

British Gas 

Scottish Gas 

INSTALLER'S GUIDE

Model BG C-2

(GC No. 32-032-37)

***INSET LIVE FUEL
EFFECT GAS FIRE***



(Manufacturer ref. BR658VA)



**THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20)
WHEN CONVERTED USING CONVERSION KIT NO.0591149 THIS
APPLIANCE IS FOR USE WITH PROPANE GAS (G31)
THIS APPLIANCE IS FOR USE IN THE UNITED KINGDOM (GB) AND
THE REPUBLIC OF IRELAND (IE) ONLY.**

INSTALLER: Please leave this guide with the owner

Manufactured exclusively for British Gas & Scottish Gas by Valor Heating
For Service Phone 0845 960 5040

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

INSTALLER'S GUIDE

1	SAFETY	3
2	ACCESSORY LIST	3
3	APPLIANCE DATA	4
4	GENERAL INSTALLATION REQUIREMENTS	5
5	UNPACKING & PRE-INSTALLATION PREPARATION	10
6	FIREPLACE CHECK	11
7	IGNITION CHECK	12
8	GAS SUPPLY CONNECTION	13
9	PREPARING APPLIANCE FOR INSTALLATION	14
10	CONVECTION BOX INSTALLATION	16
	10.1 Method (1) - Front Fixing to Fireplace Surround	16
	10.2 Method 2 - Cable Retention and Floor Fixing	16
	10.3 Sealing Floor Front	18
11	BURNER & SUPPLY PIPE INSTALLATION	19
	11.1 Burner & Supply Pipe Installation	19
	11.2 Preliminary Burner Checks	19
	11.3 Reference Pressure Check	20
12	FRONT SURROUND INSTALLATION	20
13	FITTING THE CERAMICS	21
14	FULL OPERATING CHECKS	23
	14.1 Check the Control Settings	23
	14.2 Check For Spillage	24
	14.3 Flame Supervision & Spillage Monitoring System	25
15	FRONT CASTINGS INSTALLATION	26
16	FINAL REVIEW	26
17	SERVICING & PARTS REPLACEMENT	27
	17.1 To Remove the Ignition Microswitch	28
	17.2 To Remove the Gas Shut-Off Microswitch	28
	17.3 To Remove the Fire Front Surround	29
	17.4 To Replace the Control Slide Knob	29
	17.5 To Remove the Burner Unit	29
	17.6 To Remove the Electronic Ignition Generator	30
	17.7 To Remove the Thermocouple Interrupter Block	30
	17.8 To Remove the Pilot Unit	31
	17.9 To Remove the Shut-Off Tap	31
	17.10 To Remove the Gas Flow Rate Controller	33
	17.11 To Remove the Main Burner Injector	33
	17.12 To Replace Burner Plaques	33
	17.13 To Remove the Appliance from the Fireplace	34
	SHORT LIST OF SPARES	35

INSTALLER'S GUIDE

1 SAFETY

Installer

- Before continuing any further with the installation of this appliance please read the following guide to manual handling
- The lifting weight of this appliance 14 kg. If for any reason this weight is considered too heavy then obtain assistance.
- When lifting always keep your back straight. Bend your legs and not your back.
- Avoid twisting at the waist. It is better to reposition your feet.
- Avoid upper body/top heavy bending. Do not lean forward or sideways whilst handling the fire.
- Always grip with the palm of the hand. Do not use the tips of fingers for support.
- Always keep the fire as close to the body as possible. This will minimise the cantilever action.
- Use gloves to provide additional grip.
- Always use assistance if required.

2 ACCESSORY LIST

The following accessories are available: -

<u>Description</u>	<u>Part Number</u>
LPG Conversion kit	0591149

INSTALLER'S GUIDE

3 APPLIANCE DATA

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

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

The appliance data label is on a plastic tie below the burner and is visible when the bottom front cover is removed.

Gas	Natural (G20)	Propane (G31)*
Inlet Pressure	20mbar	37mbar
Input - Max. (Gross)	6.0kW (20,500Btu/h)	6.1kW (20,800Btu/h)
Input - Min. (Gross)	2.7kW (9,200Btu/h)	4.3kW (14,650Btu/h)
Output - Max.	3.5kW (11,900Btu/h)	3.6kW (12,280Btu/h)
Output - Min	1.3kW (4,450Btu/h)	2.1kW (7165Btu/h)
Burner Test Pressure (Cold)	17.0±0.75mbar (6.8±0.3in w.g.)	35.6±0.75mbar (14.3±0.3in w.g.)
Gas Connection	8mm pipe	8mm pipe
Burner Injector	Bray Cat. 18 Size 400	Bray Cat. 15 Size 170
Pilot & Atmosphere Sensing Device	SIT Ref. OP9030	SIT Ref. OPLPG9222
Ignition	Piezo Electric. Integral with Gas Tap	Piezo Electric. Integral with Gas Tap
Aeration	Non-adjustable	Non-adjustable

* When converted using Kit 0591149.

INSTALLER'S GUIDE

4 GENERAL INSTALLATION REQUIREMENTS

4.1 The installation must be in accordance with these instructions.

For the user's protection, in the United Kingdom it is the law that all gas appliances are installed by competent persons in accordance with the current edition of the Gas Safety (Installation and Use) Regulations. Failure to install the appliance correctly could lead to prosecution. The Council for the Registration of Gas Installers (CORGI) requires its members to work to recognised standards.

In the United Kingdom the installation must also be in accordance with:

All the relevant parts of local regulations.

All relevant codes of practice.

The relevant parts of the current editions of the following British Standards:-

BS 715 BS EN 1806 BS 5440 Part 2 BS 6891

BS 1251 BS 4543 Part 2 BS 5871 Part 1

BS 1289 Part 1 BS 5440 Part 1 BS 6461 Part 1

In England and Wales, the current edition of the Building Regulations issued by the Department of the Environment and the Welsh Office

In Scotland, the current edition of the Building Standards (Scotland) Regulations issued by the Scottish Executive.

In Northern Ireland, the current edition of the Building regulations (Northern Ireland) issued by the Department of the Environment for Northern Ireland.

In the republic of Ireland the installation must also conform to the relevant parts of:

- a) The current edition of IS 813
- b) All relevant national and local rules in force.

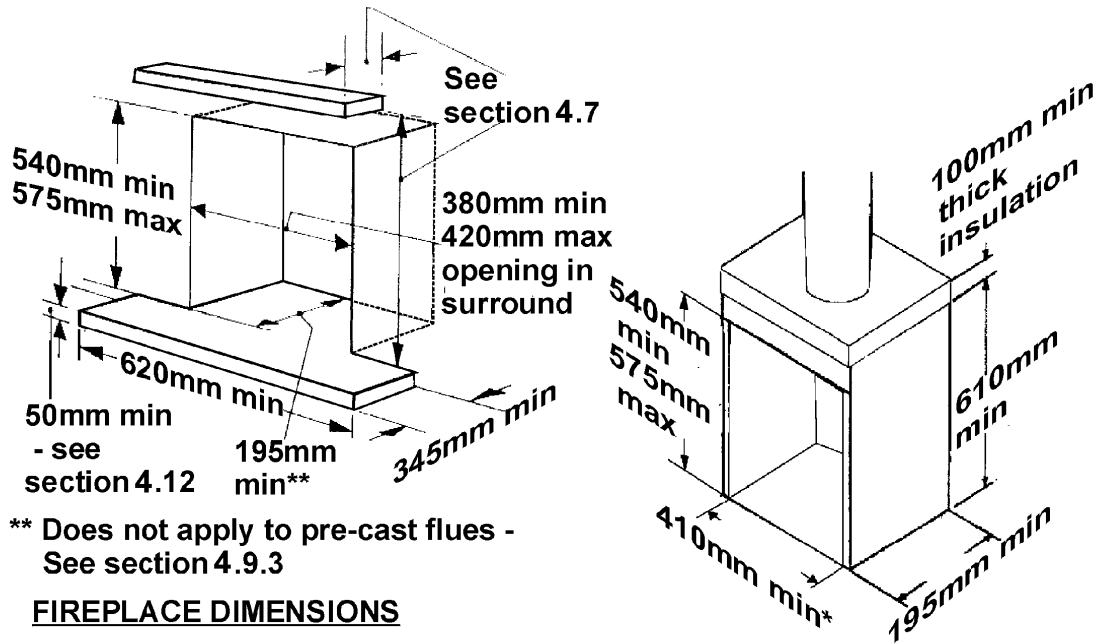
4.2 If the appliance is intended to be installed to a chimney that was previously used for solid fuel, the flue must be swept clean prior to installation. All flues should be inspected for soundness and freedom from blockages.

4.3 Any chimney dampers or restrictors should be removed. If removal is not possible they must be fixed in the open position.

4.4 In the United Kingdom (GB) special ventilation bricks or vents are not normally required in the room for this appliance.

In the Republic of Ireland (IE) permanent ventilation must comply with the regulations currently in force.

INSTALLER'S GUIDE



*If internal width is greater than 440mm, the opening width must be reduced to not more than 440mm to ensure adequate sealing to the fire

TWIN WALLED METAL FLUE BOX (INTERNAL DIMENSIONS)

148mm minimum to combustible surface projecting beyond front of appliance (no clearance necessary to non-combustible surface)

148mm minimum mandatory clearance to combustible surface projecting beyond front of appliance
100mm min. recommended clearance to non-combustible surfaces for access

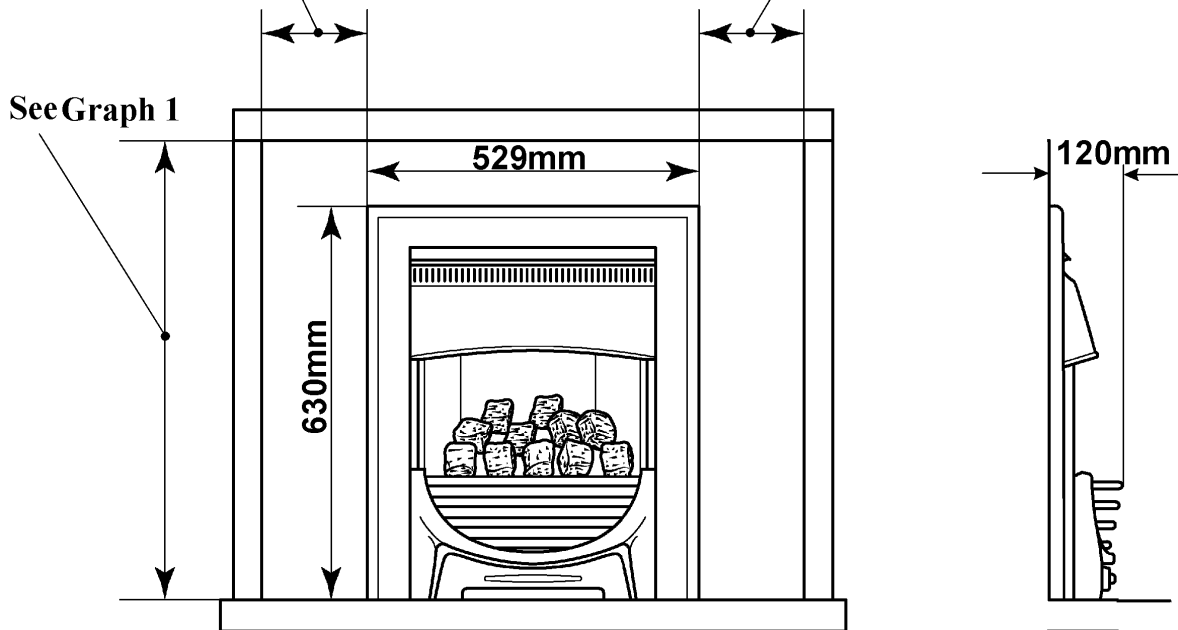


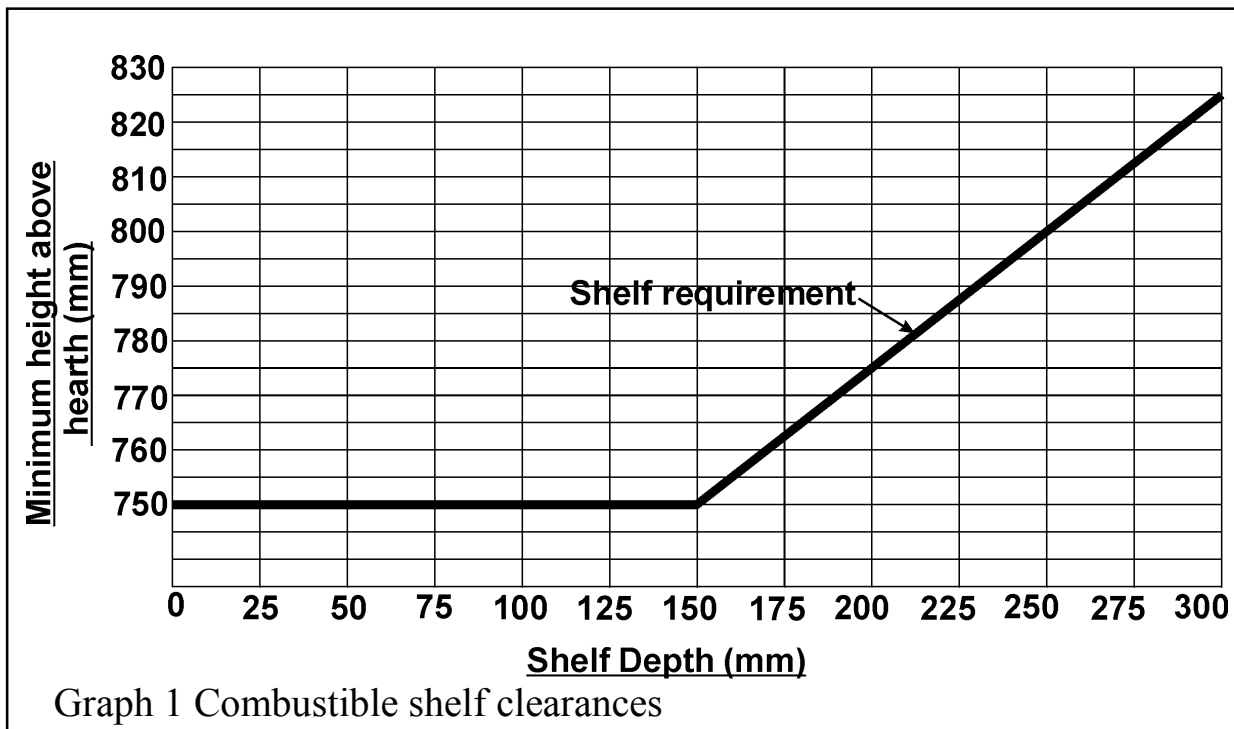
Figure 1 Installation Requirements

INSTALLER'S GUIDE

4.5 Note that soft wall coverings (e.g. embossed vinyl, etc.) are easily affected by heat. They may scorch or become discoloured when close to a heating appliance. Please bear this in mind when installing.

