



INSTALLER'S GUIDE

Gasflame 3 Convector Box

MODEL 639 GFC



Inset Decorative
Gas Fire

(G.C No. 32-815-81)

**THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20)
WHEN CONVERTED USING CONVERSION KIT NO. 0591301 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.**

**These instructions are to be read in conjunction with the model 639
instructions.**

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.

Please 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, Wood Lane, Erdington, Birmingham B24 9QP
www.wonderfire.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 9.6 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.

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2. LIST OF ACCESSORIES

<u>Description</u>	<u>Part number</u>
Aspire trims with firefronts	
Satin Chrome effect	9820111
Brass effect	9820112
Black	9820113
Copper effect	9820114
Bauhaus Firefront (Fret)	
Polished Brass effect 16in	9800121
Satin Chrome effect 16in	9800122
Charcoal Black 16in	9800123
Blenheim Firefront (Fret)	
Brass effect 16in	9800040
Antique (Black & Brass effect) 16in	9800075
Chrome effect 16in	9800076
Black Cast Iron with Brass Finials 16in	9800039
Decorative trims	
Chrome effect full trim 16in	9820055
Brass effect full trim 16in	9820045
Black full trim 16in	9820060
Brass effect half trim 16in	9820050
Chrome effect half trim 16in	9820100
Oversized brass effect trim 16in	9820048
LPG Conversion kit	0591301

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3. GENERAL INSTALLATION REQUIREMENTS

3.1 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:

a) All the relevant parts of local regulations.

b) All relevant codes of practice.

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

BS 1251

BS 4543 Part 2

BS 5440 Part 1

BS 5440 Part 2

BS 5871 Part 3

BS 6461 Part 1

BS 6891

BS 8303

d) 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 with the relevant parts of:

The current editions of:-

3 IS 813

3 ICP3

3 IS327

b) All relevant national and local rules in force.

c) As supplied the appliance can be installed in the following situations: -

3.2 To a fireplace complete with surround and hearth as shown in figure 1 and complying with BS1251. The required fireplace, hearth, and clearance dimensions are shown in figure 1. (Remove any firebrick back and existing heating appliance).

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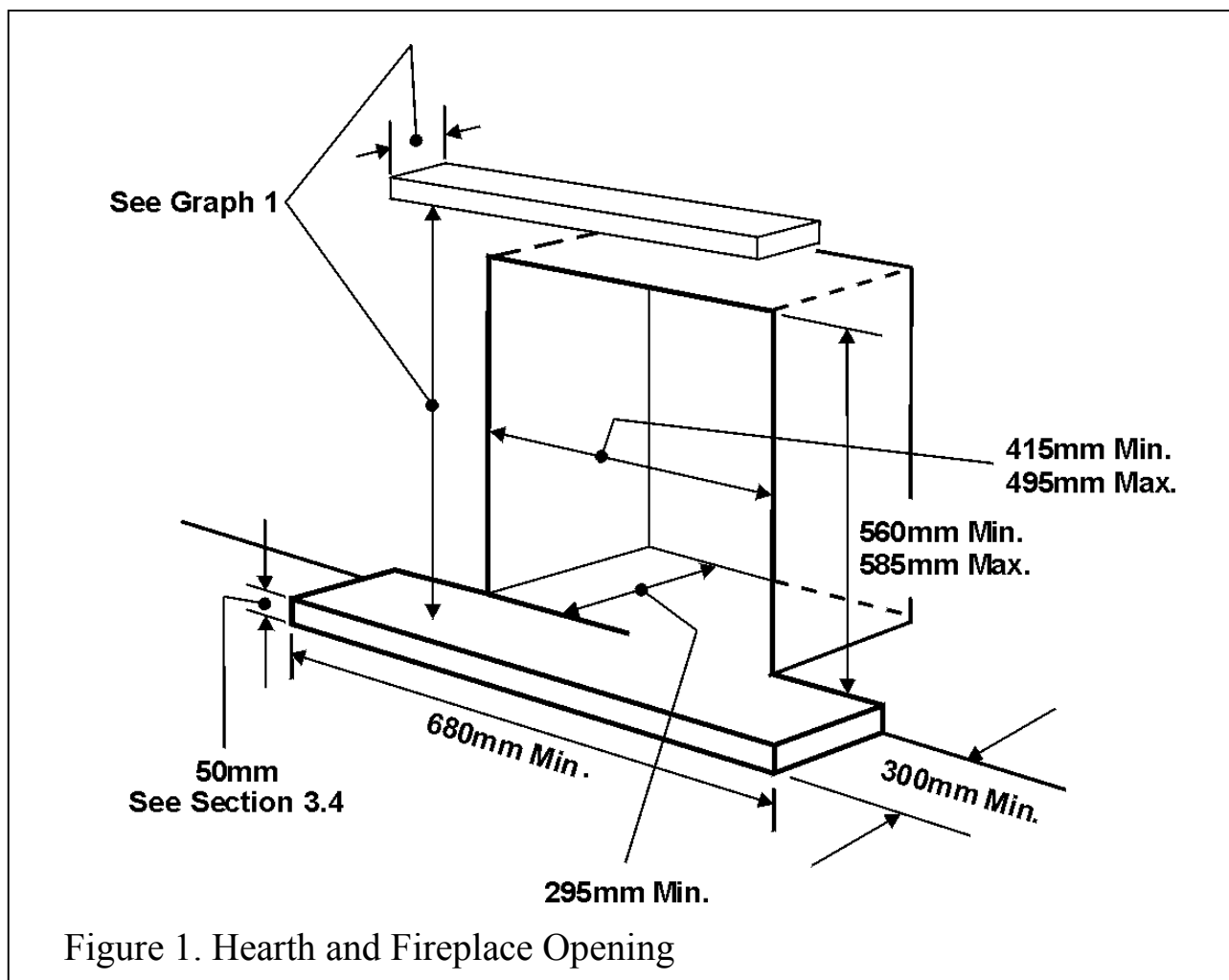


