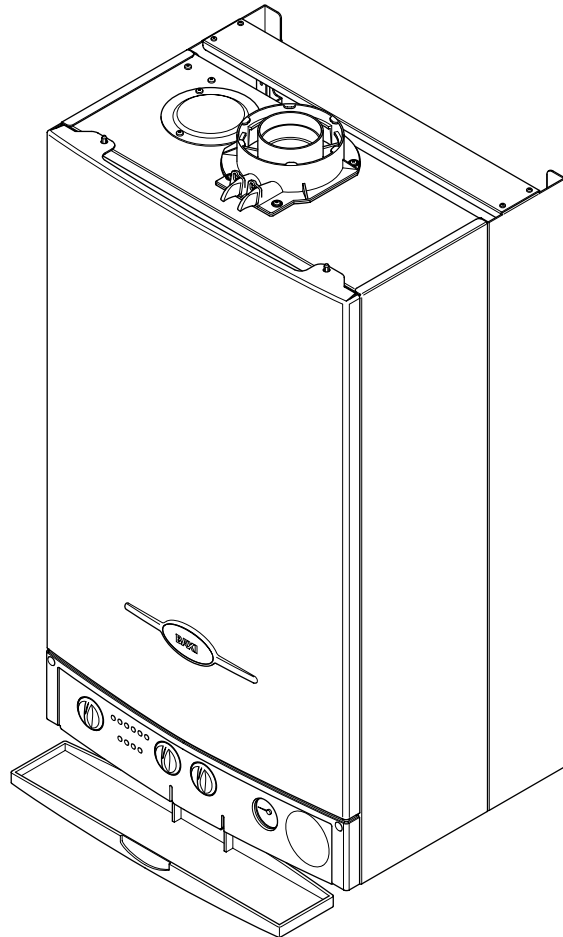


BAXI

User's Operating Instructions & Important Warranty Information



Baxi Combi 105 HE

Gas Fired Wall Mounted
Condensing Combination Boiler

Please keep these instructions in a safe place.
If you move house, please hand them over to the next occupier.

Natural Gas

Baxi Combi 105 HE
G.C.N° 47 075 18

Where fitted, user label for
optional timer to be applied here

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The Company Secretary, Baxi Heating UK Ltd, Pentagon House,
Sir Frank Whittle Road, Derby, DE21 4XA.

Full acknowledgement of author and source must be given.

WARNING: Any person who does any unauthorised act in relation to a copyright work may be liable to criminal prosecution and civil claims for damages.

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 0086.

For GB/IE only.



"Baxi" supports



The code of practice for the installation,
commissioning & servicing of central
heating systems.



Baxi Heating UK Ltd is a
BS-EN ISO 9001 Accredited Company

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 & Servicing 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.

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 company 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 ETCl 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.

1.0 Warnings

1.1 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. Using a suitable open ended spanner, turn the square nut on the gas tap through 90° (1/4 turn) in a clockwise direction to isolate the gas supply at the boiler (Fig. 1).

2. The isolating valves are positioned under the boiler and can be closed by turning their taps to the right towards the wall (Fig. 2).

3. Call your Installer or Service Engineer as soon as possible.

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 at the isolating valve on the boiler if possible. Contact your Gas Supplier immediately.

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 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.

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

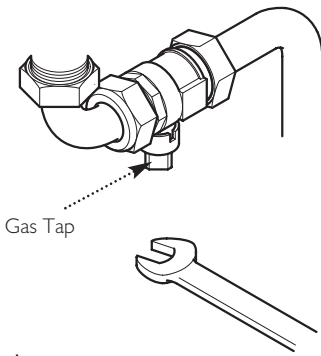


Fig. 1

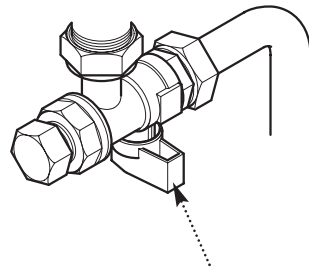


Fig. 2

Heating Flow, Heating
Return and Mains Water
Inlet
Isolating Valves

2.0 Introduction

2.1 Introduction

1. Your Baxi Combi 105 HE is a gas fired, room sealed, powered flue condensing combination boiler, providing central heating for your home and mains fed domestic hot water to taps and shower. It is fully automatic and does not have a pilot light. Boiler frost protection and pump protection are integral features of the appliance.