4.6 The minimum allowable distance from the outside of the appliance case to a corner wall having combustible material or any other combustible surface which projects beyond the front of the appliance is 148mm at either side. A minimum clearance of 100mm to any non-combustible surface at the right side is recommended to allow satisfactory access to the control knob. No access clearance from a non-combustible surface is necessary at the left side. See figure 1.

4.7 The minimum height from the top surface of the hearth to the underside of any shelf made from wood or other combustible materials is shown in graph 1.



4.8 The appliance must not be installed in any room, which contains a bath, or shower or where steam is regularly present.

4.9 In the United Kingdom this appliance can be installed in the following situations: -

4.9.1 To a fireplace complete with surround and hearth complying with B.S 1251. The required fireplace, hearth, debris catchment area and clearance dimensions are shown in figure 1.

INSTALLER'S GUIDE

4.9.2 To a fireplace incorporating a twin walled metal flue box complying with the constructional requirements of the current edition of BS 715 and standing on a non-combustible base. The dimensions of the flue box must conform to the opening shown in figure 1. For flue details see section 4.10.

4.9.3 To a fireplace that has a precast concrete or clay flue block system conforming to BS1289 or BS EN 1806. The appliance is suitable for installations conforming to older versions of BS1289 as well as the current edition. The flue blocks must have a minimum width not less than 63mm and a cross-sectional area not less than $13,000\text{mm}^2$. Older editions of BS1289 required a cross-sectional area of $13,000\text{mm}^2$. The current revision of the standard requires $16,500\text{mm}^2$. This appliance is suitable in both cases. The total depth of the opening measured from the finished front of the fireplace (Including plaster, surround etc) must be ***not less than 100mm***.

The current version of BS1289 recommends that there should be an air space or insulation between the flue blocks and the plaster because heat transfer may cause cracking on directly plastered flues. However, generally this appliance is suitable for installations under all circumstances unless there is a history of cracking problems. Remember that faults such as cracking may be caused by poorly built and restrictive flues, e.g. mortar extrusions, too many bends, flue heights below three metres, restrictive terminations, etc.

4.9.4 To a builder's opening within the dimensions shown in figure 1.

4.9.5 If the fireplace opening is greater than the acceptable dimensions given in this guide, do not use the back of a fire surround or marble to reduce the opening. This may cause cracking of the surround back or marble.

4.10 Suitable flues and minimum flue sizes are as follows: -

- 225mm x 225mm conventional brick flue.
- 175mm diameter lined brick or stone flue.
- 200mm diameter factory made insulated flue manufactured to BS 4543.
- 175mm diameter flue pipe (see B.S 6461 part 1 for suitable materials).
- Single wall, twin wall or flexible flue liner of minimum diameter 125mm. The materials to be used are stainless steel or aluminium as specified in B.S 715.
- A properly constructed precast concrete or clay flue system conforming to BS1289 or BS EN 1806.

It should be noted that, sharp bends or horizontal runs in metal flues at the top of the system could be a cause of problems in these types of installation.

4.10.1 The minimum effective height of the flue must be 3m.

4.10.2 The flue must be completely sealed so that combustion products do not come into contact with combustible materials outside the chimney.

4.10.3 The flue must serve only one fireplace.

INSTALLER'S GUIDE

4.10.4 Proprietary terminals must comply with BS 715 or BS 1289. Any terminal or termination must be positioned in accordance with BS 5440 Part 1 to ensure that the products of combustion can be safely dispersed into the outside atmosphere. Where the appliance is connected to an unlined brick chimney it is generally unnecessary for the chimney pot to be replaced or for a terminal to be fitted unless the flue has a diameter smaller than 170mm.

4.11 If the fireplace opening is an underfloor draught type, it must be sealed to stop any draughts.

4.12 The appliance must be mounted behind a non-combustible hearth (n.b conglomerate marble hearths are considered as non-combustible). The appliance can be fitted to a purpose made proprietary class "O" 150°C surround. The hearth material must be at least 12mm thick. The periphery of the hearth (or fender) should be at least 50mm above floor level to discourage the placing of carpets or rugs over it. The surface of the hearth must be sufficiently flat to enable the bottom of the front surround, the burner bracket and the bottom front cover casting to be aligned horizontally. Any excessive unevenness (uneven tiles, Cotswold stone, etc.) should be rectified.

The appliance must not stand on combustible materials or carpets.

The appliance must not be fitted directly against a combustible wall. If the appliance is to be fitted against a wall with combustible cladding, the cladding must be removed from the area covered by the outer surround (See figure 1). We suggest that the actual surround is used as a template to mark the area for combustible cladding removal.

4.13 The front face of the fireplace should be reasonably flat over the area covered by the convection box top and side flange seals to ensure good sealing. These faces should be made good if necessary.

The fireplace floor should be reasonably flat to ensure that a good seal with the convection box can be made.

4.14 An extractor fan may only be used in the same room as this appliance, or in any area from which ventilation for the appliance is taken, if it does not affect the safe performance of the appliance. Note the spillage test requirements detailed further on in this manual. If the fan is likely to affect the appliance, the appliance must not be installed unless the fan is permanently disconnected.

4.15 Propane gas appliances must not be installed in a room, which is built entirely below ground level (See BS 5871 Part 2).

INSTALLER'S GUIDE

5 UNPACKING & PRE-INSTALLATION PREPARATION

The carton contains the following: -

- | | | | |
|---|--|---|---|
| 1 | Fire unit complete with front surround | 2 | Small "U" seals for convection box side flanges |
| 1 | Fire front casting | 1 | Strip of floor sealing tape |
| 1 | "Ash pan" cover | 6 | Fibre plugs |
| 1 | Nut & olive for 8mm inlet pipe | 4 | Woodscrews |
| 1 | Flue restrictor plate | 2 | Fire retaining cables |
| 2 | Screws (For flue restrictor) | 2 | Cable clamps |
| 1 | Ceramic back wall | 4 | Eyebolts |
| 1 | Front base coal | 1 | Installation template |
| 1 | Rear base coal | 1 | PP3 Battery |
| 1 | Pack of loose coals | 1 | Smoke match tube |
| 1 | Length of self adhesive foam seal | 1 | Literature pack |

Carefully remove the contents. Take special care in handling the ceramic coals. Take care not to bend or distort the slide control linkage when handling the burner and convection box unit.

Check that all the listed parts are present and in good condition.

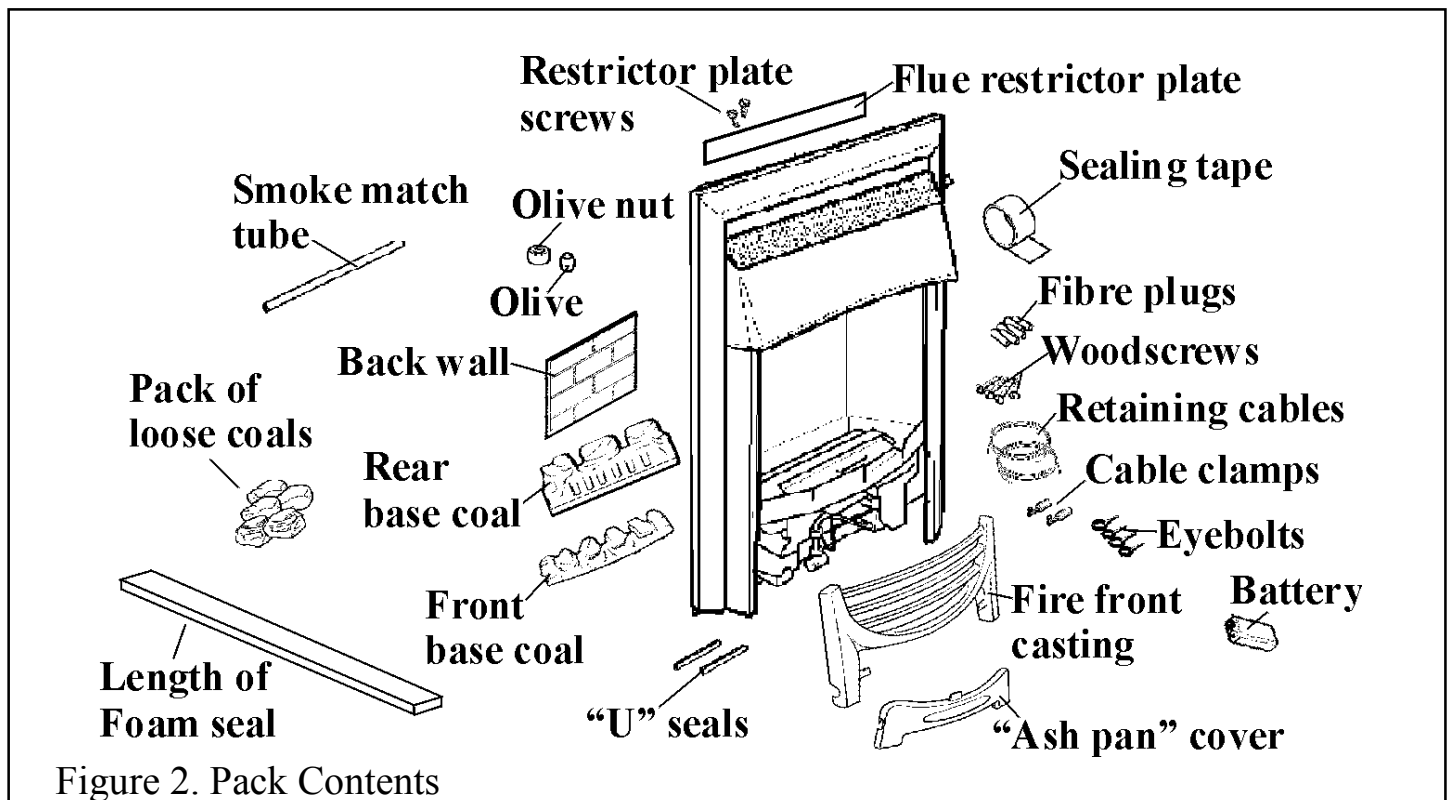


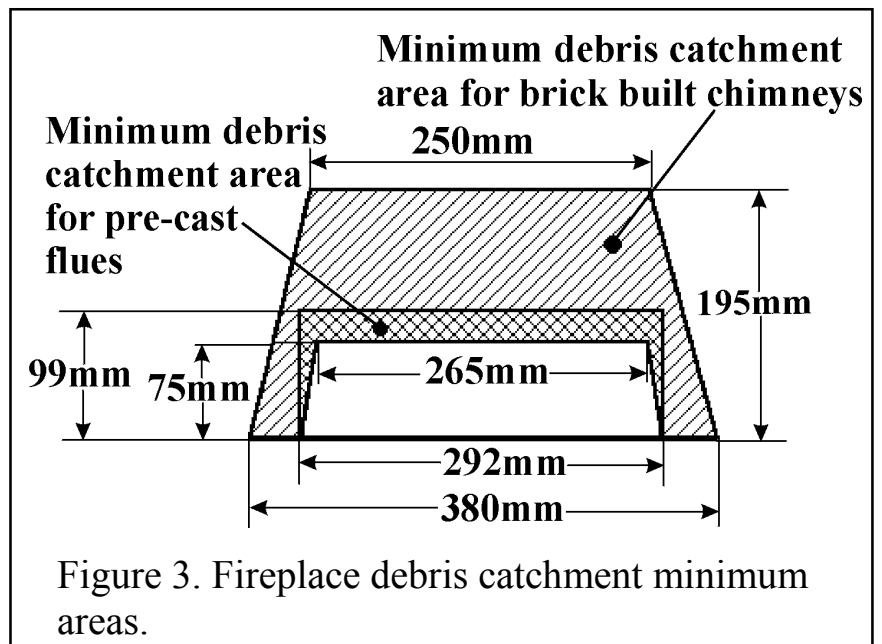
Figure 2. Pack Contents

6 FIREPLACE CHECK

1. The fireplace must comply with all the requirements of section 2.
2. The debris catchment area shown in figure 3 must be kept clear of obstructions.

3. Fireplace General Condition

The fireplace floor should be reasonably flat to ensure that the convection box can be installed without it rocking and so that a good seal can be made at the bottom front of the box. The front face of the fireplace should be reasonably flat over the area



covered by the convection box top and side flange seals to ensure good sealing. These faces should be made good if necessary. If the appliance is to be fitted against a wall with combustible cladding, the cladding must be removed from the area covered by the outer surround (see figure 1). We suggest that the actual surround is used as a template to mark the area for combustible cladding removal.

4. Soundness for appliance attachment

Two primary methods of retaining the appliance are provided: -

- 1) By fixing to the fireplace front.
- 2) Using concealed tension cables fixed to the rear of the fireplace opening together with secondary fixing to the fireplace floor.

The methods are detailed in section 10 of this manual. Before selecting the retention method, consult with the customer. Method 2 is provided for instances where drilling holes in the front surface of the fireplace surround is unacceptable to the customer or otherwise impractical. N.B. It is unwise to attempt to drill into marble without the proper tools and equipment.

If method 1 is chosen, make sure that the fireplace front surround area is sound enough to take the rawlplugs and woodscrews. If necessary, make sound with a suitable cement. If method 2 is chosen, make sure that the areas at the back and towards the centre of the fireplace floor are sound enough to take the eyebolts and screws. If these areas have deteriorated due to prolonged use, they should be made sound with a suitable cement.

5. Installations using a metal flue box

The whole of the top surface of the metal flue box must be covered with a layer of mineral wool or equivalent insulation at least 100mm thick. See figure 1.

INSTALLER'S GUIDE

6. Fireplace Flue Pull

Close all doors and windows in the room in which the appliance is to be installed. After confirming with a match that smoke is drawn into the flue, light a 13 gram smoke pellet and check that there is a definite flow through the flue. Verify outside that the smoke exits from one terminal only and that the termination is suitable. Observe, where possible, upstairs rooms and loft spaces for signs of escaping smoke indicating a defective flue. If there is not a definite flow warm the flue for a few minutes and repeat the smoke pellet test. If there is still no definite flow the flue may need remedial work – **Do not fit the appliance until there is a definite flow through the flue.**

7 IGNITION CHECK

Before attempting to install, it is worth checking that the electronic ignition system performs satisfactorily.

