

Paramount two

Wall Hung Condensing Boilers



Working towards
a cleaner future

POTTERTON
COMMERCIAL
heating specialists



Product Overview

page

- 3 Introduction
- 4 Benefits

Product
Overview

System & Applications

- 5 System Requirements
- 5 Single Boiler Domestic Hot Water & Constant Temperature

System &
Applications

Controls Options

- 6 Controls – ISR
- 7 Single Boiler Options & Sales Codes
- 7 Modular Boiler Controls & Sales Codes

Controls
Options

Flueing Systems

- 8 Flue Options
- 9 Positioning
- 9 Horizontal Concentric Flues
- 10 Vertical Concentric Flues

Pipe-work
Options

Pipework Options

- 11 Jig & Valve Kits
- 12 Modular Arrangements

Pipework
Options

Technical Data

- 13 Dimensions – 30/40kW & 60/80kW
- 14 Dimensions – 95/115kW
- 15 Technical Data

Technical
Data

Paramount two

Improving on what many people considered the best in the market was hard to achieve.

Using the very latest in heating technology with the ultra-reliable and proven heat-exchanger made from an aluminium/silicon alloy with an industry leading Lifetime Guarantee*; a combustion system which delivers exceptional energy efficiency (up to 109% net) as well as advanced ultra low NOx performance, exceeding Class 5, ensuring the boiler is extremely environmentally friendly. It was hard to see where improvements could be made.

After extensive market research with the customer, installer and specifier they all came back with the same answer that the user interface was paramount in their decision making process.

With this in mind it allowed Potterton Commercial to extend the boundaries of boiler/user interface and to develop in conjunction with a leading controls manufacturer Siemens the Integrated System Regulator (ISR) control system.

The user friendly control panel now offers full text display of operation status with inbuilt weather compensation, summer/winter changeover and time control facilities for heating and DHW.

The ISR controls can be used with the simplest of room thermostats or fully integrated with Building Management Energy Systems. Remote status facilities are built in for run and fault and the ISR controller also allows for remote control of set-point temperatures using a 0-10V signal. In addition to the standard controls which meets most specifier's needs, Potterton Commercial can offer optional controllers for DHW operation, optimisation, zone control and modular boiler sequence control.

The Paramount two has also added to its range with the introduction of the Paramount 95kW & 115kW model, thus meaning the range comprises of six outputs 30kW, 40kW, 60kW, 80kW, 95kW & 115kW.

*Terms and conditions apply



Paramount two Benefits

The Paramount two range of boilers are manufactured to the latest ISO standards for production and quality only using components of the finest quality. All boilers are factory tested and proven before sale ensuring exceptional reliability. This commitment to quality and reliability is backed up by the Lifetime Guarantee offer from Potterton Commercial.



Superior heat exchanger design using a unique monoblock, modular design, offers the optimum heat transfer. With weight from 58kg, coupled with a slim, sleek design, the Paramount two is perfect where space is at a premium. All boilers are only 480mm wide making the Paramount two perfect for single or multiple installations.

The complete range of boilers exceed the seasonal efficiency requirements of Part L2 of the Building Regulations, giving the specifier piece of mind in selecting the product.

The Paramount two boiler range offers a comprehensive choice of flueing options to cover almost every application. Suitable for horizontal and vertical concentric (C13 & C33) flueing for room-sealed applications. The Paramount two is also suitable for conventional and modular flueing installations.

Supplied for use with natural gas, with an optional conversion kit for LPG Propane.

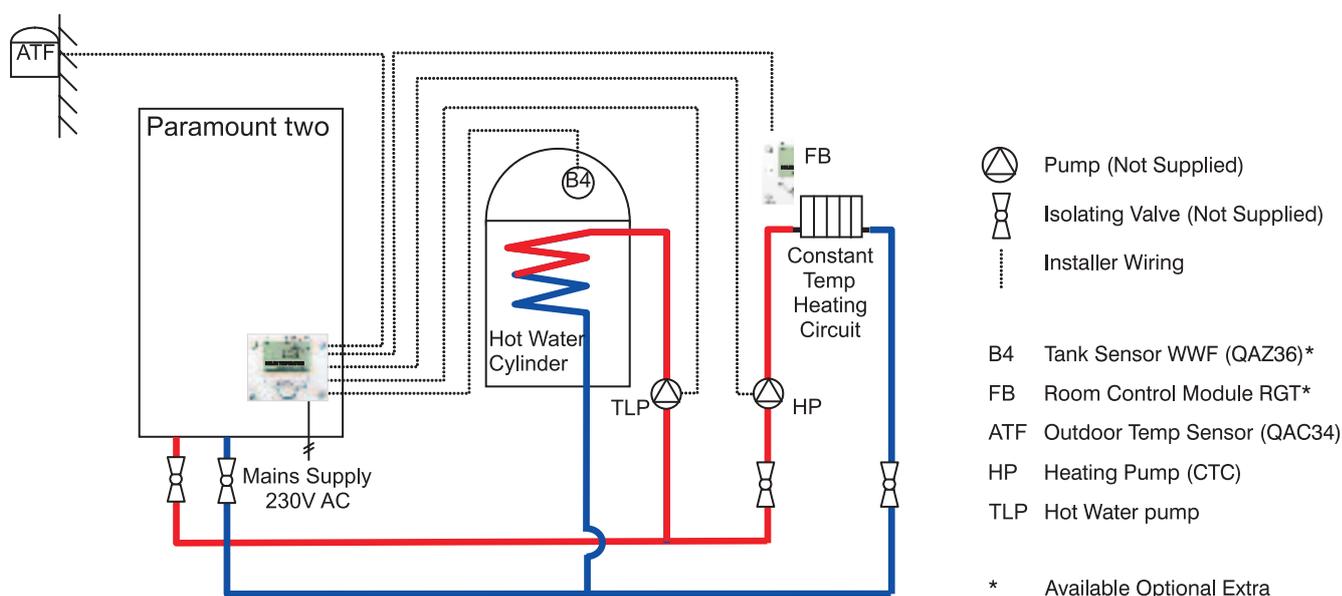
Supported by a dedicated sales force across the U.K. and by our after-sales support service and technical functions based at our head office, we are only a call away to assisting your needs.

