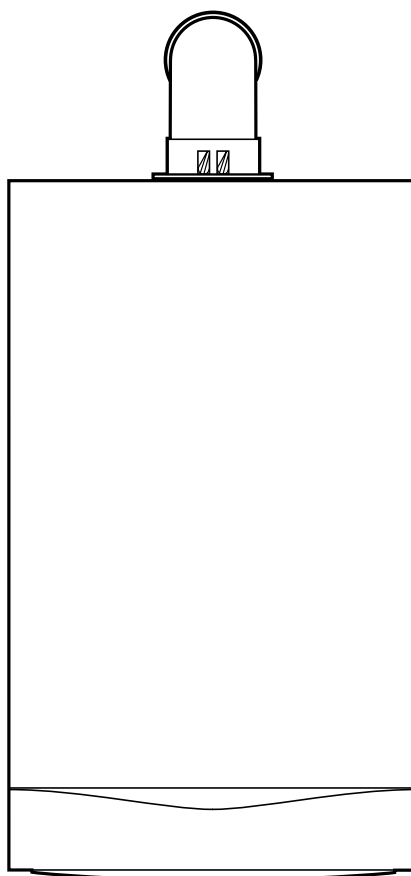




User's Guide

Performa System HE



This is a Wall Mounted Powered Flue Condensing Boiler Gas Fired Central Heating Unit.

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 0051.

Product/Production certified by:
Notified Body 0051.

For use in GB/IE only.

Natural Gas

Potterton Performa System 12 HE

G.C.N° 41 591 24

Potterton Performa System 18 HE

G.C.N° 41 591 25

Potterton Performa System 24 HE

G.C.N° 41 591 26

Potterton Performa System 28 HE

G.C.N° 41 591 27

IMPORTANT - Installation, Commissioning, Service & Repair

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.

In GB, this must be carried out by a competent person as stated in the Gas Safety (Installation & Use) Regulations.

Definition of competence: A person who works for a CORGI registered company and holding current certificates in the relevant ACS modules, is deemed competent.

In IE, this must be carried out by a competent person as stated in I.S. 813 "Domestic Gas Installations".

Lifting - This product should be lifted and handled by two people. Stooping should be avoided and protective equipment worn where necessary. Carrying & lifting equipment should be used as required, e.g. when installing in a loft space.

The addition of anything that may interfere with the normal operation of the appliance without express written permission from the manufacturer or his agent could invalidate the appliance warranty. In GB this could also infringe the Gas Safety (Installation and Use) Regulations.

Warning - Check the information on the data plate is compatible with local supply conditions.

Benchmark Commissioning Checklist

Please ensure that your installer hands you the boiler Installation & Service Instructions with the Benchmark Commissioning Checklist sections completed. The details in the Checklist will be required in the event of any warranty work. Keep the instructions in a safe place and ensure that the Service Interval Record at the back is completed at each service visit.

CORGI

All CORGI registered installers carry a CORGI identification card and have a registration number. You can check your installer is registered by telephoning 0870 4012300 or writing to:-

1 Elmwood,
Chineham Business Park,
Crockford Lane,
Basingstoke. RG24 8WG

or check online at www.corgi-gas-safety.com



This product has an energy rating (B) on a scale of A to G.
For more information see www.boilers.org.uk. This is a certification mark.

In an Emergency

If a water or gas leak occurs or is suspected, the boiler can be isolated at the inlet valves as follows;

1. Turn off the electrical supply and turn the selector switch on the fascia box to the Off position.
2. Using a suitable open ended spanner or screwdriver turn the square on the gas tap to the left to isolate the gas supply at the boiler (Fig. 1).
3. The isolating valves are positioned under the boiler and can be closed by turning their taps to the right towards the wall (Fig. 2).
4. Call your Installer or Service Engineer as soon as possible.

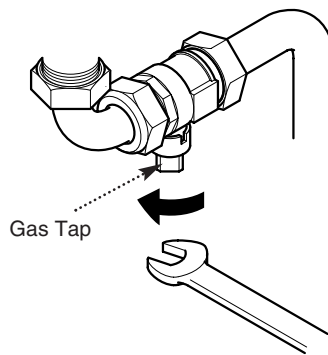


Fig. 1

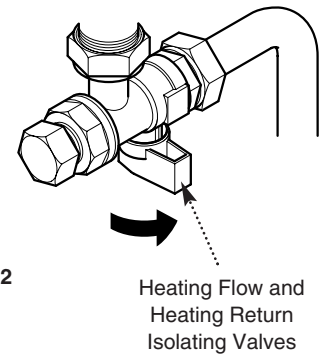


Fig. 2

In case of gas leaks

1. If a gas leak is found or suspected, turn off the gas supply at the meter immediately and at the isolating valve on the boiler if possible. Contact your Gas Supplier immediately.