2. Priority is given to the hot water mode - when a hot water tap is turned on the supply of heat to the central heating circuit is interrupted.

3. 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.

2.2 Facia Panel

1. The facia panel is behind the hinged lower door panel. As well as the on/off/reset selector switch, temperature control knobs and pressure gauge, the facia incorporates ten neon indicator lights.

2. Neons 12 to 15 indicate the operational status of the boiler. Neons 6 to 11 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. Refer to Sections 3.3 to 3.7.

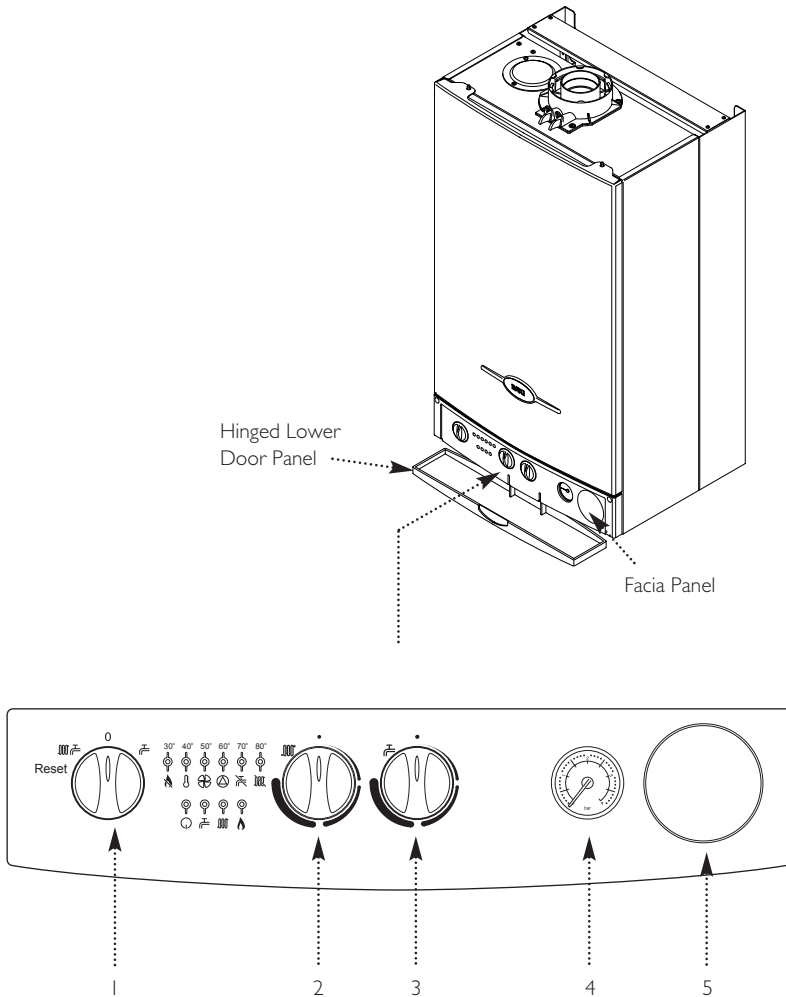
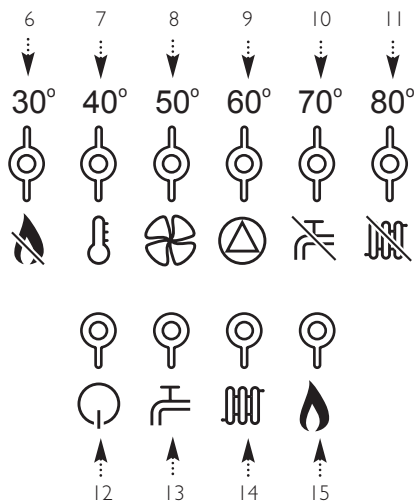


Fig. 3



KEY TO FACIA PANEL (Fig. 3)

1. On/Off/Reset Selector Switch
2. Central Heating Temperature Control
3. Hot Water Temperature Control
4. Central Heating System Pressure Gauge
5. Optional Integral Timer Position

Neon Indicators

6. Flame Failure or Blocked Condensate Drain
7. Safety Thermostat Activated (Boiler or Flue)
8. Fault on Fan or Flue
9. Fault on Pump or Low System Pressure
10. Fault on Hot Water Sensor
11. Fault on Central Heating Sensor
12. Power On
13. Domestic Hot Water Mode
14. Central Heating Mode
15. Burner On

When neons 6 to 11 are constantly illuminated, they indicate the temperature of the central heating water

3.0 Operating the Boiler

3.1 Operating the Boiler

1. Ensure that the electricity and gas supplies are turned on. Check that the central heating pressure is between 0.5 and 1.0 bar (Fig. 4).