System Requirements

The Potterton Commercial Paramount two range is suitable for systems with a minimum pressure of 1 bar (10m static head) with a maximum working pressure of 3 bar (30 & 40kW models) 4 bar (60kW, 80kW, 95kW & 115kW models).

All installations should comply with all relevant codes of practice, British standards and current Building Regulations. The maximum potential of the Paramount two can be achieved when it is installed on a fully condensing system. A typical heating system layout can be seen in the diagram below.

Single Boiler with DHW & Constant Temperature Circuit



Time and temperature control is achieved via the RGT room control unit. The outside sensor will dictate the heating flow temperature to match the heating demand of the building; the overriding RGT room control will shut down the plant if the building overheats due to internal and solar gains. The RGT will also provide frost protection, optimum start/stop and night set back for the heating and hot water. When hot water is required this will always have priority over the heating requirements. The control will shut down the heating pump and start the hot water charging pump then raise the boiler set point to maximum to satisfy the hot water demand. It is essential that high recovery coils are used in the calorifier to limit the heat up time otherwise the building may cool down.

Controls

The new Integrated System Regulator (ISR) control system incorporated on the Paramount two range of boilers has been designed with the emphasis on the ease of commissioning, programming and diagnostics and to embrace the requirements set out in the Building Regulations for minimum controls requirements for installations.

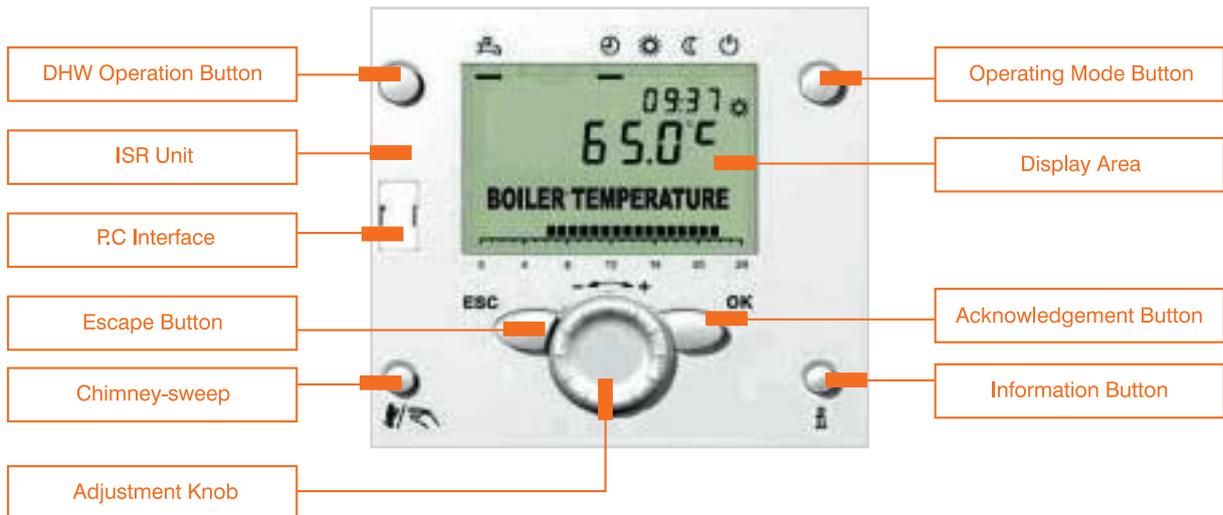
The Paramount two comes supplied as standard with the ISR user interface unit capable of time control of heating and DHW circuits (WWF tank sensor required). Weather compensation, frost protection and automatic summer/winter changeover facilities are also incorporated and through the use of the RGT room thermostat optimum start and stop is available. The Paramount two also incorporates volt-free contacts for remote indication of fault and run and is capable of accepting a 0-10V signal for external Building Management Energy Systems.

To facilitate ease of operation the ISR controller works on a menu based system, split into the relevant parameter levels such as end-user, commissioning & engineer. These menus are then displayed in sub menu's such as time and date, heating times, DHW times, etc.