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 Service Engineer will be able to advise you.
2. Any purpose provided ventilation should be checked periodically to ensure that it is free from obstruction.

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

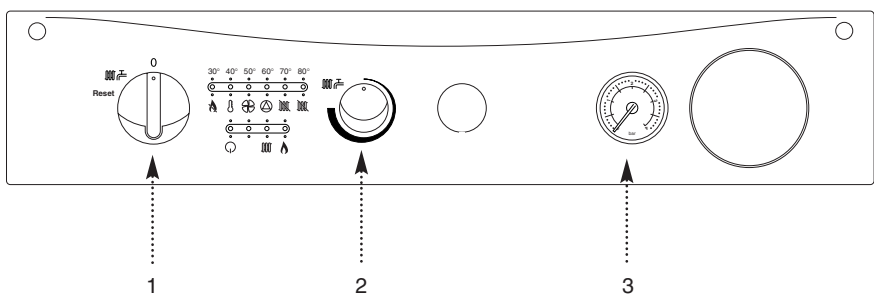
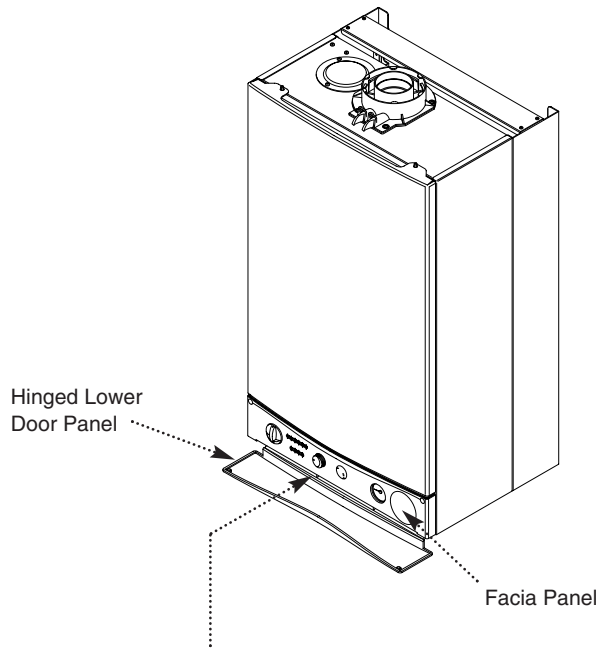
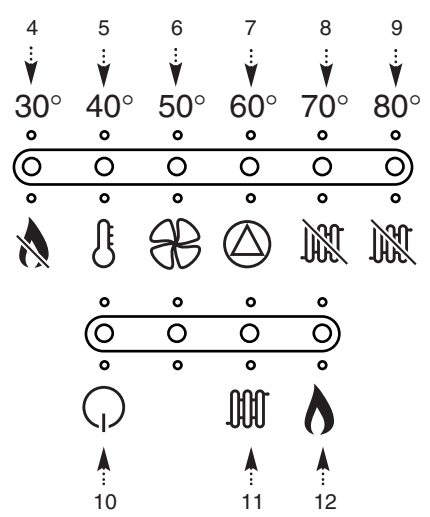


Fig. 3



Introduction

1. Your Potterton Performa System HE is a gas fired, room sealed, powered flue boiler, providing central heating and hot water for your home. It is fully automatic and does not have a pilot light.
2. Due to the high efficiency and resultant low flue gas temperature when in condensing mode a white plume of condensate will be emitted from the terminal. This will be particularly evident during periods of low outside temperature.

Facia Panel

1. The facia panel is behind the hinged lower door panel. As well as the On/Off/Reset selector switch, temperature control knob and pressure gauge, the facia incorporates nine neon indicator lights.
2. Neons 10, 11 & 12 indicate the operational status of the boiler. Neons 4 to 9 have a dual function, indicating the temperature of the central heating water when constantly illuminated. If a fault develops the appropriate neon will begin to flash.