Figure 1. Hearth and Fireplace Opening

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 BS4543.
- 175mm diameter flue pipe. See BS6461 Part 1 for suitable materials.
- A masonry chimney having a correctly installed flexible flue liner with minimum diameter of 125mm and conforming to BS715.

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

The flue must not be used for any other appliance or application.

Any chimney damper or restrictor should be removed. If removal is not possible, they must be secured in the open position.

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.

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

3.4 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 minimum class “O” – 100°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 (See figure 1).

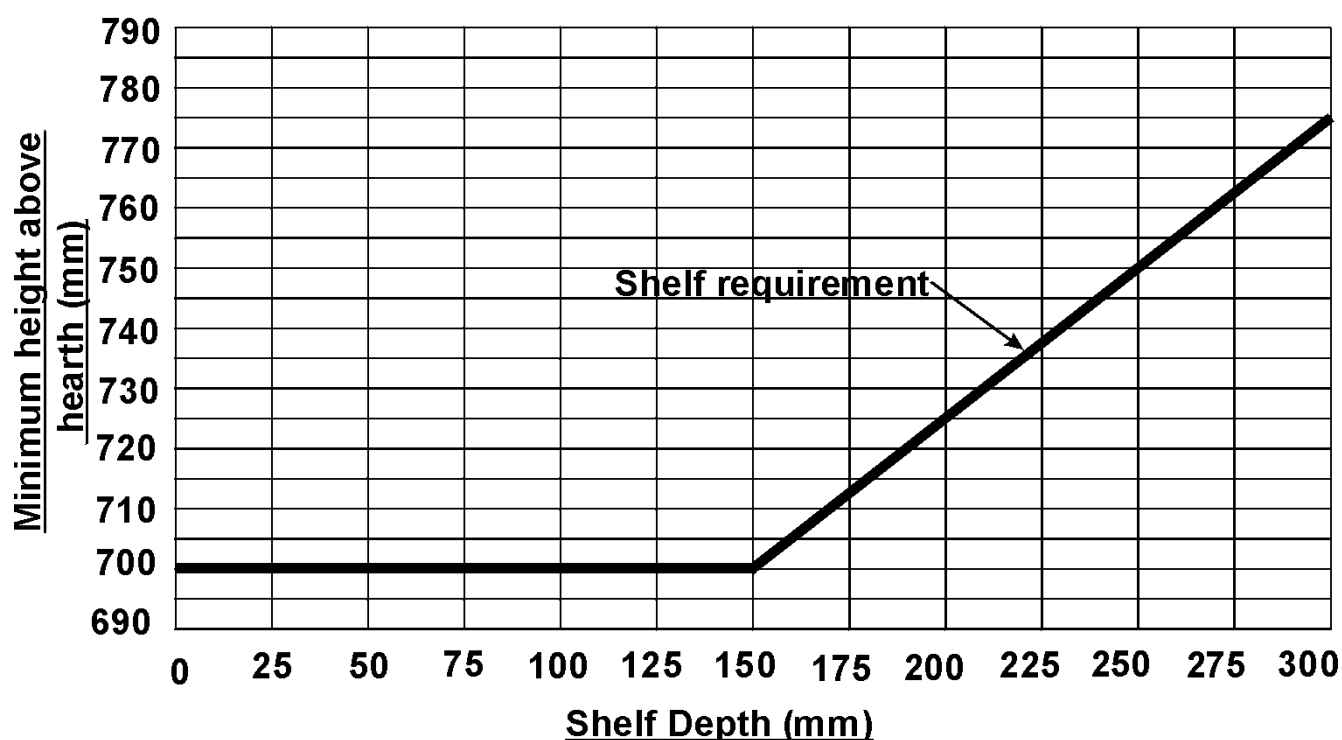
The surface of the hearth must be sufficiently flat to enable the bottom of the front surround and the bottom front cover to be aligned horizontally. Any excessive unevenness (uneven tiles, Cotswold stone, etc.) should be rectified. **The base of the fireplace opening must be level with the top surface of the hearth. There should be no gaps between the hearth and the fireplace opening.**

