



Kensal 20/33/40

Free Standing Stove

**MODELS: RF-KEN20M/ RF-KEN33M/ RF-KEN33W/ RF-KEN33WLC/ RF-KEN33MLC/
RF-KEN40M/ RF-KEN40W/ RF-KEN40MLC/ RF-KEN40WLC**

Installation Instructions

For Use in Great Britain and Republic of Ireland



This product is suitable for use in the stated countries. To install the product in other countries it is essential to obtain translated instructions and in some cases the product may require modification. Contact Redfyre to obtain further information.

IMPORTANT

**Please read these instructions carefully before using the appliance.
Keep them safe for future reference and when servicing the stove.**

PM211-Issue 1 (October 2007)

TECHNICAL SPECIFICATION

KENSAL STOVE

Model			Kensal 20	Kensal 33	Kensal 40
Kensal 20					
Kensal 33					
Kensal 40					
Nominal Heat Output	Wood	kW	3.75	4.9	8.0
	Solid Fuel	kW	3.75	4.9	8.6
Flue Draught at Nominal Heat Output	All Fuels	mm Wg	1.25	1.25	1.25
		inch Wg	0.05	0.05	0.05
Flue Gas Mass Flow	Wood	g/s	3.8	2.6	7.0
	Solid Fuel	g/s	2.9	3.2	7.3
Flue Gas Temperature at Spigot/Socket	Wood	°C	408	369	446
	Solid Fuel	°C	408	369	446
Flue Outlet Size (Top or Rear Option)		mm	125	125	150
		inch	5	5	6
Minimum Hearth Type Required	Constructional = CH 12mm Hearth = 12mm		CH	CH	CH
Weight		kg	76	120	140

Recommended Fuels	Wood	Seasoned wood (less than 20% moisture content)
	Solid Fuel	Briquetted smokeless fuel suitable for closed appliances. (Ancit - Phurnacite - Taybrite - Homefire ovals)

As tested to the requirements of EN 13240 for intermittent operation.

TECHNICAL SPECIFICATION

1. STANDARD FEATURES

- Primary air (under grate air for full multifuel use)
- Airwash (for woodburning / clean glass)
- Pre-set secondary air control (to ensure complete burning of flue gases)
- Riddling grate system for clean de-ashing (when fitted with multifuel kit)
- Top or rear flue exit option

2. PACKING LIST

- *User Instructions*
- *Installer Instructions*
- Guarantee card
- Pair leather gloves
- Fire bricks
- Ashpan (MF Only)
- Riddling tool (MF Only)

SITE REQUIREMENTS

THE INFORMATION GIVEN IN THIS MANUAL IS TYPICAL FOR ALL MODELS UNLESS STATED
Before installation of this product please read these instructions fully.

It is very important to also understand the requirements of the UK Building Regulations (England and Wales – Document J / Scotland - Part F, Republic of Ireland Document J), along with any local regulations, and working practices that may apply. Should any conflict occur between these instructions and these regulations then the regulations shall apply.

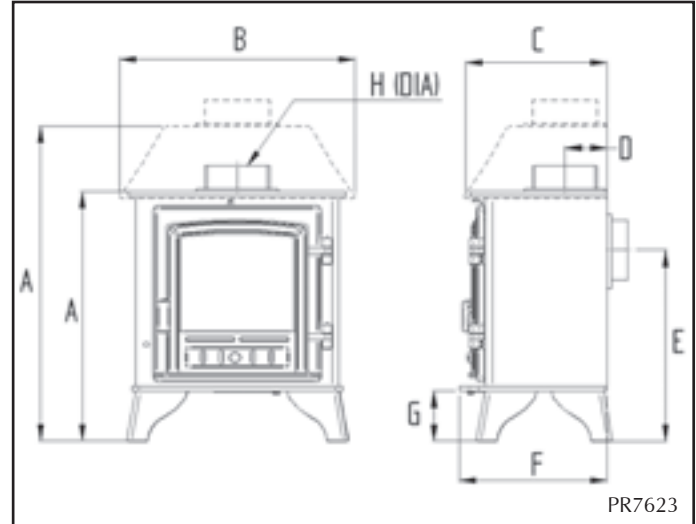
Your local Building Control Office would be happy to advise should questions arise regarding the requirements of the regulations.

