INSTALLATION, USERS AND SERVICING INSTRUCTIONS

MODELS COVERED

16 N.V (No Vent) FAN FLUED CONVECTOR
AND
16 N.V (No Vent) FAN FLUED HOTBOX
Inset decorative fuel effect fires.

For use with Natural Gas (G20) @ 20mbar inlet supply pressure only, as specified.
Country of destination: GB,IE,AT,CH,DK,ES,FI,IT,PT,SE for I2H = N.G. Only

Please read before using and retain for future reference.

This product must only be installed by a CORGI registered person and the installation must comply with these instructions.

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FEF UK Ltd. Units 32 – 38 Intake Rd, Intake Industrial Estate, Bolsover, Chesterfield, Derbyshire S44 6BB
Tel: 01246 823333 Fax: 01246 824444
Email: info@fef.uk.com

Please leave these instructions with the user

Gas Council No. 32-045-06 Hotbox Fan Flue
32-045-08 Convector Fan Flue

Contents

GENERAL

- **The Fuel Effect Fires, 16 N.V Convector & Hotbox Fan Flued appliances are decorative fuel effect fire designed to be used on natural gas only at a setting pressure of 20 mbar.**
- **The appliances are only suitable for installation in G.B and I.E and should be installed in accordance with the rules in force.**
- **The appliances must be installed and serviced by a competent person and in accordance with the relevant requirements of Gas Safety (Installation and Use) regulations 1998, the relevant British standards for installation, appropriate Codes of Practice and in accordance with these instructions. It is recommended that a CORGI registered engineer be used for this purpose as they are approved by the HSE under the above regulations.**
- **The installation shall also be completed in accordance with:**

  The Building Regulations issued by The Department of the Environment

  The Building Standards (Scotland) Regulations issued by the Scottish Development Department

  For Republic of Ireland, reference should be made to the relevant standards governing installations (IS 813: 1996)
- **Read these instructions before installation and use.**
- **The flue outlet terminal must be located in a suitable position which will not cause a nuisance to persons outside the building and will not be below 300 mm above ground level.**
- **This appliance dose not normally require and purpose provided ventilation when installed in GB. For IE refer to relevant standard (IS 813: 1996) .**
- **Any purpose provided ventilation must be checked periodically to ensure that it is free from obstruction.**
- **It is important for the correct operation of the appliances that the fuel bed components are assembled in accordance with these instructions. Only use original replacement components available from Fuel Effect Fires Limited.**
- **It is recommended that a fireguard conforming to BS 6539 or BS 677 is fitted for the protection of young children, the elderly or infirm.**
- **Under no circumstances should rubbish be thrown onto the fire.**
- **Any combustible shelves or surrounding furniture must only be installed in accordance with the parameters detailed in these instructions.**
- **The appliances are fitted with an aeration slide control which is designed to enable the user to choose between either a more aesthetically pleasing, more yellowed flame picture or a slightly hotter, bluer flame picture. It my be adjusted at any time without affecting the gas throughput.**
- **The appliances are fitted with an Oxygen Depletion System pilot assembly, which will automatically cause shutdown of the main burner and pilot flame if there is insufficient oxygen due to lack of ventilation or the appliance is not clearing the products of combustion. UNDER NO CIRCUMSTANCES SHALL THIS DEVICE BE ADJUSTED, BYPASSED OR PUT OUT ACTION. The device must be regularly serviced and strictly in accordance with these instructions.**

TECHNICAL DATA

Category of appliance	**I2H**
Gas type and pressure setting	**G20 at 20 mbar**
Maximum heat input (gross) **Burner pressure**	**6.7 KW** **9.5 mbar (0.5 mbar**
Minimum heat input	**4.5 KW**
Gas connection	**8mm OD rigid or semi-rigid tube with 8mm compression fitting at the appliance inlet.**
Controls and safety system	**Rotary gas tap with permanent ODS Pilot burner, Flame failure device and an on/off switch with neon indication** **For the fan unit.** **Aeration slider control for flame picture adjustment.**
Injector size and marking	**7 x 0.88mm dia holes (88)**
Electricity supply	**230 Volts – 50Hz**
Maximum wall thickness	**(668 mm convector box)** **(611 mm hotbox)**
Minimum wall thickness	**138 mm**
Weight of appliance	**Kg**

Figure 1 - Convector Box

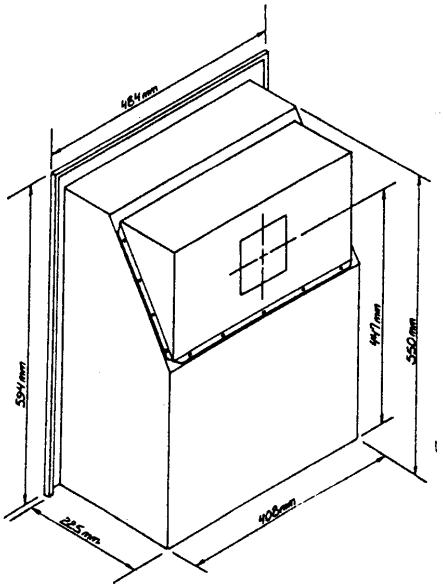
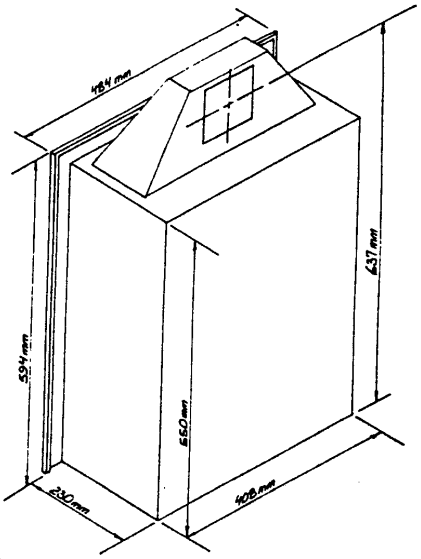


Figure 2 - Hot Box



INSTRUCTIONS FOR USE

1. OPERATING THE APPLIANCE

- **Ensure the control knob is pointing to the off position**
- **Ensure the mains power supply is on.**
- **Press the fan on switch to start the fan. The green neon will be illuminated when the air pressure switch has been proven indicating that the main burner of the appliance can be lit.**
- **Fully depress the control knob and turn in an anticlockwise direction towards the ignition symbol.**
- **A click will be heard as the control knob is turned through this position and the pilot should light. Keep the control knob depressed at the pilot position for 5 to 10 seconds before releasing.**
- **If the pilot fails to light repeat the above procedure.**
- **Depress the control knob slightly and rotate anticlockwise to the 'high' position. The main burner will now light.**
- **To obtain lower flames rotate the control knob clockwise to the 'low' position**
- **Set the aeration slider control to obtain the desired flame picture. With the slider at the Max. Position the main burner flames will be slightly more blue than at the Min. Position which will obtain a more aesthetically pleasing yellow flame picture.**
- **To turn the main burner off rotate the control the control knob clockwise to the pilot position. The main burner will be extinguished but the pilot will remain alight.**
- **Press the fan off switch to stop the fan. The green neon will go out indicating that the main burner can not be re-lit without activating the fan again.**
- **To turn off the pilot burner, rotate the control knob clockwise back to the position.**
- **After turning off the appliance, or if the appliance should go out for any reason, wait at least 3 minutes before trying to relight.**

2. CLEANING

WARNING: DO NOT ATTEMPT TO CLEAN THE FIRE UNTIL IT IS IN A COLD CONDITION
THE FIRE WILL RETAIN ITS HEAT FOR A CONSIDERABLE TIME AFTER SHUTDOWN.

