

User Guide

Condensing Combination Boiler

Promax Ultra Combi

24 - 28 - 33 - 40

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

Model Range

Potterton Promax Ultra 24 Combi ErP
G.C.N° 47-393-54
Potterton Promax Ultra 28 Combi ErP
G.C.N° 47-393-55
Potterton Promax Ultra 33 Combi ErP
G.C.N° 47-393-56
Potterton Promax Ultra 40 Combi ErP
G.C.N° 47-393-57

The Benchmark Scheme

Baxi Heating UK Ltd is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.

Benchmark is managed and promoted by the Heating and Hotwater Industry Council. For more information visit www.centralheating.co.uk

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The Company Secretary, Baxi Heating UK Limited,
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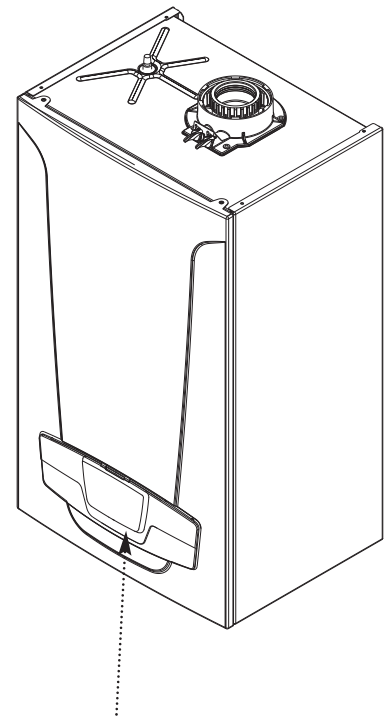
IPX5D



ISO 9001
FM 00866

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Boiler Controls - see opposite page for
Operating Quick Reference Guide
(Fascia Panel removed for clarity)

I.0 Quick Reference Guide

Key to Controls

Standby - Reset - Esc

Boiler Information View

Increase CH Temperature Button *

Decrease CH Temperature Button *

* **Important Note:** If your control system is fitted with the Optional Outdoor Sensor, these buttons will affect it's operation. Please consult your installer for advice.

Increase DHW Temperature Button

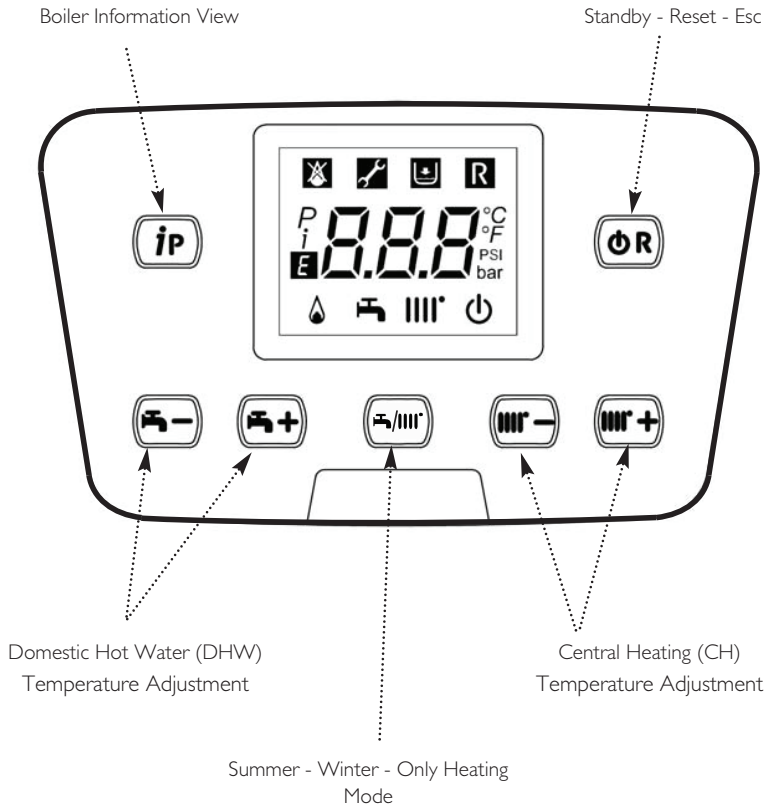
Decrease DHW Temperature Button

Summer / Winter / Only Heating Mode Button

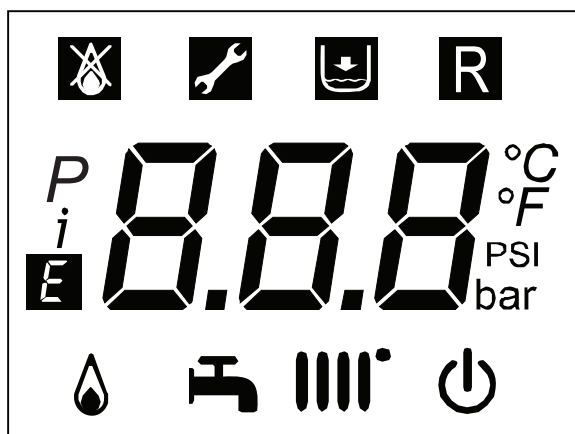
Summer - DHW only request mode

Winter - DHW & CH request mode

Only Heating - Only CH request mode



NOTE: When altering any settings it is necessary that the buttons are FIRMLY pressed for several seconds.



