

RADIANT/CONVECTOR GAS FIRE Model 497 (G.C. No. 32.810.59)

THIS IS A NATURAL GAS (G20) APPLIANCE FOR USE IN THE UNITED KINGDOM (GB) ONLY. SUPPLY PRESSURE 20.0 mbar. (8.0 in W.G.)

INSTALLATION AND SERVICING INSTRUCTIONS FITTERS SHORT LIST

LEAVE THESE INSTRUCTIONS WITH THE USER

No component on this appliance is manufactured from asbestos or asbestos related products.

DATA BADGE

The appliance data badge is a swing label situated under the front cross member.

INSTALLATION INSTRUCTIONS

Conditions of installation

In your own interest and that of safety, it is the law that all gas appliances are installed by competent persons in accordance with the Gas Safety (Installation & Use) Regulations 1994. Failure to install appliances correctly could lead to prosecution.

The Confederation for the Registration of Gas Installers (Corgi — identified by 🛞) requires its members to work to recognised standards.

The installation MUST be in accordance with these instructions, all the relevant parts of the Local and National Building Regulations the recommendations of the following British Standard Codes of Practice and current IEE regulations:-

B.S. 5871: Part 1: 1991

B.S. 5440: Part 1: 1990 and Part 2: 1989

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

This fire is only suitable for hearth mounting. It must stand on a non-combustible hearth at least 880mm (34 $\frac{5}{8}$ in) wide x 300mm (12in) deep. The hearth material should be at least 12 mm ($\frac{1}{2}$ in) thick. Its top surface should be preferably 50mm (2in) above floor level in order to discourage the placing of carpets or rugs over it.

ON NO ACCOUNT MUST THIS FIRE STAND ON COMBUSTIBLE MATERIALS OR CARPETS.

VENTILATION

There are no special vents or air bricks required into the room containing the appliance.

This fire can be used with pre-cast flue blocks, conventional brick chimneys, and is suitable for use on flue pipes with a minimum diameter of 125mm. (See B.S. 6461 Part 1 for suitable materials). Metal flue pipes and flue boxes must comply with B.S. 715.

All flues must have an equivalent height of not less than 3m (10ft).

The fireplace opening width must be between a maximum of 457mm (18in) and a minimum of 305mm (12in).

The fireplace opening height for pre-cast flues must be 610mm (24in). For other chimneys, the opening height must be between a maximum of 610mm (24in) and a minimum of 508mm (20in).

A minimum flat area 705mm(27%'') high x $522mm(20\%_{16}'')$ wide is required on the fireplace wall to allow the decorative closure plate cover to lie flush against the wall.

This fire is suitable for use against combustible walls.

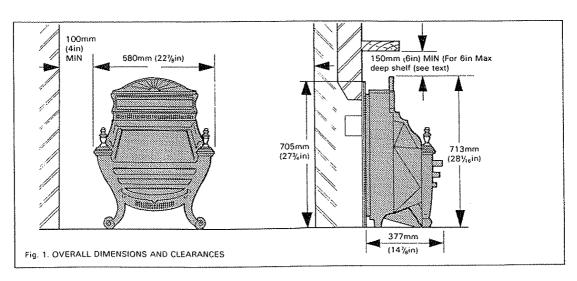
Please note that soft wall coverings (e.g. Blown vinyl) are easily affected by heat. They may, therefore, scorch or become discoloured when close to a heating appliance. Please bear this in mind when installing and when re-decorating.

A minimum clearance of 100mm (4in) must be maintained at the sides of the fire on all installations.

A combustible shelf may be fitted over the appliance provided that the following conditions are satisfied:-

In the case of a shelf not more than 150mm (6in) deep, there is at least 150mm (6in) clearance above the extreme top surface of the fire.

For a shelf of greater depth there is an additional clearance of 12.5mm ($\frac{1}{2}$ in) for each extra 25mm (1in) of added shelf depth.



UNPACKING

The carton contains the following:-

- 1 Fire assembly.
- 1 Closure plate.
- 1 Closure plate cover.
- 1 Deflector (for pre-cast flues).
- 1 Cooler plate (for pre-cast flues).
- 1 Flue spigot.
- 1 Flue spigot restrictor.
- 1 Floor plate.
- 1 Inlet pipe for right hand connection.
- 10 Ceramic fuel pieces.
- 1 Pack fixing screws.
- 1 Inlet elbow (for rear connection).
- 1 Inlet straight connector (for side connection).
- 1 Firebox frame (casting).

Remove all the items carefully to prevent damage. Check that all the items are present and undamaged.

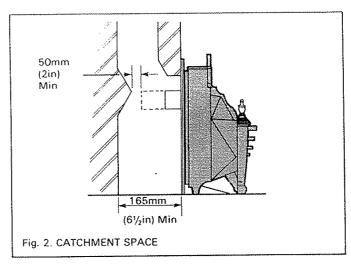
PREPARE THE FIRE LOCATION

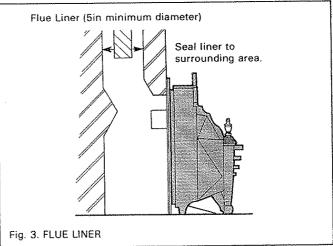
BRICK CHIMNEY

This is a traditional type flue normally used for solid fuel fires. The chimney must have an effective height of not less than 3m (10ft.)