2. Turn the On/Off/Reset selector switch either anti-clockwise from the off position (Fig. 6) to both central heating and domestic hot water or clockwise to domestic hot water only.

3. In either position the green power on indicator (⊙) will illuminate (Fig. 5).

4. **Position (i)** In this position the central heating will operate according to demand or provide domestic hot water when a tap or shower is turned on (Fig. 7). Priority is given to domestic hot water. The central heating/hot water neon (⊙) will illuminate (Fig. 5). Neons 6 to 11 will illuminate as the temperature rises.

5. **Position (ii)** In this position hot water will be provided when a tap or shower is turned on (Fig. 8). The hot water neon (⊙) will illuminate (Fig. 5).

6. The boiler will light automatically on demand.

7. 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 and the integral timer (if fitted) will require resetting once the selector switch is set to either Position (i) or Position (ii).

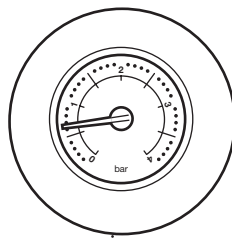
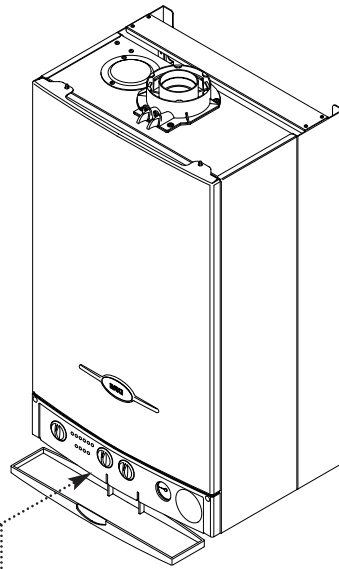


Fig. 4

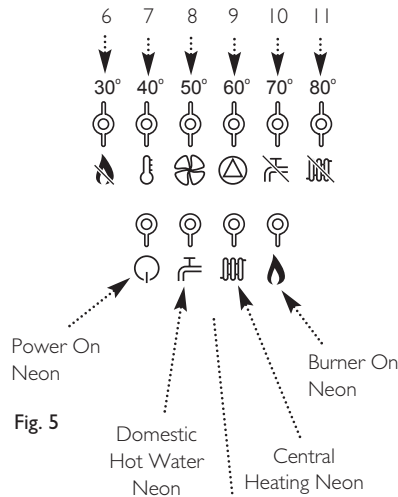
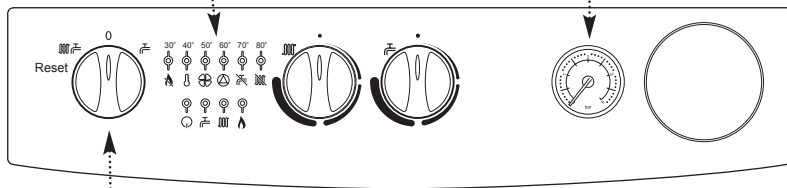
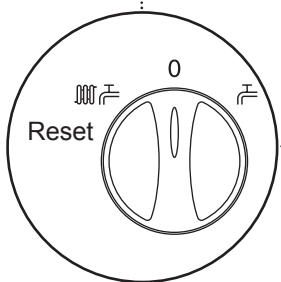


Fig. 5

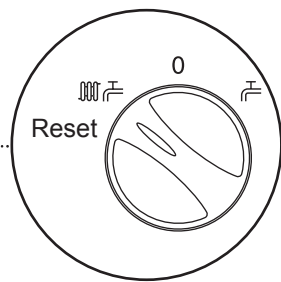


On/Off/Reset Selector Switch



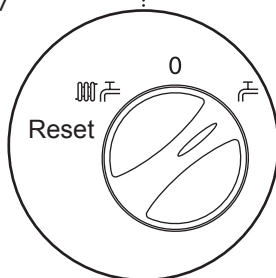
OFF Position

Fig. 6



Position (i)
(Central Heating or Hot Water)

