

Coal Effect Gas Fire

# INSTALLATION, SERVICING AND USER INSTRUCTIONS

All instructions must be handed to the user for safekeeping

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# INSTALLATION INSTRUCTIONS

# Preliminary Notes Before Installation

This appliance is a High Efficiency, Balanced Flue, Inset Live Fuel Effect appliance. It provides radiant and convected warmth utilising the latest type burner technology. It is 'room sealed' providing up to date technology in efficiency and safety.

The fire is designed to fit various types of situations as listed in the Installation Requirements. The appliance is provided complete with its own integral flue system to be tailored to the individual installation.

The appliance must be installed by a competent person in accordance with Gas Safety (Installation and Use) Regulations 1998. It is strongly recommended that a CORGI registered engineer is used for this purpose, as they are the only class of persons approved by the HSE under the above regulations.

Read all these instructions before commencing installation.

This appliance must be installed in accordance with the rules in force and only used in a sufficiently ventilated space. No additional ventilation is normally required. The appliance does not use room air for combustion or operation of the flue, but an adequate supply of fresh air to maintain temperatures within limits is advisable.

This appliance is factory set for operation on the gas type, and at the pressure stated on the appliance data plate.

Section	Contents	Page No.	Section	Contents	Page No.
1.0	Important Notes	1	8.0	Gas Supply	13
2.0	Appliance Data	2	9.0	Fitting Cavity Box	14
3.0	Installation Requirements	3	9.1	Cable Fixing	15
4.0	Terminal Location	4	10.0	Fuel Bed Layout	16
5.0	Site Requirements	5	11.0	Decorative Frame and Hood	17
5.1	Ventilation	5	12.0	Testing and Commissioning	18
6.0	Unpacking the Appliance	6	12.1	Operating the Appliance	19
6.1	Component Checklist	6	12.2	Spark Failure	19
7.0	Appliance Installation	7	12.3	Setting Pressure	19
7.1	Preparing the Appliance	7	13.0	Briefing the Customer	20
7.2	Preparing the Wall Location	8	14.0	Servicing	21
7.3	Outside Wall Apeture	8	14.1	Cleaning the Coals	21
7.4	Gas Supply Routes	9	14.2	Dismantling/Servicing the Burne	er 22
7.5	Installation Method 1	10	14.3	Removing the Firebox	23
7.6	Installation Method 2	10	14.4	Pilot Assembly	23
7.7	Installation Method 3	11	14.5	Testing for Firebox Leakage	24
7.8	Flue Preparation	12	15.0	Troubleshooting Guide	25

#### 1.0 IMPORTANT NOTES

This fire is an Inset Live Fuel Gas Fire providing radiant and convected warmth. It is designed to operate on Natural Gas following factory set adjustments. See Data Plate on appliance for gas type and pressure.

It is the LAW that all gas appliances and fittings are installed by a competent person (such as a CORGI registered fitter) and in accordance with the Gas Safety (Installation and Use) Regulations 1998, the relevant British Standards for Installation, Codes of Practice and in accordance with the Manufacturers' Instructions. The installation shall also be carried out in accordance with the following regulations:

The Building Regulations issued by the Department of the Environment, the Building Standards (Scotland) (Consolidation) Regulations issued by the Scottish Development Department.

BS 5440 part 1, BS 5871 part 1, BS 6891

Note: For Republic of Ireland, reference should be made to the relevant standards governing installation.

Failure to comply with these regulations could lead to prosecution and deem the warranty invalid.

This appliance must be installed in accordance with the rules in force and used only in a sufficiently ventilated space. The appliance does not use room air for combustion or operation of the flue, but a supply of fresh air is advisable to maintain temperatures within limits. The combustion air supply for this appliance is ducted from the outside air by an integral flue system. The terminal of this flue system must always be kept clear of vegetation, new buildings, conservatories, extensions, sheds or other potential obstructions and able to perform its function correctly.

Consult ALL instructions before installation and use of this appliance.

This appliance is provided with its own integral flue system and must only be used as described in these instructions with that flue system alone. NEVER connect to, open up, extend or in any other way modify the flue system and terminal other than shortening it for installation as described in these instructions.

This appliance is free from any asbestos material. Refractories and coal bed are constructed from ceramic fibre.

1.0

#### APPLIANCE DATA

Gas Group	G20 Natural Gas CAT I2H		
Inlet Pressure	20 mbar		
Max Energy Input	Gross 3.5 kW Net 3.15 kW		
Max Gas Rate	0.33 m3/h		
Min Energy Input	Gross 2.1 kW Net 1.89 kW		
Pilot Energy Input	Gross 140 W Net 120 W		
Setting Pressure	High 17.0 mbar (± 1.0 mbar) Low 6.5 mbar		
Main Injector Burner	Stereo size 60		
Gas Inlet Connection	8 mm compression		
Ignition	Piezo spark		
Spark Gap	4.0 mm (± 1.0mm)		
Weight	20 Kg		
Efficiency Class	Class 1		
NOx Class	Class 4		
Please see Data Badge affixed to appliance for current data.			

This appliance is for use only with the gas type, and at the pressure stated on the appliance Data Badge.

#### 1.0 INSTALLATION REQUIREMENTS

Compatible wall thickness for the installation methods described in this guide are as follows:

Installation Method - Min and Max Wall Thickness	Min (mm)	Max (mm)
METHOD 1: Inset into inner leaf of outside wall.	287	693
METHOD 2: Installed against inner leaf of outside wall with false chimney		
breast or rebated surround concealing firebox.	100	506

#### Internal

The fire has been designed to be installed in two main ways as shown in the table; either to fit into a suitable opening created in the inner leaf of an outside wall or a false chimney breast/extended fire surround built to conceal the appliance. The appliance can also be fitted into an unserviceable or inoperative fireplace served by a disused natural draught flue providing that the requirements for terminal siting and flue length can still be successfully met. It is recommended that the old flue be sealed off.

The flue pipe must be able to pass right through the outside wall to duct fresh air in to the fire and exhaust gases out correctly. The cavity box and firebox must be installed onto a suitable non-combustible insulating surface at least 12 mm thick, covering the entire base area of the box. The fire must be used with a fire surround and or back panel set capable of withstanding 180 degrees C minimum. Any combustible materials directly behind the fire frame (or back panel) and close to the cavity box of the fire must be removed and replaced with non-combustible material such as cement, browning, 'Superlux' board or equivalent materials.