Important checks

- (a) It serves only one fireplace.
- (b) It is clear of any obstruction and any damper or register plate is removed. If removal is not possible without carrying out structural work, the damper or plate may be left in the flue provided that it is secured in the fully open position.
- (c) The chimney has been swept prior to installation.
- (d) Any air supply entering the fireplace from below floor level is completely sealed off.
- (e) The chimney is completely sealed so that combustion products do not come into contact with combustible materials outside the chimney.
- (f) The base of the chimney is clear of debris, bricking up etc.
- (g) The fire flue spigot and any spigot extension must pass through the closure plate by at least 25mm (1in) and have a minimum clearance of 50mm (2in) between its open end and the nearest obstruction. There must also be a minimum clearance of 165mm (6½in) between the back of the closure plate and the back of the catchment space (Fig. 2).
- (h) The catchment space below the flue spigot must extend to the hearth level.
- (i) If a flue liner is used, it must have a minimum size of 5in diameter. The liner must be sealed above the fireplace opening to the surrounding area (Fig. 3) and to the top of the chimney with an approved terminal being used.





PRE-CAST CONCRETE FLUE

This fire is suitable for installation into a properly constructed pre-cast flue conforming to B.S. 1289. The chimney should be one or two stories high but not less than 3m (10ft) effective vertical height and having flue-ways at least 198mm x 67mm (7¾in x 25½in) or the equivalent cross sectional area and be correctly terminated and jointed with high alumina cement

It is emphasised that no mortar fangs between the blocks should be extruded into the flue-way and, if raking blocks are used, they must be fitted as the manufacturers instructions. Mortar must not be allowed to drop down and accumulate in the raked positions.

It is recommended that the flue pipe in the roof space connecting the pre-cast flue blocks to the ridge vent is of insulated twin wall type or, if a single wall flue pipe is fitted, that it is insulated.

FABRICATED FLUE

It is recommended that fabricated flues are twin wall type. It is important that a flue box is used at the base for fitting the fire closure plate. A flue pipe must not be directly connected to the fire flue spigot. There must always be a free area behind the closure plate. Ensure that the air relief opening in the closure plate is completely clear. The minimum flue size must be 5in inside diameter. (Fig. 4). The effective flue height must be at least 3m (10ft). Information about this type of flue can be

obtained either from your installer or builders merchant.

FIT THE CLOSURE PLATE

BRICK BUILT CHIMNEY

The closure plate (Fig. 5) should be fitted and sealed to the hearth and fireplace surround using a suitable heat resistant material. Cut straight across the top of the plate when trimming to the correct height. Cut off the top of the closure plate to overlap the fireplace opening by 25mm (1in).

Note: In normal circumstances the bottom air relief opening must be left clear and not covered with tape (see fig 7B).

PRE-CAST CONCRETE FLUE

(Please note that the flue spigot restrictor must not be fitted with this type of flue).

1. Adapt the closure plate.

Trim the top of the closure plate to overlap the fireplace opening by 25mm (1in.)

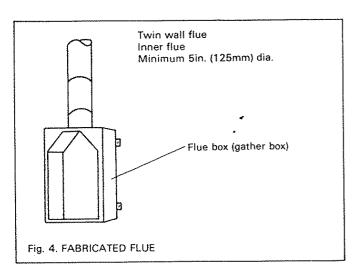
2. Fit the deflector & flue cooler plate.

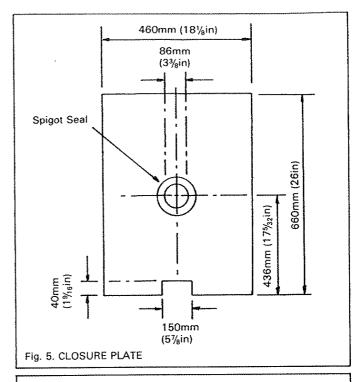
If necessary, trim the deflector so that it will easily go inside the fireplace opening - trim an even amount off each side of the deflector. The cooler plate (supplied in flat sheet form) must be folded along the marked lines to the shape shown in fig. 6.

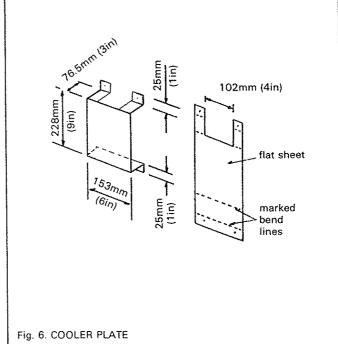
3. Fit the deflector and cooler plate to the rear of the closure plate with the screws as shown in fig. 7A. This is to protect the rear wall of the flue.

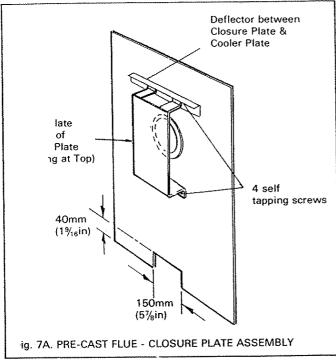
4. Seal the closure plate to the fireplace.

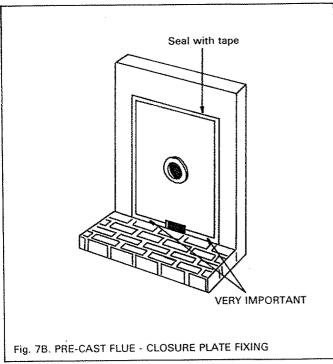
Seal the closure plate to the fireplace opening with a suitable heat resistant material. In normal circumstances the air relief opening at the bottom of the closure plate must be clear and not covered with tape. (Fig. 7B).