- Fit the battery to the ignition block located below the burner tray at the left side (see figure 4). The positive terminal (+) is to the right as you insert.
- Depress the slider as far as it will go. This should close the ignition circuit. Sparks should be seen tracking from the electrode pin to the thermocouple tip. See figure 5.
- If there are no sparks make the following checks.
 - a.* Check condition of battery and that it is correctly fitted.
 - b.* Check spark gap between electrode wire and thermocouple tip (see figure 6).
 - c.* If a & b are satisfactory, check the ignition circuit and components - see the servicing section in this manual.

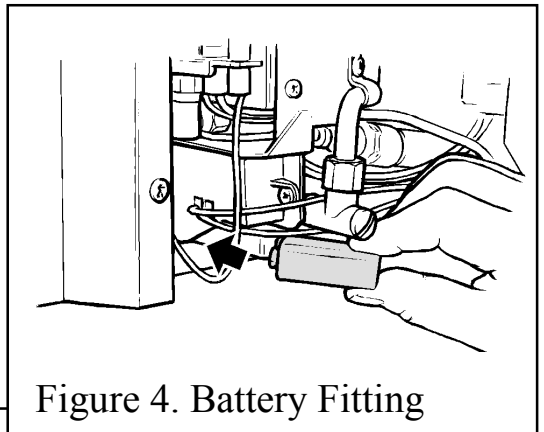


Figure 4. Battery Fitting

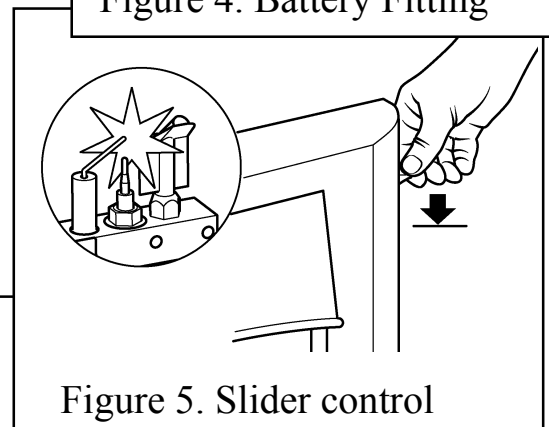


Figure 5. Slider control

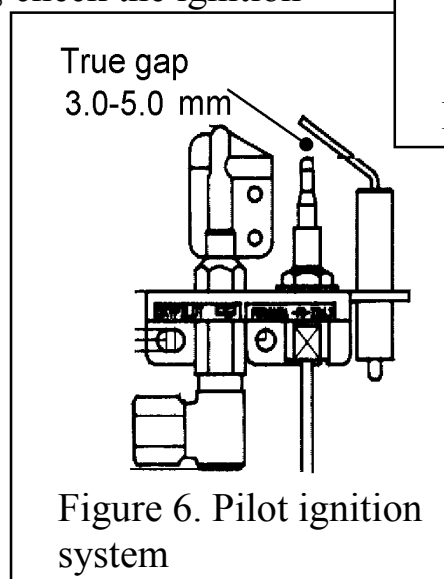


Figure 6. Pilot ignition system

8 GAS SUPPLY CONNECTION

A nut and olive are provided for an 8mm pipe inlet connection to the elbow at the bottom front of the appliance. The elbow can be rotated to allow a connection from any direction. The elbow includes a valve for isolating the gas supply.

The supply pipe must be rigid material. Flexible pipe must not be used.

8.1 Concealed Supply Pipe Connection

If a concealed connection from inside the fireplace is required then, **before the appliance is fitted into the fireplace** it will be necessary to extend the supply line so that it will project through the sealed opening at the back of the convection box (near the left side) and run to the elbow at the front

The pipe run from the supply line up to the rear opening in the convection box must be kept clear of the area which will be taken by the convection box when it is installed. A template is supplied to aid the installation of the pipe run.

We recommend the following method for installing with a concealed supply pipe:

1. Cut the template to the shape shown by the "Debris catchment area". Note that the areas are different for fireplaces with conventional brick flues and precast flues.
2. Place the template on the fireplace floor (printed side upward) with the front line level with the front surface of the fireplace. The centre line of the template should line up with the centre of the fireplace. Tape the template securely in this position.
3. Make sure that the fireplace is clear of all material over the full area covered by the template including that marked "*Debris catchment area*".
4. Install the supply pipe to run through the thick line marked "*Supply pipe entry*" and up to the inlet elbow position. Note that the centre of the appliance inlet elbow is 25mm above the fireplace floor. The inlet elbow should be removed from the appliance and fitted to the supply pipe at this stage. Remove the template.

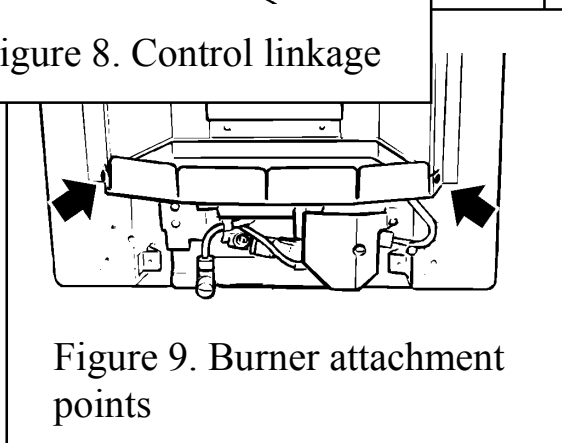
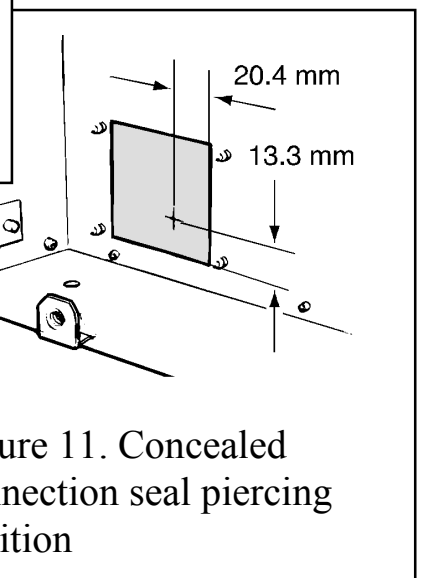
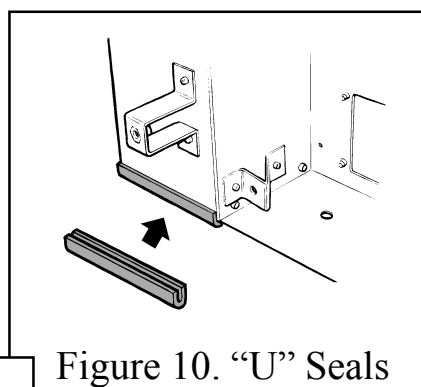
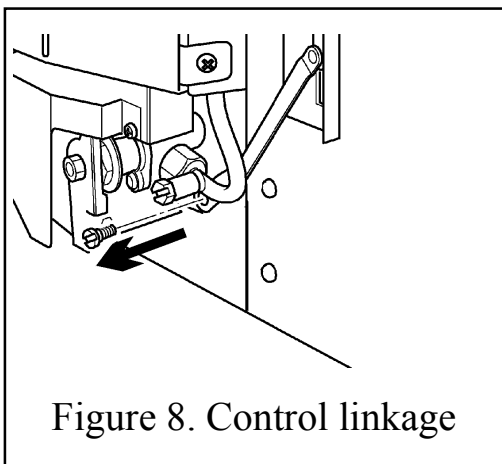
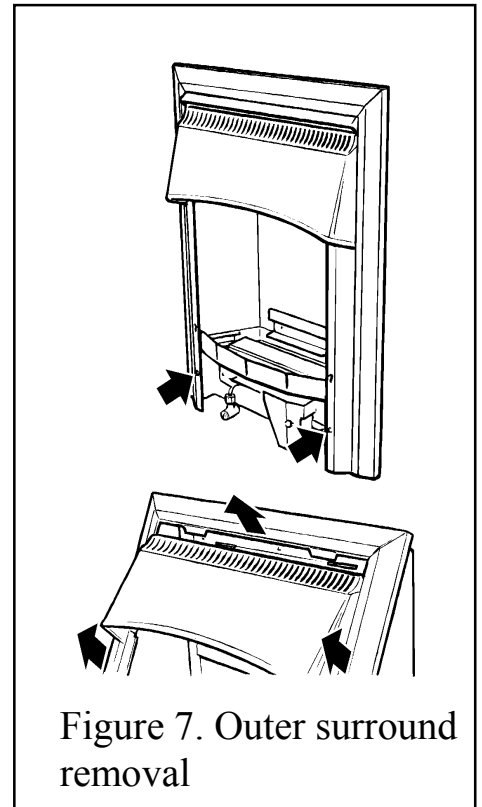
8.2 Side Supply Pipe Connection

The appliance is designed to allow a side supply pipe to run in front of the front surround and through a cut- out at either rear bottom corner of the fire front casting. For side connection, final installation of the supply pipe should be left until the appliance is installed in the fireplace. For a right side connection the pipe will have to be formed to clear the burner unit mechanism.

INSTALLER'S GUIDE

9 PREPARING APPLIANCE FOR INSTALLATION

1. Remove the two screws securing the bottom of the front surround to the sides of the convection box. See figure 7.
2. Raise the front surround to allow the retaining lugs at the top to clear the slots in the convection box hood. See figure 7. Carefully remove the surround. Place carefully aside.
3. Disconnect the control linkage from the burner unit by removing the shouldered screw which joins the control linking bar to the control pivot unit. See figure 8.
4. Detach the burner unit from the convection box by removing two screws - see figure 9. Lift the burner unit clear.
5. Fit the two small "U" section seals to the bottom edges of the convection box side flanges. See figure 10.
6. For concealed connection only: Pierce a hole in the seal at the back of the convection box. See figure 11. The seal must envelop the pipe. If the hole is larger than the pipe, seal it with tape. **Do not pierce the seal unless the supply pipe is to pass through it.**



INSTALLER'S GUIDE

7. The flue restrictor

This appliance is supplied with a flue restrictor for use where the flue draught is excessive. The restrictor must NOT be fitted where a precast flue or a flue liner is used. For all other installations the restrictor should be fitted. There may however, be certain exceptional circumstances where fitting the restrictor causes the fire to fail the spillage test. In such cases the restrictor will have to be removed.

After removal conduct the spillage check again. The restrictor is supplied loose and is fixed with two screws. See figure 12.

8. Fitting the Foam seal

There is a length of self adhesive foam seal supplied with the fire. This will need to be fitted to the outer rear edges of the side and top flanges of the convection box.

Be careful not to stretch the seal when measuring. Ensure that there is no gap between the foam seals where they meet at the top flange (See figure 13).

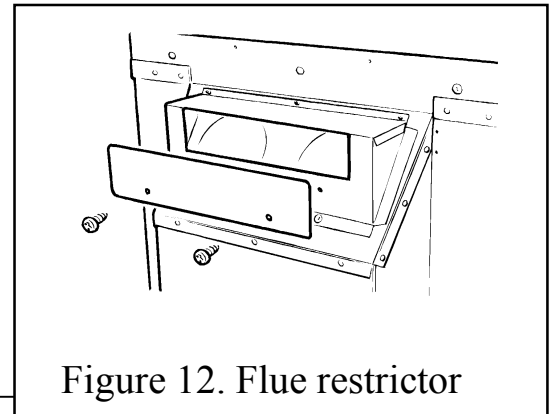


Figure 12. Flue restrictor

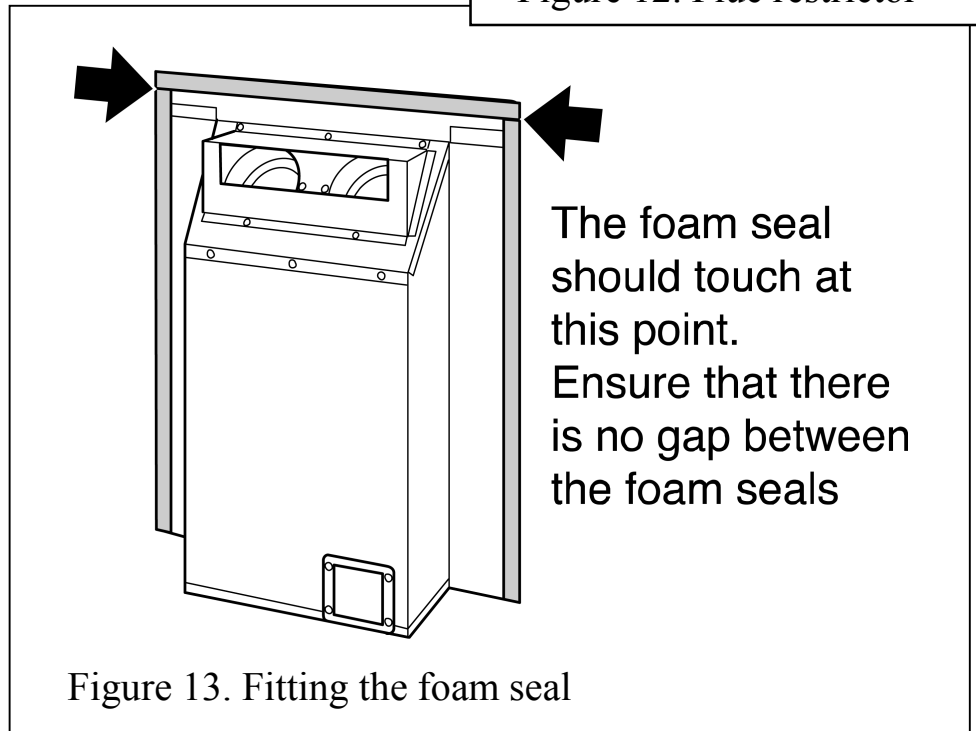


Figure 13. Fitting the foam seal

10 CONVECTION BOX INSTALLATION

10.1 Method (1) - Front Fixing to Fireplace Surround

1. Make sure that the fireplace front surround area is sound enough to take the rawlplugs and woodscrews. If necessary, make sound with a suitable cement.