#### External

The appliance requires a direct through the wall route behind the cavity box to the outside air. Minimum and maximum wall thickness is shown in the table at the beginning of this section. The terminal requires adequate clearances from other buildings, openings and obstructions to operate safely and correctly. Please refer to the diagram shown in the flue terminal position section. Terminals exhausting in passageways, over footpaths etc may be subject to local bye-laws, and must not create a nuisance. If in doubt contact your local council for further advice. In any case, the safety cage which is supplied with the terminal should be fitted to ensure no problems arise.

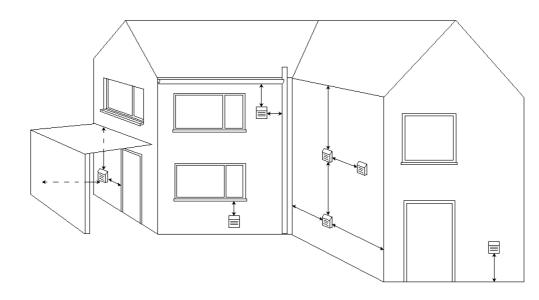
Avoid siting the terminal outlet close to combustible materials e.g. plastic drain pipes or fences etc. If it is unavoidable, a metal deflector must be used if the object is significantly heated. Covered areas such as car ports or covered walkways should be avoided, but if necessary, the following guidance may be used; The covered area should have at least two open sides (i.e. it comprises roof and maximum one supporting wall). If more than one wall is filled, advice should be sought from CORGI on the locations suitability. For minimum clearances see section on flue terminal location. Particular care should be taken with plastic roofs, if in any doubt the minimum distance stated should be to the lowest part of the roof.

### 1.0 INSTALLATION REQUIREMENTS (continued)

As with any flue outlet, some dicolouration of the wall around the terminal may occur with light coloured walls. Always avoid siting the terminal in conspicuous positions on light walls.

Terminal siting guidance is given in the next section but as a general rule avoid ledges, drain pipes, projections etc. The prevailing wind conditions combined with such objects can combine to produce unexpected conditions around the terminal.

## 1.0 TERMINAL LOCATION



This appliance is provided with its own integral flue system and must only be used as described in these instructions with that flue system alone. NEVER connect to, open up, extend or in any other way modify the flue system and terminal other than shortening it for installation as described in these instructions.

Terminal Position	Minimum Distance (mm)
A - Directly below and openable window or other opening e.g. airbrick	300
B - Below gutters, soil pipes or drain pipes	300
C - Below eaves	300
D - Below balconies or car port roof	600
E - From vertical drain pipes or soil pipes	75
F - From internal and external corners	600
G - Above ground, roof or balcony level	300
H - From a surface facing terminal	600
I - From a terminal facing a terminal	600
J - From an opening in a car port into dwelling (e.g. window)	1200
K - Vertically from a terminal on the same wall	1500
L - Horizontally from a terminal on the same wall	300

#### 1.0 SITE REQUIREMENTS

The appliance may be installed by one of the following methods:

- 1. Fitment against the inner face of an external house wall with a suitably constructed false chimney breast or rebated fire surround to enclose the depth of the fire. If a timber false chimney breast is con structed, clearances and insulation must be as for a timber constructed wall.
- 2. Insertion into a purpose made opening in the inner leaf of a cavity wall or a disused conventional fire place opening. Bridging the cavity may cause unwanted moisture to track to the inside of the house from the cavity. Protection from moisture and falling debris above the cavity box should be provided. If in doubt, consult local building control officers.
- 3. Installation into a timber framed house wall using clearances and insulation as described in the appropriate section. If in doubt, consult local building control officers.

## 1.0 SITE REQUIREMENTS (continued)

The opening dimensions for insetting the appliance must be; *WIDTH* between 430 mm and 445 mm, and *HEIGHT* between 565 mm and 575 mm high. The opening must be these sizes for the full depth of the cavity box in non-combustible applications. Applications involving combustible materials e.g. timber battens in false chimney breasts, must use appropriate clearances and insulation methods as described in the relevant section of these instructions.

Opening **DEPTH** must be 187 mm or greater. Opening **DEPTH** includes any plaster, cement or infill/back panels that form part of the installation.

In the event that the fire is sited in a disused or unserviceable fireplace served by a natural draught flue, the passageway into the flue and any existing under grate draught device should be sealed off to prevent loss of heat or creation of draughts.

If a concealed gas connection is to be made, the supply pipe should always be sleeved through walls and floors using the shortest possible route. It is possible to install the gas supply from the side of the hearth and round into the cavity, but use only factory sleeved pipe. No more than 1.5m of 8mm dia pipe must be used to avoid unnecessary pressure drops.

The wall for the opening must be non-combustible or prepared as described in the relevant section. Bare plasterboard must be protected by non-combustible plaster or replaced with 'Superlux' board for example. Any gap between wall boards and the wall must be filled using glass fibre insulation, silicone mastic or similar method to prevent heat ingress.

If the appliance is to be installed as a 'hole in the wall' fire, it does not require any hearth as such, providing it is mounted more that 150mm (6") above floor level. NOTE: Depending on the fret and trim type supplied with the fire, a suitable ledge for placement of the fire front may be required.

The appliance requires a hearth with non-combustible surface of at least 12 mm thick, projecting 100mm from the front of the appliance. The top surface must be at least 50 mm above the surrounding floor level, or be surrounded by a raised edge or fender 50 mm high. Any type of fire surround used with this appliance must be adequately sealed to the wall and floor to prevent excess draughts from around the back of the fire.

A combustible shelf may be fixed to the wall above the fire, providing that it complies with the dimensions given below. The shelf depth may be greater but the height must also be increased accordingly. An increase in height of 25 mm is required for every 12.5 mm of additional shelf depth. For shelves that are too low, protective devices can be used such as metal heat deflectors, but it must be assured that the shelf does not reach an unacceptable temperature before relying on such a solution. A non-combustible shelf may be fitted to within 100mm of the top edge of the fire frame, but any articles placed on it must also be tolerant of high temperatures.

Maximum depth of shelf	Minimum distance from hearth to underside of shelf
180mm	850mm

Combustible materials, such as wood, may be fitted to within 100mm (4in) of either side of the fire frame/trim, providing the forward projection does not exceed 100mm (4in). Any combustible side walls must be at least 500mm to the side of the radiant heat source.

As with all heating appliances, any decorations, soft furnishings, and all coverings (i.e. flock, blown vinyl and embossed paper) positioned too close to the appliance may discolour or scorch.

#### 1.0 VENTILATION

No purpose provided ventilation is required for this appliance because it is room sealed. The requirements of other open flued appliances operating in the same room or space must be taken into consideration when assessing ventilation.