The stove must be fitted by a HETAS (GB only), INFO (Republic of Ireland only) registered installer, or approved by your local building control officer. Your dealer should be able to arrange this service for you.

Your building insurance company may also require you to inform them that you have installed a new heating appliance, so check with your insurers that your cover is still valid after installing the stove.

When completing the installation and building works you should comply with your responsibilities under the Health and Safety at Work Acts, and any new regulations, which may be introduced during the lifetime of these instructions.

A faulty installation could cause danger to the inhabitants and structure of the building.



KENSAL STOVE DIMENSIONS

Description	Model	A	B	C	D	E	F	G	H (dia)
Kensal 20 FT MF	RF-KEN20M	510	389	291	90	405	338	96	125
Kensal 33 FT MF	RF-KEN33M	531	465	292	90	424	316	106	125
Kensal 33 FT WD	RF-KEN33W	531	465	292	90	424	316	106	125
Kensal 33 LC WD	RF-KEN33WLC	672	503	306	90	424	316	106	125
Kensal 33 LC MF	RF-KEN33MLC	672	503	306	90	424	316	106	125
Kensal 40 FT MF	RF-KEN40M	587	597	365	105	461	392	106	150
Kensal 40 FT WD	RF-KEN40W	587	597	365	105	461	392	106	150
Kensal 40 LC MF	RF-KEN40MLC	727	624	364	105	461	392	106	150
Kensal 40 LC WD	RF-KEN40WLC	727	624	364	105	461	392	106	150

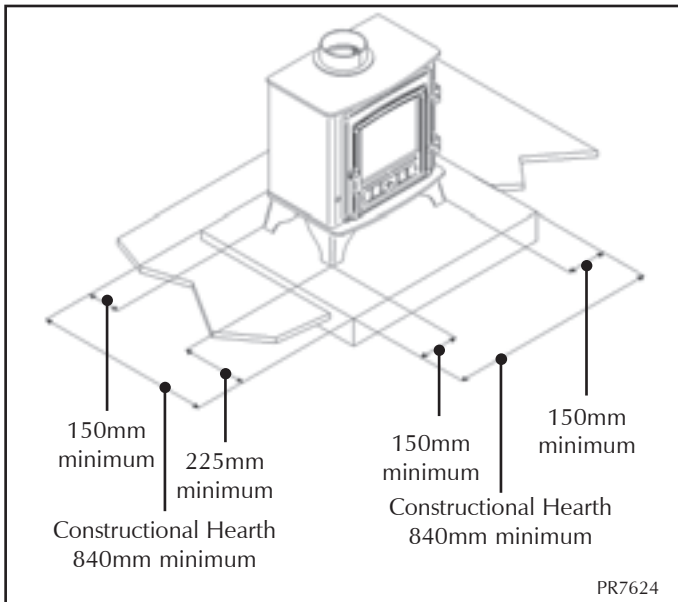
Additional information covering the installation of the stove may be found in the following British Standard: BS8303

SITE REQUIREMENTS

HEARTH DIMENSIONS

All stoves must stand on a constructional hearth with the minimum dimensions as shown in diagram below.

Check that the structure of the building has a suitable loadbearing capacity for the hearth and your stove. If in doubt consult a structural engineer for advice before proceeding.