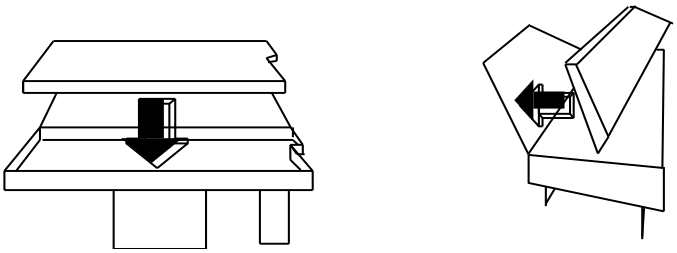
- **Carefully remove all the loose coals and ceramic fuel bed components and place to one side taking care to protect floor coverings etc.**
- **Care should be taken when removing the fuel bed components as they are very fragile.**
- **Using a soft brush and vacuum cleaner remove any debris from the burner tray and ensure all burner ports are free from obstruction.**
- **Clean around the pilot assembly with a soft brush and ensure that the aeration port is free from obstruction.**
- **CAREFULLY clean the fuel bed components using a soft brush and/or a vacuum cleaner with soft brush attachment.**
- **Replace the fuel bed components as detailed in section 3.**
- **The brass fire trim may be cleaned using suitable soft cloth and cleaning solution.**

Gas Soundness Check

With the gas supply connected, all joints should be checked for gas soundness in accordance with BS 6891. Ensure that the setting pressure at the pressure test point on the injector side of the valve, is 8.5 mbar 0.5 on the 16 NV G20 model, 10.1 mbar 0.5 on the 16 VR G20 model and 18 VR G20 model, 27 mbar 1 on the 16 NV G30 model or 36 mbar 1 on the 16 NV G31 model. (see diagram on page 5). This reading should be checked with the fire running on full. Should the setting pressure be less than indicated, check that the gas supply pipe sizing delivers 20 mbar at the appliance for G20 models, 28 mbar for G30 and 37 mbar for G31. The same setting pressures apply to the Remote Control versions.

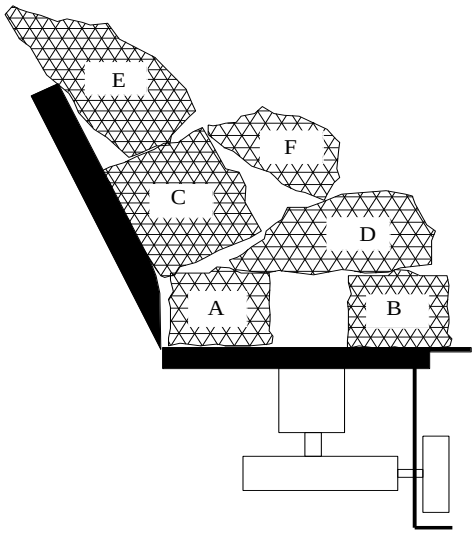
NOTE: It is permissible to light the fire FOR SHORT PERIODS ONLY when the fire is not laid with ceramics and coals.

ASSEMBLING THE FIRE AND COAL PLACEMENT
WARNING
The appliance should NOT be used with damaged coals and ceramics, or with the incorrect amount.



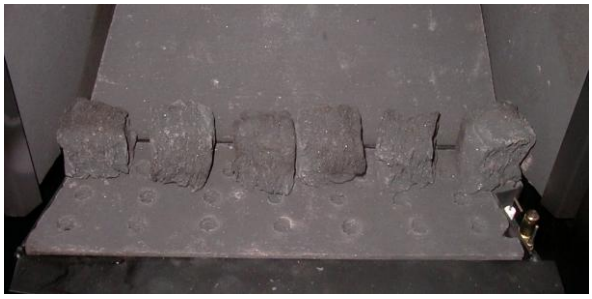
The burner tray and ceramic are illustrated above. Take the base ceramic and place it on the burner tray and place the solid rear ceramic against the metal ramp at the back of the burner tray.

Coal Lay



Coal Lay (G20) Appliances

4.



Row A
Place 6 small square coals (8 in the case of the 18" appliance), on their broken edges, the centre two touching, and the outer two at the edge of the tray, across the back of the burner, and up against the rear ceramic ramp. The remaining 2/4 coals should be placed leaving as much of the burner ports as open as possible

Row B
Place 6 (8 in the case of the 18" appliance) small square coals, evenly spaced, along the front edge of the burner, clearing the front burner ports.

Row C
Place 6 (8 in the case of the 18" appliance) large square coals, on top of Row A, and resting against the rear ceramic. These should be evenly spaced**,** (broken edges facing outward).

Row D
Bridge the gap bet
rows A and B with
the case of the 18'
appliance), large r
shaped coals ever
spaced, point inwa
**ENSURE THE PIL
CLEAR.**

Row E
Place 4 (6 in the case of the 18" appliance), large random shaped coals tightly packed side by side, as shown in the photograph, in the centre of the burner tray. These coals rest on top of Row C.

Row F
Place 4 (7 in the case of the 18" appliance), small random coals bridging the gaps between each of the coals in Row D. These should be placed towards the rear of the burner tray and rest on top of Row D.

FLAME FAILURE DEVICE AND (ODS) SPILLAGE MONITORING SYSTEM.

The pilot assembly of the appliance incorporates a flame failure device which in the event of insufficient heat from the pilot flame on the thermocouple will automatically shutdown the gas supply to the appliance.

Additionally the pilot unit incorporates a system which will automatically shut the gas supply off to the appliance if the pilot flame goes out for any reason during operation of the fire due to insufficient supply of oxygen. The lack of oxygen can be caused by insufficient ventilation or the appliance not adequately clearing the products of combustion.

Continued operation of either device indicates that there may be a serious problem and a qualified gas engineer should be called to carry out an inspection.

DO NOT USE THE APPLIANCE UNTIL IT HAS BEEN CHECKED AND THE ENGINEER SAYS IT IS SAFE.

5. RUNNING IN

During the initial operation, the appliance may give off harmless and temporary odour until the ceramic components have burnt off. This is normal, but should the odour persist seek further advice.

6. SERVICING

A qualified gas engineer (CORGI registered person) must service the appliance at least once a year.