The combustion air supply for this appliance is ducted from the outside air by an integral flue system. The terminal of this flue system must always be kept clear of vegetation, new buildings, conservatories, extensions, sheds or other potential obstructions and able to perform its function correctly. A supply of fresh air into the room is advisable to maintain temperatures within limits.

For Republic of Ireland, see relevant rules in force.

## 1.0 UNPACKING THE APPLIANCE

Stand the carton the right way up, cut the strapping bands and remove the top endcap. Read ALL these instructions before continuing to unpack or install this appliance.

Remove the box containing the cast front fret, and the box containing the ceramic coals and other ceramic firebed components. Remove the cardboard packing pieces, the flue tube and terminal assembly and any other bags or boxes containing fittings or other parts. When all loose parts have been removed, the outer sleeve may be lifted off to reveal the appliance. Check that the components supplied correlate with the component checklist. Please dispose of all the packaging materials at your local recycling centre.

## 1.0 COMPONENT CHECKLIST

QUANTITY	DESCRIPTION
1	Cavity box, firebox and burner assembly fitted with glass panel.
1	Decorative frame - 3 piece
1	Hood
1	Cast front fret with separate ashpan door
1	Moulded ceramic fibre combustion matrix
14	Individual ceramic coals (5 moulded and 9 broken)
2	Ceramic fibre side cheeks
1	Ceramic brick panel
1	Sealing grommet
1	Cable fixing kit
1	Screw and rawlplug pack
1	Terminal guard cage
1	Set of manufacturers instructions and warranty card
1	No 8 x 10 lg Self tapping screw
1	Flue Assembly
1	2" foil tape

#### 1.0 APPLIANCE INSTALLATION

Note: Ensure that the gas supply is isolated before commencing installation of the appliance.

The fireplace opening and environment must be in compliance with specifications laid down in the appropriate sections of these instructions.

## 1.0 PREPARING THE APPLIANCE

Remove the appliance from its carton as described previously and stand on a dust sheet. Remove the glass panel and place it and the coals, ceramics and fixing safely to one side.

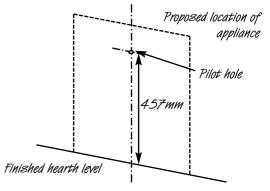
Lay the fire on its back. Remove the firebox assembly from the cavity box by removing the fixings provided on the front of the frame of the firebox. Place the firebox to one side for the time being. Knock out holes are provided in the rear and sides of the cavity box for use where concealed pipework is required. Knock out the appropriate hole with a sharp tap from a hammer and fit the rubber grommet supplied. A small incision can now be made in the rubber to slip snugly around the outside of the supply pipe and sleeving.

#### Note: Do not install or use the appliance without this seal in place.

If a hole is inadvertently opened, reseal with an intact grommet. Failure to fit this seal correctly may allow heat to escape unnecessarily, or allow cold draughts in.

## 1.0 PREPARING THE WALL LOCATION

From inside the house, firstly find the FINISHED HEARTH LEVEL, including any decorative hearth that will be in place when the fire is in position. This is the reference plane to which you should work. Mark the vertical centreline of the fireplace on the wall. Next, mark the centre of the flue pipe hole. This is 457 mm from the FINISHED HEARTH LEVEL. Pilot through the wall to ascertain the outside finished flue centre line. If necessary, check locations of wires and pipes in the wall first.



# 1.0 OUTSIDE WALL APERTURE

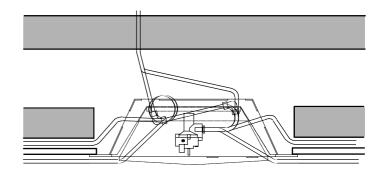
Check the outside flue terminal location using the pilot hole as a guide. Make any adjustments to the fire location or the surroundings as required to comply with terminal siting. Finally, core drill through the outside wall with a 155mm (6") core drill to provide the location for the outside part of the flue. If a core drill is not available, mark a 155mm diameter circle and stitch drill or chisel out the required area of brick. Clear rubble from the cavity and clear back any insulation material.

If required, the outside wall aperture can be created at a later stage from inside the property, through the inside wall aperture. If this is desired simply move on the next sections first.

## 1.0 GAS SUPPLY ROUTES

The gas supply may enter the fire over the hearth or by concealed connection behind the front of the fire.

Following preparation for the fixing method, the concealed gas supply (if required) can now be put into place. When the opening is ready for installation of the fire, the gas supply can be routed as shown in the following diagram. The ends of the sleeving in which the gas pipe is run should be sealed. The end of the 8mm pipe should be temporarily sealed to prevent the ingress of debris dur-



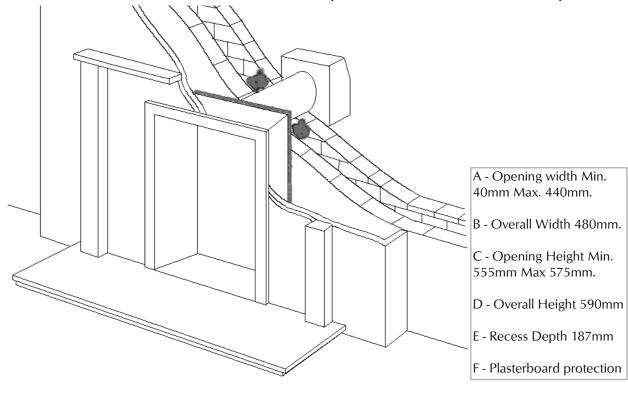
ing fixing. An isolator cock or restrictor elbow must be fitted to the incoming supply to facilitate servicing.

Concealed pipes should not be routed through walls without being protected by sleeving or conduit.

For installation method 1 (mounting against a wall) the supply can be routed in the normal manner. For installation method 2 (insetting into the inner leaf of a cavity wall) use only factory sleeved pipe in a continuous unjoined length in the cavity of the wall and areas that communicate with the cavity. This is a permitted gas supply pipe routing.

## 1.0 INSTALLATION METHOD 1 (against an inside wall)

This method requires no significant modifications to the internal wall of a property and is achieved by using either a surround with extended rebate or a false chimney breast of minimum 187mm internal depth.



