

INSTALLER'S GUIDE

Eclipse

INSET LIVE FUEL EFFECT GAS FIRE



Model 654

(GC No. 32-032-48)

**THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20)
WHEN CONVERTED USING CONVERSION KIT NO. 0595201 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.**

We trust that these instructions give sufficient details to enable this appliance to be installed and maintained satisfactorily. However, if further information is required, our Wonderfire **Technical Helpline** will be pleased to help.

Telephone **08706 061 065**

INSTALLER: Please leave this guide with the owner

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Safety First.

Wonderfire fires are CE Approved and designed to meet the appropriate British Standards and Safety Marks.



Quality and Excellence.

At the heart of every Wonderfire fire.

All Wonderfire fires are manufactured to the highest standards of quality and excellence and are manufactured under a BS EN ISO 9001 quality system accepted by the British Standards Institute.



The Highest Standards

Wonderfire is a member of the Society of British Gas Industries which works to ensure high standards of safety, quality and performance.



Careful Installation

Wonderfire is a CORGI registered company. All our gas fires must be installed by a competent CORGI Registered Installer in accordance with our Installer Guide and should not be fitted directly on to a carpet or floor of combustible material.

**Wonderfire**

Wonderfire, Erdington, Birmingham B24 9QP
www.firesandstoves.co.uk

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

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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 is 11.0 kg. One person should be sufficient to lift the fire. 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	0595201
Pre cast and clay flue block spacer kit	05654K1
Chrome effect Decorative Surround trim	05654A1
Brass effect Decorative Surround trim	05654B1
Rose Gold effect Decorative Surround trim	05654C1

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3. APPLIANCE DATA

This product uses fuel effect pieces 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 located on a plate at the base of the fire. This can be seen by lowering the bottom front cover of the front surround.

Gas	Natural (G20)	Propane (G31)*
Inlet Pressure	20mbar	37mbar
Input - Max. (Gross)	5.1kW (17,400 Btu/h)	5.1kW (17,400 Btu/h)
Input - Min. (Gross)	2.2kW (7500 Btu/h)	3.5kW (11940 Btu/h)
Burner Test Pressure (Cold)	18.2 ± 0.75mbar (7.3 ± 0.3in w.g.)	35.5 ± 0.75mbar (14.25 ± 0.3in w.g.)
Gas Connection	8mm pipe	8mm pipe
Burner Injector	Bray Cat. 18 Size 300	Bray Cat. 18 Size 140
Pilot & Atmosphere Sensing Device	SIT Ref. OP NG9030	SIT Ref. OP LPG9222
Ignition	Piezo Electric. Integral with Gas Tap	Piezo Electric. Integral with Gas Tap
Aeration	Non-adjustable	Non-adjustable

* When converted using kit 0595201

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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 1289 Part 2	BS 5440 Part 1	BS 6461 Part 1
BS 1251	BS EN 1806	BS 5440 Part 2	BS 6891
BS 1289 Part 1	BS 4543 Part 2	BS 5871 Part 2	BS 8303

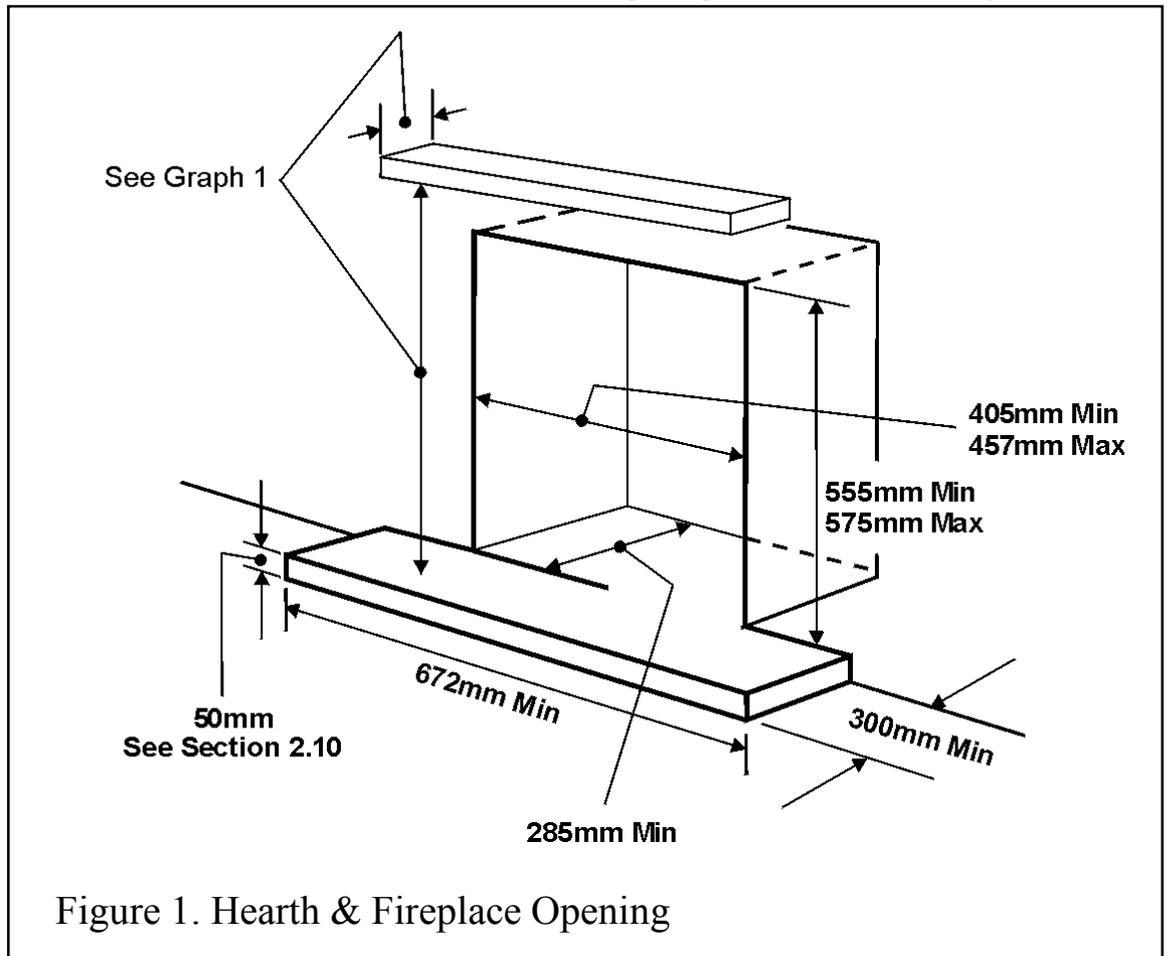
In England and Wales, the current edition of the Building Regulations issued by the

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



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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 In the United Kingdom, as supplied, the appliance can be installed in the following situations: -

4.2.1 To a fireplace complete with surround and hearth as shown in figure 1 and complying with BS1251 after removal of the fireback and sufficient material behind the fireback

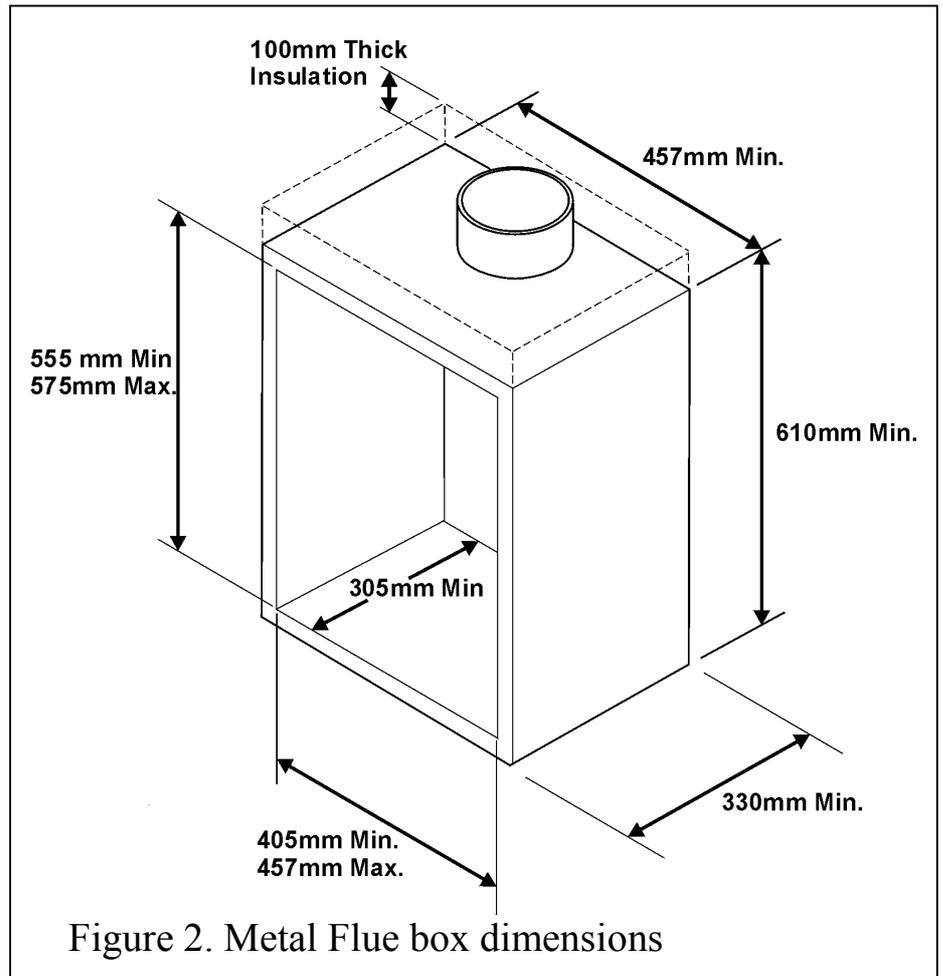
for a debris catchment space. The required fireplace, hearth, debris catchment area and clearance dimensions are shown in figure 1.

4.2.1.1 'Hole-in-the-wall' Installations

- It is recommended that a hearth should be installed as in figure 1.
- If a hearth is not fitted, the fire must be installed so that the distance from the base of the fireplace opening in the wall to the finished floor level is at least **165mm**.

4.2.2 To a fireplace incorporating a metal flue box complying with the constructional requirements of the current edition of BS715. The dimensions of the flue box must conform to those shown in figure 2.

4.2.3 A precast concrete or clay flue block system conforming to BS1289 or BS EN 1806 with dimensions as in figure 3 or using a 05654K1 spacer kit (Installation instructions part number 3003095). The current versions of BS1289 and BS EN 1806 recommend 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.



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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.

4.2.4 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.

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

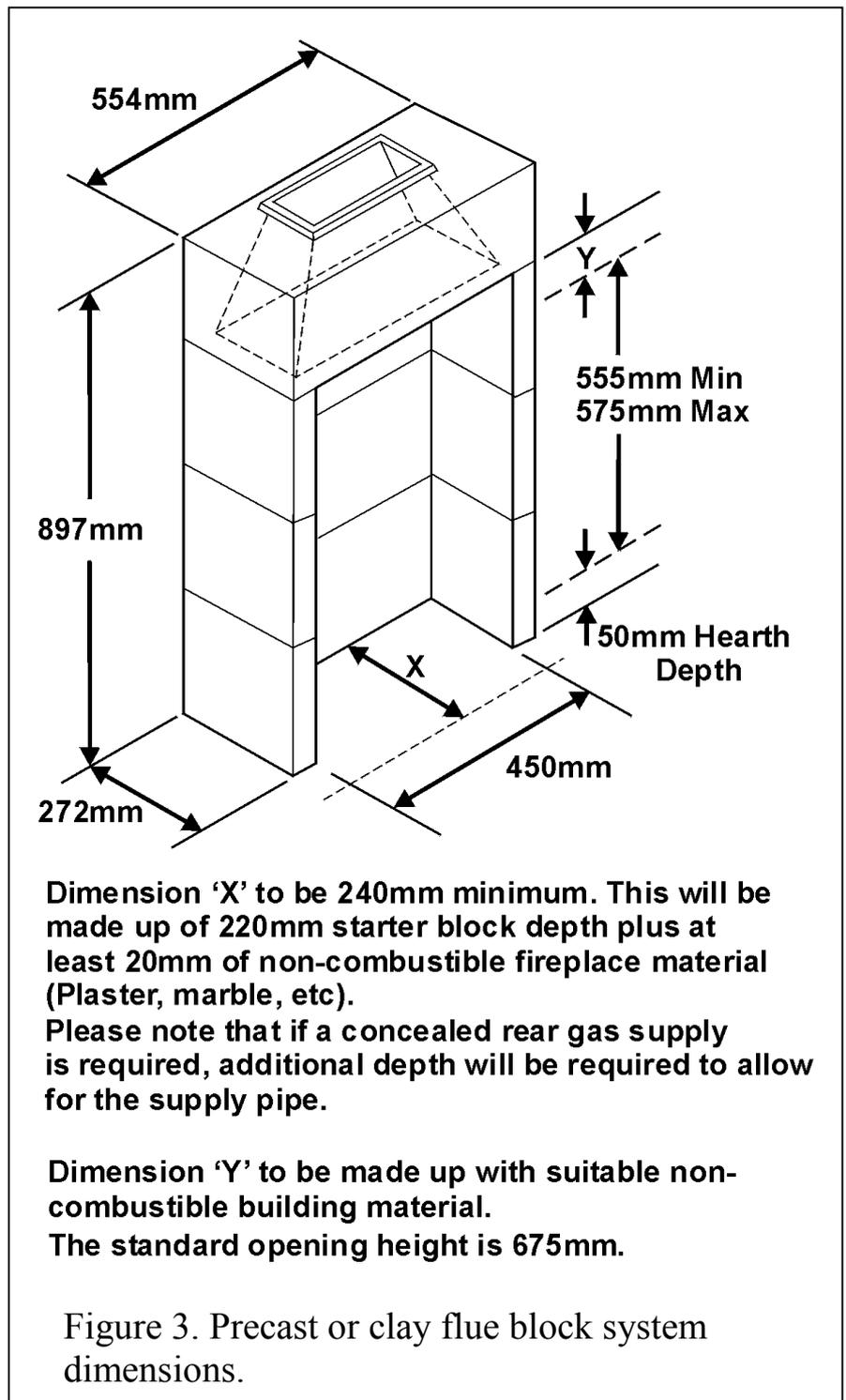
It should be noted that, as with many appliances, sharp bends or horizontal runs in metal flues at the top of the system can be a cause of problems in these types of installation.

- 225mm x 225mm conventional brick flue.
- 175mm diameter lined brick or stone flue.
- 200mm diameter factory made insulated flue manufactured to BS4543.

- 175mm diameter flue pipe.

See BS6461 Part 1 for suitable materials.

- Single wall, twin wall or flexible flue liner with a minimum diameter of 125mm. The materials to be used are stainless steel or aluminium as specified in BS715. The liner must be sealed to the surrounding area above the fireplace opening and to the top of the chimney. An approved terminal must be fitted.