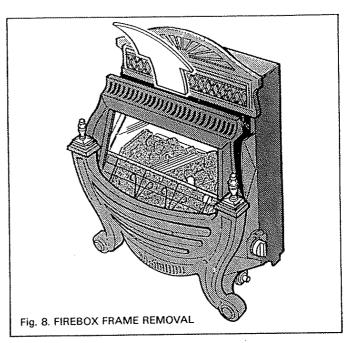


CHECK FOR FLUE PULL

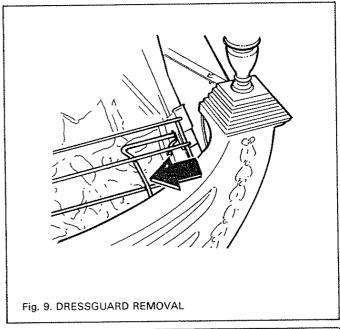
Apply a lighted match or smoke match to the flue spigot opening in the closure plate and observe the smoke. If there is a definite flow into the opening, proceed with fitting the fire. If there is not a definite flow into the opening, pre-heat the chimney for a few minutes and re-test for flow. If there is still no definite flow, the chimney may require attention. DO NOT FIT THE FIRE—SEEK EXPERT ADVICE.

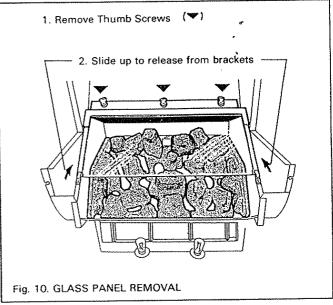
PREPARE THE FIRE

- 1. Stand the fire upright.
- 2. Remove the firebox frame by lifting the back edge upwards and then pulling forward (Fig. 8)



3. Release the dressguard by pressing the sprung retaining wires in towards the centre. Lift the dressguard clear. (Fig. 9).

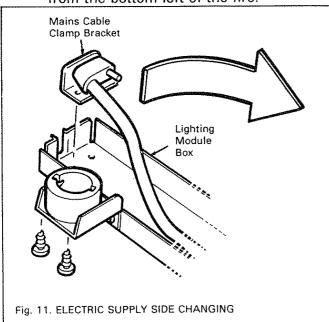




- 4. Remove the glass panel by undoing the three thumb screws at the top. Slide the glass panel upwards to release from the locating brackets (Fig. 10). Put the glass unit and thumb screws in a safe place.
- 5. Remove the front casting by undoing the four knurled nuts behind the sides of the casting.
- 6. The appliance is supplied for a mains electricity supply to the left side.
 - To change to right side connection (See fig. 11):-
 - a) Detach the lighting module box by undoing the two screws fastening it to the horizontal cross rail.
 - (b) Detach the mains cable clamp bracket from the module by undoing the two securing screws underneath the box.
 - (c) Fit the mains cable clamp bracket to the right side of the module and fasten with the two screws through the holes underneath the right hand end of the box.
 - (d) Refit the module to the cross rail. Make sure that no wires are trapped when re-fitting.
- 7. The appliance is supplied factory assembled for left hand gas connection.

For right hand connection:-

a) Unscrew and remove the inlet pipe clamp from the bottom left of the fire.

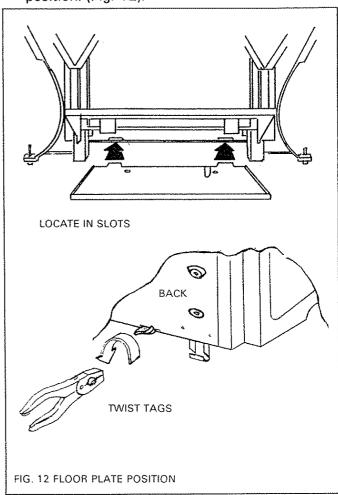


- (b) Remove the left hand inlet pipe from the gas tap.
- (c) Fit the right hand inlet pipe loosely to the gas tap.
- (d) Fit the inlet pipe clamp over the right hand inlet pipe and screw in position at the bottom right of the fire.
- (e) Fully tighten the inlet pipe to the gas tap.
- Fit the flue spigot (with restrictor if necessary) to the back of the fire with the four screws provided.

A restrictor is supplied for use when the flue draught is excessive. The restrictor must not be fitted:-

- (a) Where the flue is less than 4.3m (14ft.) in height, or
- (b) where a pre-cast flue is used.
- 9. Fit the floorplate under the fire. The edge with the cut-out should be at the back. This edge should rest on the bottom flange of the back panel with the cut-out locating over the inlet pipe and with the tags locating fully through the slots in the back panel.

Using pliers or similar, twist the two floorplate tags where they project through the slots in the back panel in order to retain the floor plate in position. (Fig. 12).



- 10. Fit the decorative closure plate cover to the back of the fire with the raised embossings facing the front.
 - Leave the screws loose so that the cover will automatically align itself with the floor.
- 11. Place the fire centrally on the hearth ensuring that the spigot lines up with the spigot hole in the closure plate and slide into place.

The spigot must enter the closure plate to a depth of at least 25mm (1in.). If the fire is fitted to a recessed fireplace, an extension flue spigot up to a maximum total length of 125mm (5in.) measured from the back of the fire, may be used. This must be a tight fit over the flue spigot and be secured by two self tapping screws.

Please note that if the appliance is being installed in a recessed fireplace, it must stand

on a non-combustible hearth at least 300mm (12in.) measured from the closure plate to the hearth front.