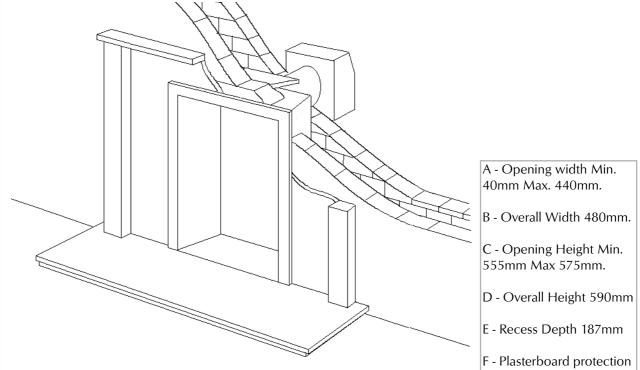
## 1.0 INSTALLATION METHOD 1 (continued)

Centring on the pilot hole already drilled, core drill or chisel a hole 155mm diameter from the inside of the wall. If loose fill cavity insulation material is present, the material will have to be retained by inserting 25 - 50mm of fibre glass or rock wool insulation tightly into the cavity. Where the cavity does not have such insulation material it is still good practice to do the same to provide protection if it is introduced at a later date.

At this point, the false chimney breast should be installed, taking into account any guidance given in the section on timber framed buildings as far as insulation and clearances are concerned. As a general rule, when the false chimney breast is constructed from combustible materials, the cavity box must be insulated with 50 mm of fibre glass wool or rock wool to the sides and rear and 100 mm to the top.

Finally install the fireplace or fire surround and back panel/marble to its finished location.

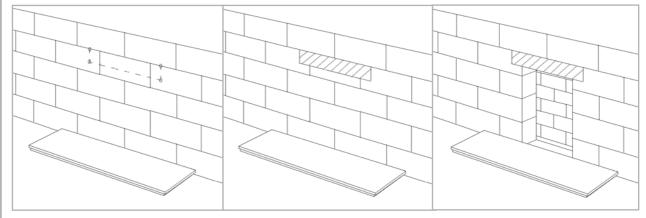
### 1.0 INSTALLATION METHOD 2 (recessing into wall)



This method allows for installation of the appliance with the rear part recessed into the inner leaf of a cavity wall. This should enable a standard fire surround and back panel/hearth set to be fitted to the wall with the fire presented naturally in a flush fitted manner. The structural integrity of the wall must be maintained.

Check on cavity insulation type if installed to the house and if of the loose fill variety, take precautions to prevent excessive loss of material when the inner leaf is opened up. Packing the cavity firmly with min 50mm of rock wool or glass fibre should help hold back any loose material now or in the future.

To maintain the structural integrity of the wall, the fitment of a suitable lintel is recommended. It is sometimes possible to install without a lintel depending on wall type, but the guidance of a qualified professional or local building control officer is essential to confirm this.



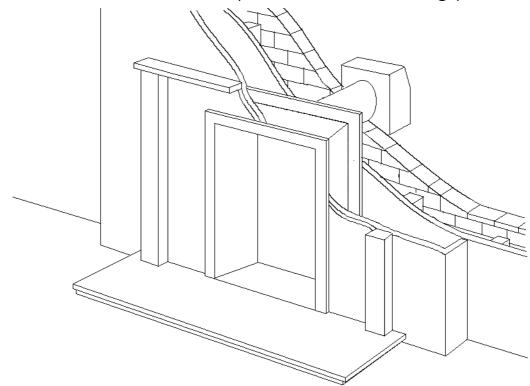
## 1.0 INSTALLATION METHOD 2 (continued)

Mark out the area of the proposed fireplace opening on the wall. Obtain a suitable concrete or steel lintel from a builders merchant. Drill four holes at the corners of the lintel position, squarely over the fireplace opening position and centrally under a block joint if possible. Clear out the block work in the area and insert the lintel by saw or stitch drill and chisel. Do not dry bed the lintel - always bed on mortar and securely slate pin.

Clear out the block work from below the lintel to form the opening for the cavity box of the fire to be inserted. The top of the exposed area of cavity must be sealed against the ingress of moisture dripping from above. The best way to do this is a cavity tray, but an easier and quicker method is to affix a 'Supalux' or equivalent board into the cavity. Slope the board towards the outside wall and support with screws, cement, 'Unibond' or silicone mastic etc. This will harmlessly guide all moisture to the outside wall. The exposed sides of the cavity must be packed with a good depth (minimum 50mm) of glass fibre or rock wool to prevent draughts and heat loss even if no loose fill material is present. It is good practice to insulate the rear of the fire from the cavity to prevent heat loss and condensation.

The non-combustible hearth may now be put in place. Again, this should not bridge the cavity where it projects into the wall space. Finally install the fireplace or fire surround and back panel/marble to its finished location.

## 1.0 INSTALLATION METHOD 3 (timber framed buildings)



Where removal of any part of a timber frame is undertaken, the structural integrity of the wall must be retained. The advice of your local building control officer should be sought. If the property is under any NHBC warranty it is also advised that their advice on this kind of modification is sought.

Either of the two preceding installation methods may be adapted for timber framed buildings, providing extra care is taken in ensuring combustible materials are adequately protected from the effects of heat.

The appliance must be installed in accordance with the British Gas documents DM2 and DM3 or the Institute of Gas Engineers published procedure document IGE/UP/7.

Special attention must be paid to the location of studwork frames of the inner leaf and the appliance positioned accordingly. Wires and pipes that run within the wall must also be taken into account.

#### Installation as per method 1 (against inner wall)

When using this method of installation the following amendments should be incorporated. 50mm insulation must be provided between combustible materials and the sides and rear of the convector box and the flue tube and 100 mm of insulation to the top of the convector box. It is also a good idea to enable as much airflow into and out of the area behind the fire as possible without excessive heat losses when

## 1.0 INSTALLATION METHOD 3 (continued)

the fire is off. Where the flue pipe passes through the inner leaf, a hole 100mm larger in diameter than the flue should be cut to allow an annular 50mm air gap around the flue circumference and a none combustible flue sleeve must be fitted.

A layer of insulation material will be needed behind the cavity box, between the combustible wall and the 50 mm of rear insulation, to protect the inner leaf of the wall. A piece of 12 mm thick 'Supalux' or equivalent should be fitted to do this. The vapour barrier on the back of the inner leaf should be cut and carefully pinned to prevent any damp ingress.

#### Installation as per method 2 (recessing into wall)

When setting the appliance into the wall, find a suitable position between frame timbers and open up the hole. Secure back the damp proof membrane to prevent ingress of damp. A drip collar of twisted galvanised or stainless steel wire should be formed around the flue with twist on the underside of pipe to disperse drips of water that may otherwise track back down the flue pipe to the appliance.