When the Paramount two is used in modular boiler applications, optional controls are available for sequential control and multiple zone control. The ISR BCA allows for the control of up to 12 boilers in cascade allow modular outputs to be installed up to 960kW. For further details on the optional controllers please refer to the Controls and Applications guide for condensing boilers.

For any application advice using the Paramount two please contact Potterton Commercial with a schematic and specification of the system and our Technical Department would be please to assist on tel: 0845 070 1057, fax: 0845 070 1059.

ISR – User Interface



Optional Single Boiler Controllers

Control Type	Sales Code		Description
RGT	PARA2RGT		Remote programmable digital room thermostat allowing compensation, optimisation and night set-back control. Programmable up to 3 phases per day for heating and hot water, holiday functions and frost protection. Allows service engineer entry to in-built programming of the boiler control unit.
RGB (QAA50)	PARA2RGB		Remote room thermostat, allowing simple compensation and night-setback for zone control.
WWF (QAZ36)	PARAWWF		Immersion sensor for use when hot water control is required using an indirect cylinder.
CIMC	PARACIMC		Clip-in interface for use with a variable temperature circuit allows control of 2nd heating pump and 3-way mixer valve (Drive Open/Drive Shut).

Control Type	Sales Code		Description
ISR BCA	ISRBCA		Wall mounted sequential controller, for the control of upto 15 boilers. Complete with DHW sensor, outside sensor and mounting housing.
ZR1	ZR1		Single zone controller for the control of either constant temperature or variable temperature circuits. Controls individual circuit pump and 3 port motorized valves with independent room influence.
ZR2	ZR2		Two zone controller for the control of either constant temperature or variable temperature circuits. Controls individual circuit pump and 3 port motorized valves with independent room influence.
CIBC	PARA2CIBC		Clip-in interface for bus connection when using a ISR BCA Sequence control. A module is required for each additional boiler in the cascade.
RGB (QAA50)	EUROQAA50		Wall mounted thermostat for use in modular applications with BCA3 or ZREC zone controls.
QAA70	EUROQAA70		Wall mounted 7 day programmable digital timer and thermostat for use in modular applications with BCA3 or ZREC zone controls.

Flue Systems

The Paramount two offers a comprehensive range of flue options, providing full versatility for every application.

The Paramount two is suitable for the following flue types:

Horizontal Concentric Flue

(C13 Room sealed boiler, connected to combined wall outlet). Flue components available as optional extras.

Vertical Concentric Flue

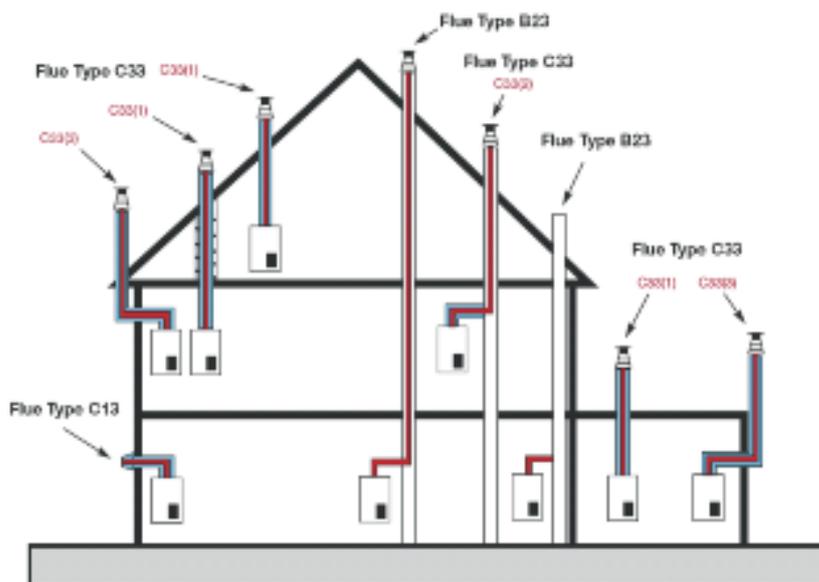
(C33 Room Sealed boiler connected to a combined roof outlet). Flue components available as optional extras.

Conventional Flue

(B23 conventional room ventilated boiler without draught diverter; air supplied from boiler room; flue gas discharge on roof).

Modular Flue

(B23, suitable for use in cascade flue arrangements).