KEY TO FACIA PANEL (Fig. 3)

1. On/Off/Reset Selector Switch
2. Temperature Control
3. Central Heating System Pressure Gauge

Neon Indicators

4. Flame Failure or Blocked Condensate Drain
5. Safety Thermostat Activated (Boiler or Flue)
6. Fault on Fan or Flue
7. Fault on Pump or Low System Pressure
8. Fault on Temperature Sensor
9. Fault on Temperature Sensor
10. Power On
11. Boiler On
12. Burner On

When neons 4 to 9 are constantly illuminated, they indicate the temperature of the central heating water.



Operating the Boiler

1. Ensure that the electricity and gas supplies are turned on. Check that the central heating pressure is between 0.2 and 1.0 bar (Fig. 4).
2. Turn the On/Off/Reset selector switch anticlockwise from the off position (Fig. 6) to the on position.
3. The green power on indicator (Ⓞ) will illuminate (Fig. 5).
4. **On Position:** In this position the boiler will provide central heating or domestic hot water according to demand (Fig. 7). The boiler on (Ⓞ) will illuminate (Fig. 5). Neons 4 to 9 will illuminate as the temperature rises.
5. The boiler will light automatically on demand.
6. The orange burner on neon (🔥) will illuminate when the boiler is operating and the main burner is on (Fig. 5).

IMPORTANT: When the selector switch is in the '0' (Off) position the electrical supply to the boiler is isolated. The boiler will not operate.

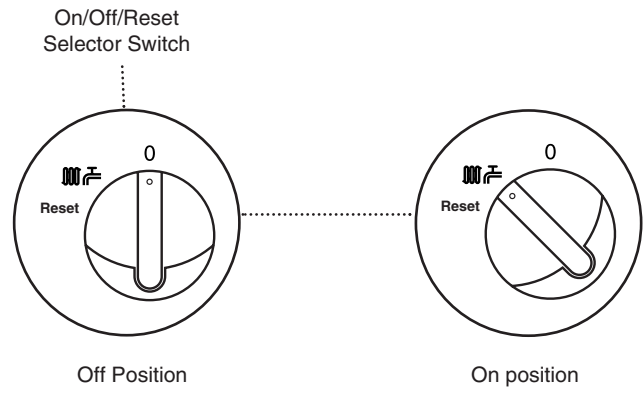
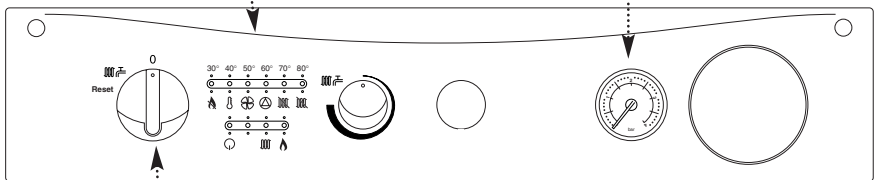
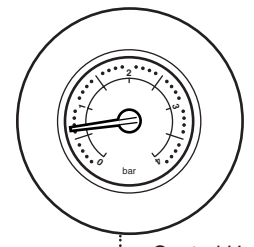
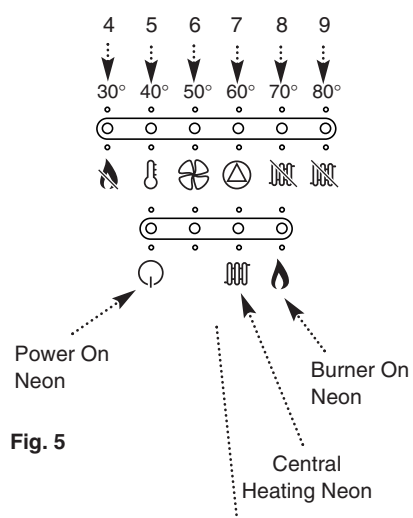
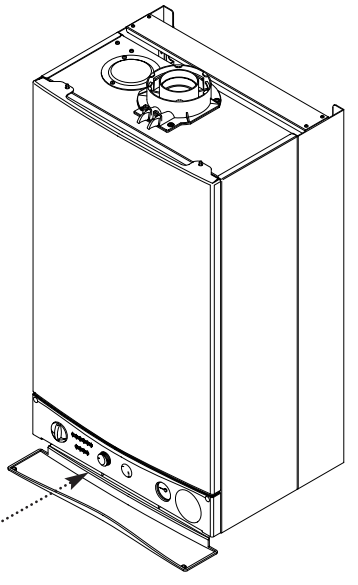