7. VENTILATION

This appliance does not normally require any purpose provided ventilation when installed in GB. For IE refer to relevant standard (IS 813: 1996).
Any purpose provided ventilation for these appliances must be checked periodically to ensure it is free from obstruction.

INSTRUCTIONS FOR INSTALLATION

1.0 SITE REQUIREMENTS

1.4 LOCATION

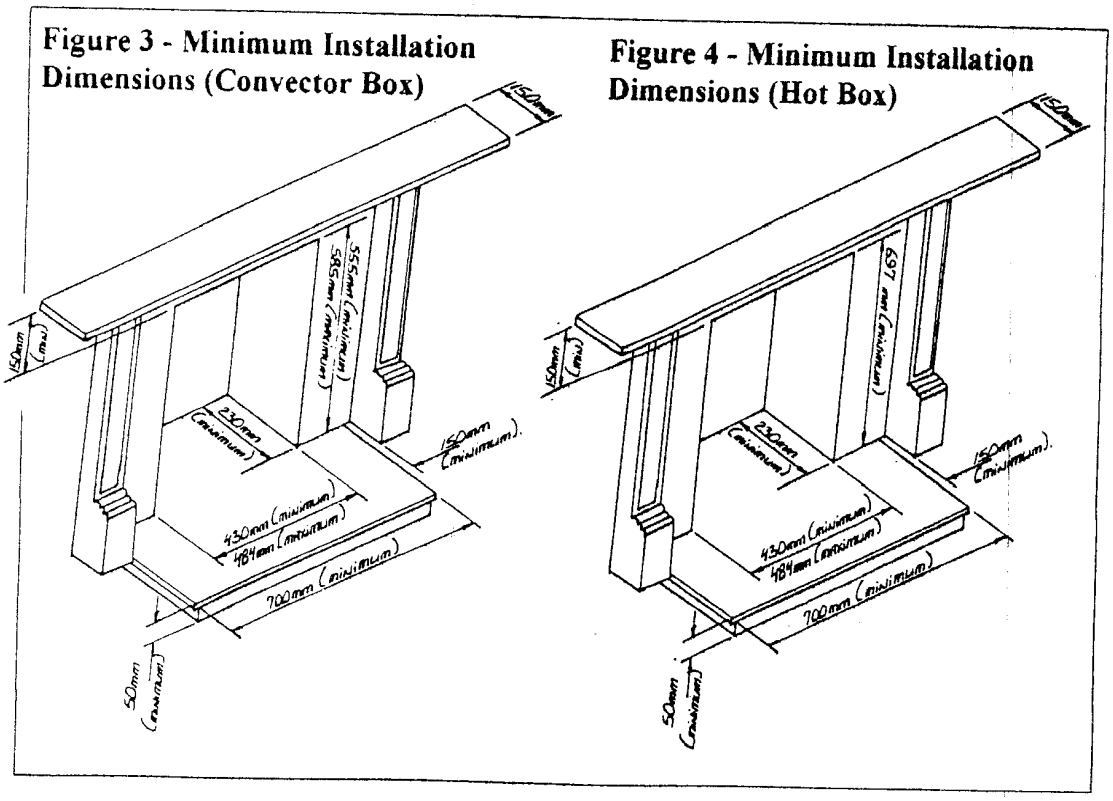
- **The Fuel Effect Fires Limited 16 NV Fan Flued appliances must be installed on an outside wall with the terminal located in a suitable place. (Refer to figure 5)**
- **The appliance is suitable for installation through a wall of thickness between 138 mm and 668 mm for the convector box and 138 mm and 611 mm for the hotbox.**

1.3 VENTILATION

- **No purpose provided ventilation is normally required for these appliances, with normal adventitious ventilation being sufficient. Reference should be made to BS 5871 Part 2. For Ireland refer to IS 813 section 10 of the Irish ventilation requirements.**

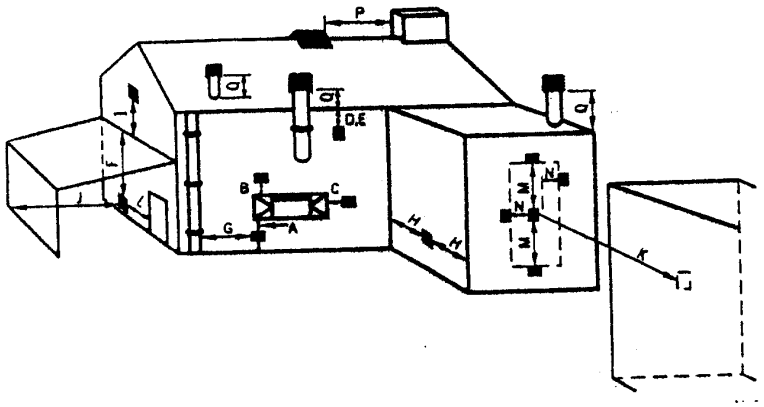
1.3 HEARTH

- **These appliances are intended to be hearth mounted only.**
- **The hearth must consist of at least 12.5 mm thick non-combustible material. The periphery of the hearth must be at least 50 mm above floor level, or alternatively, a fender rail or upstanding edge of at least 50 mm height can be fitted to the periphery of the hearth. The hearth must extend at least 300 mm in front of the mounting wall face, and must be at least 700 mm wide, centrally displaced.**



ıppliances must stand on a non combustible base within the fire place opening
vill be of equivalent height as the hearth.
ıo circumstances shall the appliance be fitted directly onto a combustible floor or

5 - Flue Terminal Positions



Dimension	Terminal position (kW input expressed as net)	Balanced flues room sealed		Open flues	
		Natural draught	Fanned draught	Natural draught	Fanned draught
A[a]	Directly below an opening, air brick, (0-7 kW) opening windows, etc. (>7-14 kW) (>14-32 kW) (>32-70 kW)	300 mm 600 mm 1 500 mm 2 000 mm	300 mm	Not allowed	300 mm
B[a]	Above an opening, air brick, (0-7 kW) opening window, etc. (>7-14 kW) (>14-32 kW) (>32-70 kW)	300 mm 300 mm 300 mm 600 mm	300 mm	Not allowed	300 mm
C[a]	Horizontally to an opening, air brick (0-7 kW) opening window etc. (>7-14 kW) (>14-32 kW) (>32-70 kW)	300 mm 400 mm 600 mm 600 mm	300 mm	Not allowed	300 mm
D	Below gutters, soil pipes or drain pipes	300 mm	75 mm	Not allowed	75 mm
E	Below eaves	300 mm	200 mm	Not allowed	200 mm
F	Below balconies or car port roof	600 mm	200 mm	Not allowed	200 mm
G	From a vertical drain pipe or soil pipe	300 mm	150 mm[b]	Not allowed	150 mm
H	From an internal or external corner	600 mm	300 mm	Not allowed	200 mm
I	Above ground roof or balcony level	300 mm	300 mm	Not allowed	300 mm
J	From a surface facing the terminal (also see 6.1.2)	600 mm	600 mm	N/A	600 mm
K	From a terminal facing the terminal	600 mm	1 200 mm	N/A	1 200 mm
L	From an opening in the car port (e.g. door, window) into the dwelling	1 200 mm	1 200 mm	N/A	1 200 mm
M	Vertically from a terminal on the same wall	1 500 mm	1 500 mm	N/A	1 500 mm
N	Horizontally from a terminal on the same wall	300 mm	300 mm	N/A	300 mm
O	From the wall on which the terminal is mounted	N/A	N/A	N/A	50 mm
P	From a vertical structure on the roof	N/A	N/A	See Table 2 and Figure 6b	N/A
Q	Above intersection with roof	N/A	N/A	See Table 2 and Figure 4	150 mm

NOTE N/A = Not applicable.