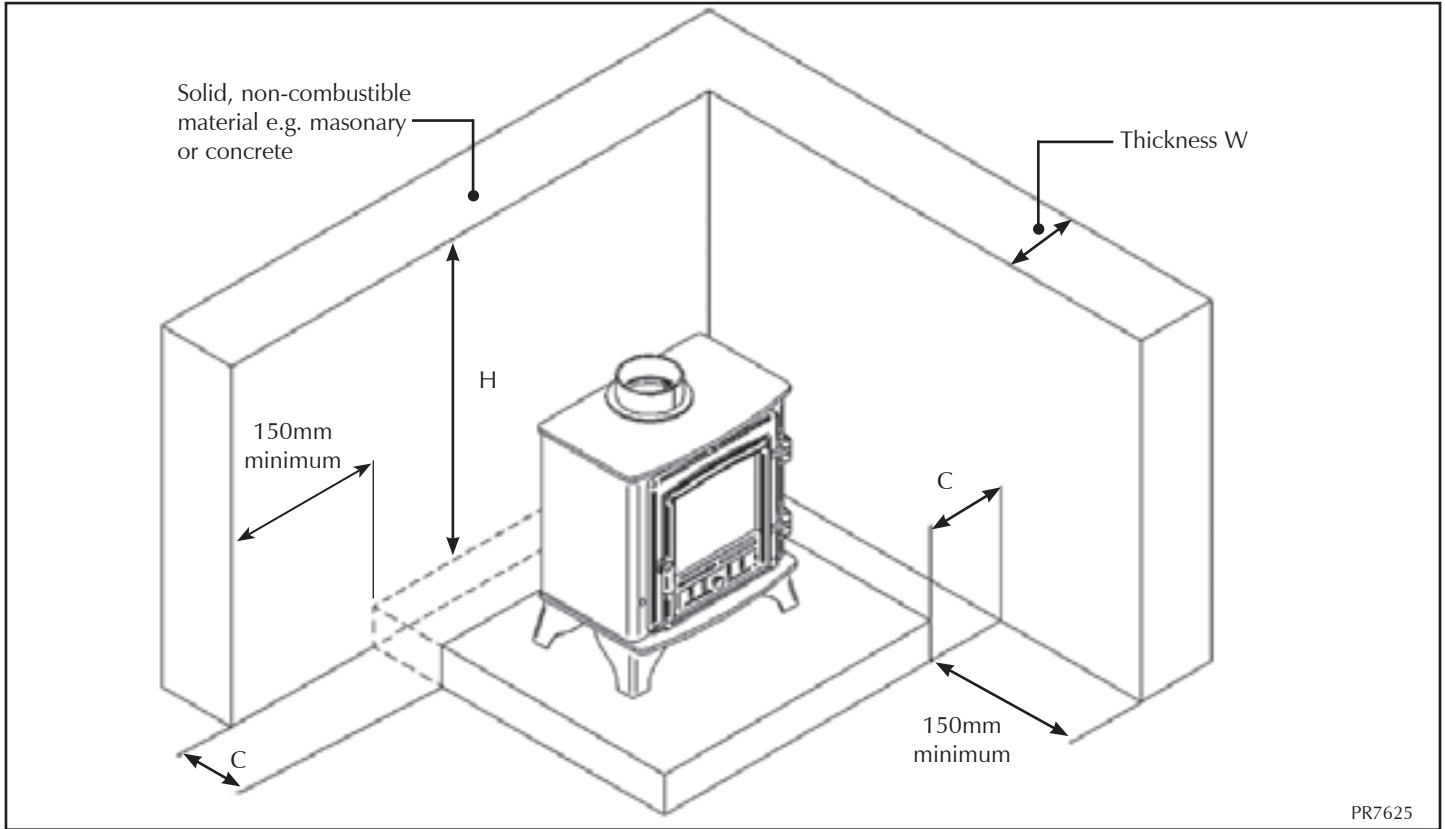
If you are fitting the appliance into an existing hearth setting, check that it complies with the current construction regulations and is the minimum sizes shown.

If you have no existing fireplace or chimney, it is possible to construct a suitable chimney and hearth setting. However this should be constructed to comply with the requirements of both current national and local regulations with the design approved by your local building control officer. Masonry chimney systems built with clay or concrete liners or pre-fabricated block systems should be constructed in accordance with BS 6461 : Part 1. Factory made insulated systems should comply with BS 4543 : Part 2 and be installed to BS 7566 : Parts 1 to 4.

Remember that any new chimney added to your property may also require planning permission.

SITE REQUIREMENTS

WALLS NEXT TO A HEARTH



PR7625

Location of Stove and Hearth	Dimensions of non-combustible material around Stove		
	Distance 'C'	Thickness 'W'	Height 'H'
If the hearth touches the wall and the stove is placed 0-50mm from the same wall the non-combustible material has to be the dimensions as shown	Zero mm	200mm	Height of stove + 300mm or 1200mm (take largest dimension)
If the hearth touches the wall and the stove is placed 51-300mm from the same wall the non-combustible material has to be the dimensions as shown	Zero mm	75mm	Height of stove + 300mm or 1200mm (take largest dimension)
If the hearth does not touch the wall but is less than 150mm from it, the non-combustible material has to be the dimensions as shown	0-150mm	75mm	1200mm
If the hearth does not touch the wall but is more than 150mm from it, the non-combustible material has to be the dimensions as shown	Over 150mm	No minimum thickness	No minimum height

Suitable clearance should be around the stove to enable the correct fitting and maintenance of the stove.