3.4.1 ‘Hole-in-the-wall’ Installations

- It is recommended that a hearth should be installed as in figure 1.
- If a reduced depth Hearth is 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 85mm minimum. It is recommended that the reduced hearth has a depth from the fixing plane of the fire of 100mm minimum. This is necessary to support the lower front casting.

3.5 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

3.6 The appliance must not stand on combustible materials or carpets.



Graph 1. Combustible shelf clearances.

3.7 The minimum height from the top of the hearth to the underside of any shelf made from wood or other combustible materials is as follows: -

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

(See Graph 1).

3.8 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.

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

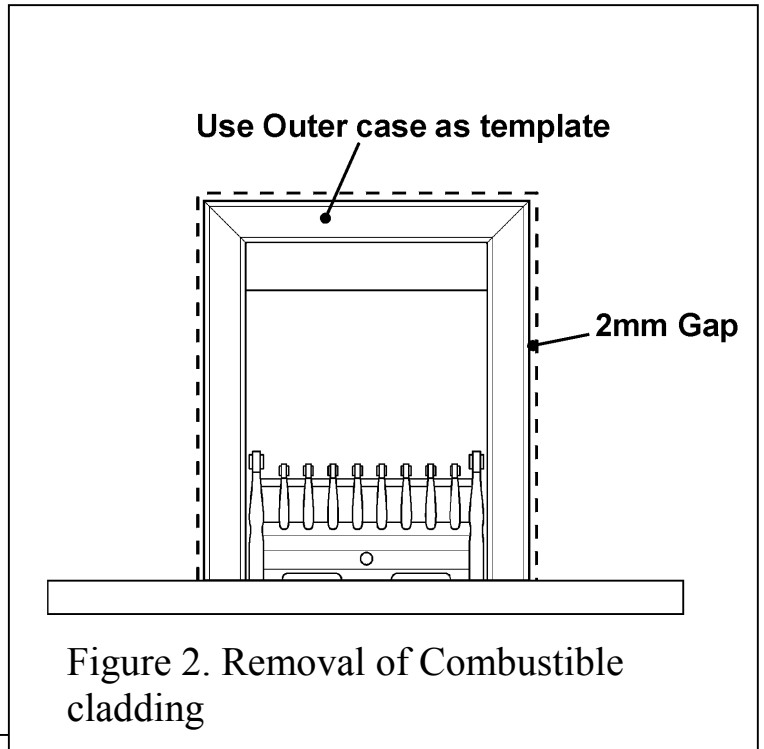
3.10 An extractor fan may only be used in the same room as this appliance, or in any area from which ventilation for the appliance is taken, if it does not affect the safe performance of the appliance. Note the spillage test requirements detailed further on in this manual. If the fan is likely to affect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

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3.11 Normal adventitious ventilation is usually sufficient to satisfy the ventilation requirements of this appliance. In GB references should be made to BS 5871 Part 2 and in IE reference should be made to the current edition of IS 813 which makes clear the conditions that must be met to demonstrate that sufficient ventilation is available.

3.12 Propane gas appliances must not be installed in a room that is built entirely below ground level (see BS 5871 Part 3).

