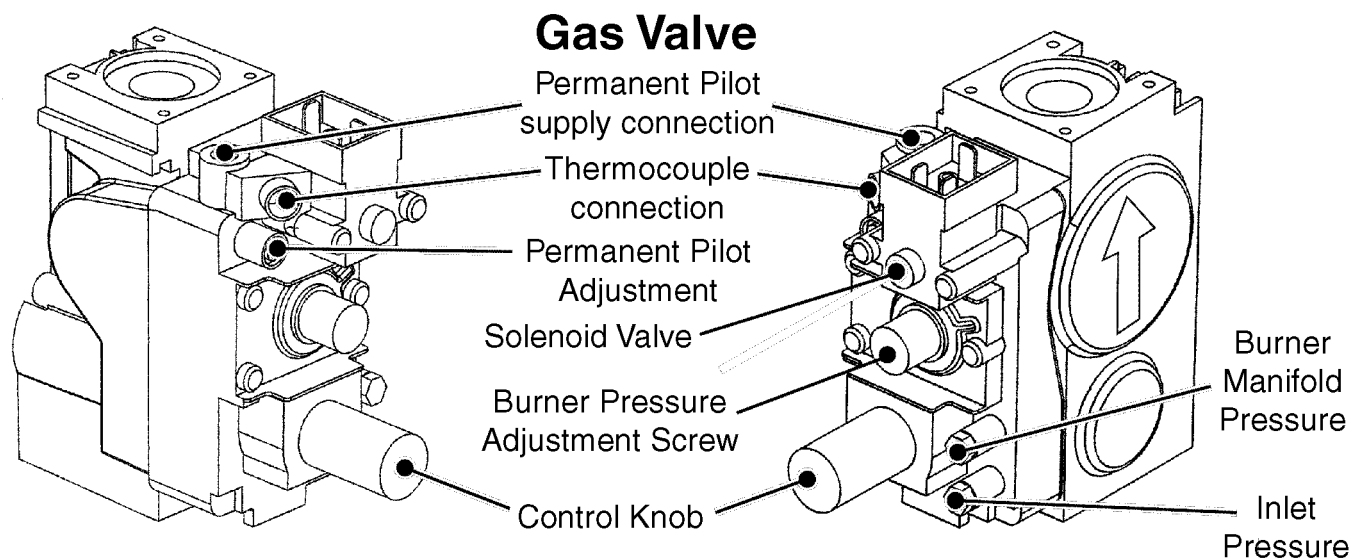
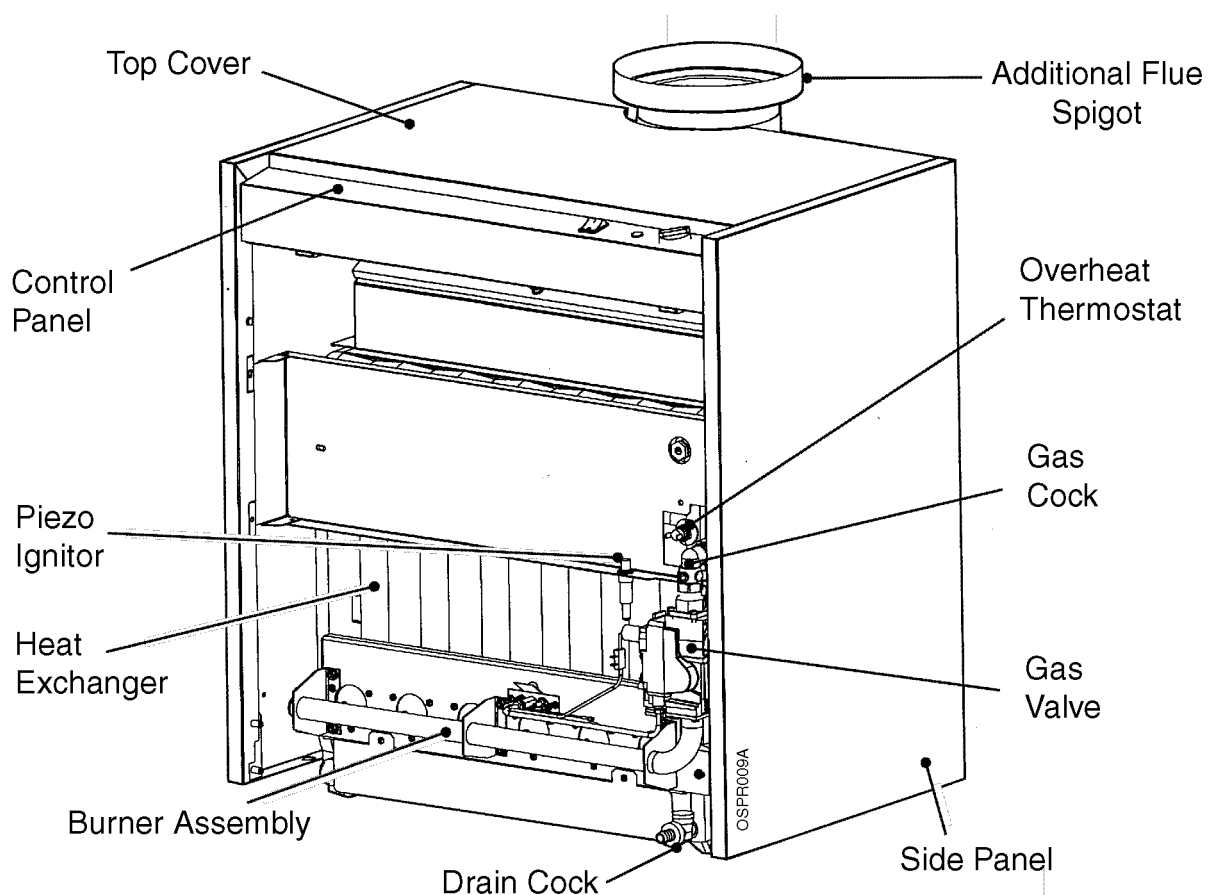


Fig. 13

Important

The commissioning and boiler adjustment must only be carried out by a suitably qualified personnel. Potterton Myson Ltd. offer this service on a chargeable basis.

Important

When purging and testing the gas supply for gas soundness open all windows and doors in the room. Extinguish all naked lights, cigarettes, pipes, etc.

3.1 Commission the Boiler







Open Vented Systems - Remove the pump and flush the system thoroughly with cold water. Re-fit the pump. Fill and vent the system then check for leaks.

Sealed Systems - The system can be filled using a sealed system filler pump with a break tank or by any other method approved by the Local Water Authority. Refer to Section 1.6, 'The System' on Page 9 of these instructions.

Remove the pump and flush the system thoroughly with cold water. Re-fit the pump. Fill and vent the system until the pressure gauge registers 1.5 bar (21.5 lbf/in²) and check for leaks. Raise the pressure until the safety valve lifts, this should occur within ± 0.3 bar of the preset lift pressure of 3 bar. Release water to attain the correct cold fill pressure.

Step by Step Commissioning (tick box when done)

- 1 The whole of the gas installation must be checked for soundness and purged in accordance with BS 6891. ☐
- 2 Check the water system for leaks and rectify as necessary. ☐
- 3 Preliminary electrical system checks must be carried out. They are:- Earth Continuity, Short Circuit, Polarity & Resistance to Earth. ☐
- 4 Re-fit the front cover and controls panel. ☐
- 5 Set the rotary boiler switch on the user controls to its minimum position and boiler Standby switch to 'O' Off. ☐
- 6 If a programmer is fitted, set to the 'Off' position. ☐
- 7 Turn the boiler gas service cock to the 'On' position and then turn On the main gas supply. ☐
- 8 Ensure the system is full of water and that the pump, radiator and any other isolating valves are open. ☐
- 9 Switch On the main electricity supply at the isolating switch or plug and socket. ☐
- 10 If a programmer is fitted set it to the 'On' position and check that the room and cylinder thermostats, where fitted are set to high temperatures. ☐

- 11 i. Press control knob in lightly and turn. Align off  position with marker . ☐
- ii. Press control knob in lightly and turn. Align ignition position  with marker .
- iii. Press control knob in firmly and hold, at the same time press the ignition button. The pilot flame should be visible at the pilot window. If not press the ignition button until the flame is established.
- iv. When the flame is established hold the control knob in for approximately 20 seconds before releasing. The pilot flame should remain alight.
- v. Press control knob in lightly and turn, align full flame position  with marker .
- vi. Switch the boiler Standby switch to On.

- 12 With the main burner running, check for gas soundness around the boiler using leak detection fluid. ☐

- 13 Allow the system to reach maximum working temperature and examine for leaks. Set the boiler Standby switch to 'O' and drain the system whilst still hot. ☐

Note: Should the boiler fail to operate correctly refer to the Fault Finding Guide on Page 26, and the boiler wiring diagram on Page 24 for further information.

- 14 Re-fill and vent the system making a final check for leaks. ☐

On sealed systems adjust to the correct cold fill pressure. Set the pressure gauge pointer to the system design pressure.

If a by-pass circuit is fitted the by-pass valve should be adjusted with the boiler operating under minimum load conditions to maintain sufficient water flow through the boiler to ensure that the overheat thermostat does not operate under normal conditions.

3.2 Final Adjustments

- 1 Use a pressure gauge to check the inlet and burner pressures. See the Technical Data section for figures. ☐
- 2 Turn the boiler on and allow to run for 10 minutes. ☐
- 3 Check that the inlet pressure is 20 mbar Natural Gas (G20) and 37 mbar for Propane (G31). ☐
- 4 Check that the burner pressure is in accordance with the information in the Technical Data section. ☐
- 5 If burner pressure adjustment is required turn the pressure adjusting screw as required - See Fig. 13. ☐
- 6 Check at the gas meter that the gas rate is correct. ☐
- 7 Shut down the boiler, remove the pressure gauges, re-fit the screws and check for gas soundness. ☐
- 8 Re-fit the front door. ☐

Control Thermostat

At its minimum and maximum settings, the thermostat should control the water flow temperature at approximately 55 °C - 85 °C.

Set the boiler Standby switch to OFF and check that the main burner shuts down. ☐

Pilot Burner

The pilot is pre-set and no adjustment is required. When lit the pilot flame envelope should just cover the electrode tip. If the pilot flame is not as described, replace as covered in Section 4.6 - Servicing & Replacement of Parts. ☐

Overheat Thermostat

The overheat thermostat is pre-set and no adjustment is possible. It will require manual re-lighting if an overheat condition occurs (the pilot will extinguish). ☐
Re-light as detailed on Page 18.

Other Boiler Controls

No further setting or checking is necessary as all boiler mounted controls are designed so that if a fault should occur they will fail safe. ☐

External Controls

Check that any other external controls connected in the system, such as clocks or thermostats are correctly set and control the boiler as required. ☐

Spillage Device

Temporarily block the flue and check that the boiler shuts down within 2 minutes (if the boiler fails to shut down replace the spillage device as shown in section 4.3 of the Service and Replacement of Parts). ☐

Unblock the flue spigot and the boiler should automatically relight within 10 minutes.

3.3 Instruct the User

On completion of the installation, the installer should demonstrate the operation of the boiler and its associated controls. ☐

3.4 Advise the User

- 1 If a programmer is fitted set the time and programme the required settings. ☐
- 2 Hand the Instructions for Use, these Installation & Service Instructions (and the programmer instructions) to the User and instruct in the safe operation of the boiler and controls. ☐
- 3 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. ☐
- 4 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 Potterton Service Engineer or a C.O.R.G.I. Registered Installer. ☐
- 5 Leave a permanent card attached to the boiler giving: ☐
 - a. Name and address of installer.
 - b. Date of installation.

4. Service & Replacement of Parts - Page 20

Read these: To ensure continued efficient operation of the appliance, it is recommended that it is checked and cleaned as necessary at regular intervals.

The frequency of servicing will depend upon the particular installation conditions and usage but in general once per year should be adequate.

It is the law that any service work must be carried out by a competent person who is C.O.R.G.I. Registered.

Before servicing, fire the appliance and check that the flames are blue. Yellow flame and excessive lifting indicate poor combustion.

WARNING: Before commencing work set the boiler standby switch to 'O' Off and allow the appliance to cool, isolate the electricity supply.

If the gas valve is to be removed turn off the gas supply at the appliance service cock.

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

IMPORTANT: Ensure that the outer white case is correctly fitted.

Notes on Cleaning Boiler Components

Heat Exchanger

Place a sheet of paper under the heat exchanger (after removing the burner assembly) then using the brush (Supplied with the boiler), scrape the flueway fin surfaces in a downward movement. This will ensure that most of the deposits will be collected on the paper.

Burner

Brush the burner top and check that the flame ports are clear. Any blockage may be removed with a fine wire brush. Turn the burner upside down and tap gently to remove any debris (Protect the electrode).

Electrode

If the electrode requires cleaning wipe the surface using a cleaning fluid.

Main Injectors

Omit this operation if the gas rate is correct, otherwise clean by blowing through. Do NOT clear the injectors with a pin or wire.

Flue

Inspect the draft diverter and flue tube for blockage, condensation and integrity, rectify if necessary.

4.1 General Access

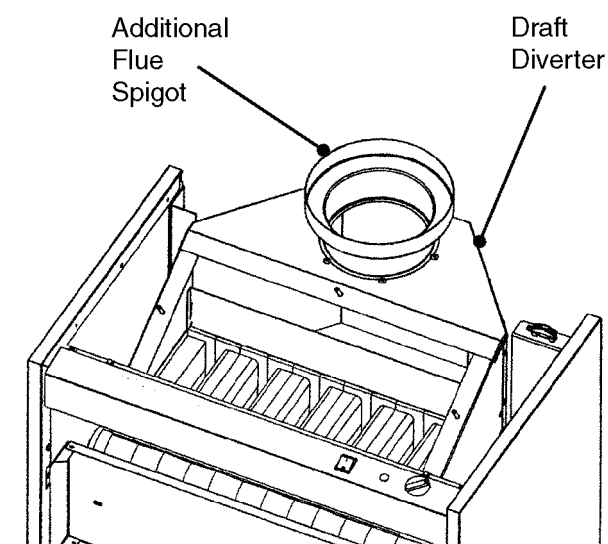
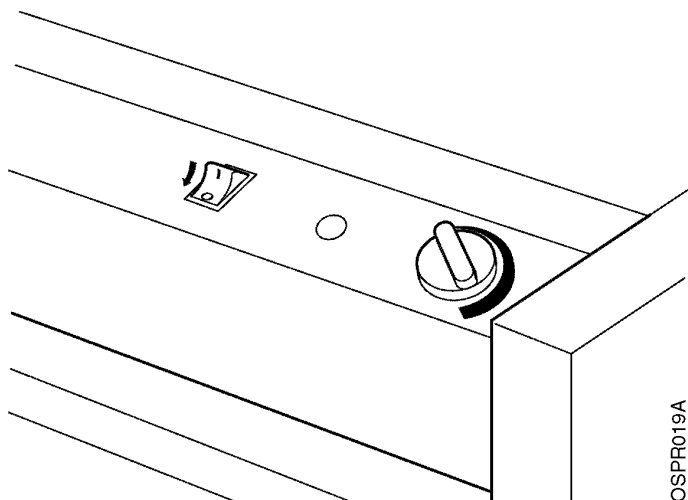
Warning: Before attempting to remove any component from the appliance first disconnect the mains electricity supply by removing the plug from the wall socket or by switching off the appliance at the external isolating switch and isolate the gas supply.

Note: The 'O' (Off) position on the boiler standby switch will leave parts of the boiler Live.

If the appliance gas valve is to be removed it will be necessary to isolate the gas supply at the appliance isolating valve.

Important: After removal or replacement of any gas carrying component a test for gas soundness must be made and functional check of the controls carried out.

OSPR019A



Re-assemble all parts in reverse order.

1. Remove the front door by pulling forward then lifting up, see Fig. 15.
2. Remove the top panel - 2 screws at rear, pull upwards and lift off.
3. Lift control panel onto hinges, drop forward, remove 2 screws and pivot forwards.
4. Lift off the metal shield.

4.2 Control Panel

- Gain General Access - See 4.1
1. Disconnect gas valve and boiler stat & TTB connector.
 2. On re-assembly refer to Fig. 12.

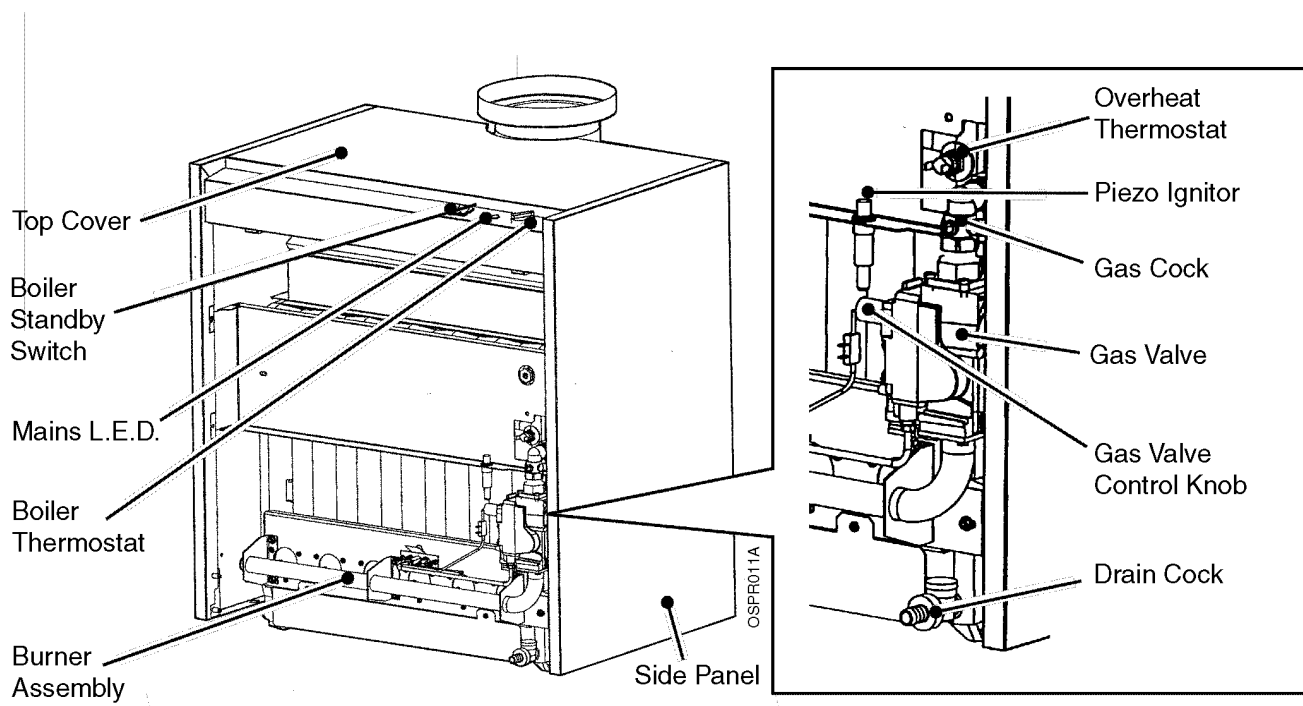


Fig. 14

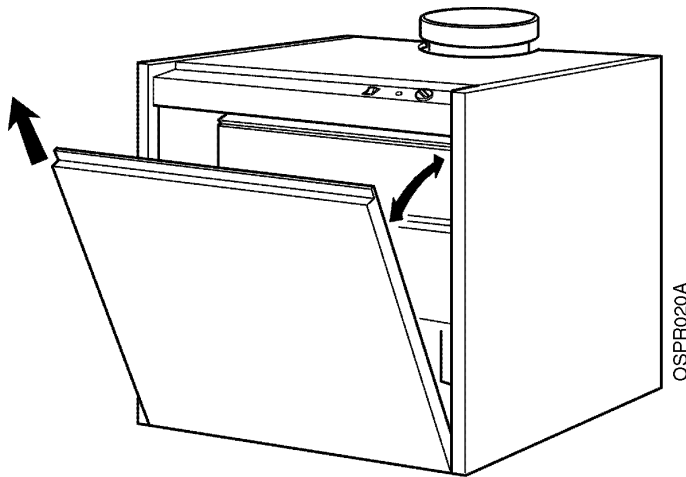


Fig. 15

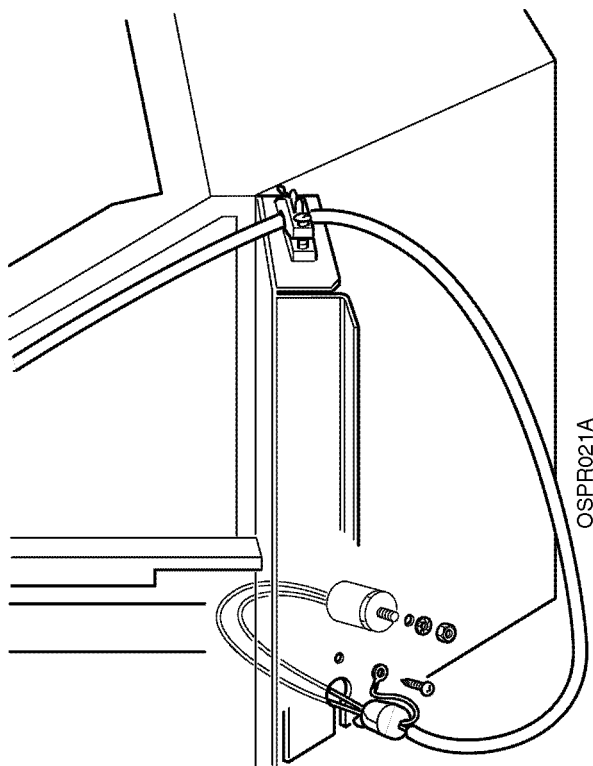


Fig. 16

4.3 TTB Thermostat

- Gain General Access - See 4.1
- 1. Disconnect the TTB connector, unscrew the TTB thermostat from the draft diverter and open the cable clamp. Unscrew earth connection, see Fig. 16.
- 2. Re-assemble in reverse order.