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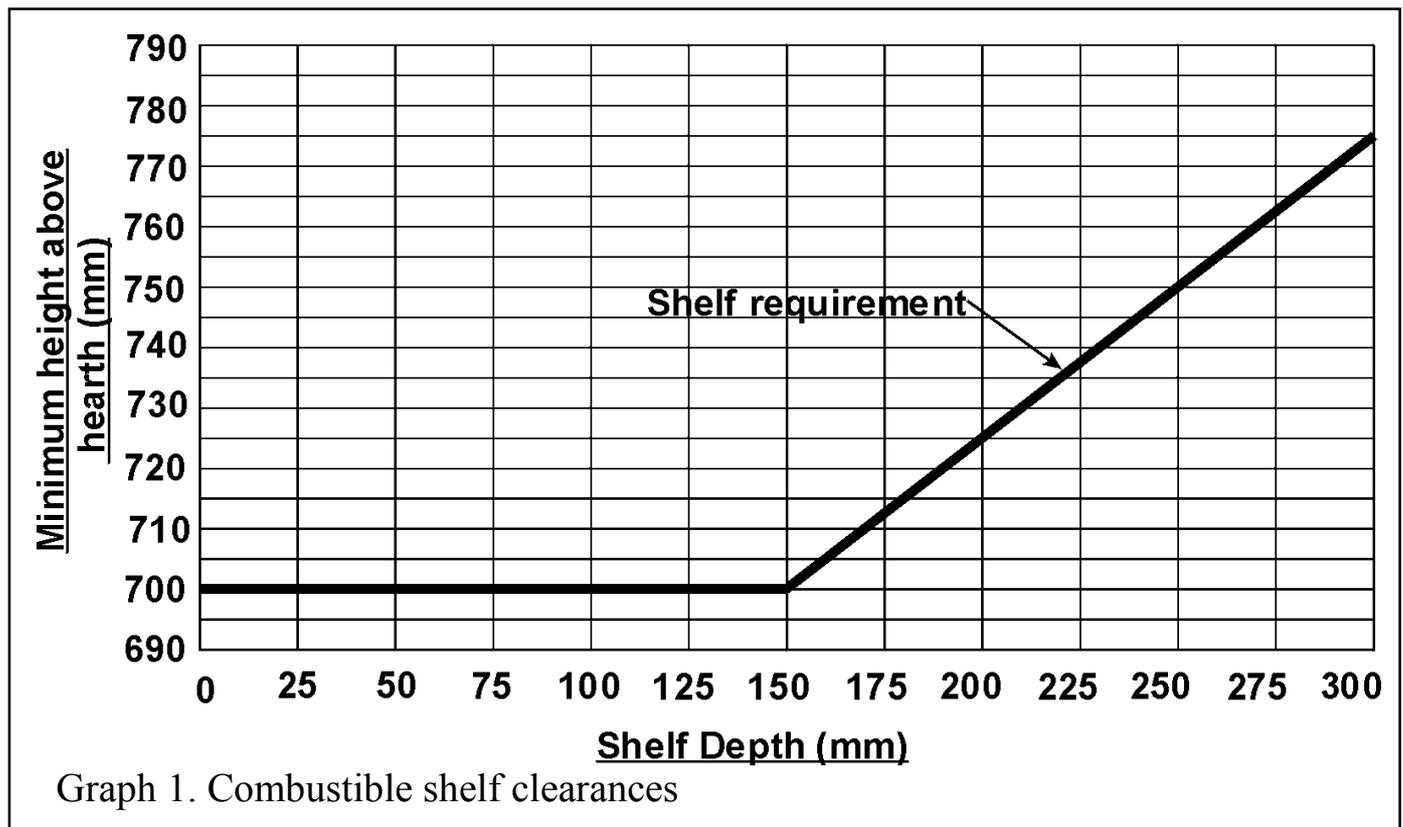
- 4.4** The flue must conform to BS 5440: Part 1 in design and installation. The flue, measured from the bottom of the fireplace opening to the bottom of the terminal, shall be not less than 3m in actual vertical height. When calculated in accordance with BS 5440: Part 1 Annex A, the minimum **equivalent** height of the flue shall be 2.0m of 125mm-dia. flue pipe.
- 4.5** The flue must not be used for any other appliance or application.
- 4.6** Any chimney damper or restrictor should be removed. If removal is not possible, they must be secured in the open position.
- 4.7** 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.
- 4.8** If the fireplace opening is an underfloor draught type, it must be sealed to stop any draughts.
- 4.9** 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 and the bottom front cover 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.
- 4.10** The front face of the fireplace should be reasonably flat over the area covered by the hotbox 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 hotbox can be made.

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4.11 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 below: -

- *For a shelf up to 150mm deep*
Minimum height = 700mm.
- *For a shelf deeper than 150mm*
Minimum height = 700mm + 12.5mm for every 25mm depth over 150mm.

See graph 1.



4.12 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.

4.13 This appliance must not be installed in any room that contains a bath or shower or where steam is regularly present.

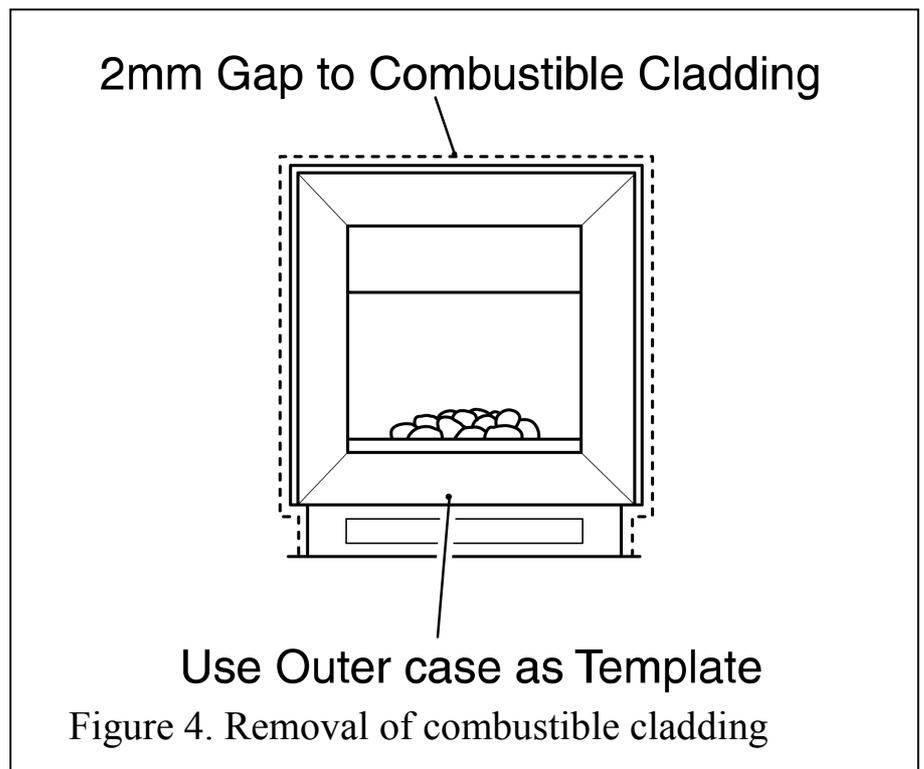
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4.14 An extractor fan may only be used in the same room as this appliance, or in any area from which ventilation for the appliance is taken, if it does not affect the safe performance of the appliance. Note the spillage test requirements detailed further 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 In the United Kingdom (GB) no special ventilation bricks or vents are normally required in the room for this appliance. In the Republic of Ireland (IE) permanent ventilation must comply with the regulations currently in force.

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

4.17 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. The cladding must also not touch the surround. (See figure 4). We suggest that the actual surround is used as a template to mark the area for combustible cladding removal and that this area is increased by at least 2mm all round. If the cladding projects forward from the fixing plane of the fire the clearance at the top of the appliance must be increased to a minimum 15mm. This will allow for surround removal.

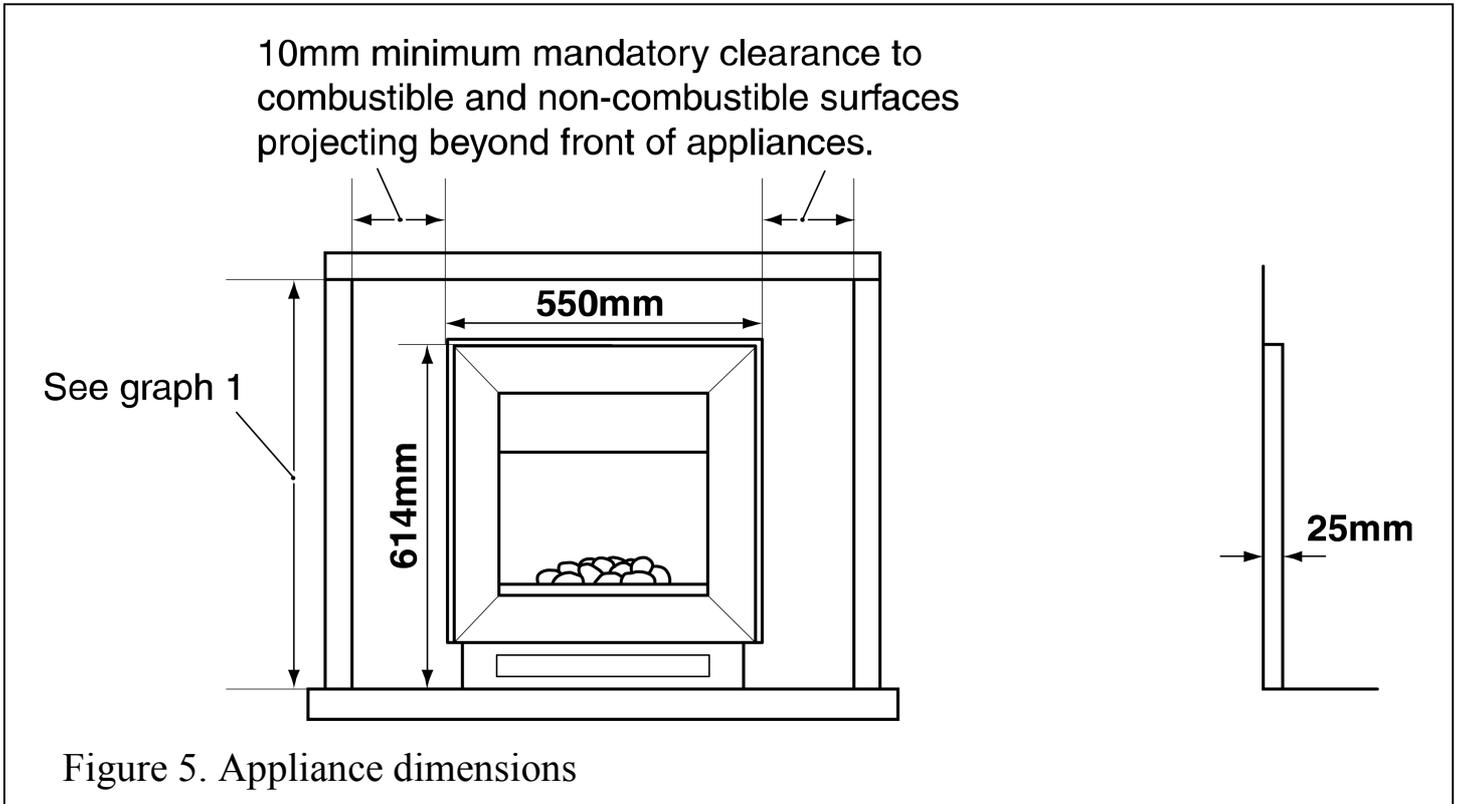


If the cladding projects forward from the fixing plane of the fire the clearance at the top of the appliance must be increased to a minimum 15mm. This will allow for surround removal.

4.18 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.

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4.19 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 shown in figure 5.



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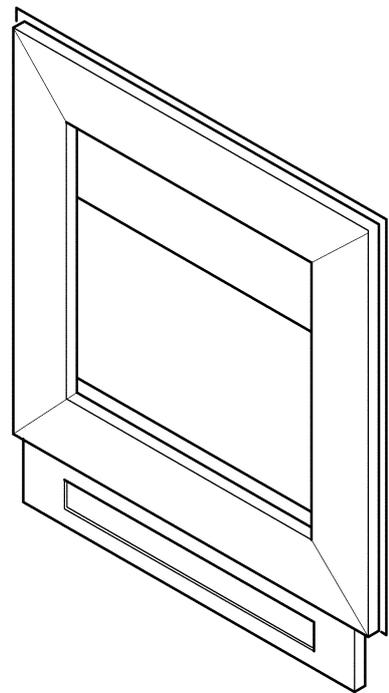
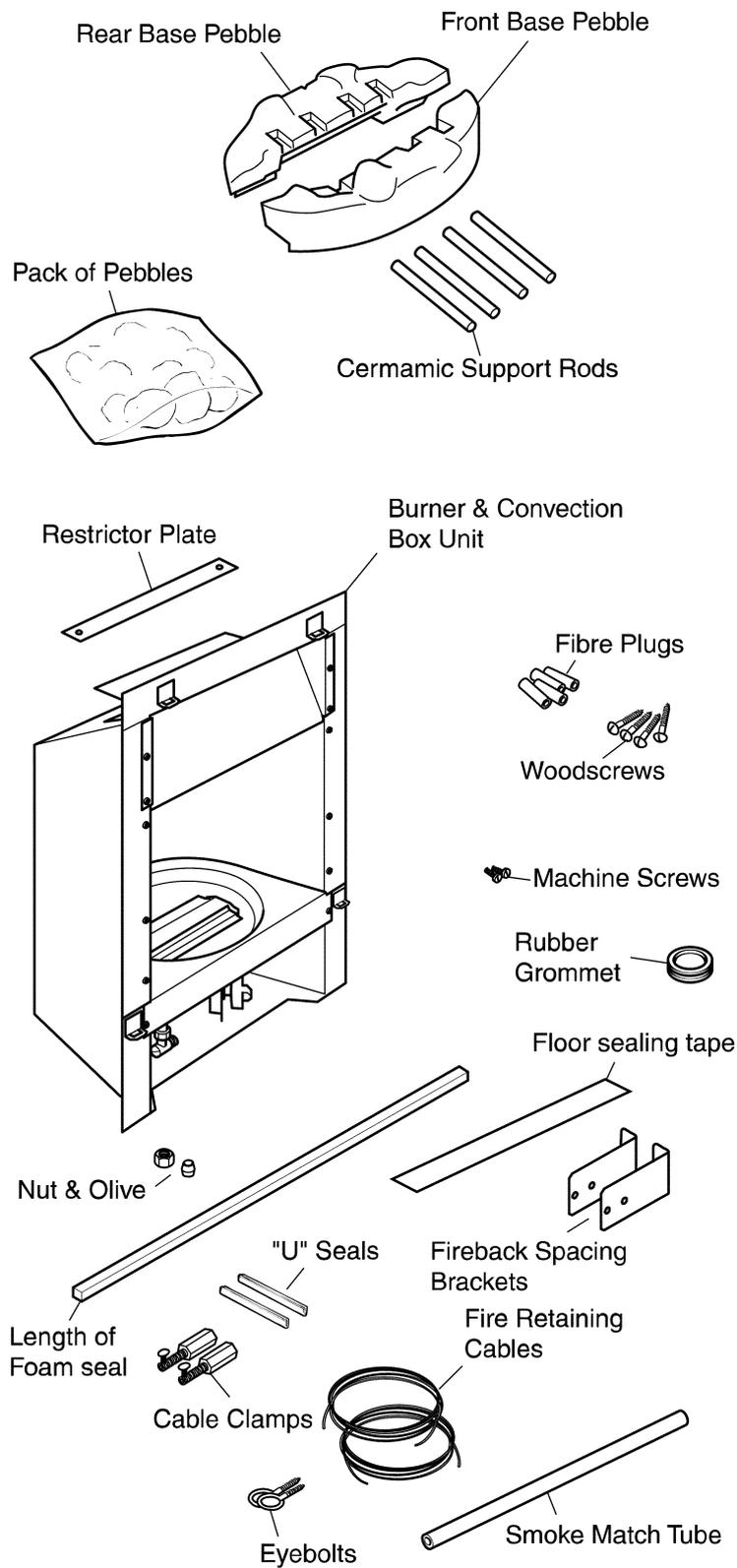
5. PACK CONTENTS