Fig. 6

Fig. 7

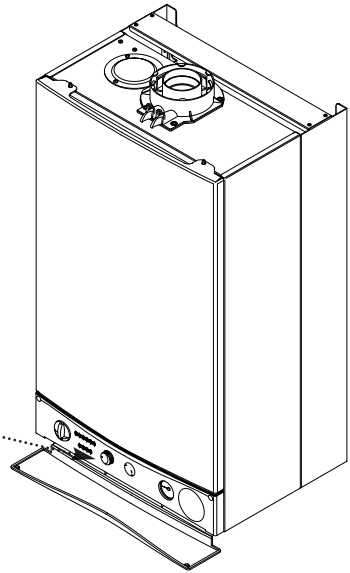



Fig. 8
Temperature Control

Temperature Control

1. The water flow temperature can be adjusted between 30° C (± 5° C) minimum and 85° C (± 5° C) maximum.
2. Turn the control knob clockwise to increase the temperature (Fig. 8).
3. In normal winter usage we recommend that the temperature be set at maximum.

Flame Failure Reset

1. The red flame failure neon () will illuminate in the event of the burner failing to light, when incomplete lighting of the burner occurs or blockage of the condensate drain (Fig. 9).
2. Turn the selector switch fully anti-clockwise against the spring pressure to the 'Reset' position for at least two seconds and release (Fig. 10).
3. If the flame failure light illuminates repeatedly a fault is indicated with the boiler, gas supply or condensate drain. Your Installer or Service Engineer should be contacted as soon as possible.

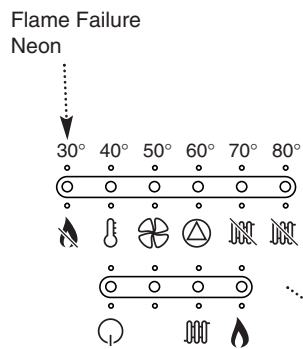
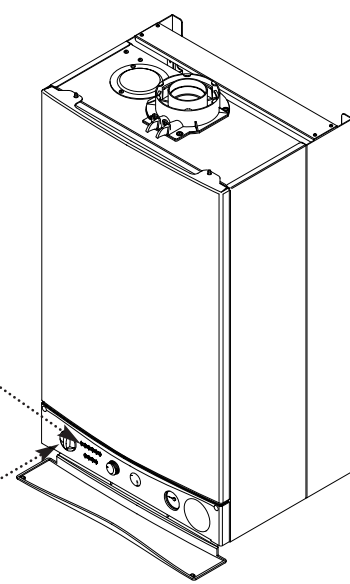


Fig. 9



Reset Position

Fig. 10

Air Flow Monitor

1. The boiler is fitted with an air pressure sensing device. This monitors the flue system.
2. If the (⊕) neon illuminates it indicates that the flue or flue terminal is blocked or obstructed in some way, or that there is an internal fault. If there is no external blockage of the flue terminal that can be easily removed contact your Installer or Service Engineer (Fig. 11).

Pump Fault or Low Pressure

1. The neon (⊕) will illuminate if the circulating pump is faulty or the system pressure drops below the minimum requirement (Fig. 11).
2. Check the pressure gauge as described on page 8. If the pressure is in the normal range, a pump fault is indicated. Contact your Installer or Service Engineer to determine the nature of the fault.

Sensor Fault

1. When either of the the (⊕) neons is illuminated a fault on one of the temperature sensors is indicated (Fig. 11). Contact your Installer or Service Engineer.

Pump Protection

1. With the selector switch in the on position (Fig. 12) the pump will automatically operate for 1 minute in every 24 hours to prevent sticking.

Safety Thermostat

1. Your Potterton Performa System HE is fitted with an additional safety devices, which shut down the boiler in the event of the system, boiler or flue overheating. The safety thermostat neon (⊕) will light in this instance (Fig. 11).
2. **To reset:** Turn the selector fully anti-clockwise against the spring pressure to the 'Reset' position for at least two seconds and release (Fig. 12).
3. If after turning the selector to the 'Reset' position the boiler does not relight or the safety thermostat operates repeatedly, causing boiler shutdown, a fault is indicated. Your Installer or Service Engineer should be contacted as soon as possible.