- 12. Level the fire by slackening the lock nuts on the levelling screws (situated behind the bottom of the front casting) and turning the levelling screws up or down with the screw heads bearing on the floor. After ensuring that the fire is level and square with the wall, re-tighten the lock nuts.
- 13. Prepare a suitable gas supply point adjacent to the fire. Connection to the fire can be from the side or from the rear. Provision for isolation of the gas supply adjacent to the fire must be provided for safety and servicing. The supply pipe must be of rigid material (e.g. copper). On no account must a flexible connection be made.
- 14. Fit the gas supply connector. Two alternative types are supplied - A straight connector for side entry and an elbow connector for rear entry. Connection is Rp1/4 (1/4in. B.S.P.).

TEST FOR SOUNDNESS

Pressure test the installation pipework for gas soundness (B.S. 6891: 1988).

CONNECT TO THE ELECTRICITY SUPPLY (Fig. 13)

WARNING: THIS APPLIANCE MUST BE EARTHED.

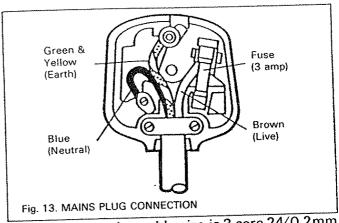
The appliance is supplied for left hand connection. For right hand connection see Section 6 of "Prepare the Fire" (above).

This appliance is suitable for use on 230Vac 50Hz mains only. The wires in the mains lead used on this appliance are coloured in accordance with the following code:-

Green and Yellow	. Earth
Ring	Neutrai
Brown	Live

As the colours on the wires in the mains lead of this appliance may not correspond with the markings on the plug terminals connect as in the table below.

Colour of Wire	Plug Marking	
Green & Yellow	≟ or E or Green or Green & Yellow	
Brown	L or Brown or Red	
Blue	N or Blue or Black	



The supplied mains cable size is 3 core 24/0.2mm P.V.C. sheathed to B.S. 6500.

The appliance is fitted with a 13 amp plug (B.S. 1363) including a 3 amp fuse. If this is replaced by a 13 amp plug (B.S. 1363) or if any other plug is used, a 5 amp fuse must be used either in the plug or adaptor or at the distribution board in order to protect the appliance.

The method of connection to the electricity supply must facilitate complete isolation and should, preferably, be via a fused three-pin plug and unswitched, shuttered socket, both complying with the requirements of B.S. 1363.

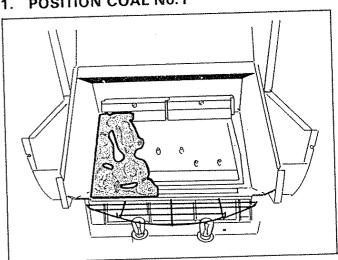
Alternatively, connection may be made via a fused, double-pole isolator having a contact separation of at least 3mm in all poles and supplying the appliance only.

ASSEMBLE THE DECORATIVE FUEL BED

Each coal piece has a number stamped on it which corresponds with the number referred to in the following assembly instructions. When in position, these numbers must face downwards. The side cheeks are stamped R.H. and L.H.

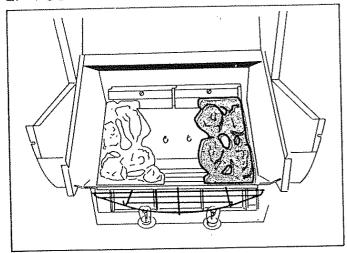
The appliance is supplied with the ceramic coal support pad fitted. Make sure that it is correctly located under the lip on the front rail and under the back bricks. Make sure that it is not broken.

POSITION COAL No.1



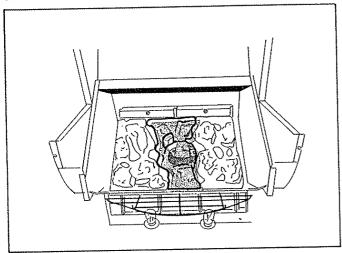
Place coal No. 1 at the left side of the bed with its front edge resting on top of the front rail above the burner and with its rear edge locating in the groove in the back brick.

POSITION COAL No. 2



Place coal No. 2 at the right side of the bed with its front edge resting on top of the front rail above the burner and with its rear edge locating in the groove in the back brick.

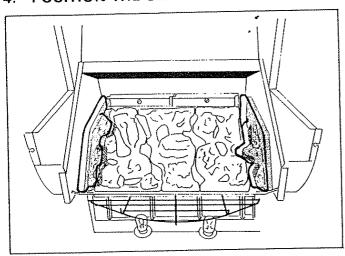
POSITION COAL No. 3



Place coal No. 3 in the centre of the bed with its front edge resting on top of the front rail above the burner and with its rear edge locating in the groove in the back brick.

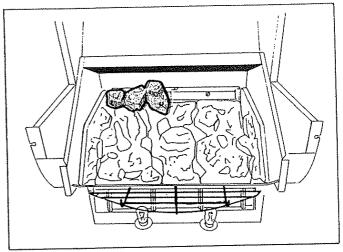
Push the three coal pieces together sideways to centralise them.

POSITION THE SIDE CHEEKS



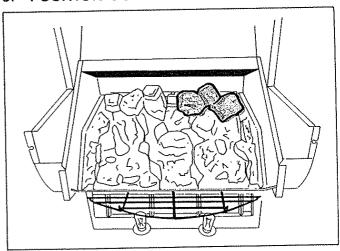
Place the left and right side cheeks in position against the sides of the fire box and between the firebox sides and outer edges of the coals.

5. POSITION COAL No. 4

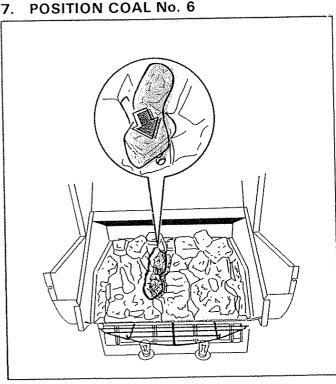


Locate coal No. 4 over the back portion of coal Nos 1 and 3 and so that it touches the back brick. The projecting peg on coal No. 4 must be at the right hand end.