Any clearances should be confirmed by making a site survey and a physical check of wall thickness and dimensions.

PRE-INSTALLATION CHECKS

It is important that adequate ventilation exists and the flue or chimney system that is to be used is in good working condition. Products of combustion that enter the room could be a serious health risk. Before installation of this product we recommend that the flue or chimney system and ventilation requirements are inspected by a competent person, and passed as suitable for use with the appliance to be fitted. In particular the following should be checked:

1. FLUE OR CHIMNEY

- 1.1 The construction of the flue or chimney system should meet the requirements of the Building Regulations with sizes as shown below.
- 1.2 An, approved, factory made system suitable for solid fuel use, complying with BS 4543: Part 2, may be used when installed to the requirements of BS 7566: Parts 1 to 4, the manufacturer's instructions and the requirements of Building Regulations.
- 1.3 New masonry chimney systems built with clay or concrete liners or pre-fabricated block systems should be constructed in accordance with BS 6461 : Part 1, and the requirements of Building Regulations, may be used.
- 1.4 A flexible flue liner system may be used, if it is independently certified for use with solid fuel systems, and is installed according to the manufacturer's instructions and the requirements of Building Regulations. If an appliance is being replaced on an existing flexible flue liner system, the liner system should be replaced, unless it can be proved to be recently installed and can be seen to be in good condition.
- 1.5 Do not connect to systems containing large voids or over 230mm square (9" square").
- 1.6 The minimum height of the flue or chimney must be 4.5m (15') when measured from the hearth to the top of the flue, with no horizontal sections and a maximum of 4 bends with angles of less than 45 degrees.
- 1.7 The flue exit from the building should be positioned to comply with the requirements of the Building Regulations.
- 1.8 Any existing flue should be confirmed as suitable for the new intended use, as defined in the Building Regulations.
- 1.9 Any existing flue or chimney system must be inspected and swept by a NACS (UK only) or INFO (Republic of Ireland only) registered chimney sweep, to confirm that the system is structurally sound and free from any obstructions.
- 1.10 Suitable access should be provided to enable the collection and removal of debris.
- 1.11 Provision should be made to sweep and inspect the flue when the appliance is installed.
- 1.12 No other heating appliances should be connected to, or share, the same flue or chimney system.
- 1.13 Check the flue draught. This should be done with all windows and doors closed and any extraction fan in this or adjoining rooms running at maximum speed. (See next section for additional ventilation requirements)
Max. Draught - 2.0mm WG
Min. Draught - 1.0mm WG
Note: A guide containing general information on chimneys and flues is obtainable from: -

The British Flue & Chimney Manufacturers' Association,

FETA
2 Waltham Court
Milley Lane
Hare Hatch
Reading
Berkshire RG10 9TH

Tel : - 0118 9403416 e-mail :- info@feta.co.uk
- 1.14 Where a hearth, fireplace, flue or chimney is provided or extended (including cases where a flue is provided as part of refurbishment work), information essential to the correct appliance and use of these should be permanently posted in the building, to meet Requirement J4 of the Building Regulations (England and Wales), F3.12 (Scotland).

PRE-INSTALLATION CHECKS

<u>Model</u> Kensal 20 Kensal 33 Kensal 40			Kensal 20	Kensal 33	Kensal 40
Flue/Chimney Size	Without liner system round (diameter)	mm	150	150	150
		inch	6	6	6
	Without liner system (square) minimum dimension	mm	135	135	135
		inch	5½	5½	5½
	With liner or factory made system (diameter) <small>installed in accordance with manufacturers instructions</small>	mm	‡150	150	150
		inch	‡6	6	6
Flue/Chimney minimum height*		m	4	4	4
		feet	13	13	13

* When measured from the top of the flue, with no horizontal sections and a maximum of 4 bends with angles of less than 45°

‡ May be 125mm (5") if burning low volatiles (smokeless) fuels approved for use in Smoke Control Areas. See web site <http://uksmokecontrolareas.co.uk> for more information about approved fuels.