[a] In addition, the terminal should not be nearer than 150 mm (fanned draught) or 300 mm (natural draught) to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame, (see Figure C.2). Separation distances are linked to the rated heat inputs as shown.

[b] This dimension may be reduced to 75 mm for appliances of up to 5 kW heat input.

1.4 THE FIREPLACE

- **The appliance may only be mounted against a non combustible wall face which must extend at least 150 mm each side of the appliance.**

  CONVECTOR BOX INSTALLATION – The fireplace opening should be a minimum of 430 mm wide (450 mm Maximum), and a minimum of 555 mm high (585 mm Maximum), with a depth of minimum dimension 230 mm.

  HOTBOX INSTALLATION – The fireplace opening should be a minimum of 430 mm wide (450 mm Maximum), and a minimum of 697 mm high with a depth of minimum dimension 230 mm.
  Note:- The fireplace opening dimension are for installation purposes only. A suitable fire surround may be fitted after installing the hotbox. The opening should be of a width 408 mm minimum to 484 maximum and with a height of 555 mm minimum and 585 mm maximum.

1.5 CLEARANCES FROM COMBUSTIBLE FURNITURE

- **A minimum distance of 150 mm must be maintained between any combustible furniture and the sides of the fire.**
- **Any combustible shelf fitted above the fire with a depth of 150 mm must be positioned 150 mm above the fireplace opening.**

2.0 GAS SUPPLY AND CONNECTION

- **The gas supply can be routed and connected through either side, or through the back right hand side of the appliance box.**
- **Rigid or semi-rigid tube shall be used with connection suitable for 8 mm compression. Care should be taken to sleeve the supply pipe when routing through masonry.**
- **An isolating valve must be fitted in the supply pipe to the appliance to facilitate servicing.**

3.0 ELECTRICAL SUPPLY AND CONNECTION

- **All external wiring to the appliance must be in accordance with the latest I.E wiring regulations, and local regulations that apply.**
- **Ensure cables are not pulled tight along their entire length and that it is possible to isolate the electrical supply to the fire for servicing.**
- **In the event of an electrical fault after installation of the appliance, preliminary electrical systems checks must be carried out, i.e Earth continuity, short circuit, polarity and resistance to earth.**
- **THE APPLAINCE MUST BE EARTHED**
- **Any additional cable used should be 0.75mm² (24 x 0.2 mm) PVC heat resistance as specified in table 16 of BS 6500.**
- **Where the cable passes through brick work or masonry it should be suitably protected and sealed.**

- **The appliance requires a suitable 23OV – 50Hz supply to the fan control box. The supply lead should be suitably routed to a double pole isolating switch with a contact separation of at least 3 mm in both poles or a suitable 3-pin socket with the plug fused at 3A and which is readily accessible to the user to enable to enable the electrical supply to be switched off as required.**

Figure 6 - Schematic Wiring Diagram in Fan Box

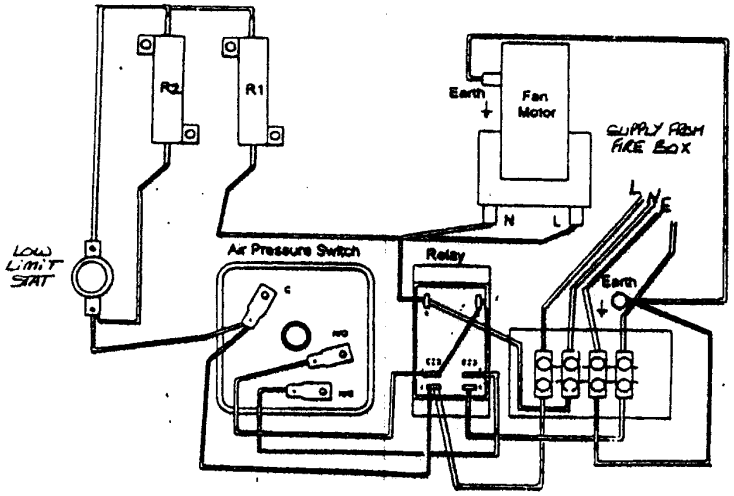
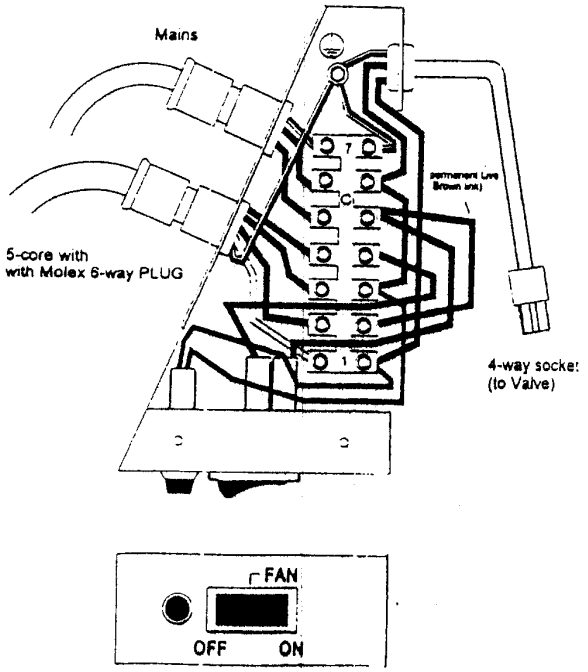