2. Place the convection box centrally in the fireplace in the position in which it is to be permanently installed. If a concealed connection is being used, insert the convection box into the fireplace feeding the supply pipe through the pierced hole in the rear seal.

3. Mark the fireplace front surround through the four fixing holes in the side flanges of the convection box. See figure 14.

4. Remove the convection box. Drill four holes in the fireplace front surround at the marked positions using a no.12 masonry drill.

5. Insert a rawlplug into each hole.

6. Place the convection box back in position in the fireplace.

7. Fit a woodscrew through each hole in the convection box flanges and tighten to seal the box to the fireplace surround.

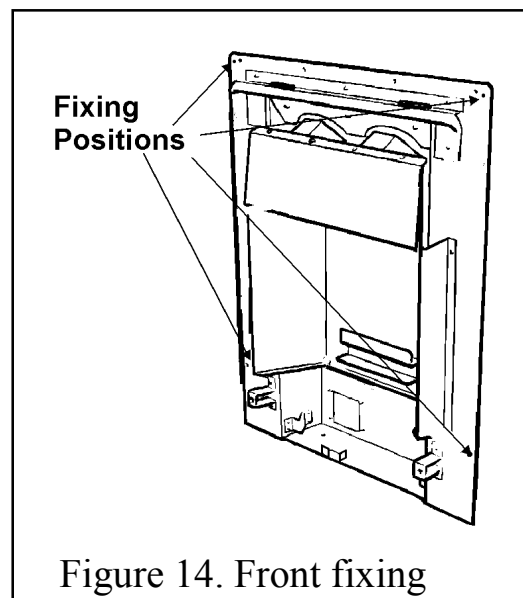


Figure 14. Front fixing

10.2 Method 2 - Cable Retention and Floor Fixing

Make sure that the areas at the back and towards the centre of the fireplace floor are sound enough to take the eyebolts and screws. If these areas have deteriorated due to prolonged use they should be made sound with a suitable cement.

1. Drill four holes in the rear wall of the fireplace for the eyebolt plugs. The holes should be drilled within the range of positions shown in figure 15 using a no.12 masonry drill. The holes should be equidistant each side of the centre line of the fireplace to ensure that the appliance finishes centrally in the opening when tension is applied to the cables.

2. Insert a fibre plug into each hole. Use the rawlplugs supplied with this appliance - **Never use plastic plugs instead of the fibre plugs supplied.** Screw the eyebolts into the plugs. Make sure that the bolts are secure.

3. Place the convection box unit close to the fireplace but allow sufficient access into the fireplace opening so that the cables can be threaded through the eyebolts and returned through the back of the convection box. If a concealed connection is being used, insert the convection box into the fireplace feeding the supply pipe through the pierced hole in the rear seal.

INSTALLER'S GUIDE

4. The convection box has two holes at each side of the convected air opening. Insert one end of each cable (one cable each side) from the back through the lower of the two holes and return the end through the upper of the holes. See figure 16. Give the cables a pull so that they grip against the convection box flanges.

5. Thread the cables through the upper eyebolts in the rear wall and then through the lower

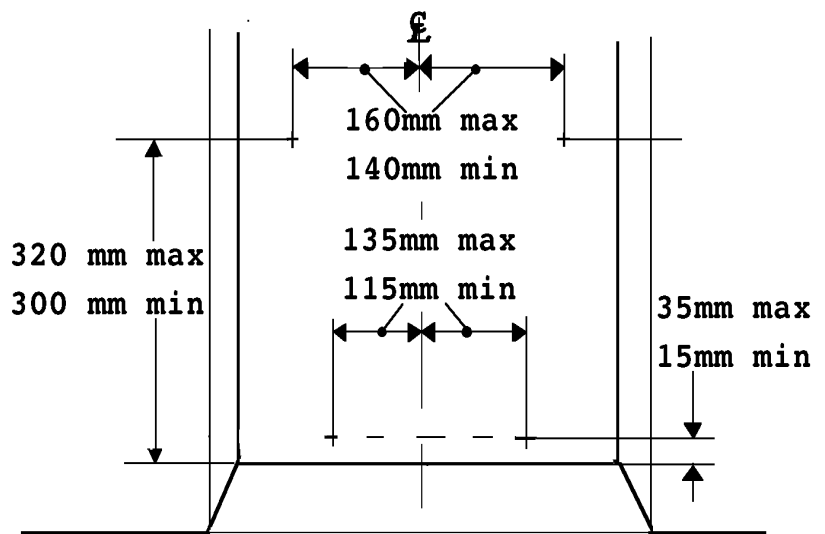


Figure 15. Eyebolt positions

eyebolts. Return the cables through the holes near the bottom of the convection box back panel and through the “V” shaped brackets near the bottom front sides of the convection box. See figure 17.

6. Place the convection box fully back into the fireplace opening so that it is sealed against the fireplace front surround.

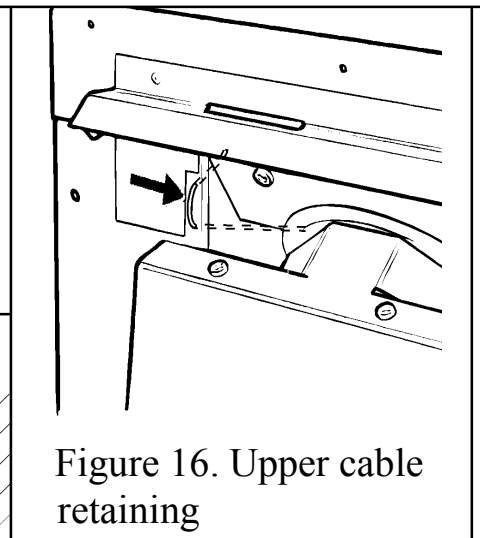


Figure 16. Upper cable retaining

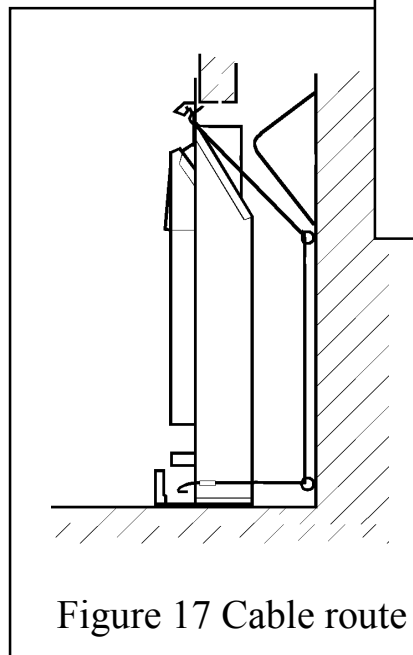


Figure 17 Cable route

INSTALLER'S GUIDE

Fit a cable retainer over the bottom end of each cable.

7. Pull each cable taut. Push the cable retainers hard up against the “V” brackets. Tighten the screws in the retainers so that they clamp the cables in position. Apply tension to the cables by turning the hexagonal adjusters by hand. See figure 18.

8. Drill a hole into the fireplace floor through each of the two holes in the base of the convection box using a no.12 masonry drill. See figure 19.

9. Insert a fibre plug into each hole. Use the rawlplugs supplied with this appliance - **Never use plastic plugs instead of the fibre plugs supplied.** Fit a woodscrew in each plug and tighten.

10. Inspect the installation of the convection box against the fireplace surround. If the convection box is aligned squarely and the sealing is satisfactory, fully tighten the cable retainers.

11. If the convection box is not correctly aligned, release the tension on the cables by slackening the screws and turning the hexagonal adjusters fully anticlockwise. The convection box should then automatically realign itself. Pull each cable taut again and push the cable retainers back against the “V” brackets. Again, tighten the screws in the retainers and apply tension to the cables by turning the hexagonal adjusters clockwise as far as possible.

12. Insert the free length of the cables through the holes in the convection box flanges (located inside the lower case fixing brackets) so that they are pushed into the fireplace cavity. This will allow easy removal and refitting of the appliance during subsequent service calls.

10.3 Sealing Floor Front

All installations

Using the floor sealing tape supplied, seal the bottom of the convection box to the fireplace and hearth floor. Run the tape over the burner fixing bracket. See figure 20.

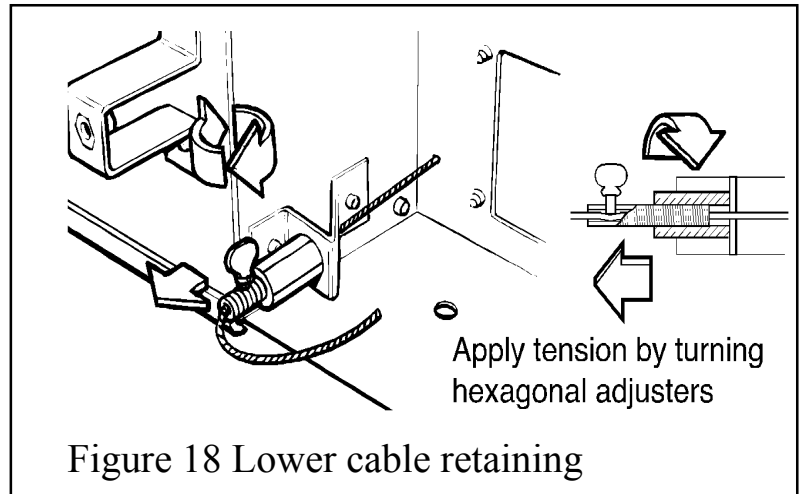


Figure 18 Lower cable retaining

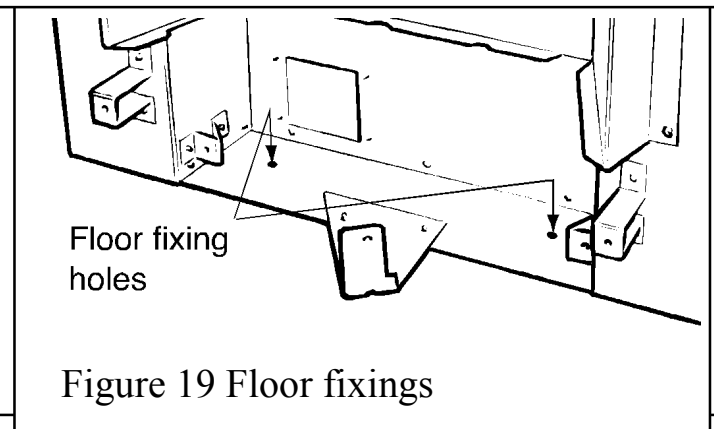


Figure 19 Floor fixings

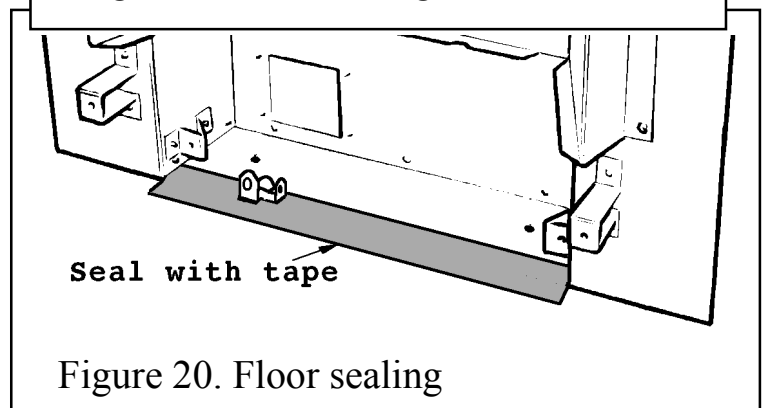


Figure 20. Floor sealing

INSTALLER'S GUIDE

11 BURNER & SUPPLY PIPE INSTALLATION

11.1 Burner & Supply Pipe Installation

1. Refit the burner unit to the convection box with two screws.
2. Reconnect the slider control linkage firmly to the burner control pivot with the shouldered screw using a screwdriver (Not finger tight only).
3. Connect the supply line to the appliance.
4. Pressure check the installation pipework for gas soundness. In the United Kingdom check in accordance with the current edition of BS6891. In the Republic of Ireland check in accordance with the rules in force. A long brush may be required to reach some joints.

11.2 Preliminary Burner Checks

Some burner operations can be checked at this stage. Checking now will mean that less disassembly will be required if any problems are found. ***A full check should still be made, however, after final installation***

1. If closed, open the isolating valve at the inlet elbow.
2. Depress the slider knob as far as it will go and hold in this position (see section 7). This should close the ignition circuit and (now that the gas is connected) simultaneously open the gas tap allowing the gas to flow to the pilot. Wait a few seconds while the air is purged. The electronically generated sparks should light the pilot. The pilot should then light the main burner at its low setting. There may be a delay of up to four seconds between the pilot lighting and ignition of the gas at the main burner. This is normal and is due to the time required to fill the main burner compartment with sufficient gas for ignition.
3. When the burner is operating properly, gradually slide the control knob upwards. The burner flames should gradually increase until the knob is nearly at its highest position. You should feel some resistance when the slide button reaches the maximum burner flame position. Sliding further upwards until the knob comes to a stop should then turn the burner and pilot off. **When the above checks have been completed close the isolating valve on the inlet elbow.**

If the above checks are satisfactory, continue with the installation. If not, check the control and ignition circuitry and components as described in the servicing section of this manual.

INSTALLER'S GUIDE

11.3 Reference Pressure Check

The appliance is pre-set to give the correct heat input at the inlet pressure shown in section 3 of this manual. No adjustment is necessary.

1. Check the burner pressure by fitting a pressure gauge at the test point. The test point is on the pipe situated below the bottom right corner of the burner unit. See figure 21. Check the pressure with the appliance alight and set at maximum output.
2. After checking, turn off the appliance. Remove the pressure gauge and replace the test point sealing screw.
3. Relight the appliance. Turn to the maximum output position and test around the sealing screw for gas soundness with a suitable leak detection fluid.