Display showing all available segment

Display Description

DHW and CH OFF (frost protection still enabled)

Indicate errors that prevent burner from starting

Error - Not resettable by user

Water pressure too low

Indicates a resettable error

Indicates navigation in programming mode (parameter)

Indicates navigation in programming mode

Generic error

Burner lit

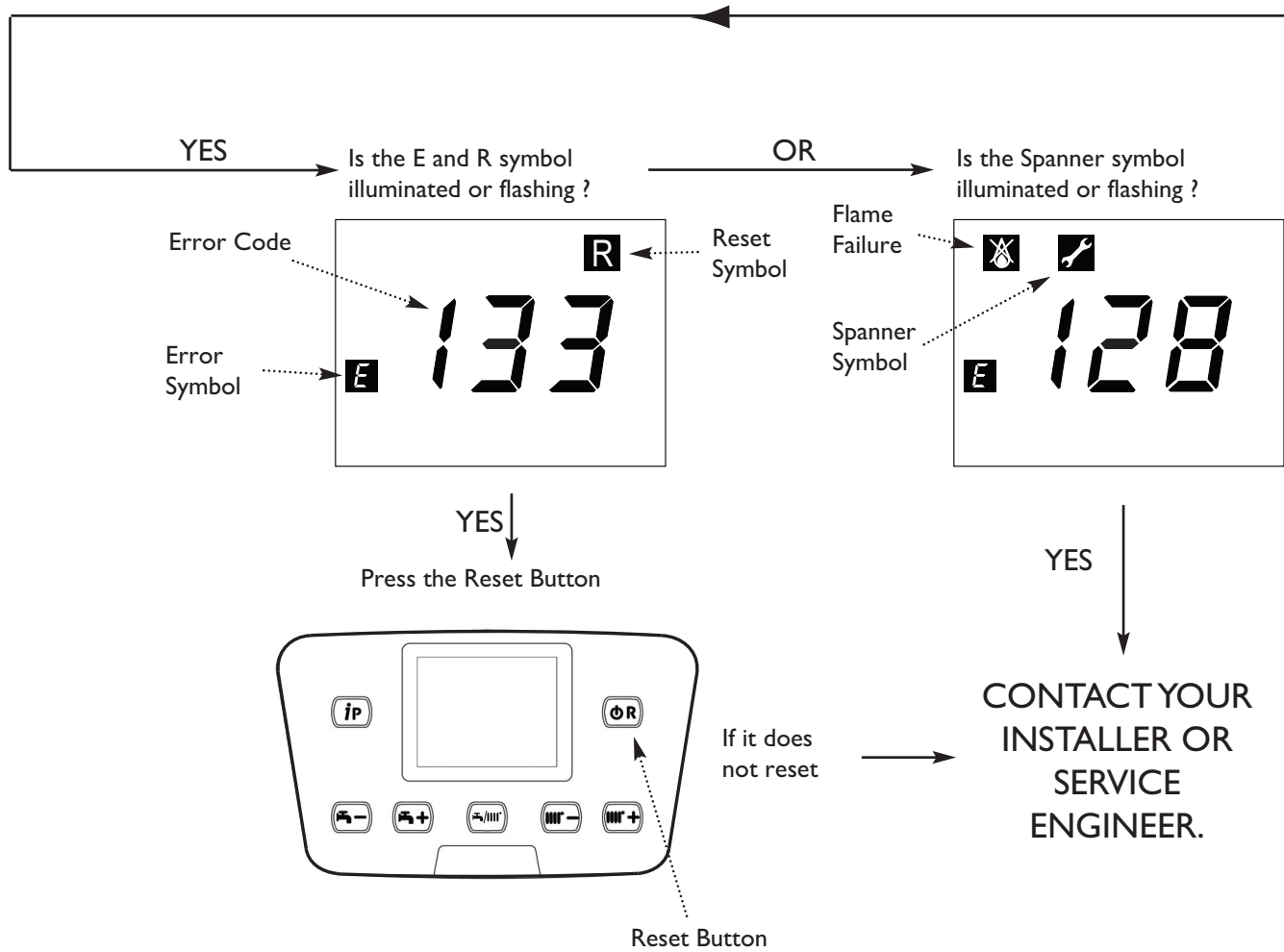
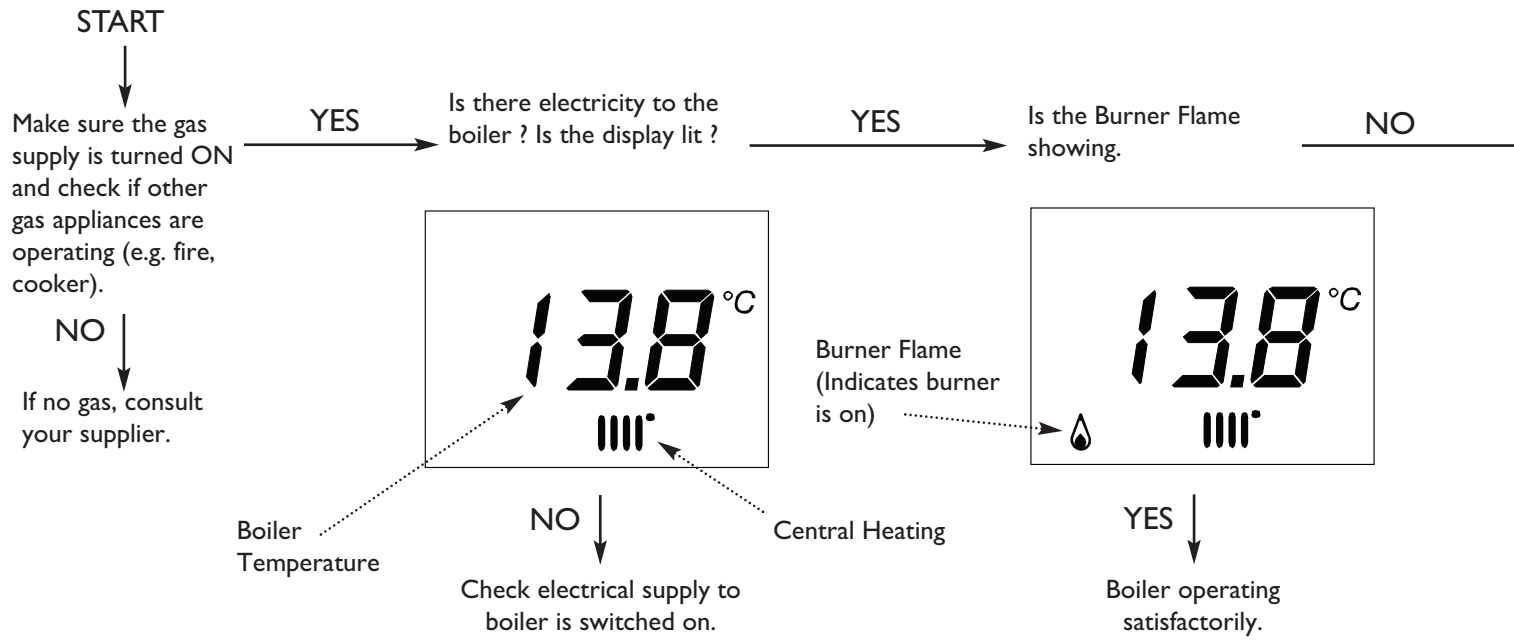
DHW request