Figure 7 - Schematic Wiring Diagram in Fire Box



4.0 INSTALLATION

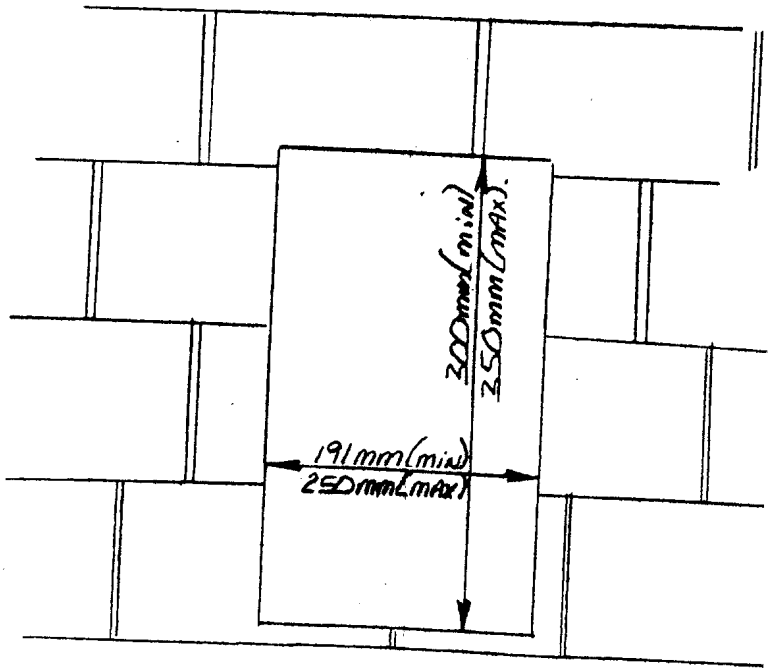
Prepare the appliance for installation by fitting the flue duct to the rear of the appliance. Mark holes for drilling and plugging for fixing of the fire box.

4.1 PREPARING THE FIRE BOX RECESS

GENERAL

- **Ensure that the chosen position will comply with the installation requirements detailed in section 1.**
- **Attempt to keep the recess and hole sizes as close as possible to the minimum dimensions in order to keep the installation tidy without the need for excessive sealing afterwards.**
- **Make sure the damp course and any electrical wiring or pipes in the wall are not going to be affected by the installation.**
- **Any gas supply pipe concealed in the wall, floor or the cavity must be continuous and enclosed in a gas tight sleeve. (Gas safety (Installation and Use) Regulations 1998).**
- **Ensure that a non combustible hearth is fitted in accordance with section 1.3, and that the fire is installed on non combustible wall face in accordance with section 1.4.**

Figure 8 - Fan Box Installation Dimensions



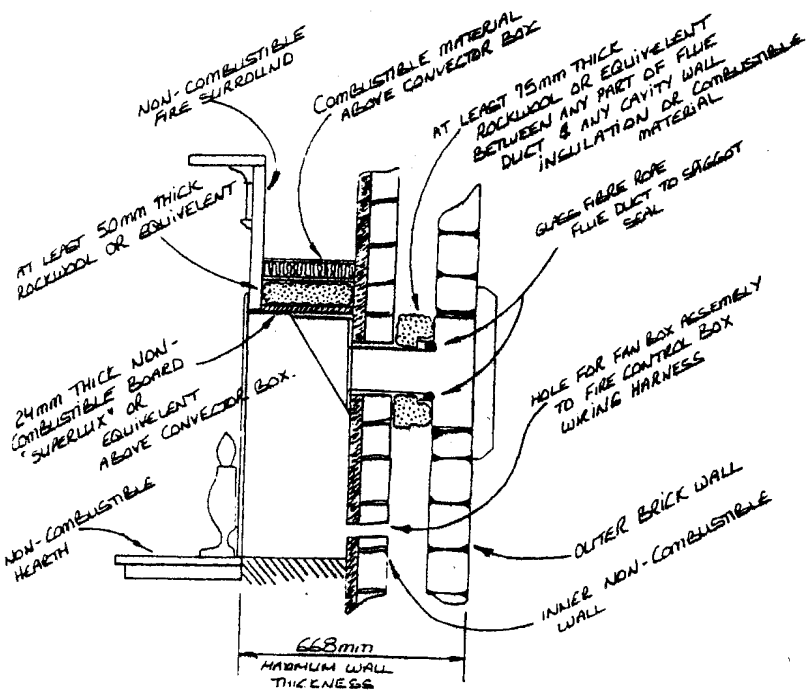
4.2 INSTALLATION INTO NON-COMBUSTIBLE WALL WITH FIRE IN FRONT OF WALL (refer to figure 9)

- **This installation details the use of a fire surround or false chimney breast which must have a minimum depth of 230 mm. This allows the fire to be positioned in front of the wall with a hole in the inner wall for the flue only.**
  The maximum depth of the false surround is dependant upon the thickness of the wall.
  The appliance can be installed against a wall up to a maximum thickness of 443 mm and a minimum thickness of 138 mm.
- **Any combustible material within the installation must be removed to a depth of 75 mm from any part of the fire box, the flue and the fan box assembly in order for the following parameters of this installation to be carried out.**
- **Suitable non combustible 24 mm thick 'superlux' or equivalent material must be constructed within the false chimney breast to the top of the appliance. This top piece should extend from the inside front face of the fire mounting surface to the inside face of the inner wall. It shall be at least as wide as the fireplace opening.**
  It shall be insulated with at least 50 mm of rock wool. (See Fig 9).
- **The sides of the appliance shall be insulated with at least 50 mm of rock wool or equivalent material.**

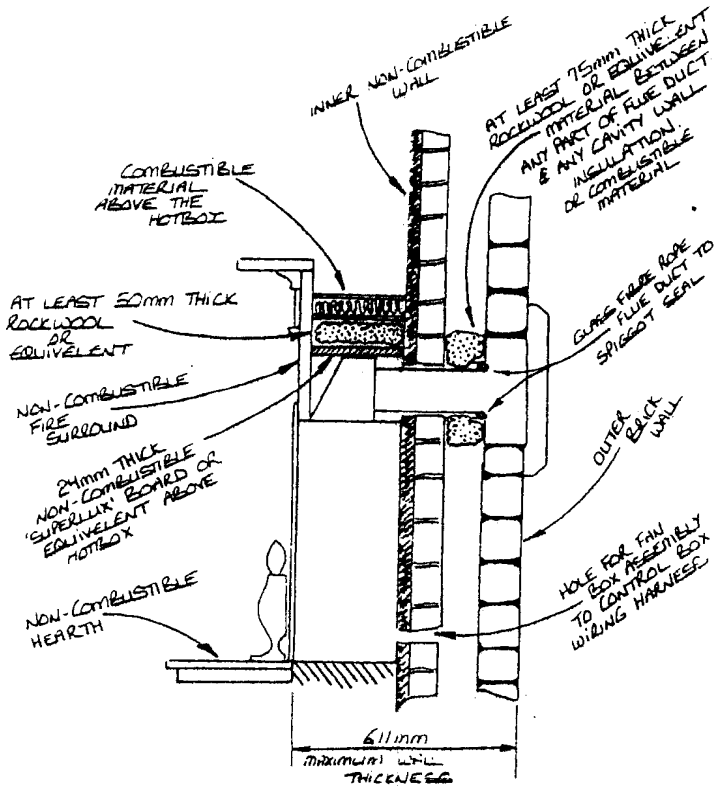
- **Any combustible material to the rear of the appliance shall be removed (i.e wall coverings)**
- **Mark off the height of the centre of the flue duct on the inside wall face and drill a pilot hole through to the outside.**
- **Working form outside the building, make a hole in the outside wall to accept the fan box assembly taking consideration of hearth height. (See Fig 8).**
- **From inside the building, make a hole in the inside wall to accept the flue duct.**
- **A separate hole should be made through the inside wall towards the bottom left hand corner of the fire location to enable the electric cables to pass through and connect the fan control unit within the fire box to the fan box assembly.**
- **The wall cavity should be sealed were the fan box assembly and flue duct holes have been cut. Rock wool or equivalent may be used for this purpose and it should be fitted top, bottom and to the sides of any part of the assembly to thickness of at least 75 mm.**