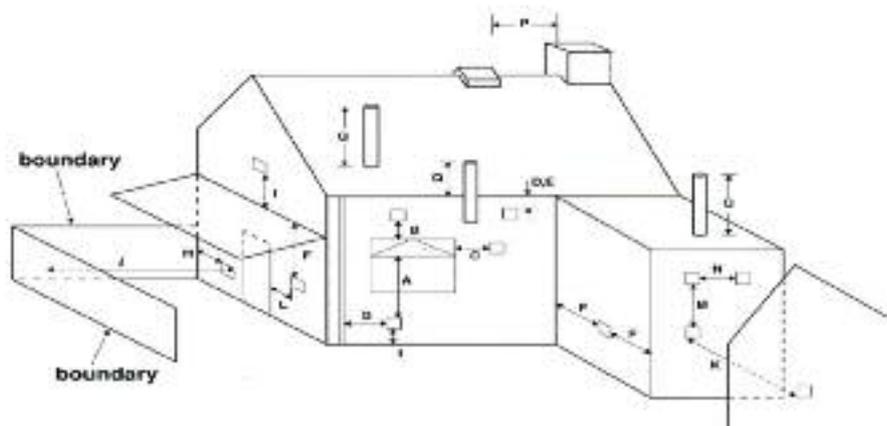
Flue Type	Paramount two 30/40			Paramount two 60			Paramount two 80			Paramount two 95			Paramount two 115		
	Flue Size	Max Flue Length*	Max No. of bends (90°)	Flue Size	Max Flue Length*	Max No. of bends (90°)	Flue Size	Max Flue Length*	Max No. of bends (90°)	Flue Size	Max Flue Length*	Max No. of bends (90°)	Flue Size	Max Flue Length*	Max No. of bends (90°)
C13 (Balanced Flue)	80/125	10	2	100/150	5	2	100/150	5	2	100/150	5	2	100/150	5	2
C33(1) (Concentric Vertical)	80/125	13	0	100/150	22	0	100/150	13	0	100/150	10	0	100/150	10	0
C33(2) (Concentric Vertical)	80/125	15(3)	2	100/150	24(3)	2	100/150	15(3)	2	100/150	18(3)	2	100/150	20(3)	2
C33(3) (Concentric Vertical)	80/125	7(3)	2	100/150	13(2)	2	100/150	9(3)	2	100/150	9(2)	2	100/150	8(2)	2
B23 (Conventional Flue)	80	20(3)	3	110	25(3)	3	110	16(3)	3	110	20(3)	2	110	20(3)	2

* This is the maximum flue length in metres. The allowable horizontal run within total flue length is shown in brackets.

Note: flue sizes shown for the Concentric Vertical Flue are adapted sizes for flues supplied by Potterton Commercial. For flues supplied by other manufacturers, please refer to technical data for standard spigot sizes.

Note: BS5440 states a suitable guard should be provided whenever the appliance terminal is fitted less than 2m above ground, above a balcony or flat roof.

Flue terminal Positioning



Minimum clearances for concentric room sealed flue terminals are shown below (for conventional flue systems please refer to the relevant British Standards). The terminal shall be positioned so it will not cause a hazard to health of persons who may be nearby or a nuisance to other persons beyond the property's boundary.

Location	Paramount two 30/40/60	Paramount two 80/95/115
A Below an opening	300	600
B Above an opening	300	600
C Horizontally to an opening	300	600
D Below Gutters, soil pipes or drain pipes	75	150
E Below eaves	200	500
F Below Balcony or car port roof	200	500
G From a vertical drain pipe or soil pipe	150	150
H From an internal or external corner or to a boundary alongside the terminal	300	600
I Above ground, roof or balcony level	300 (1)	600 (1) (2)
J From a surface or a boundary facing the terminal	600	1000
K From a terminal facing a terminal	1200	2000
L From an opening in the car port into the building	1200	2000
M Vertically from a terminal on the same wall(3)	1500	1500
N Horizontally from a terminal on the same wall(3)	300	600
P From a structure on the roof	600	1000
Q Above the highest point of intersection with the roof, with a pitch less than 45°	600	1000
Q Above the highest point of intersection with the roof, with pitch greater than 45°	1000	1000

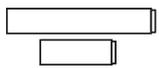
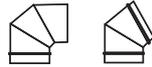
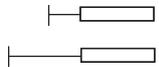
All measurements are in mm.

1. Terminals below 2 metres from ground level require a suitable guard to be fitted.
2. The height to the centre line of the flue terminal shall not be less than 2 metres from occupied external areas.
3. Groups of appliances of 150kW total heat input need to comply with the Clean Air Act with respect to discharge at high level.

Horizontal Concentric Flue (C13)

Boiler	Description	Size	Sales Code	Item
Paramount two 30/40	Horizontal concentric terminal kit inc: elbow & wall plates	Ø80/125	5136146	
Paramount two 60/80	Horizontal concentric terminal kit inc: elbow & wall plates	Ø100/150	5136170	
Paramount two 95/115	Horizontal concentric terminal kit inc: elbow & wall plates	Ø100/150	5136170	
Paramount two 30/40	1 metre extension 0.5 metre extension	Ø80/125 Ø80/125	5136148 5136149	
Paramount two 60/80	1 metre extension 0.5 metre extension	Ø100/150 Ø100/150	5136159 5136160	
Paramount two 95/115	1 metre extension 0.5 metre extension	Ø100/150 Ø100/150	5136159 5136160	
Paramount two 30/40	87° concentric elbow 45° concentric elbow	Ø80/125 Ø80/125	5136151 5136150	
Paramount two 60/80	87° concentric elbow 45° concentric elbow	Ø100/150 Ø100/150	5136162 5136161	
Paramount two 95/115	87° concentric elbow 45° concentric elbow	Ø100/150 Ø100/150	5136162 5136161	
Paramount two 30/40	Terminal cage guard		5104633	
Paramount two 60/80/95/115	Terminal cage guard		5104783	

Vertical Concentric Flue (C33)