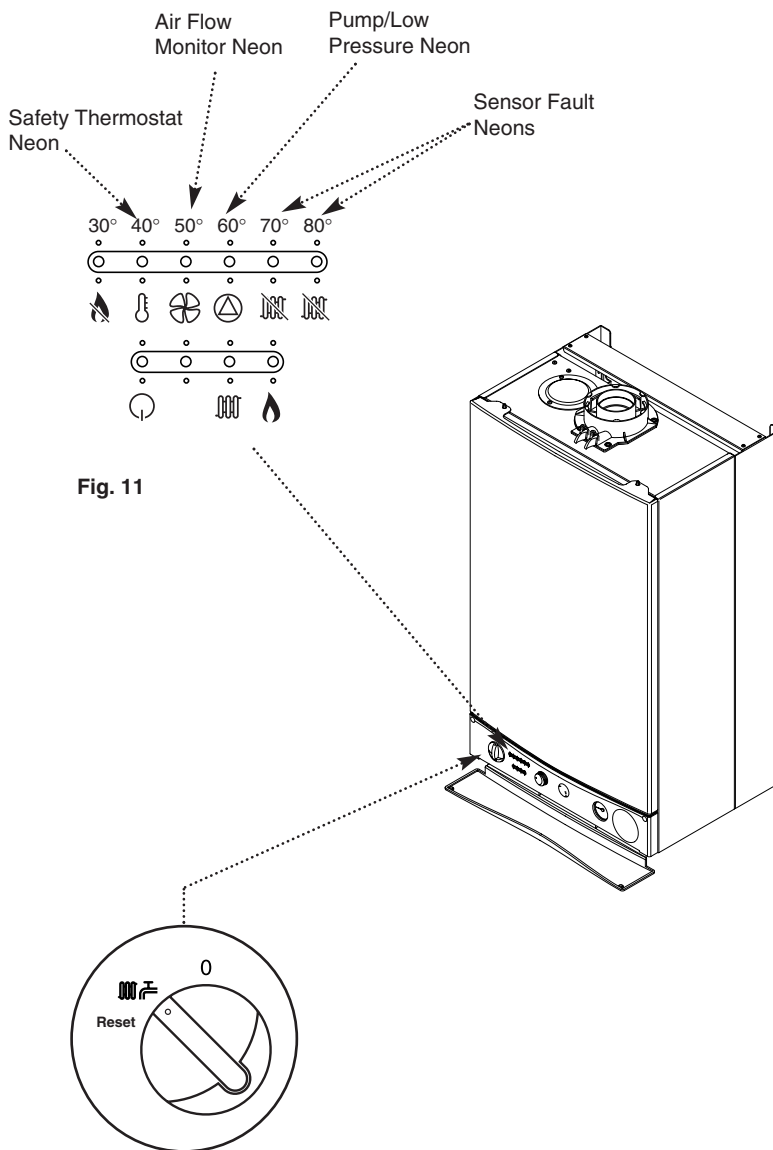


Fig. 11

Fig. 12

Pressure Gauge

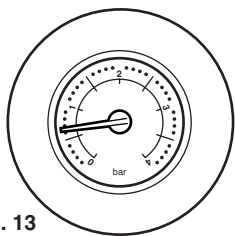


Fig. 13
Normal Pressure (when cold)

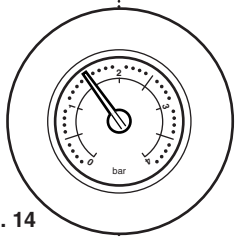


Fig. 14
Normal Pressure (operating)