POSITION COAL No. 5

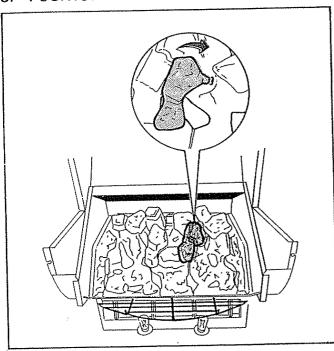


Locate coal No. 5 over the back portion of coal Nos 2 and 3 and so that it touches the back brick.



Place the rear of coal No. 6 over the innermost portion of coal No. 4 with the locating peg on coal No. 4 seated in the location hole at the rear of coal No. 6. The front of coal No. 6 should rest between coal Nos 1 and 3. The peg situated underneath the front right corner of coal No. 6 locates into the hole in the step at the left side of coal No. 3.

8. POSITION COAL No. 7



Place the front of coal No. 7 over the centre right portion of coal No. 3 with the locating peg on coal No. 3 seated in the location hole at the front of coal No. 7.

The peg at the rear right side of coal No. 7 locates in the hole in the step near the rear left of coal No. 2.

REPLACE THE GLASS PANEL

Slide the front of the glass panel to locate in the locating brackets on the firebox sides. Fit and tighten the thumb screws.

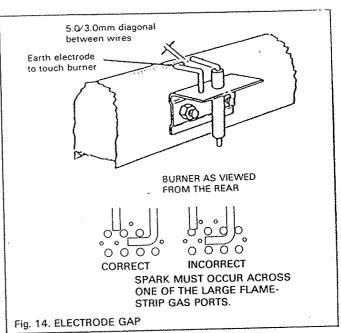
COMMISSION THE FIRE

1. CHECK THE IGNITION

Ignition is by piezo-electric spark produced by depressing the ignitor push button located adjacent to the control knob at the lower right hand side of the fire.

To ignite:-

- (a) Push in and turn the control knob anticlockwise to the 1/IGN position. Hold the control knob in as far as it will go and wait for a few seconds.
- (b) While still holding the control knob in, press the ignitor button several times.
- (c) Continue to hold the control knob in for a further five seconds. On releasing the control knob, the fire should remain alight as described under 1/IGN in the control settings table below. If the burner does not ignite after ensuring that the air has been purged, check that the electrode gap is as shown in fig. 14 (See servicing section for access to the electrode).



2. CHECK ALL CONTROL SETTINGS

Turn the control knob initially to setting No. 4 then check that the burners are correctly alight at all settings as follows:-

Control Knob Setting	Main Burner	Decorative Burners
1/IGN	Centre section only full on	2 upper (rear) and 2 lower (front) only on
2	Centre section full on Outer sections on low	All on
3	Centre and outer sections full on	All on
4 (Warm up)	Centre and outer sections full on	All off

To turn OFF:-

Push the control partially in, turn clockwise to OFF and release the knob. If any resistance is experienced at the 1/IGN position release the knob before turning to OFF.

3. CHECK THE REFERENCE PRESSURE

The burner aeration is non-adjustable. The appliance is pre-set to give the correct heat input on Natural Gas at 20mbar (8in w.g.) inlet pressure and no further adjustment is necessary. Maximum heat input is 6.15kW

(21,000 Btu/h). The burner pressure should be checked at the pressure test point located on the pipe connecting the gas tap to the main burner outer sections. The pressure check should be carried out with the fire alight and the control knob at setting 3.

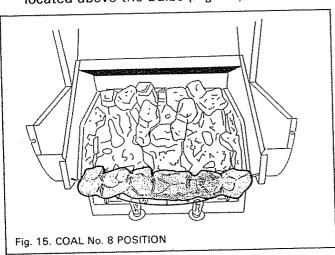
The COLD pressure setting should be 18.5 \pm 1.0 mbar. (7.4 ± 0.4in. w.g.) The injectors fitted are:-

Upper-Bray Cat. 77 size 120 Lower-Bray Cat. 77 size 220

After checking the pressure, turn off the fire, remove the pressure gauge and replace the pressure test sealing screw and washer. Relight the fire and test all gas joints for soundness using a suitable detection fluid.

COMPLETE THE ASSEMBLY

- 1. Re-place the front casting by re-fitting the four knurled nuts behind the casting.
- 2. Position coal No. 8 centrally on the wire grid located above the bulbs (Fig. 15).



- 3. Re-fit the dressguard.
- 4. Replace the firebox frame.

TEST FOR SPILLAGE

A SPILLAGE TEST MUST BE MADE BEFORE THE INSTALLED FIRE IS LEFT WITH THE CUSTOMER. CARRY OUT THE TEST IN THE FOLLOWING MANNER.

- 1. Close all doors and windows in the room containing the fire.
- 2. Light the fire and set the control to No. 3 position.
- 3. After ten minutes test by holding a lighted smoke match in the position shown in fig. 16. The installation is satisfactory if smoke is drawn in to the rear of the fire. If the smoke is not drawn in, leave for a further ten minutes and then repeat the test. If the smoke is still not drawn in, remove the fire and inspect the sealing of the closure plate. If this is satisfactory, remove the spigot restrictor, if fitted, re-fit the fire and re-check for spillage. If spillage persists, the chimney may require attention DISCONNECT THE FIRE AND SEEK **FXPERT ADVICE.**

4. Open all doors and windows and re-check as above. If an extractor fan is installed in the same room as the fire or a connecting room, check that spillage does not occur with the fan operating and all doors between the fan and the fire open.

