

Karara HE

HIGH EFFICIENCY FUEL EFFECT GAS FIRE

Installation, Maintenance & User Instructions

Hand these instructions to the user

Model No's GSHC**MN, GSHP**MN, GSHC**SN & GSHP**SN are for use on Natural Gas (G20) at a supply pressure of 20 mbar in G.B. / I.E.

** denotes trim and fret variant fitted to product

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This appliance is manufactured by :-BFM Europe Ltd.Trentham Lakes, Stoke-on-Trent, ST4 4TJ

SECTION 1 INFORMATION AND REQUIREMENTS

1.0 APPLIANCE INFORMATION

Model

GSHC**MN / GSHP**MN / GSHC**SN / GSHP**SN ** denotes trim & fret variant of product

13.5 kg

	Manual Control	Slide Control
Gas Type Main injector (1 off) Pilot Type	G20 Size 152 Aeromatic Self Vitiating Burner	G20 Size 146 SIT NG 9055 ODS
Max. Gross Heat Input : Min. Gross Heat Input :	4.0kW 2.0 kW	4.0kW 2.0 kW
Cold Pressure : Ignition :	20.0 +/-1.0 mbar Push button piezo	20.0 +/-1.0 mbar 1.5V Battery
Electrode Spark Gap	4.0mm	4.0mm
Packed Weight (All models with fret)		15.5 kg

Fire box Dimensions (with trim fitted)

Packed Weight (All models with Contemporary Trim)

	(with trim f (with trim f	,	510mm 625mm 125mm
Gas Conr	,	8mm Compression	(Supplied with fire)

Appliance Efficiency Declaration

The efficiency of this appliance has been measured as specified in BS 7977-1 : 2002 and the result is 80%.

The gross calorific value of the fuel has been used for this efficiency calculation.

The test data from which it has been calculated has been certified by GL Industrial Services UK Ltd. The efficiency value may be used in the UK Government's Standard Assessment Procedure (SAP) for energy rating of dwellings.

INSTALLATION REQUIREMENTS

1.1 CONDITIONS OF INSTALLATION

It is the law that all gas appliances are installed only by a GAS SAFE Registered Installer, in accordance with these installation instructions and the Gas Safety (Installation and Use) Regulations 1998 as amended. Failure to install appliances correctly could lead to prosecution. It is in your own interest and that of safety to comply with the law.

The installation must also be in accordance with all relevant parts of the Local and National Building Regulations where appropriate, the Building Regulations (Scotland Consolidation) issued by the Scottish Development Department, and all applicable requirements of the following British Standard Code of Practice.

- 1. B.S. 5871 Part 2 Installation of Inset Fuel Effect Gas Fires
- 2. B.S. 6891 Installation of Gas Pipework
- 3. B.S. 5440 Parts 1 & 2 Installation of Flues and Ventilation
- 4. B.S. 1251 Open fire place components
- 5. B.S. 715 Metal flue pipes for gas appliances
- 6. B.S. 6461 Part 1 Installation of Chimneys and flues
- 7. B.S. E.N. 1858 Chinmeys Components & Concrete Flue Blocks
- 8. I.S. 813 : 1996 Domestic Gas Installation (Republic of Ireland)

No purpose made additional ventilation is normally required for this appliance, when installed in G.B. When Installing in I.E. please consult document I.S. 813 : 1996 Domestic Gas Installation, which is issued by the National Standards Authority of Ireland. If installing in Northern Ireland, please consult local building regulations. Any purpose made ventilation must be checked periodically to ensure that it is free from obstruction.

1.2 FLUE AND CHIMNEY SUITABILITY

This appliance is designed for use with conventional brick built or lined chimneys and fabricated flues. It is also suitable for use with pre-cast flue blocks conforming to B.S. E.N. 1858 and metal flue boxes conforming to BS 715. All flues must conform to the following minimum dimensions.

Minimum diameter of circular flues	125 mm (Without Flue Restrictor Fitted)
Minimum effective height of all flue types	3 metres

When fitting to conventional chimneys or 175mm flues it may be desirable to leave the flue restrictor baffle (supplied) in place to reduce the flue flow and increase the efficiency of the fire. Safe clearance of products <u>must</u> always be checked by carrying out a smoke match test as described.

1.3 FIREPLACE / SURROUND SUITABILITY

The fire must only be installed on a hearth it **must not be installed directly onto carpet or other combustible floor materials.** The fire is suitable for fitting to non-combustible fire place surrounds and proprietary fire place surrounds with a

temperature rating of at least 150^oc. (Class "O")

If a heating appliance is fitted directly against a wall without the use of a fire surround or fire place all combustible material must be removed from behind the trim. Soft wall coverings such as blown vinyl, wall paper etc. could be affected by the rising hot air and scorching and/or discoloration may result. Due consideration should be made to this when installing or decorating.

1.4 SHELF POSITION

The fire may be fitted below a combustible shelf providing there is a minimum distance of 200mm above the top of the fire and the shelf does not project more than 150mm. If the shelf overhangs more than 150mm the distance between the fire and the shelf must be increased by 15mm for every 25mm of additional overhang over 150mm.

1.5 FLUE / CHIMNEY INSPECTION

Before commencing installation, a flue or chimney should be inspected to ensure that all the following conditions are satisfied.

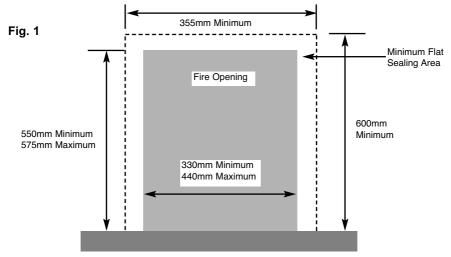
- 1. Check that the chimney / flue only serves one fire place and is clear of any obstruction. Any dampers or register plates must be removed or locked in the open position.
- Brick/stone built chimneys or any chimney or flue which has been used for an appliance burning fuel other than gas must be thoroughly swept. The base of the chimney / flue must also be thoroughly cleared of debris etc.
- 3. Any under-floor air supply to the fire place must be completely sealed off.
- 4. Ensure that the inside of the chimney / flue is in good condition along it's length and check that there is no leakage of smoke through the structure of the chimney during and after the smoke pellet test. With pre-cast flues it is especially important to check the inside of the flue for extruded cement / sealant protruding from the joints between the flue blocks. If present, these should be removed by rodding the flue before proceeding with the installation.
- 5. Using a smoke pellet, check that there is an up-draught in the chimney / flue and that the smoke can be seen issuing from the terminal / chimney pot outside.