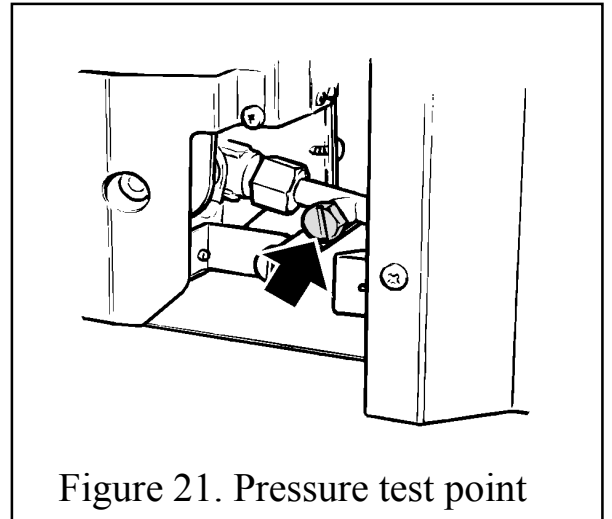


Figure 21. Pressure test point

12 FRONT SURROUND INSTALLATION

1. Pick up the outer surround. Locate the two lugs at the top of the front surround in the slots in the upper case support strip (See figure 22). Swing the bottom of the surround sides back against the convection box and lower the surround so that the lugs are fully seated in the slots in the convection box hood.
2. Secure the surround sides to the convection box brackets with the two screws provided. See figure 23.

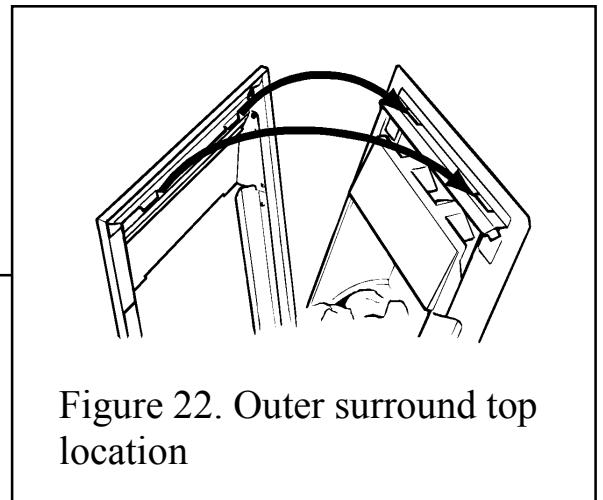


Figure 22. Outer surround top location

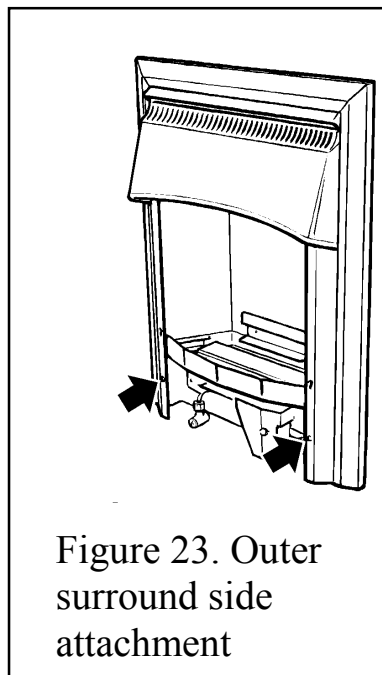
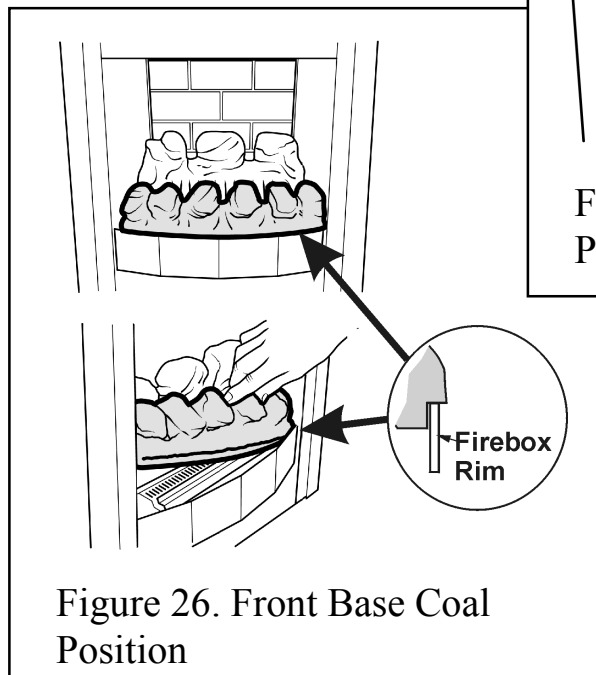
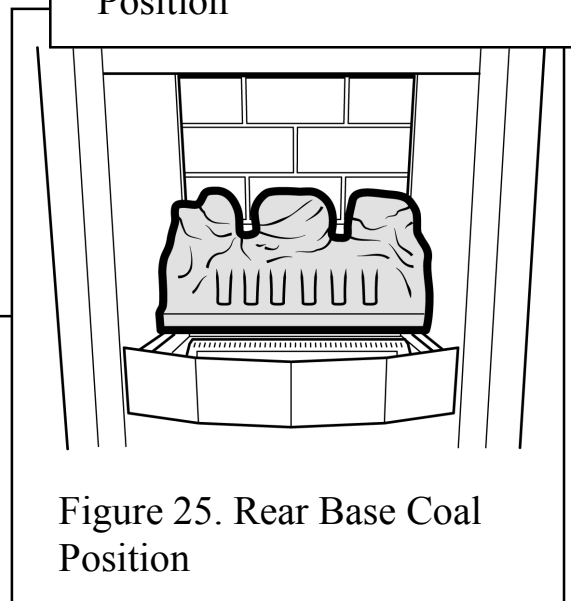
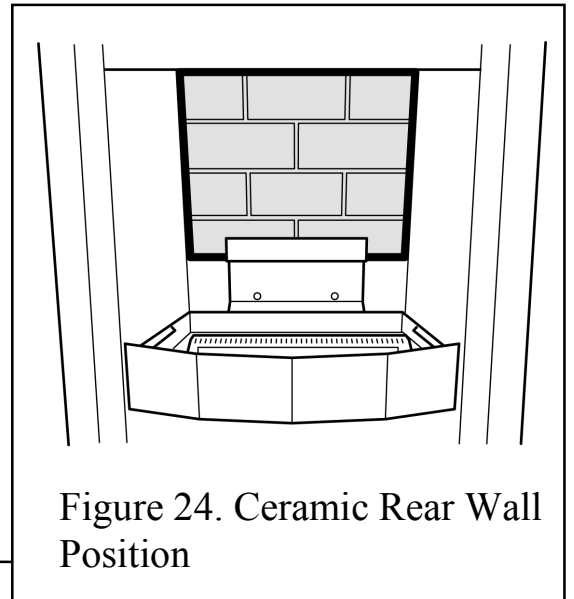


Figure 23. Outer surround side attachment

INSTALLER'S GUIDE

13 FITTING THE CERAMICS

1. Fit the ceramic rear wall into the bracket at the back of the firebox .See figure 24.
2. Place the rear base coal in the firebox. It should rest on the ledges at the sides and back of the firebox and its rear face should touch the rear ceramic wall. See figure 25.
3. Place the front base coal in the firebox with its bottom front locating over the front rim of the firebox. Pull the coal forward so that it locates immediately behind the front rim of the firebox. See figure 26.
4. There are two types of loose coals. These are identified with the letter "A" or "B" on the underside of the coal. There are three "A" coals and two "B" coals.



INSTALLER'S GUIDE

5. Place a type "A" coal between the front and rear base coals with the letter "A" upright and so that the coal is against the left side of the firebox. See figure 27.

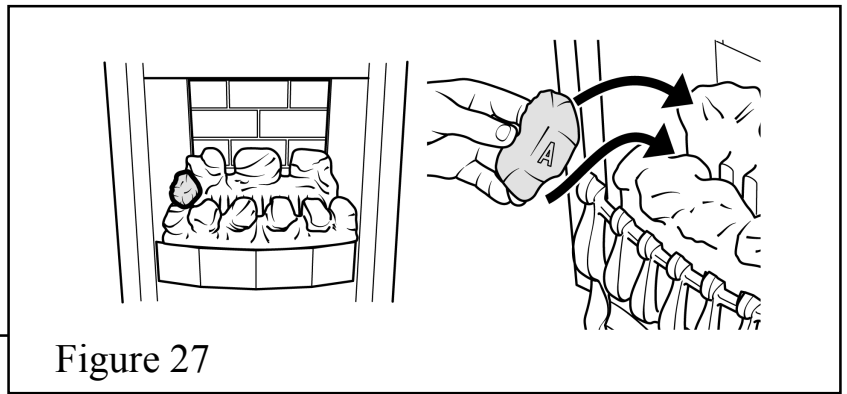


Figure 27

6. Place a type "B" coal between the front and rear base coals as shown in figure 28. The letter "B" should be upright.

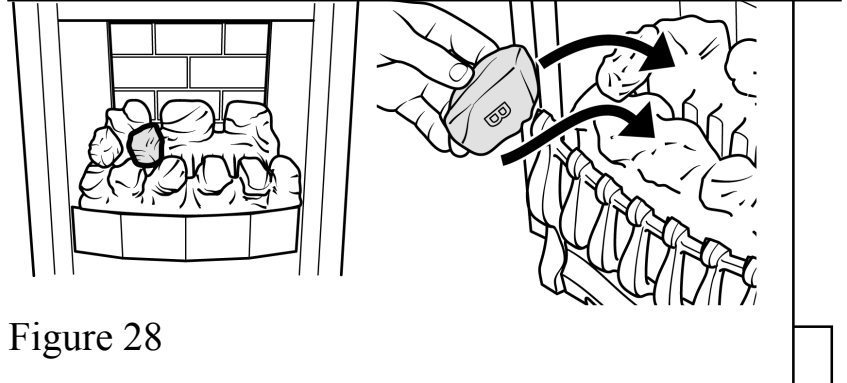


Figure 28

7. Place a type "A" coal between the front and rear base coals with the letter "A" upright. The top of the coal should rest against the centre coal of the rear base coal as shown in figure 29.

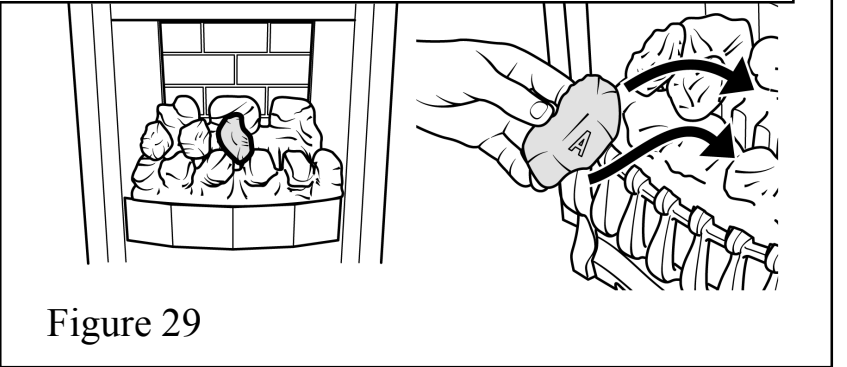


Figure 29

8. Place the remaining type "B" coal at the right side of the firebox between the front and rear base coals. The letter "B" should be upright. The coal should touch the right side of the firebox. See figure 30.



Figure 30

9. Place the remaining type "A" coal between the front and rear base coals. The letter "A" should be upside down with its rear face between the right and centre coals of the rear base coal. Angle the coal so that the gap between it and the type "B" coal to its right is appreciably larger than the gap between it and the type "A" coal to its left but do not have it touching the type "A" coal. This will give the best flame effect. See figure 31.

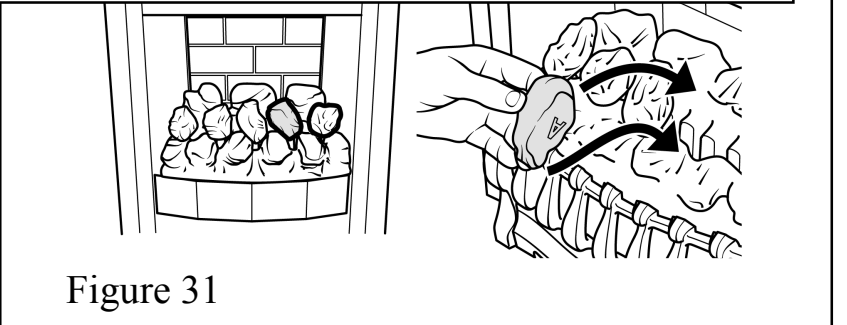


Figure 31

14 FULL OPERATING CHECKS

14.1 Check the Control Settings

The control position markings on the front surround are shown in figure 32.

Please note:

- *When first turned on from cold, the flames will appear predominantly blue.*
- *When operating the fire for the first time, some vapours may be given off which could set off smoke alarms in the vicinity. These vapours are quite normal with new appliances. They are totally harmless and will disappear after a few hours use.*

1. Make sure the slider button is at the off position (At topmost position marked "O" on the front surround).

2. Open the isolating valve on the inlet elbow.

3. Slide the button to the bottom (ignition) position marked ↓. Retain in this position to ignite the pilot. The burner should ignite at its lowest setting within 4 seconds of the pilot igniting. Keep at this position for a further 10 seconds to allow the pilot flame to stabilise.

4. Release the button. The button should automatically spring up to the low heat position. If the flames go out at this stage or when checking the rest of the setting positions, try the full lighting sequence again. If the flames fail after two attempts, investigate the pilot unit.

5. Gradually slide the button up to increase the burner setting. The burner should be at its maximum setting at the high heat position shown in figure 32. You should feel a check to the button movement at this position.

6. Slide the control button up past the high heat position to the off ("O") position at the top of the slide slot. Both pilot and main burner should go out.

While cooling the coals may make some crackling noises. This is quite normal.

7. Check that the control linkage bar does not interfere with the appliance cable retention nuts or wires.

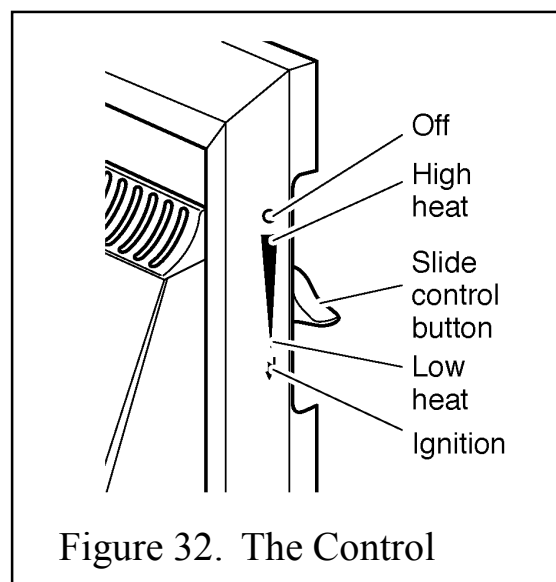


Figure 32. The Control

INSTALLER'S GUIDE

14.2 Check For Spillage

A spillage check must be made before leaving the installed appliance with the customer. Make this check with the appliance fully installed with the ceramic fuel effects and front surround in position.