Again, 50mm insulation must be provided between combustible materials and the sides and rear of the convector box and the flue tube and 100 mm of insulation to the top of the convector box. The exposed cavity should be sealed off using non-combustible board ('Supalux' or equivalent) made into a 4 sided box, rear, 2 sides and a top. Note that the appliance should not be allowed to bridge the cavity in this installation method.

## 1.0 FLUE PREPARATION

When the preparation work for the chosen installation method has been completed and the fire surround (if any) has been fitted, the flue can be prepared. The flue length calculation by measurement is quite straightforward but requires care and attention in getting an accurate result. Always double check to make sure the measurement you have come up with is not too short - it is not possible to rejoin flue pipe cut off too short. Always take into account that the whole terminal cage must project from the outside wall by its full 87.6mm length.

Measure the distance between the front face of the marble or finished inner wall face that the fire is to be mounted against, and the surface of the outside wall. Now deduct 100mm from that dimension and write it down. This measurement is now the length that the flue must be cut to as measured from the end of the terminal cage (the very end of the duct) towards the other end of the duct that connects to the fire. Fit the support ring inside the flue pipe, mark off and cut the duct. The inner Flue duct must be cut at a length, which is 25mm longer as shown above

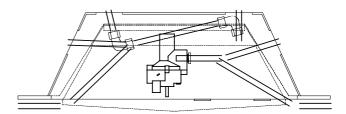
De-burr the cut ends of the flue pipe to allow a good connection to be made with the fire.

ALWAYS BE SURE TO REMOVE THE POLYSTYRENE SUPPORT RING BEFORE FINALLY FITTING THE FLUE PIPE TO THE FIRE.

## 1.0 GAS SUPPLY

When the opening is ready for installation of the fire, the gas supply can be routed as shown in the following diagram.

Temporarily fit the cavity box and offer up the firebox assembly to ensure a suitable gas route can be achieved.



## 1.0 FINAL CAVITY BOX FITTING

If not previously carried out, insert the cavity box into the opening and mark the screw locations required for fixing. Remove the cavity box and drill the previously marked holes in the opening or constructional hearth area and fit rawl plugs.

Carefully insert the cavity box into the opening and guide the gas pipe through the sealing grommet into its final routing position and fit the Restrictor inlet elbow supplied to the gas pipe. Secure the cavity box by inserting screws in the previously prepared locations.

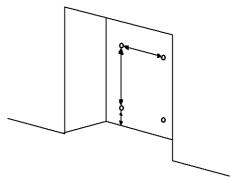
The cavity box may also be fitted using the cable fixing kit supplied as detailed below.

## 1.0 CABLE FIXING

Drill four holes as shown in the diagram and fit the fibre rawlplugs. If the fireplace does not allow for the exact layout shown the eyebolts should be fixed to give a similar configuration as possible.

Thread both tensioning cables through the holes at the top of the convector box, both eyelets, and back through the lower holes in the firebox

Push the cavity box back into the fireplace, centralise and pull the loose cables through the holes into the bottom of the cavity box. Thread the cable tensioners onto the cables as shown, with the nuts screwed down close to the tension-



er head. Slide the screwed nipple onto the cable, pull cable taut and tighten nipple.

Adjust tensioner using a suitable spanner to pull the appliance back into position, to allow an even pull around the fireplace opening. Visually inspect and repeat if necessary to achieve a good fit.

Fit the Restrictor inlet elbow supplied to the gas pipe.

Surplus tension cable MUST NOT be cut off as this will prevent proper installation after servicing. Coil up the surplus cable and tuck the coils out of the way.

Fit the flue pipe to the firebox assembly. Drill a 3.5mm diameter hole through flue and spigot and screw home with a No 8 self-tapping screw and seal the outer duct with the tape provided. Fit the firebox and flue assembly into the cavity box, securing with the fixings originally removed. Purge the gas supply thoroughly to eliminate grains of dirt that could otherwise cause serious problems on first light up and air that will extend the time for first light up.

Connect the gas supply to the control valve and tighten the gas connection. Pressurise the gas supply and test properly for soundness in accordance with current Approved Codes of Practice. From outside seal around the flue duct where it passes through the outside wall with silicone sealant or cement to reduce any ingress of moisture into the outer wall. Ensure 88 mm of the flue is protruding on the outside of the wall

## 1.0 FUEL BED LAYOUT

Place the brick panel against the rear of the firebox.

Place the ceramic combustion matrix onto the burner and the ceramic side cheeks onto the matrix. Ensure that the hole for pilot flame viewing is clear and easily visible.

Place the front row of 5 moulded coals onto the matrix, equally spaced across the width of the fire. They may be at any rotational orientation desired. Ensure their rear edges do not overhang the flame ports. Corners or rough edges MUST NOT be allowed to enter the flame ports.

#### FUEL BED LAYOUT (continued)

Place the centre row of four coals, making sure that they do not fall down into the flame port, but bridge across the spaces as shown. Rotational orientation maybe as desired.

Place the top row of five coals, onto the flats in the matrix. Ensure the coals are not put into holes in the matrix. Bridge the gaps between the support pillars and rear of the matrix and the centre row of coals. Rotational orientation may be as desired.

Note: The coals must not be crammed together, or inserted into the holes in the matrix. A well laid out, generously spaced coal layout will give the best results.

The edges or corners of the front row of coals MUST NOT be allowed to enter the flame slots in the matrix. If in doubt, pull them forward as far as possible.

Fit the glass door assembly by locating with the 4 screws provided.

SPECIAL NOTE: Evaluate the flame picture and pay special attention to finally adjust the coals in order to ensure that no flames play onto the firebox sides or forwards toward the glass door. This will reduce the possibility of heat discoloration. It is essential that he fuel bed ceramics be accurately. The main factor affecting flame picture and balance is coal layout.

If the coals do need adjustment to give a good flame picture, allow the fire to cool, remove the glass door, rearrange to coals slightly, refit the door and check again. It takes approximately 15 minutes for the full effect to be achieved.

The fire is designed to operate correctly with the coals supplied when assembled according to the instructions. Never add to the fourteen coals, or change them for a different type. Never put combustible or noncombustible materials, rubbish or other matter into the fire.

#### 1.0 FITTING THE DECORATIVE FRAME AND HOOD

The appliance is supplied with a decorative frame and hood.

The frame attaches to the firebox as a three piece clip-on assembly. The side pieces of the clip on assembly should be pushed firmly into position first, followed by the top bar, which should overlap the sides. A plastic protective coating may be applied to the face of the frame assembly, which should be removed at this stage. Place the fire front casting in place in front of the fire with the Ash pan door beneath.