There must be no leakage of smoke through the structure of the chimney during or after the smoke pellet test and it is important to check inside upstairs rooms adjacent to the chimney / flue. Check the chimney pot / terminal and general condition of the brickwork or masonry. If the chimney or flue is in poor condition or if there is no up-draught do not proceed with the installation. If there is a history of down-draught conditions with the chimney / flue, a tested and certificated flue terminal or cowl suitable for the relevant flue type should be considered.

6. A spillage test must always be carried out during commissioning of the appliance.

1.6 FIRE PLACE OPENING AND CHIMNEY CATCHMENT SPACE

The front opening of the fire place must be between 330 and 440 mm wide, and between 550 and 575mm high. If the opening exceeds these dimensions then a surround must be constructed from suitable non-combustible material to produce a correct size opening. Any surround must be suitably sealed to the fire place to prevent leakage. See below in fig.1



When installing into a brick built chimney, you must ensure that there is sufficient depth to accomodate any debris which may fall from the chimney. This depth must be sufficient to accomodate 12 litres of volumetric space in a conventional brick built chimney or 2 litres of volumetric space in a pre-cast flue.

<u>Table A - Installation Depth Requirements for a Global Karara HE being</u> <u>installed into a brick built chimney, requiring 12.0 litres of debris collection</u> <u>volume (fig. 2).</u>

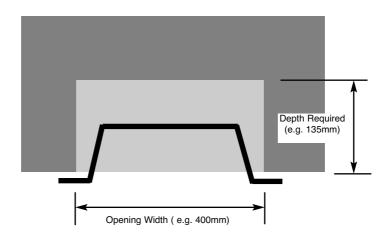
Opening	Width	(mm)
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Minimum Depth Required (mm)

330 (minimum opening width)	152
340	149
350	146
360	144
370	142
380	139
390	137
400	135
410	132
420	130
430	127
440 (maximum opening width)	125

For example, if the appliance was to be fitted into a 400mm wide opening, the depth required would be 135mm. See fig. 2 below for explanatory diagram.

Fig. 2



1.7 FITTING TO FIREPLACES WITH EXISTING CHAIRBRICKS AND CONVENTIONAL BRICKBUILT CHIMNEYS

This appliance is suitable for use in fireplaces fitted with an existing chairbrick without the need for removal of the chairbrick, providing the minimum depth of the fireplace exceeds 175mm. If the depth is less than 175mm then the chairbrick must be removed. The fireplace must be checked to ensure that no part of the chairbrick is within 50mm of the flue outlet of the fire when installed.

1.8 FITTING TO PRE-CAST FLUE INSTALLATIONS

When installing this appliance into pre-cast flues, always ensure that the spigot restrictor baffle has been removed. This is held in place on the spigot by 2 screws

To install the fire box in to pre-cast flue starter blocks, there must be at least 125mm from the mounting face of the fire to the rear of the pre-cast flue starter block to allow sufficient space for debris collection. If this dimension is less than 125mm then a fire surround with a deeper rebate to increase the depth to at least 125mm from the mounting face of the fire. It is important to consider this depth when choosing a fire surround as the thickness of the fire surround must be sufficient to give a total depth of at least 125 mm to the rear of the starter block, otherwise there will be insufficient depth. To increase this depth the fire surround may be packed away from the wall using suitable non-combustible board, providing the installation is correctly sealed. If in doubt about the suitability of the fire contact D.F.A. Ltd. for advice before proceeding.

It is important to ensure that the pre-cast flue is in good condition and is free from extruded mortar or sealant from between the flue blocks.

This appliance has been tested for use in a pre-cast flue block complying with BS EN 1858. In accordance with BS EN 1858, pre-cast flues built with directly plastered faces (front or rear) are not correctly installed as to ensure proper operation with any type of gas fire. In some instances of this flue construction, temperature cracking of surface plaster may occur through no fault of the appliance. An air gap or some form of insulation material should be installed to prevent normal flue temperatures from damaging wall surfaces.

1.9 FITTING TO PRE-FABRICATED TWIN WALL METAL FLUE BOXES

The appliance may be fitted to twin wall metal flue boxes conforming to the constructional requirements of BS 715, (for example the Selkirk LFE 125 box). The box must have a minimum flue diameter of 125mm internal and minimum internal dimensions of 160mm deep by 580mm high by 350mm wide. The top face of the box must be insulated with a minimum thickness of 50mm of non-combustible mineral wool insulation or similar material. The flue box must stand on a non-combustible base of minimum thickness 12mm.

1.10 HEARTHS

This appliance must only be installed on to a concrete or non-combustible hearth. The hearth material must be a minimum thickness of 12mm with the top surface at least 50mm above the floor. The hearth must be fitted symmetrically about the fire opening and have a minimum width of 760mm and a minimum projection of 300mm forwards from the fire opening.

1.11 SPILLAGE MONITORING SYSTEM

This appliance is fitted with an atmosphere sensing spillage monitoring system in the form of an oxygen sensing burner. This is designed to shut the fire off in the event of a partial or complete blockage of the flue causing a build up of combustion products in the room in which the fire is operated. The following are important warnings relating to this spillage monitoring system :-

1) The spillage monitoring system must not be adjusted by the installer.

2) The spillage monitoring system must not be put out of operation.

3) When the spillage monitoring system is exchanged only a complete original manufacturers part may be fitted.

SECTION 2 INSTALLATION OF FIRE

2.1 UNPACKING THE FIRE

Carefully lift the fire out of the carton. Remove the loose item packaging carefully from the front of the appliance. Check the contents as listed :-

Packing Check List - Coal Fuelbed Models

- 1 off Fire box / burner assembly
- 1 off Boxed ceramic coal effect fuel-bed
- 1 off Loose items bag.
- 1 off Trim (3 piece or 1 piece dependent upon model chosen)
- 1 off Boxed Fret & Ashpan cover (dependent upon model chosen)
- 1 off Installation / User book (Combined)

Packing Check List - Pebble Fuelbed Models

- 1 off Fire box / burner assembly
- 1 off Boxed ceramic pebble effect fuel-bed
- 1 off Loose items bag
- 1 off Chrome Effect Trim / Ashpan
- 1 off Installation / User book (Combined)

2.2 INSTALLING THE FIRE BOX

Establish which type of flue you are intending to install the fire in to :-

225 x 225mm (9 inch x 9 inch) brick built chimneys

175mm (7 inch) diameter lined brick or stone flue, or insulated pre-fabricated metal flue box to B.S. 715.