Note: This device is a safety feature and as such it should not be disabled or interfered with. Only Potterton parts should be used for replacement. If the unit continues to trip then the flue should be checked for spillage. Always check the operation of the TTB after every service.

4.4 Boiler Thermostat

- Gain General Access - See 4.1
- 1. Open the control panel.
- 2. Remove spring clip on the outside of the thermostat pocket and pull it clear of the heat exchanger.
- 3. Remove the user thermostat control knob.
- 4. Unscrew the user thermostat, note the wire connections (each wire is numbered) and remove the wires.
- 5. Re-assemble in reverse order.

4.5 Overheat Thermostat

- Gain General Access - See 4.1
- 1. Disconnect the wires from the thermostat.
- 2. Unscrew the thermostat from the conducting 'Pocket'.
- 3. Re-assemble in reverse order.

4.6 Burner Assembly

- Gain General Access - See 4.1
- 1. Close the gas cock.
- 2. Disconnect the gas pipe from the gas valve.
- 3. Disconnect the wiring to the control panel and the overheat thermostat.
- 4. Remove the igniter.
- 5. Unscrew the burner plate - 2 nuts.
- 6. Remove the gas valve/burner assembly and lift over the location peg.
- 7. Pull the assembly forwards, check the condition of the burner and thermocouple - replace if necessary.
- 8. Re-assemble in reverse order.

Injector: Use a 12mm spanner to remove the injector, use a new sealing washer on re-assembly.

4.7 Gas Valve

- Gain General Access - See 4.1
- 1. Remove burner assembly - See 4.6
- 2. Disconnect gas valve lead.
- 3. Unscrew pilot tube and thermocouple.
- 4. Remove inlet and outlet plates.
- 5. Re-assemble in reverse order.
- 6. Check burner pressure and gas rate against the data badge using the pressure test point and gas meter, shown in Fig. 13.

4.8 Pilot Interrupter

- Gain General Access - See 4.1
- 1. Remove interrupter wires from overheat thermostat.
- 2. Unscrew thermocouple.
- 3. Re-assemble in reverse order.

4.9 Pilot Assembly

- Gain General Access - See 4.1
- 1. Unscrew igniter.
- 2. Unscrew thermocouple and pilot tube.
- 3. Remove 2 screws and remove pilot assembly.
- 4. Re-assemble in reverse order.

4.10 Burner

- Gain General Access - See 4.1
- 1. Remove burner assembly - See 4.6
- 2. Remove burner insulation.
- 3. Unscrew 3 screws in burner plate and remove burner.
- 4. Re-assemble in reverse order.

4.11 Cleaning Heat Exchanger

- Gain General Access - See 4.1
- 1. Remove burner assembly - See 4.6
- 2. Remove 4 wing nuts holding top panel on.
- 3. Remove brush from holder and clean as required.
- 4. Re-assemble in reverse order.

Note: If insulation is to be removed wet first to reduce fibre breakdown.

Important: After any work carried out involving gas carrying components a full gas soundness test procedure should be carried out in accordance with BS 6891.

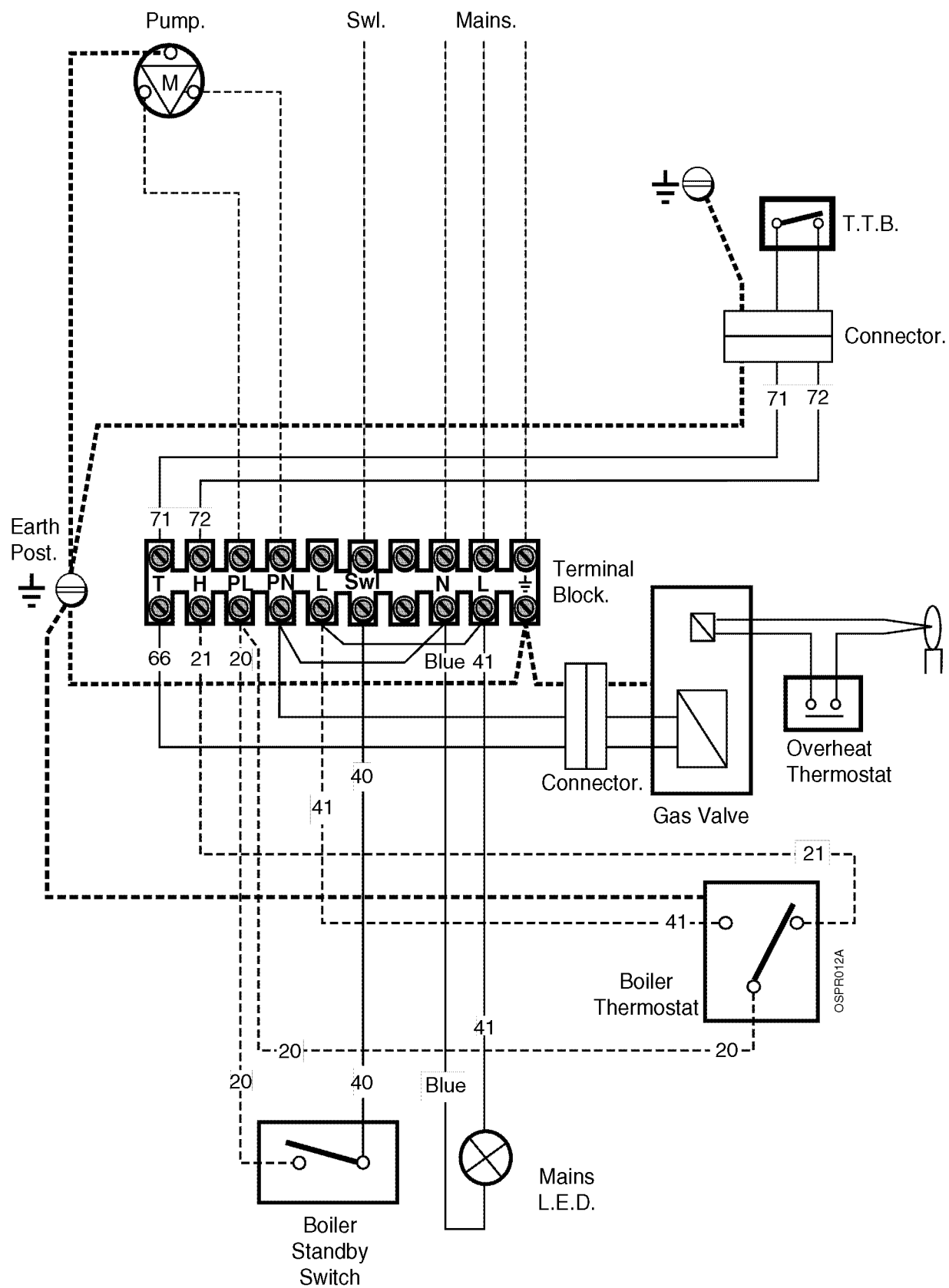


Fig. 17

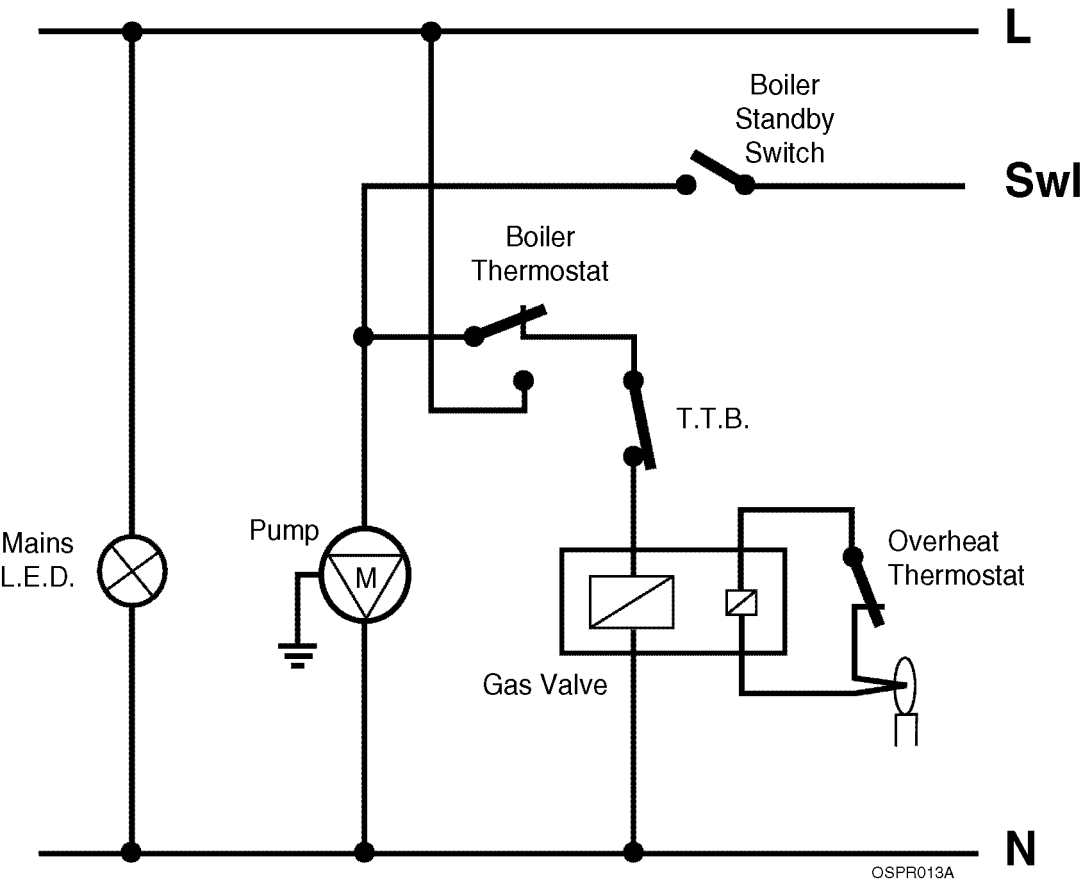
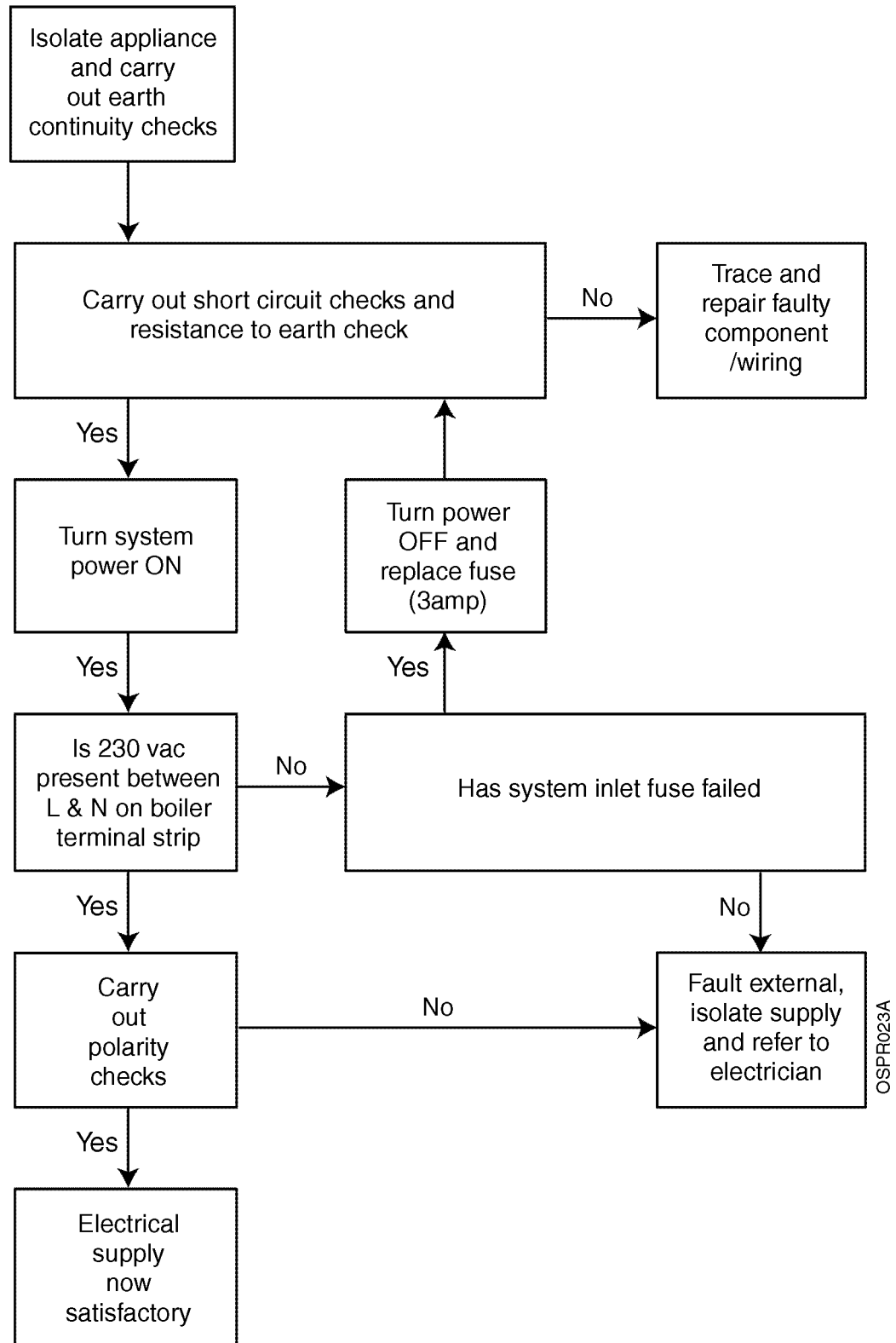