2. ADDITIONAL VENTILATION

- 2.1 Additional ventilation will be required to comply with the requirements of the Building Regulations. This should be provided using a permanently open air vent, of the size listed, which is positioned so that it is not liable to be blocked both inside and outside the building.
- 2.2 Extractor fans or cooker hoods should not be placed in the same room or space as the appliance.
- 2.3 **If any of these checks reveal problems do not proceed with the fitting of the appliance until they have been rectified.**

<u>Model</u> Kensal 20 Kensal 33 Kensal 40			Kensal 20	Kensal 33	Kensal 40
Additional Ventilation		mm ²	0	0	1650
		cm ²	0	0	16.5
		in ²	0	0	2.56

INSTALLATION INSTRUCTIONS

Because each installation is unique to the property, it is not possible to give full details to suit every setting. However the installation should comply with the requirements of the Building Regulations and be made using "best practice" construction methods.

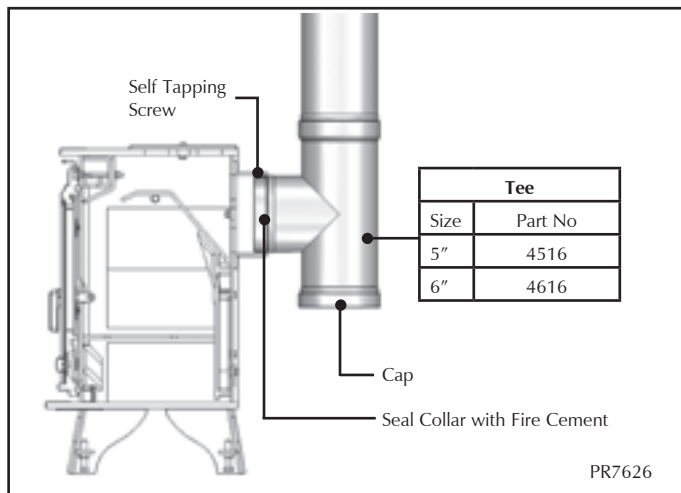
Remember that many fireplace openings will have a supporting lintel. Do not remove this without making provision to support the remaining structure of the building. **The stove must not form any part of the supporting structure.**

1. INSTALLING THE STOVE

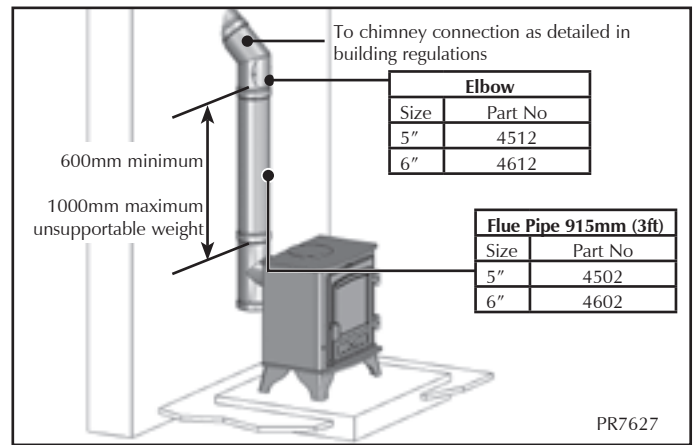
- 1.1 Decide if the installation is to be top or rear flue exit, and fit and seal, with fire cement, the flue collar and blanking plate to suit. The flue collar attaches to the stove backplate or top plate with hexagonal headed bolts. The blanking plate is fixed to the unused flue outlet with fixing nuts.
- 1.2 Lift the stove into position on the prepared hearth area, taking care not to damage the hearth finish.
- 1.3 Connect the stove to the chimney system, using enamelled flue pipe and seal the connecting joints. Typical top and rear flue connections are shown.