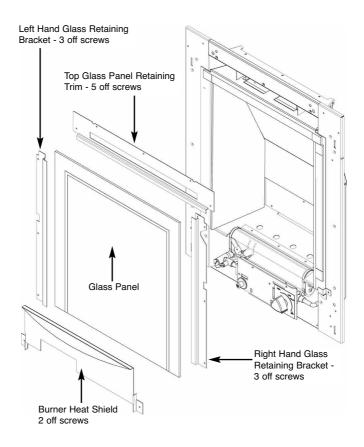
When installing into 125mm (5 inch) diameter lined brick or stone flue, or insulated pre-fabricated metal flue box to B.S. 715 and pre-cast flues the restrictor baffle must not be fitted.

A spillage test must always be carried out to check satisfactory clearance of flue products, regardless of the type of flue the appliance is being fitted to.

Proceed as follows for all models, (manual control model shown) :-

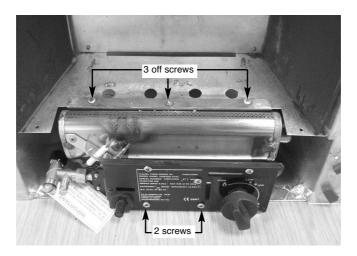
- a) Remove the top glass panel retaining trim which is held in position by 5 off screws as shown below in Fig. 3
- b) Remove the left hand glass retaining trim as which is held in position by 3 screws as shown below in Fig. 3
- c) Remove the right hand glass retaining trim as which is held in position by 3 screws as shown below in Fig. 3
- d) Remove the burner heat shield which is held in position by 2 screws as shown below in Fig. 3

Fig. 3



For all manual control models proceed as follows :-

- e) Remove the two screws at the bottom of the control panel. See fig. 4 below. Remove the three screws from the fuel-bed base support as shown below also in Fig. 4
- Fig. 4

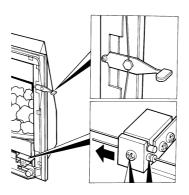


- f) Lift the burner engine clear as shown in Fig. 5 below
- Fig. 5

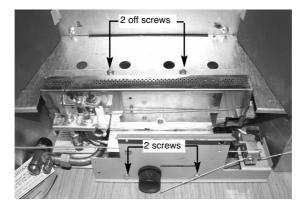


For all Slide Control models proceed as follows :-

- g) Remove the burner. To allow burner removal, the control lever operating cable must be removed. The control lever operating cable can be seen running across the base of the fire, below the burner. To release the cable, unscrew the cable securing screw located in the centre of the aluminium operating arm and pull the cable out from its fixing hole. Release the other end of the cable by pushing the cable forwards to the right, i.e. into the operating arm so as to release the tension. Pull the cable nipple out of the retaining hole and remove the cable through the slot in the operating arm. See fig. 6 below.
- Fig. 6



- Remove the two screws at the bottom of the control panel. See fig. 7 below. Remove the two screws from the fuel-bed base support as shown below also in Fig. 7
- Fig. 7



Continue as follows for all models :-

- Ensure that the hearth is protected from damage and carefully lift the fire box into the fire opening, then slide it back into position. Check that the fire box flange fits flush to the sealing face of the fire surround or wall with no gaps present.
- j) Whilst the fire box is still in position, decide which side the gas supply is to enter the fire from. If concealed pipe work is required plan the pipe run to enter the fire box through one of the openings in the sides or rear of the fire box below the fuelbed support panel and connect to the isolating / inlet elbow. The gas connection to the appliance should be made to the isolating / inlet elbow using 8mm rigid tubing. There must be no soldered joints within the firebox. See fig. 8 & 9 below for suggested concealed pipe layouts.

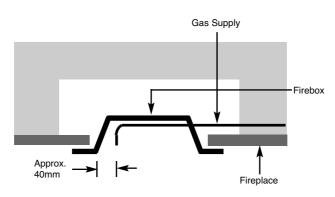
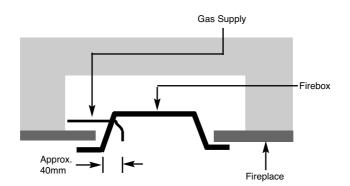


Fig. 8





Note : Before breaking into the gas supply a pressure drop test should be carried out to establish that the existing pipework is sound.

IMPORTANT : Sealing of the Gas Inlet Apertures

In line with current regulations, it is imperative that the gas supply inlet aperture that is utilised during the installation is sealed with the grommet as supplied in the loose items pack. The product is manufactured with 3 knock out gas inlets in the firebox wrap to allow a left hand, right hand or rear gas inlet supply to the inlet elbow. Using a hammer and a blunt chisel, remove the inlet aperture selected and then seal with the grommet supplied. To provide access for the gas supply pipe, cut the grommet with a sharp knife. Failure to seal the inlet apertures could lead to flame reversal, which in turn will damage the burner and control systems of the product.

Fig. 10 below shows a correctly sealed installation.

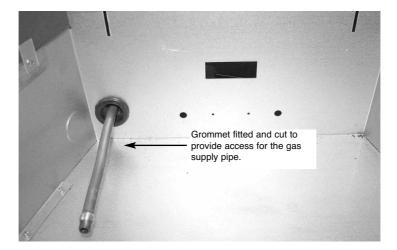


Fig. 10

PLEASE NOTE :-

D.F.A. LTD. WILL NOT BE LIABLE FOR GUARANTEE CLAIMS THAT ARE AS A DIRECT RESULT OF THE GAS INLET APERTURE NOT BEING CORRECTLY SEALED WITH THE GROMMET PROVIDED. Carefully withdraw the fire box from the opening to enable the gas supply and fire fixing to be completed.

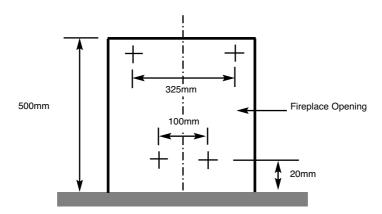
There is a choice of methods of fixing the firebox which are provided to enable the installer to deal with any type of installation.

The preferred method of fixing which is suitable for almost all situations is the cable fixing method which is described in the following section in detail.

The fire may be secured using the cable method as described below, or alternatively, in installations where the cable method is not suitable (eg. loose masonary in rear of fire opening) the fire box can be directly secured to the fire surround using screw fixings (not provided).

To fit using the preferred cable method proceed as follows-

k) Mark out and drill 4 off No 14 (7mm) holes in the back face of the fire opening in the positions shown below in fig. 11



Fit the wallplugs provided and screw the fixing eyes securely into the rear of the fire opening. If the clearance at the rear of the fire is at the minimum specified for a precast flue application, it may be necessary to bend over the lower fixing eyes after screwing them fully in to the rear of a pre-cast starter block.