- 1 Burner & Hotbox Unit
- 1 Nut & olive for 8mm inlet pipe
- 1 Flue restrictor plate
- 2 Screws (For flue restrictor)
- 2 Screws (For Fireback spacing brackets)
- 1 Front pebble base
- 1 Rear pebble base
- 1 Pack of 17 loose pebbles identified by the numbers '1' to '5' and letters 'A' to 'D'
- 4 Ceramic support rods
- 2 Small "U" seals for hotbox side flanges
- 1 Strip of floor sealing tape
- 6 Fibre plugs
- 4 Woodscrews
- 2 Fire retaining cables
- 2 Cable clamps
- 4 Eyebolts
- 1 Rubber grommet
- 1 Smoke match tube
- 2 Fireback spacing brackets
- 1 Length of self adhesive foam seal
- 1 Literature pack

- 1 Fire front surround.
- 16 Magnets

Carefully remove all the contents. Take special care in handling the ceramic fuel effects. Check that all the listed parts are present and in good condition.

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Firefront Surround (Eclipse)

Figure 6. Pack contents

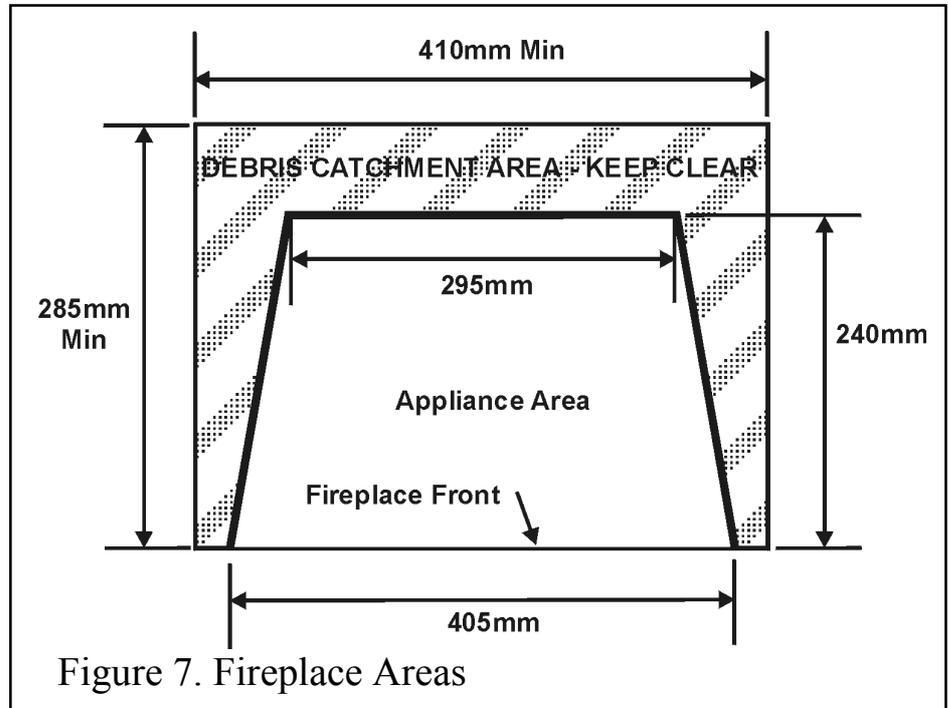
6. FIREPLACE CHECK

Fireplace size

The fireplace must comply with the requirements described in section 4.2. This will probably entail removing the fireback and infill material behind the fireback. The debris catchment area shown in figure 7 must be kept clear of obstructions.

Fireplace general condition

The fireplace floor should be reasonably flat to ensure that the hotbox 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 hotbox 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. The cladding must also not touch the surround. (See figure 4). We suggest that the actual surround is used as a template to mark the area for combustible cladding removal and that this area is increased by at least 2mm all round.

Soundness for appliance attachment

Two primary methods of retaining the appliance are provided: -

- 1) By fixing to the fireplace front surround.
- 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 8 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 front surround area is sound enough to take the Fibre plugs and woodscrews. If necessary, make sound with a suitable cement.

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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.

Installations using a metal flue box

The whole of the top surface of the metal flue box must be covered with a 100mm layer of mineral wool or equivalent insulation. (See figure 2).

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.**

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7. PREPARING APPLIANCE FOR INSTALLATION

1. Detach the spillage plate from the hotbox by removing the four screws (See figure 8).
2. Remove the protective film from the spillage plate. Place the spillage plate in a safe place away from the work area.
3. Remove the six screws from the side of the inner reflector (See figure 9).
4. Carefully lift the inner reflector and pull forward to remove. **Be careful not to scratch the top surface of the burner cover (See figure 9). The reflector may 'spring' a little. For this reason it is important to hold the edges firmly when removing.**
5. Remove the protective film from the inner reflector. Place the inner reflector in a safe place away from the work area.

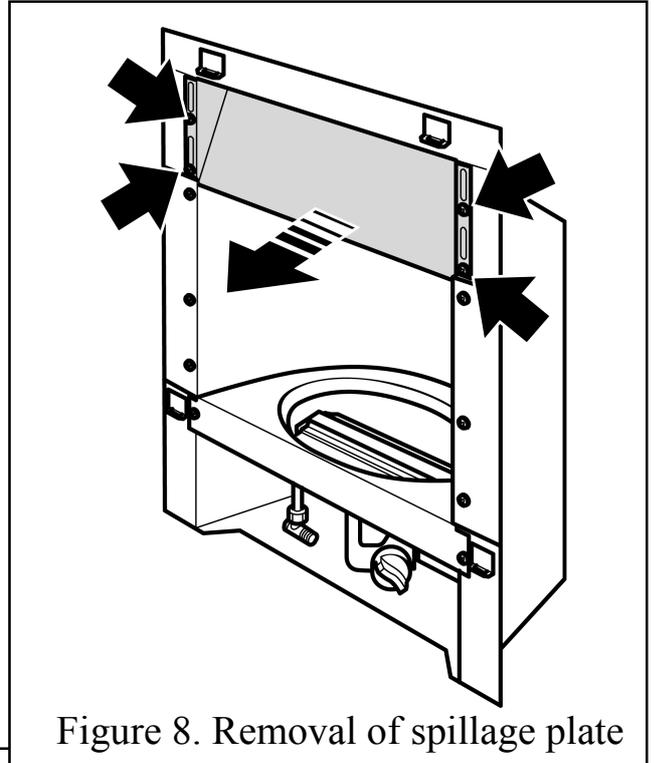


Figure 8. Removal of spillage plate

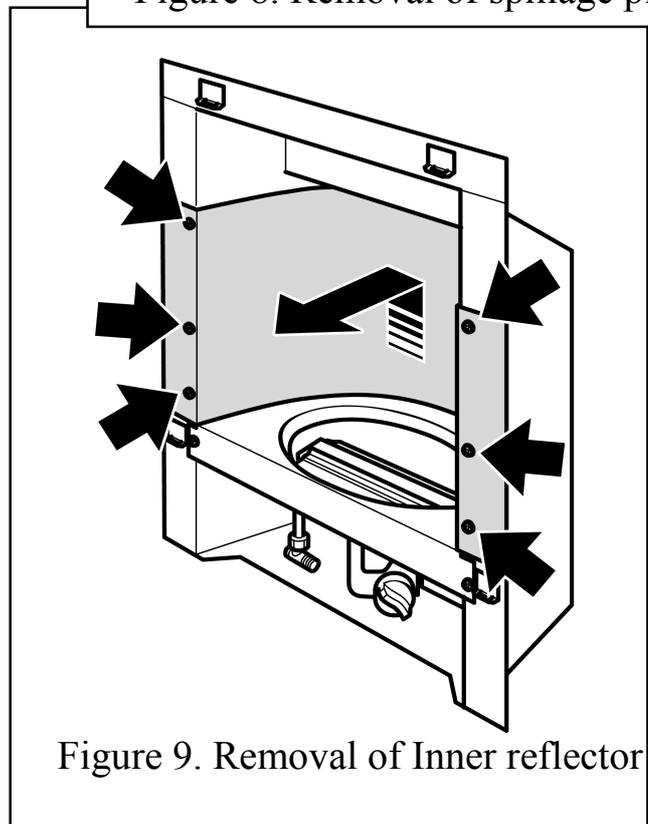


Figure 9. Removal of Inner reflector

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6. Remove the two screws to the side of the burner cover (See figure 10)
7. Detach the burner cover by lifting clear of the burner module (See figure 10)
8. Remove the protective film from the burner cover. Place the burner cover in a safe place away from the work area.
9. Detach the burner unit from the hotbox by lifting clear.
10. Fit the two “U” section seals to the bottom edges of the hotbox side flanges. See figure 11.
11. For concealed connection only:
There are two removable circular panels at

the rear of the hotbox. Decide which one of these is to be used for rear entry. Using a suitable tool apply pressure to the centre of the removable circular panel. There is a grommet in the installation kit supplied with the fire. Fit this into the hole. Pierce the grommet to allow the pipe to pass through it. The grommet should envelop the pipe. If the hole is larger than the pipe, seal it with tape. **Do not pierce the grommet unless the supply pipe is to pass through it.**

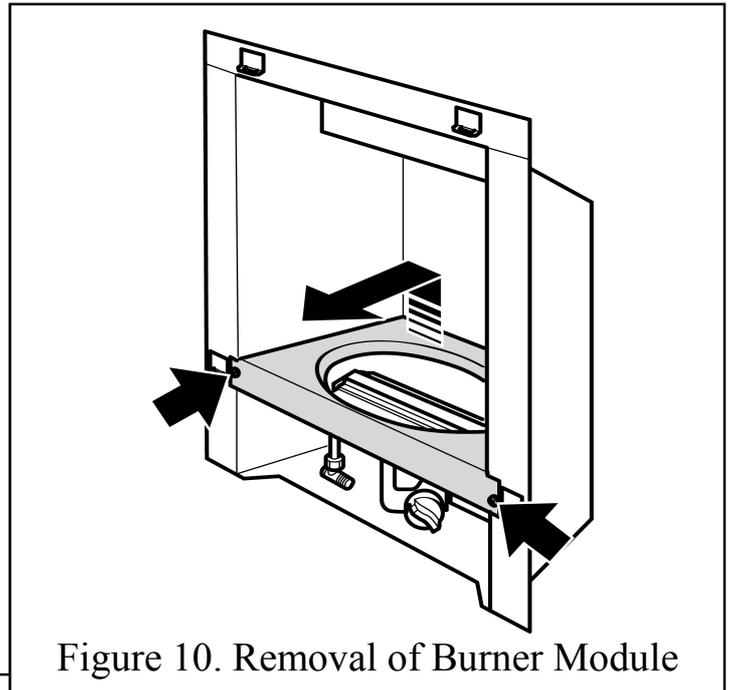


Figure 10. Removal of Burner Module

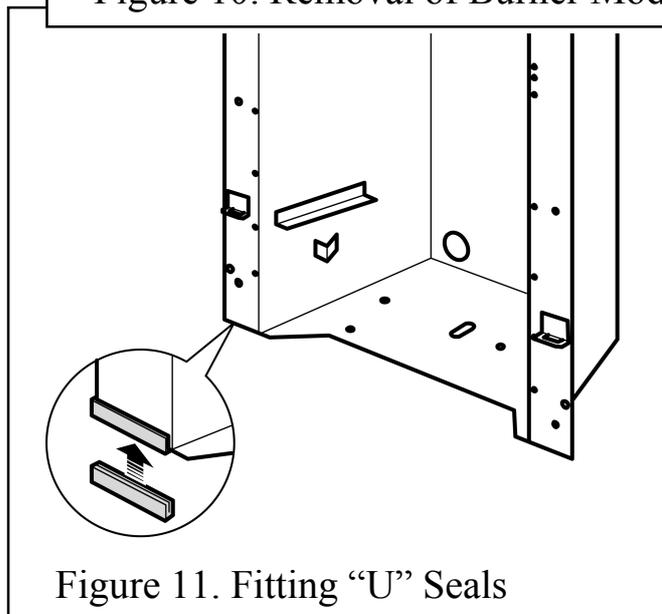


Figure 11. Fitting “U” Seals

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12. The appliance is supplied with two fireback spacers. *Do not fit the fireback spacers if the fire is to be installed into a precast or clay flue block system as in section 4.2.3.* These should extend backwards to ensure sufficient clearance from the back of the fireplace. Remove the label and retaining screws from the rear sides of the hotbox. Position the fireback spacer as shown in figure 12. Secure the fireback spacers using the screws removed previously and the two supplied with the fire.

13. 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 packed loose with the appliance and is fixed with two screws. See figure 13.

The restrictor is packed loose with the appliance and is fixed with two screws. See figure 13.