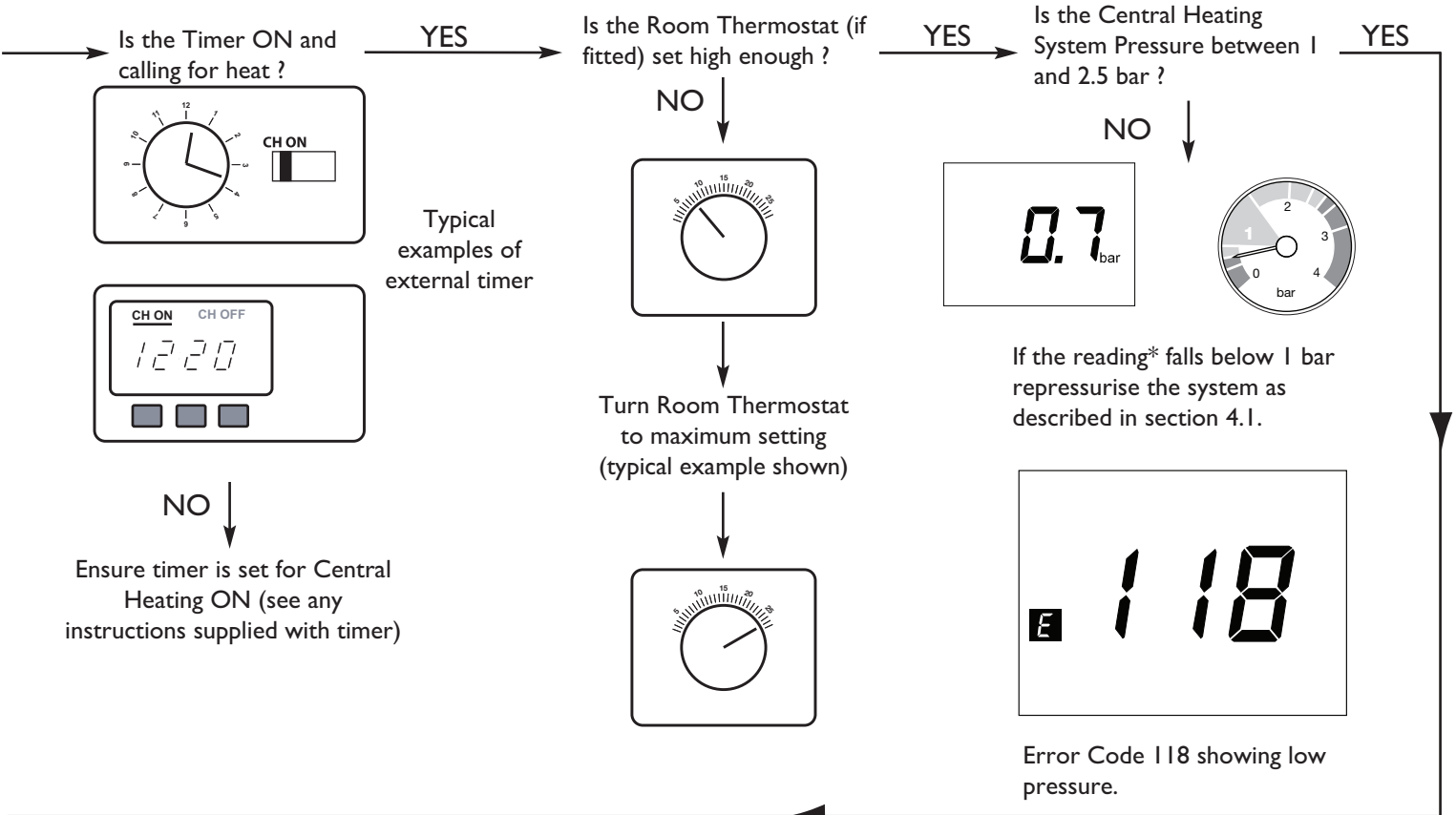
Heating mode

Units for temperature

Units for pressure

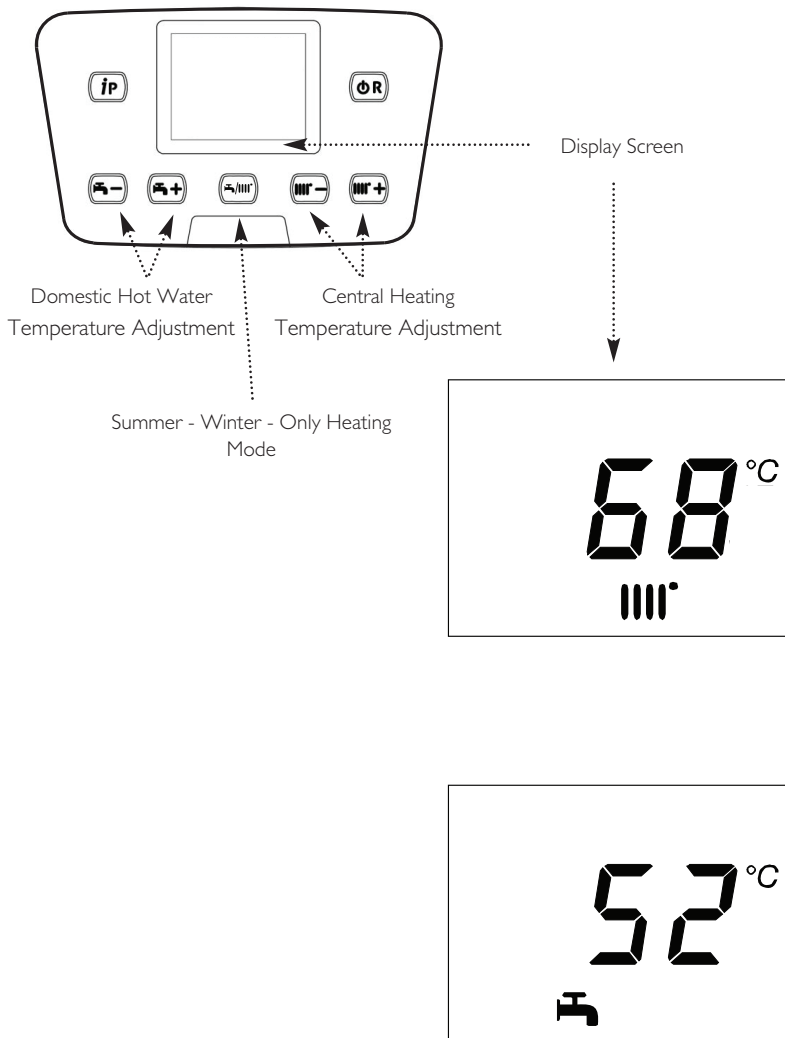
Service due





*To display the water pressure press *jP* 6 times. '05' will alternate with the system pressure.
 (NOTE: When the pump is running the gauge under the boiler may show a slightly different reading to the display)

If you don't know what you need to do to get the boiler to light, or need help with the system and controls, contact your installer as soon as possible



The **iP** button can be pressed so that the display shows the following information:-

- 1 press - '00' alternates with Sub-Code (only when fault on boiler) or '000'
- 2 presses - '01' alternates with CH Temperature
- 3 presses - '02' alternates with Outside Temperature (where Sensor fitted)
- 4 presses - '03' alternates with DHW Temperature
- 5 presses - '04' alternates with DHW Temperature
- 6 presses - '05' alternates with System Water Pressure
- 7 presses - '06' alternates with Return Temperature
- 8 presses - '04' alternates with Flue Temperature
- 9 presses - '05' alternates with Heat Exchanger Temperature

3.0 Temperature / Care of the Boiler

3.1 To increase or decrease the boiler temperature

1. Press the () to increase the CH temperature.
2. Press the () to decrease the CH temperature.

NOTE: An NTC device is positioned in the heat exchanger which shuts down the appliance if the boiler temperature exceeds 100°C. Press the () button to re-establish normal operating conditions.

3.2 To increase or decrease the domestic hot water (DHW) temperature

1. Press the () to increase the DHW temperature.
2. Press the () to decrease the DHW temperature.

3.3 Summer - Winter - Only Heating Mode

1. Press () button until the required mode appears:-

- Summer - DHW only request mode
- Winter - DHW & CH request mode
- Only Heating - Only CH request mode

2. See 3.1 or 3.2 to set the required temperature.

3.4 Cleaning the Outer case

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

3.5 Boiler Frost Protection