Figure 9

Convector Box



Hot Box

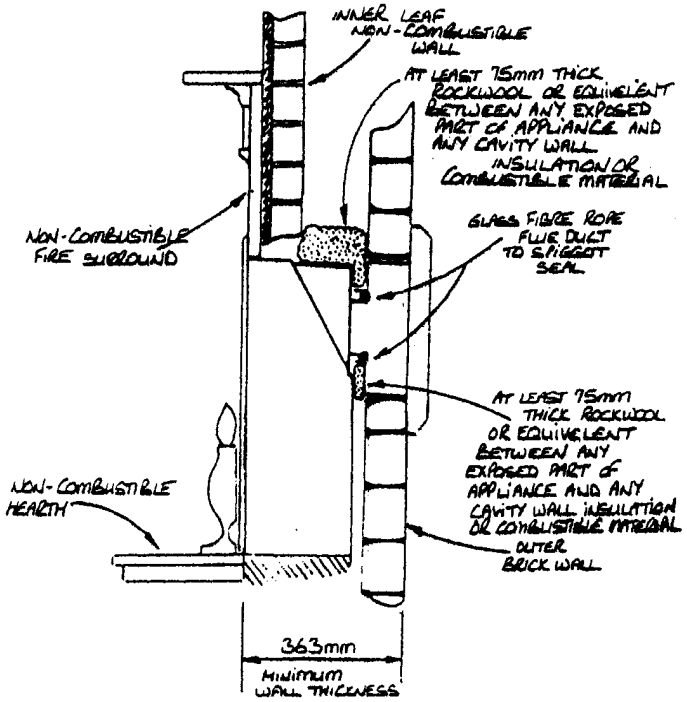


4.3 INSTALLATION INTO BRICK, BLOCK, STONE CAVITY WALL WITH THE FIRE FITTED INTO A RECESS (refer to figure 10)

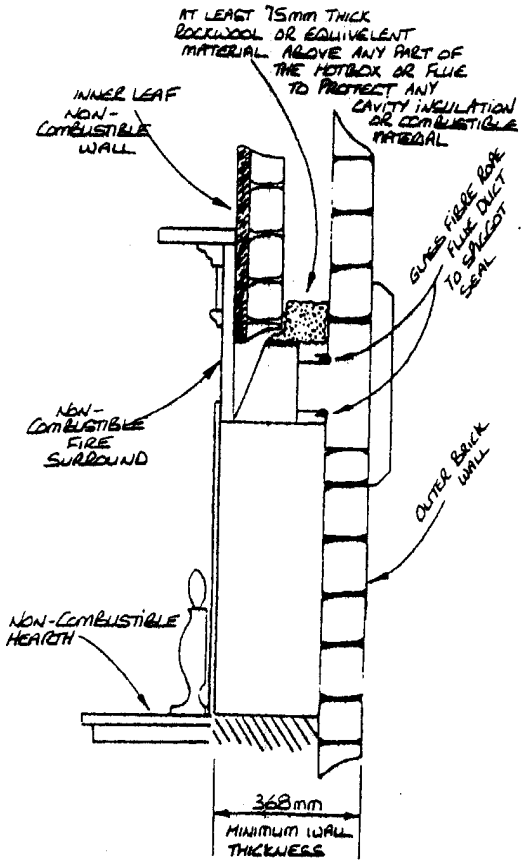
- **This installation details the site preparation for wall thickness between 363 mm and 668 mm.**
- **Mark the position of the recess to be cut for the fire onto the inside wall.**
- **A lintel may be required above the recess of the fire. If in doubt seek expert building advice.**
- **Cut the recess in the inner wall for the fire ensuring that the depth of the fire box can be accommodated.**
- **Measure and mark the position of the flue and drill a pilot hole through to the outside wall.**
- **Working from outside the building, make a hole in the outside wall to accept the fan box assembly. (See figure 8)**
- **Ensure that any combustible cavity insulation material is removed to allow any part of the flue and fan box assembly to be surrounded with at least 75 mm of rock wool.**

Figure 10

Convector Box



Hot Box



4.4 INSTALLATION INTO A TMBER FRAMED BUILDING, FIRE IN FRONT OF THE WALL (refer to figure 11)

- **Installation must be in accordance with the current edition of Gas Engineers publicationbIGE/UP/7 (Gas Installation in timbre framed housing).**
- **Prior to cutting any holes in the inner wall for the flue plus clearance dimensions, ensure that no timbers will be cut.**
- **This installation details the use of a fire surround or false chimney breast which must have a minimum depth of 235 mm for installation of the convector box.**
  This allows the fire to be positioned in front of the wall with a hole in the inner wall for the flue only.
  The minimum depth of the false surround is dependent upon the thickness of the wall.
  The appliance can be installed against a wall up to a maximum thickness of 668 mm and a minimum thickness of 138 mm.
- **Any combustible material within the installation must be removed to a depth of 75 mm from any part of the fire box, the flue and the fan box assembly in order for the following parameters of this installation to be carried out.**
- **Suitable non combustible 24 mm thick 'Superlux' or equivalent material must be constructed within the false fire surround to the top of the appliance. This top piece should extend from the inside front face of the fire mounting surface to the inside face of the inner wall. I shall be at least 50 mm of rock wool. (See Fig 11)**
- **The sides of the appliance shall be insulated with at least 50 mm of rock wool or equivalent material.**
- **The back surface of the fire must be separated from the timber frame by at least 24 mm thick non combustible material and a minimum of 50 mm thick rock wool. Note – The non combustible material can consist 13 mm plasterboard wall lining plus 12 mm thick superlux or equivalent non combustible material.**
- **Mark off the height of the centre of the flue duct on the inside wall face and drill a pilot hole through to the outside.**
- **Working from outside the building, make a hole in the outside wall accept the fan box assembly. (See figure 8). Make sure that the vapour barrier is cut carefully and made good to maintain its integrity.**
- **From inside the building, make a hole in the inside wall to accept the flue duct with provision made around the duct for clearance to any combustible material of at least 75mm. The flue duct must be surrounded with at least 75mm of rock wool.**
- **A separate hole should be made through the inside wall towards the bottom left hand corner of the location to enable the electric cables to pass through and connect the fan control unit within the fire box to the fan box assembly.**
- **The wall cavity should be sealed were the fan assembly and flue duct holes have been cut. Rock wool or equivalent may be used for this purp9ose and it should be fitted top, bottom and to the sides of any part of the assembly to a thickness of at least 75mm.**
- **A sloping plate should be fitted above the flue duct in accordance with the institute of gas engineers publications IGE/UP/7.**