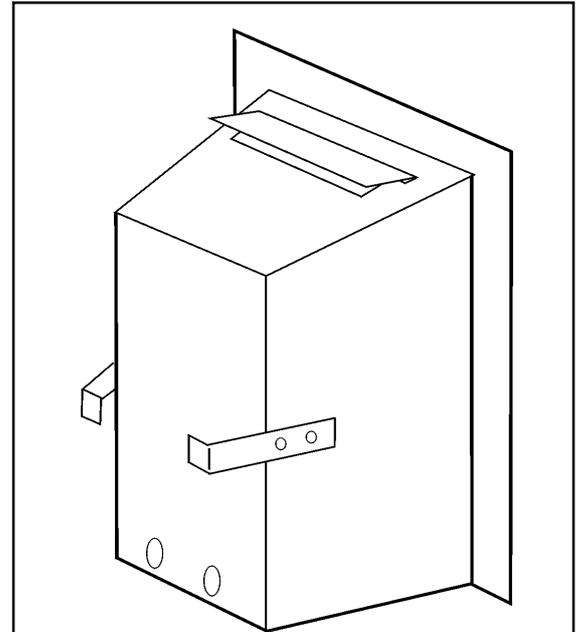


Figure 12. Fireback Spacers

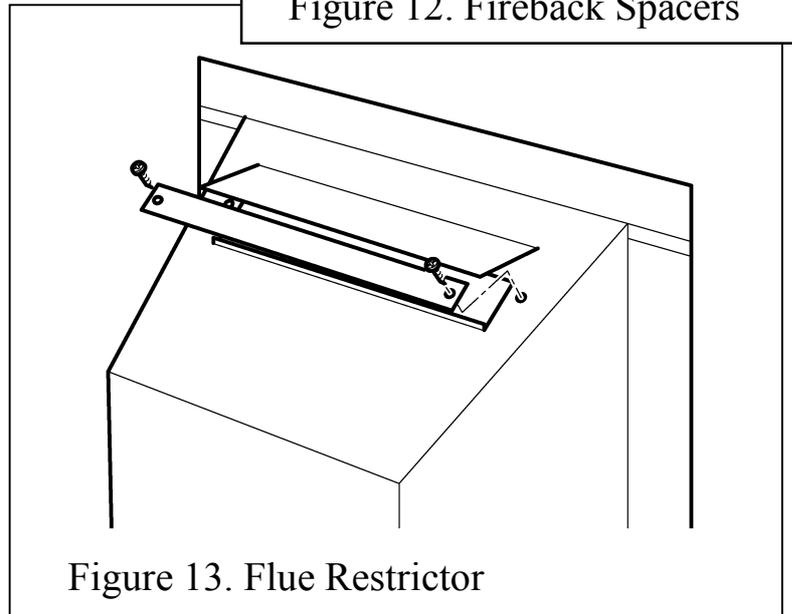
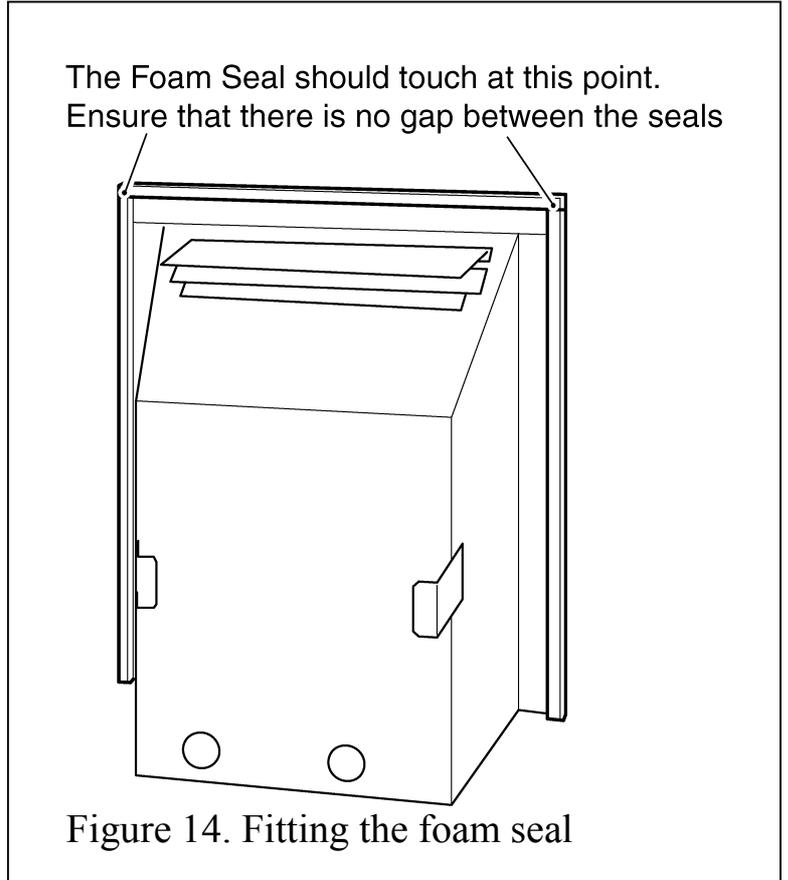


Figure 13. Flue Restrictor

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14. 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 hotbox. Cut a 485mm length of foam seal. Be careful not to stretch the seal when measuring. Remove the protective backing from the foam seal and fit this to the rear of the top flange (See figure 14). Cut two 580mm lengths. Fit these to the rear outer edges of the side flanges. Ensure that there is no gap between the foam seals where they meet at the top flange (See figure 14).



8. HOTBOX INSTALLATION

8.1 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 hotbox centrally in the fireplace in the position in which it is to be permanently installed. If a concealed connection is being used, insert the hotbox into the fireplace feeding the supply pipe through the pierced hole in the rear grommet.
3. Mark the fireplace front surround through the four fixing holes in the side flanges of the hotbox. See figure 15.
4. Remove the hotbox. 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 hotbox back in position in the fireplace.
7. Fit a woodscrew through each hole in the hotbox flanges and tighten to seal the box to the fireplace surround.

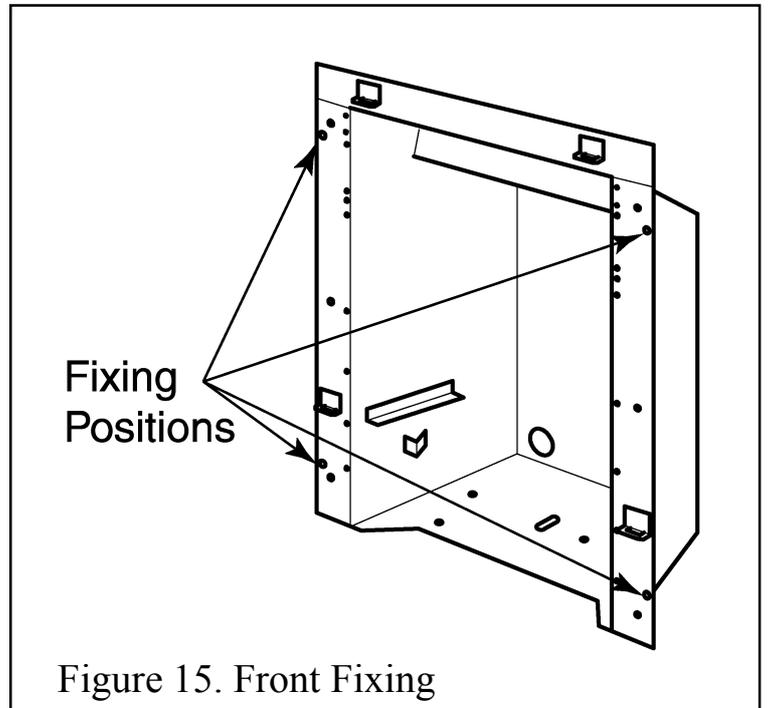


Figure 15. Front Fixing

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8.2 Method 2 - Cable Retention and Floor Fixing.

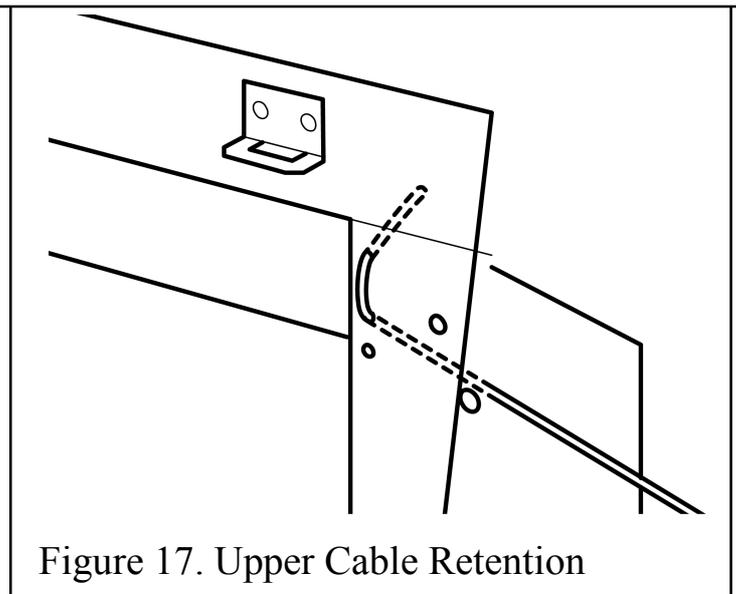
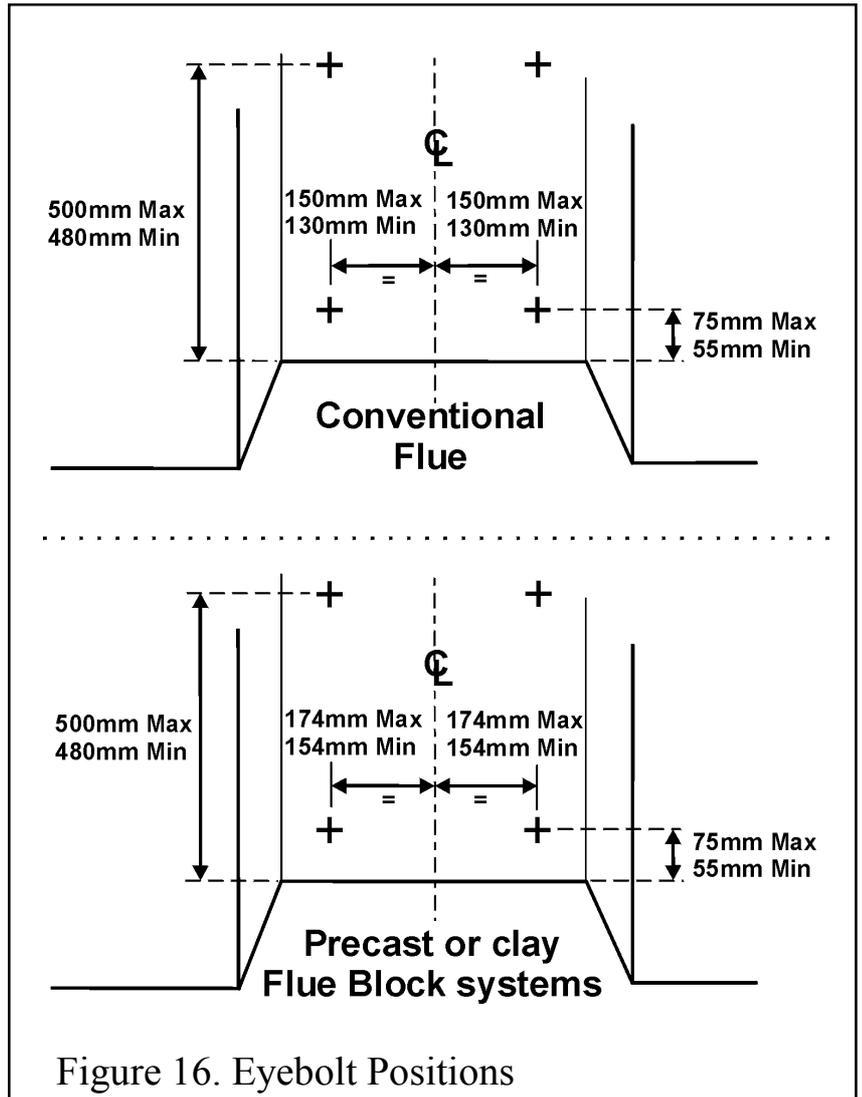
1. Make sure that the relevant areas at the fireplace back or floor are sound enough to take the eyebolts and screws. If these areas have deteriorated due to prolonged use they should be made sound with a suitable cement.

2. 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 16 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.

3. Insert a fibre plug into each hole. Use the fibre plugs 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.

4. Place the hotbox 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 hotbox. If a concealed connection is being used, insert the hotbox into the fireplace feeding the supply pipe through the pierced hole in the rear grommet.

5. The hotbox has two small holes at each upper side. 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 17. Give the cables a pull so that they grip against the hotbox flanges.



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6. Thread the cables through the eyebolts. Return the cables through the holes near the bottom of the hotbox back panel, (**For precast or clay block flue systems return the cables through the slotted holes in the side of the hotbox**), and through the “V” shaped brackets near the bottom front sides of the hotbox - See figure 18.

7. Place the hotbox fully back into the fireplace opening so that it is sealed against the fireplace front surround.

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

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

Always screw the base into position before applying tension to the cables. This will ensure a tight seal between the top of the hotbox and wall

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

11. 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 20.

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

13. If the hotbox is not correctly aligned, release the tension on the cables by slackening the screws and turning the hexagonal adjusters fully anticlockwise. The hotbox should

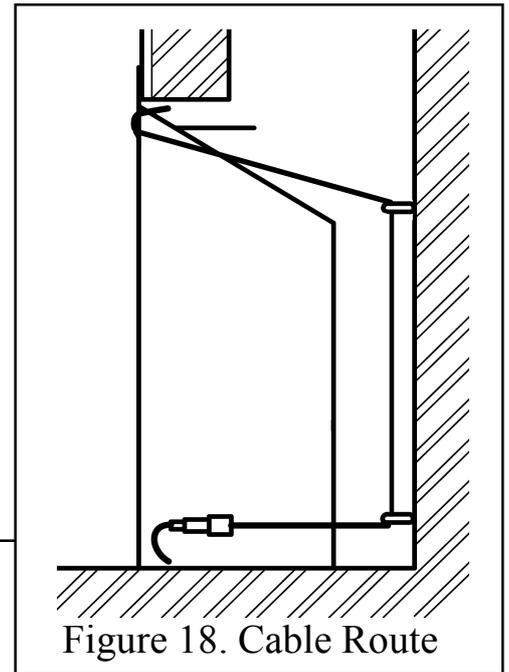


Figure 18. Cable Route

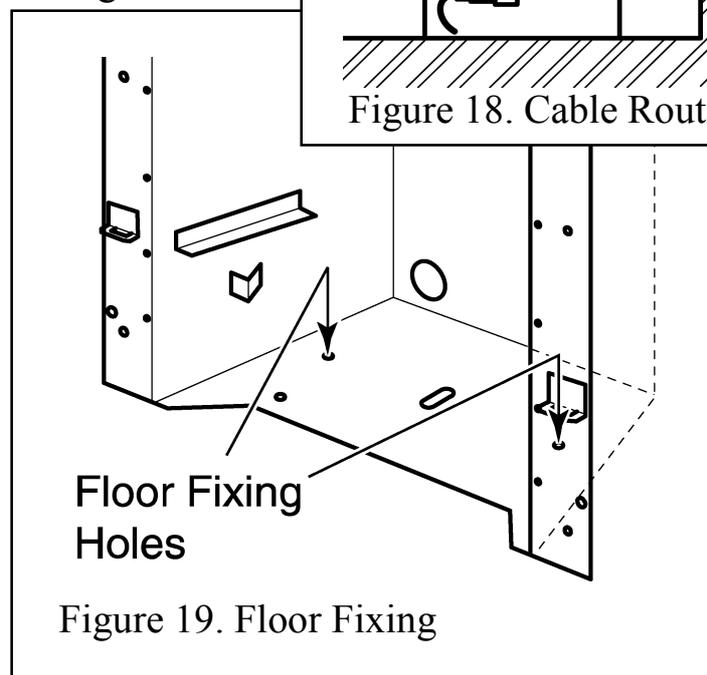


Figure 19. Floor Fixing

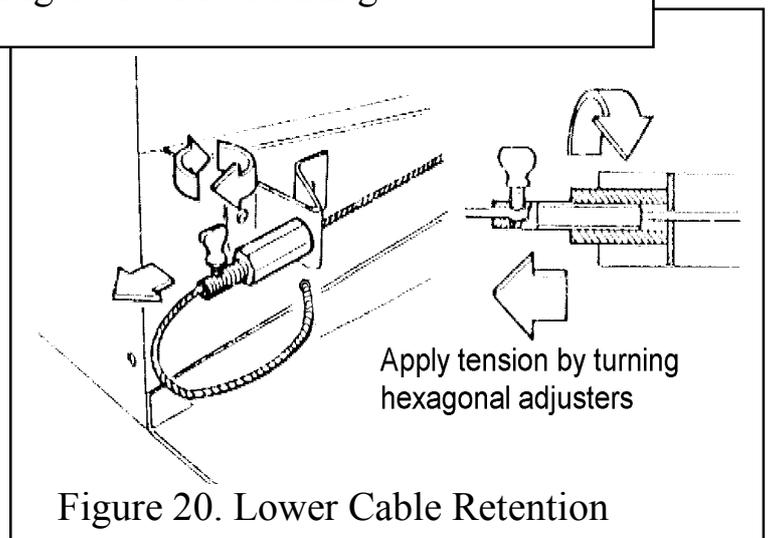


Figure 20. Lower Cable Retention

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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.