1. The boiler incorporates an integral frost protection feature that will operate in both CH & DHW modes, and also when in standby (displayed).
2. If the boiler temperature falls below 5° C, then the boiler will operate until the water temperature has been raised.
3. Further protection may be required for the system. Consult your installer for details.

3.6 Information Display

1. The table opposite shows information that can be displayed by pressing the **iP** button.
2. Press to return to the normal display.

4.0 Repressurising System & 'Service Due'

4.1 Central Heating System Pressure

1. The normal operating water pressure is between 1 and 2.5 bar (Fig. 1). If the pressure exceeds 3 bar the safety pressure valve will operate and a fault is indicated (E1 17 displayed). Contact your installer.

2. It may be necessary to repressurise the system occasionally (as Fig. 2 or E1 18 displayed). A filling device (the filling loop) will be fitted on the system. This will be on the boiler itself, or on pipework near to the boiler.

3. If you are unsure of its position, or cannot identify it, consult the installer who fitted the boiler.

4. The filling loop consists of two taps and a separate copper pipe with connection fittings.

5. Only when repressurising should the copper pipe be connected between the two taps. Ensure that the nuts on the pipe ends are tightened onto the taps.

6. Fully open one of the taps first, and then while watching the pressure gauge, carefully open the second tap.

7. The system pressure is shown at all times on the gauge under the boiler and can be viewed on the display when there is power to the boiler.

8. To display the water pressure press **iP** 6 times. '05' will alternate with the system pressure. (**NOTE:** When the pump is running the gauge under the boiler may show a slightly different reading to the display)

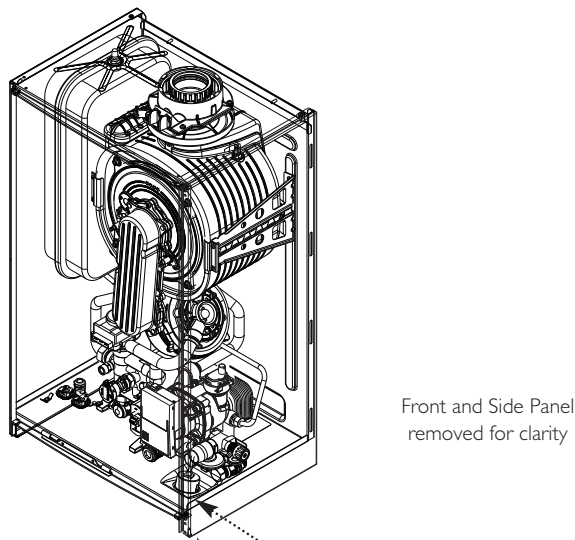
9. When the needle on the gauge or figures on the display indicate 1 or more turn both taps off.

10. Disconnect the copper pipe from the taps (a small amount of water may be present) and remove it. Keep the pipe in a safe place for future use.