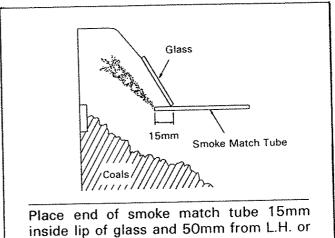


Fig. 16. SPILLAGE TEST

R.H. side.

CHECK ELECTRIC LIGHTING

Connect the electric cable to the mains supply and switch the lighting unit on. Check that the lighting is satisfactory. In the event of any electric fault, refer to the Preliminary Electrical Systems Check at the back of these instructions. Use a British Gas Multimeter or other equivalent instrument. Carry out the checks as described in these instructions or as described in the instructions supplied with the instrument.

MAKE FINAL CHECKS AND INSTRUCT USER

Re-check the ignition and operate the fire on all settings.

Instruct the user on the correct operation of the fire and especially advise that:-

- 1. The control knob must be pressed in before turning anti-clockwise.
- 2. To light the fire, the control knob must be turned to the 1/IGN position and the ignition button depressed. Explain the lighting and control position sequence and how to turn off.
- 3. The fire should be set to position 4 (Warm Up) for an initial ten minutes and that this position should be used occasionally to burn off any soot deposits before a build-up affects the decorative flame appearance.
- 4. The fire can be lit with a spill or taper, if necessary.
- The glass panel and dressguard should always be in place when the fire is on.
 - If the glass is damaged, the fire should be switched off and not used until the glass panel is replaced.
- 6. The glass panel can be removed for cleaning and the coals can be reset, if dislodged. Explain how to remove and replace the firebox frame, glass panel and dressguard and point out that the coals must be re-fitted as described in the 9 users instructions.

- 7. The fire may smell slightly while new. This is normal and the smell will disappear after a short period of use.
- 8. It is recommended that the fire be serviced at least once a year.

Hand over these instructions and the users instructions to the owner.

SERVICING

TURN OFF THE GAS AND DISCONNECT FROM THE ELECTRICITY SUPPLY BEFORE COMMENCING ANY SERVICING. ALWAYS TEST FOR GAS SOUNDNESS AFTER RE-FITTING THE APPLIANCE. IT IS RECOMMENDED THAT, AT LEAST ONCE A YEAR, THE APPLIANCE IS DISCONNECTED AND THE CATCHMENT SPACE BEHIND THE CLOSURE PLATE CHECKED AND CLEARED OF ANY DEBRIS. RE-SEAL THE CLOSURE PLATE TO THE WALL AS DESCRIBED IN THE INSTALLATION INSTRUCTIONS. ALWAYS RE-CHECK FOR SPILLAGE AFTER RE-FITTING THE APPLIANCE.

1. TO REPLACE FUEL EFFECT PARTS

- (a) Remove the firebox frame by lifting the back edge upwards and then pulling forwards.
- (b) Release the dressguard by pressing the sprung retaining wires in towards the centre. Lift the dressguard clear.
- (c) Remove the glass panel by undoing the three thumb screws at the top. Slide the glass panel upwards to release from the locating brackets. Put the glass panel and thumb screws in a safe place.
- (d) The fuel effect pieces and side cheeks can now be removed as required. Replace them as described in the Decorative fuel bed assembly instructions.
- (e) Replace the glass panel, dressguard and firebox frame.

2. TO REMOVE THE FIBRE BASE BOARD

- (a) Remove the fuel pieces as described in 1. above.
- (b) Remove the two rear support bricks by unscrewing two screws.
- (c) Carefully raise the base board to clear the front retaining flange. Lift clear taking carenot to damage the ceramic flame burners.

3. TO REMOVE THE LOWER CENTRE DECORATIVE FLAME BURNER

- (a) To prevent possible accidental damage, remove the fuel pieces as described in 1 above.
- (b) Remove the wire front coal support.
- (c) To prevent possible accidental damage, remove the bulbs from the bulb holders.
- (d) Remove the front casting by undoing the four knurled nuts behind the sides of the casting.
- (e) Detach the lighting module box by undoing the two screws fastening it to the horizontal cross rail.
- (f) Disconnect the pipe to the lower centre decorative flame burner at the straight connector union.

- (g) Detach the two nuts and washers holding the lower centre decorative burner to the main burner. Remove the decorative burner.
- (h) Replace in the opposite order ensuring that the spacers are in place between the main burner and the decorative burner. NOTE: When re-fitting the lighting module, make sure that the projection at the rear of the module box engages in the slot in the cross rail.

4. TO REMOVE THE MAIN BURNER AND ELECTRODE

- (a) Remove the fuel pieces as described in 1 above.
- (b) To allow easy screwdriver access, remove the fibre board as described in 2 above.
- (c) Remove the lower centre decorative burner as described in 3 above.
- (d) Disconnect the two pipes from the injectors at the right side of the burner.
- (e) Detach the electrode lead from the electrode.
- (f) Detach the main burner and electrode unit from the burner bracket by removing one screw from each side of the burner rail (See fig. 17).
- (g) To change the electrode, remove the two nuts and washers holding the electrode bracket to the burner.
- (h) Replace in the opposite order. When replacing the electrode, ensure that it is positioned as shown in fig. 14.