1. Close all doors and windows in the room containing the appliance.
2. Light the appliance and set the slide control to the maximum burning position.
3. Leave the appliance on for five minutes.
4. Place the smoke match tube into the convection box at the right hand side and immediately below the black top cross member. Angle it at approximately 45° to the horizontal.

Insert the tube so that the neck of its flared end touches the inside surface of the edge of the cross member - See figure 33.

Keeping the neck of flared end in contact

with the edge of the cross member, slide the tube to the left until you feel it enter the notch in the edge of the cross member. Make sure that the tube is pointed upwards at 45° to the horizontal. The installation is satisfactory if the smoke is drawn into the appliance. If the smoke is not drawn into the appliance leave the appliance alight at the maximum setting for a further ten minutes and then repeat the test. If the smoke is still not drawn into the appliance inspect the sealing to the fireplace surround. If the sealing is satisfactory but the appliance is installed with the flue restrictor (see section 9 item 7) remove the restrictor, reseal the appliance and retest. If smoke is still not drawn into the appliance **disconnect the appliance and seek expert advice.**

If the above test is satisfactory open all internal connecting doors, hatches, etc. in the room. Keep all doors and windows that open to the outside of the building closed. Recheck for spillage as above. If an extractor fan is installed in the same room as the appliance or a connecting room, check that spillage does not occur with the fan operating and all doors and other openings between the fan and the appliance open.

5. If the smoke is drawn into the appliance, continue with the installation. If the test is not satisfactory **disconnect the appliance and advise the customer of the cause of failure.**

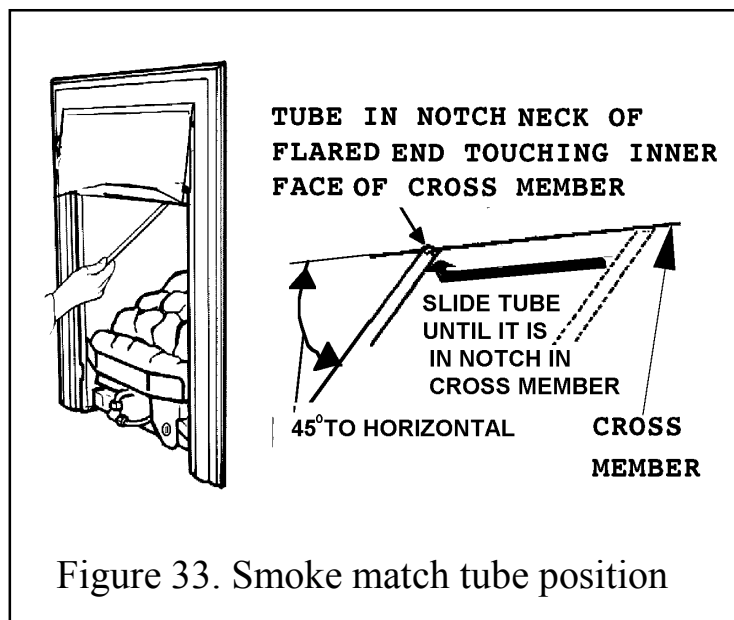


Figure 33. Smoke match tube position

14.3 Flame Supervision & Spillage Monitoring System

This pilot unit includes a system that will automatically shut off the gas supply if the pilot flame goes out or if there is insufficient oxygen due to spillage or poor ventilation. Check that the system operates properly as follows;

1. Light the appliance. Set the slide control to the maximum burning position and leave for one minute.
2. Set the control to the Low burning position. Isolate the gas supply at the inlet elbow. The pilot and main burner will go out. **Note the time when the pilot goes out.** Listen for a snap sound at the gas tap. **Note the time when the sound is heard.** This sound is caused by an electromagnetic valve shutting off the gas supply through the tap. The valve is located in the body of the tap. The valve should operate **within 60 seconds of the pilot going out.** If the valve does not operate within this time limit do not allow the appliance to be used until the fault has been corrected.

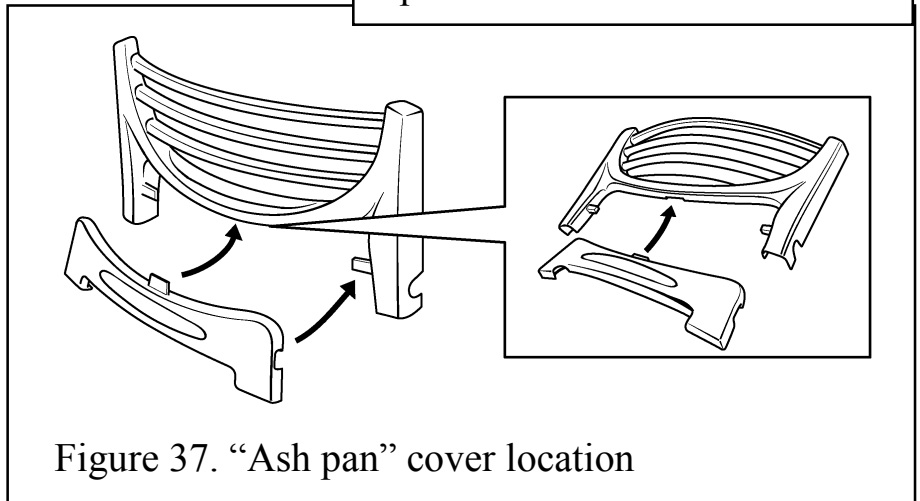
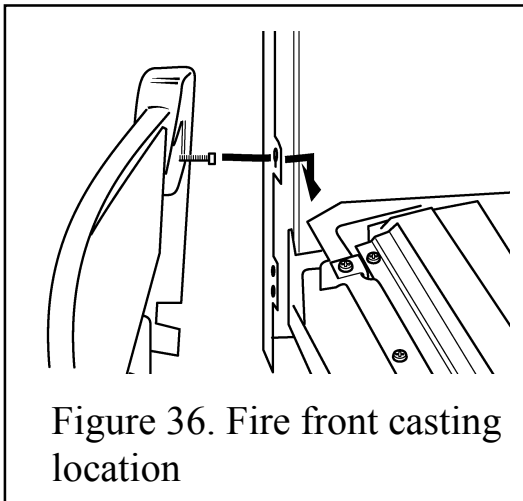
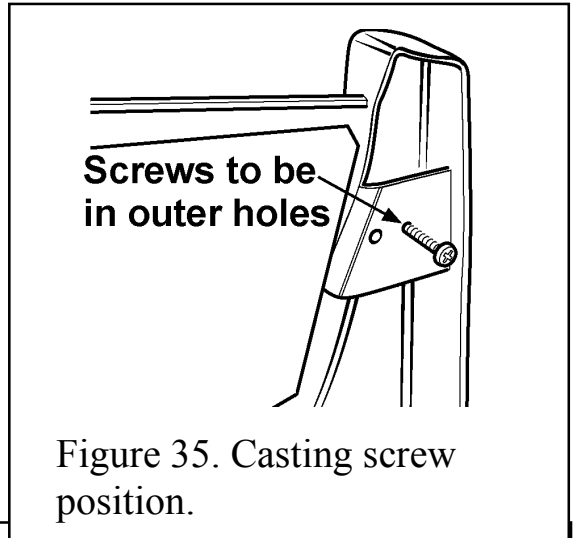
This monitoring system must not be adjusted, bypassed or put out of operation. This monitoring system, or any of its parts, must only be exchanged using authorised parts.

3. Open the isolating valve on the inlet elbow. Screw on the end cap and test for leaks. Set the slider to the "Off" position.

INSTALLER'S GUIDE

15 FRONT CASTINGS INSTALLATION

1. Check that the two screws in the back of the fire front casting are in the inner threaded holes. If they are in the outer holes, relocate them. See figure 35.
2. Locate the two screw heads through the keyhole slots at the inner sides of the surround. If the screw heads do not project enough or project too far, the screws can be adjusted. Lower the casting so that it rests on the hearth. See figure 36.
3. Fit the “ash pan” cover below the front casting
4. locating it as shown in figure 37.



16 FINAL REVIEW

1. Visually inspect the appliance. Clean off any marks incurred during installation.
2. Advise the customer how to operate the appliance. Point out that lighting instruction details are on the metal plate attached at the bottom of the appliance (Leave the plate visible in front of the bottom front cover as a reminder).
3. Explain to the customer that the appliance has a flame failure & spillage monitoring system. Point out the explanation of this system shown in the users instructions under “Operating the fire”. Advise that if the fire goes out for any reason, wait at least three minutes before relighting. Stress that if the monitoring system repeatedly shuts off the fire, the appliance should be switched off and a specialist should be consulted.

INSTALLER'S GUIDE

4. Advise the customer that they should read their Owner's guide before operating the fire and always follow the advice in the section headed "Cleaning".

5. **Stress that no extra coals must be added over and above those supplied with the appliance and that any replacements must only be the authorised spares. Warn that ignoring this advice could cause incomplete clearance of the products of combustion with consequent health hazards.**

6. Advise the customer that the appliance will operate to its maximum potential if the flue is primed during the first 20 – 30 minutes of use. To do this, simply slide the control to its highest setting. This will also burn off any carbon deposits that may have formed during previous use.

If using the appliance for long periods it is beneficial to change between settings. This will also help to remove any carbon deposits that may form during use.

7. Recommend that the appliance should be serviced by British Gas or Scottish Gas at least annually.

If the appliance is in premises in the United Kingdom occupied by a tenant, point out that by law a landlord must have any gas appliance, flue and pipework which is situated in a tenant's premises checked for safety at least every 12 months.

17 SERVICING & PARTS REPLACEMENT

Always turn off the gas supply before commencing any servicing (The appliance inlet "T" connector incorporates an isolating valve).

It is recommended that, at least once a year, the appliance is disconnected and the fireplace opening checked and cleared of any debris.

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

INSTALLER'S GUIDE

- Check that the appliance is clean and that soot or debris is not blocking the gaps between the coals causing an imperfect flame.
- Check that soot or debris is not impairing the electrode spark or pilot burner.
- Check that soot or debris is not blocking any of the slots in the main burner.
- After servicing, make sure that the ceramic rear wall and coals are replaced correctly as described in the installation instructions.
- **Always test for gas soundness and spillage after servicing the appliance.**

17.1 To Remove the Ignition Microswitch

See figures 38 & 39.

The ignition microswitch is stamped V4NT9C4YC

1. Remove the bottom front cover and the fire front casting.
2. Detach the microswitch cover by removing one screw and pulling clear of the location lug. See figure 38.
3. Disconnect the leads from the ignition microswitch (The lower of the two microswitches - See figure 39).
4. Detach the microswitch and insulation pad by removing two screws.
5. Replace in the reverse order. Check that the microswitch operates correctly by fully closing it and observing that there are sparks at the pilot electrode.

17.2 To Remove the Gas Shut-Off Microswitch

See figures 38,39 & 40.

The gas shut-off microswitch is stamped V4NT9C2YCGPX or V4NT9C2YCAUX.

1. Remove the bottom front cover and the fire front casting.

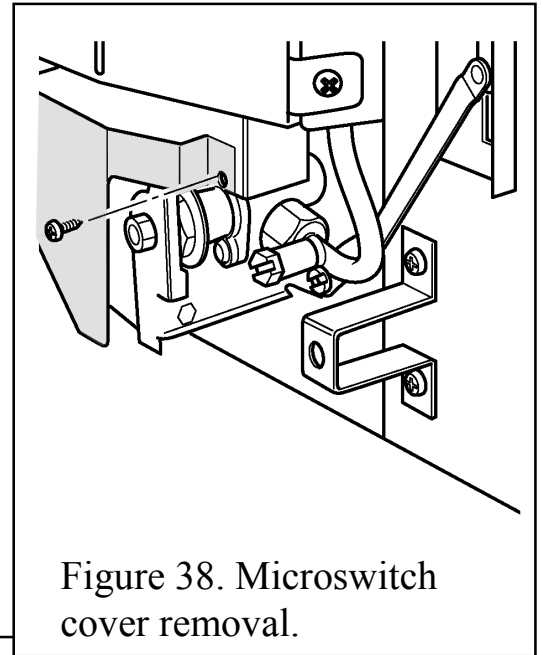


Figure 38. Microswitch cover removal.

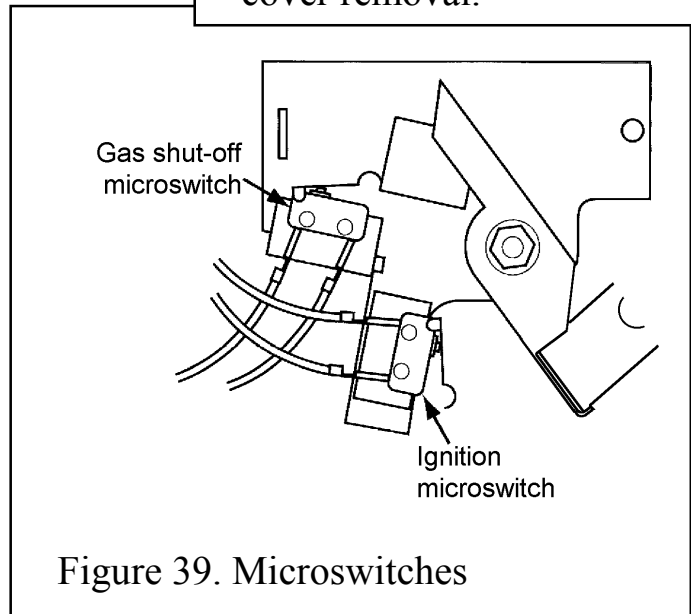


Figure 39. Microswitches

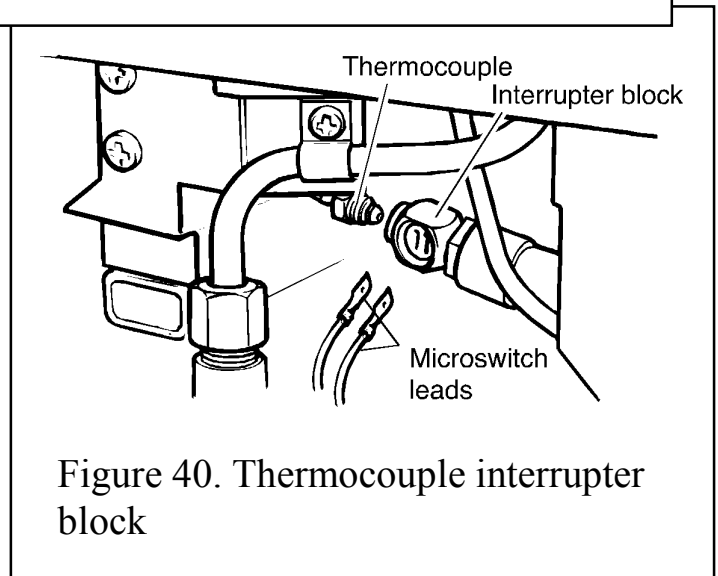


Figure 40. Thermocouple interrupter block

INSTALLER'S GUIDE

2. Detach the microswitch cover by removing one screw and pulling clear of the location lug. See figure 38.
3. Loosen the thermocouple nut to free the microswitch leads and pull the leads clear of the thermocouple interrupter block. See figure 40.
4. Detach the microswitch assembly by removing two screws. See figure 39.
5. Replace in the reverse order. When refitting the leads to the interrupter block, make sure that they are secured firmly to give a good electrical contact.