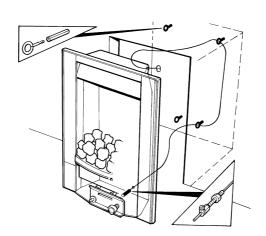
- I) Uncoil the two fire fixing cables and thread one end of each of the cables through one of the two holes on each side of the flue outlet shroud.
- m) Position the fire carefully on the (protected) surface of the hearth and reach into the fire opening. Thread each of the cables vertically

Fig. 11

downwards through the pair of fixing eyes on the same side of the fire. Thread the free end of the cables through the corresponding circular hole on each side of the lower rear of the fire. Carefully slide the fire box back into the fire opening and pull both cables tight.

- n) Thread a tensioning screw over each of the cables and ensure that the tensioning nut is screwed fully up against the hexagon shoulder of the tensioning screw (this provides maximum travel for the tensioning nut).
- o) Fit a screwed nipple on to each of the cables and pull hand tight up against the tensioning screw, then secure each nipple with a flat bladed screwdriver. See fig. 12 below

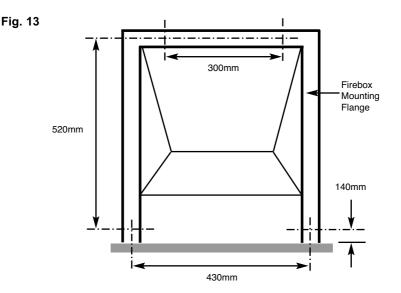
Fig. 12



- p) Evenly tighten the tensioning nuts to tension both cables and pull the fire snugly against the wall. Do not overtighten, it is only necessary to pull the seal up against the sealing face of the wall, it does not need to be compressed. Check that there are no gaps behind the seal.
- q) With the fire securely in place, if a concealed gas connection has been made through either of the access holes in the sides or rear of the fire, the holes should be closed around the pipe to prevent leakage of air through the gap around the pipe.
- r) Refit the burner. Fit the two retaining screws and check that the burner is correctly locked into position.
- s) Before making the final gas connection, thoroughly purge the gas supply pipework to remove all foreign matter, otherwise serious damage may be caused to the gas control valve on the fire.

gainst the sealing face Check that there are n rely in place, if a conce her of the access holes The other firebox fixing method is as follows :-

In installations where the cable method is not suitable (e.g. loose masonary in rear of fire opening) the firebox can be secured to the fire surround using four screws and wall plugs (not provided). Below (Fig. 13) is a diagram to indicate the hole centre positions available on the firebox to facilitate the screw fixing to the fireplace / surround.



2.3 GAS TIGHTNESS AND INLET PRESSURE (MANUAL CONTROL)

- a) Remove the pressure test point screw from the inlet elbow and fit a manometer.
- b) Turn on the main gas supply and carry out a gas tightness test.
- c) Depress the control knob and turn anti-clockwise to the position marked ignition / low. Hold in the control knob for a few seconds to purge the pipe work then press the igniter button. The burner should light, continue to hold the control knob for a few seconds then turn to the full-on position.
- d) Check that the gas pressure is 20.0 mbar (+/- 1.0mbar) 8.0 in w.g.(+/- 0.4 in w.g.)
- e) Turn off the fire, remove the manometer and refit the pressure test point screw. Check the pressure test point screw for gas tightness with the appliance turned on using a suitable leak detection fluid or detector.

2.4 GAS TIGHTNESS AND INLET PRESSURE (SLIDE CONTROL MODELS).

- a) Remove the pressure test point screw from the pressure test point and fit a manometer.
- b) Turn on the main gas supply and carry out a gas tightness test.
- c) Depress the control lever to the position marked pilot. Hold down the control lever for a few seconds to purge the pipe work. The burner should light, continue to hold the control lever for a few seconds to latch the valve then lift to the full-on position.
- d) Check that the gas pressure is 20.0 mbar (+/- 1.0mbar) 8.0 in w.g.(+/- 0.4 in w.g.)
- e) Turn off the fire, remove the manometer and refit the pressure test point screw. Check the pressure test point screw for gas tightness with the appliance turned on using a suitable leak detection fluid or detector.

SECTION 3

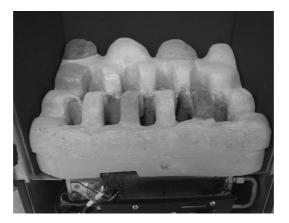
3.1 Fitting the Coal Fuelbed (where applicable)

- a) Place the coal fuelbed centrally on to the fuelbed support and push fully backwards to the rear face of the fibre boards **Make sure that the fuelbed base is located centrally in the fire box**. See Fig. 14 below.
- Fig. 14



3.2 Fitting the Pebble Fuelbed (where applicable)

- a) Place the pebble fuelbed centrally on to the fuelbed support and push fully backwards to the rear face of the fibre boards **Make sure that the fuelbed base is located centrally in the fire box**. See Fig. 15 below.
- Fig. 15



Warning : Use only the coal or pebble fuel-bed supplied with the fire. When replacing the coal or pebble fuel-bed remove the old coal or pebble fuel-bed and discard it. Fit a complete coal or pebble fuel-bed from the manufacturer, only use genuine replacements.

THE FOLLOWING STATEMENT IS APPLICABLE TO ALL FUEL-BED TYPES

This appliance uses fuel effect pieces containing Refractory Ceramic Fibres (R.C.F.), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause temporary irritation to eyes, skin and respiratory tract. Consequently, it makes sense to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these R.C.F. articles is kept to a minimum, during installation & servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire, before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as "RCF waste". This is not classified as "hazardous waste" and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these arrticles, but we do recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area. and always wash your hands before eating or drinking.

This appliance does not contain any component manufactured from asbestos or asbestos related products.

3.3 FITTING THE TRIM (WHERE APPLICABLE)

- a) Fit the outer trim assembly to the firebox with the magnets provided.
- 3.4 FITTING THE FRET (WHERE APPLICABLE)
- a) Remove the fret & ashpan cover from the packaging.
- b) Place fret up to the front radiused section of the fuelbed, taking care not to move coal positions.
- c) Place ashpan cover under fret assembly and centralise.
- NOTE : Some models in this range are not supplied with a fret from the factory, therefore please consult your local retailer for fitting advice on the type of fret supplied with these models.

3.5 FITTING THE ONE PIECE FASCIA (WHERE APPLICABLE)

a) Fit the outer trim assembly to the firebox with the magnets provided. NB. The fret is a loose item and located beneath the trim assembly.