3.13 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 not touch the surround (See figure 2). We suggest that the appliance fitted with the surround is used as a template to mark the area for combustible cladding to be removed and that this area is



Combustible projections up to 75mm forward of the fixing plane of the fire to be a minimum of 125mm from the fireplace opening. Projections above 75mm forward of the fixing plane of the fire to be a minimum of 250mm from the fireplace opening. Non-combustible side projections to be 75mm from the fireplace opening

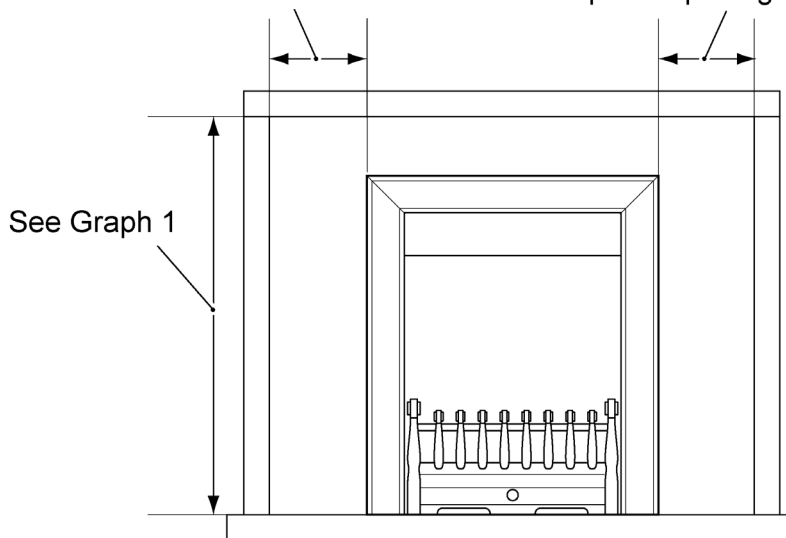


Figure 3. Appliance Clearances.

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increased by 2mm all round.

3.14 Combustible side projections up to 75mm forward of the fixing plane of the fire are to be a minimum of 125mm from the fireplace opening (See figure 3)

3.14.1 Combustible side projections greater than 75mm forward of the fixing plane of the fire are to be a minimum of 250mm from the fireplace opening (See figure 3).

3.14.2 Non-combustible side projections to be 75mm from the fireplace opening (See figure 3)

4. UNPACKING

Contents: -

- 1 Convector box assembly
- 1 Accessory kit including: -
- 4 Lengths of Self Adhesive Foam seal
- 2 Eyebolts
- 2 Fibre wall plugs
- 2 Retaining cables
- 2 Cable clamps
- 1 Restrictor plate
- 1 Stainless steel screw
- 1 Rear Grommet (Convection box)
- 2 Side Grommets (Convection box)

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

5. INSTALLATION OF APPLIANCE

5.1 Fireplace size

The fireplace must comply with the requirements described in section 3.

5.2 Fireplace flue pull.

Visually inspect the flue for any obstruction, and that a smooth transition from the fireplace opening into the flue is available. 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

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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.**