Rear flue pipe installation

- 1.4 Connect a tee by inserting it into the flue spigot and sealing using fire cement and secure with a suitable self tapping screw. The cap supplied with the tee is used as the cleaning access and debris collection point. **Do not use a 90° elbow to make this connection.**

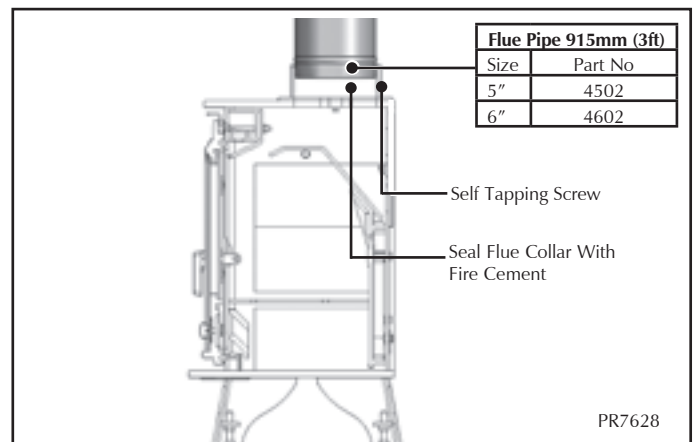


- 1.5 Typical rear flue installation. Flue to be installed in accordance with manufacturers instructions.

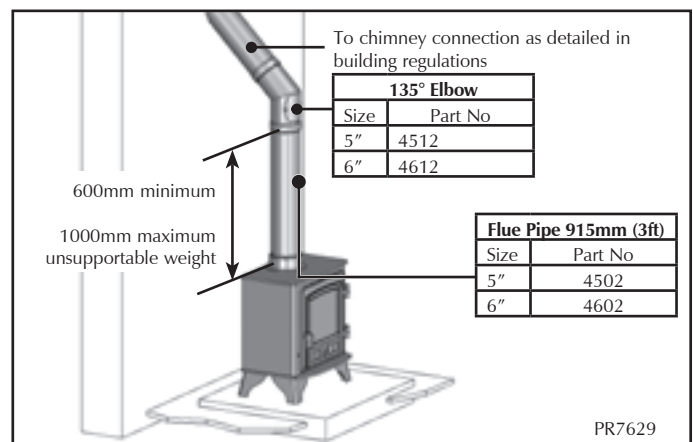


Top flue pipe installation

- 1.5 Connect a flue pipe by inserting it into the flue spigot and sealing using fire cement and secure with a suitable self tapping screw.



- 1.6 Typical top flue installation. Flue to be installed in accordance with manufacturers instructions.



INSTALLATION INSTRUCTIONS

2. REMOVAL OF THE LOG GUARD

- 2.1 Remove the log guard by lifting clear of the supporting brackets and rotating to clear the sides of the door opening. The stove should not be used without the log guard in position.

3. FITTING FIREBRICKS

- 3.1 To fit the firebricks slide them into position on each side of the firebox, with the chamfered edges against the sides of the firebox. The back edge of the brick should be held in place by the side of the back cast iron panel.
- 3.2 If the stove is fitted with 4 firebricks above the grate, slide the first up until it touches the baffle support pin and slide the second brick into position below it. If the stove is fitted with 6 firebricks, slide 2 bricks into position below the side grate supports.
- 3.3 Repeat this procedure for the other side of the stove.

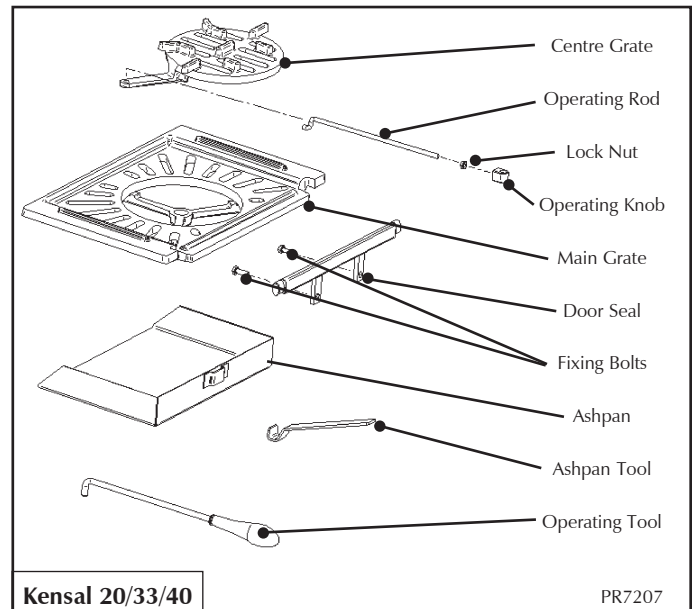
4. FITTING BAFFLE

- 4.1 Pass the baffle through the door and rotate so that the front of the baffle rests on the two 10mm pins and the back of the baffle rests on the cast iron air chamber at the rear of the stove.
- 4.2 The front lip of the baffle should point downwards.
- 4.3 Do not modify the baffle