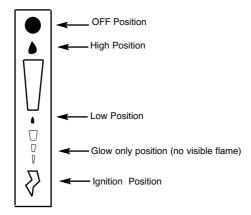
3.6 LIGHTING THE APPLIANCE (Manual Control Models)

- a) Turn on the gas isolation tap.
- b) Depress the control knob and turn anti-clockwise to the position marked ignition / low rate. Hold in the control knob for a few seconds to purge the pipe work.
- c) Continue to hold-in the control knob and press the igniter button. If the burner does not light, continue to press the igniter button until ignition occurs. Continue to hold the control knob for a minimum of 20 seconds to allow the thermocouple to heat up, if the burner goes out when the control knob is released, repeat the lighting sequence.
- d) Turn the control knob in the anti-clockwise direction to the high position and the gas rate will increase to high rate (4.0kW)
- e) Turn the control knob clockwise to the low position and the gas input will be reduced to the minimum setting (2.0kW)
- f) Slightly depress the control knob and turn to the off position, the burner will now be extinguished.

WARNING : If the fire goes out for any reason or is turned off and it is necessary to re-light the fire it is important to allow the fire to cool for 3 minutes before attempting to re-light it.

3.7 LIGHTING THE APPLIANCE (Slide Control Models)

- Turn on the isolation valve at the restrictor elbow if necessary. Depress the control lever fully downwards to the position marked "Z" Hold down the control lever for a few seconds to allow the gas to reach the pilot. (See Fig. 16 below)
- b) The fire will then begin its ignition sequence. If the pilot does not light, continue to press the control lever until ignition occurs. The pilot flame can be seen by looking underneath the front ceramic rail, at the left hand side of the fuel-bed. When the pilot has lit, continue to hold the control lever down for 5-10 seconds to allow the thermocouple to heat up, before releasing the lever apply one firm downwards push to ensure that the f.s.d. valve is fully latched, if the pilot goes out when the control lever is released, repeat the lighting sequence.
- c) After lighting, move control lever up to the high position and the main burner will light. It is recommended that for the most efficient performance the fire is allowed to warm up for a few minutes with the control lever set to high.
- d) The gas control can be moved from the High to Low position to give the desired heat output. The lever can be set at a position between the ignition and low position but this will provide only a glow from the fuel-bed and not visible flames. (See Fig. 16 below).
- Fig. 16



e) To turn the fire off, FULLY raise the control lever to the OFF position.

WARNING : If the fire goes out for any reason or is turned off and it is necessary to re-light the fire it is important to allow the fire to cool for 3 minutes before attempting to re-light it.

3.8 CHECKING FOR CLEARANCE OF COMBUSTION PRODUCTS

- a) Close all doors and windows in the room.
- b) Light the fire and allow to run for approximately 5 minutes on high position.
- c) After approximately 5 minutes hold a smoke match just inside and below the centre of the lower front edge of the top of the fire, as shown below in Fig. 17 (It is recommended that a suitable smoke match holder is used when checking for clearance of combustion products). All smoke generated should be drawn back into the flue. If slight spillage occurs or if in doubt, repeat the test after a further 5-10 minutes. If the test indicates that spillage is occurring and the flue restrictor baffle has been fitted, it should be removed and the test repeated after the fire has cooled.
- If spillage persists, the flue is not functioning correctly and a fault exists.
 If, after investigation the fault cannot be traced and rectified, the fire must be disconnected from the gas supply and expert advice obtained.
- e) If there is an extractor fan fitted any where in the vicinity of the appliance, or in adjacent rooms the spillage test should be repeated with the fan running on maximum and all interconnecting doors open.
- After ensuring that the fire is safe to use it should be left on high position to fully warm up. During this time a slight odour may be noticed, this is due to the "newness" of the fire and will soon disappear. At this stage any minor adjustments to the pebbles should be made using suitable long handled tongs and taking care not to damage the pebbles.

Finally, hand the Installation and Maintenance Instructions and the Users Instructions over to the customer and explain the operation of the fire.



Fig. 17

SECTION 4 MAINTENANCE

Servicing Notes

Servicing should be carried out annually by a competent person such as a GAS SAFE registered engineer. This is a condition of the Global Fires guarantee schemes.

The service should include visually checking the chimney and fire opening for accumulations of debris and a smoke test to check for a positive up-draught in the chimney. The thermocouple or pilot on the burner unit must also be changed as a condition of the guarantee. The condition of the fuel-bed should be checked and **if necessary the whole item should be replaced with a genuine replacement item.** The burner assembly is designed to be removed as a complete unit for ease of access. After any servicing work a gas tightness check must always be carried out. All sections apply for both coal & pebble model variants.

For Diagrams refer to Section 2

4.1 Removing the burner assembly from the fire.

- 4.1.1 Prepare work area (lay down dust sheets etc.)
- 4.1.2 Remove the trim. Remove the fret / ash pan cover or contemporary trim out of the way and put them in a safe location. Remove the top, left and right glass trim retaining screws. Lift the glass panel clear.
- 4.1.3 Isolate the gas supply and remove the inlet pipe from the appliance inlet elbow. Unscrew and remove the two screws which retain the burner at the base. Remove the three screws from the fuel-bed support & remove the burner assembly from the fire.
- 4.1.4 To refit the burner assembly, locate the burner unit and refit the two base screws plus the three fuel-bed support screws. Refit the gas supply pipe and carry out a gas tightness test. Refit the burner heat shield then refit the fuel-bed referring to section 3 for the correct position. The trim and ash pan cover or contemporary trim can now be re-fitted.

4.2 Removing the Piezo Igniter

- 4.2.1 Remove the burner assembly as in section 4.1
- 4.2.2 Disconnect the ignition lead from the piezo and unscrew the retaining nut on the rear of the control panel. Withdraw the piezo from the front of the control panel. Re-assemble in reverse order and carry out a gas tightness test.

4.3 Removing the Control Tap from the fire.

- 4.3.1 Remove the burner assembly as in section 4.1.
- 4.3.2 Pull the control knob off the control tap spindle.
- 4.3.3 Loosen and remove the two gas pipe retaining nuts from the control tap and release the ends of the gas pipes from the control tap body. Remove the push in thermocouple from the end of the control tap.
- 4.3.4 Unscrew the control tap locknut from the front of the control panel and remove the control tap.
- 4.3.5 To refit a control tap, reassemble in reverse order noting that the control tap locates with a flat in the control panel. Carry out a gas tightness test after re-assembly.

4.4 Removing the Thermocouple

- 4.4.1 Remove the burner assembly as in section 4.1
- 4.4.2 Remove the push in thermocouple from the end of the control tap and and remove the thermocouple retaining nut from the mounting bracket on the burner assembly.
- 4.4.3 Re-assemble in reverse order and carry out a gas tightness test.