4.2 'Service Due' Message

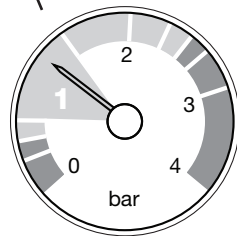
1. After 11 months operation the 'Service Due' message will be shown on the boiler display.

2. Please contact your Installer, Annual Service Provider or Baxi Customer Support on 0344 871 1525 to arrange your Annual Service.

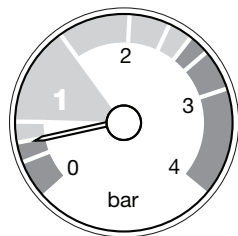


Front and Side Panel removed for clarity

View Under Appliance
Pressure Gauge

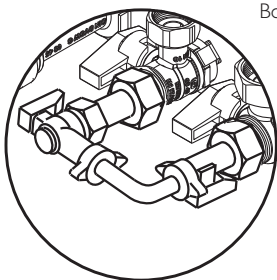


Normal Pressure

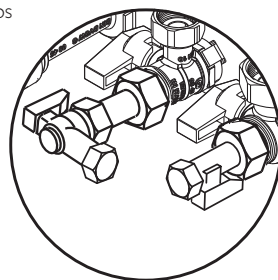


Requires
Repressurising

Filling Loop on
Boiler Taps



Copper Pipe in
position



Blanking Caps
fitted

'Service Due'
Message
'Sd' will show for
three seconds,
alternating with the
boiler temperature.



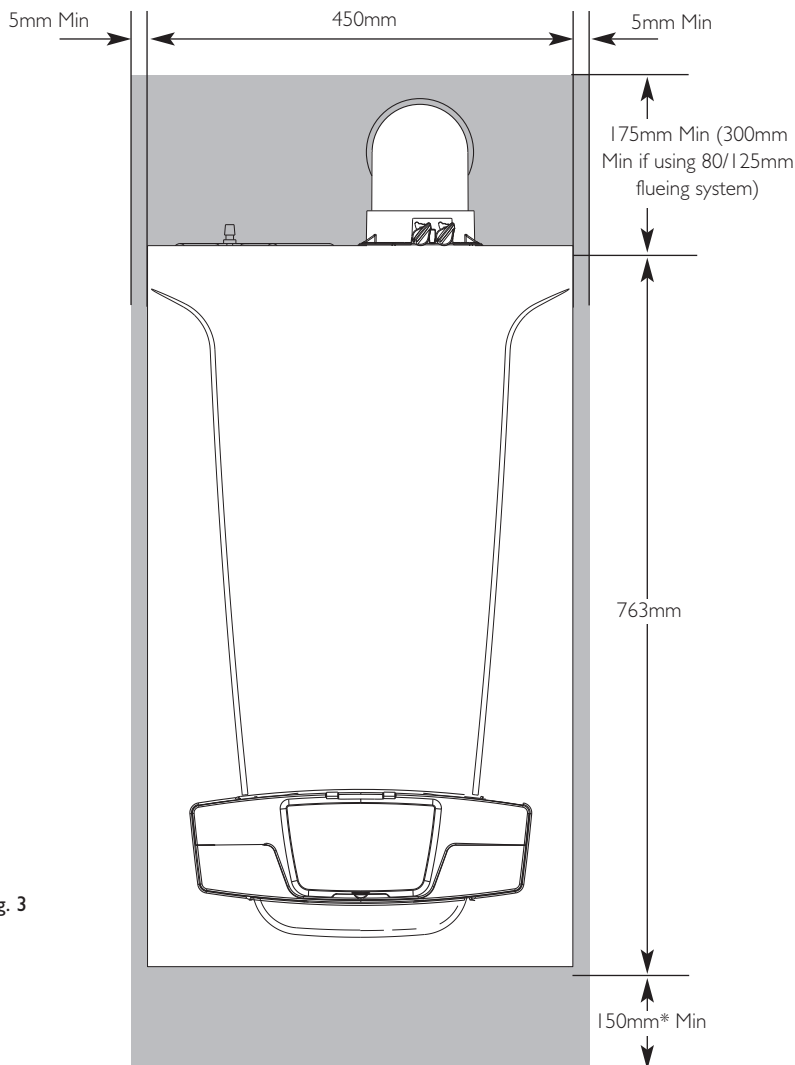


Fig. 3

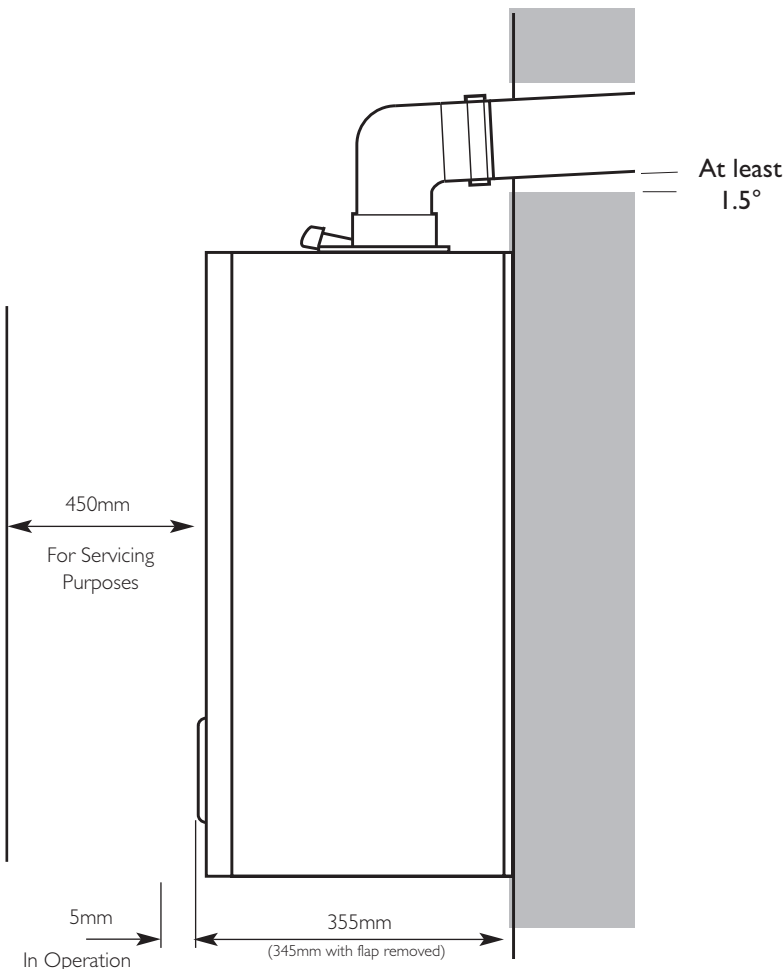


Fig. 4

5.0 Clearances

5.1 For your Safety

1. This appliance must have been installed in accordance with the manufacturer's instructions and the regulations in force.
2. Any modification 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.