Fig. 7



Position (ii)
(Hot Water)

Fig. 8

3.0 Operating the Boiler

3.2 Temperature Control

1. **Central Heating:** The central heating hot water flow temperature can be adjusted between 30° C ($\pm 5^\circ$ C) minimum and 85° C ($\pm 5^\circ$ C) maximum.
2. Turn the control knob clockwise to increase the temperature (Fig. 9).
3. In normal winter usage we recommend that the central heating temperature be set at maximum.
4. **Domestic Hot Water:** The temperature of the domestic hot water can be adjusted by turning the control knob clockwise to increase up to a maximum of 65° C (Fig. 10).
5. The temperature of the water is also dependent on the water flow rate and the temperature of the mains coming into the house.
6. By slightly reducing the flow from the tap the temperature will increase up to the maximum if required.
7. The flow rate can be reduced down to as low as 2.5 litre/min. The boiler will still recognise the need to heat the water.

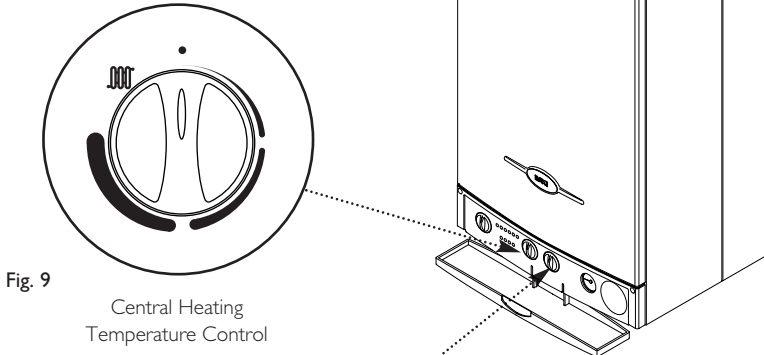


Fig. 9
Central Heating
Temperature Control

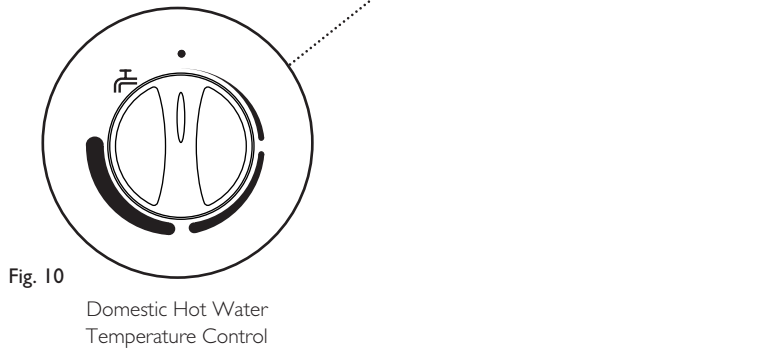


Fig. 10
Domestic Hot Water
Temperature Control

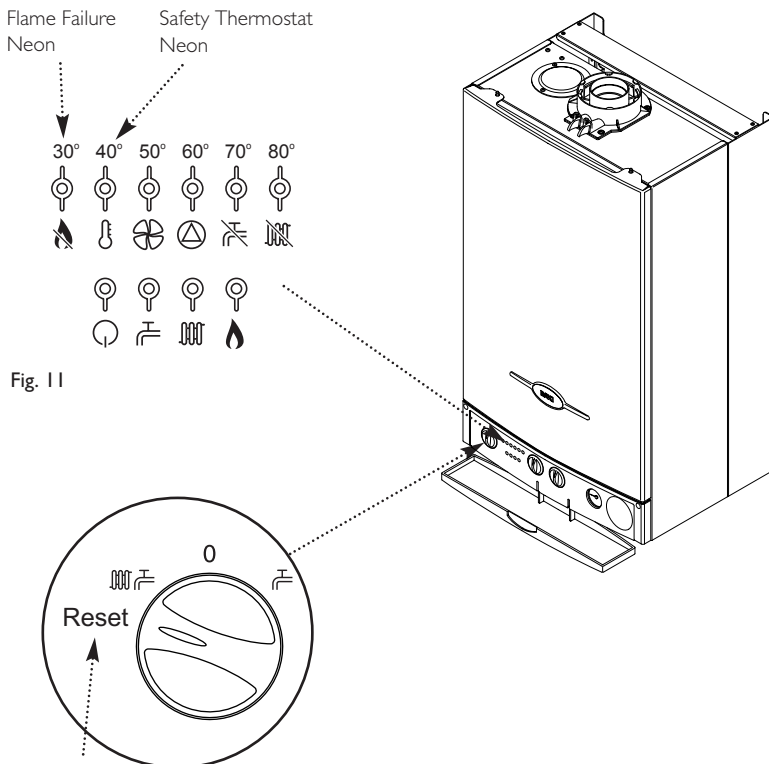



Fig. 11




Fig. 12

3.3 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. 11).