14. Underneath the ‘V’ shaped brackets is a hole. Feed the free length of the cables into these holes so that they are available to allow easy removal and refitting of the appliance during subsequent service calls. ***Do not cut off the free lengths of cable***

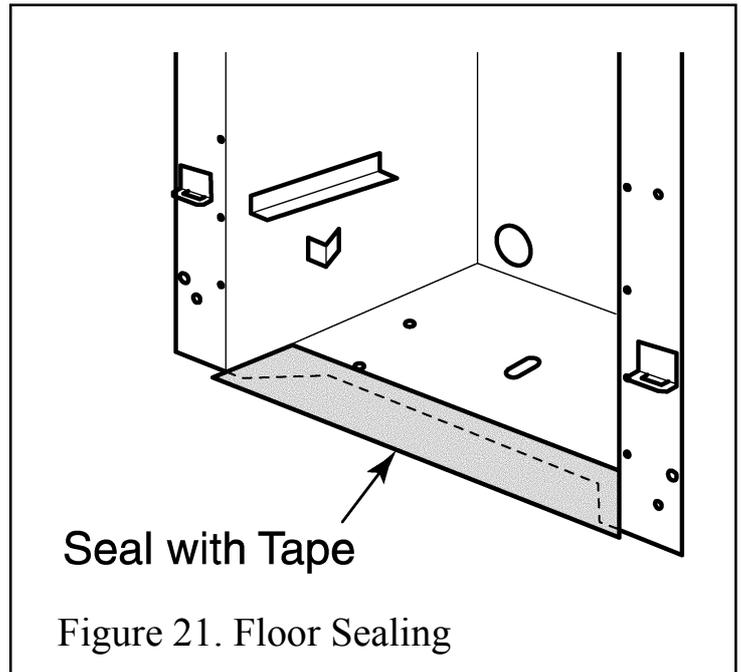


Figure 21. Floor Sealing

Sealing Floor Front - All installations

Using the floor sealing tape supplied, seal the bottom of the hotbox to the fireplace and hearth floor - See figure 21.

Make sure that the whole length of the front edge of the hotbox is fully sealed.

9. BURNER & SUPPLY PIPE INSTALLATION

9.1 Fitting the Burner

1. Place the burner module into the hotbox.
2. Refit the burner cover by lowering it onto the burner module. The front edge of the burner cover should locate in front of the burner module. The sides of the burner cover should locate behind the front of the burner module. Secure with two screws removed previously (See figure 22)
3. Refit the Inner Reflector into the hotbox. Be careful not to scratch the top surface of the burner cover. Secure using six screws removed previously.
4. Refit the spillage plate. Secure using the four screws removed previously.

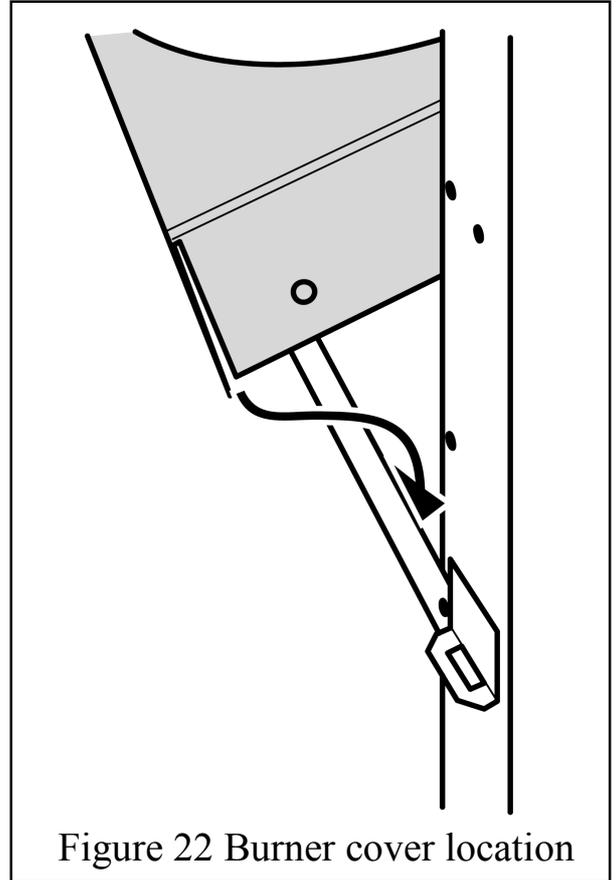


Figure 22 Burner cover location

9.2 Supply pipe installation

A nut and olive is provided for an 8mm-pipe inlet connection directly to the gas control. The isolating 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. Connect the supply line to the appliance.

Pressure check the installation pipework for gas soundness in accordance with the current edition of BS6891.

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 chosen removable circular panel at the back of the hotbox and run to the elbow at the front. The pipe run from the supply line up to the rear opening in the hotbox must be kept away from the area which will be taken by the hotbox when it is installed (See figure 7).

Note that the centre of the appliance inlet elbow is 25mm above the fireplace floor.

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9.3 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.*

9.4 Lighting the fire

If closed, open the isolating elbow valve. Depress the control knob and rotate it anticlockwise to the pilot ignition position. A 'click' will be heard as the integral piezo operates. A spark should be seen between the electrode and thermocouple tip. Turn the control knob clockwise to the 'Off' position. Repeat this operation until a flame appears at the pilot. There may be a delay before the pilot lights due to air being purged from the system. When a flame appears at the pilot keep the control knob depressed and hold the pilot ignition position for five seconds. When the control knob is released the pilot flame should remain lit.

If there are no sparks or the sparks appear weak check the spark gap between electrode wire and thermocouple tip. See figure 23.

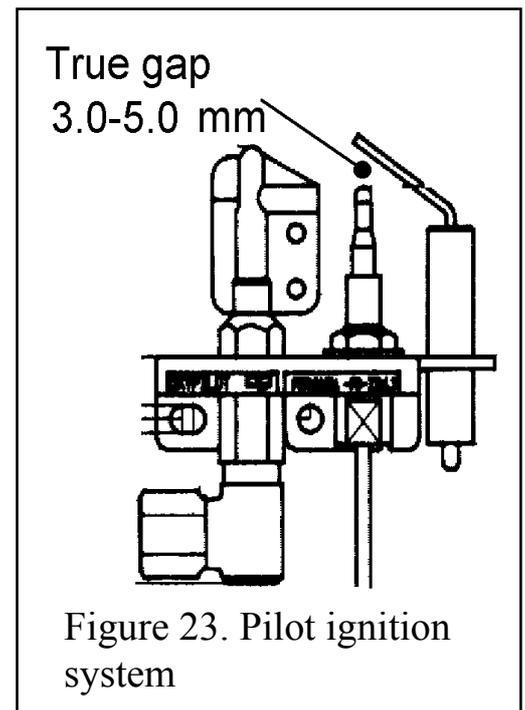


Figure 23. Pilot ignition system

9.5 Operating the burner.

When the pilot burner is operating properly, gradually turn the control knob anticlockwise to 'HIGH' (Depress the knob slightly to get past the pilot ignition position). The main burner should now light. Depress the control knob slightly to release from the 'HIGH' position and turn back (clockwise) to 'LOW'. While turning, the burner flames should gradually become lower but remain alight. Depress the control knob slightly to release from the 'LOW' position and turn back (clockwise) to the Pilot ignition position. The main burner should extinguish but the pilot should remain alight. Depress the control knob slightly and turn back (clockwise) to turn OFF.

This will extinguish the pilot.

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9.6 Check reference pressure.

The appliance is pre-set to give the correct heat input at the inlet pressure shown within Appliance data section of this manual. No further adjustment is necessary. The burner pressure should be checked by fitting a pressure gauge at the test point accessible to the right of the control knob (See figure 24). The pressure should be checked with the appliance alight and the control set at 'HIGH'. After checking the pressure, turn off the appliance. Remove the pressure gauge and replace the test point sealing screw. Re-light the appliance. Turn to 'HIGH' position and test around the sealing screw for gas soundness using a suitable leak detection fluid.

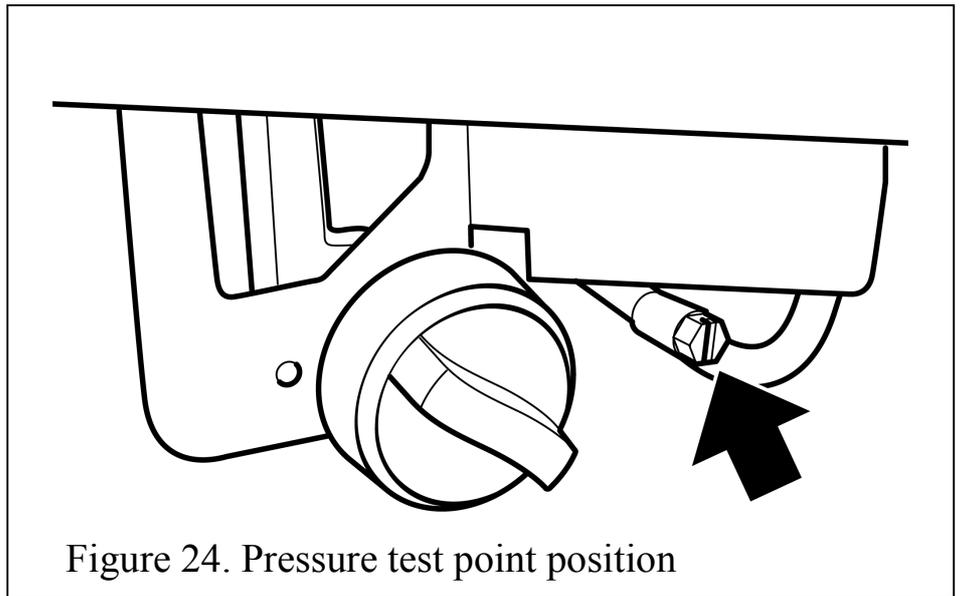


Figure 24. Pressure test point position

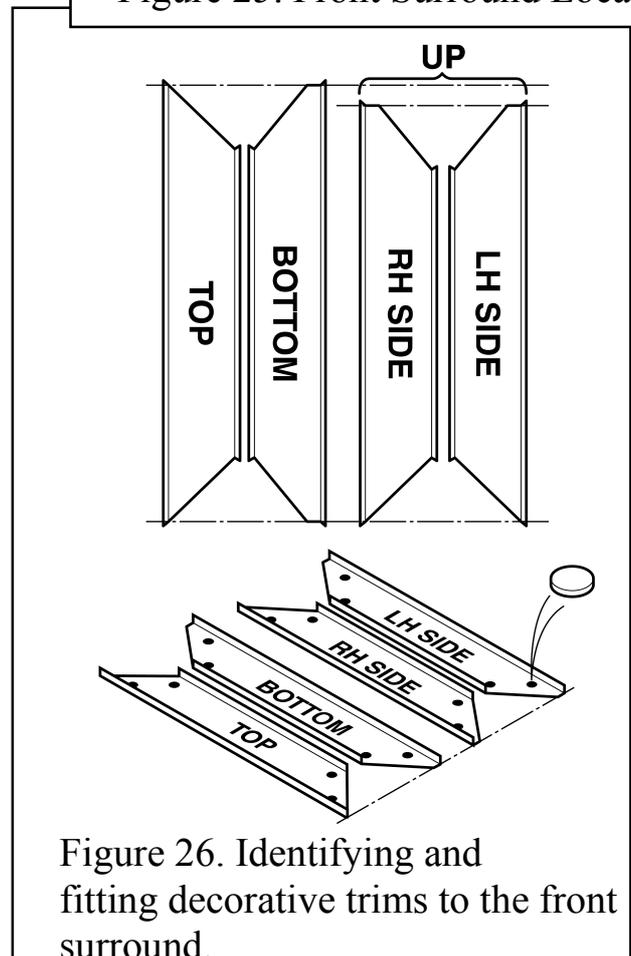
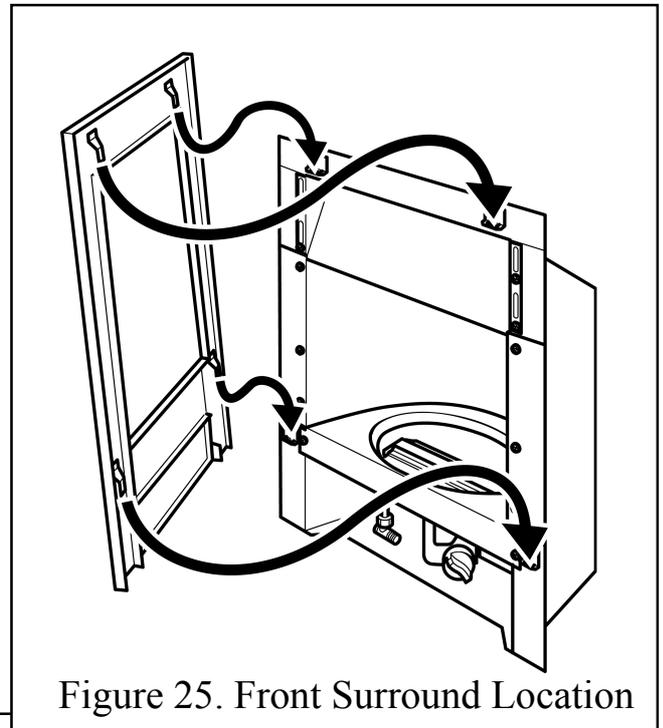
10. FRONT SURROUND INSTALLATION

1. Carefully lift the front surround. Place the front surround against the fireplace front surface so that the four retaining plates at the back of the surround are directly above the four retaining brackets of the hotbox. There are two at the top of the hotbox and two to the side of the burner module. Lower the surround unit making sure that the retaining plates locate fully into the brackets on the hotbox (See figure 25).