GB - Heating Industry definition meaning England, Scotland, Wales, Northern Ireland, Isle of Man and the Channel Isles

3. Your boiler must not be operated without the casing correctly fitted.
4. Do not interfere with any sealed components on this boiler.
5. Take note of any warning labels on your boiler.
6. Your boiler should have the following minimum clearances for Safety and Maintenance (Figs. 3 & 4):-

Top	- 175mm
Bottom	- 150mm*
Left side	- 5mm
Right Side	- 5mm
Front	- 5mm (In Operation)
	- 450mm (For Servicing)




*This is MINIMUM recommended dimension. Greater clearance will aid installation and maintenance.

7. If your boiler is installed in a compartment, do not use it for storage purposes. Do not obstruct any purpose provided ventilation openings.
8. Flammable materials must not be stored in close proximity to your boiler.
9. Avoid skin contact when your boiler is in operation, as some surfaces may get hot e.g. pipework.
10. Ensure that the flue terminal, outside the house, does not become damaged or obstructed, particularly by foliage.

11. It is important that the condensate drain system is not blocked, modified or damaged in any way as this would affect the operation of your boiler. Your installer should have insulated any exposed pipework.

6.0 Error Codes

6.1 List of Error Codes

1. The display shows two types of signals:  and **R**. In both cases the display shows **E** symbol and the numeric value of the error (see the "error table" below).
2.  The spanner cannot be reset by the user. Please contact your Installer, Annual Service Provider or Baxi Customer Support on 0344 871 1525.
3. **R** Fault errors can be reset by pressing the  button.

WARNING: If an error code (if different from the ones described below) appears on the display or a certain fault appears frequently, contact your Installer, Annual Service Provider or Baxi Customer Support on 0344 871 1525.

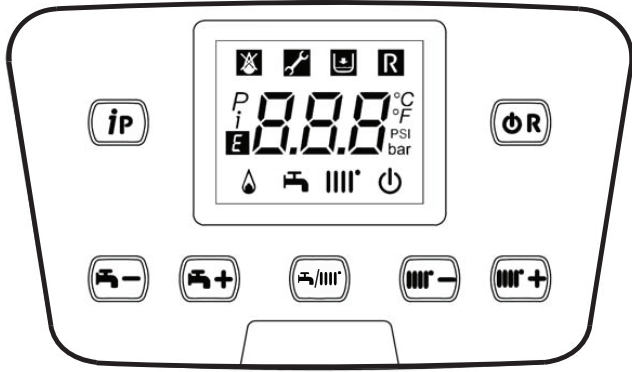


Fig. 5

Table Of Error Codes

E 09	Gas Valve Connection Cable
E 15	Gas Valve Fault
E 20	Central Heating NTC Fault
E 28	Flue NTC Fault
E 40	Central Heating Return NTC Fault
E 55	Calibration Required
E 109	Pre-circulation Fault
E 110	Safety Thermostat Operated
E 117	Primary System Water Pressure Too High
E 118	Primary System Water Pressure Too Low
E 125	Circulation Fault (Primary)
E 128	Flame Failure
E 130	Flue NTC Operated
E 133	Interruption Of Gas Supply or Flame Failure
E 134	Elapsed Time - Gas Valve Open Without Gas
E 135	Interruption Of Gas Supply (Internal Error)
E 154	Flow/Return Sensor Temperature Test
E 160	Fan or Fan Wiring Fault
E 270	Circulation Fault (Dry Fire)
E 321	Hot Water NTC Fault
E 384	False Flame

7.0 Legislation

7.1 Installation, Commissioning, Service & Repair

1. 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.
2. In GB, this must be carried out by a competent person as stated in the Gas Safety (Installation & Use) Regulations.
3. **Definition of competence:** A person who works for a Gas Safe registered company and holding current certificates in the relevant ACS modules, is deemed competent.
4. In IE (Eire), 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.

All Gas Safe registered engineers carry an ID card with their licence number and a photograph. You can check your engineer is registered by telephoning 0800 408 5500 or online at www.gassaferegister.co.uk

The boiler meets the requirements of Statutory Instrument "The Boiler (Efficiency) Regulations 1993 No 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 0085.

Product/Production certified by:
Notified Body 0086.
Ref: 86-BL-647

For GB/IE only.

7.2 Benchmark Commissioning Checklist

1. Please ensure that the installer has fully completed the Benchmark Checklist on the inside back pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).
 2. All installations must be notified to Local Area Building Control either directly or through a Competent Persons Control Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.
 3. This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.
 4. The completed Benchmark Checklist may be required in the event of any warranty work.
-

8.0 Warranty & Service

8.1 General

To make sure your boiler warranty is activated and maintained, it is essential that the:

1. Benchmark checklist is completed by your installer
2. Warranty is registered with Baxi
3. Boiler has an annual service

Please note that failure to adhere to terms and conditions will make your warranty invalid.

8.2 Standard Warranty Terms and Conditions

Warranty Registration, Service & Repair

For full terms and conditions, visit www.baxi.co.uk/terms.

Benchmark Checklist

The Benchmark Checklist will be completed by your installer and records that the boiler has been installed and commissioned correctly. It can be found at the back of the installation and service manual and should be kept in a safe place for the life of the boiler. We will check that the Benchmark Checklist has been completed on an in-warranty visit.