Fit the convector hood to the firebox by engaging the two mounting hooks into the relevant slots on the firebox. The hood should be pressed inwards and down wards to secure into position.

#### 1.0 **TESTING AND COMMISSIONING**

As previously mentioned, firstly turn on and test the gas supply up to the fire for any leaks, in accordance with current Approved Codes of Practice (ACOPs).

1.0

## 1.0 OPERATING THE APPLIANCE

The pilot is visible through the specially added hole in the left hand side of the matrix. Push in and turn the control knob to the SPARK position, and hold there for a few seconds.

Continue turning anti-clockwise through the spark click to the PILOT light position, ensuring the pilot has lit. If not, return the knob clockwise and repeat. When the pilot lights after the spark, keep the knob depressed for approximately ten seconds. Now release the knob and the pilot should stay alight.

If the pilot is extinguished during use of the fire, you MUST wait ten minutes before repeating the ignition procedure.

To achieve the HIGH setting, push the control knob in slightly and continue tuning anti-clockwise to the high position. The main burner should light after a few seconds. To decrease the setting to LOW, turn the control knob clockwise to the low setting.

To turn to the PILOT position from the HIGH or LOW positions, press the control knob in slightly, and return to the pilot position and release. To turn the fire OFF, keep the knob pressed in, return to the off position and release. If the fire is switched off during use, ALWAYS wait 3 minutes for the fire to cool safely before attempting to relight. This ensures the safest condition for re-ignition.

## 1.0 SPARK FAILURE

The gap between the spark electrode and the pilot should be 3 - 5mm to produce a good spark. There should be no need to adjust this. If under any circumstances the piezo electric spark fails, the pilot cannot be lit manually.

#### 1.0 SETTING PRESSURE

Remove the screw from the pressure test point, situated on the main burner supply pipe just underneath the front of the burner box area and attach a U gauge. Light the fire on the HIGH setting.

The setting pressure should be in accordance with the figures stated in the data section of these instructions. The fire is factory set to achieve these pressures and any significant variation could indicate a supply problem. If the pressure is too high, the gas supply meter may be set incorrectly. This should be checked with the fire

running and if necessary reset by the gas supplier. If the setting pressure is too low, then check the meter governor pressure with the appliance running. If this is less than approximately 21mbar it will need to be reset by the gas supplier. If the setting pressure is too low, but the meter pressure is acceptable, then a problem in the supply pipework is to be suspected. This will be dirt and debris, kinked or inadequate size pipes, restriction in a fitting, shut off elbow not fully open or solder flashing across a joint.

## 1.0 BRIEFING THE CUSTOMER

All instructions must be handed to the user for safekeeping. Show the customer how to light and control the fire.

After commissioning the appliance, the customer should be instructed on the safe use of the appliance and the need for regular servicing. Frequency of service depends on usage, but MUST be carried out at least once annually.

Advise that cleaning of the fire maybe achieved when the fire is cold using a damp cloth and mild detergent on most surfaces.

Advise that the fire will emit a "newness" smell for a time after initial commissioning and that extra ventilation may be needed during this time.

## 1.0 BRIEFING THE CUSTOMER (continued)

Explain that the fire does not use air from the room but ducts fresh air for combustion and exhaust gasses out through the special flue system. The terminal of the flue system must not be allowed to have vegetation growing on or near and must also be kept well clear of any new buildings, sheds, conservatories etc that may be built nearby. Any shielding or damage to the terminal or flue can cause severe damage to the fire and introduce a safety risk to the customer.

Recommend that a guard be used for the protection of the young, pets, the elderly and the infirm

#### 1.0 SERVICING

Isolate the fire from the gas supply. Ensure that the fire is fully cold before attempting service. A suggested procedure for servicing is detailed below.

- 1. Lay out the dust sheet and tools.
- 2. Remove the hood and front fret.
- 3. Remove the glass door assembly (4 screws) and clean carefully
- 4. Carefully remove the ceramic components.
- 5. Remove the screws that retain the data/control plate. (2 screws)
- 6. Remove front panel from firebox taking care not to damage sealing gasket.
- 7. Remove the 2 screws securing burner tray assembly into inner firebox and nuts on gasket plate around gas pipe and undo gas pipe connection under burner box area. Lift away burner tray assembly (tray and gas pipe).
- 8. Clean the injector, pilot assembly and the burner tube. Do not attempt to remove the pilot injector as this can cause damage.
- 9. Re-assemble and re-fit the parts including the front panel making sure that gasket is in good condition.
- 10. Turn on the gas supply and leak test. Check pilot and burner for good ignition
- 11. Refit the ceramics, paying attention to the final layout as per installation section.
- 12. Refit the glass door assembly, ensuring a good seal.
- 13. Refit the hood.
- 14. Check the flue terminal for siting and clearance from vegetation etc
- 15. Light the fire and test setting pressures.
- 16. Check safe operation of the appliance.

For specific servicing instructions, see relevant sections.

#### 1.0 CLEANING THE COALS

Remove the fire front casting and place to one side. Remove the hood. Remove the glass door assembly. Remove the ceramic components. Gently clean in the open air. Be careful not to create dust from the coals. Where necessary replace damaged components with genuine spares. Seal scrap ceramic components in plastic bags and dispose at proper refuse sites as directed. If using a vacuum cleaner, a HEPA filtering system is recommended.

Re-fit the coals by referring to the relevant section of these instructions. Refit the glass door assembly ensuring a good seal. Refit the hood.

## 1.0 DISMANTLING AND SERVICING THE BURNER TRAY

Firstly, remove the hood and front fret, the glass panel, coals and ceramics, data/control plate, burner box front panel, and disconnect the gas connection underneath the burner box area. Remove the burner tray itself by removing the securing screws, releasing the seal around the incoming main burner pipe and lifting away. The 2 screws securing the gas valve bracket should now be removed. The gas connections to the gas valve can now be released and the valve brought forward to remove the thermocouple connection at the rear. Remove the pilot and main burner pipes and blow through to dislodge any debris.