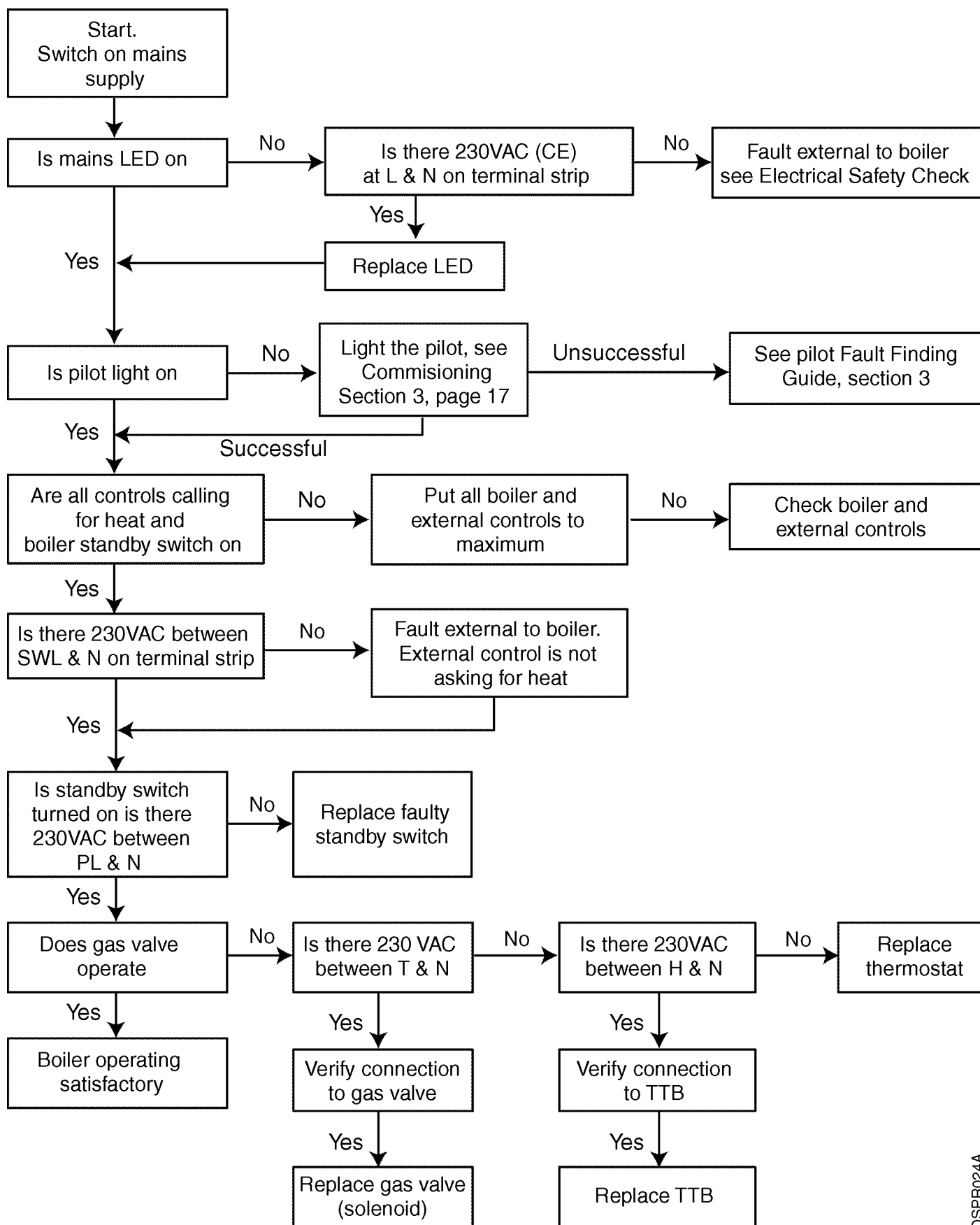
Fig. 18

1. Electrical Safety Checks

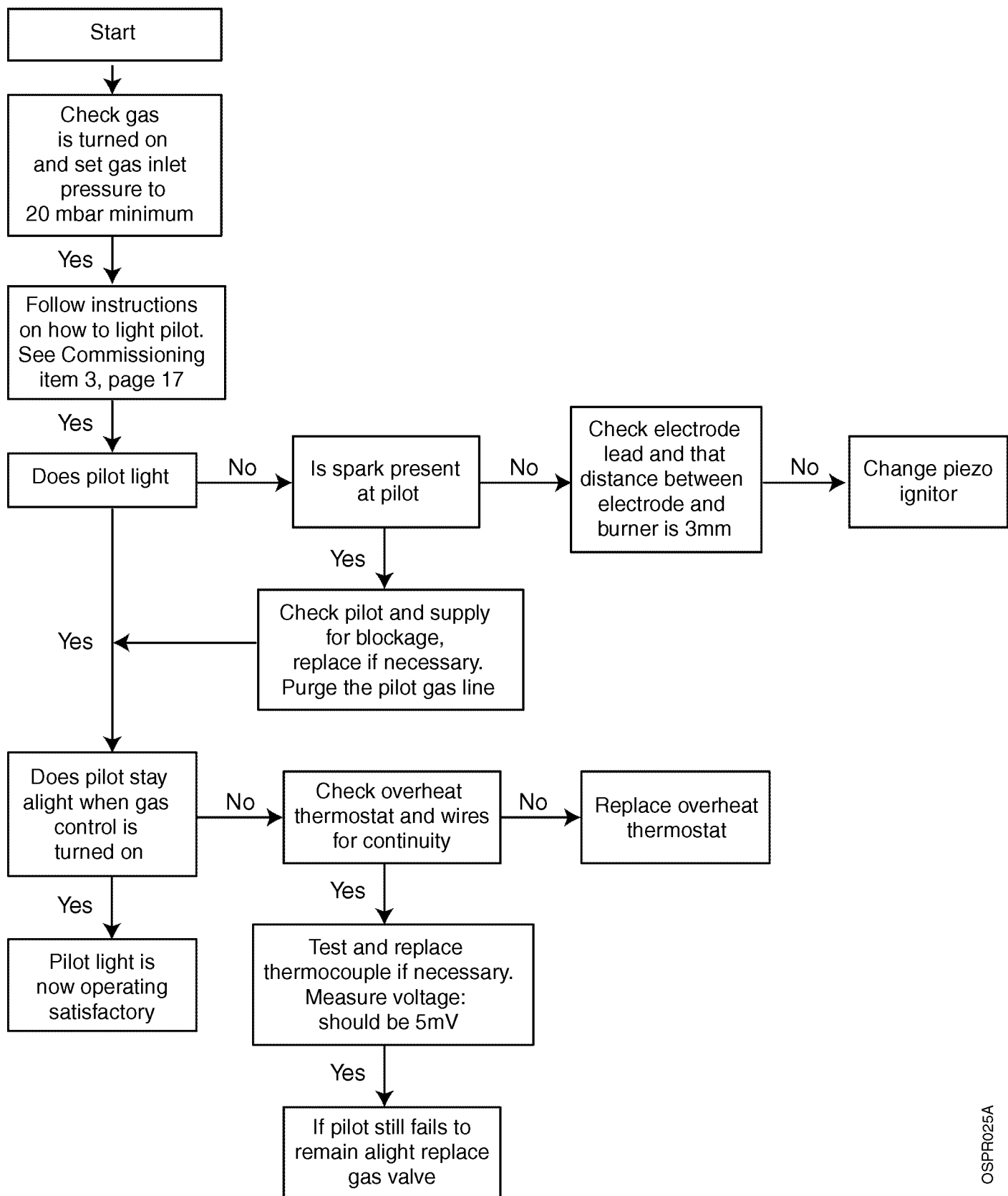


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2. General Fault Finding

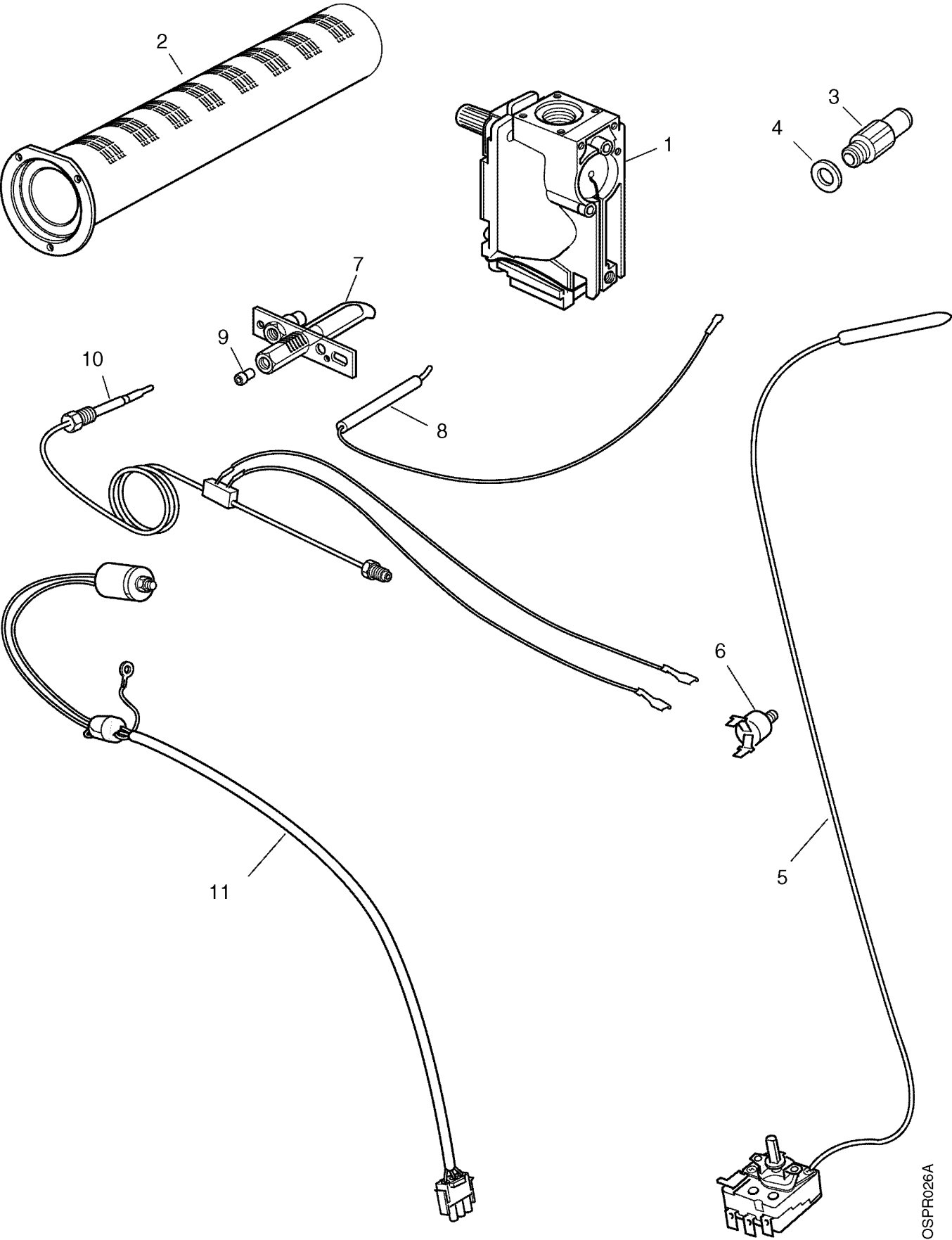


3. Pilot Fault Finding



OSPR025A

Fig. 19



7. Short List Of Spare Parts - Page 30

Item No.	Catalogue No.	Description	Quantity	G. C. No.
1	8000856	Gas Valve - SIT	1	E03-650
2	8000854	Burner Bar - Polidoro	A/R	E03-614
3	8000860	Injector	A/R	E03-653
4	8000859	Injector Washer	A/R	E03-652
5	8000909	Thermostat	1	E03-683
6	8000871	Limit Thermostat	1	E03-718
7	8000830	Pilot Burner	1	E03-639
8	8000832	Spark Electrode	1	E03-631
9	8000835	Pilot Injector	1	E03-643
10	8000838	Thermocouple	1	E03-642
11	8001171	TTB Spillage Thermostat Assembly	1	E03-685

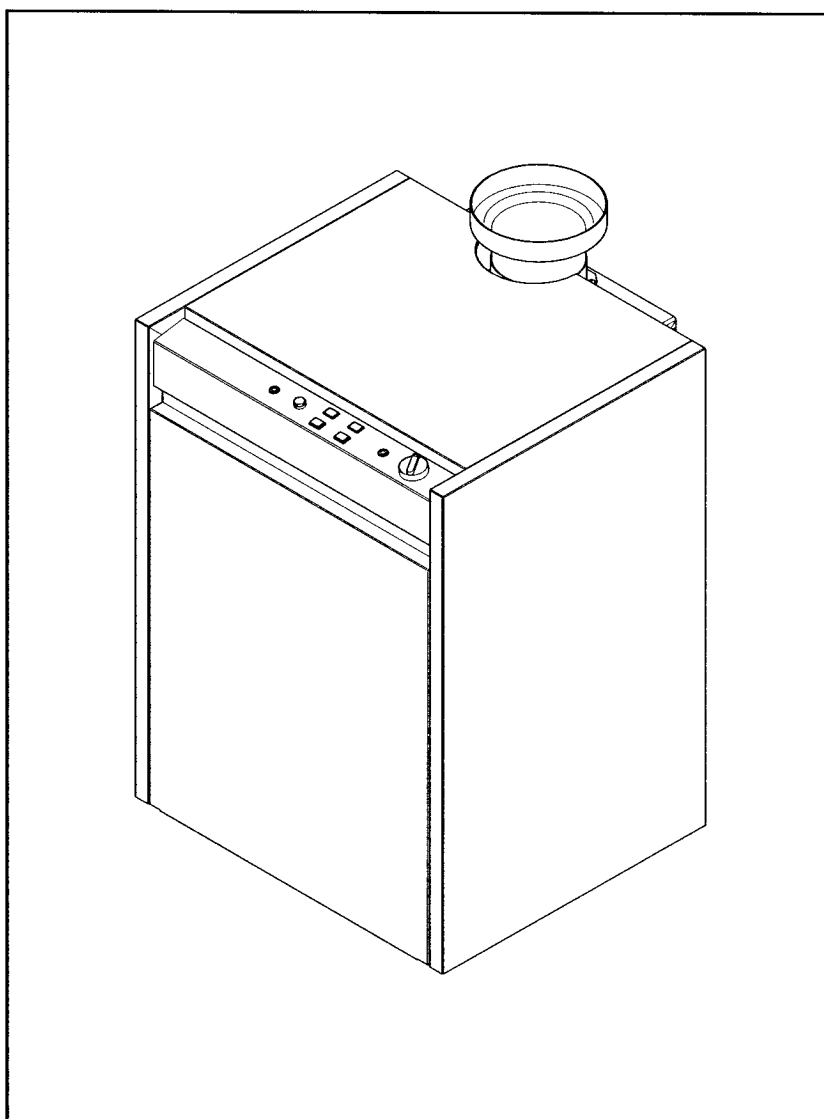
Back Page

POTTERTON

Osprey 2 CFL 125 - 150 - 180 - 220

Gas Fired Floor Standing Boiler

Installation and Servicing Instructions



Please leave these instructions with the user

Natural Gas

Potterton Osprey 2 CFL 125
G.C.N° 41 590 54

Potterton Osprey 2 CFL 150
G.C.N° 41 590 55

Potterton Osprey 2 CFL 180
G.C.N° 41 590 56

Potterton Osprey 2 CFL 220
G.C.N° 41 590 57

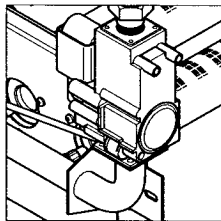
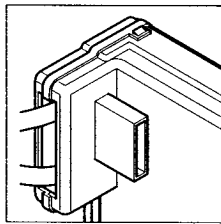
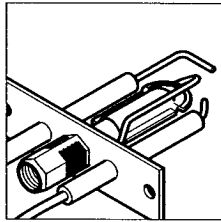


The boiler meets the requirements of Statutory Instrument "The Boiler (Efficiency) Regulations 1993 N° 3083" and is deemed to meet the requirements of Directive 92/42/EEC on the energy efficiency requirements for new hot water boilers fired with liquid or gaseous fuels:-

Type test for purpose of Regulation 5 certified by:
Notified Body 0049.

Product/Production certified by:
Notified Body 0049.

For GB/IE only.



Contents

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2.0 General Layout	5
3.0 Technical Data	6
4.0 Dimensions	7
5.0 System Details	8
6.0 Site Requirements	10
7.0 Installation	13
8.0 Commissioning the Boiler	15
9.0 Servicing the Boiler	17
10.0 Changing Components	19
11.0 Illustrated Wiring Diagram	23
12.0 Fault Finding	24
13.0 Short Parts List	28

NOTE: This appliance must be installed in accordance with the manufacturer's instructions and the regulations in force. Read the instructions fully before installing or using the appliance.

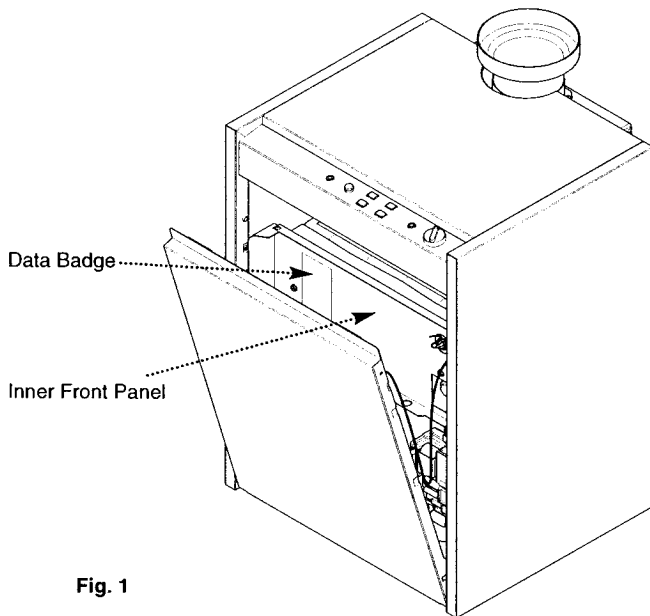


Fig. 1

"Benchmark" Log Book

As part of the industry-wide "Benchmark" initiative all Baxi boilers now include an Installation, Commissioning and Service Record Log Book. Please read the Log Book carefully and complete all sections relevant to the appliance and installation. These include sections on the type of controls employed, flushing the system, burner operating pressure etc. The details of the Log Book will be required in the event of any warranty work. Also, there is a section to be completed at each subsequent regular service visit. The Log Book must be left with the user.

1.0 Introduction

Potterton declare that no substances harmful to health are contained in the appliance or used during appliance manufacture.

1.1 Description

1. The Potterton Osprey 2 CFL is a fully automatic gas fired floor standing conventionally flued boiler with a cast iron heat exchanger.
2. The boiler is designed for use with fully pumped open vented or sealed water systems with an indirect hot water cylinder.
3. The boiler is available in outputs of 35.0, 43.0, 52.8 and 64.5kW
4. It is designed for use on Natural Gas (G20).

IMPORTANT: The boiler cannot be converted for use with LPG.

5. The boiler data badge is positioned on the boiler inner front panel.
6. The boiler is intended to be installed in residential / commercial / light industrial E.M.C. environments on a governed meter supply only.
7. **All systems must be thoroughly flushed and treated with inhibitor (see section 6.2).**

1.2 Installation

1. The appliance is suitable for installation only in G.B. and I.E. and should be installed in accordance with the rules in force. For Ireland install in accordance with I.S.813 "Installation of Gas Appliances". The installation must be carried out by a CORGI Registered Installer or other competent person and be in accordance with the relevant requirements of current Gas Safety (Installation and Use) Regulations, the Building Regulations (Scotland) (Consolidation), the Local Building Regulations, the Current I.E.E. Wiring Regulations and the bye laws of the Local Water Undertaking. Where no specific instructions are given, reference should be made to the relevant BRITISH STANDARD CODES OF PRACTICE.

2.0 General Layout

2.1 Layout

1. Flue Spigot
2. Draught Diverter
3. Cable Clamp
4. Flue Safety Thermostat
5. Flow Connection
6. Return Connection
7. Burner
8. Gas Inlet Connection
9. Burner Ignition Control
10. Boiler Drain and Cap
11. Gas Valve
12. Burner Manifold
13. Pilot Feed Pipe
14. Pressure Test Point
15. Pilot
16. Overheat Thermostat
17. Boiler Thermostat
18. Inner Front Panel
19. Control Panel
20. Cleaning Brush
21. Heat Exchanger
22. Flue Hood
23. Boiler Safety Overheat Neon
24. Flame Failure Neon
25. Burner On Neon
26. Power On Neon
27. Boiler Safety Overheat Reset
28. Flame Failure Reset
29. On/Off Button
30. Temperature Control

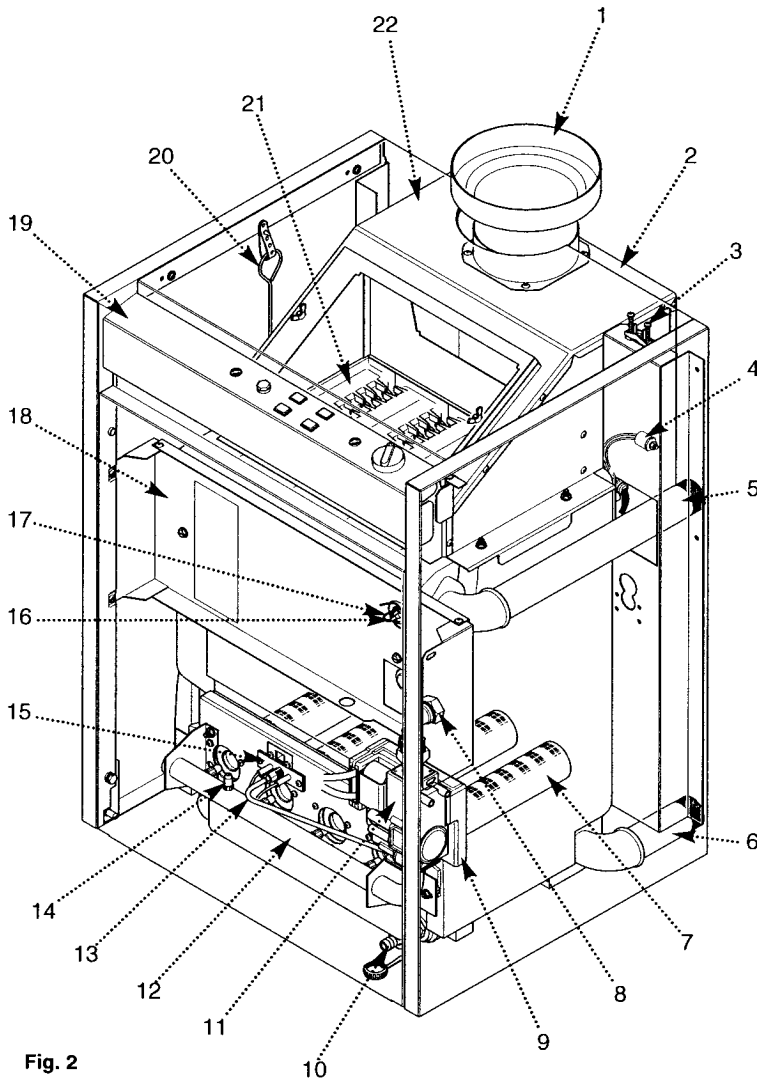


Fig. 2

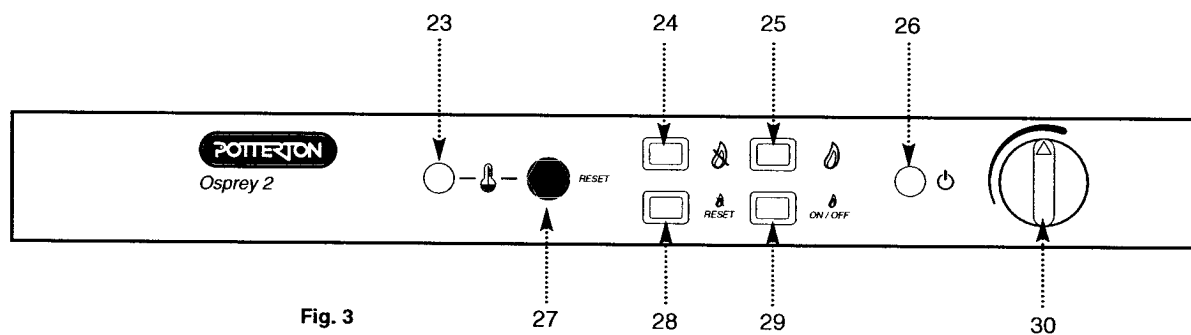


Fig. 3

3.0 Technical Data

Appliance Type		B ₁₁ BS	
Appliance Category		CAT I _{2H}	
Heat Input (gross)		125	150
	kW	43.07	53.28
	Btu/h	146,983	181,827
		180	220
	kW	64.82	79.69
	Btu/h	221,209	271,956
Heat Output		125	150
	kW	35.0	43.0
	Btu/h	119,443	146,745
		180	220
	kW	52.8	64.5
	Btu/h	180,189	220,117
Gas Rate		125	150
	m ³ /h	4.0	5.06
	ft ³ /h	142	179
		180	220
	m ³ /h	6.0	7.3
	ft ³ /h	212	258
Burner Pressure		125	150
	mbar	11.2 ± 0.4	11.4 ± 0.4
		180	220
	mbar	11.0 ± 0.4	11.8 ± 0.4
Inlet Pressure (Natural Gas Only)			
	mbar	20	
	in wg	8	
Burner Injector			
2.6mm Diameter			
Pilot Injector			
0.45mm Diameter			
NO _x Class			
150 & 180	3		
125 & 220	2		
Electrical Supply		230V~ 50Hz	
Power Consumption (excluding pump)		25W	
External Fuse Rating		3A	
External Controls		230V switching	
Electrical Protection		IP20	
(Appliance must be connected to an earthed supply)			

SEDBUK Declaration For Potterton Osprey 2 CFL

The seasonal efficiency (SEDBUK)

125: 78.6 %

150: 78.1 %

180: 78.7 %

220: 78.0 %

This value is used in the UK Government's Standard Assessment Procedure (SAP) for energy rating of dwellings. The test data from which it has been calculated have been certified by 0049.