Boiler	Description	Size	Sales Code	Item
Paramount two 30/40	Vertical concentric terminal kit inc: adaptors	Ø80/125	5136147	
Paramount two 60/80/95/115	Vertical concentric terminal kit inc: adaptors	Ø100/150	5136171	
Paramount two 30/40	1 metre extension 0.5 metre extension	Ø80/125 Ø80/125	5136148 5136149	
Paramount two 60/80/95/115	1 metre extension 0.5 metre extension	Ø100/150 Ø100/150	5136159 5136160	
Paramount two 30/40	87° concentric elbow 45° concentric elbow	Ø80/125 Ø80/125	5136151 5136150	
Paramount two 60/80/95/115	87° concentric elbow 45° concentric elbow	Ø100/150 Ø100/150	5136162 5136161	
Paramount two 30/40	Wall Bracket	Ø80/125	5136152	
Paramount two 60/80/95/115	Wall Bracket	Ø100/150	5136163	
Paramount two 30/40	Flat roof flashing	Ø 80/125	E065	
Paramount two 60/80/95/115	Flat roof flashing	Ø100/150	5136163	
Paramount two 30/40	Pitched roof flashing	Ø 80/125	E065	
Paramount two 60/80/95/115	Pitched roof flashing	Ø100/150	E207 E208	

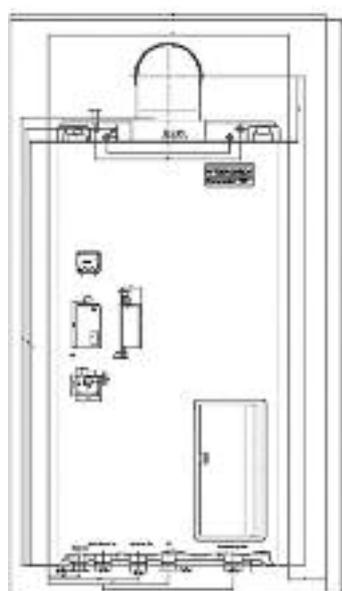
Note: When installing the flue system ensure that all joints are lubricated before installation. This is achieved using the lubricant supplied. This will also prevent damage to the sealing rings and allow ease of installation.

Conventional Flue & Cascade Flue systems

Potterton Commercial recommends when using the Paramount two on a conventional flue or modular flue system to consult with a flue specialist on the design and supply of the flue system.

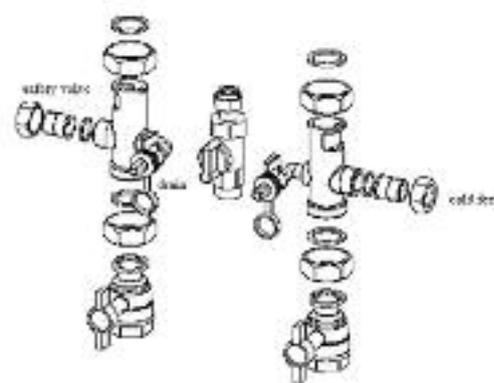
Fittings Jig & Valve Kits

The Paramount two optional fittings jig has been specifically designed to help the installer during the installation process of the boiler. The robust pre-fabricated frame is simple and easy to install and when used with the Paramount two valve kit which incorporates flow/return & gas connections (with integrated thermal cut out). This allows for pre-plumbing of the Paramount two before the boiler installation. This with the use of the fittings template means all work can be carried out before the boiler is installed and limits any chance of damage to the boiler during installation.



Fittings template
supplied with boiler

Fittings jig –
optional extra
for 30/40
models



Valve kit –
optional extra

Product	Sales Code
Paramount two 30/40 fittings jig	PARAK3FIT
Paramount two 30/40 valve kit 1"	PARAK3VAL
Paramount two 60/80/95/115 valve kit 1½"	PARAK5VAL

Paramount two Boiler Sales Codes

The Paramount two is supplied for Natural Gas for LPG operation please order a LPG Conversion Kit.

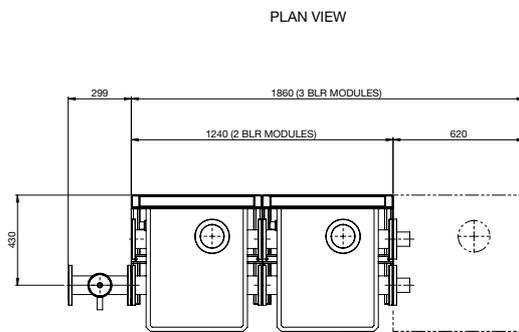
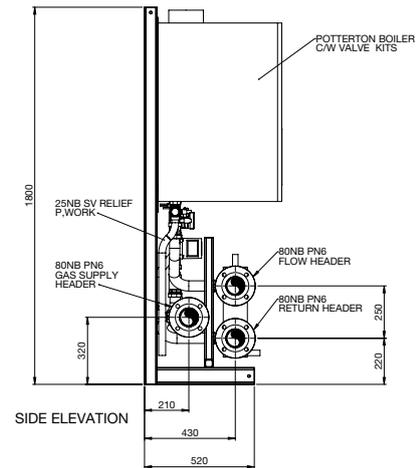
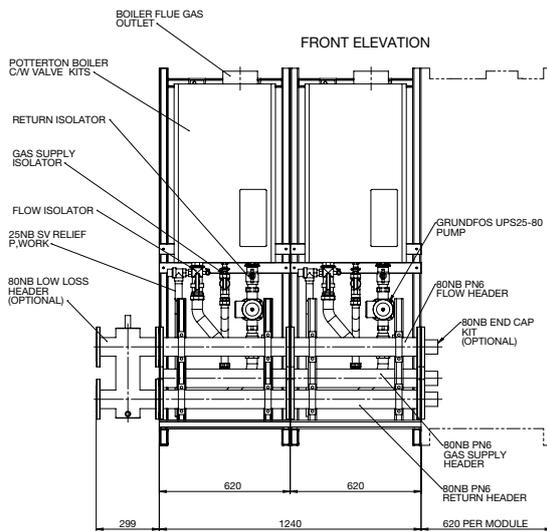
Product	Sales Code	LPG Conversion Kit
Paramount two 30kW	PARATWO30	PARALPG30
Paramount two 40kW	PARATWO40	PARALPG40
Paramount two 60kW	PARATWO60	PARALPG60
Paramount two 80kW	PARATWO80	PARALPG80
Paramount two 95kW	PARATWO95	PARALPG95
Paramount two 115kW	PARATWO115	PARALPG115