Remove the injector and blow through to make sure it is entirely clear. When replacing the injector elbow, ensure that it aligned accurately with the centre of the mixer tube entering the burner and not at an angle. Always make sure that the nut securing the injector elbow is tight. Clean the exterior of the pilot assembly with a soft brush and blow through the flame ports on the pilot head. Check the aeration holes are free from lint or dirt. The pilot assembly can be removed if required by disconnecting the electrode HT lead, gas pipe and unscrewing the mounting screws and lifting away. The pilot assembly is a non-serviceable item and should not be taken apart. Aeration holes must be absolutely clear internally for proper operation. *NEVER MODIFY OR BEND THE THERMOCOUPLE TO MAKE THE PILOT STAY ALIGHT.* 

## 1.0 DISMANTLING AND SERVICING THE BURNER TRAY (continued)

If the pilot will not stay lit there is a problem with dirt, the gas supply to it, the flue connection or termination, or the thermocouple needs replacement. Modifications are dangerous and can have a serious unseen effect on safety. The integral gas valve pilot filter can be removed and cleaned as follows. Remove the control knob by pulling it forwards, then remove the largest of the three screws on the face of the valve. Slide the filter out and clean away any debris that may have accumulated. The filter element should also be blown clean. This component should not require replacement, however if signs of deterioration are evident then a genuine spare must be used. If a large amount of debris is present in the filter then the pipework and control should be thoroughly cleaned before re-assembly.

Re-assembly is the reverse of removal.

#### 1.0 **REMOVING THE FIREBOX**

Remove all loose parts such as brass frame, hood and fret. Remove the glass panel and ceramics from the firebox. Isolate and disconnect the gas supply at the gas valve. Remove the firebox to cavity box fixings and any seal around the flue pipe where it passes through the outside wall. The firebox should now be free to be lifted out.

Refit the firebox as described in the fitting section of these instructions.

#### 1.0 PILOT ASSEMBLY

Remove the hood, glass panel, ceramics and burner tray as described in the section dealing with the burner tray and gas assembly. The pilot can now be accessed easily for cleaning or removal. If removing, take care not to damage the gasket.

Clean the pilot assembly with a soft brush and blow through. Check the aeration holes are free of any dirt or lint. Clean thoroughly internally, the connection can be removed from the base of the pilot unit using two spanners to make cleaning easier. Do not damage or try to remove the pilot injector.

#### NEVER MODIFY OR BEND THE THERMOCOUPLE TO MAKE THE PILOT STAY ALIGHT.

If the pilot will not stay lit there is a problem with dirt, the gas supply, flue termination or connection, or the thermocouple needs replacement. Modifications are dangerous and can have a serious unseen effect on safe-ty.

The unit is factory set and the only check necessary is to ensure the spark gap is correct and that no damage has occurred to the unit.

#### 1.0 TESTING FOR FIREBOX LEAKAGE

The firebox is tested in production for soundness to the required standard. New appliances should present no problem in this regard, however appliances that are several years old or have been extensively dismantled should be checked for soundness. The firebox can be field tested for soundness or leakage by two main methods.

A. SMOKE TESTING. The firebox is heated by lighting for a few minutes to provide a flow through the firebox and flue. The burner is then shut off and the firebox is opened and a smoke pellet introduced or smoke is introduced to the air intake (outer) duct of the flue terminal. Large quantities of smoke emerging from the appliance at joints or gasket faces indicate where major leaks may be occurring. It is important to note that the appliance can never be expected to be 100% smoke tight and small quantities of smoke may be seen in corners of joints and gasket faces etc without affecting safety when the fire is actually in operation.

B. GAS SAMPLING. This is done with a CO/CO2 analyser with the fire running. Samples of the con vection air and room air are taken before and after the fire is lit to ascertain if the fire is leaking com bustion products at significant levels. It is important to note that sampling with a probe right next to a joint or gasket face is not a reliable test, as the action of the analyser sucking and locally high concen trations of gas will significantly affect the reliability of readings. The important point to note is whether there is a significant increase in ambient CO/CO2 in the room air after 15 to 30 minutes operating. A small or negligible increase indicates insignificant leakage rates. A significant increase warrants further inspection and testing with smoke as described above to isolate and eliminate leaks.

## 1.0 | TROUBLESHOOTING GUIDE

Fire sparks but pilot does not light	No gas to fire, check isolators are open. Pipework blockage, clean out. Air not fully purged, re purge supply or wait longer. Spark earthing to metal work, reset gap correctly. Blocked pilot, clean out internally.
Pilot light but then goes out	<ul> <li>Severe restriction in gas supply: clear obstruction.</li> <li>Faulty thermocouple, replace pilot unit.</li> <li>Blocked pilot, clean out. Hold control knob in for longer.</li> <li>Check control knob does not foul data plate.</li> <li>Flue disconnected or connection damaged, partly or fully blocked, terminal obscured or damaged.</li> <li>NEVER MODIFY OR BEND THE THERMOCOUPLE TO MAKE THE PILOT STAY ALIGHT. If the pilot will not stay lit there is a problem with dirt, the gas supply, flue termination or connection, or the thermocouple needs replacement. Modifications are dangerous and can have a serious unseen effect on safety.</li> </ul>
Fire does not spark at pilot	Fire does not spark at pilot HT lead detached, refit. Spark gap too large or small, reset correctly. Faulty piezo unit, replace. Debris shorting out electrode, clean. Spark shorting to metalwork under tray, realign HT lead.
Fire runs for a time and then cuts off	Fire runs for a time and then cuts off Loose or faulty thermocouple, rectify. Blocked pilot, clean out. Dirt or lint in pilot aeration hole, clean thoroughly internally. Flue disconnected or connection damaged, partly or fully blocked, terminal obscured or damaged. <i>NEVER MODIFY OR BEND THE THERMOCOUPLE</i> <i>TO MAKE THE PILOT STAY ALIGHT</i> . If the pilot will not stay lit there is a problem with dirt, the gas supply, flue termination or connection, or the thermocouple needs replacement. Modifications are dangerous and can have a serious unseen effect on safety.
Pilot flame shrinks when fire is on high	Poor gas flow to fire, check pressure with fire on high. If pressure is low, remove any restriction in pipework or valve. Check all isolators are adequately sized and fully open. Check meter pressure is adequate. Flue disconnected or connection damaged, partly or fully blocked, terminal obscured or damaged. <i>NEVER MODIFY OR BEND THE THERMOCOUPLE</i> <i>TO MAKE THE PILOT STAY ALIGHT</i> . If the pilot will not stay lit there is a problem with dirt, the gas supply, flue termination or connection, or the thermocouple needs replacement. Modifications are dangerous and can have a serious unseen effect on safety.
Fire smells when first lit	Newness smell from brand new appliance. Leakage occurring. Carry out leakage test and rectify any problems. Low temperature sealants or combustible materials used in incorrect positions.