2. Turn the selector switch fully anti-clockwise against the spring pressure to the 'Reset' position for at least two seconds and release (Fig. 12). Set the selector to the required position to light the boiler.
3. If the flame failure light illuminates repeatedly a fault is indicated with either the boiler, the gas supply or the condensate drain. Your installer or Service Engineer should be contacted as soon as possible.

3.4 Safety Thermostats

1. Your Baxi Combi 105 HE is fitted with additional safety devices, which shut down the boiler in the event of the system, the boiler or the 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). Set the selector to the required position to light the boiler.
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.

3.0 Operating the Boiler

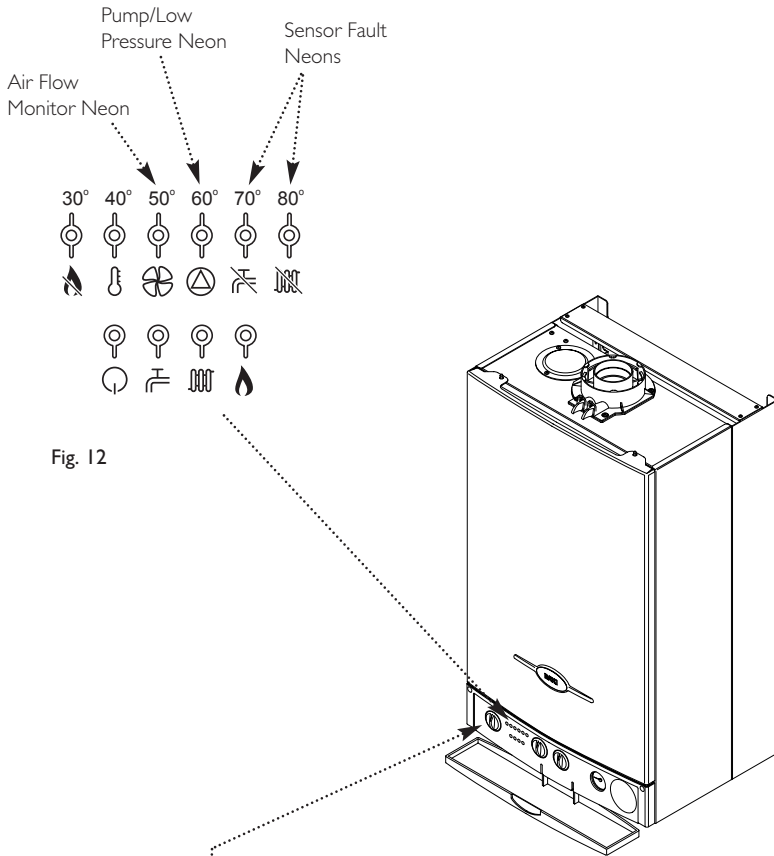


Fig. 12

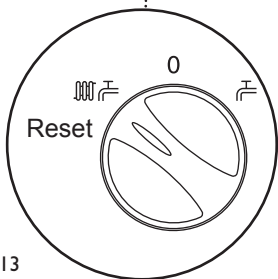


Fig. 13

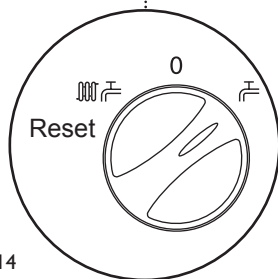




Fig. 14

3.5 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. 12).

3.6 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. 12).

2. Check the pressure gauge as described in Section 3.9. 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.

3.7 Sensor Fault

1. When the () or () neon is illuminated a fault on the hot water or central heating temperature sensor is indicated (Fig. 12). Contact your Installer or Service Engineer.