Modular Arrangements

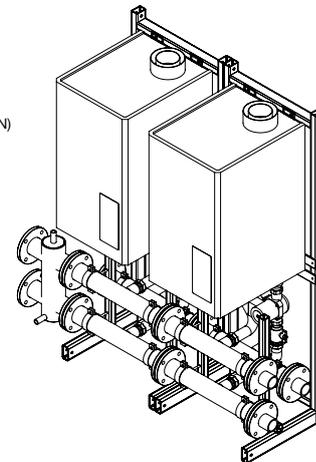
One of the key benefits of the Paramount two boiler is its range of modulation during operation. This means the heat output required can accurately be matched to the system load required. Used in a modular arrangement the Paramount two offers the optimum performance whatever the demand may be. This can be achieved by using Potterton Commercial's advanced EuroControls system specifically developed for

use with fully modulating condensing boilers or direct control from a BEMS system.

Potterton Commercial can also offer prefabricated solutions for the Paramount two. These options comprise of mounting frames (for use when wall mounting is not possible), connection kits, low loss header and internal primary loop pumps.



ISOMETRIC VIEW
(2 BLR MODULE SHOWN)

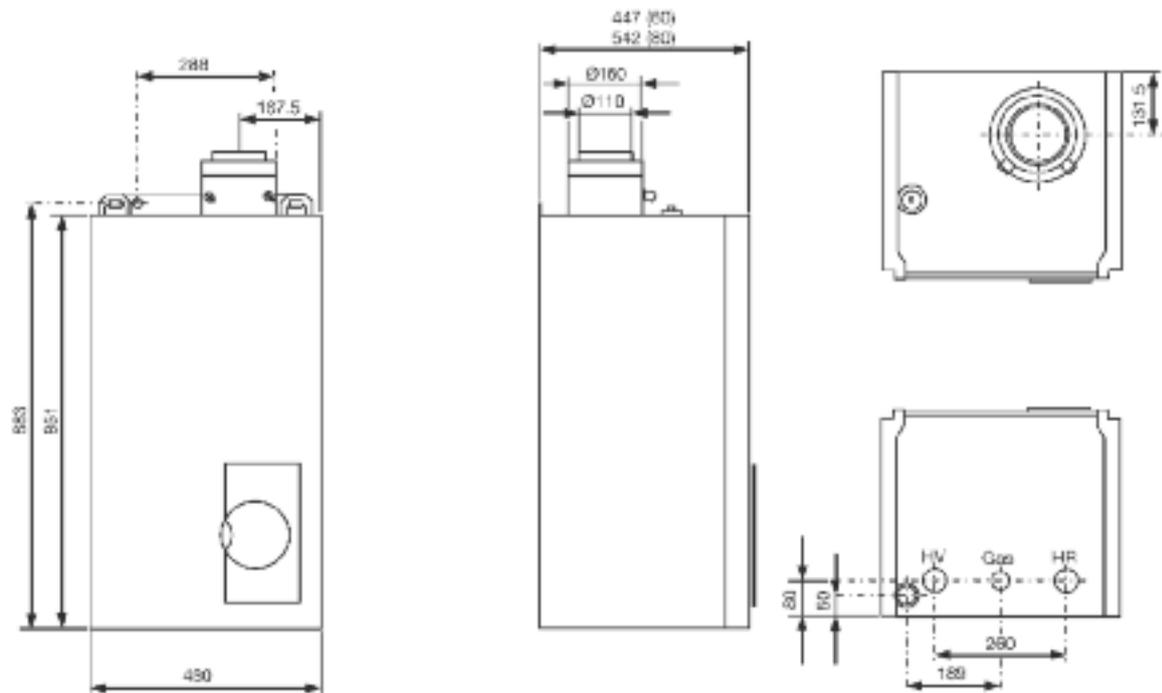
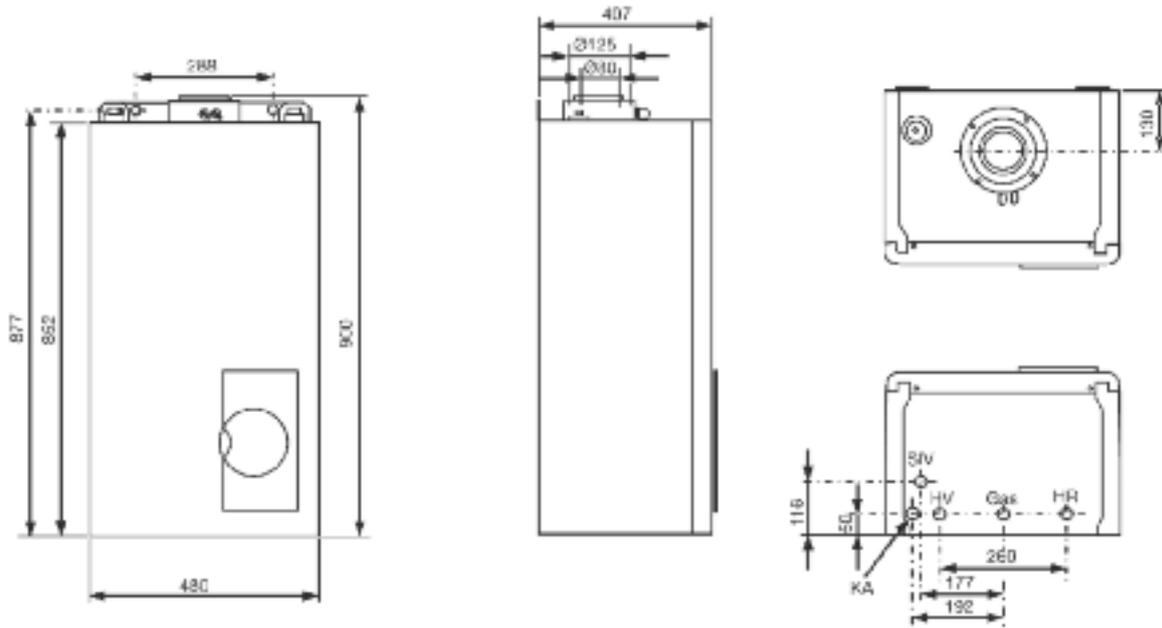