5. FITTING MULTIFUEL KIT TO WOOD STOVE (OPTIONAL) KENSAL 33/40

Kensal 33 kit - FR-K7108 fits product:
RF-KEN33W/RF-KEN33WLC
Kensal 40 kit – RF-K7111CE fits product:
RF-KEN40W/RF-KEN40WLC

- 5.1 These instructions cover the fitting of the optional multifuel kit to a wood stove, to enable the burning of manufactured smokeless fuels as listed in the *User Instructions*.
- 5.2 Remove the log retainer if fitted.
- 5.3 Remove the fire bricks (if previously fitted) from above steel grate support rails that are fixed to the side of the stove firebox.
- 5.4 Remove the blanking bolt that is fitted in the grate operating rod hole on the front of the stove. (Near the lower left-hand corner of the door).



- 5.5 Place the main grate into place on the steel runners. Ensure that the grate sits flat and locates in the fixing slots in the supports.
- 5.6 Refit the firebricks above the grate.
- 5.7 Fit the operating rod to the centre grate after removing the operating knob and nut from the end of the rod.
- 5.8 From the inside of the stove firebox feed the operating rod through the hole in the front of the firebox, while dropping the centre grate into position in the main grate.
- 5.9 Refit the operating knob and lock into position with the nut.
- 5.10 Refit the log retainer.
- 5.11 Place the ashpan under the grate.
- 5.12 Fit the additional door seal to the back of the door as detailed.
- 5.13 Fix the additional seal to the back of the door using the fixing bolts to replace the air control cover. The seal should line-up with the front of the main grate.
- 5.14 Check that the door closes correctly.

COMMISSIONING

- 1.1 Confirm all internal parts are correctly fitted.
- 1.2 Check the door alignment and catch operation, adjust if required. To maintain the safe use of your stove, you may need to adjust the door hinges to ensure safe correct closing of the door. This is completed by following the procedure laid out in *Section 10, page 11* of the *User Instructions*.
- 1.3 Inspect the door seals for damage and check the operation of the air controls.
- 1.4 Carry out a final smoke draw test, by first warming the flue with a blowlamp, or similar, for about 10 minutes. Then place a smoke pellet on the centre of the grate, with the air controls open, and close the door. Smoke should now be drawn up the flue and be seen to exit from the flue terminal. This test should be completed with all doors and windows in the room where the stove is fitted closed. Should this test fail the suitability of the flue system and ventilation should be re-checked. An inadequate air supply to the room in which the stove is installed could lead to the escape of gasses which could potentially be dangerous.
- 1.5 Light the appliance and gently allow the temperature to increase slowly to operating levels. Check that no combustion products are entering the room. When the Stove has reached a steady operating condition open the main fire door and carry out a spillage test with a smoke match or pellet around the door opening.
- 1.6 If excessive spillage does occur allow the appliance to cool and re-check the suitability of the flue system and ventilation.
- 1.7 **Explain the safe operation of the stove and the use of the controls to the user, along with the need to only use suitable fuels. Also explain the cleaning and routine maintenance requirements.**
- 1.8 **Explain the requirements to use a suitable fireguard when children, elderly or infirm persons may be near the appliance.**
- 1.9 **Record dealer/supplier details and installer details in *User Instructions*.**
- 1.10 **Record serial number in *User Instructions*. This number will be required when ordering spare parts and making warranty claims. To locate see *Section 1.13 on page 3* of the *User Instructions*.**
- 1.11 **Give the copy of the *User Instructions* to the customer.**

Redfyre Cookers, Osprey Road, Sowton Industrial Estate, Exeter, Devon, England EX2 7JG
Tel: (01392) 444070 Fax: (01392) 444804 E-mail: redfyre@gazco.com

A division of Gazco Limited