Connections

Gas Supply	- 22mm compression
Flow	- 1 1/4" steel pipe, taper thread
Return	- 1 1/4" steel pipe, taper thread

Clearances

LH Side	150mm Min
RH Side	150mm Min
Top	700mm Min
Front	700mm Min
Rear	200mm Min

Weights

	kg
125	140
150	170
180	200
220	230

Recommended System

Temperature Drop	11°C	20°F
------------------	------	------

Maximum Flow Temperature

85°C

Outer Case Dimensions

Casing Height	- 850mm
Casing Width (125)	- 600mm
Casing Width (150)	- 695mm
Casing Width (180)	- 790mm
Casing Width (220)	- 885mm
Casing Depth (125/150)	- 600mm
Casing Depth (180/220)	- 650mm

Water Content

	litres
125	24
150	29
180	33
220	38

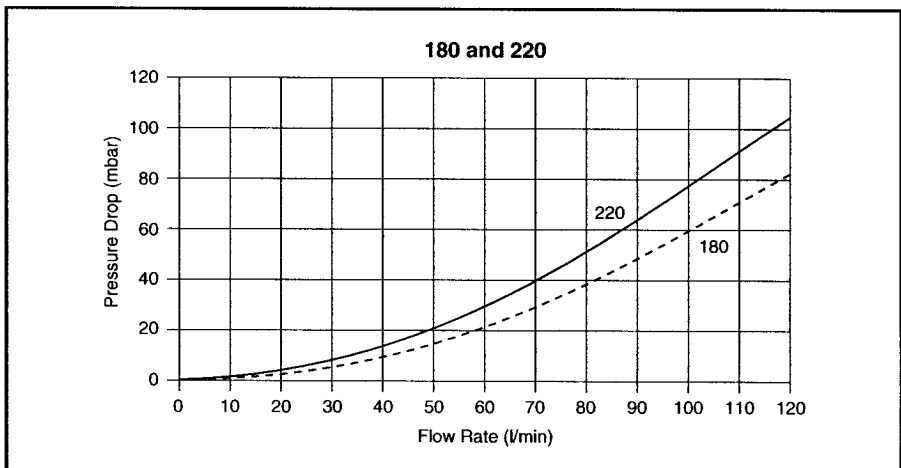
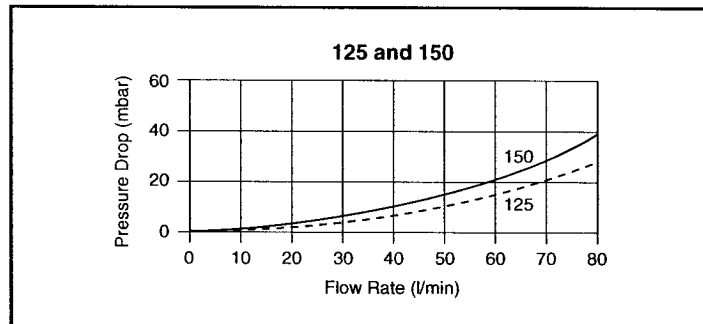
Working Head

Minimum	0.5m
Maximum	30m (3 bar)

Flue Spigot Diameter

125/150	184mm
180/220	241mm

Hydraulic Resistance Charts



4.0 Dimensions

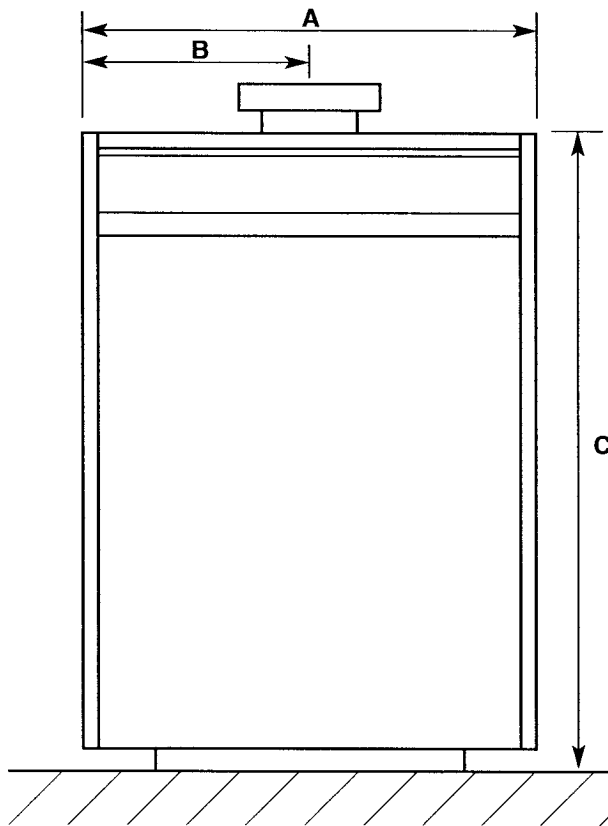


Fig. 4

Front

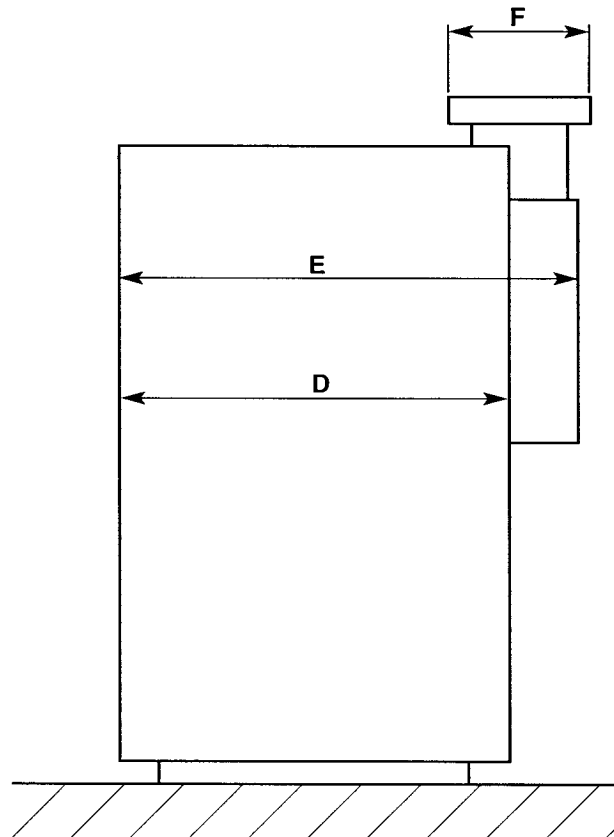


Fig. 5

Side

	Dimensions (mm)					
Model	A	B	C	D	E	F
125	600	332.5	850	511	600	184
150	695	380	850	511	600	184
180	790	427.5	850	511	650	241
220	885	475	850	511	650	241

5.0 System Details

5.1 Primary Circuit

1. The appliance is suitable for fully pumped systems only. The system can be open vented or sealed.

2. A sealed system must incorporate the following:-

- Safety Valve
- Pressure Gauge
- Expansion Vessel
- Filling Point

Reference must be made to the specific sections of BS5449 relating to sealed systems.

Treatment of Water Circulating Systems

• All recirculatory water systems will be subject to corrosion unless an appropriate water treatment is applied. This means that the efficiency of the system will deteriorate as corrosion sludge accumulates within the system, risking damage to pump and valves, boiler noise and circulation problems.

• For optimum performance after installation this boiler and its associated central heating system must be flushed in accordance with the guidelines given in BS 7593 "Treatment of water in domestic hot water central heating systems".

• This must involve the use of a proprietary cleanser, such as BetzDearborn Sentinel X300 or X400, or Fernox Superfloc. Full instructions are supplied with the products, but for immediate information please contact BetzDearborn (0151 420 9563) or Fernox (01799 550 811) directly.

• For long term protection against corrosion and scale, after flushing it is recommended that an inhibitor such as BetzDearborn Sentinel X100, or Fernox MB-1 or Copal is dosed in accordance with the guidelines given in BS 7593.

Failure to flush and add inhibitor to the system may invalidate the appliance warranty.

• It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the manufacturer's instructions. (Test kits are available from inhibitor stockists.)

• For information or advice regarding any of the above contact the Potterton Helpline.

5.0 System Details

5.2 Bypass

1. The boiler is fitted with a pump overrun device which allows the removal of residual heat from the boiler. The system design must therefore always provide an open circuit to allow water circulation between the boiler flow and return.
 2. Any bypass must be capable of allowing a minimum flow rate of 8l/min and be able to dissipate at least 2kW.
-

5.3 System Control

1. The boiler is intended for use in a heating system that incorporates external controls, i.e. a minimum of a timer device.
 2. For optimum operating conditions and maximum economy the fitting of room and cylinder thermostats is recommended.
 3. The boiler should be controlled so that it operates on demand only.
-

6.0 Site Requirements

6.1 Information

1. The installation must be carried out by a CORGI Registered Installer or other registered competent person and be in accordance with the relevant requirements of the current Gas Safety (Installation and Use) Regulations, the Building Regulations (Scotland)(Consolidation), the Local Building Regulations, the current I.E.E. Wiring Regulations and the bye laws of the Local Water Undertaking. Where no specific instruction is given reference should be made to the relevant British Standard Codes of Practice. For Ireland install in accordance with IS 813 "Installation of Gas Appliances".

6.2 B.S. Codes of Practice

STANDARD	SCOPE
B.S. 6891	Gas Installation.
B.S. 5440: Pt 1	Flues.
B.S. 5440: Pt 2	Ventilation
B.S. 5546	Installation of hot water supplies for domestic purposes.
B.S. 7074	Expansion vessels and ancillary equipment for sealed water systems.
B.S. 5449	Forced circulation hot water systems.
B.S. 6798	Installation of gas fired boilers.

WARNING - The addition of anything that may interfere with the normal operation of the appliance without the express written permission of Potterton could invalidate the appliance warranty and infringe the Gas Safety (Installation and Use) Regulations.

6.3 Clearances (Fig. 6 & 7)

1. Minimum clearances must be provided around the boiler as follows:-

Each Side	-	150mm
Top	-	700mm
Front	-	700mm
Rear	-	200mm

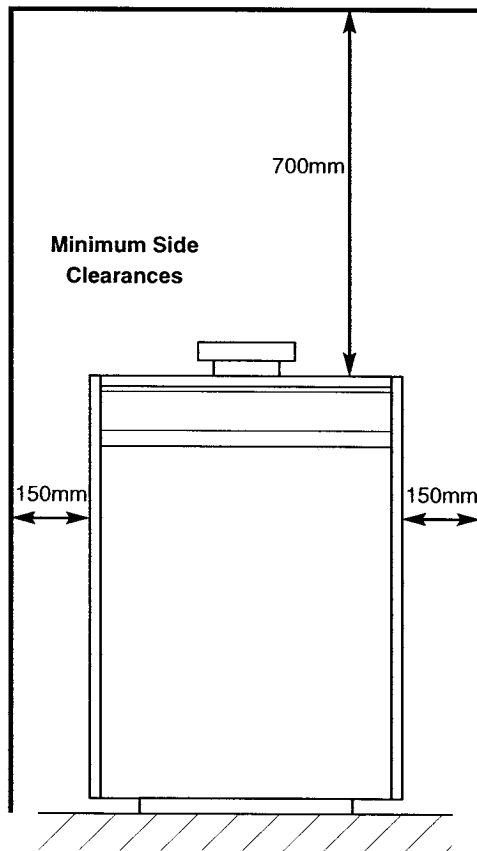


Fig. 6

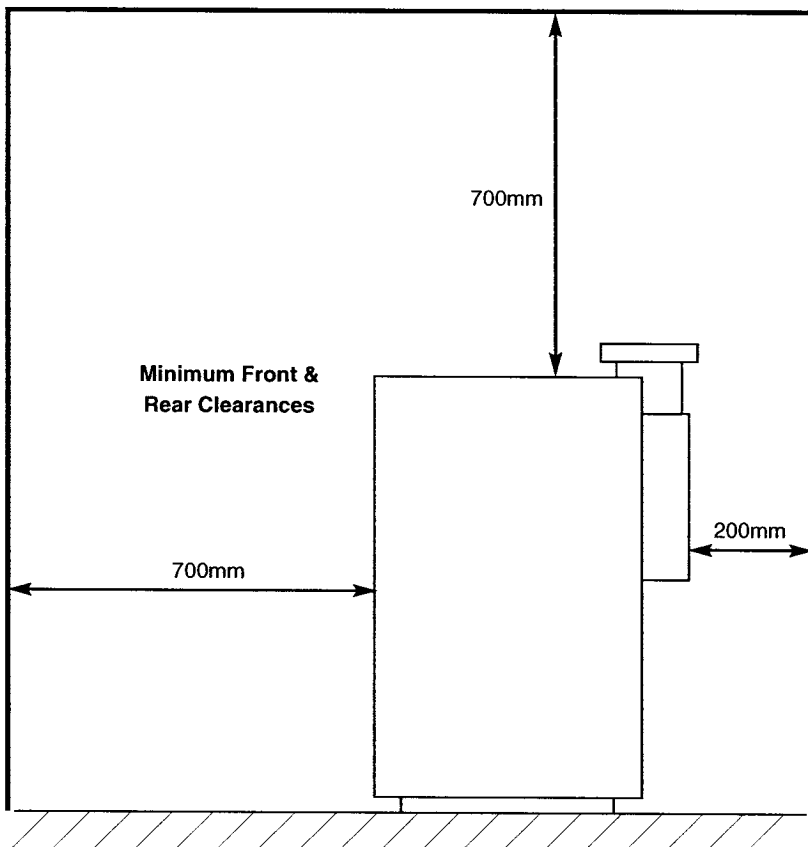
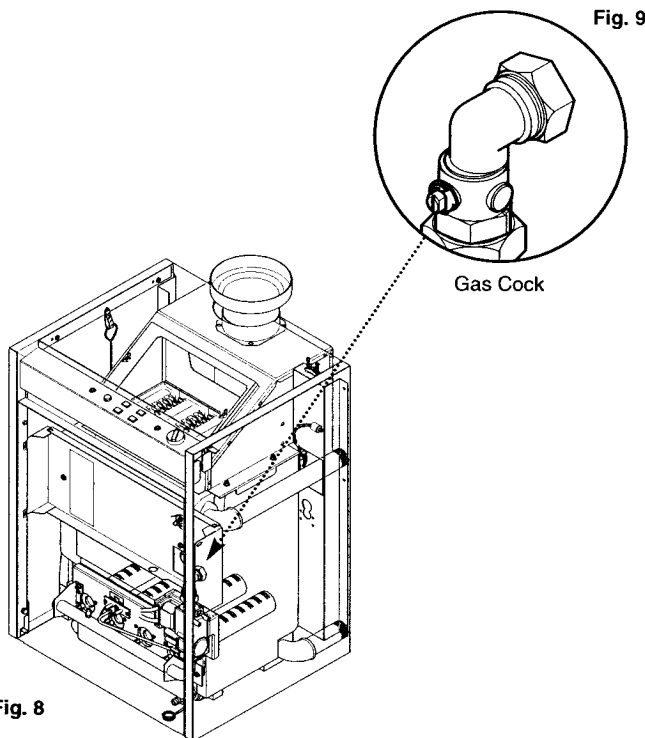


Fig. 7

6.0 Site Requirements

6.4 Location

1. The boiler must be positioned on a flat and level floor or base which must be capable of supporting the full operational weight of the boiler. The flue must pass through an outside roof or wall and discharge to atmosphere in a position permitting satisfactory removal of combustion products.
2. The boiler should be fitted within the building unless otherwise protected by a suitable enclosure i.e. garage or outhouse. (The 120 and 150 boilers may be fitted inside a cupboard - see Section 6.7).
3. If the boiler or any part of the system is located in an area that may be subjected to low ambient temperatures, it is recommended that a suitable frost protection device is incorporated into the control system.
4. If the boiler is fitted in a room containing a bath or shower reference must be made to the current I.E.E. Wiring Regulations and Building Regulations. If the boiler is to be fitted into a building of timber frame construction then reference must be made to the current edition of Institute of Gas Engineers Publication IGE/UP/7 (Gas Installations in Timber Framed Housing).



6.5 Gas Supply (G20 only)

1. The gas installation should be in accordance with BS6891.
2. The connection to the appliance is a 22mm copper tail. This is connected to the gas service cock (Fig. 9).
3. Ensure that the pipework from the meter to the appliance is of adequate size. Do not use pipes of a smaller diameter than the boiler gas connection (22mm).

6.6 Electrical Supply

1. External wiring must be correctly earthed, polarised and in accordance with current I.E.E. Wiring Regulations.
2. The mains supply is 230V ~ 50Hz fused at 3A.

NOTE: The method of connection to the electricity supply must facilitate complete electrical isolation of the appliance.

Connection may be via a fused double-pole isolator with a contact separation of at least 3mm in all poles and servicing the boiler and system controls only.

6.0 Site Requirements

6.7 Flues & Ventilation

1. The room or space of installation must be ventilated to ensure the correct and safe operation of the boiler.
2. 125 and 150 models require one air vent, at high or low level. High and low level vents are required for 180 and 220 models. The vents must have a free area as follows:-

125 models	163cm ²
150 models	208cm ²
180 models	281cm ² (high)
180 models	562cm ² (low)
220 models	315cm ² (high)
220 models	630cm ² (low)

3. The vent(s) must communicate directly between outside and the room or space of installation, or using suitable ducting (all models) or indirectly via an opening of at least the same area (125 and 150 models only).

4. 125 and 150 models may be fitted in a cupboard or compartment within the room or space of installation providing the cupboard or compartment is ventilated as follows:-

125 models	388cm ² (high)
125 models	776cm ² (low)
150 models	478cm ² (high)
150 models	956cm ² (low)

Both vents must communicate with the same room or be on the same wall to outside air.

5. **180 and 220 models cannot be fitted in a compartment except of the type specified in BS6644 using a monodraught system.**

6. The flue system should be lined throughout its length.

7. Minimum flue length is 1m. There should be at least 1m of vertical flue from the boiler flue socket, and horizontal runs and 90° bends should be avoided.

8. If an existing chimney is used it must be fully swept before lining or connecting the boiler. Precautions should be taken to avoid condensation forming in the flue.

9. The flue diameter must be at least the same diameter as the connection on the boiler draught diverter.

10. A short length of purpose made flue may be required to connect the boiler flue spigot to the flue system.

11. The flue terminal must be of an approved type and be positioned above roof level.

7.0 Installation

7.1 Initial Preparation

The gas supply, gas type (G20 only) and pressure must be checked for suitability before connection.

1. Ensure that the floor or base on to which the boiler is to be fitted is clean and free from debris.
2. Install any pipework that will be behind the boiler, and any appropriate flue components.
3. Manoeuvre the boiler into position, seeking assistance as necessary. Check the clearances as shown in Section 6.3.
4. Undo the two securing screws and remove the top panel.
5. Disengage the front panel from the retaining magnets and hinge forwards. Unhook the panel from the lower hinge pins (Fig. 10) and place to the right hand side, taking care not to stretch the earth wire.
6. Remove the flue spigot from inside the case and fit it to the boiler draught diverter (Fig. 11). **Important: Only use the flue spigot supplied. Do not use a proprietary item.**
7. Connect the gas supply pipe and the system flow and return connections to the boiler (Fig. 12).
8. Connect the flue system to the flue spigot. Any flue pipe must be at least the same diameter as the connection on the boiler draught diverter

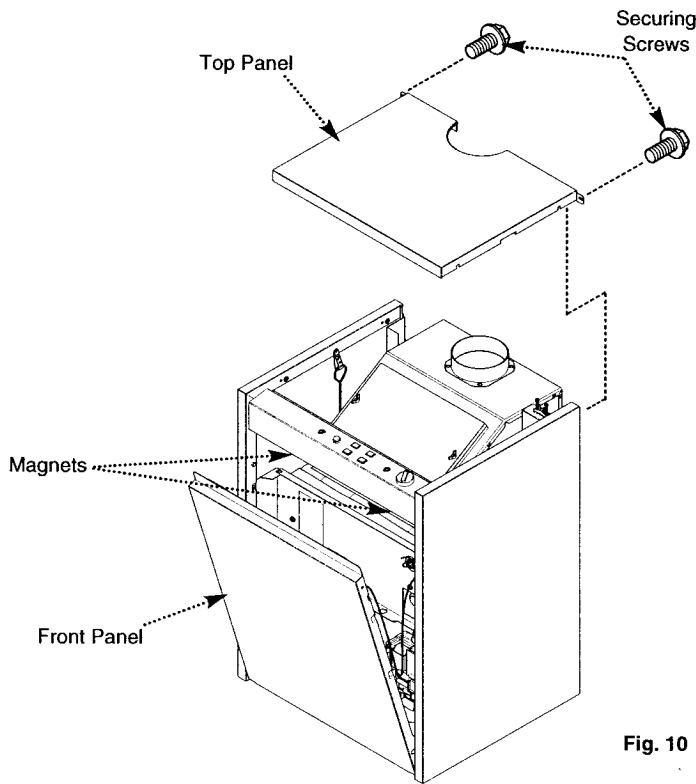


Fig. 10

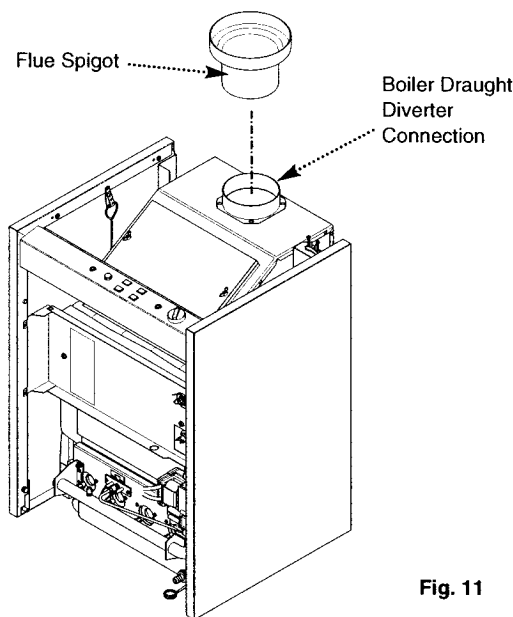


Fig. 11

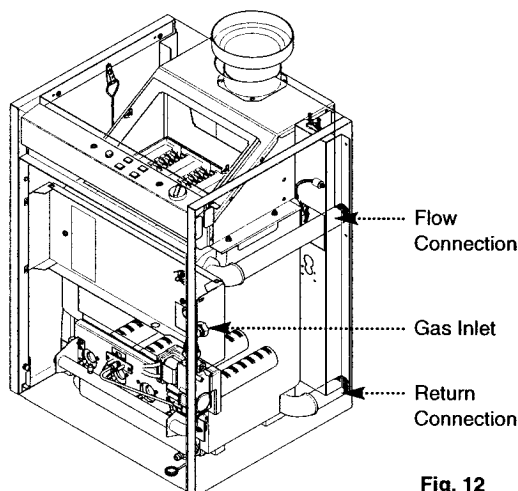


Fig. 12

7.0 Installation

7.2 Making the Electrical Connection

1. Undo the two securing screws from the rear of the top panel. Remove the panel (Fig. 13).
2. Swivel the two retaining plates through 90°. Lift the control box slightly and allow it to hinge forwards (Figs. 14 & 15). Undo the two retaining screws and remove the cover panel.
3. The input wiring to the boiler and the pump feed from the boiler should be routed through the grommet/clamps in the control box rear panel (Fig. 16).
4. Remove the clamps from the panel and slit the grommets with a suitable knife or blade.
5. Determine the length of the wiring and secure in the clamps.
6. Connect live, neutral, earth, and switched live to L, N, \div & SL of the terminal strip. The pump live, neutral and earth should be connected to PL, PN & \div of the terminal strip (Fig. 17).