# USER INSTRUCTIONS

Section	Contents	Page No.
1.0	Important Notes	1
2.0	Firefront	1
3.0	Clearance to Combustibles	2
4.0	Ventilation	2
5.0	Operating Instructions	2
6.0	Cleaning	2
7.0	Coals and Ceramics	3
8.0	Servicing	3
9.0	List of Spare Parts	3

#### 1.0 IMPORTANT NOTES

The installation and Servicing of this fire MUST only be carried out by a competent person (such as a CORGI registered fitter) in accordance with the Gas Safety (Installation and Use) Regulations 1998, the relevant British Standards, Codes of Practice, the Building Regulations and the manufacturer's instructions.

Failure to comply with the above recommendations could lead to prosecution and invalidate the appliance warranty.

Please ensure you are handed all of the manufacturers documents on completion of the installation. This will include these instructions.

Always keep a note of the installer's name and address, the original purchase receipt and the date of installation for future reference.

The fire and flue should be serviced regularly to ensure continued safe operation. See the servicing section for further reference.

Parts of this appliance become naturally hot during use. It is recommended that a suitable fire guard conforming to BS 6778 or BS 6539 is used, especially where young children, pets, the elderly or infirm are concerned.

The manufacturer of this appliance considers all surfaces as working surfaces with the exception of the control knob, control panel and ash pan cover.

Combustible items, such as flooring and furniture and soft wall coverings (such as blown vinyl or embossed paper), low temperature surrounds etc may discolour if fitted too close to the fire. See relevant section for further details on clearances to combustibles. No combustible materials or flooring should protrude onto the hearth.

DO NOT burn any foreign material on this fire, the coals must be of the correct type and laid out in accordance with the relevant section of the these instructions. Failure to do so may create a hazard or lead to sooting. Under no circumstances shall the appliance be used if the glass front door or panel has been, removed or is open.

The integral appliance flue should be checked by the installer upon servicing to ensure there are no defects or obstructions that may prevent the satisfactory flow of combustion products.

This appliance is only suitable for the gas type for which it is supplied.

#### 1.0 FIREFRONT

This fire is supplied with a particular style of fire front. Use of the fire front will ensure an adequate airflow under the firebox for the correct efficiency and control temperatures of this appliance. Whilst other fronts can be used, compliance with temperature standards cannot be guaranteed when another style of front is used.

## 1.0 CLEARANCES TO COMBUSTIBLES

A non-combustible shelf may be fitted to within 100mm of the top edge of the fire frame. However the items placed on it must also be able to withstand high temperatures.

A combustible shelf may be fixed to the wall above the fire, providing that is complies with the dimensions given below.

Maximum depth of shelf	Minimum distance from hearth to underside of shelf
180mm	850mm

Combustible materials, such as wood, may be fitted to within 100mm (4in) of either side of the frame of the appliance, providing the forward projection does not exceed 100mm (4in).

Any combustible side walls must be at least 500mm to the side of the radiant heat source.

As with all heating appliances, any decorations, soft furnishings and wall coverings (i.e. flock, blown vinyl and embossed paper) positioned too close to the appliance may discolour or scorch.

#### 1.0 VENTILATION

No purpose provided ventilation is required for this appliance because it is room sealed. The requirements of other open flued appliances operating in the same room or space must be taken into consideration when assessing ventilation.

The combustion air supply for this appliance is ducted from the outside air by an integral flue system. The terminal of this flue system must always be kept clear of vegetation, new buildings, conservatories, extensions, sheds or other potential obstructions and able to perform its function correctly. A supply of fresh air into the room is advisable to maintain temperatures within limits.

For Republic of Ireland, see relevant rules in force.

#### 1.0 **OPERATING INSTRUCTIONS**

The pilot is visible through the small hole in the left hand side of the matrix base. Push in and turn the control knob to the SPARK position, and hold there for a few seconds.

Continue turning anti-clockwise through the spark click to the PILOT light position, ensuring the pilot has lit. If not, return the knob clockwise and repeat.

When the pilot lights after the spark, keep the knob depressed for approximately ten seconds. Now release the knob and the pilot should stay alight.

If the pilot is extinguished during use of the fire, you MUST wait three minutes before repeating the ignition procedure.

To achieve the HIGH setting, push the control knob in slightly and continue tuning anti-clockwise to the high position. The main burner should light after a few seconds. To decrease the setting to LOW, turn the control knob clockwise to the low setting.

To turn to the PILOT position from the HIGH or LOW positions, press the control knob in slightly, and return to the pilot position and release. To turn the fire OFF, keep the knob pressed in, return to the off position and release. If the fire is switched off during use, ALWAYS wait 3 minutes for the fire to cool safely before attempting to relight. This ensures the safest condition for re-ignition.

To turn the fire OFF, keep the knob pressed in, return to the off position and release.

## 1.0 CLEANING

Before carrying out any of the following operations, ensure that the fire is OFF and completely cold.

Debris that may form on the fire bed should be periodically removed by a competent person. Large deposits could indicate flue problems or incorrect coal placement. This should be repaired by a competent person and the fire serviced before further use. To gain access to the fire bed, remove the hood and glass door assembly.

**1.0** The hood should be lifted and pulled outwards to disengage, then remove the door by removing the four screws and lifting away. The glass can be cleaned with a suitable glass cleaner.

FIREFRONT - Any dust accumulating in the fire front may be removed using a vacuum cleaner or dry cloth. Heavy stains may be removed by using a damp cloth and mild household detergent. Brass parts of the fire front may be cleaned using a suitable brass cleaner. Replace the front centrally against the fire after cleaning.

PAINTED AREAS - These can be cleaned using a dry cloth.

#### 1.0 COALS AND CERAMICS

See the relevant section in the Installation Guide of these instructions. Clean coals gently in open air. Do not create dust from the coals. If using a vacuum cleaner, a HEPA filter system is recommended.

#### 1.0 SERVICING

The fire and flue should be checked on an annual basis to it is working safely and that there is no excessive build up of soot. The frequency of service will depend on usage, but MUST be carried out at least once annually. Servicing must be carried out by a competent person, such as a CORGI registered installer.

Cleaning of the coals may be carried out by following the instructions given in the Installation section. The Installation instructions carry full servicing details for the use of the installer.

### 1.0 LIST OF SPARE PARTS

PART NO.	ITEM
??????????	Pack of 14 coals
??????????	Ceramic combustion matrix
??????????	Ceramic side cheeks
??????????	Ceramic brick panel
Please enquire	Decorative frame
Please enquire	Decorative fret
?????????	Glass door assembly
Please enquire	Hood
?????????	Pilot assembly
?????????	Gas valve
?????????	Burner tray
?????????	Pilot Gasket
?????????	Gas pipe gasket
??????????	Front panel gasket
?????????	Outer tray gasket