Note: Drawings are for illustration purposes only. For full technical and dimensional detail, please contact the Technical Helpline.

Model	Para 30 /40			Para 60/80			Para 95/115		
No. of Boilers	Flow & Return Header Size	Gas Header Size	Low Loss Header Size	Flow & Return Header Size	Gas Header Size	Low Loss Header Size	Flow & Return Header Size	Gas Header Size	Low Loss Header Size
1	50mm	50mm	100mm	50mm	50mm	100mm	50mm	50mm	100mm
2	50mm	50mm	100mm	50mm	50mm	100mm	50mm	50mm	100mm
3	50mm	50mm	100mm	50mm	50mm	100mm	80mm	80mm	100mm
4	50mm	50mm	100mm	80mm	80mm	100mm	80mm	80mm	100mm
5	50mm	50mm	100mm	80mm	80mm	100mm	80mm	80mm	100mm
6	50mm	50mm	100mm	80mm	80mm	100mm	80mm	80mm	100mm

For any application advice using the Paramount two please contact Potterton Commercial with a schematic and specification of the system and our Technical Department would be pleased to assist.

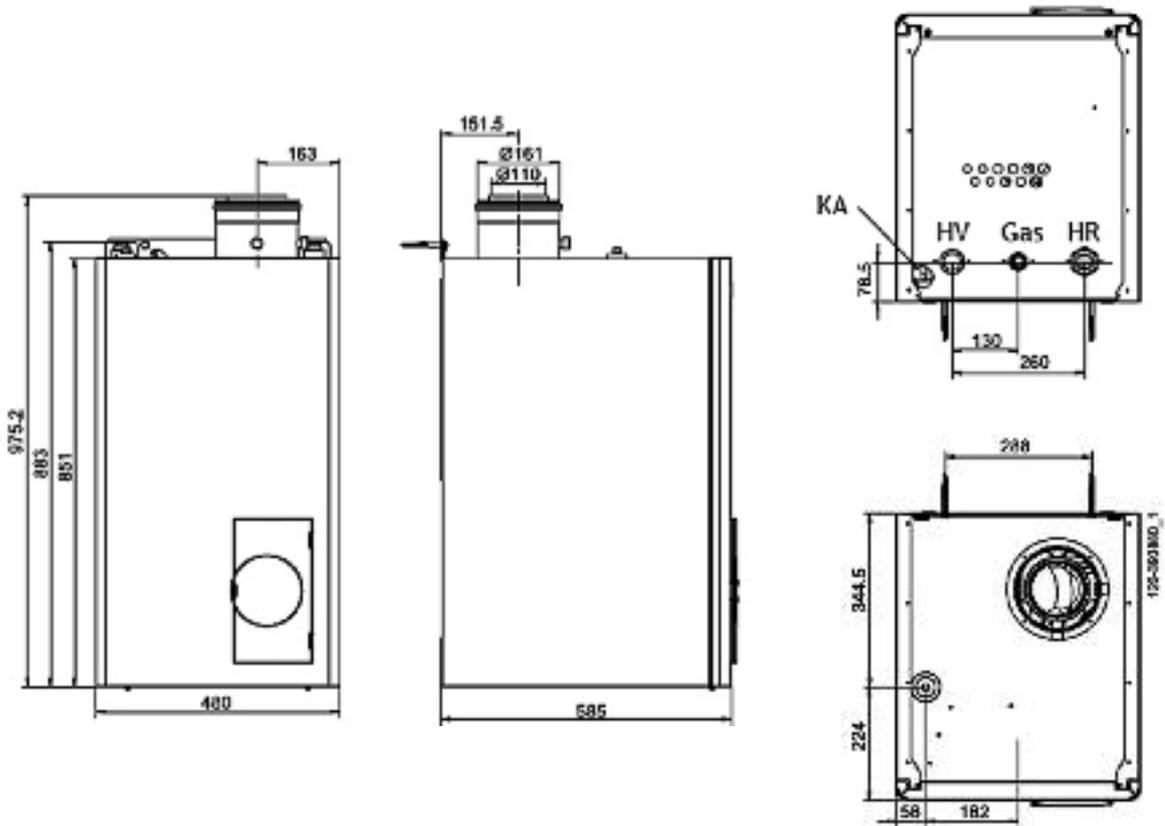
Paramount two 30/40kW Dimensions



Paramount two 60/80kW Dimensions

	Paramount two 30	Paramount two 40	Paramount two 60	Paramount two 80
HV – Flow Connection	1"	1"	1½"	1½"
HR – Return Connection	1"	1"	1½"	1½"
Gas Connection	¾"	¾"	1"	1"
KA – Condensate	Ø25mm	Ø25mm	Ø25mm	Ø25mm
SIV – Safety Valve	¾"	¾"	Not Supplied	Not Supplied

Paramount two 95/115kW Dimensions and Connections



	Paramount two 95	Paramount two 115
HV – Flow Connection	1½"	1½"
HR – Return Connection	1½"	1½"
Gas Connection	1"	1"
KA – Condensate	Ø25mm	Ø25mm
SIV – Safety Valve	Not supplied	

Paramount two Technical Data

Model		30	40	60	80	95	115
Product ID No.		CE-0085 BL0514	CE-0085 BL0514	CE-0085 BL0514	CE-0085 BL0514	CE-0085 BL0514	CE-0085 BL0514
Output @ 50/30°C	kW	31.31	39	59.5	79.1	98.3	118.6
Output @ 80/60°C	kW	29.1	36.8	56.2	74.6	92.2	111.7
Input net Max	kW	30	38	58	77	95	115
Input net Min	kW	6.5	10	14	20	20	25
Efficiency @ 50.30°C	%	104.3	102.7	102.5	102.7	103.5	103.1
Efficiency @ 80/60°C	%	97	97	96.9	96.9	97.1	97.1