Ways to register your warranty

If your boiler is eligible for an extended warranty, your installer may register the product on your behalf and provide you with the relevant documentation. Please check with your installer.

Should this not be the case, you can register your warranty online at www.baxi.co.uk/registration

Annual Service

A service must be completed every 12 months from the date of installation to maintain your warranty.

This service must be completed by one of the following:

- A Gas Safe registered installer/engineer
- Baxi Customer Support; call us 0344 871 1525

Please make sure that your engineer has logged the service information at the back of the installation and service manual. You will be asked for your service history on any in-warranty repair visit.

If you experience a problem with your boiler

For any in or out of warranty repair, Baxi Customer Support is on hand to help you. Call our award-winning team to arrange for one of our nationwide team of Gas Safe registered engineers to visit.

If your product is in warranty, everything is free of charge, subject to our warranty terms and conditions. If it is out of warranty, we can still help and offer a range of options you can choose from to suit your needs.

Contact Baxi Customer Support 0344 871 1525

Opening hours

Monday - Friday, 8.00am - 6.00pm

Weekends and Bank Holidays, 8.30am - 2.00pm

Please note calls may be recorded for training and monitoring purposes.

When contacting Baxi Customer Support, please have the following information to hand:

- Boiler serial number. This can be found on the appliance.
- Proof of purchase if you do not have the boiler serial number.

Please note that for in-warranty repairs, our engineers will ask to see your service history record, completed Benchmark Checklist and details of your installer. These can all be found in the installation and user manual.

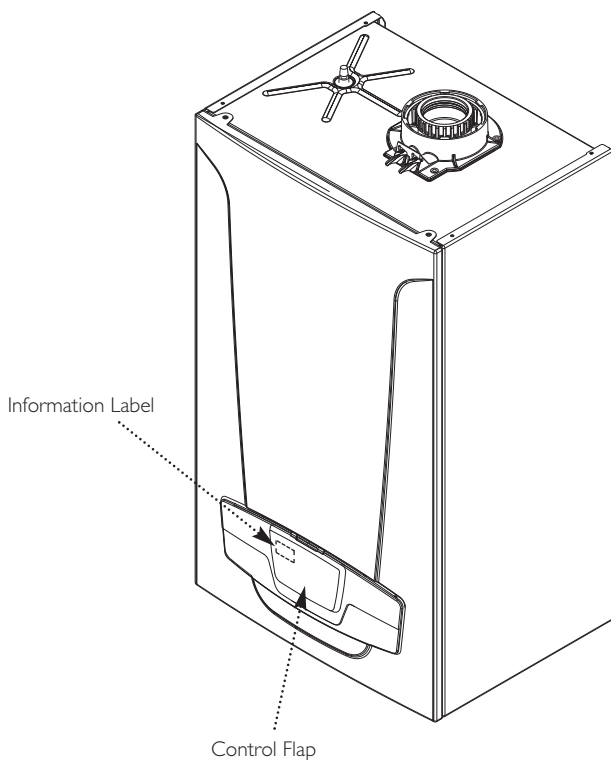


Fig. 6

Product fiche for combination boilers

Potterton Promax Ultra Combi ErP		24	28	33	40
Space heating - Temperature application		Medium	Medium	Medium	Medium
Water heating - Declared load profile		XL	XL	XXL	XXL
Seasonal space heating energy efficiency class		A	A	A	A
Water heating energy efficiency class		A	A	A	A
Rated heat output (<i>Prated or Psup</i>)	kW	20	24	28	32
Space heating - Annual energy consumption	kWh GJ	17204 62	20645 74	24086 87	27527 99
Water heating - Annual energy consumption	kWh GJ	17	17	22	22
Seasonal space heating energy efficiency	%	93	93	93	93
Water heating energy efficiency	%	88	86	87	85
Sound power level L_{WA} indoors	dB	49	50	53	51



See

For specific precautions about assembling, installing and maintaining, consult the relevant section as detailed on the Contents page.

9.2 Package Fiche - Boilers

Package fiche for boilers indicating the space heating energy efficiency of the package

Seasonal space heating energy efficiency of boiler

①
'I' %

Temperature control

from fiche of temperature control

Class I = 1%, Class II = 2%, Class III = 1.5%,
 Class IV = 2%, Class V = 3%, Class VI = 4%,
 Class VII = 3.5%, Class VIII = 5%

②
 + %

Supplementary boiler

from fiche of boiler

Seasonal space heating energy efficiency (in %)

③
 (- 'I') x 0.1 = ± %

Solar contribution

from fiche of solar device

Collector size (in m²)

Tank volume (in m³)

Collector efficiency (in %)

Tank rating ⁽¹⁾
 A* = 0.95, A = 0.91,
 B = 0.86, C = 0.83,
 D - G = 0.81

$$('III' \times \text{Collector size} + 'IV' \times \text{Tank volume}) \times 0.9 \times (\text{Collector efficiency} / 100) \times \text{Tank rating} = + \text{Result} \%$$

(1) If tank rating is above A, use 0.95

Supplementary heat pump

from fiche of heat pump

Seasonal space heating energy efficiency (in %)

⑤
 (- 'I') x 'II' = + %

Solar contribution AND Supplementary heat pump

select smaller value

$$0.5 \times \text{④} \text{ OR } 0.5 \times \text{⑤} = - \text{⑥} \%$$

Seasonal space heating energy efficiency of package

⑦
 %

Seasonal space heating energy efficiency class of package

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G	F	E	D	C	B	A	A*	A**	A***
<30%	≥30%	≥34%	≥36%	≥75%	≥82%	≥90%	≥98%	≥125%	≥150%

Boiler and supplementary heat pump installed with low temperature heat emitters at 35°C ?

from fiche of heat pump

⑦
 + (50 x 'II') = %

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

- I The value of the seasonal space heating energy efficiency of the preferential space heater, expressed in %.
- II The factor for weighting the heat output of preferential and supplementary heaters of a package as set out in the following table.