5. TO CHANGE MAIN BURNER INJECTORS

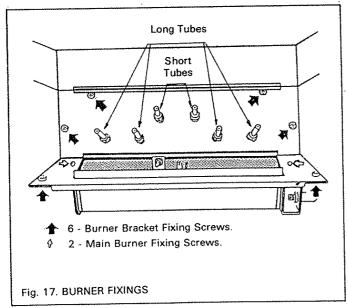
- (a) Proceed as 4 above up to and including stage 4f.
- (b) Unscrew the injector(s) from the main burner and replace with new as necessary. Make sure that the correct size injector is fitted as listed in the "Check reference pressure" section of the installation instructions.

6. TO CHANGE THE THERMOCOUPLE

- (a) Remove the fuel effect pieces as described in 1 above.
- (b) Lay the fire on its back.
- (c) Remove the front casting by undoing the four knurled nuts behind the sides of the casting.
- (d) Undo the thermocouple nut at the gas tap.
- (e) Remove the thermocouple bracket screws.
- (f) Undo the nut fixing the thermocouple to the probe bracket and remove the thermocouple.
- (g) When replacing with new thermocouple DO NOT OVERTIGHTEN THE THERMO-COUPLE NUT AT THE GAS TAP END.

7. TO REPLACE CONTROL TAP/F.S.D.

- (a) Remove the fuel pieces and fibre base board as described in 1 and 2 above.
- (b) Disconnect the inlet pipe from the gas supply pipe.
- (c) Remove the wire front coal support.
- (d) To prevent possible accidental damage, remove the bulbs from the bulb holders.
- (e) Remove the front casting by undoing the four knurled nuts behind the sides of the casting.
- (f) Detach the lighting module box by undoing the two screws fastening it to the horizontal cross rail.
- (g) Lay the fire on its back.
- (h) Undo the inlet pipe connection at the control tap.
- (i) Remove the control knob by pulling clear of the gas tap spindle.
- (j) Remove the control bezel by removing one screw.
- (k) Unscrew the six screws holding the burner bracket to the fire box (see Fig. 17).
- (I) Disconnect the ignition lead from the piezo generator.
- (m) Carefully lift out the burner and tap module by lifting the left side of the burner bracket slightly and sliding to the left to free from the right side flange of the fire box - Spring the inlet pipe clear from the tap. Ease the module forward ensuring that the pipes do not snare on the appliance.
- (n) Disconnect the thermocouple nut from the gas tap.



- (o) Undo the four union nuts holding the pipes to the gas tap.
- (p) Remove the locknut holding the gas tap to its bracket and carefully remove the tap by easing the pipes apart.
- (q) When re-fitting, carefully align and tighten the pipes before fitting the tap locknut. DO NOT OVERTIGHTEN THE TAP LOCKNUT OR THE THERMOCOUPLE LOCKNUT.
- (r) When re-fitting the burner module into the fire box, make sure that the right side of the burner bracket goes under the bottom flange at the right side of the fire box but that the burner bracket is above all other parts of the fire box.

8. TO SERVICE THE COMBINED CONTROL TAP/F.S.D.

- (a) Remove the tap as described in 7 above.
- (b) Unscrew the two screws and remove the head and spindle. Remove the F.S.D. unit activating pin making sure that the spring and washer remain on the pin. Place safely to one side. Note the position of the slot in the plug in relation to the body and remove the plug from the tap (the plug will come out easier if it is rotated slightly while pulling). Clean and re-grease the plug taking care not to block the holes.
- (c) To re-assemble, push the plug back into the body with the slot aligned as before. Replace the F.S.D. unit activating pin together with the spring and washer. Locate the head over its fixing holes and just engage both screws. Align the spindle pin above the slot in the plug, push down to enter the slot and tighten each screw in turn. Take care not to damage the F.S.D. unit activating pin.
- (d) Re-fit the tap as described in 7 above.

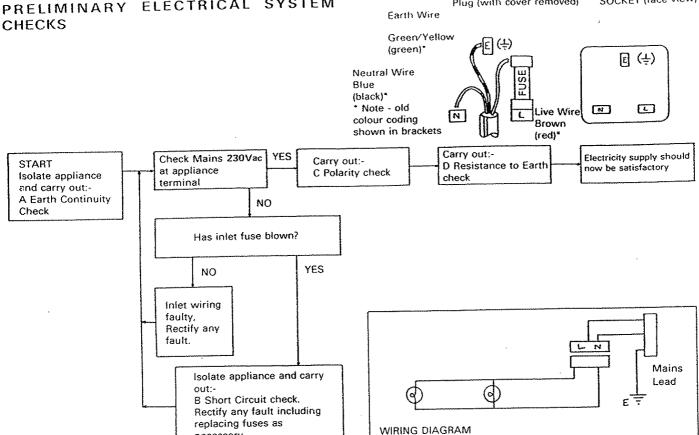
9. TO REPLACE CERAMIC DECORATIVE BURNER TUBES

Note:- There are two different lengths of burner tubes - See fig. 17.

- (a) Remove the fuel pieces and fibre base board as described in 1 above.
- (b) Unscrew the nut at the base of the tube and remove the tube.
- (c) Fit new olive to replacement tube and re-fit tube. Push the tube fully home. Do not overtighten.

10. TO REPLACE LIGHTING BULB(S)

- (a) Remove the firebox frame by lifting the back edge upwards and then pulling forwards.
- (b) Release the dressguard by pressing the sprung retaining wires in towards the centre. Lift the dressguard clear.
- (c) Remove the long front coal (coal no. 8). Take care not to disturb the other coals.
- (d) Remove the wire front coal support.
- (e) Replace the bulb(s) as required.