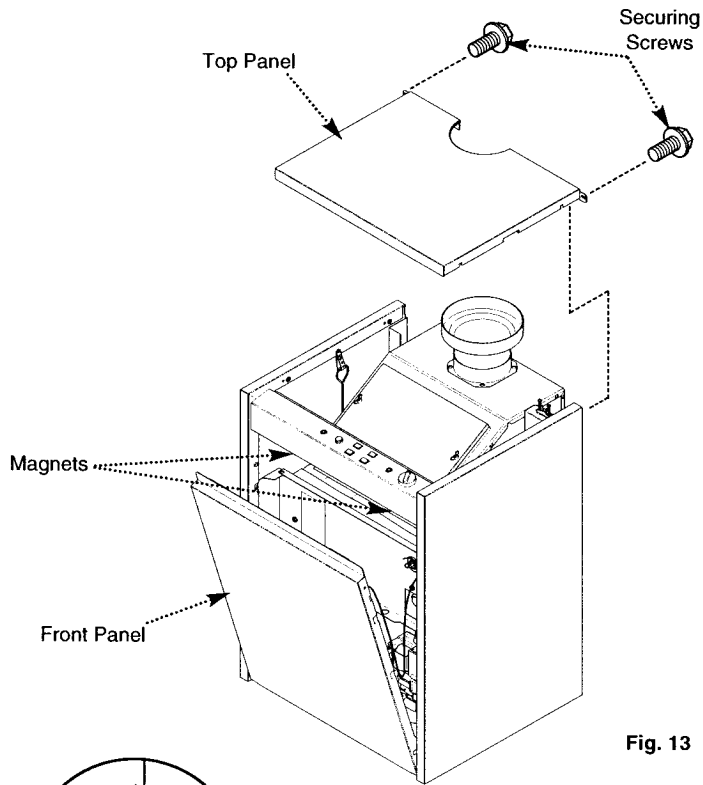


Fig. 13

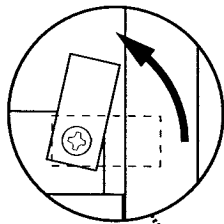


Fig. 14

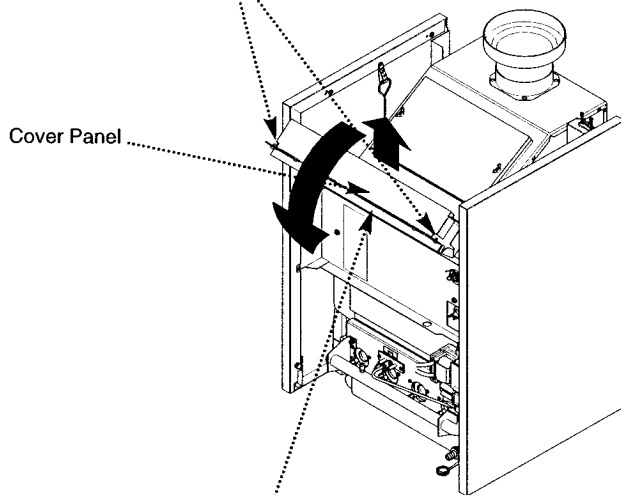


Fig. 15

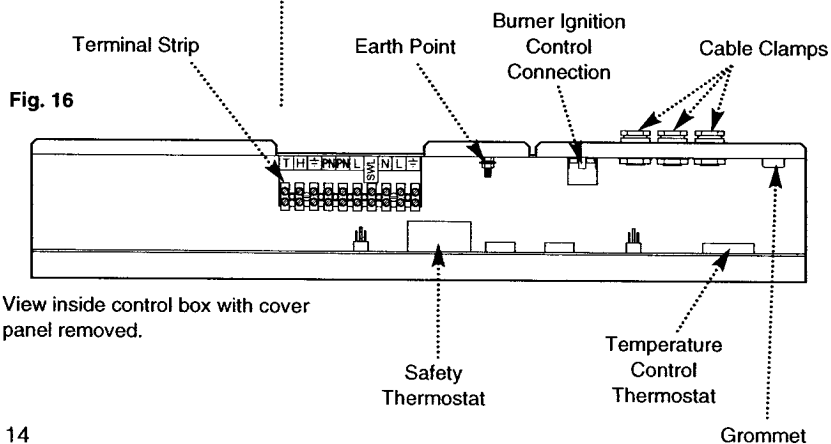


Fig. 16

View inside control box with cover panel removed.

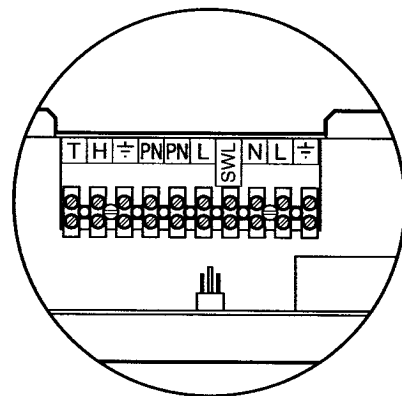


Fig. 17

Terminal Strip

8.0 Commissioning the Boiler

8.1 Commissioning the Boiler

1. Reference should be made to BS 5449 Section 5 when commissioning the boiler.
2. Open the water supply to the boiler.
3. The system must be flushed in accordance with BS 7593, Section 5.1 of these instructions and the flushing agent manufacturers instructions.
4. Turn the gas supply on and purge the system according to BS 6891.
5. Test for gas soundness.

8.2 Checking the Burner Pressure

1. Slacken the pressure test point sealing screw and connect a pressure gauge (Fig. 19).
2. Turn on the gas and electrical supplies to the boiler and ensure that all external controls are calling for heat.
3. Set the temperature control to maximum (Fig. 18).
4. Check the burner setting pressure (see Section 4.0 "Technical Data").
5. If necessary adjust the pressure by removing the gas valve governor cover and turning the screw to achieve the required pressure (Fig. 20).
5. Turn the boiler off and reassemble in reverse order. Tighten the pressure test point sealing screw (Fig. 19).

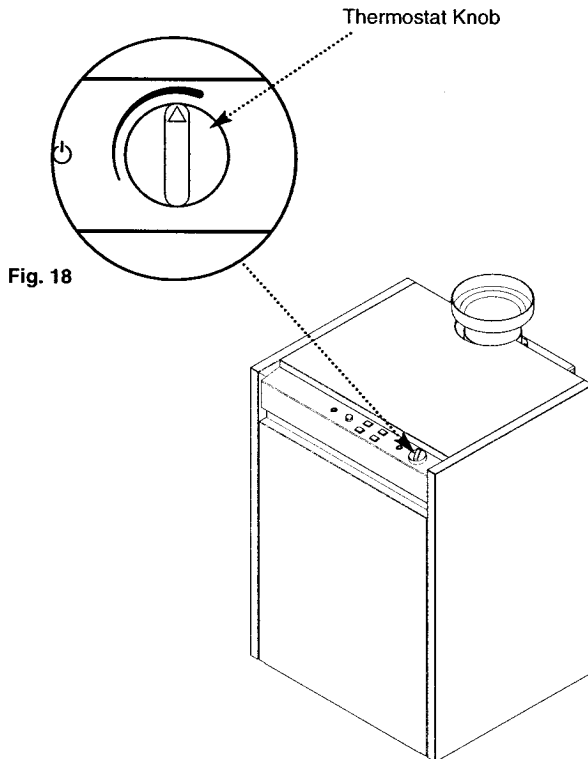


Fig. 18

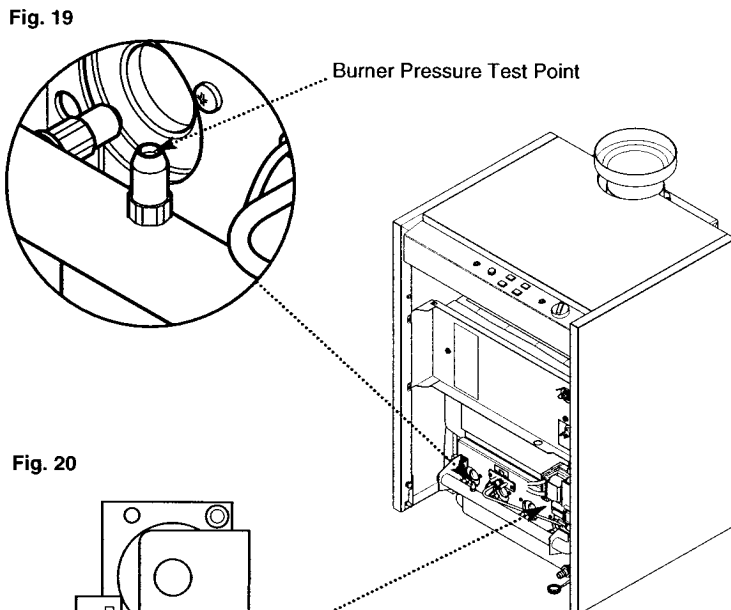


Fig. 19

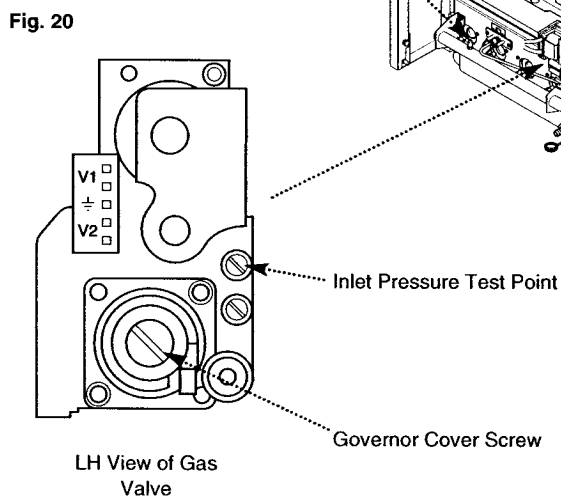


Fig. 20

8.0 Commissioning the Boiler

8.3 Completion

1. Flush the system again and treat it in accordance with BS7593, Section 5.1 of these instructions and the flushing agent and inhibitor manufacturer's instructions.
2. Carefully read and complete all sections of the "Benchmark" Installation, Commissioning and Service Record Log Book that are relevant to the appliance and installation. The details of the Log Book will be required in the event of any warranty work. The Log Book must be handed to the user for safe keeping and each subsequent regular service visit recorded.
3. Instruct the user in the operation of the boiler controls and the function and resetting of the various safety devices
4. Hand over the User's Operating, Installation and Servicing Instructions and the Log Book, giving advice on the necessity of regular servicing.
5. Refit the outercase front and top panels (Fig. 21).

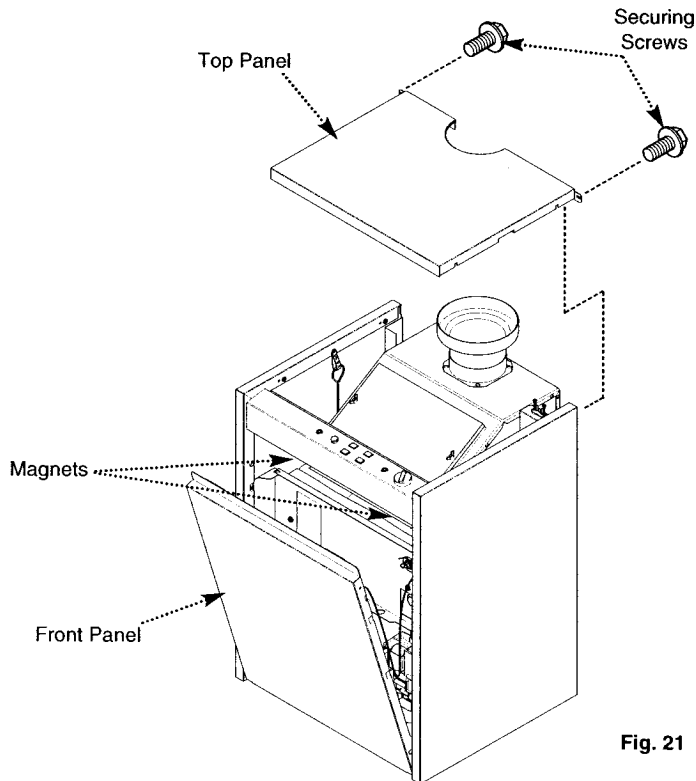


Fig. 21

9.0 Servicing the Boiler

9.1 Annual Servicing

1. For reasons of safety and economy, it is recommended that the boiler is serviced annually. Servicing must be performed by a competent person.

2. After servicing, complete the relevant section of the "Benchmark" Installation, Commissioning and Service Record Log Book. This should be in the possession of the user.

3. Ensure that the boiler is cool.

4. Ensure that both the gas and electrical supplies to the boiler are isolated.

5. Undo the two securing screws from the rear of the top panel. Remove the panel (Fig. 22).

6. Disengage the front panel from the retaining magnets and hinge forwards. Unhook the panel from the lower hinge pins (Fig. 22) and place to the right hand side, taking care not to stretch the earth wire.

7. Undo the wing nuts securing the combustion box top panel (Fig. 23). Remove the panel.

8. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve (Fig. 24).

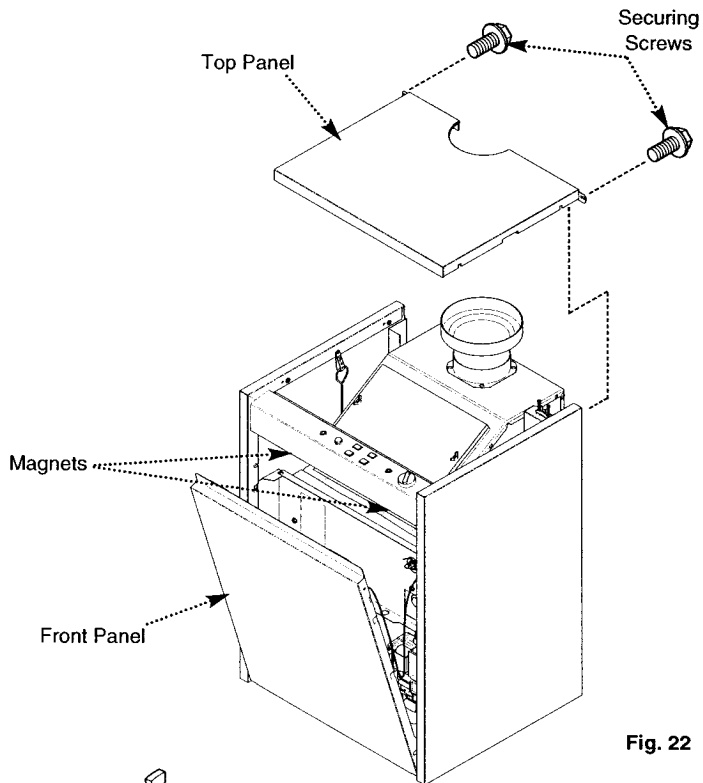


Fig. 22

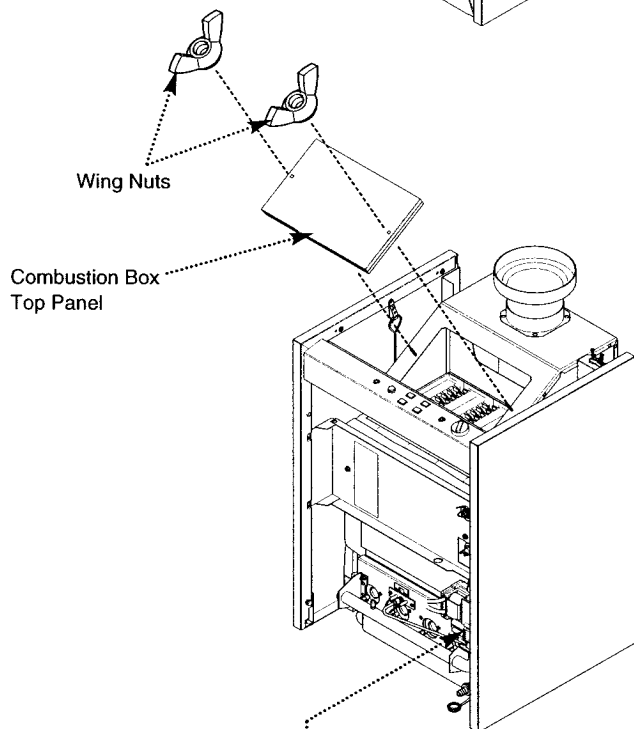


Fig. 23

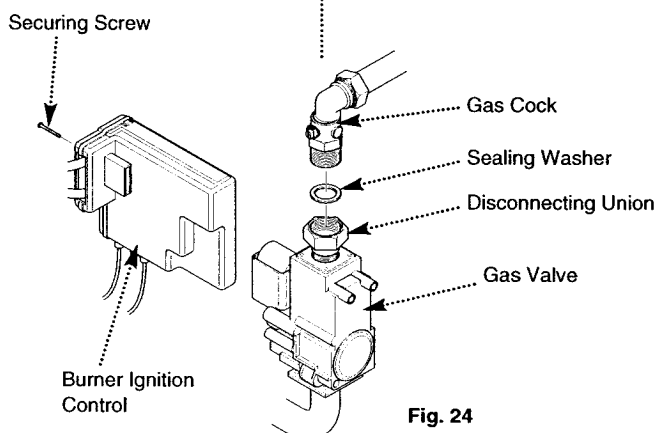


Fig. 24

9.0 Servicing the Boiler

9.1 Annual Servicing (Cont)

9. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler (Figs. 25 & 27).

10. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.

11. Brush any dirt or debris from the burner skins. Examine the burners for blocked ports. Any blockage can be removed using a fine wire brush.

12. Inspect the pilot assembly, electrodes and injectors (Fig. 26). Replace if necessary.

13. Ensure that the spark and sensing leads are clipped into the separation brackets and do not cross over each other.

14. Slide a suitable sheet of paper or cloth under the boiler heat exchanger (Fig. 29).

15. Unclip the brush from the top edge of the left hand side panel clean between the boiler fins (Fig. 28 & 29). Check for any blockage.

16. Carefully withdraw the sheet and dispose of in a proper manner. Check under the boiler and remove any fallen dirt or debris.

17. Reassemble in reverse order of dismantling and recommission.

18. Complete the relevant section of the "Benchmark" Installation, Commissioning and Service Record Log Book and hand it back to the user.

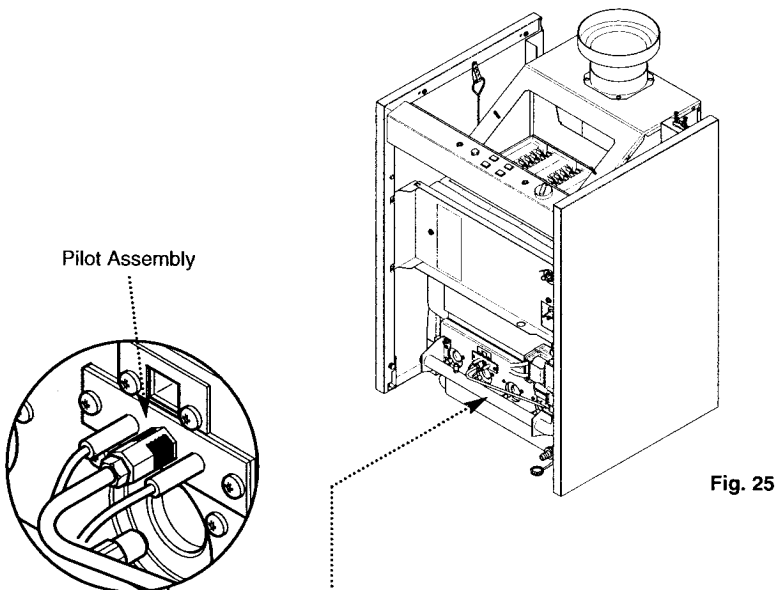


Fig. 25

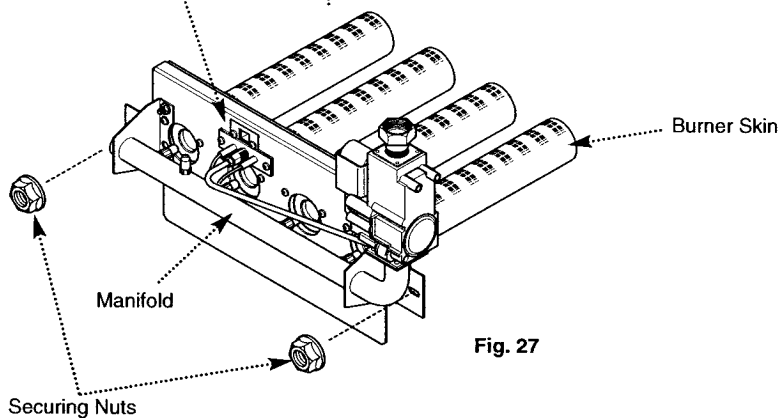


Fig. 27

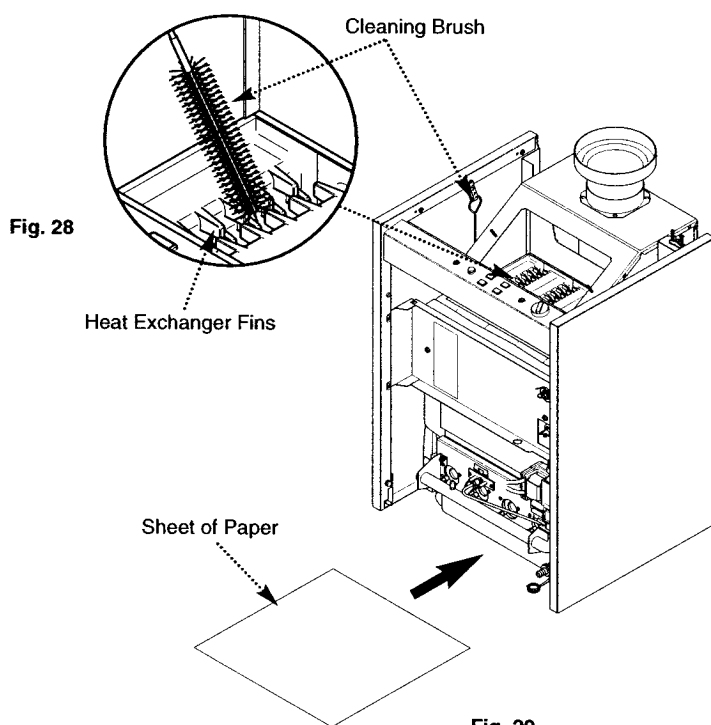


Fig. 29

10.0 Changing Components

IMPORTANT: When changing components ensure that both the gas and electrical supplies to the boiler are isolated before any work is started.