- III The value of the mathematical expression: $294/(11 \cdot \text{Prated})$, whereby 'Prated' is related to the preferential space heater.
- IV The value of the mathematical expression $115/(11 \cdot \text{Prated})$, whereby 'Prated' is related to the preferential space heater.

Weighting of boilers

$P_{sup} / (Prated + P_{sup})^{(1)(2)}$	II, package without hot water storage tank	II, package with hot water storage tank
0	0	0
0.1	0.3	0.37
0.2	0.55	0.70
0.3	0.75	0.85
0.4	0.85	0.94
0.5	0.95	0.98
0.6	0.98	1.00
≥ 0.7	1.00	1.00

(1) The intermediate values are calculated by linear interpolation between the two adjacent values.
 (2) Prated is related to the preferential space heater or combination heater.

Package efficiency

Potterton Ultra ErP		24	28	33	40
Temperature control X	%				
Temperature control Y	%				

9.3 Package Fiche - Combination Heaters (Boilers or Heat Pumps)

Package fiche for combination heaters (boilers or heat pumps) indicating the water heating energy efficiency of the package

Water heating energy efficiency of combination heater

①
'I' %

Declared load profile:

Solar contribution

from fiche of solar device

Auxiliary electricity

②
 $(1.1 \times 'I' - 10\%) \times 'II' - 'III' - 'I' = +$ %

Water heating energy efficiency of package under average climate

③
 %

Water heating energy efficiency class of package under average climate

		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		G	F	E	D	C	B	A	A⁺	A⁺⁺	A⁺⁺⁺
<input type="checkbox"/>	M	<27%	≥27%	≥30%	≥33%	≥36%	≥39%	≥65%	≥100%	≥130%	≥163%
<input type="checkbox"/>	L	<27%	≥27%	≥30%	≥34%	≥37%	≥50%	≥75%	≥115%	≥150%	≥188%
<input type="checkbox"/>	XL	<27%	≥27%	≥30%	≥35%	≥38%	≥55%	≥80%	≥123%	≥160%	≥200%
<input type="checkbox"/>	XXL	<28%	≥28%	≥32%	≥36%	≥40%	≥60%	≥85%	≥131%	≥170%	≥213%

Water heating energy efficiency under colder and warmer climate conditions

Colder: ③ - 0.2 x ② = %

Warmer: ③ + 0.4 x ② = %

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

- I The value of the water heating energy efficiency of the combination heater, expressed in %.
- II The value of the mathematical expression $(220 \cdot Q_{ref})/Q_{nonsol}$, where Q_{ref} is taken from Regulation EU 811/2013, Annex VII Table 15 and Q_{nonsol} from the product fiche of the solar device for the declared load profile M, L, XL or XXL of the combination heater.
- III The value of the mathematical expression $(Q_{aux} \cdot 2,5)/(220 \cdot Q_{ref})$, expressed in %, where Q_{aux} is taken from the product fiche of the solar device and Q_{ref} from Regulation EU 811/2013, Annex VII Table 15 for the declared load profile M, L, XL or XXL.

Warning !

If you smell gas

- Do not operate light switches
- Do not operate any electrical equipment
- Do not use a telephone in the hazardous area
- Extinguish any naked flame and do not smoke
- Open windows and doors in the hazardous area
- Turn off the gas supply at the meter
- Warn any other occupants and vacate the premises
- Telephone the National Gas Emergency Service on:-
0800 111 999

Faulty boiler

If it is known or suspected that a fault exists on the boiler, it must not be used until the fault has been corrected by a competent person.

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. If a water or gas leak occurs or is suspected, the boiler can be isolated at the inlet valves by turning their taps through 90° (1/4 turn) (Fig. 7).
3. Call your Installer or Service Engineer as soon as possible.

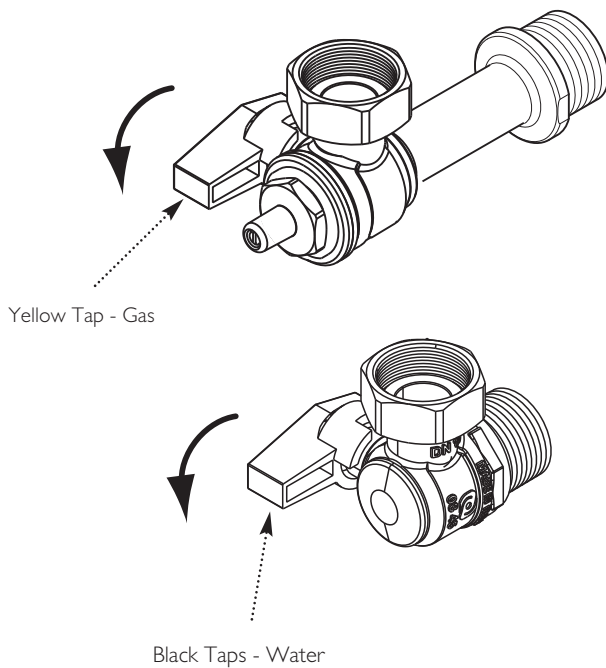


Fig. 7

11.0 Disposal

11.1 Disposal and Recycling

NOTE: Removal and disposal of the boiler must be carried out by a qualified person in accordance with local and national regulations.

Baxi Customer Support



0344 871 1525

Opening hours

Monday - Friday, 8.00am-6.00pm

Weekends and Bank Holidays, 8.30am-2.00pm

Please note calls may be recorded for training and monitoring purposes



baxi.co.uk

Register now to activate your warranty:

www.baxi.co.uk/registration

For the warranty to be maintained, please make sure...

- 1** Benchmark checklist is completed
- 2** Warranty is registered with Baxi
- 3** The boiler has an annual service

For full terms and conditions, visit www.baxi.co.uk/terms. Failure to adhere to terms and conditions will void your manufacturer's warranty.



Baxi
Brooks House,
Coventry Road,
Warwick, CV34 4LL



Please ensure the boiler is installed in accordance with these installation instructions and that you adhere to the Building Regulations.

e&oe

All descriptions and illustrations provided in this document 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.

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