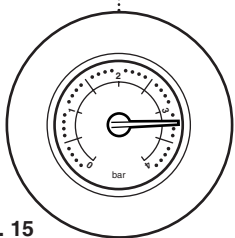


Fig. 15
Fault

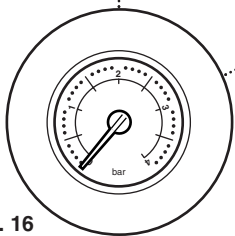
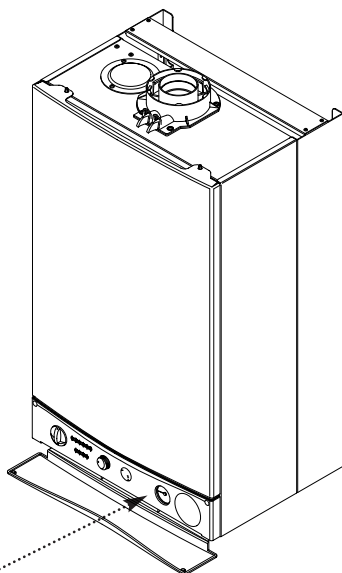


Fig. 16
Below Minimum



On/Off Selector Switch

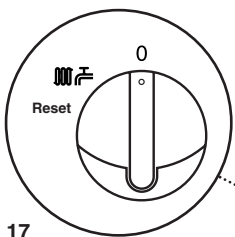
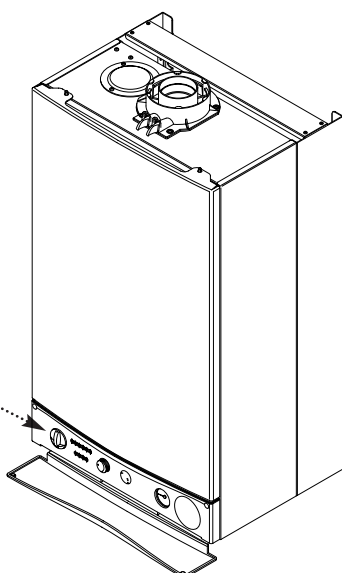


Fig. 17
Off Position



Central Heating System Pressure

1. The water pressure in the central heating system is indicated by the pressure gauge.

2. With the system cold and the boiler not operating the pressure should be between 0.2 and 1.0 bar. During operation the pressure should not exceed 2.5 bar, and will normally be between 1.0 and 2.0 (Figs. 13 & 14).

3. A pressure of 3 or greater indicates a fault. The safety pressure relief valve will operate, at a pressure of 3 (Fig. 15). **It is important that your Installer or Service Engineer is contacted as soon as possible.**

4. The minimum pressure for correct operation is 0.2. If the pressure falls below 0.2, this may indicate a leak on the central heating system (Fig. 16).

To Shut Off the Boiler

1. For short periods: Turn the selector switch to the Off position (Fig. 17).

2. For long periods: Turn off the selector switch (Fig.17), 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.

IMPORTANT: When the selector switch is in the '0' (Off) position the electrical supply to the boiler is isolated. The boiler will not operate.

Frost Protection Mode

1. The frost protection feature will operate when the selector switch is in the On position. The gas and electrical supplies to the boiler must be on and then system pressure be within the range described above.

2. If the system temperature falls below 5°C, then the boiler will fire until the water temperature has been raised.

3. Further frost protection can be incorporated by using a frost thermostat to protect the whole system.



Clearances around the Boiler (Figs. 18 & 19)

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

- Top - 200mm
- Bottom - 200mm
- Left Side - 5mm
- Right Side - 20mm/5mm*
- Front - 5mm (In Operation)
- 450mm (For Servicing)

***NOTE:** The boiler can be operated with a clearance of 5mm at the right. This is also sufficient for routine maintenance. However a clearance of 20mm is required if it is necessary to remove the secondary heat exchanger. This should be considered when siting the appliance and in the event of any subsequent alteration in the area of installation.

2. **These areas must not be obstructed in any way. Blocking the clearance spaces may result in the boiler overheating and damage may occur.**

3. The gas burning compartment of your boiler is completely sealed from the room in which it is fitted. Products from the combustion of gas are vented to the outside through the flue terminal which must be kept free from obstruction as this would interfere with the correct operation of the boiler.

4. The boiler may be installed in a cupboard if these minimum clearances are kept. The compartment should be large enough to house the boiler and ancillary equipment only.

5. IT SHOULD NOT BE USED AS A STORAGE CUPBOARD.

Check List

1. If a fault develops, or is suspected, call your Installer or Service Engineer as soon as possible.
2. Go through the following check list before you make contact.
 - a) Is the electricity supply on ?
 - b) Is the selector switch in the On Position (giving a green "Power On" neon) ?
 - c) Is the red "Flame Failure" neon lit ? Turn the On/Off/Reset selector fully anti-clockwise.
 - d) Is the gas supply on ?
 - e) Is the system pressure correct ?
 - f) Is the boiler temperature control set high enough ?
 - g) Is the time clock (if fitted) calling for heat ?
 - h) Is the room thermostat (if fitted) set high enough ?
 - i) Are the radiator valves open ?