3.8 Pump Protection

1. With the selector switch in either Position (i) or Position (ii) (Figs. 13 & 14) the pump will automatically operate for 1 minute in every 24 hours to prevent sticking.

3.0 Operating the Boiler

3.9 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 0.5 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. 15 & 16).
3. A pressure of 3 or greater indicates a fault. The safety pressure relief valve will operate, at a pressure of 3 (Fig. 17). **It is important that your Installer or Service Engineer is contacted as soon as possible.**
4. The MINIMUM pressure for correct operation is 0.5. If the pressure falls below 0.5, this may indicate a leak on the central heating system (Fig. 18).

3.10 To Shut Off the Boiler

1. **For short periods:** Turn the selector switch to the OFF position (Fig. 19).
2. **For long periods:** Turn off the selector switch (Fig. 19), 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 and the integral timer (if fitted) will require resetting once the selector switch is set to either Position (i) or Position (ii).

3.11 Frost Protection Mode

1. The frost protection feature will operate when the selector switch is in the central heating and domestic hot water mode. The gas and electrical supplies to the boiler must be on and the system pressure must be within the range described in Section 3.9.
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.

Pressure Gauge

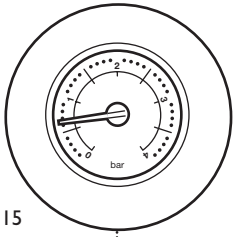


Fig. 15
Normal Pressure (when cold)

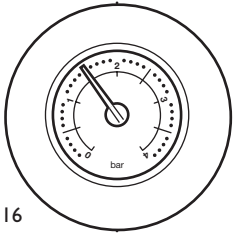


Fig. 16
Normal Pressure (operating)

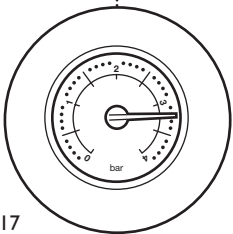


Fig. 17
Fault

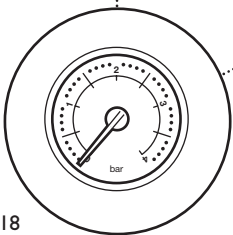
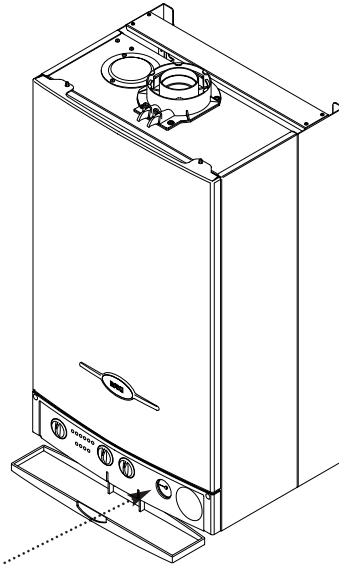


Fig. 18
Below Minimum



ON/OFF
Selector Switch

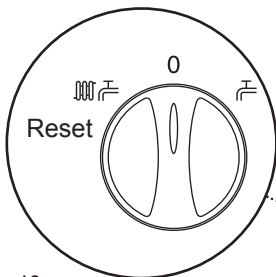
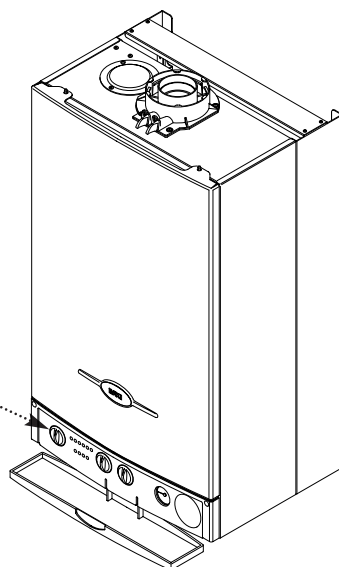