5.3 Installing the convector box

5.3.1 Fitting the foam seals

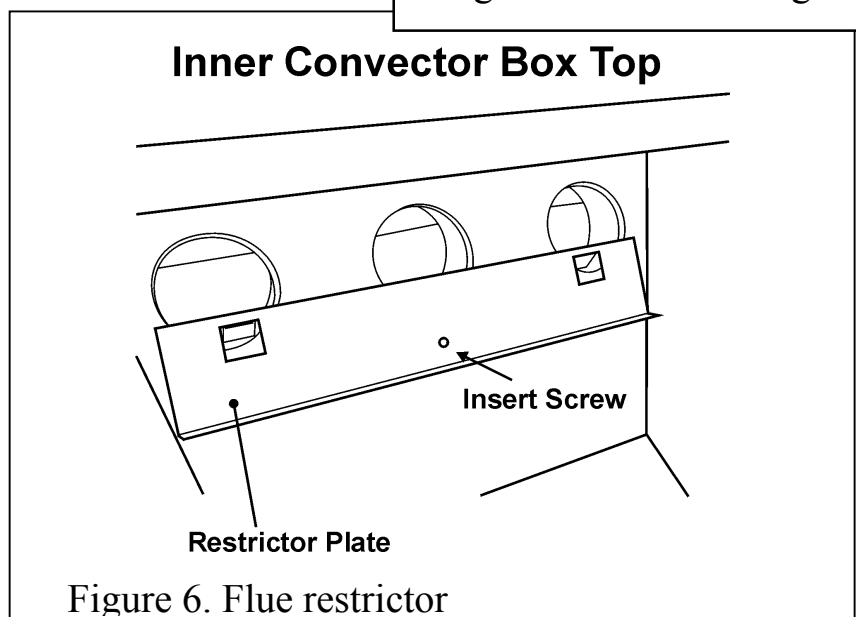
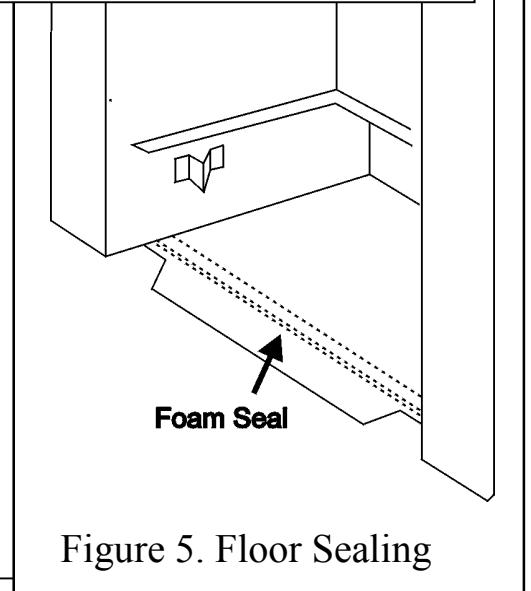
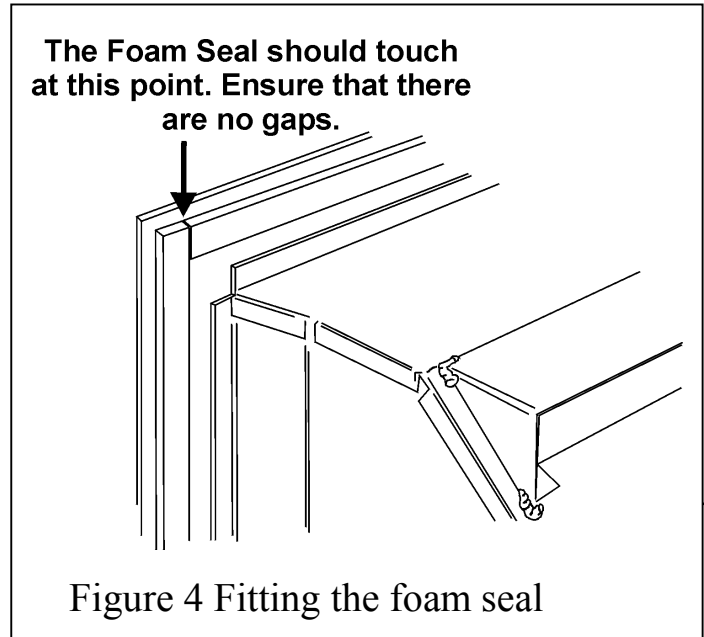
1. Supplied with this appliance are four lengths of self-adhesive foam seal. Position three of the foam seals at the rear of the appliance front flange. Cut the adhesive foam seal to length.

Be careful not to stretch the foam seal when positioning or cutting. Remove the backing paper and locate the adhesive foam seal to the rear of the appliance front flange (see figure 4). **It is important that there are no gaps between the joints.**

2. Position the remaining length of foam seal along the front edge of the base. Make sure that the whole length of the front edge of the convector box is fully sealed (See figure 5).

5.3.2 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 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



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have to be removed. After removal conduct the spillage check again.

The restrictor is supplied loose and is fixed with a stainless steel machine screw supplied. See figure 6.

Before continuing with the installation consideration must be made given to the

supply pipe. See section 5.5

5.3.3 Fitting the cable retainers

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

2. Drill two 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 7 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 convector box 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 convector box. If a concealed connection is being used, insert the convector box into the fireplace feeding the supply pipe through the pierced hole in the rear / side grommet(s).

5. The convector box has a debris deflector. There are two small holes in both sides of the debris deflector. Insert one end of each cable (one cable each side) through the lower of the two holes and return the end through the upper of the holes. See figure 8. Give the cables a pull so that they are secure.