Slide Control Fires - For Diagrams refer to section 2

4.5 Removal of the burner assembly (SC models)

- 4.5.1 Prepare the work area (lay down dust sheets etc,)
- 4.5.2 Remove the trim. Lift the fender and ash pan cover out of the way and put them in a safe location. Remove the glass panel, unscrewing the top and side retaining brackets, see page 11 of this manual for information. Carefully lift clear the glass panel. Remove the coals / pebbles, front ceramic from the rail and fuel-bed base matrix. Remove all of the loose coals / pebbles and front ceramic rail. Unscrew the two pozi-drive fixing screws which secure the burner heat shield and remove it from the fire.
- 4.5.3 Isolate the gas supply and remove the inlet pipe from the appliance inlet elbow. To allow burner removal, the control lever operating cable must be removed. The control lever operating cable can be seen running across the base of the fire, below the burner. To release the cable, unscrew the cable securing screw located in the centre of the aluminium operating arm and pull the cable out from its fixing hole. Release the other end of the cable by pushing the cable towards the right i.e. into the operating arm so as to release the tension. Pull the cable nipple out of the retaining hole and remove the cable through the slot in the operating arm. Remove the two retaining screws at the base of the burner unit, and the screw each side of the burner unit. The base of the burner unit can now be pulled forward, allowing the burner to be removed outwards and downwards from the fire box. Remove the burner assembly from the fire.
- 4.5.4 Refit the burner assembly to the firebox by carefully pushing the bottom of the burner back into position. Secure using the two screws into the side frame of the firebox, and two screws into the base. It is now necessary to refit and correctly tension the operating cable. To do this, first set the control lever to the horizontal (central position), this is the position which creates maximum tension in the operating cable. Refit the operating cable to the aluminium operating arm, firstly locating the nipple on one end of the cable into recess in operating arm and then feed the other end through hole in operating arm. Pull the operat ing cable until it is finger tight and secure with screw into operating arm (do not over-tighten). Move the control lever fully downwards and check that the left hand micro-switch operates the igniter and that the control valve spindle is fully depressed. Move the control lever upwards to the "off" position and check that the right hand (cut-off) micro-switch operates. Check that the control lever operates smoothly and safely.

Refit the burner heat shield then refit the coals / pebbles referring to section 3 for the correct coal / pebble layout. Refit the glass panel and glass panel retaining trims. The fender and ash pan cover or fascia can now be re-positioned.

4.6 Removal of the battery ignitor (SC models)

- 4.6.1 Remove the burner assembly as described in section 4.5
- 4.6.2 Disconnect the ignition lead and 2 off microswitch leads from the igniter. Unscrew the Battery retaining cap and place battery to one side. Then unscrew igniter retaining ring and remove igniter from panel. Re-assemble in reverse order and carry out a gas tightness test. Refit the burner heat shield then refit the coals / pebbles referring to section 3 for the correct coal / pebble layout. Refit the glass panel and glass panel retaining trims. The fender and ash pan cover or fascia can now be re-positioned.

4.7 Replacing the battery (SC models)

- 4.7.1 Unscrew Battery retaining cap situated at the front right of the fire and remove the battery
- 4.7.2 Replace in the reverse order using a 1.5V AA Alkaline Battery.

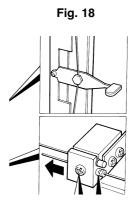
4.8 Removing the Oxy-Pilot Assembly (SC models)

Note: Because this appliance is fitted with an atmosphere sensing 'Oxy-Pilot' it is not possible to replace the thermocouple separately, because the thermocouple position is factory set to a tight tolerance. Any replacement of parts on the pilot requires a complete new pilot assembly.

- 4.8.1 Remove the burner assembly as in section 4.5
- 4.8.2 Unscrew and remove the thermocouple retaining nut from the end of the control tap, disconnect the ignition lead from the pilot electrode and the two inline leads from the microswitch.
- 4.8.3 Unscrew and remove the two pozi-drive screws which secure the pilot assembly to the burner. Remove the pilot.
- 4.8.4 Re-assemble in reverse order and carry out a gas tightness test. Refit the burner heat shield then refit the coals / pebbles referring to section 3 correct coal layout. Refit the glass panel and glass panel retaining trims. The fender and ash pan cover can now be re-positioned. Refit the trim.

4.9 Replacing the Control Cable (SC models)

4.9.1 The control lever operating cable can be seen running across the base of the fire, below the burner. To release the cable, unscrew the cable securing screw located in the centre of the aluminium operating arm and pull the cable out from its fixing hole. Release the other end of the cable by pushing the cable towards the right i.e. into the operating arm so as to release the tension. Pull the cable nipple out of the retaining hole and remove the cable through the slot in the operating arm. See fig. 18 opposite



- 4.9.2 Hold the hexagonal control lever cable locking bush with a spanner and unscrew the locking screw using a 2mm allen key to release the cable from the control lever. The control cable can now be removed from the cable guide tubes.
- 4.9.3 To fit the replacement cable, thread the end of the new cable into the long length of p.t.f.e. sleeve (as supplied), taking care not to kink the sleeve. Now carefully feed the sleeve and cable into the left hand cable guide tube until the ends emerge above the control lever. Now thread the short length of p.t.f.e. sleeve over the end of the cable and thread the sleeve and cable into the top of the short cable guide tube.
- 4.9.4 When the end of the cable emerges from the short cable guide tube, locate the nipple on the other end of the cable into the locating hole in the aluminium operating arm. Thread the free end of the cable into the cable retaining hole on the operating arm, but at this stage do not tighten the securing screw.
- 4.9.5 Fit the hexagonal control lever cable locking bush onto the control lever and fit the control cable loosely into the bush in the gap between the two lengths of p.t.f.e. sleeve. Ensure that the cable is located in the retaining hole in the locking bush and tighten the screw sufficiently to retain the cable but still allowing it to slide for adjustment.

- 4.9.6 It is now necessary to correctly tension the operating cable. To do this, first set the control lever to the horizontal (central position), this is the position which creates maximum tension in the operating cable. Pull the free end of the operating cable through the operating arm until it is finger tight and secure with screw into operating arm (do not over tighten).
- 4.9.7 Slide the operating arm fully to the right hand position and hold in position, slide the control lever relative to the cable until the cable retaining screw lines up with the hole in the spacer frame. This sets the control lever in the correct position. Hold the hexagonal locking bush with a spanner and tighten the retaining screw using the 2mm allen key. Move the control lever fully downwards and check that the left hand micro-switch operates the igniter and that the control valve spindle is fully depressed. Move the control lever upwards to the "off" position and check that the right hand (cut-off) micro-switch operates. Check that the control lever operates smoothly and safely.