Undo the two securing screws from the rear of the top panel. Remove the panel (Fig. 30).

Disengage the retaining magnets at the top of the front panel and hinge forwards. Unhook the panel from the lower hinge pins (Fig. 30).

10.1 Boiler Thermostat

1. Swivel the two retaining plates (Fig. 31) through 90°. Lift the control box slightly and allow it to hinge forwards. Undo the two retaining screws and remove the cover panel (Fig. 32).

2. After noting their position remove the wires from the thermostat body. Turn the thermostat knob fully anticlockwise and pull it off (Fig. 33).

3. Remove the screws securing the thermostat to the control panel and pull off the earth wire (Fig. 34).

4. Pull the spring clip off the thermostat pocket. Withdraw both the boiler and overheat thermostat phials and the spacer tube from the pocket (Fig. 33).

5. Take the new thermostat and turn the operating shaft fully anticlockwise.

6. Reassemble in reverse order. The securing screw incorporating the pin must be used on the right (Fig. 34). Ensure both phials and the spacer tube are pushed fully into the thermostat pocket and the capillaries are retained by the clip.

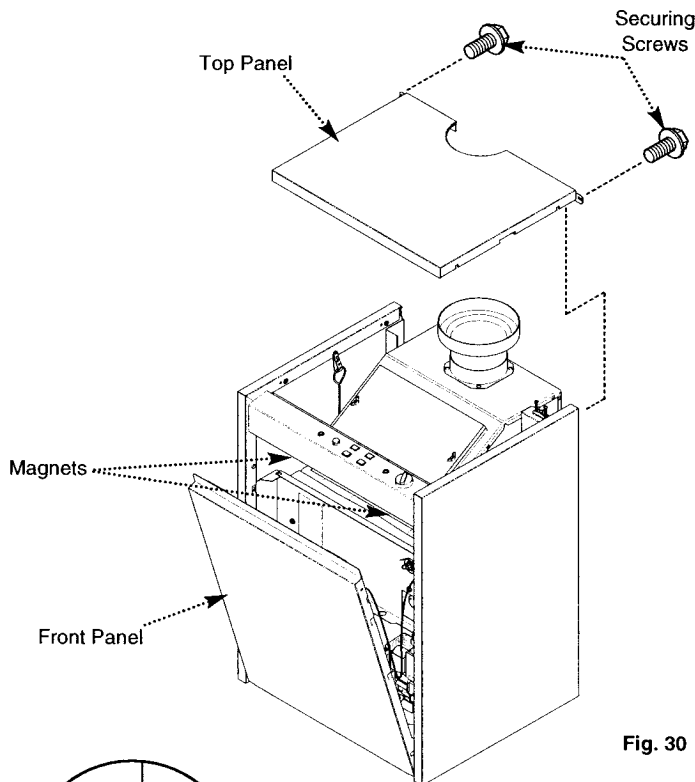


Fig. 30

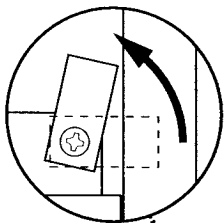


Fig. 31

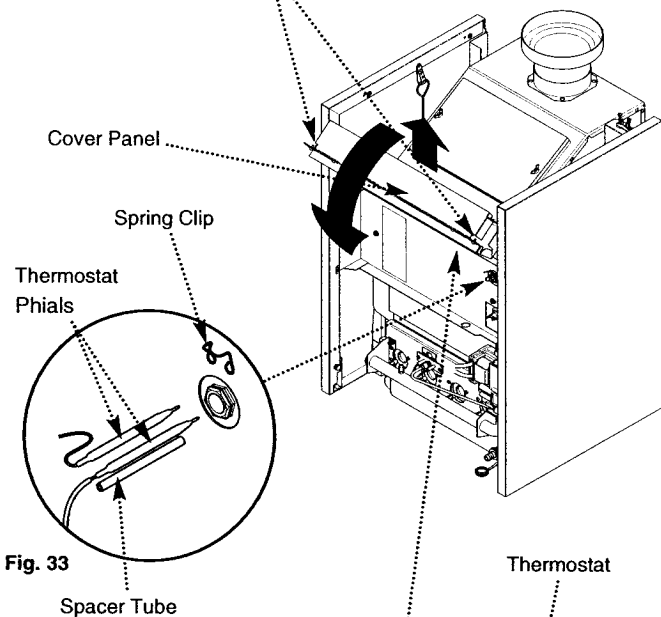


Fig. 32

Fig. 33

Spacer Tube

Control Knob

Securing Pin Screw

Securing Screw

Thermostat

Earth Wire

Fig. 34

10.0 Changing Components

10.2 Boiler Safety Thermostat

1. Swivel the two retaining plates through 90°. Lift the control box slightly and allow it to hinge forwards. Undo the two retaining screws and remove the cover panel (Figs. 35 & 37).
2. After noting their position pull the wires from the thermostat body (Fig. 38).
3. Remove the locknut securing the thermostat to the control panel (Fig. 38).
4. Pull the spring clip off the thermostat pocket. Withdraw both the boiler and overheat thermostat phials and the spacer tube from the pocket (Fig. 36).
5. Reassemble in reverse order, ensuring both phials and the spacer tube are pushed fully into the thermostat pocket and the capillaries are retained by the clip.

10.3 Gas Valve

1. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve (Fig. 39).
2. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler (Fig. 40).
3. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.
4. Undo the pilot feed pipe from the gas valve, and slacken it at the pilot burner to allow it to swing clear.
5. Undo the four screws securing the gas valve to the injector manifold. Remove the valve and seal (Fig. 41).
6. Check the condition of the seal previously removed before fitting the new valve to the injector manifold. Replace as necessary.
7. Reassemble in reverse order and check the condition of the seal to be used on the disconnecting union. Replace as necessary.

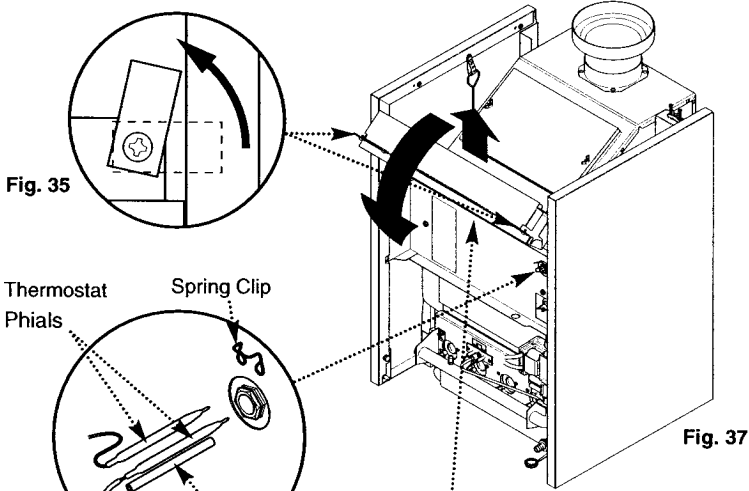


Fig. 35

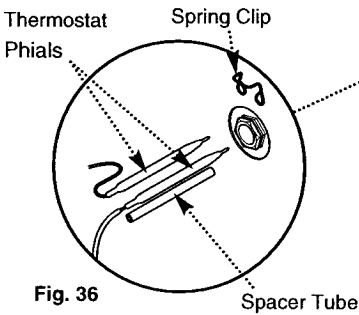


Fig. 36

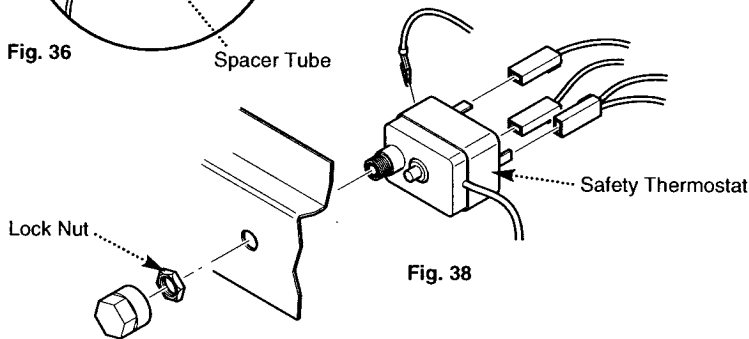


Fig. 37

Fig. 38

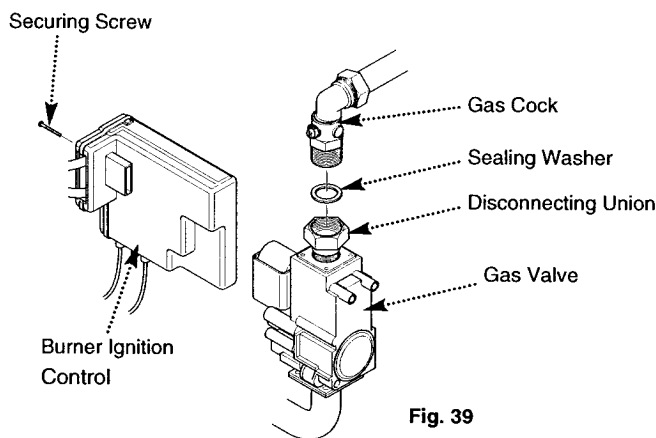


Fig. 39

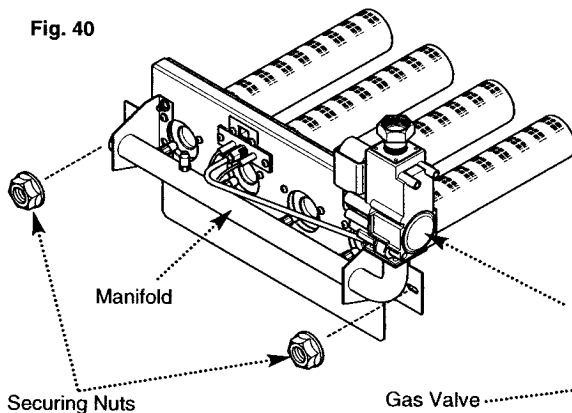


Fig. 40

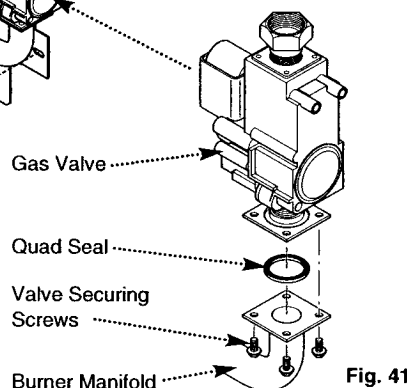


Fig. 41

10.0 Changing Components

10.4 Burner(s)

1. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve (Fig. 43).

2. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler.

3. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.

4. Carefully draw the insulation piece away over the burners (Fig. 44).

5. Undo the screws securing the burner(s) to be replaced. Remove the burner(s) (Fig. 44).

6. Reassemble in reverse order, replacing the insulation piece if it is damaged.

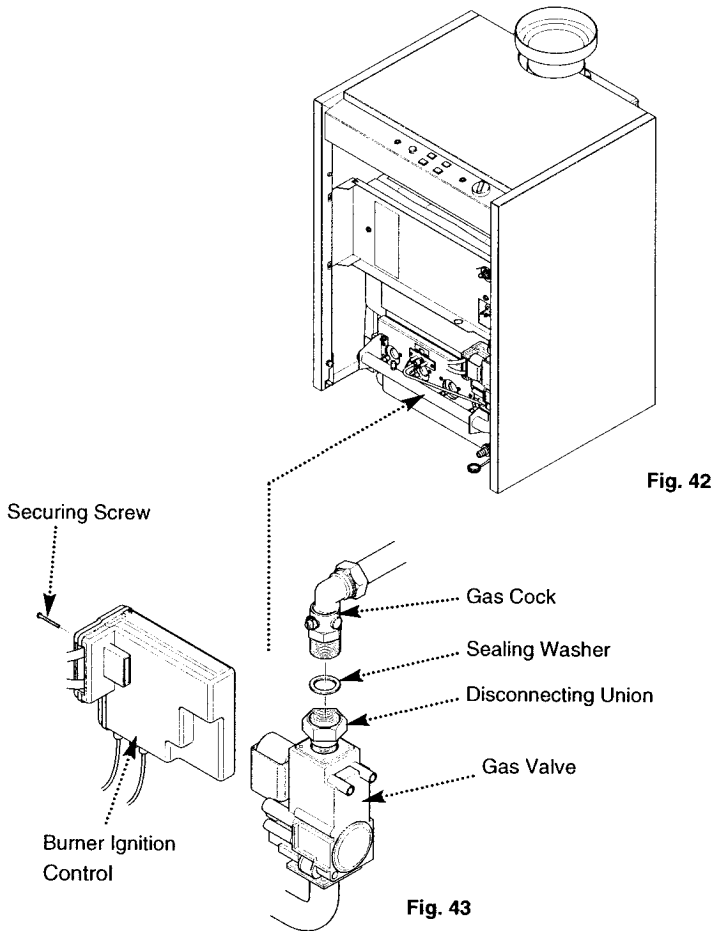


Fig. 42

Fig. 43

10.5 Injector(s) (Figs. 44 & 45)

1. Using a suitable spanner undo from the manifold the injector(s) to be replaced.

2. Reassemble in reverse order using a new sealing washer for each injector.

10.6 Pilot Assembly

1. Disconnect and remove the pilot feed pipe. Pull the electrode leads off the gas valve burner ignition control and unclip them from the separation brackets.

2. Undo the pilot bracket securing screws. Withdraw the bracket from the burner mounting plate. Carefully remove the pilot injector from the bracket (Figs. 44 & 46).

3. Inspect the injector and replace if it is blocked or damaged. Check the condition of the pilot bracket sealing gasket and replace if necessary.

4. The new pilot assembly must be fitted as shown, with the spark electrode to the right (Fig. 46).

5. Clip the electrode leads into the separation brackets. Ensure that the leads do not cross over each other.

6. Reassemble in reverse order.

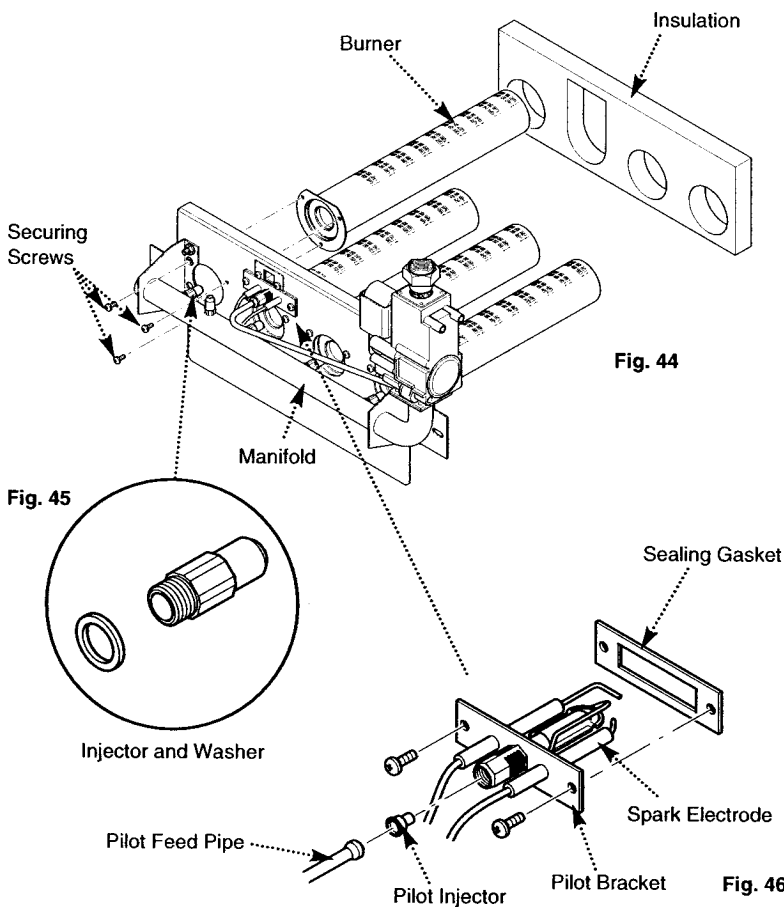


Fig. 44

Fig. 45

Fig. 46

10.0 Changing Components

10.7 Flue Safety Thermostat

1. Undo the nut securing the Flue Safety Thermostat to the draught diverter. Ease the cable clamp from the slot in the draught diverter (Figs. 47 & 48).

2. Undo the screw retaining the earth wire to the boiler and disconnect the plug on the Flue Safety Thermostat cable from the boiler harness (Fig. 49).

3. Reassemble in reverse order. Check the operation of the Safety Thermostat by capping the flue. The boiler should extinguish within three minutes.

10.8 Burner Ignition Control (Fig. 50)

1. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve.