2. The front surround decorative trim is made up of four sections. A bottom and top section of equal length and two shorter sections of equal length that are the side sections. These can be identified as in figure 26.

2.1 Remove any protective film from the trim sections

2.2 The trim sections are held in place using 16 magnets. Position the magnets as in figure 26.



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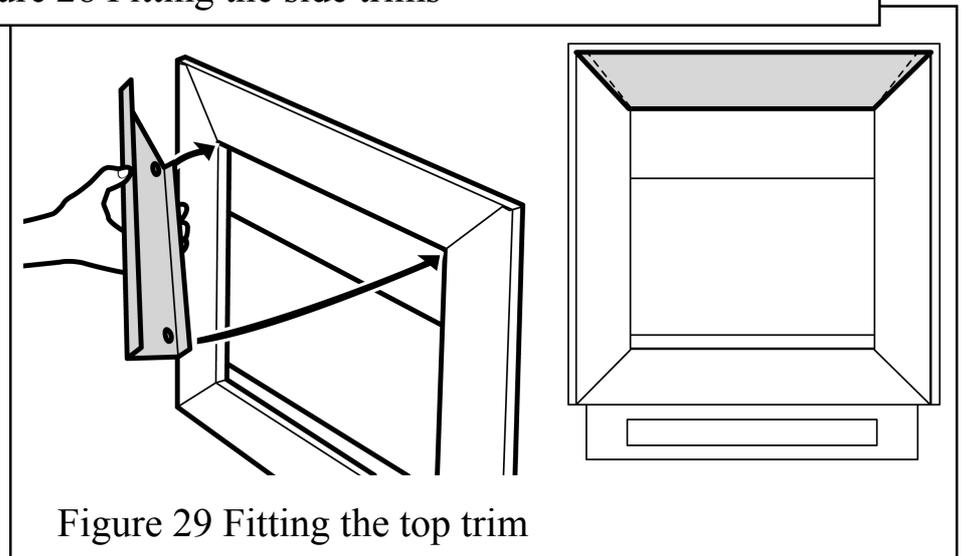
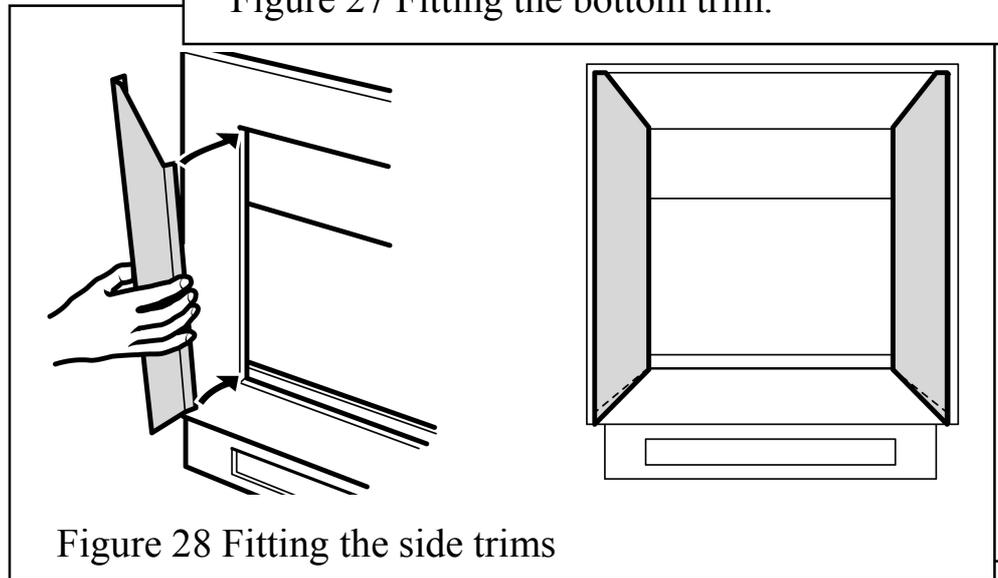
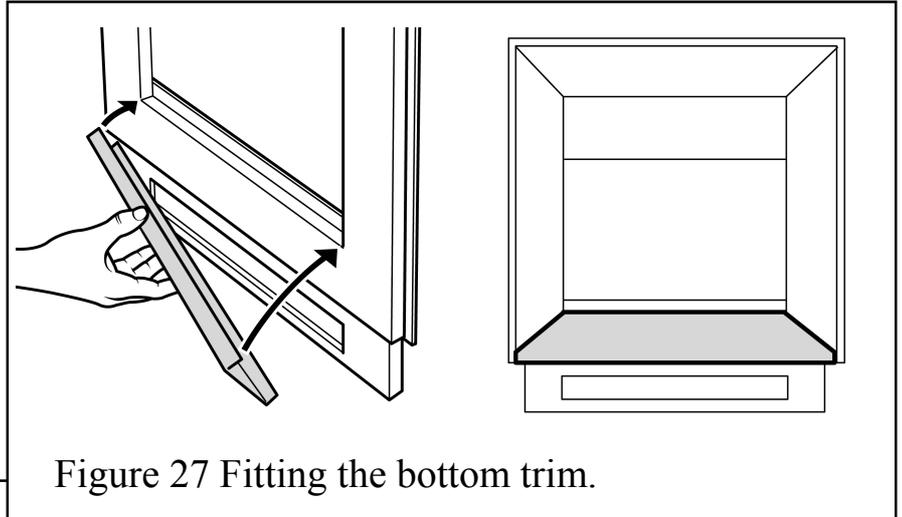
The order in which the trims are fitted is important.

2.3 Locate the bottom trim as in figure 27.

2.4 Locate the two side trims as in figure 28

2.5 Locate the top trim as in figure 29

Position the trims so that any gaps that may occur at the outer corners are kept to a minimum.



11. CERAMIC PEBBLES INSTALLATION

1. The front base pebble has the letters 'MF' on the underside. Locate the front base pebble in front of the burner (See figure 30)

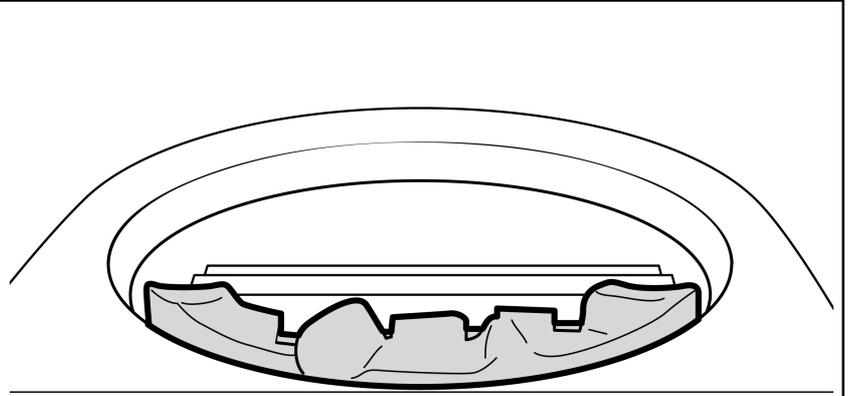


Figure 30 Front base pebble location

2. The rear base pebble has the letters 'MB' on the underside. Locate the rear base pebble behind the burner (See figure 31)

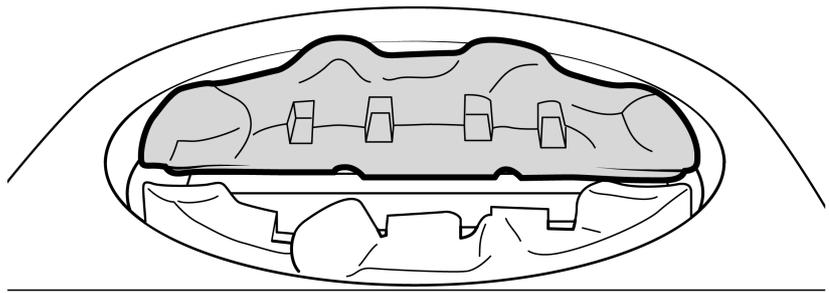


Figure 31 Rear base pebble location

3. There are four ceramic support rods. Locate the ceramic support rods into the slots of the ceramic base (See figure 32)

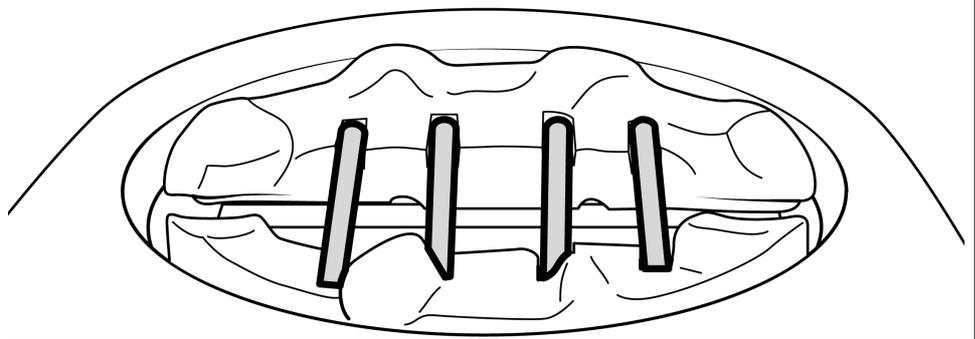


Figure 32 Ceramic support rod Location

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4. There are four pebbles numbered '1' on the underside. Locate these onto the pebble base at the ends of the outer left and right hand ceramic support rods (See figure 33).

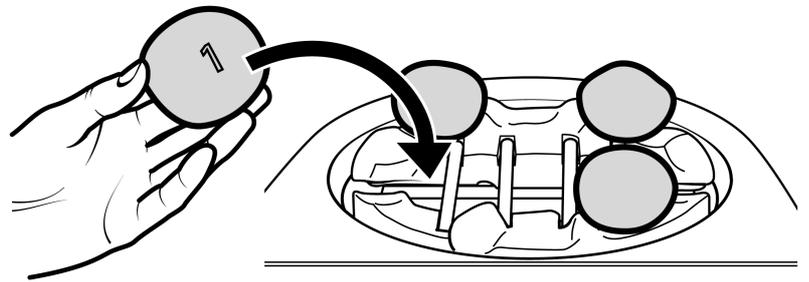


Figure 33 Pebble number '1' Location

5. There are two pebbles numbered '2' on the underside. Locate these on the pebble base between the ends of the inner left and right ceramic support rods (See figure 34).

between the ends of the inner left and right ceramic support rods (See figure 34).

Important note: The gap between the number '2' pebbles affects the final flame picture. If the flames tend to the sides of the fuel bed then increase the gap between the number '2' pebbles. If the flames tend to the centre of the fuel bed then decrease the gap between the number '2' pebbles. The amount of movement may be as little as 3 – 5mm.

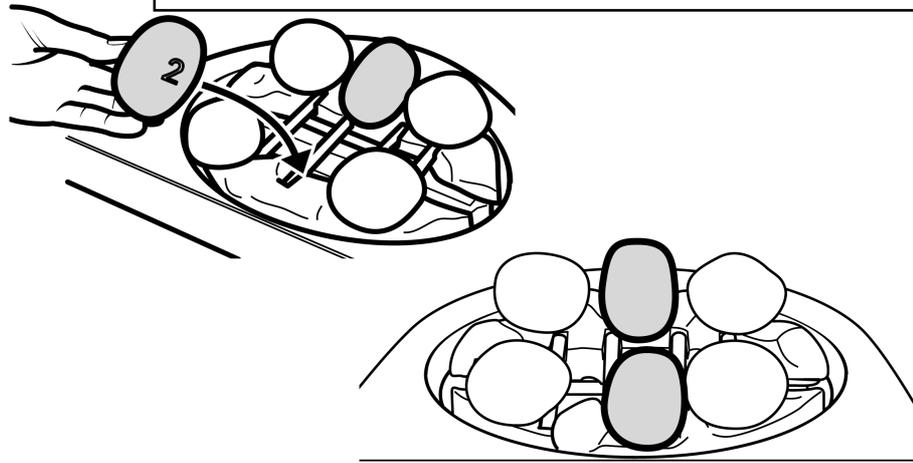


Figure 34 Pebble number '2' Location

the gap between the number '2' pebbles. If the flames tend to the centre of the fuel bed then decrease the gap between the number '2' pebbles. The amount of movement may be as little as 3 – 5mm.

6. Pebble '3' has a location peg on the underside. The peg has a chamfer on one side. The chamfer must face the burner. Locate pebble '3' onto the left hand side of the pebble base. It should bridge the gap between the front and rear halves of the pebble base. Pebble '3' should not touch the burner cover (Figure 35).

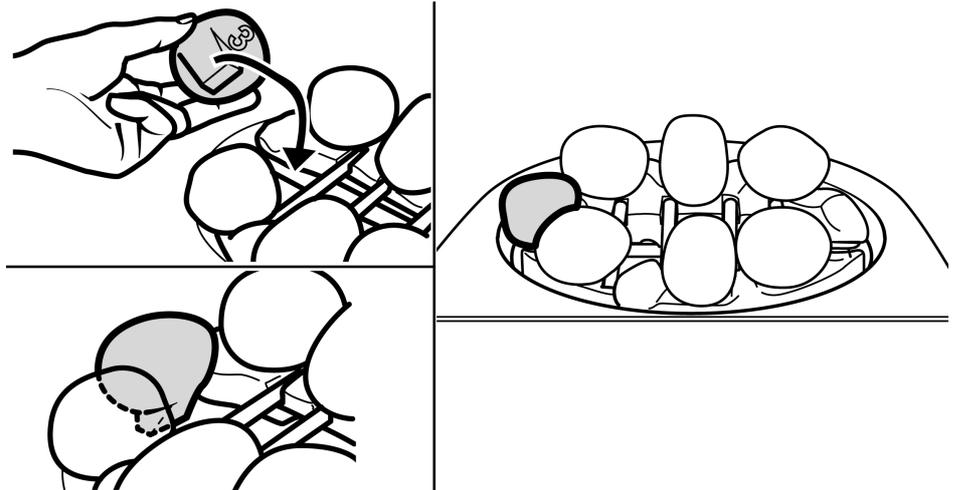


Figure 35 Pebble number '3' Location

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7. Pebble '4' has a location peg on the underside. The peg has a chamfer on one side. The chamfer must face the burner. Locate pebble '4' onto the right hand side of the pebble base. It should bridge the gap between the front and rear halves of the pebble base. Pebble '4' should not touch the burner cover (See figure 36).