PARTS SHORTLIST

Replacement of any other parts must be carried out by a competent person such as a GAS SAFE registered gas installer. The part numbers of the main replaceable parts are as follows, these are available from your local Global stockist, whose details can be found by contacting D.F.A. Ltd, contact details as per rear page of this book.

Coal Fuel-bed	B-130580
Pebble Fuel-bed	B-131730
Gas Valve	B-67090
Burner Engine	B-67890
Thermocouple	SP10138
Ignition Electrode	SP10139
Ignition Wire	B-67910
Piezo Igniter	B-1320
Glass Panel	B-130530
R/H Fibre Board	B-130560
L/H Fibre Board	B-130570
Tarri loro Boara	
Back Fibre	B-130540
Sloping Fibre	B-130550
Slide Valve	B-135990
Ignition Wire	B-34690
Spark Generator	B-43040
Microswitch	750-15600
WIGOSWIGH	100-10000

SECTION FIVE - USER INSTRUCTIONS

5.1 Installation Information

Conditions of Installation

It is the law that all gas appliances are installed only by a competent (e.g. GAS SAFE) Registered Installer, in accordance with the installation instructions and the Gas Safety (Installation and Use) Regulations 1998. Failure to install appliances correctly could lead to prosecution. It is in your own interest and that of safety to comply with the law.

The fire may be fitted below a combustible shelf provided that the shelf is at least 200mm above the top of the appliance and the depth of the shelf does not exceed 150mm.

The fire may be installed below combustible shelves which exceed 150mm deep providing that the clearance above the fire is increased by 15mm for each 25mm of additional overhang in excess of 150mm.

No purpose made additional ventilation is normally required for this appliance when installed in G.B. When installed I.E. please consult document I.S. 813 : 1996 Domestic Gas Installation which is issued by the National Standards Authority of Ireland. Any purpose made ventilation should be checked periodically to ensure that it is free from obstruction.

If the chimney or flue has been previously used by appliances burning fuels other than gas they must be swept prior to the installation of this fire.

If this appliance is fitted directly on to a wall without the use of a fireplace or surround, soft wall coverings such as wallpaper, blown vinyl etc. could be affected by the heat and hot air and may discolour or scorch. This should be considered when installing or decorating.

The Model number of this appliance is as stated on the rating plate affixed to the control panel of the fire and the appliance is manufactured by:-

BFM Europe Ltd. Trentham Lakes Stoke on Trent ST4 4TJ

About your Global Karara HE

The Global Karara HE range of coal & pebble fuel-bed gas fires incorporates a unique and highly developed fuel bed which gives the realism of a loose coal or pebble layout combined with realistic flames and glow. The use of durable ceramic material in the construction of the fuel-bed components ensures long and trouble free operation.

When first using the new fire a slight smell may be noticed. This is due to starch used in the manufacture of the soft ceramic coal or pebble form, it is non-toxic and will soon disappear.

Please take the time to fully read these instructions as you will then be able to obtain the most effective and safe operation of your fire.

IMPORTANT SAFETY INFORMATION

WARNING

This appliance has a naked flame and as with all heating appliances a fireguard should be used for the protection of children, the elderly and infirm. Fireguards should conform to B.S. 8423 : 2002 (Fireguards for use with gas heating appliances).

It is important that this appliance is serviced at least once a year by a GAS SAFE registered gas installer and that during the service the fire is removed from the fire opening and the chimney or flue visually checked for fallen debris or blockages which must be removed. The chimney should also be checked to ensure clearance of flue products. These are conditions of the manufacturers guarantee. After installation or during servicing a spillage test must always be carried out.

THE FIRE MUST NOT BE OPERATED WITH THE GLASS CRACKED, BROKEN OR REMOVED. Any debris or deposits should be removed from the fuel-bed from time to time. This may be carried out by referring to the cleaning section as described later in this book.

Only the correct coal or pebble fuel-bed must be used and only complete and genuine replacement fuel-beds must be sourced from D.F.A. Ltd. The appliance must only be used with the coal or pebble fuel-bed supplied and must not be used with other coals or pebble fuel-beds.

Always keep furniture and combustible materials well clear of the fire and never dry clothing or items either on or near to the fire. Never use aerosols or flammable cleaning products near to the fire when it is in use.

The ceramic fuel-bed remains hot for a considerable period after use and sufficient time should be allowed for the fire to cool before cleaning etc. The fire must only be operated with the trim and fret supplied with the fire.

5.2 Operating the Fire (manual control variants)

The controls are located behind the ashpan cover which is situated below the fret or contemporary ashpan cover. The controls, comprise a control valve to adjust the gas flow and a push button piezo igniter. To light the fire proceed as follows:-

- 1) Depress the control knob and turn anti-clockwise to the position marked ignition rate. Hold in the control knob for a few seconds to allow the gas to reach the burner.
- 2) Continue to hold-in the control knob and press the igniter button. If the burner does not light, continue to press the igniter button until ignition occurs. When the pilot has lit, continue to hold the control knob in for a minimum of 20 seconds to allow the thermocouple to heat up, if the burner goes out when the control knob is released, repeat the lighting sequence.

In the unlikely event of a failure of the igniter, the fire can be lit as follows :-Depress the control knob and turn anti-clockwise to the position marked ignition rate. Hold in the control knob for a few seconds to allow the gas to reach the burner. Insert the tip of a lit taper in below the fuelbed ceramic matrix above the thermocouple tip. This will light the main burner at low rate.

- 3) After lighting, turn the control knob in the anti-clockwise direction to the high position. It is recommended that for most efficient performance the fire is allowed to warm up for a few minutes with the gas control on maximum.
- 4) The gas control can be turned clockwise from the maximum position to give the desired heat output.

WARNING

If the fire goes out for any reason or is turned off and it is necessary to re-light the fire it is important to allow the fire to cool for 3 minutes before attempting to re-light it.

5.3 Operating the Fire (slide control models)

The controls comprise a control lever, to turn the fire on and off and adjust the gas rate. The control lever is located at the top right hand side of the fire. Depressing the control lever fully operates the igniter and lights the pilot flame. Once the pilot is established raising the lever allows low and finally high gas settings. The fire is turned off when the control lever is fully raised. To light the fire proceed as follows :-

- Depress the control lever fully downwards to the position marked "Z". Hold down the control lever for a few seconds to allow the gas to reach the pilot. (See Fig. 1 below)
- 2) The fire will then begin its ignition sequence. If the pilot does not light, continue to press the control lever until ignition occurs. The pilot flame can be seen by looking to the left hand side of the burner unit. When the pilot has lit, continue to hold the control lever down for 5-10 seconds to allow the thermocouple to heat up, before releasing the lever apply one firm downwards push to ensure that the f.s.d. valve is fully latched, if the pilot goes out when the control lever is released, repeat the lighting sequence.