17.3 To Remove the Fire Front Surround

1. Lift the fire front casting up and forward to release the locating screw heads at the back of the casting from the keyholes in the surround sides. Lift the castings clear.
2. Remove the two screws securing the bottom of the front surround to the sides of the convection box. See figure 41.
3. Raise the front surround to allow the retaining lugs at the top to clear the slots in the convection box hood. See figure 41. Carefully remove the surround. Place carefully aside.
4. Refit as follows: -
 1. Locate the two lugs at the top of the front surround in the slots in the convection box hood. Swing the bottom of the surround sides back against the convection box and lower the surround so that the lugs are fully seated in the slots in the convection box hood.
 2. Fit the two screws to secure the surround sides to the convection box brackets.

17.4 To Replace the Control Slide Knob

1. Remove the front surround - See section 17.3.
2. Detach the slider knob from the slider bar by removing two screws. See figure 42.
3. Refit in the reverse order.

17.5 To Remove the Burner Unit

1. Remove the five loose coals, the front base coal and the rear base coal.
2. Remove the bottom front and fire front castings and the front surround - See section 17.3.

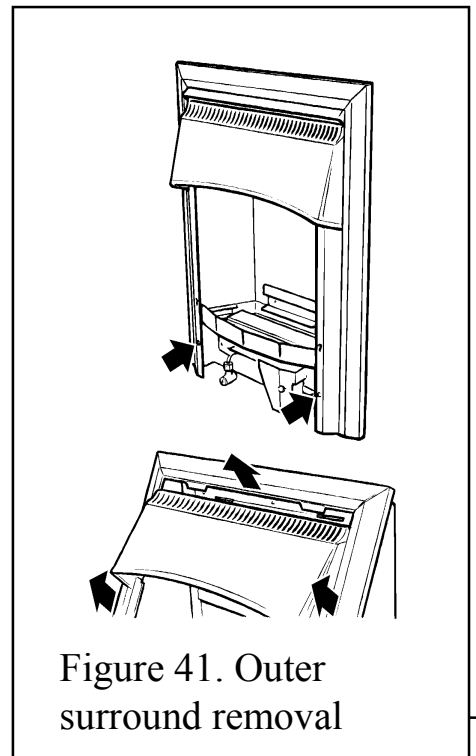


Figure 41. Outer surround removal

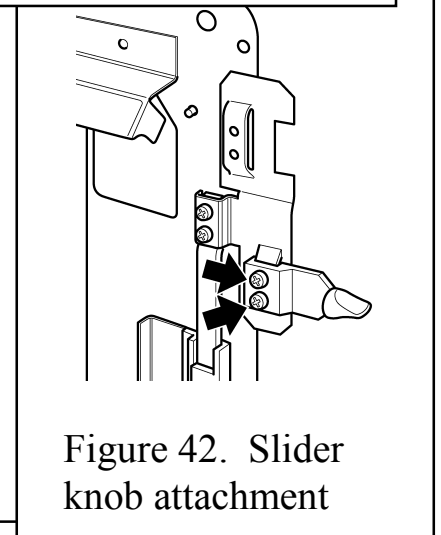


Figure 42. Slider knob attachment

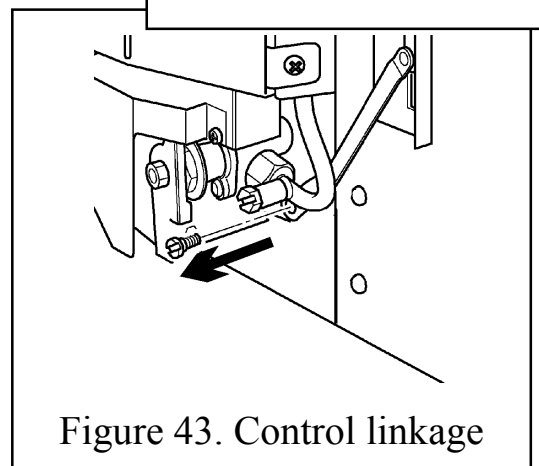
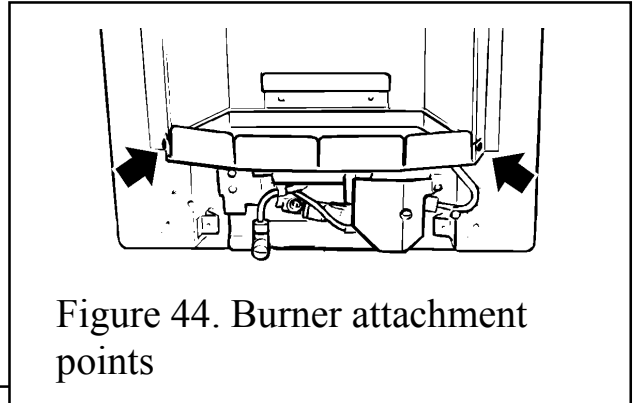


Figure 43. Control linkage

INSTALLER'S GUIDE

3. Disconnect the control linkage by removing the knurled screw that connects the control linking bar with the control pivot unit. See figure 43.
4. Support the inlet isolating elbow to avoid straining the pipework and disconnect the appliance from the elbow.
5. Remove the burner assembly by removing the



- three fixing screws, one at each end of the burner tray and one next to the igniter unit. See figure 44.
6. Refit in the reverse order.

17.6 To Remove the Electronic Ignition Generator

1. Remove the bottom front and fire front castings, and front surround - See section 17.3.
2. Remove the battery.
3. Remove the burner unit – see section 17.5.
4. Remove the two leads to the switch and remove the spark lead, marking them if necessary to ensure that they are refitted to the correct terminals.
5. Remove the two fixing screws that attach the generator unit to the bracket. The igniter generator can now be exchanged.
6. Refit in the reverse order.

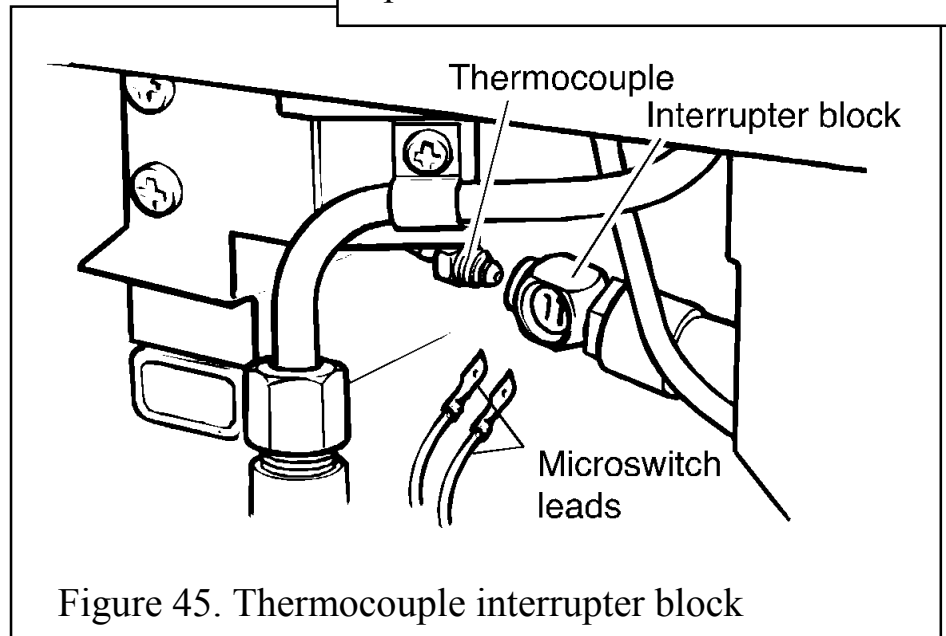


Figure 45. Thermocouple interrupter block

17.7 To Remove the Thermocouple Interrupter Block

See figure 45.

1. Lift the fire front casting up and forward to release the locating screw heads at the back of the casting from the keyholes in the surround sides. Lift the castings clear.
2. Detach the thermocouple from the interrupter block by unscrewing the thermocouple nut.
3. Detach the two microswitch leads from the interrupter block.
4. Remove the interrupter block by unscrewing from the gas shut-off tap.
5. Refit in the reverse order. If the microswitch leads cannot be easily attached to the interrupter block when it is fully tightened to the gas shut-off tap, slacken it and rotate to allow the leads to be fitted. Retighten making sure that the leads remain in place in the

INSTALLER'S GUIDE

interrupter block. Fit and tighten the thermocouple nut making sure that the leads are secured in the interrupter block to give a good electrical contact.

17.8 To Remove the Pilot Unit

1. Remove the burner unit - See section 17.5.
2. Detach the pilot pipe from the gas shut-off tap.
3. Detach the thermocouple from the interrupter block by unscrewing the thermocouple nut.
4. Detach the electrode lead from the underside of the electrode tab.
5. Remove the first screw securing the dust cage to the pilot unit & burner. Carefully remove the dust cage and place aside. See figure 46.
6. Remove the second screw securing the pilot unit to the burner. Remove the pilot unit and place it aside. See figure 46.
7. Disconnect the pilot pipe from the pilot unit elbow.
8. Refit in the reverse order.

Note: 1. The pilot unit is an atmosphere sensing device. It must be replaced as a whole assembly. Its individual components are not separately replaceable.

2. Once removed, ensure that the dust cage is cleaned before refitting. Make sure that it locates squarely onto the pilot unit without any gaps between the cage edges and the pilot unit.

3. When the thermocouple is removed from the interrupter block, the microswitch lead terminals in the interrupter block will be loose. Make sure that they are properly secured to give a good electrical contact when retightening the thermocouple nut.

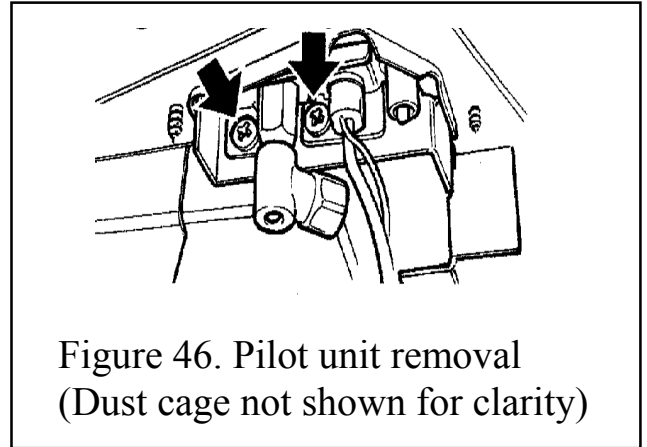


Figure 46. Pilot unit removal
(Dust cage not shown for clarity)

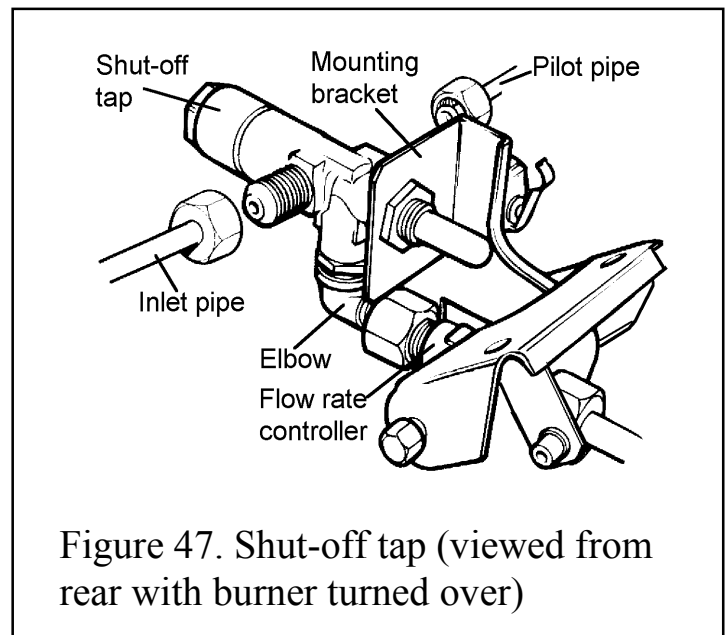


Figure 47. Shut-off tap (viewed from rear with burner turned over)

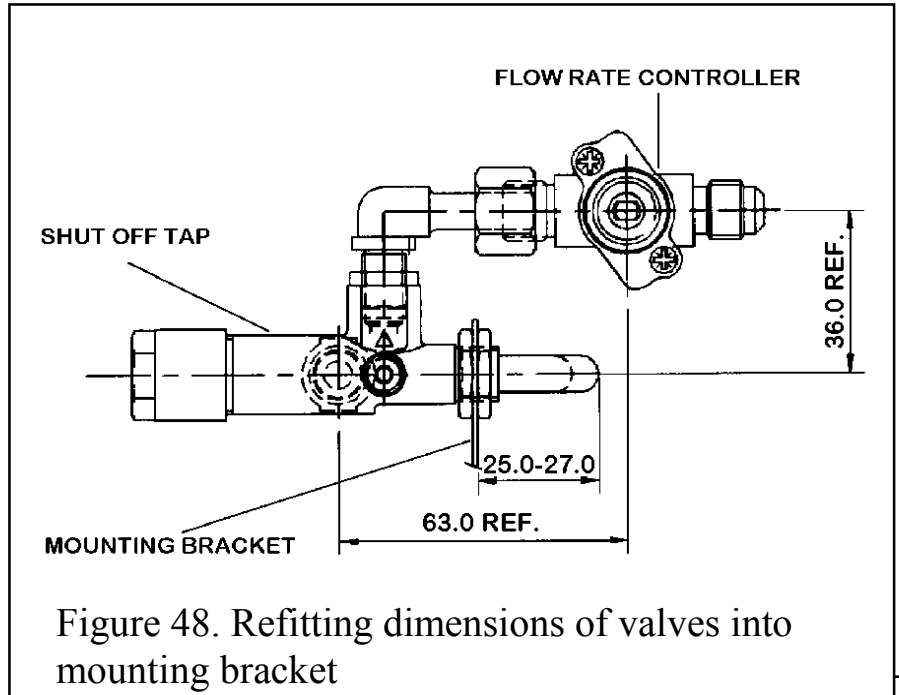
17.9 To Remove the Shut-Off Tap

See figure 47.