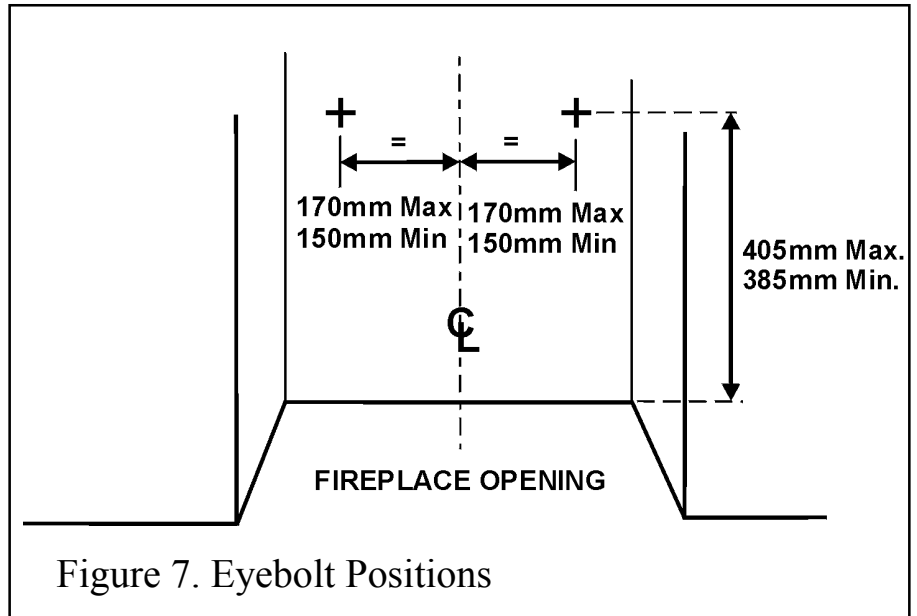


Figure 7. Eyebolt Positions

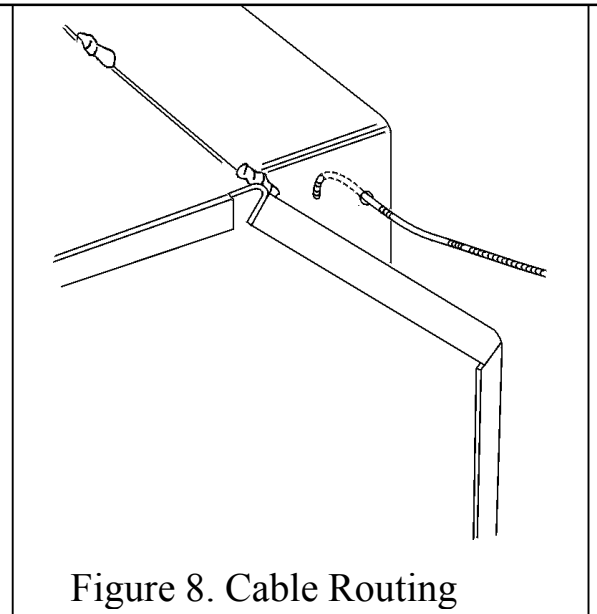


Figure 8. Cable Routing

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6. Thread the cables through the eyebolts. Return the cables through the holes near the bottom of the convector box back panel, and through the "V" shaped brackets near the bottom front sides of the convector box - See figure 9.

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

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

9. 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 10.

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

11. If the convector box is not correctly aligned, release the tension on the cables by slackening the screws and turning the hexagonal adjusters fully anticlockwise. The convector 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. Feed the free length of the cables into the gap above the brackets 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**