2. Pull the electrode leads off the burner ignition control.

3. Prise apart the three barbs securing the control cover. Remove the cover.

4. Undo the screws securing the cable clamp to the control and disconnect the edge connector from the control P.C.B.

5. Fit the new burner ignition control and reassemble in reverse order.

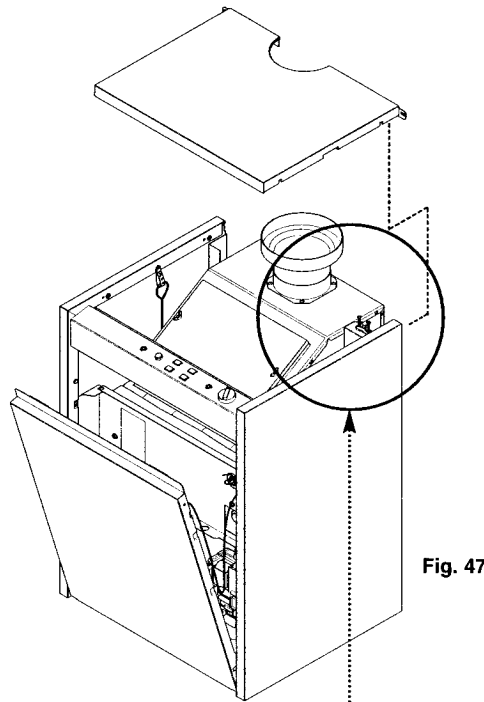


Fig. 47

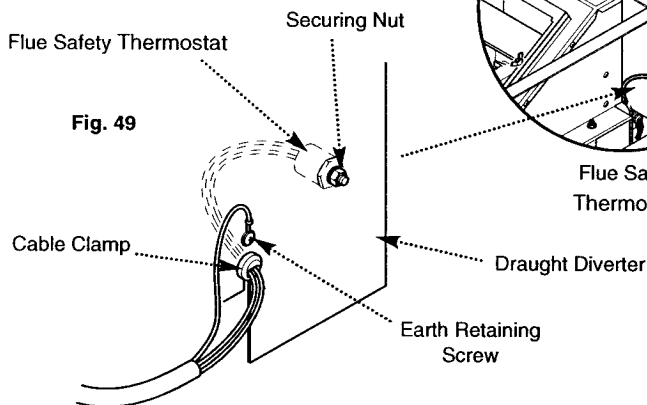


Fig. 49

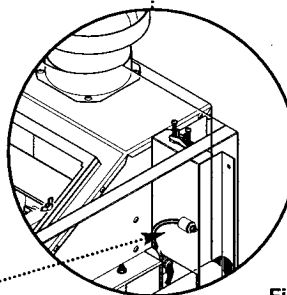


Fig. 48

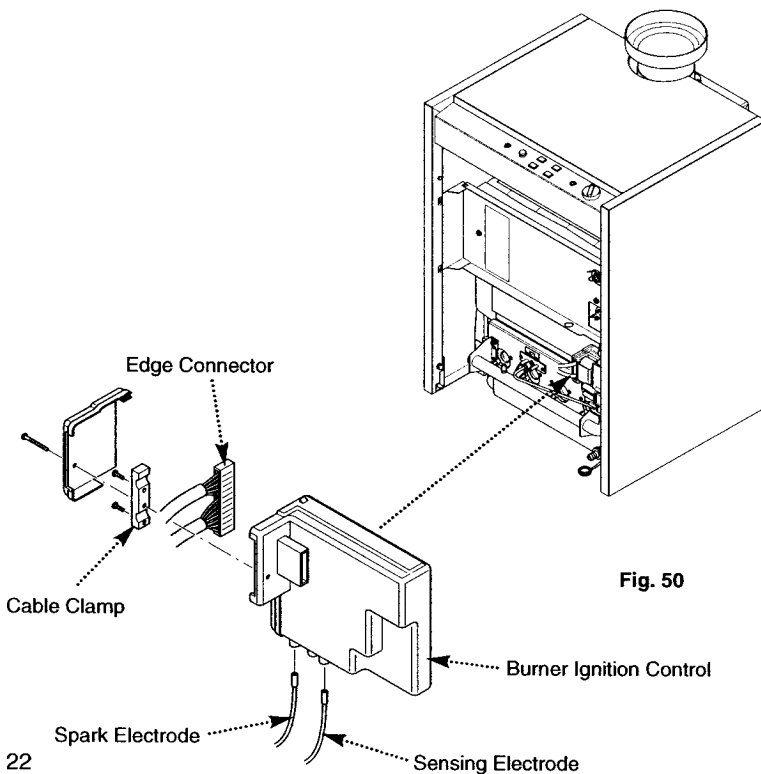
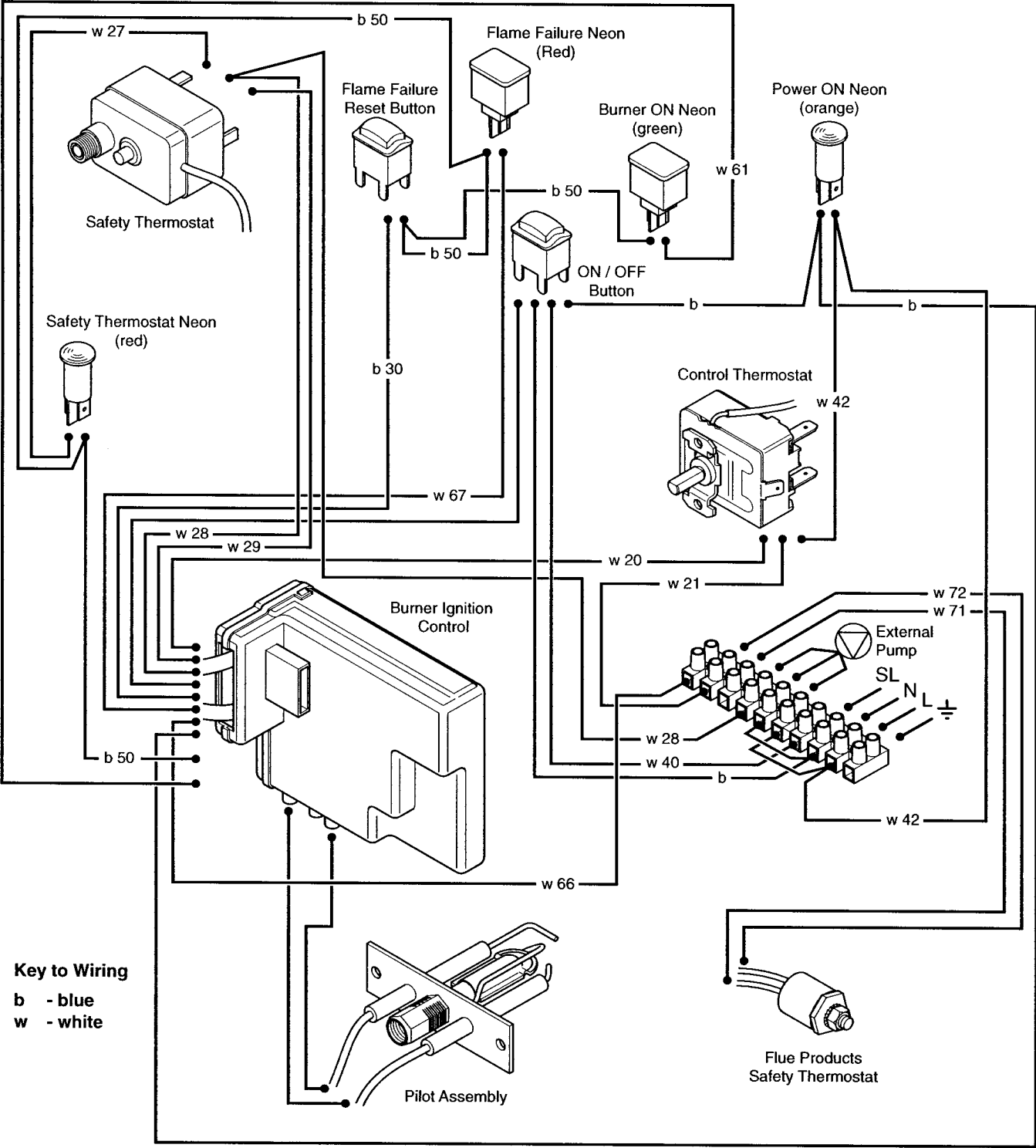


Fig. 50

11.0 Illustrated Wiring Diagram



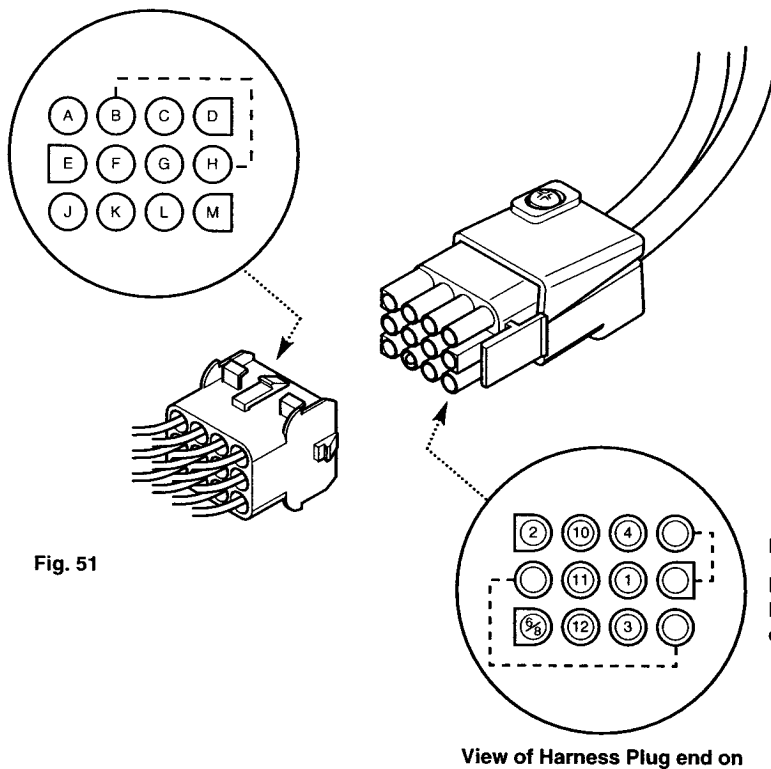
12.0 Fault Finding

Boiler Harness Burner Ignition Controller Socket

The following table indicates which wires from the main harness are connected to the socket.

Position	Wire Identification
A	W20
B	W41 (linked to H)
C	W66
D	B50
E	W29
F	B30
G	Neutral to 'N' on Terminal Strip
H	W41 (linked to B)
J	W28
K	W67
L	Earth
M	W61

View of Socket end on



12.1 Fault Finding

1. This page shows the configuration of the plug and socket on the Burner Ignition Control supply (Fig. 51). The socket is part of the boiler harness and the plug is on the lead connected to the Burner Ignition Control.

2. Fig. 52 illustrates the layout of the edge connector on the Burner Ignition Control.

Burner Ignition Controller Harness Plug

Numbers refer to pin position on edge connector at Burner Ignition Controller to which this plug is connected. Dotted lines indicate link wires.

Layout of Edge Connector on Ignition Controller Harness

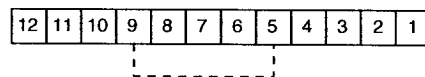
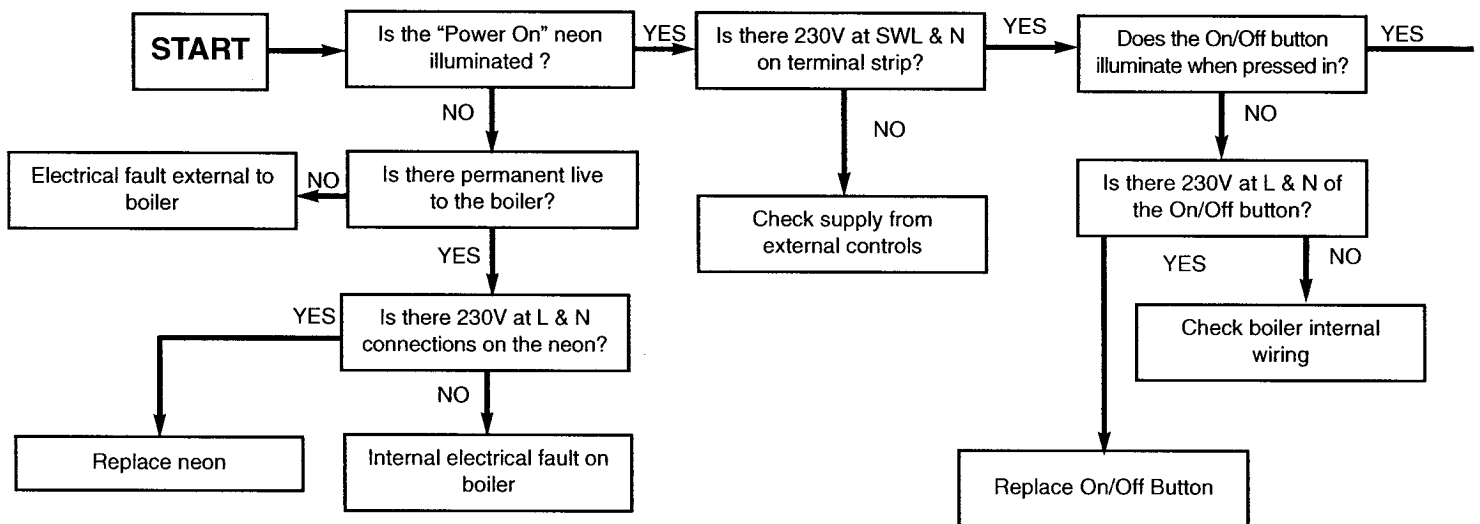


Fig. 52

Numbers correspond to pins on Burner Ignition Controller

1 & 11 - Neutral
5 & 9 - Linked
7 - Unused
12 - Earth

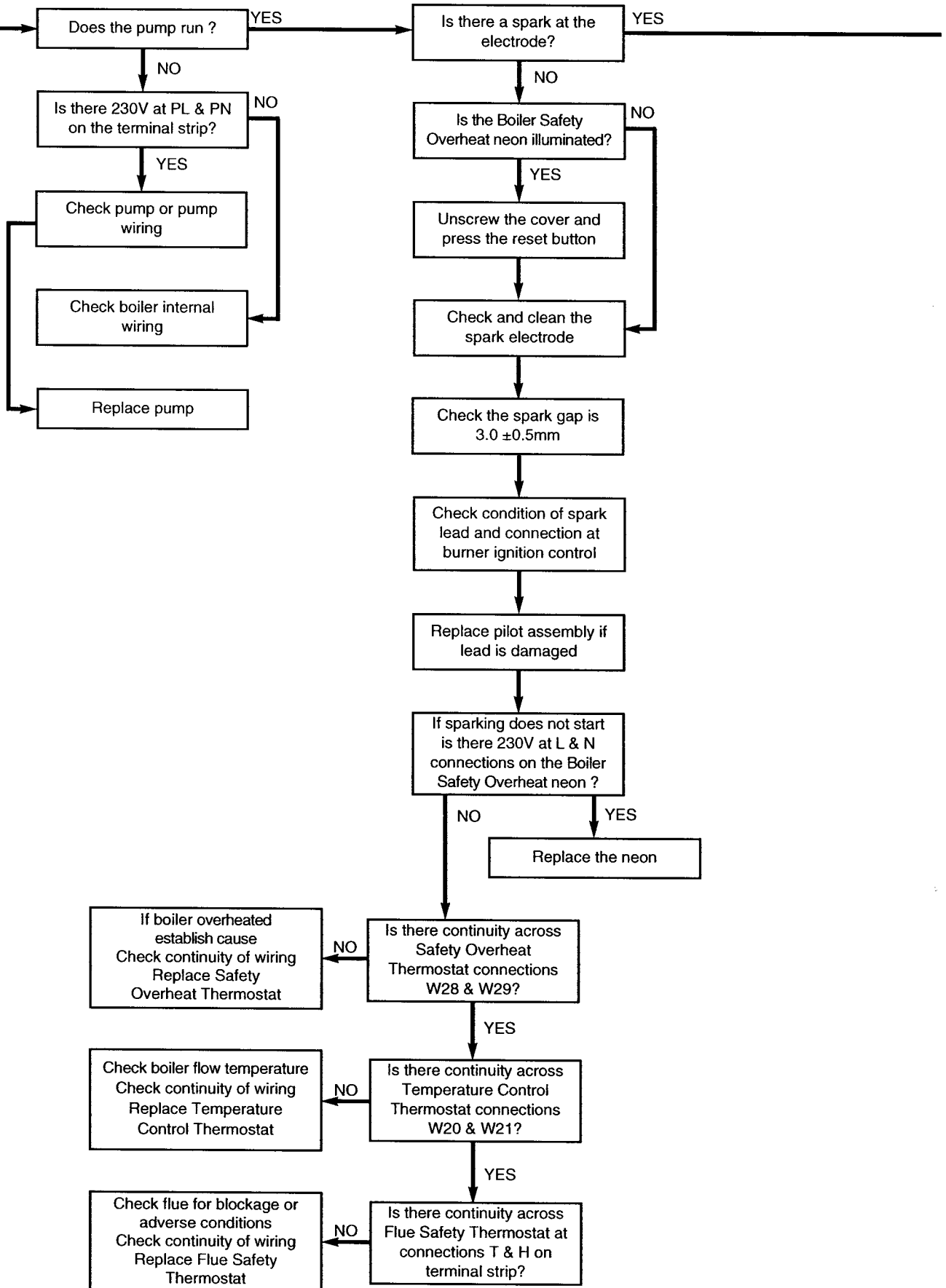
12.0 Fault Finding



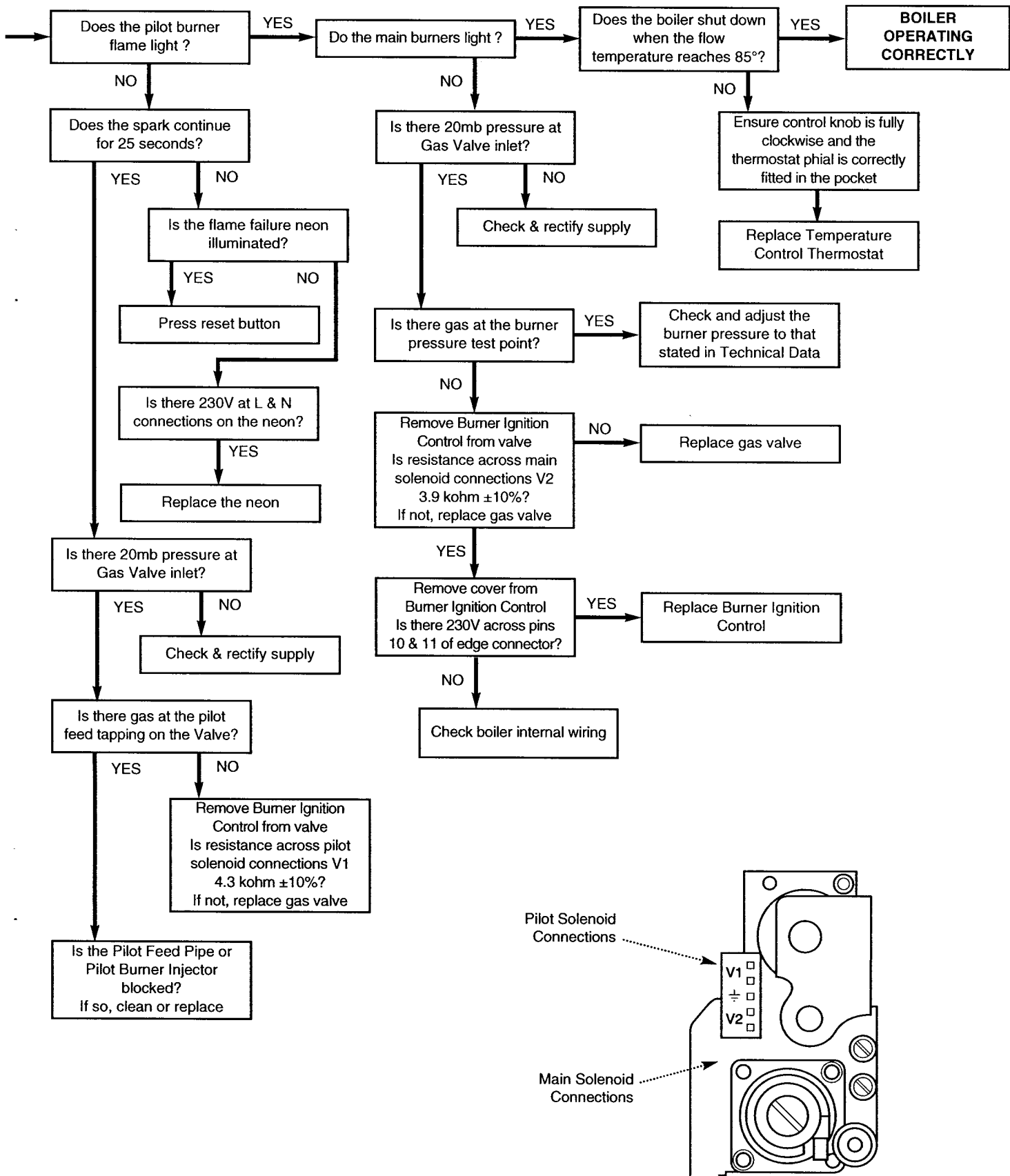
CARRY OUT THE FOLLOWING PRELIMINARY CHECKS BEFORE COMMENCING FAULT FINDING

1. Check that gas, water and electrical supplies are available at the boiler. Electrical supply = 230V ~ 50 Hz. The preferred minimum gas pressure is 19.5mbar (natural gas).
2. Carry out electrical system checks, i.e. Ground Continuity, Resistance to Ground, Short Circuit and Polarity with a suitable meter. Note: Repeat these checks after servicing or fault finding.
3. Ensure all external controls are calling for heat and check all external and internal fuses. Before servicing or replacement of parts ensure the gas and electrical supplies are isolated.