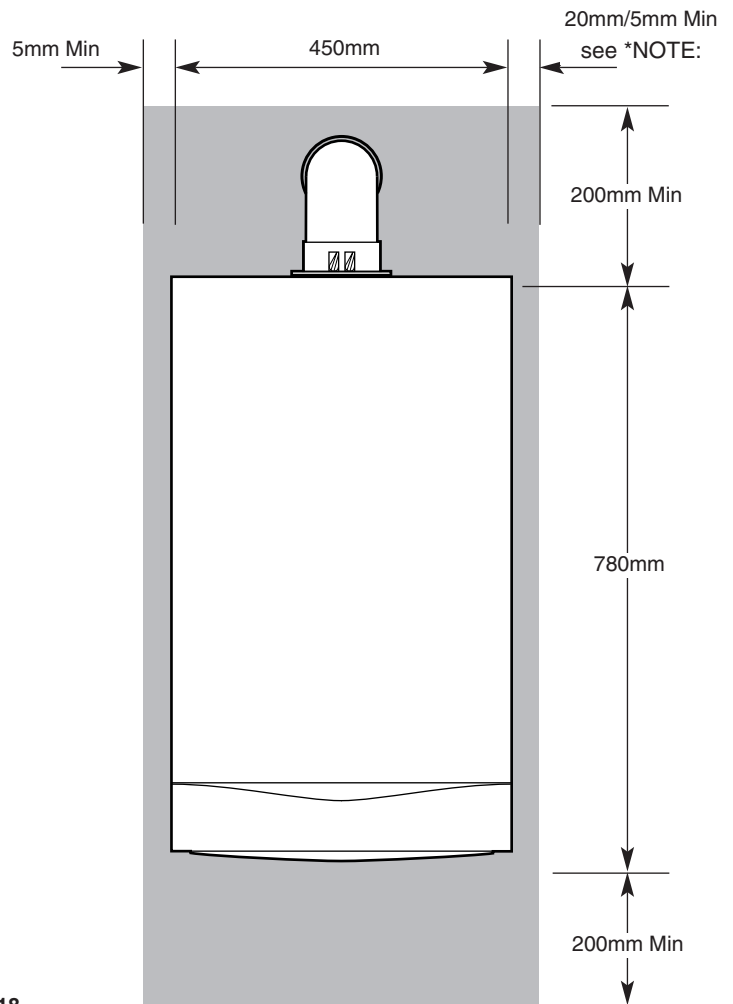


Fig. 18

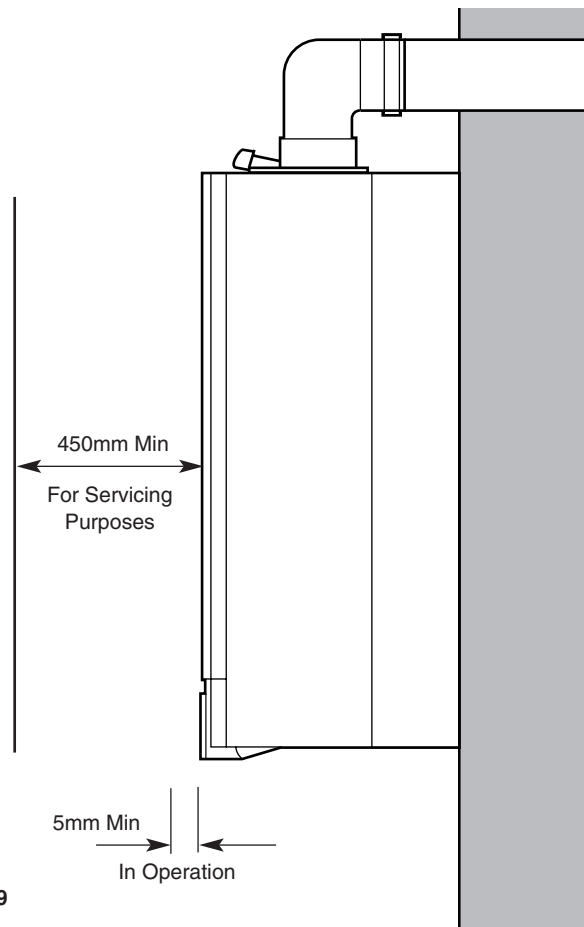


Fig. 19

Cleaning the Outercase

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

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. A parts list is included in the Installation and Servicing Instructions.
3. The name, model number and serial number can be found on the information label on the back of the hinged lower door (see back page).