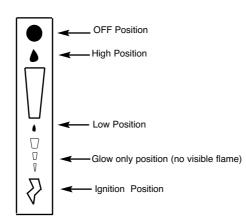


Fig. 1

In the unlikely event of a failure of the igniter, firstly check the operation of the 1.5V battery and if necessary replace with a 'AA' size alkaline battery. It is important that only an alkaline battery is used, otherwise premature battery failure and leakage may result. If the appliance still fails to light the fire can be lit as follows:

Depress the control lever fully downwards to the position marked "Z". Hold in position for a few seconds to allow the gas to reach the pilot. Insert the tip of a lit taper or spill at the pilot head (LHS of burner) This will light the pilot flame and low rate gas. When the pilot has lit, continue to depress the control lever in for 5-10 seconds to allow the thermocouple to heat up before releasing the control lever apply one firm downwards push to ensure that the f.s.d. valve is fully latched.

- After lighting, move control lever up to the high position and the main burner will light. It is recommended that for the most efficient performance the fire is allowed to warm up for a few minutes with the control lever set to high.
- 4) The gas control can be moved from the High (4.0kW) to Low (2.0kW) position to give the desired heat output. The lever can be set at a position between the ignition and low position but this will provide only a glow from the fuel-bed and not visible flames. (See Fig. 1 on previous page).
- 5) To turn the fire off, FULLY raise the control lever to the OFF position.

WARNING

If the fire goes out for any reason or is turned off and it is necessary to relight the fire it is important to allow the fire to cool for 3 minutes before attempting to re-light it.

SPILLAGE MONITORING SYSTEM

This appliance is fitted with a spillage monitoring system which shuts down the fire if the evacuation of combustion products from the fire is affected by a partially or fully blocked flue. If this system operates the fire will go out. If this occurs, leave the fire for at least three minutes then follow the lighting procedure as described in the previous section. In the event of repeated operation a GAS SAFE registered gas installer must be called to investigate and rectify the cause.

5.4 Removal / Replacement of the Coal Fuelbed (where applicable)

- a) Remove the trim / fret or fascia as applicable. Remove the top, left hand & right hand glass panel retaining trims, which are held in position by 11 off screws, then lift the glass panel clear. Place the coal fuelbed centrally on to the fuelbed support and push fully backwards to the rear face of the fibre boards. Make sure that the fuelbed base is located centrally in the fire box. See Fig. 2 below. Replace the glass panel and trims in reverse order.
- Fig. 2



5.5 Removal / Replacement of the Pebble Fuelbed (where applicable)

- a) Remove the trim / fret or fascia as applicable. Remove the top, left hand & right hand glass panel retaining trims, which are held in position by 11 off screws, then lift the glass panel clear. Place the coal fuelbed centrally on to the fuelbed support and push fully backwards to the rear face of the fibre boards. **Make sure that the fuelbed base is located centrally in the fire box**. See Fig. 3 below. Replace the glass panel and trims in reverse order.
- Fig. 3



Warning : Use only the coal or pebble fuel-bed supplied with the fire. When replacing the coal or pebble fuel-bed remove the old coal or pebble fuel-bed and discard it. Fit a complete coal or pebble fuel-bed from the manufacturer, only use genuine replacements.

THE FOLLOWING STATEMENT IS APPLICABLE TO ALL FUEL-BED TYPES

This appliance uses fuel effect pieces containing Refractory Ceramic Fibres (R.C.F.), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause temporary irritation to eyes, skin and respiratory tract. Consequently, it makes sense to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these R.C.F. articles is kept to a minimum, during installation & servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire, before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as "RCF waste". This is not classified as "hazardous waste" and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these arrticles, but we do recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area. and always wash your hands before eating or drinking.

This appliance does not contain any component manufactured from asbestos or asbestos related products.

5.6 Cleaning - WARNING

Before attempting any cleaning operation ensure that the fire has been allowed to fully cool. The Brass fret that was supplied with the fire (dependent upon model chosen) is real brass and therefore will discolour with use and should be cleaned with a proprietory metal polish. The chrome & brass effect trims and chrome effect fret that was supplied with the fire (dependent upon model chosen) should only be cleaned with a clean, damp cloth.

The trim is best cleaned in position on the fire when the appliance is not running and is cool. Black painted metal parts should be gently cleaned with a damp cloth.

To clean the glass panel, please remove it from the product as described on page 11. Use a clean damp cloth and ceramic glass cleaner to remove any stains or deposits from the glass panel. Do not using scouring pads as this may scratch the surface finish of the glass panel.

<u>**PLEASE NOTE</u></u> :- The glass will require cleaning periodically. Condensation produced by the products of combustion will create marks on the inside face of the glass panel.</u>**

Cleaning the Fuelbed

We do not recommend cleaning of the coals or fuelbed components as these are fragile and damage may result. **None of these parts must be washed or exposed to any cleaning agents or water**. Any damaged parts must be replaced by contacting your dealer or telephoning D.F.A. Ltd. on the number stated on the rear cover of this book. The coals or pebble fuel-bed must only be replaced with a complete and genuine replacement item and the fire must never be run with a damaged item. The fuel-bed must be carefully fitted as stated in section 5.3 & 5.4.

5.7 Removal / Re-Fitting the Trim

a) Fit the outer trim assembly to the firebox with the magnets provided.

5.8 Removal / Re-fitting of the Fret & Ashpan Cover

- a) Remove the fret & ashpan cover from the packaging.
- b) Place fret up to the front radiused section of the fuelbed, taking care not to move coal positions.
- c) Place ashpan cover under fret assembly and centralise.
- NOTE : Some models in this range are not supplied with a fret from the factory, therefore please consult your local retailer for fitting advice on the type of fret supplied with these models.

USER REPLACEABLE PARTS

The only user replaceable parts on this fire are the fuelbed components and coals or pebbles which may be replaced as described in the above section. Replacement of any other parts must be carried out by a competent person such as a GAS SAFE registered gas installer. The part numbers of the user replaceable parts are as follows, these are available from D.F.A. Ltd. who may be contacted at the number on the rear cover of this book.

Coal Fuel-bed	B-130580
Pebble Fuel-bed	B-131730
Glass Panel	B-130530

Due to our policy of continual improvement and development the exact accuracy of descriptions and illustrations cannot be guaranteed.

> Part no. B-131090 Issue 5

D.F.A. Ltd.

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