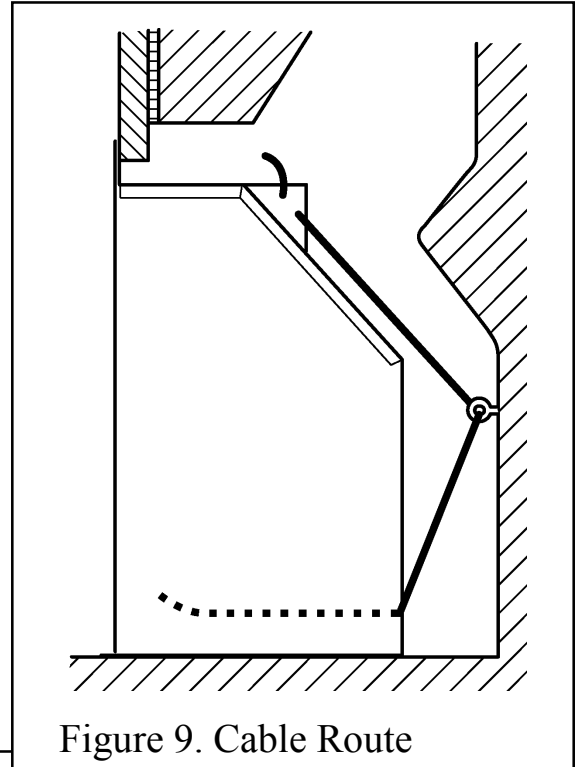


Figure 9. Cable Route

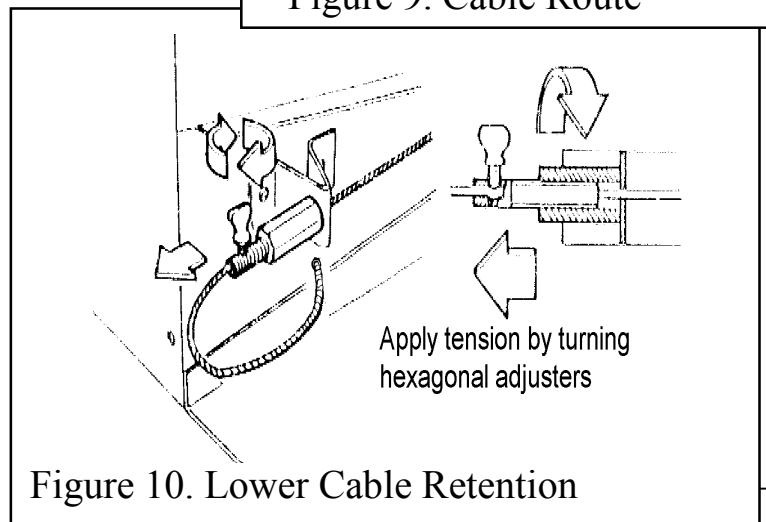


Figure 10. Lower Cable Retention

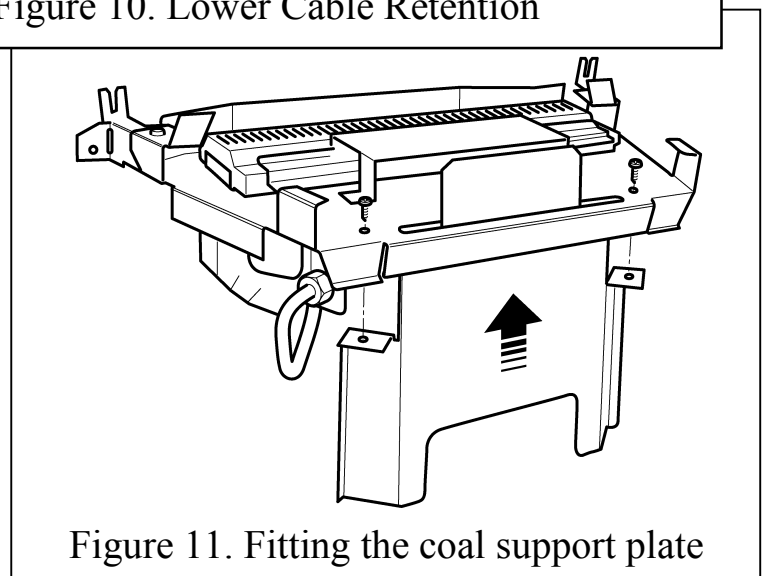


Figure 11. Fitting the coal support plate

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5.4 Installation of the model 639 burner unit

5.4.1 Prior to installation of the burner the coal matrix support plate must be fitted (See figure 11). Two self-tapping screws retain the plate.

5.4.2 Locating the burner.

There is a bracket on the front support leg of the model 639 gas fire which can be removed and disposed of. Keep the screw as this is required for securing the burner unit to the bracket at the base of the convection box.

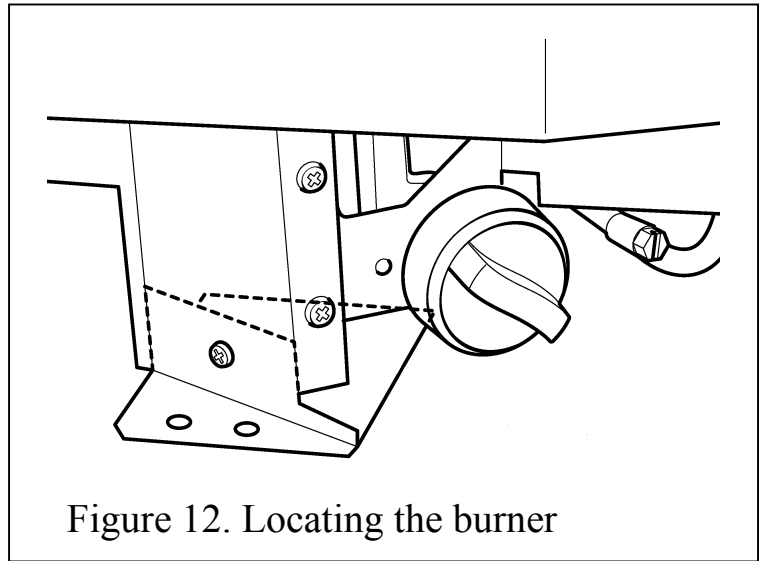


Figure 12. Locating the burner

- Place the burner assembly in position against the convector box bottom location bracket. (See figure 12).
- Secure using the screw removed previously.