4.5 FITTING THE FIRE

- **Remove the two burner tray fixing nuts, and withdraw the burner tray from the fire box. Detach the fan control unit to solenoid wiring harness at the plug.**
- **Position the fire box complete with flue duct into the opening, thus engaging the flue through the inner wall and to the outside. Ensure that the fire box is flat against the fire surround.**
- **Working from outside the building, mark the flue duct with the outer face of the wall.**
- **Remove the fire box from the fire place opening. Measure 100 mm back from the mark made on the flue duct and cut using a hacksaw. It may be easier to remove the flue duct form the fire box before cutting.**
- **Refit the flue duct.**
- **Gradually position the fire box into the opening whilst feeding the silicone cable through the hole in the inner wall ready for connection to the fan box assembly.**
- **A 2.4 metre length of mains cable is supplied already attached to the unit which should be routed in readiness for connection to a suitable mains connection point. Should more than 2.4 meters of cable be required it will be necessary to disconnect the supplied cable within the fan control box and rewire a suitable length of identical cable.**
- **Feed the gas pipe in through the firebox.**
- **Secure the fire box to the floor by utilizing previously drilled and plugged holes.**
- **Apply a bead of silicone sealant to the rear return edge of the fire box and push back to seal onto the surround. Ensure the firebox is sealed all around and wipe away any excess sealant.**
- **Refit the burner tray assembly ensuring the fan control unit to solenoid wiring harness is connected using the 4 – way plug.**
- **Connect the gas supply pipe to the appliance inlet elbow and carry out a gas soundness check up to the inlet connection.**
- **Connect to suitable mains supply – refer to section 3.0**

4.6 FITTING THE FAN BOX ASSEMBLY

- **Remove the fan box assembly cover. Loosen the four screws securing the fan unit to he wall plate and separate placing the fan unit to one side. If necessary protect from the weather.**
- **Offer up the assembly into the wall housing ensuring that the flue engages into the spigot on the rear of the wall plate and is central. Mark off the four wall fixing holes.**
- **Drill and plug the four fixing holes and secure the wall plate in position whilst ensuring that the 5 core cable from the fire box is fed through the top right hand side of the wall plate.**
- **ENSURE THE DUCT IS SEALED WITHIN THE WALL PLATE SPRGOT USING THE GLASS ROPE SUPPLIED.**
- **Refit the fan unit ensuring correct entry of the cable.**
- **Connect the 6 way plug into the free 6 way socket located to the top of the fan unit.**
- **Refit the fan box assembly cover.**
- **Seal all around the cover with a silicone based sealant to prevent the ingress of rain or moisture into the system.**

terminal guard is not required under normal circumstances, however to prevent collision damage, a wire guard is available as an optional extra from the manufacturer.

5.0 COMMISSIONING THE APPLIANCE

- **Turn on the gas service isolating valve and purge the gas line up to the inlet elbow of the appliance. Refit the inlet pipe at the inlet elbow and check for gas soundness at all joints using leak detection fluid.**
- **Remove the pressure test point screw located on the inlet pipe of the gas valve and connect a suitable pressure gauge.**
- **It is permissible for the appliance to be operated during the commissioning procedure for short periods without the need to assemble the coal bed.**
- **Light the fire at the full on position in accordance with the operating instructions detailed in section 1 of the Users Instructions.**
- **Check that the appliance burner setting pressure is stated in the technical data.**
- **The appliance is factory set and therefore any pressure differences from those in the technical data will be due to incorrect supply pressure from the meter.**
- **Remove the pressure gauge and refit the screw.**

6.0 FUEL BED ARRANGEMENT

To lay the fuel bed refer to section 3 of the Users Instructions.

7.0 CHECKING FOR SPILLAGE

- **Before commencing with the check spillage, ensure all doors and windows are closed.**
- **Operate the appliance from the cold for a period of 5 minutes at the full on setting. Note – It is advisable to allow the full 5 minutes in order to allow the fan to have established the normal run condition.**
- **Fit a smoke match into a suitable holder, and position the lighted match 25 mm inside the fire opening, approximately 50 mm from each side.**
- **A visual check should ascertain that all the smoke generated is being drawn back into the fire.**
- **If smoke enters the room, operate the appliance for a further 10 minutes and repeat the test.**
- **If spillage still persists and smoke enters the room, turn off the appliance and isolate until the problem can be resolved.**
- **ANY SPILLAGE INDICATES AN INSTALLATION FAULT.**
- **If the spillage test is successful, the test should be repeated with any extractor fans operating and connecting doors open to create the worst likely operating conditions.**

8.0 INSTRUCTING THE USER

- **These instructions shall be handed over to the user for safe keeping and future use during cleaning and servicing procedures.**
- **The user shall be instructed on how to operate the appliance safely.**
- **The user shall be instructed on the need to maintain the correct coal bed arrangement in accordance with these instructions and shown the relevant section covering cleaning of the appliance.**
- **The user shall also be instructed on the need for regular annual servicing by a suitable qualified gas engineer (CORGI registered) to ensure continued safe operation of the appliance.**

9.0 ANNUAL SERVICING

- **Servicing shall be carried out at least once a year by a suitable qualified gas engineer (CORGI registered) to ensure the safe and correct operation of the appliance.**
- **Prior to commencing with and servicing or replacement of parts, the appliance must be turned off from the gas supply at the isolating valve. The electricity supply must also be isolated.**
- **Ensure the appliance is cold.**
- **FOLLOWING ANY DISMANTLING OF THE APPLIANCE DURING THE SERVICING PROCEDURE A GAS SOUNDNESS CHECK MUST BE CARRIED OUT.**
- **CAUTION: The ceramic components of the fuel bed are very fragile and extreme care must be taken when handling. Never use any other coals than those supplied by Fuel Effect Fires Limited, and never put additional coals on the fire.**
- **Ensure that any floor covering are suitably protected before commencing.**
- **Carefully remove all the loose coals and place to one side. The coals can be carefully cleaned if there are any signs of soot formation using a soft brush.**
- **Remove the solid rear ceramic board and the burner tray ceramic piece. Clean carefully using a soft brush and / or vacuum cleaner with soft brush attachment and place to one side. If the burner tray ceramic shows signs of damage it must be placed.**
- **Undo the compression nut at the gas inlet elbow and disengage the pipe.**
- **Remove the nuts which secure the burner tray to the fire box and withdraw the tray whilst disconnecting the fan control unit to solenoid harness at the plug.**
- **Vacuum the burner tray ensuring non of he burner ports are obstructed.**
- **Clean the pilot assembly using a soft brush ensuring that the aeration hole is not obstructed.**
- **Check for any pilot assembly damage (i.e. Ceramic cracking) and replace if necessary. The pilot assembly can only be exchanged as a complete unit. Check that the pilot ignition spark is operating by rotating the gas valve control knob and if necessary adjust the spark gap to be 4 mm = 0.5 mm. This can be done by gentle bending the ignition probe into position.**
- **Replace the coal bed and loose coals as detailed in the users section of these instructions.**
- **From the outside (at the fan box) remove the fan box cover (4 screws) and dismantle the fan from the fan box and clean the Impeller blades of any soot or debris.**
- **With the fan removed inspect the flue duct and clear any soot or debris. Refit the fan and the fan box cover.**
- **Ensure flue outlet terminal is not damaged and is free of obstruction.**
- **With the gas and electricity supply on the fan on check the ignition of the pilot. Check that the main burner cross lights satisfactory from the pilot.**
- **Carry out the commissioning instructions and check for satisfactory flue flow by carrying out a spillage test.**

10.0 REPLACEMENT OF PARTS

WARNING: Isolate the gas and the electricity supplies to the appliance before changing any components.