Legislation

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

The appliance is suitable only for installation in GB and IE and should be installed in accordance with the rules in force, and only used in a suitably ventilated location.

In GB, the installation must be carried out by a CORGI Registered Installer. It must be carried out in accordance with the relevant requirements of the:

- Gas Safety (Installation & Use) Regulations.
- The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland), Building Regulations (Northern Ireland).
- The Water Fittings Regulations or Water Byelaws in Scotland.
- The Current I.E.E. Wiring Regulations.

Where no specific instructions are given, reference should be made to the relevant British Standard Code of Practice.

In IE, the installation must be carried out by a competent Person and installed in accordance with the current edition of I.S. 813 'Domestic Gas Installations', the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.

All systems must be thoroughly flushed and treated with inhibitor.

Codes of Practice, most recent version should be used

In GB the following Codes of Practice apply:

Standard	Scope
BS 6891	Gas Installation.
BS 5546	Installation of hot water supplies for domestic purposes.
BS 5449	Forced circulation hot water systems.
BS 6798	Installation of gas fired hot water boilers.
BS 5440 Part 1	Flues.
BS 5440 Part 2	Ventilation.
BS 7074	Expansion vessels and ancillary equipment for sealed water systems.
BS 7593	Treatment of water in domestic hot water central heating systems.

In IE the following Codes of Practice apply:

Standard	Scope
I.S. 813	Domestic Gas Installations.
The following BS standards give valuable additional information;	
BS 5546	Installation of hot water supplies for domestic purposes.
BS 5449	Forced circulation hot water systems.
BS 7074	Expansion vessels and ancillary equipment for sealed water systems.
BS 7593	Treatment of water in domestic hot water central heating systems.

When contacting Baxi Potterton please have the following information to hand:

Appliance Name
Model Number
Serial Number

A label giving these details is situated on the rear of the hinged lower door panel.

General Enquiries (GB)

Tel. **08706 060 780**

Technical (GB)

Tel. **08706 049 049**

Service (GB)

Tel. **08706 096 096**

Fax. **01926 410 006**

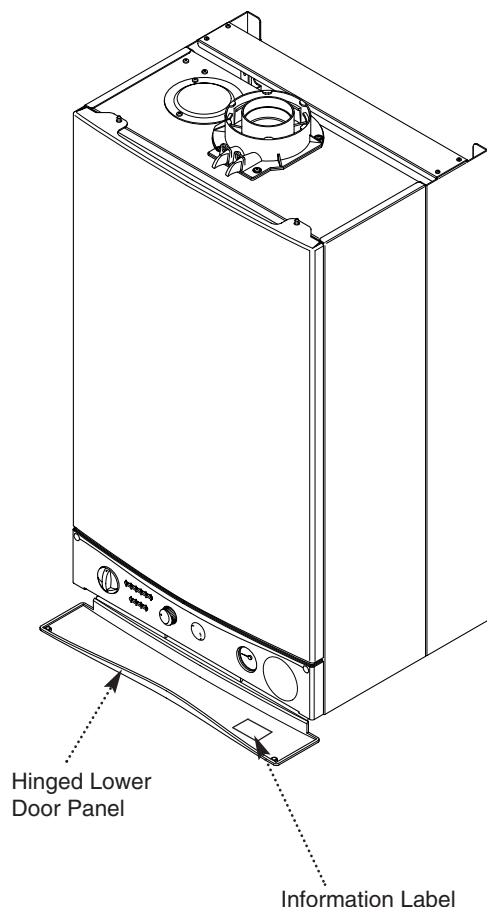
Literature Request (GB)

Tel. **08706 060 623**

Technical (IE)

Tel. **1850 560570**

All descriptions and illustrations provided in this leaflet have been carefully prepared but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet. All goods are sold subject to our standard Conditions of Sale which are available on request.



BAXI POTTERTON

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