Fig. 19
OFF Position



4.0 Clearances and Check List

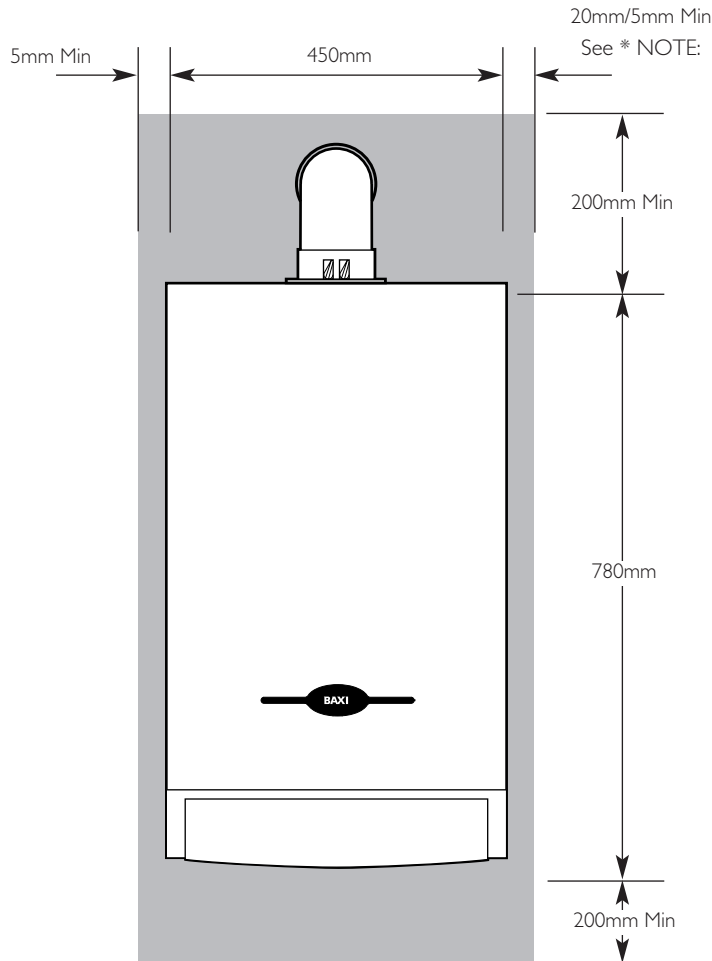


Fig. 20

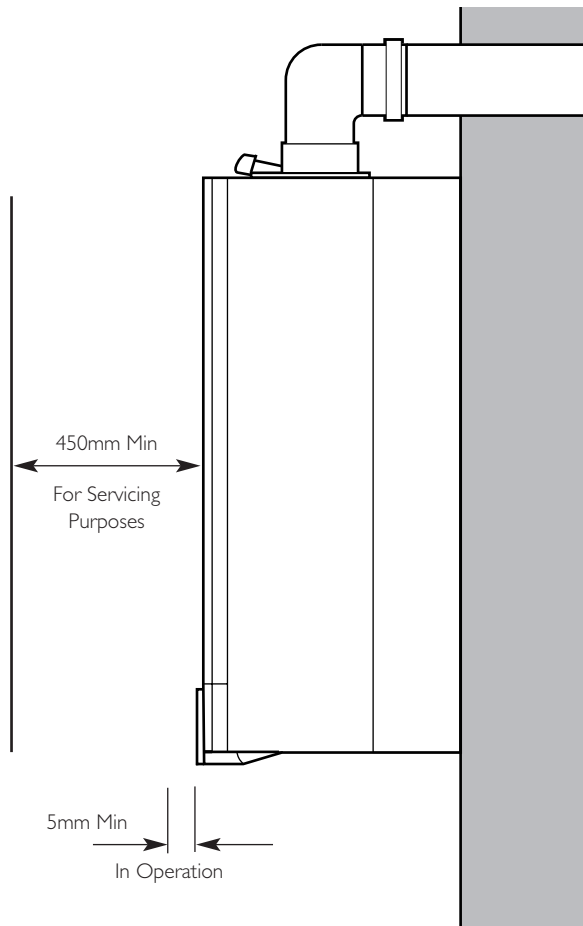


Fig. 21

4.1 Clearances around the Boiler (Figs. 20 & 21)

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, and must be maintained during the regular operation of the boiler and for routine maintenance. 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.

4.2 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 on (giving a green "Power ON" neon) and set for both Central Heating and Domestic Hot Water ?
- 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 mains water supply turned on ?
- f) Is the system pressure correct ?
- g) Are the boiler temperature controls set high enough ?
- h) Is the time clock (if fitted) calling for central heating ?
- i) Is the room thermostat (if fitted) set high enough ?
- j) Are the radiator valves open ?