1. Remove the burner unit - See section 17.5.

INSTALLER'S GUIDE

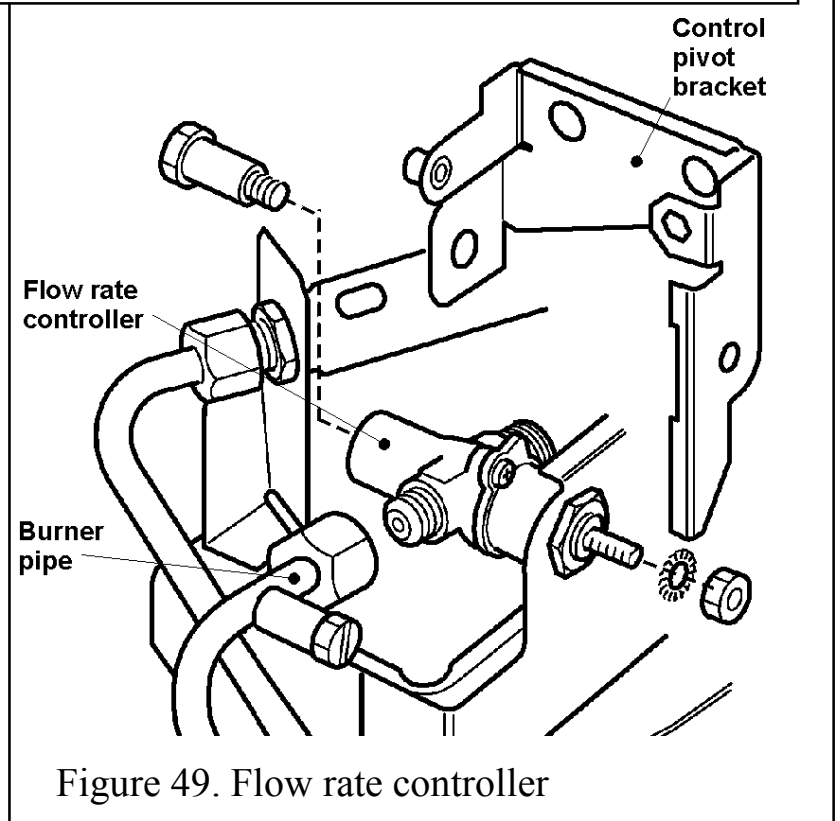
2. Turn the burner unit upside down. Detach the thermocouple and interrupter block from the tap - See section 17.7 paragraphs 2 – 4.
3. Detach the pilot pipe from the tap.
4. Detach the inlet pipe.
5. Remove the hexagonal nut securing the tap to the mounting bracket.
6. Detach the elbow by unfastening the hexagonal nut connecting it to the flow rate



controller. Lift the tap (complete with elbow) clear.

7. Loosen the hexagonal locknut securing the elbow to the tap. Remove the elbow by rotating it.
8. If fitting a new tap, remove the hexagonal nut at the mounting bracket end of the old tap and fit to the replacement tap. Prior to refitting the elbow to the shut-off tap, apply an approved sealant to the elbow thread. Refit in the reverse order. Refer to figure 48 to ensure accurate refitting dimensions of the valves and subsequently into the mounting bracket. When refitting, make sure that the tap spindle is in the correct relationship relative to the control

pivot bracket. Rotate the pivot bracket fully clockwise. The tap spindle should “bottom out” (i.e. the tap should be fully open) after the pivot bracket has actuated the ignition microswitch but before it has pushed the microswitch leaf against the microswitch body. When refitting the thermocouple and interrupter block, make sure that the microswitch wires are properly secured to give a good electrical contact.



INSTALLER'S GUIDE

17.10 To Remove the Gas Flow Rate Controller

See figure 49.

1. Remove the burner unit - See section 17.5.
2. Detach the microswitch cover - See section 17.1 paragraph 2.
3. Detach the shut-off tap as detailed in section 17.9 paragraphs 2-6.
4. Detach the burner pipe from the controller. Support the controller while detaching to prevent excessive strain.
5. Remove the nut and washer securing the control pivot bracket to the controller at the front. Support the pivot

bracket while removing the nut to prevent possible damage to the microswitch.

6. Remove the hexagonal bolt securing the control pivot bracket to the controller at the rear.

7. Detach the control pivot bracket.

8. Remove the hexagonal nut securing the controller to the front mounting bracket and remove the flow rate controller.

9. Refit in the reverse order.

17.11 To Remove the Main Burner Injector

See figure 50.

1. Remove the burner unit - See section 17.5.
2. Disconnect the main burner pipe from the injector at the venturi end. If necessary, loosen the pipe at the flow rate controller end to swing the pipe clear of the injector.
3. Unscrew the injector from the rear support bracket.
4. Refit in the reverse order.

17.12 To Replace Burner Plaques

See figure 51.

1. Remove the five loose coals, the front base coal and the rear base coal.
2. Lift the fire front casting up and forward to release the locating screw heads at the back of the casting from the keyholes in the surround sides. Lift the castings clear. The plaques can be then be removed as follows without detaching the front surround.

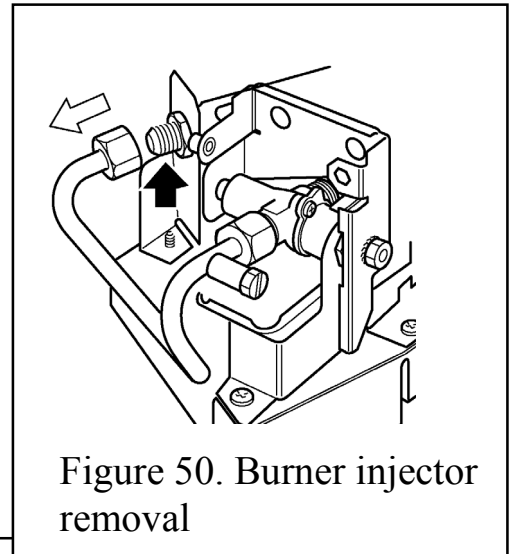


Figure 50. Burner injector removal

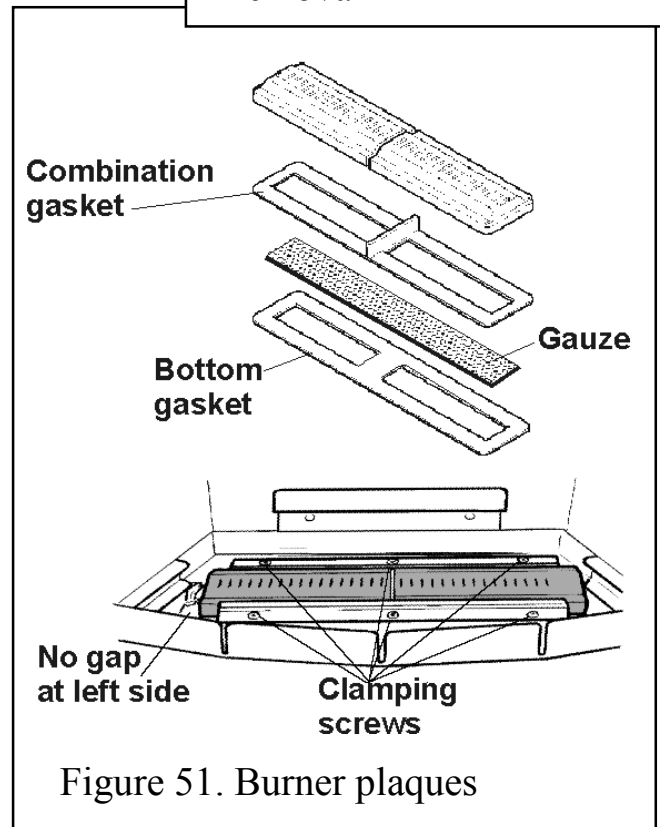


Figure 51. Burner plaques

INSTALLER'S GUIDE

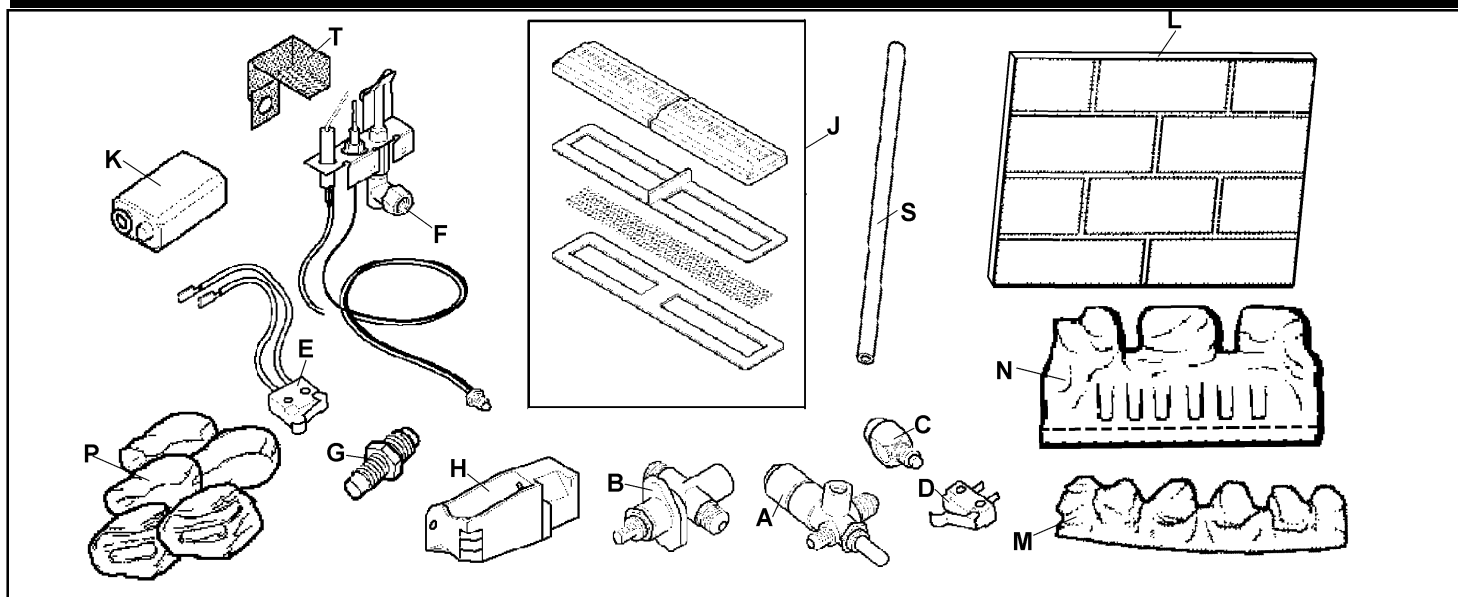
3. Remove the plaque clamping strips by detaching six screws.
4. Remove the plaques and the combination gasket between and under the plaques. If necessary remove the gauze and the gasket beneath it.
5. If necessary fit a new gasket below the gauze. Clean and replace the gauze. Fit a new combination gasket below the plaques. Push the gasket ends inwards to form a dividing gasket between the plaques.
6. Place the new left hand plaque in position. The left side of the plaque must touch the inside edge of the retaining flange at the left side of the burner well.
7. Place the new right hand plaque in position. Make sure that the centre section of the combination plaque is between the two plaques. If there is any play between the plaques and the end retaining flanges, push the plaques firmly to the left squeezing the centre section of the combination gasket between the two plaques. Any gap should be between the right side of the plaque and the right side retaining flange.
8. Fit the front and rear plaque clamping strips. Make sure that the plaques are as far to the left as possible. **It is important that the left side plaque is accurately positioned so that it has the correct relationship to the pilot.** Fully tighten the clamping strips.
9. Refit the ceramic fuel effects and walls as described in section 13 of this manual.

17.13 To Remove the Appliance from the Fireplace

1. Remove the five loose coals, the front base coal and the rear base coal.
2. Remove the bottom front and fire front castings and the front surround - See section 17.3.
3. If the appliance is fixed to the fireplace floor remove the burner unit (See section 17.5) and remove the two floor fixing screws.
4. If the appliance is attached by the front fixing method (See section 10.1), remove the four screws attaching the convection box side flanges.
5. If the appliance is fixed by the cable method (See section 10.2), slacken the hexagonal adjusters on the cable retainers and unscrew the thumbscrews to release the cables.
6. Refit as described in the relevant installation sections. Make sure gas soundness, sealing, spillage test and performance are satisfactory.

INSTALLER'S GUIDE

18 SHORT LIST OF SPARES



KEY NO.	DESCRIPTION	NO. OFF	MAKER'S PART NO.
A	Shut-off tap	1	0540899
B	Gas flow rate controller	1	0540919
C	Thermocouple interrupter block	1	0522389
D	Ignition microswitch	1	0540959
E	Gas shut-off microswitch	1	0540969
F	Pilot unit - <i>For Natural Gas Appliances</i>	1	0540979
	Pilot unit - <i>For Propane Gas Appliances</i>		0544929
G	Injector Bray cat 18 size 400 - <i>For Natural Gas Appliances</i>	1	0569519
	Injector Bray cat 15 size 170 - <i>For Propane Gas Appliances</i>	1	0581199
H	Igniter unit	1	0554949
J	Burner plaque & gasket set	1	0569439
K	Battery 9V Size "PP3"	1	0553389
L	Ceramic rear wall	1	0579339
M	Front coal	1	0579119
N	Rear base coal	1	0579129
P	Pack of loose coals	1	0579149
S	Smoke match tube	1	0541169
T	Dust cage	1	0567619
-	Installation template (Not illustrated)	1	0564759