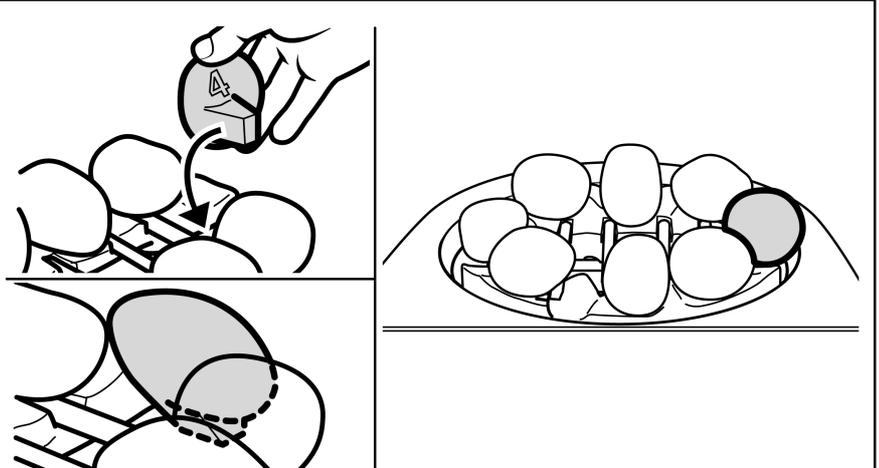


Figure 36 Pebble number '4' Location

8. There are two pebbles numbered '5'. They have a central location peg on the underside. Locate the first pebble '5' centrally between the left hand ceramic support rods (See figure 37). Locate the second pebble '5' centrally between the right hand ceramic support rods (See figure 37)

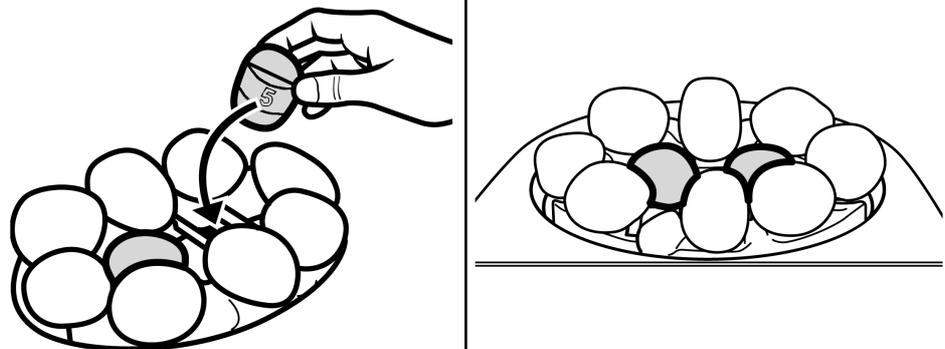


Figure 37 Pebble number '5' Location

9. There are seven pebbles lettered 'A' to 'D' on the underside. Locate these evenly over the top of the first layer of pebbles (See figure 38). To optimise the flame picture it may be necessary to position these pebbles away from the centre of the fuel bed allowing more central flames.

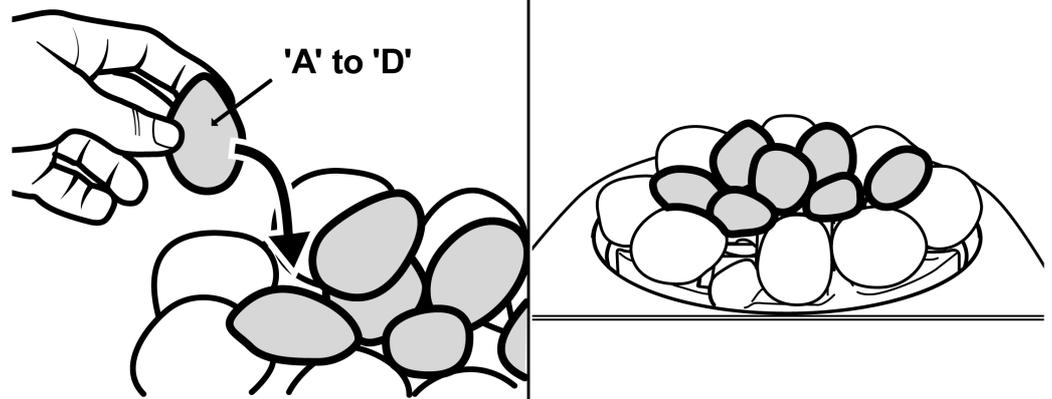


Figure 38 Pebbles lettered 'A' to 'D' Location

12. FULL OPERATING CHECKS

12.1 Check the Control Settings

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. Depress the control knob and rotate it anticlockwise to the pilot ignition position. A 'click' will be heard as the integral piezo operates. A flame should appear at the pilot to the left hand side of the pebble base. When a flame appears at the pilot keep the control knob depressed and hold the pilot ignition position for five seconds. When the control knob is released the pilot flame should remain lit.

If there are no sparks check the spark gap between electrode wire and thermocouple tip. See figure 23.

2. Turn the control knob anti-clockwise to 'HIGH' (Depress the knob slightly to get past the pilot ignition position). The main burner should now light. Depress the control knob slightly to release from the 'HIGH' position and turn back (clockwise) to 'LOW'. While turning, the burner flames should gradually become lower but remain alight. Depress the control knob slightly to release from the 'LOW' position and turn back (clockwise) to the Pilot ignition position. The main burner should extinguish but the pilot should remain alight. Depress the control knob slightly and turn back (clockwise) to turn OFF. This will extinguish the pilot.

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12.2 Check for Spillage

A spillage check must be made before leaving the installed appliance with the customer. Make this with all the ceramic pebbles in position.

1. Close all doors and windows in the room containing the appliance.
2. Light the appliance and set the control to the 'High' position.
3. Leave the appliance on for five minutes.
4. The smoke match should be placed horizontally into the hotbox at the right hand side. (See figure 39).

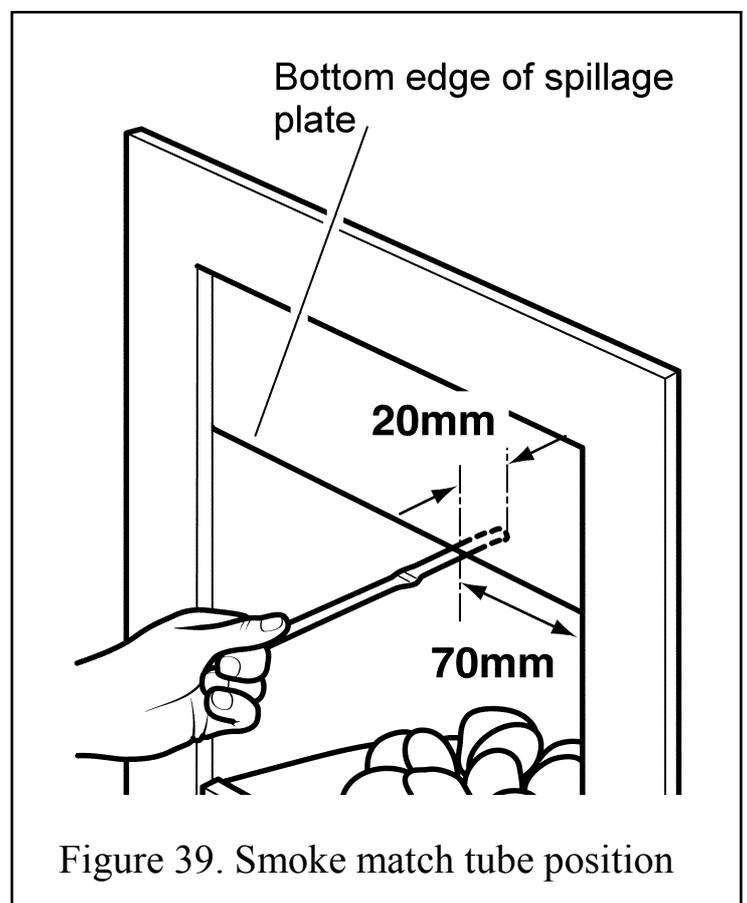
The installation is satisfactory if the smoke is drawn into the appliance.

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 7 point 13) remove the restrictor, reseal the appliance and retest. If smoke is still not drawn into the appliance **disconnect the appliance and seek expert advice.**

5. 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.

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.**



12.3 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 at the "HIGH" position and leave for one minute.
2. Turn back to "OFF" to extinguish the pilot. **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 Wonderfire authorised parts.

13. FINAL REVIEW

1. Visually inspect the appliance. Clean off any marks incurred during installation.

Metal Parts

- Clean the metal parts with a slightly damp lint free non-abrasive cloth and then dry.
- Do not use abrasive cleaners as these will scratch the fire surface.
- **Front surround** -Clean the metal parts with a slightly damp cloth and then dry. If this does not work apply a very small amount of 'baby oil' to a lint free non-abrasive cloth and wipe over the surface. Use a clean cloth to wipe off the oil.

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. 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.

3. 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".

4. **Stress that no extra pebbles 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.**

5. 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 turn the control to its 'HIGH' 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.

6. Recommend that the appliance should be serviced by a competent person 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.

7. Advise that the fire may give off a slight odour while new. This is quite normal and it will disappear after a short period of use.

8. Hand the literature pack with this guide to the customer.

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14. 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 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.

- Check that the appliance is clean and that soot or debris is not blocking the gaps between the pebbles 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 fuel effect pieces are replaced correctly as described in the installation instructions.
- Always test for gas soundness and spillage after servicing the appliance.

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The decorative trim must be removed from the front surround before removal of the front surround.

14.1 To Remove the decorative trim

1. The decorative trim is made up of four sections. Each section is secured using four strong magnets. Remove the trim sections in the following order: -

- | | |
|-----------------|-------------|
| 1 st | Top trim |
| 2 nd | Side trim |
| 3 rd | Bottom trim |

2. Replace in the reverse order (See section 10, point 2)

14.2 To Remove the Fire Front Surround

1. Remove the front surround trim as in section 14.1.
2. The surround is held in place by four retaining plates at the back of the surround. These slot into four retaining brackets on the hotbox. To remove the surround, hold the sides of the surround and lift upward and forward. The surround should lift clear of the hotbox (See figure 40)
3. Replace in the reverse order

14.3 To Remove the Burner Unit

1. Remove the Firefront surround as in Section 14.2.
2. Remove the ceramic fuel effect pieces.
3. Detach the spillage plate from the hotbox by removing the four screws (See figure 41). Place the spillage plate in a safe place away from the work area.

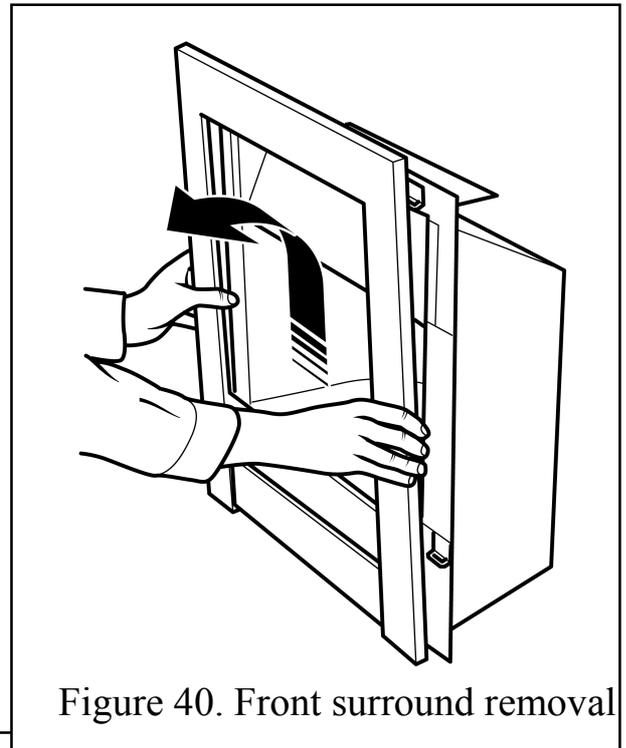


Figure 40. Front surround removal

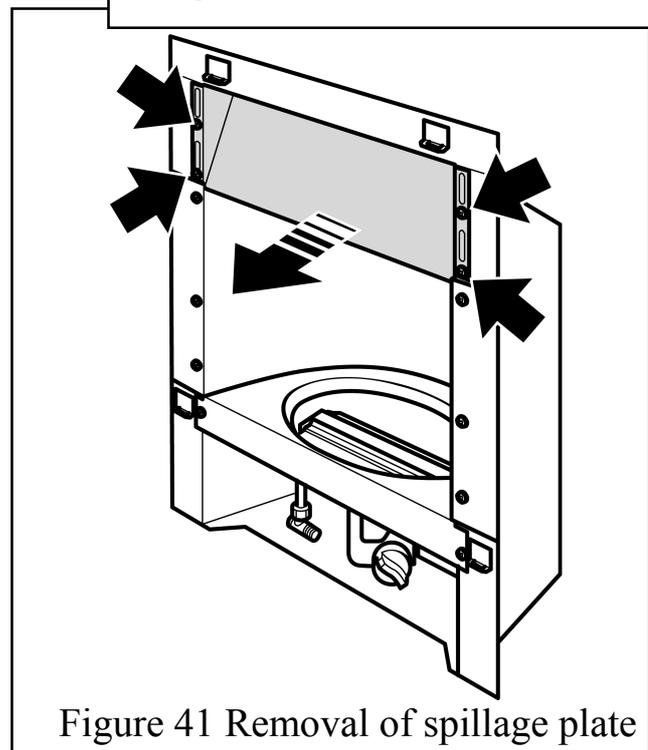


Figure 41 Removal of spillage plate

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4. Remove the six screws from the side of the inner reflector (See figure 42).
5. Carefully lift the inner reflector and pull forward to remove. **Be careful not to scratch the top surface of the burner cover** (See figure 42). Place the inner reflector in a safe place away from the work area.
6. Remove the two screws to the side of the burner cover (See figure 43)
7. Detach the burner cover by lifting clear of the burner module (See figure 43). Place the burner cover in a safe place away from the work area.
8. Isolate the gas supply at the inlet isolating elbow
9. Support the inlet-isolating elbow to avoid straining the pipework and disconnect the appliance from the elbow.
10. Detach the burner unit from the hotbox by lifting clear
11. Replace in the reverse order

14.4 To Remove the Pilot Unit

1. Remove the burner unit - See section 14.3.
2. Detach the electrode lead from the underside of the electrode tab
3. Detach the thermocouple from the gas tap by unscrewing the thermocouple nut.
4. Detach the pilot pipe from the gas tap.
5. Remove the first screw securing the dust cage to the pilot unit & burner. Carefully remove the dust cage and place aside (See figure 44).
6. Remove the second screw securing the pilot unit to the burner. Remove the pilot unit and place it aside (See figure 44).
7. Disconnect the pilot pipe from the pilot unit elbow.