Hydraulic resistance @ 11° ΔT	Kpa	29	37	25.4	27	39	48
Hydraulic resistance @ 20°C ΔT	Kpa	10	14	8	9	13	18
Flue spigot size Ø	mm	80/125	80/125	110/160	110/160	110/160	110/160
Gas rate	m ³ /hr	3.2	4	6	8	10.1	12.2
Flue gas volume STP @ 90°C	m ³ /hr	42.3	53.4	81.7	108.4	129	155
Flow rate @ 11°C ΔT	l/sec	0.63	0.8	1.22	1.67	2.06	2.5
Flow rate @ 20°C ΔT	l/sec	0.35	0.44	0.67	0.92	1.13	1.36
Maximum operating pressure	Bar	3	3	4	4	4	4
Minimum operating pressure	Bar	1	1	1	1	1	1
Maximum flow temperature	°C	85	85	85	85	85	85
Water Content	Lit	3.6	3.6	5	5.8	7.8	7.8
Weight empty	Kg	53	53	61	72	84	84
NOx level	Mg/kWh	<20	<20	<20	<20	<20	<20

Commercial sales technical & service enquiries

Tel: 0845 070 1055
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Service hotline: 0845 070 1058
e-mail: potterton.commercial@baxicommercialdivision.com
web: www.pottertoncommercial.co.uk

Spares

Potterton Commercial spares are available nationwide through the interpart network of approved stockists. Alternatively please contact:-

Interpart

Brooks House
Coventry Road
Warwick CV34 4LL
Tel: 0844 871 1540

Applications & Installations

Our experienced technical support team are available to offer advice on any aspect of heating system design and boiler installation.

Please contact: 0845 070 1057

Commercial service offices

Our service organisation covers the whole of the UK to look after your needs for all Potterton Commercial products.

Our service office offers a wide range of specialised services including:

- Burner commissioning for all fuels
- Boiler service contracts
- Breakdown and repair services
- Burner and boiler replacement
- Oil/gas conversions
- Water treatment and descaling
- Packaged units

All descriptions and illustrations contained within 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 in this leaflet.

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Authorised User No. 00174



POTTERTON
COMMERCIAL

heating specialists