5.5 Burner and supply pipe installation

There are three grommets supplied in the accessory kit. Fit the larger grommet into the hole in the rear of the convection box. Fit the two smaller grommets into the holes at each side of the convection box.. The grommets are to allow supply pipe passage into the convector box. First decide which grommet is to be used. ***Do not remove the grommets.*** 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. Refer to model 639 installer's guide.

5.6 Ceramic fuel bed Installation

Follow model 639 installer's guide.

5.7 Spillage check.

It is important that the following spillage test is used when installing a model 639GFC. **DO NOT** use the spillage test in the model 639 installer's guide.

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- A spillage check must be made before leaving the installed appliance with the customer. Make this with all the ceramic fuel effect pieces and firefronts / castings in position. (See figure 13)

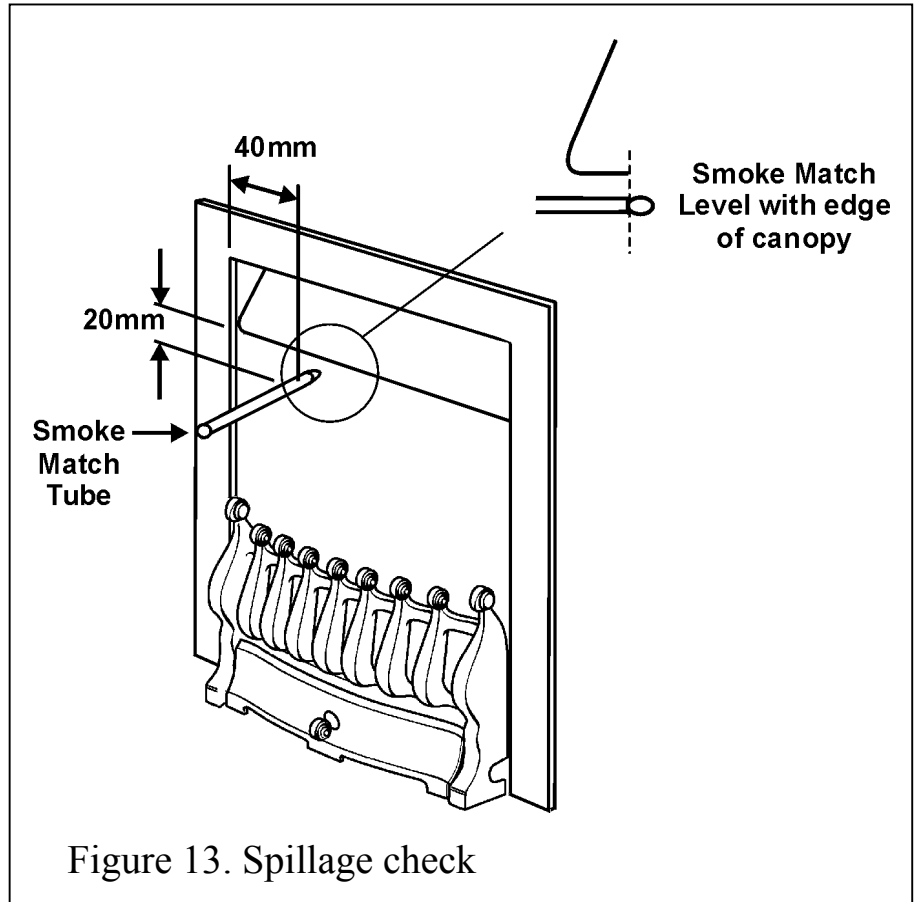


Figure 13. Spillage check

- Close all doors and windows in the room containing the appliance. Light the appliance and set the control to the 'HIGH' position. Leave the appliance on for five minutes. See lighting instructions within model 639 installer's guide.
 - Insert the smoke match 40mm away from the side of the canopy and 20mm from the top of the underside of the canopy. The end of the smoke match should be level with the front face of the fireplace opening.
 - The installation is satisfactory if the smoke is drawn into the fireplace opening. If the smoke is not drawn into the fireplace opening, leave the appliance alight at the maximum setting for a further ten minutes and then repeat the test. 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. Switch on any extractor fan installed in the same room as the appliance or a connecting room. Open all doors and other openings between the fan and the appliance. Recheck for spillage as above. 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.***
- 5.8 Advise the customer to refer to the model 639 Owner's guide for operating and maintenance guidelines.