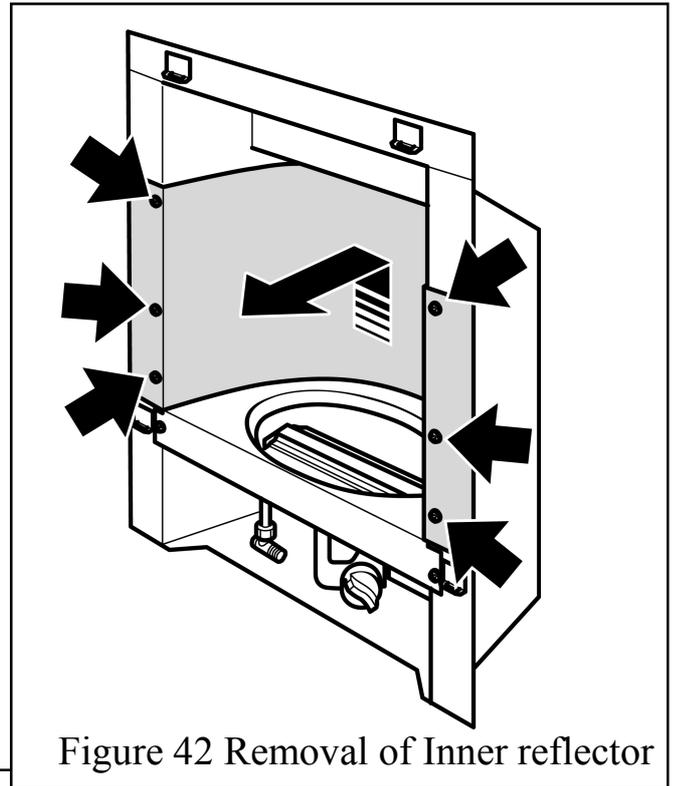


Figure 42 Removal of Inner reflector

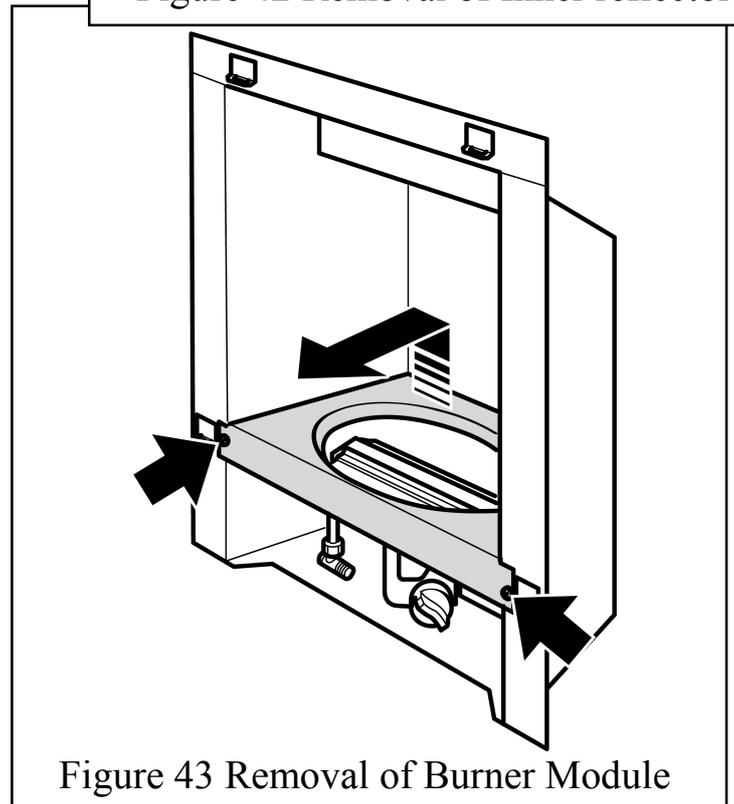


Figure 43 Removal of Burner Module

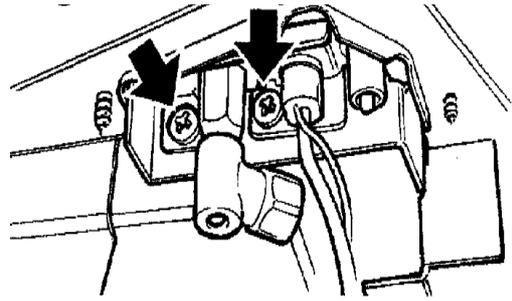


Figure 44. Pilot unit removal
(Dust cage not shown for clarity)

8. Replace 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.*

14.5 To Remove the Control Tap

1. Remove the burner unit - See section 14.3.
2. Disconnect the electrode lead from tab underneath the electrode.
3. Undo the thermocouple nut at the gas tap.
4. Disconnect the inlet pipe at the tap end.
5. Disconnect the pilot pipe at the tap end.
6. Disconnect the main burner pipe at the tap end.
7. Pull off the control knob.
8. Remove the gas tap fixing nut. Pull the tap clear of the control plate.
9. Replace in the reverse order.

14.6 To Remove the Piezo Generator

1. Remove the gas tap as section 14.5.
2. Make sure that the tap is in the off position.
3. Remove the circlip holding the piezo unit to the tap. Remove the piezo unit.
4. Replace in the reverse order.

14.7 To Grease the Control Tap

1. Detach the tap and remove the piezo generator as section 14.6 making sure that the tap is in the off position.

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2. Remove the two screws from the head of the tap. Remove the niting head and spindle complete with collar and spring.
3. Note the position of the slot in the plug - mark its position on the tap body.
4. Remove the plug rotating slightly while pulling.
5. Clean and grease the plug lightly with suitable grease. Do not apply excessive grease. Particularly, make sure that the gas ports in the tap are not restricted by grease.
6. Push the plug into the tap body and position the slot in line with the mark previously made on the tap body.
7. Reassemble the niting head and spindle complete with collar and spring making sure that the components are correctly engaged. Check the operation of the tap.
8. Refit the piezo generator.

14.8 To Remove the Main Burner Injector

1. Remove the burner unit - See section 14.3.
2. Disconnect the main burner pipe from the injector at the venturi end. If necessary, loosen the pipe at the gas tap end to swing the pipe clear of the injector.
3. Unscrew the injector from the rear support bracket.
4. Replace in the reverse order.

14.9 To Replace Burner Plaques

See figure 45.

1. Remove the ceramic fuel effect pieces.
2. The plaques can be then be removed as follows without detaching the front surround.

Be careful not to scratch the burner cover or reflector when working in the hotbox.

3. Remove the plaque clamping strips by detaching 6 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 hand plaque is sand colour and has 17 slots. The left side of the plaque must touch the inside edge of the retaining flange at the left side of the burner well.

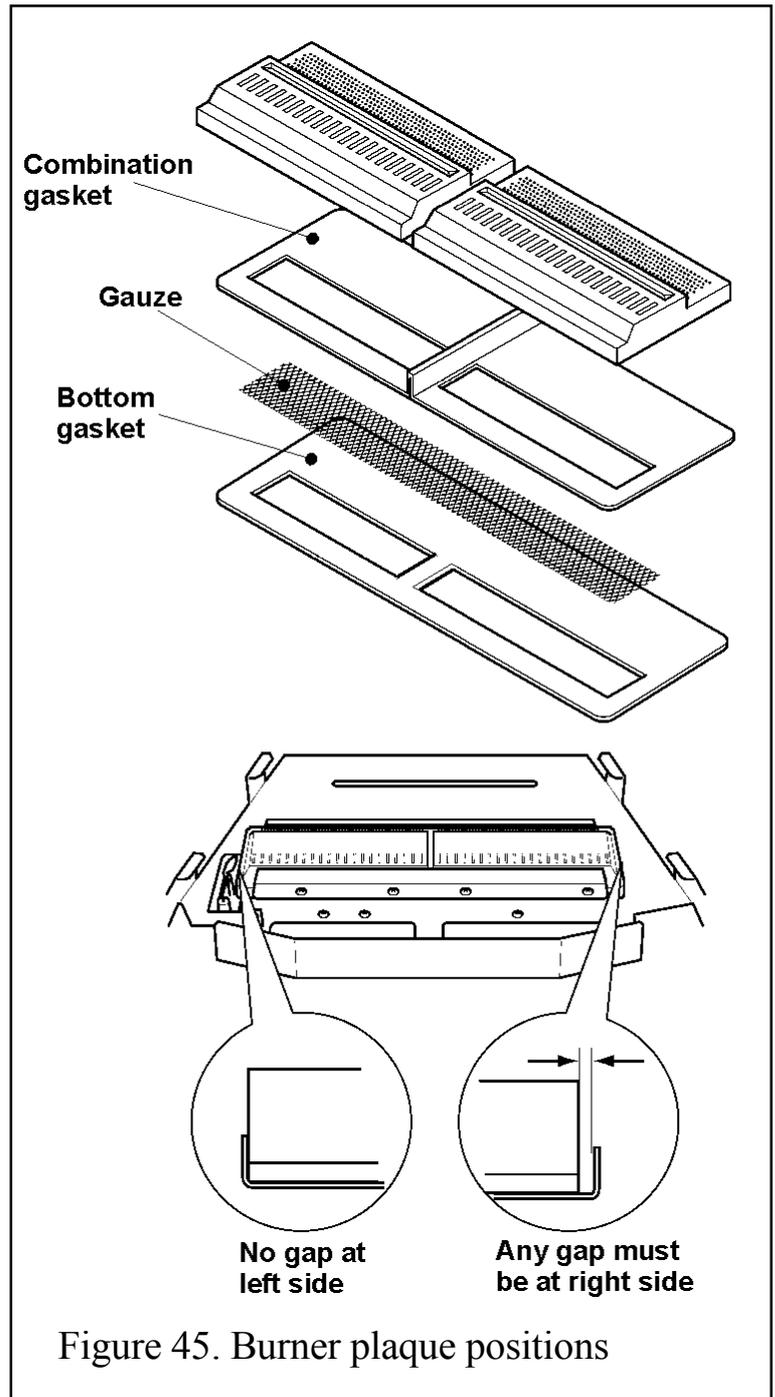


Figure 45. Burner plaque positions

7. Place the new right hand plaque in position. The right hand plaque is white and has 15 slots. Make sure that the centre section of the combination gasket 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.

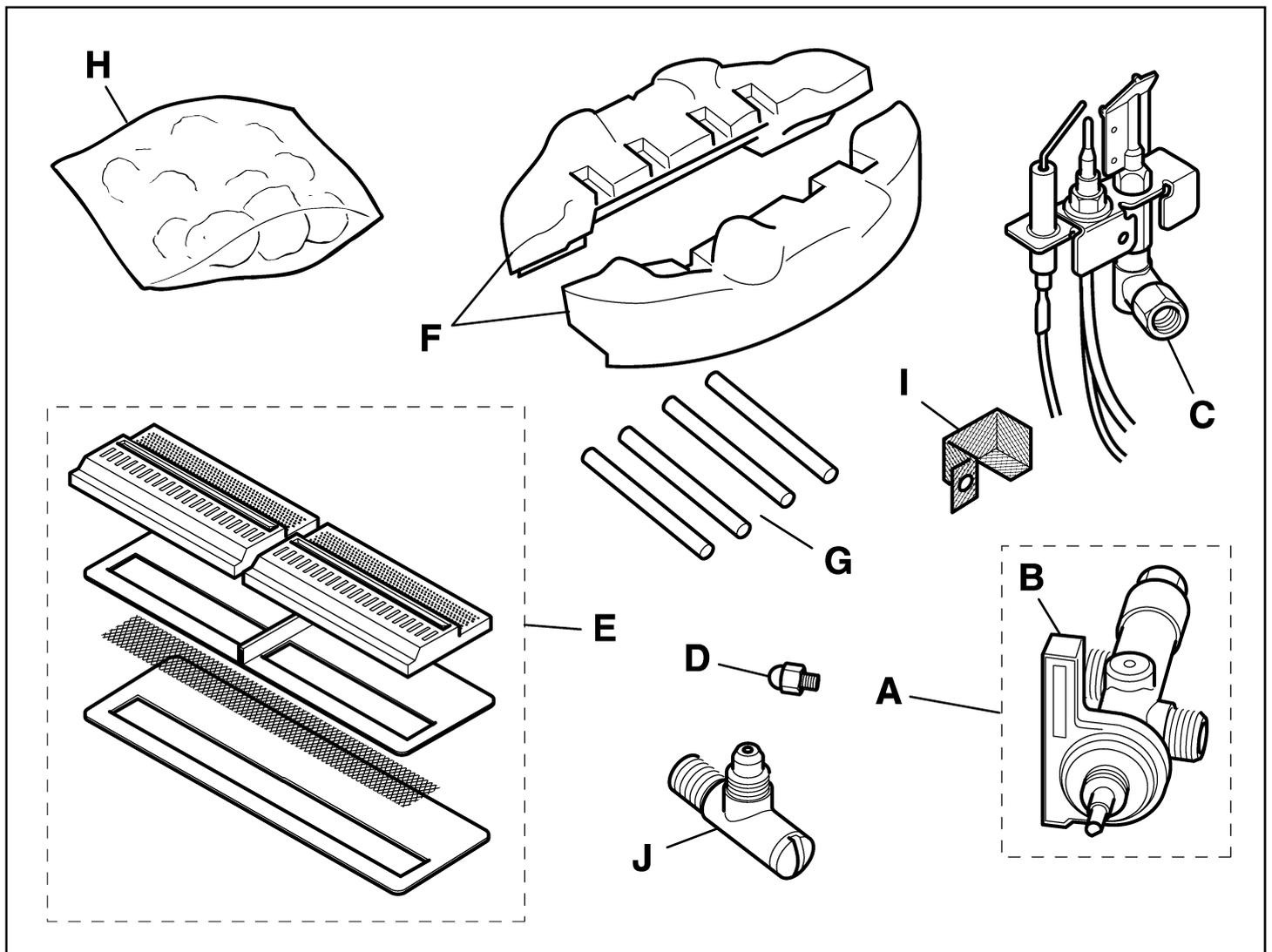
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9. Refit the pebbles as described in section 11 of this manual.

14.10 To Remove the Appliance from the Fireplace

1. Remove the burner unit - See section 14.3
2. If the fire retention is as method 1 (See section 8.1 of installation instructions), remove the screws.
If the fire retention is as method 2 (See section 8.2 of installation instructions), slacken the hexagonal adjusters on the cable retainers and unscrew the thumbscrews to release the cables.
3. Refit as described in the relevant installation sections. Make sure gas soundness, sealing, spillage test and performance are satisfactory.

15. SHORT LIST OF SPARES



INSTALLER'S GUIDE

KEY NO.	DESCRIPTION	NO. OFF	MAKER'S PART NO.
A	Control Valve and spark generator	1	740K187
B	Spark Generator	1	720A109
C	Pilot unit - <i>For Natural Gas Appliances</i>	1	720A249
	Pilot unit - <i>For Propane Gas Appliances</i>		720A300
D	Injector Bray cat 18 size 300 - <i>For Natural Gas Appliances</i>	1	720A741
	Injector Bray cat 18 size 140 - <i>For Propane Gas Appliances</i>		3003097
E	Burner plaque & gasket set	1	3002696
F	Pebble Base Set – Front and Rear	1	3002801
G	Set of 4 ceramic support rods	1	3002478
H	Pack of 17 loose Pebbles	1	3002802
I	Dust cage	1	320B282
J	Isolating Elbow	1	020A050