A. EARTH CONTINUITY CHECK — appliance must be electrically disconnected - meter set on Ω (ohms) x 1 scale and adjust zero if necessary.

necessary.

(a) Test leads from any appliance earth point to earth pin on plug - resistance should be less than 1 Ω (ohm).

If the resistance is greater than 1 Ω (ohm) check all earth wires for continuity and all contacts clean and tight.

If the resistance of earth is still greater 1 Ω (ohm) then seek expert advice.

B. SHORT CIRCUIT CHECK — appliance electrically disconnected.

(a) meter set on Ω (ohms) x 1 scale.

Test leads from L to N in appliance terminal strip block-

If meter reads 0 then there is a short circuit.

(b) meter set on Ω (ohms) x 100 scale. Repeat test with leads from L to E. If the meter reads less than \propto (infinity) there is a fault.

NOTE — Should it be found that the fuse has failed but no fault is indicated — a detailed continuity check (i.e by disconnecting and checking each component) is required to trace the faulty component. It is possible that a fault could occur as a result of local burning/arcing but no fault could be found under test. However a detailed visual inspection should reveal evidence of burning around the fault.

C. POLARITY CHECK

Appliance connected to mains supply and meter set on 300Vac scale. Test at appliance terminal.

- (a) Test leads from L to N meter reads approx. 230 Vac.
- (b) Test leads from L to E (+) meter reads approx, 230Vac.
- (c) Test lead from N to E (±) meter reads from 0.15Vac*

Thus the terminal marked L is the live terminal. If the low* Vac reading is given on terminals other than N to E (\pm) there is an electrical fault.

Repeat the test at the appliance plug/inlet spur to check the wiring system up to the appliance and rectify any fault. If necessary repeat the test at the supply system socket/spur -

If the fault also occurs at this stage then there is a house system fault which requires attention by the Electricity Authority. The customer should be warned not to use the appliance until this examination has been carried out.

D. RESISTANCE TO EARTH CHECK

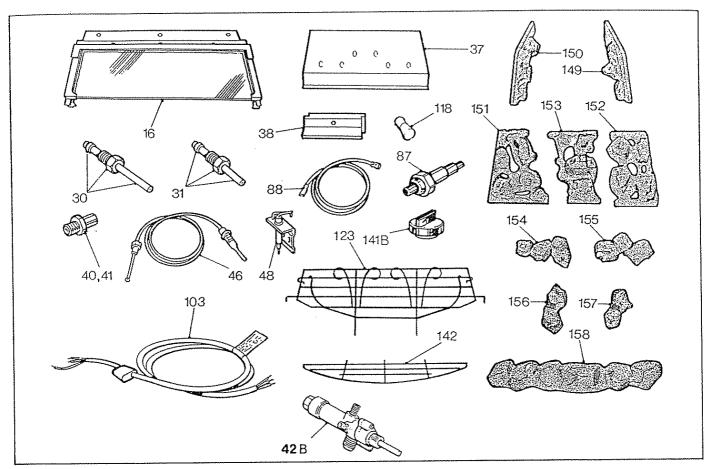
Appliance must be disconnected from mains supply and meter set on Ω (ohms) x 100 scale. All switches, including stats, ON — Test leads from L to E — If meter reads other than infinity (\propto) there is a fault which should be isolated. A detailed continuity check is required to trace the faulty component.

IMPORTANT This series of checks are the first electrical checks to be carried out during a fault finding procedure. On completion of the service/fault finding test which has required the breaking and remaking of connectons then the checks — A. Earth Continuity. C. Polarity and D. Resistance to Earth — must be repeated.

11.TO REPLACE PIEZO GENERATOR UNIT

- (a) Disconnect the ignition lead from the piezo generator.
- (b) Unscrew two screws holding the piezo generator and bracket assembly to the cross rail (situated behind the right front casting foot). Remove the assembly.
- (c) Remove the piezo generator from the bracket by unscrewing the locknut from the generator body.
- (d) Replace with new generator and re-fit in reverse order to above.

FITTERS SHORT LIST



Key No.	G.C. Part No.	Description	No. Off	Maker's Part No.
16	124 375	Glass Panel	1	513739
30	124 381	Ceramic Flame Tube - Long	4	513839
31	124 382	Ceramic Flame Tube - Short	2	513849
37	124 383	Base Board	1	513889
38	124 384	Rear Ceramic Support	2	513899
40	398 182	Injector-Upper	1	548079
41	398 194	Injector-Lower	1	548089
42B	382 915	Gas Tap Concentric Ref TESA961	1	513919
46	381 931	Thermocouple	1	542399
48	393 750	Electrode	1	534149
87	381 833	Piezo Generator	1	547339
88	124 185	Electrode Lead	1	542349
103	. 124 422	Mains Cable	1	514299
118	124 251	Pygmy Bulb 15W	2	552289
123	124 428	Dressguard	1	514389
141B	124 440	Control Knob for Concentric tap	1	543139
142	124 441	Front Coal Wire Support (for coal no. 8)	1	514509
149	124 446	Side Cheek R.H.	1	514549
150	124 447	Side Cheek L.H.	1	514559
151	124 448	Coal No. 1	1	514569
152	124 778	Coal No. 2	1	518499
153	124 779	Coal No. 3	1	518509
154	124 451	Coal No. 4	1	514599
155	124 452	Coal No. 5	1	514609
156	124 780	Coal No. 6	1	518519
157	124 781	Coal No. 7	1	518529
158	124 455	Coal No. 8	1	514639

VALOR HEATING

Erdington, Birmingham B24 9QP, England

Because our policy is one of constant development and improvement, details may vary slightly from those given in this publication.