12.0 Fault Finding



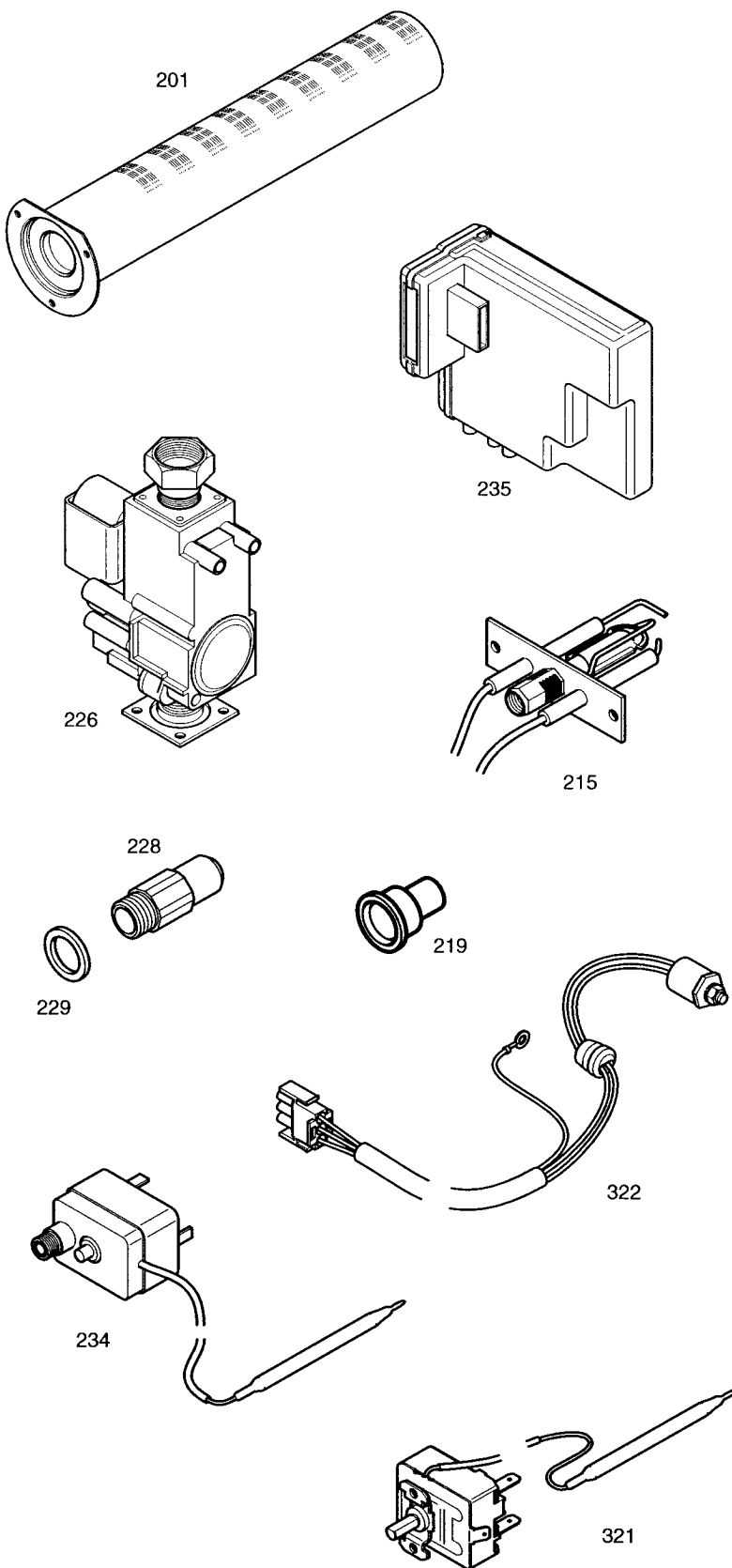
12.0 Fault Finding



13.0 Short Parts List

Short Parts List

Key No.	G.C. No.	Description	Manufacturers Part No.
226		Gas Valve Assembly	V501790
201	E03-614	Burner	V17000837
228	E03-653	Main Burner Injector	V17003199
229	E03-652	Injector Washer	V17006504
321		Control Thermostat	V133624
234		Safety Thermostat	V17006955
215		Pilot Burner Assembly	V133535
235		Burner Ignition Control	V17000601
322		Flue Products Safety Thermostat	V500540
219		Pilot Injector	V17003216



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After Sales Service 08706 096 096 Technical Enquiries 08706 049 049

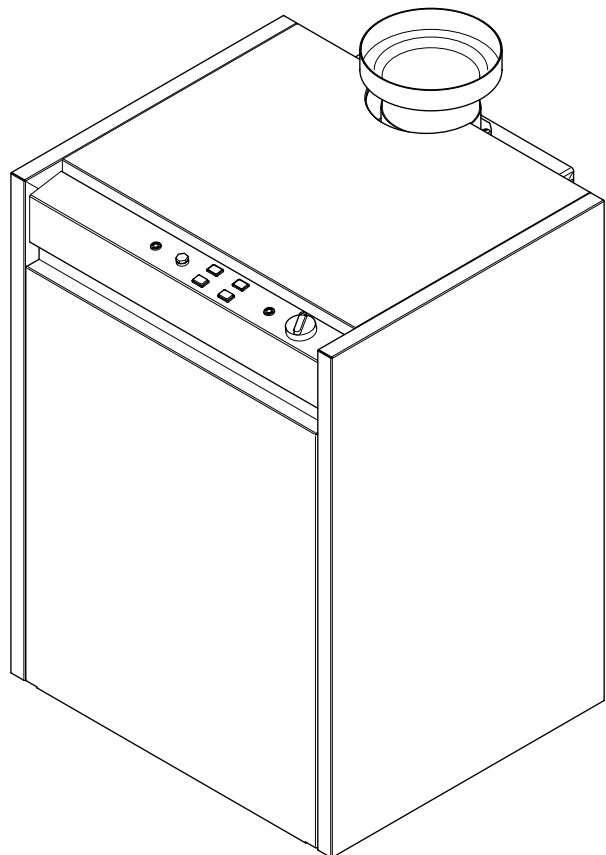
www.baxi.com

POTTERTON

Osprey 2 CFL 125 - 150 - 180 - 220

Gas Fired Floor Standing Boiler

Users Operating Instructions



Please leave these instructions with the user

Natural Gas

Potterton Osprey 2 CFL 125

G.C.N° 41 590 54

Potterton Osprey 2 CFL 150

G.C.N° 41 590 55

Potterton Osprey 2 CFL 180

G.C.N° 41 590 56

Potterton Osprey 2 CFL 220

G.C.N° 41 590 57



The boiler meets the requirements of Statutory Instrument “ The Boiler (Efficiency) Regulations 1993 N° 3083” and is deemed to meet the requirements of Directive 92/42/EEC on the energy efficiency requirements for new hot water boilers fired with liquid or gaseous fuels:-

Type test for purpose of Regulation 5 certified by:
Notified Body 0049.

Product/Production certified by:
Notified Body 0049.

For GB/IE only.

Guarantee

Your Potterton Osprey 2 CFL is designed and produced to meet all the relevant Standards.

Potterton provide a 12 month guarantee on the boiler. The guarantee operates from the date installation is completed for the customer who is the original user.

To maximise the benefit from our guarantee we urge you to return the reply-paid guarantee registration.

This does not in any way prejudice your rights at Common Law. Such rights between the customer and the installer or supplier from whom the unit was purchased remain intact.

Any component or part which becomes defective during the guarantee period as a result of faulty workmanship or material whilst in normal use will be repaired or replaced free of charge.

STANDARD	SCOPE
B.S. 6891	Gas Installation.
B.S. 5440: Pt 1	Flues.
B.S. 5440: Pt 2	Ventilation.
B.S. 5546	Installation of hot water supplies for domestic purposes.
B.S. 7074	Expansion vessels and ancillary equipment for sealed water systems.
B.S. 5449	Forced circulation hot water systems.
B.S. 6798	Installation of gas fired boilers.

“Benchmark” Installation, Commissioning and Service Record Log Book

Please ensure that your installer has completed the Installation and Commissioning sections of the Log Book and hands the Log Book over. The details of the Log Book will be required in the event of any warranty work. Keep the Log Book in a safe place and ensure that the relevant sections are completed at each subsequent regular service visit. All CORGI registered installers carry a CORGI identification card and have a registration number. Both should be recorded in your boiler Log Book. You can check your installer is registered by telephoning 01256 372300 or writing to:-
1 Elmwood,
Chineham Business Park,
Crockford Lane,
Basingstoke
RG24 8WG

1.0 Warnings

1.1 Safe Installation

1. The appliance is suitable for installation only in G.B. and I.E. and should be installed in accordance with the rules in force. For Ireland install in accordance with I.S.813 “**INSTALLATION OF GAS APPLIANCES**”. The installation must be carried out by a CORGI Registered Installer or other registered competent person and be in accordance with the relevant requirements of current **GAS SAFETY** (Installation and Use) **REGULATIONS** most recent edition, the **BUILDING REGULATIONS** issued by the Department of the Environment, **BUILDING STANDARDS** (Scotland) (Consolidation) **REGULATIONS** issued by the Scottish Development Department and the **LOCAL BUILDING REGULATIONS**. Where no specific instructions are given, reference should be made to the relevant **BRITISH STANDARD CODES OF PRACTICE and INSTALLATION SPECIFICATIONS**.

2. **This appliance must be installed in accordance with the manufacturer’s instructions and the rules in force, and only used in a suitably ventilated location.**

3. **Read the instructions before installing or using this appliance.**

4. Any purpose provided ventilation (see Section 3.0) should be checked periodically to ensure that it is free from obstruction.

IMPORTANT - The addition of anything that may interfere with the normal operation of the appliance without the express written permission of Potterton could invalidate the appliance warranty and infringe the **GAS SAFETY** (Installation and Use) **REGULATIONS**.

1.2 In case of gas leaks

1. **If a gas leak is found or suspected**, turn off the gas supply at the meter immediately and contact your Installer or Transco (under ‘Gas’ in the ‘phone directory).

1.3 Servicing your Appliance

1. For reasons of safety and economy your appliance should be serviced annually. Servicing must be performed by a competent person. Your Installer or British Gas Service will be able to advise you.

1.4 Electricity Supply

1. **THIS APPLIANCE MUST BE EARTHED.**

2. A standard 230V ~ 50Hz supply is required. The appliance must be protected by a 3 amp fuse.

Never Hang Flammable Items Over The Appliance

2.0 Operating the Boiler

2.1 Introduction

1. Your Potterton Osprey 2 CFL is a gas fired, open flue, floor standing boiler. The boiler can be used to supply hot water for central heating, and domestic hot water when used in conjunction with an indirect cylinder.

2. The boiler is designed for use on fully pumped open vented or sealed systems. It can be used on Natural Gas (G20) only.

3. Instructions for use can also be found behind the boiler front panel (Fig. 1).

2.2 Operating the Boiler

1. Ensure that the gas and electricity supplies are turned on and that all timers, thermostats etc. are calling for heat.

2. The Power On neon should be illuminated.

3. Push the On/Off button in. The button will illuminate and the ignition sequence will start.

4. The pilot flame will light followed by the main burner. This is indicated by the Burner On neon illuminating.

5. The optimum setting of the boiler temperature control depends upon type of system, external controls and your requirements. Your Installer will be able to advise you on this matter.

2.3 Flame Failure

1. If at any time the burner is extinguished while there is still a demand for the boiler to operate the Flame Failure neon will illuminate. The Burner On neon will extinguish.

2. Pressing the Flame Failure reset button will restart the ignition sequence.

3. If the Flame Failure neon illuminates repeatedly a fault is indicated. Your Service Engineer should be contacted as soon as possible.

2.4 Boiler Safety Overheat Thermostat

1. The boiler is fitted with an additional safety device, which shuts down the boiler in the event of the system or the boiler overheating.

2. If the device operates, the Boiler Safety Overheat neon will illuminate and the boiler will shut down.

3. Unscrew the cap off the Boiler Safety Overheat Reset. Press the reset button to restart the ignition sequence.

4. If the Boiler Safety Overheat neon illuminates repeatedly a fault is indicated. Your Service Engineer should be contacted as soon as possible.

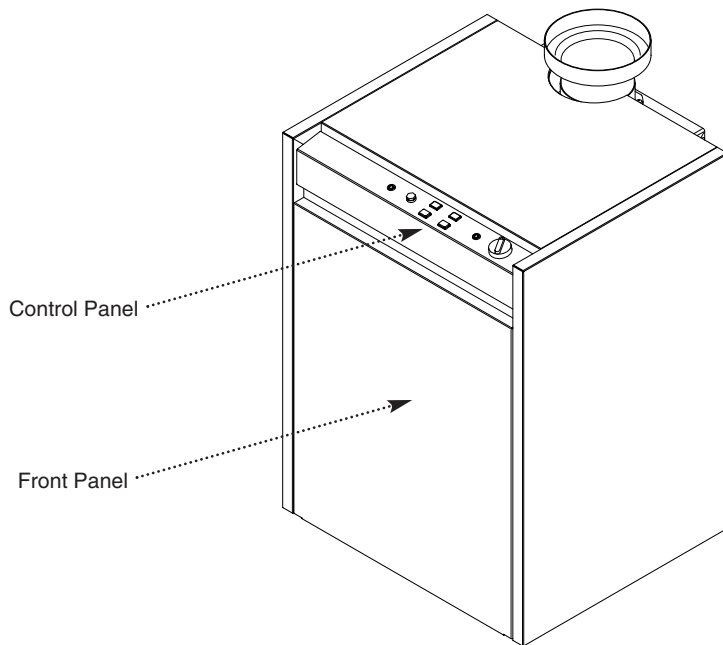


Fig. 1

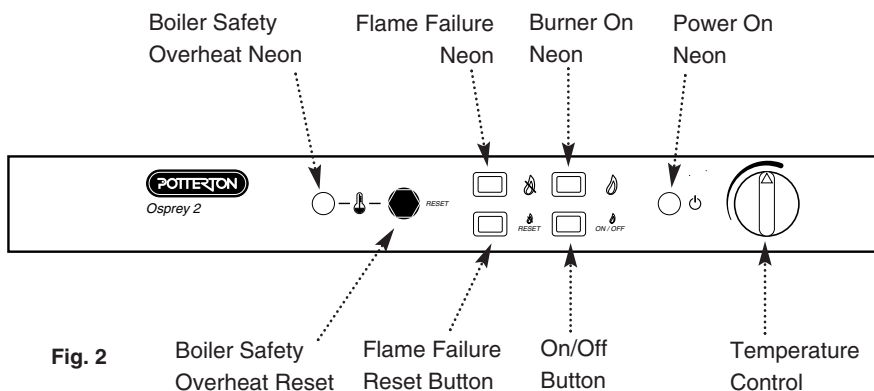


Fig. 2

2.0 Operating the Boiler

2.5 Flue Safety Thermostat

1. The boiler is fitted with a safety thermostat in the flue draught diverter.
2. If the flue becomes blocked or is subjected to adverse conditions the safety thermostat will operate and shut down the boiler. The Burner On neon will extinguish.

Note: The Flame Failure neon and Boiler Safety Overheat neon will not illuminate if the Flue Safety Thermostat is activated. After approximately 10 minutes the boiler will relight if there is still a demand for heat.

3. If the blockage or adverse condition persists the safety thermostat will continue to operate and cycle the boiler on and off. As a result the boiler may not be able to supply adequate hot water for heating and/or domestic purposes.
 4. Under normal circumstances the boiler will cycle on and off as dictated by the Temperature Control Thermostat. If the cycling appears to be excessive with long periods where the boiler is off and the heating/hot water performance is diminished turn the boiler off and contact your Service Engineer as soon as possible.
-

2.6 To Shut Off the Boiler

1. **For short periods:** Press the On/Off Button so that it is not illuminated.
2. **For longer periods:** Turn off the electricity and gas supplies.

If your home is to be left unoccupied for long periods during cold weather the boiler and whole system should be drained unless there is additional frost protection.

3. Your Installer will advise you about frost protection and draining the system.
-

3.0 Clearances & Ventilation

IMPORTANT - If the boiler is not already in a compartment and you wish to enclose it consult your installer before commencing any work. Specific details of compartments and their ventilation are included in the Installation Instructions, and reference made to the relevant British Standards.

3.1 Clearances around the Boiler (Figs. 3 & 4)

1. The minimum clear spaces needed around the boiler measured from the casing are as follows:-

Top	-	700mm
Sides	-	150mm
Front	-	700mm
Rear	-	200mm

2. **These areas must not be obstructed in any way. Blocking the clearance spaces may result in the boiler overheating and damage may occur. The ventilation will also be affected** (see below).

3. Any combustible material must be at least 25mm from the flue pipe at any point along the length of the pipe.

4. Any compartment should be large enough to house the boiler and ancillary equipment only providing that the minimum clearances are adhered to.

IT SHOULD NOT BE USED AS A STORAGE CUPBOARD.

3.2 Ventilation

1. The Osprey 2 CFL is an open flue appliance that takes air for combustion from the room or compartment in which it is installed (**Note: Only 125 & 150 models can be fitted in conventional compartments. 180 & 220 models have special requirements**).

2. The room or compartment will incorporate air vents which must not be blocked or obstructed in any way. If these vents do not communicate directly with outside there will be further vents in adjoining rooms. These vents must also not be blocked or obstructed.

3. Details of ventilation requirements are given in the Installation and Servicing Instructions.

4. If any building work or alterations are carried out that may affect the ventilation consult your Installer who will advise if further vents are required.

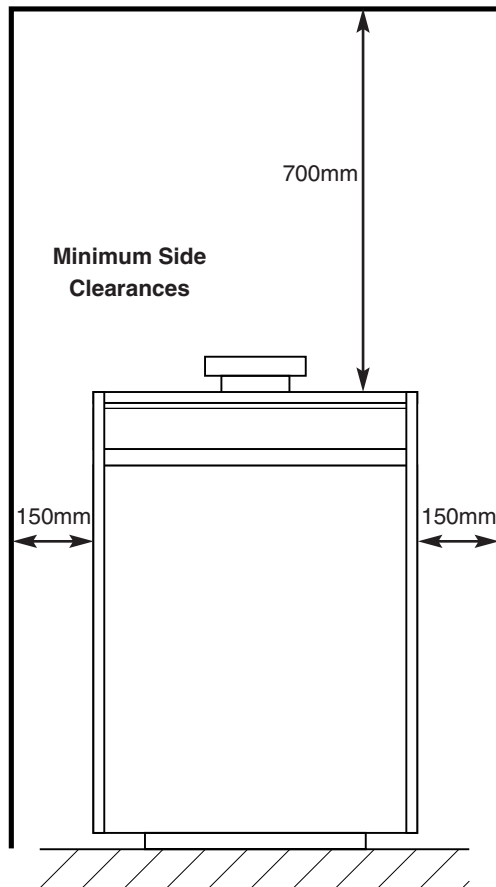


Fig. 3

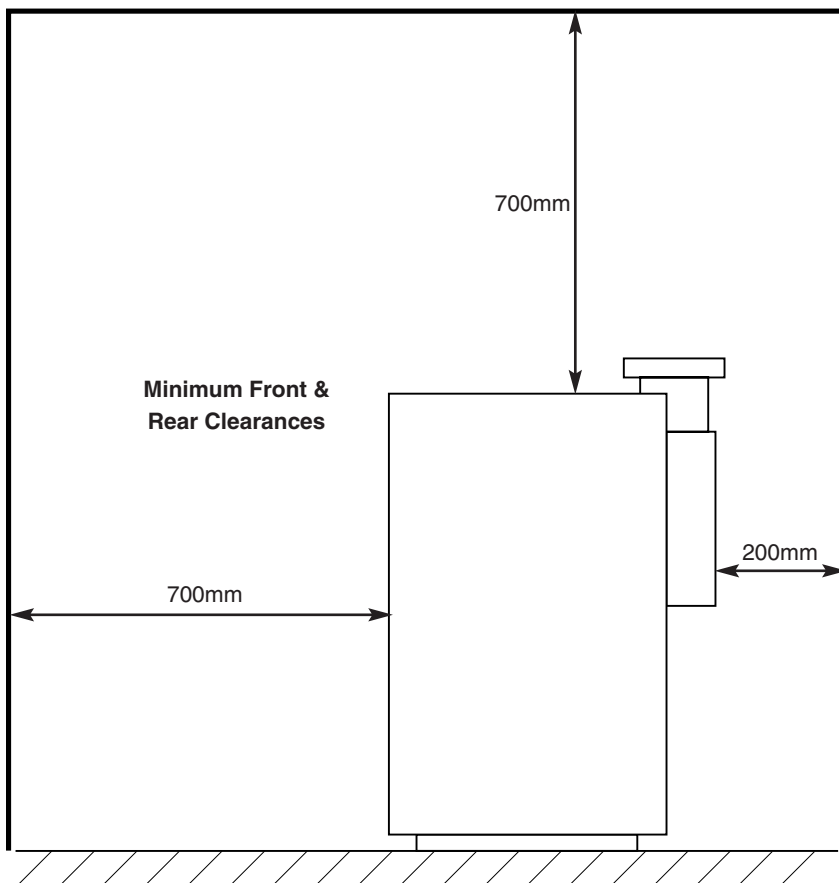


Fig. 4

4.0 Check List, Cleaning, Spares & Guarantee

4.1 Check List

1. If a fault develops, or is suspected, call your Service Engineer as soon as possible.
2. Go through the following check list before you make contact.
 - a) Are the gas and electricity supplies on ?
 - b) Is the On/Off button in the on position ?
 - c) Is the Flame Failure neon illuminated ?
If so, press the Reset Button.
 - d) Is the Boiler Safety Overheat Neon illuminated ?
If so, remove the cover and press the Boiler Safety Overheat Reset.
 - e) Is the boiler temperature control set high enough ?
 - f) Are the time clock and room thermostat (where fitted) calling for heat ?
 - g) Are all the radiator valves open ?

4.2 Cleaning the Outercase

The painted panels should be wiped with a damp cloth and then dried completely. **DO NOT USE ABRASIVE CLEANING AGENTS.**

4.3 Spare Parts

IMPORTANT - Only a competent person should be used to service or repair this boiler

1. Any repairs to the boiler will usually be the responsibility of the installer during the guarantee period after which spare parts may be obtained through approved Potterton stockists if required.
2. Quote the appliance name, model number and where possible the part number when ordering spares. The appliance data badge is situated as shown in Fig. 5. A short parts list is included in the Installation and Servicing Instructions.

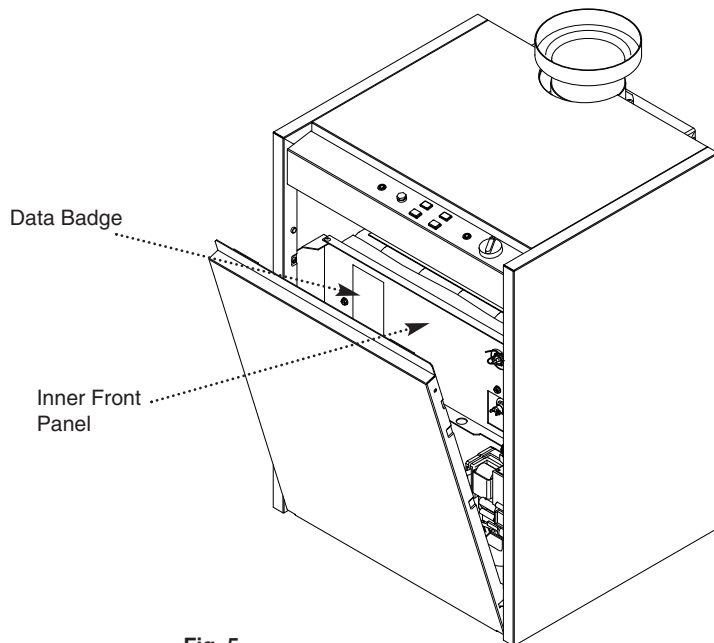


Fig. 5



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