Parts List

Control Knob
Control Valve
Main burner injector
Pilot / ODS assembly
Rear ceramic
Burner Ceramic
Coal Set
Brass Trim
Inlet Elbow
Fan
Air Pressure Switch
Low Limit Thermostat
Resistors
Relay
Terminal Guard
Flue Duct
Fan Box Cover

10.1 To replace the pilot / Oxygen depletion system.

10.1.1 Remove all loose coals, the solid rear ceramic back piece and the burner tray ceramic.
10.1.2 Undo the compression nut at the gas inlet elbow and disengage the pipe.
10.1.3 Undo the burner fixing nuts and remove the burner assembly whilst disconnecting the fan control unit to solonoid harness at the plug.
10.1.4 Remove the HT lead from the pilot assembly.
10.1.5 Undo the pilot pipe nut at the pilot assembly and disengage.
10.1.6 Undo the thermocouple nut at the rear of the gas control tap and disengage.
10.1.7 Remove the pilot assembly from the burner tray.
10.1.8 Replace the pilot assembly in reverse order.

10.2 To replace resistor (s)

10.2.1 From outside, undo the four screws retaining the fan box cover and remove.
10.2.2 Disconnect the air pressure switch sensing tubes.
10.2.3 Disconnect the 4 way mains supply plug within the fan box.
10.2.4 Undo the two screws retaining the APS / relay bracket and withdraw.
10.2.5 Remove the 3 crimp tags carefully from the fan.
10.2.6 Undo the two resistor fixings and remove the wire connections.
10.2.7 Remove the resistor and replace in reverse order.
10.2.8 Ensure the fan box cover is suitable sealed to prevent the ingress of weather.

10.3 To replace the relay unit

10.3.1 Carry out procedures 10.2.1. to 10.2.5 inclusive
10.3.2 Remove the 6 crimp tags from the relay.
10.3.3 Remove the two relay retaining nuts and withdraw the unit.
10.3.4 Replace unit and re-assemble in reverse order.
10.3.5 Ensure the fan box cover is suitably sealed with silicone to prevent the ingress of weather.

10.4 To replace the low limit thermostat

10.4.1 Remove the fan box cover (4 screws)
10.4.2 Undo the two thermostat crimp tags and the two retaining screws.
10.4.3 Replace the thermostat and re-assemble in reverse order.
10.4.4 Ensure the fan box cover is suitably sealed with silicone to prevent the ingress of weather.

10.5 To replace the APS.

10.5.1 Carry out procedures 10.2.1 to 10.2.5 inclusive.
10.5.2 Undo the two APS fixing screws.
10.5.3 Remove the APS and replace in reverse order.
10.5.4 Ensure the fan box cover is suitable sealed with silicone to prevent the ingress of weather.

10.6 To replace the fan

10.6.1 Remove the fan box cover (4 screws)
10.6.2 Carry out procedures 10.2.2 to 10.2.5 inclusive.
10.6.3 Undo the 4 screws retaining the fan unit and withdraw.
10.6.4 Undo the 3 fan fixing screws and remove the fan.
10.6.5 Replace the fan and re-assemble in reverse order.
10.6.6 Ensure the fan box cover is suitable sealed with silicone to prevent the ingress of weather.

Log effect lay instructions. (1 of 2)

Place log A, against the rear ceramic at the back of the burner in the orientation as shown.

NB. Log marked on rear.

Place the silver birch (light colour) log on top of log A and also resting against the rear ceramic.

Place log B lengthways across the front edge of the burner tray, as far forward as possible without overhanging the curved front spacer.

NB. Log marked on rear.

Log F should bridge the gap between log B and log A, with the two pronged end facing to the left. There are locating grooves along the front edge which allow the log to rest on the rear of log B. This log should be positioned central in the fire opening.

NB. Log marked on rear.

Rest the grooved edge of log D against the rear of log B and position the log against the right side of the fire opening. Log D will rest backwards against log A.

NB. Log marked on rear.

Rest the grooved edge of log E against the rear of log B, and ensure that this log is against the left side of the fire opening. The log should rest backwards against the silver birch log.

NB. Log marked on rear.

The forked end of log G should face towards the rear of the appliance, as the log is located into the groove towards the bottom of log D and rests against the back of log F as shown.

NB. Log marked on rear.

The forked end of log H should face towards the rear of the appliance as log H is placed securely into the fork of log F.

NB. Log marked on rear.

Fuel Effect Fires Ltd.
16” Pebble Effect Arrangement Instructions

ROW A
Place 5 extra small pebbles (labelled on the base with XS), evenly spaced at the rear of the burner as illustrated. These should be placed with the marked side face down, and pushed as far back as the rear ceramic will allow.

ROW B
Rest the next row of pebbles, half and half over the ceramic edge and the front spacer on the burner. Arrange 3 small pebbles (labelled on the base with S) positioned one at either edge and one in the middle of the burner. Then between these, 2 medium pebbles (labelled with M). All pebbles laid with the marked face down.

ROW C
Place 3 large pebbles (labelled with L) lengthways as illustrated, on the top of Row A, and resting against the rear ceramic.

ROW D
Place 2 medium pebbles lengthwise as shown on the top of ROW C. The marked side (M) should be facing the rear ceramic. Then, at either edge place 1 extra small pebble, again on the top of the pebbles on ROW C. The marking on the rear of these (XS) should be facing the rear ceramic.

ROW E (Part 1)
Place 2 medium pebbles either side of the opening as illustrated. (The markings M, facing the rear of the appliance), angle these with the narrower top sloping away from the centre of the fire, and the thicker base firmly positioned between the pebbles on ROW A. These pebbles lean back against the large pebbles in ROW C.

ROW E (Part 2)
Place 2 large pebbles (Marked L), with the top of each resting between the large pebbles in ROW C and the base resting centrally on top of the medium pebbles in ROW B. Place a medium pebble (marked M), on top of the centre pebble on ROW A, and leaning back against the 2 large pebbles as illustrated.