5.0 Care of the Boiler

5.1 Cleaning the Outercase

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

5.2 Spare Parts

1. Once outside the guarantee period any spare parts may be obtained through approved Baxi Heating UK Ltd stockists if required.
 2. Quote the boiler name, model number (found on the reverse of the facia cover) and where possible the part number when ordering spares. A short parts list is included in the Installation and Servicing Instructions.
-

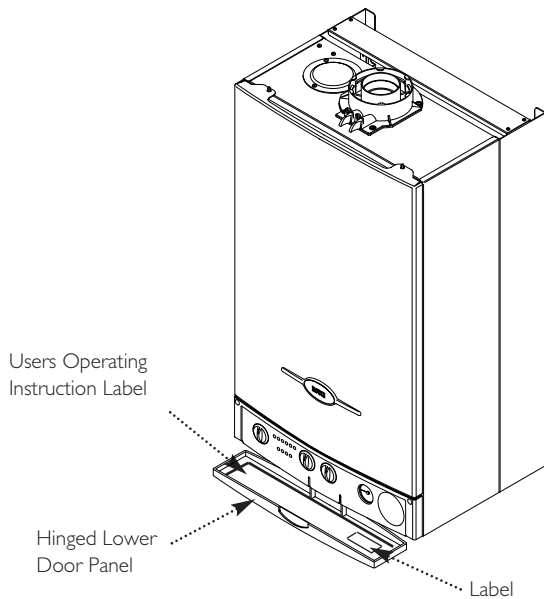
Please complete the boxes below

Serial Number

Date of Installation

D	D	M	M	Y	Y

Installer Details (name, address and contact number(s))



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
A Trading Division of Baxi Heating UK Ltd
Brooks House, Coventry Road, Warwick. CV34 4LL
After Sales Service 08700 60 30 60 Technical Enquiries 08706 049 049
Website www.baxi.co.uk
e&oe

A BAXI GROUP company

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9.0 Warranty & Service

Standard Warranty Term & Conditions

12 Months Free Warranty - register today

To receive your 12 months free warranty please complete the form supplied with the boiler or simply call **heateam**, the service of Baxi Heating UK Ltd on **08706 000 653**.

Our promise to you

If you experience a fault with your new boiler, we aim to provide a safe and high quality repair service supported by our dedicated national network of highly skilled engineers. If your installer can't resolve the problem for you, we will do everything we can to get an engineer out to you as quickly as possible. Nothing in this warranty will affect your statutory consumer rights.

What you need to do if you experience a problem with your heating system or the operation of the boiler

You should always contact your installer first, because the fault may not be related to the boiler. If your installer confirms that the fault is within the boiler it self and he/she can't repair it, our friendly customer service team is on hand to help. Simply call our service division **heateam** on **08700 60 30 60** to book an engineer visit or for any general advice that you may need. Our contact centre is open Monday to Friday 8am - 6pm, weekends and Bank Holidays 8.30am - 2pm, excluding Christmas Day and New Years Day.

When calling **heateam** it would be helpful if you could have the following information to hand:-

- 1 boiler serial number (see opposite).
- 2 boiler make and model number.
- 3 Your installer name and address details.
- 4 Proof of purchase (if you do not have the boiler serial number).

What this warranty covers

Free of charge repair or replacement of components found to be faulty from manufacture.

Free of charge replacement of the complete unit provided always that the failure is related to a manufacturing fault that cannot be repaired or is uneconomic to repair.

The warranty runs for 12 months from the date your product is installed.

What this warranty does not cover

Repairs to boilers which haven't been installed and commissioned properly, and as set out in the installation instructions (this includes the need to flush the system effectively and add a suitable corrosion inhibitor).

Any damage caused by hard water scale deposits and/or aggressive water resulting from corrosion.

Any other defects or failures, either in the connected heating system or outside of the boiler itself.

Faults caused by inadequate supply of electricity, gas or water to the property.

Installations within commercial settings for which this boiler was not designed.

Reimbursement of any third party repair or replacement costs that we haven't been told about or agreed with you in advance.

Compensation for consequential losses (e.g. loss of earnings, business losses, stress and inconvenience) arising from a production breakdown, including repair delays caused by factors outside our reasonable control.

Annual Service

To ensure you receive the maximum efficiency from your boiler we recommend your boiler has an annual service so you and your family can continue to enjoy heating and hot water comfort. To arrange an annual service from one of our Baxi Heating UK Ltd heating experts, please call to arrange a visit convenient to you.