

# Scottish Gas

# **INSTALLER GUIDE**

# Churchill Balanced Flue

(GC No. 32-810-58)

ROOM SEALED RADIANT/ CONVECTOR GAS FIRE



(Manufacturer ref. 4733)

THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20)
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.

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#### **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 23 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.

# **LIST OF ACCESSORIES**

**Description** Part number

Timber frame Flue Clearance kit. 0583141

This kit includes: -

1 off Flue clearance sleeve

1 off Drip collar

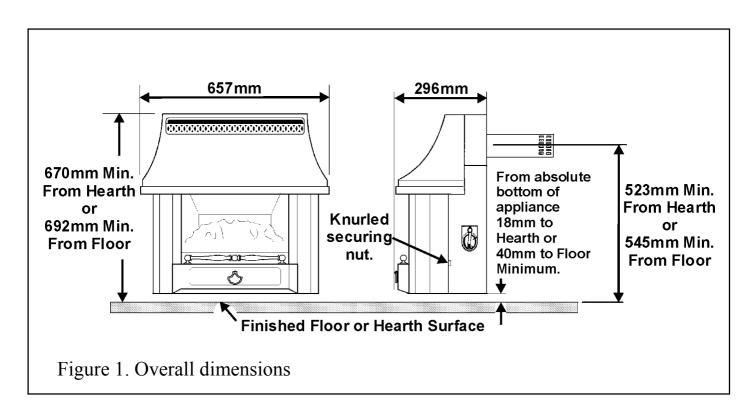
1 off External wall plate

1 off Insulation blanket (This can be discarded)

For timber framed installations see section 5.

# 1. APPLIANCE DATA

The overall dimensions are shown in figure 1.



Main Burner:Simplex aeratedFlame Effect Burner:Simplex aerated.

*Gas Connection*: RP 1/4 (1/4in. B.S.P) Isolating Elbow (Female).

**Gross Gas Consumption**: 4.9kW at maximum position.

Maximum output: 3.54kW

Injectors: -

Main Burner: Bray Cat. 960 Size 240 Flame Effect Burner: Bray Cat. 960 Size 130

**Pressure Setting (Cold)**:  $18.2 \pm 0.75$ mbar **Aeration Adjustment:** None required.

Control Tap: Variable position fitted with flame supervision device

and integral piezo igniter.

**Pilot Unit**: Right side of firebox. Combined Pilot jet

thermocouple sensor and electrode.

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

The appliance data label is at the left side of the rear case and is visible after removing the case front. In addition, for customer reference, there is a label giving the appliance serial number on the outside of the case at the bottom right side.

This product uses fuel effect pieces, burner compartment walls 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.

# 2. GENERAL INSTALLATION REQUIREMENTS

#### **2.1** Walls: -

Minimum 102mm (4in.) thick

Maximum 660mm (26in.) thick.

Suitable for use with combustible walls provided that there is no combustible material or combustible cladding in the area indicated on the wall fixing template. Please note that soft wall coverings (e.g. embossed vinyls etc.) are easily affected by heat. They may therefore, scorch or become discoloured when close to a heating appliance. Please bear this in mind when installing.

**2.2** Installation to a timber-framed building should be in accordance with the relevant sections of The Institute of Gas Engineers publication IGE/UP/7 "Gas installations in timber frame buildings".

Please note that advice should be sought before installing in a timber frame building since the alterations required may nullify any NHBC cover relating to the property. If in doubt, guidance should be requested from your local authority planning or building department.

For timber framed installations see section 5.



- **2.3** 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.
- **2.4** In the United Kingdom the installation must also be in accordance with:
- a) All the relevant parts of local regulations.
- b) The current edition of the Building Regulations issued by the Department of the Environment and the Welsh Office or the Building Standards (Scotland)
- (Consolidation) Regulations issued by the Scottish Development Department.
- c) All relevant codes of practice.
- d) The relevant parts of the current editions of the following British Standards:-

BS 5440 Part 1

BS 5871 Part 1

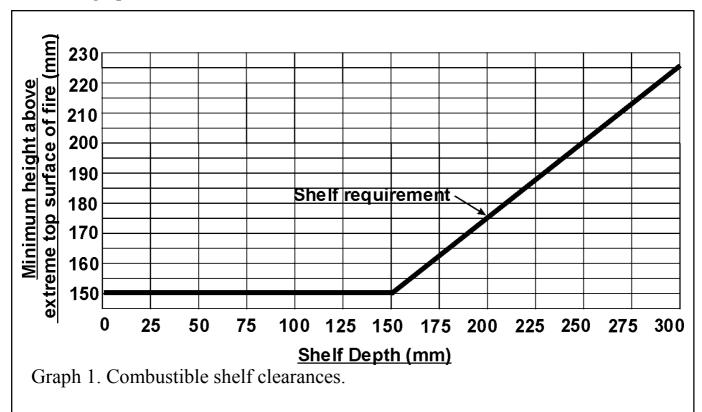
BS 6891

In the republic of Ireland the installation must also conform

- a) With the relevant parts of the current editions of IS 813 and ICP3
- b) All relevant national and local rules in force.
- 2.5 For combustible projections up to a depth of 178mm (Measured from the rear fixing plane of the fire) a minimum clearance of 75mm should be maintained at the left and right side of the fire. This is measured from the extreme side of the case. This will allow easy access to the control knob and knurled nuts for removal of the outer case. This clearance is mandatory for temperature requirements.
- **2.6** For any combustible projections beyond 178mm (Measured from the rear fixing plane of the fire) a minimum clearance of 100mm should be maintained at the left and right side of the fire. This is measured from the extreme side of the case. This clearance is mandatory for temperature requirements.
- **2.7** For non-combustible projections a minimum clearance of 75mm should be maintained at the left and right side of the fire. This is measured from the extreme side of the case. This will allow easy access to the control knob and knurled nuts for removal of the outer case.

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.

**2.8** The minimum height from the extreme top surface of the fire to the underside of a shelf or other projection made of wood or any other combustible material is shown in graph 1.



- **2.9** There is no restriction on the depth of non-combustible projections but a space of at least 30mm should be allowed above the top of the appliance to enable removal of the case front.
- **2.10** It is advisable that combustible fabrics such as curtains are not fitted above the fire. If, however, this is unavoidable, a clearance of at least 150mm must be maintained from the extreme bottom edge of the fabric to the extreme top surface of the fire.
- 2.11 The appliance can be installed with or without a non-combustible hearth. If a non-combustible hearth is installed, there must be a minimum clearance from the top surface of the hearth to the absolute bottom of the appliance of 18mm (see figure 1). The hearth must be at least 700mm wide x 300mm deep. The non-combustible hearth material must be at least 12mm thick. Its top surface should be preferably 50mm above floor level to discourage the placing of carpets or rugs over it. If the appliance is not installed with a hearth meeting the above conditions, the minimum distance from the top surface of the finished floor covering (including any carpet etc.) to the absolute bottom of the appliance must be at least 40mm (see figure 1).
- **2.12** A hole 152mm (6in) is required through the wall for the flue unit.

The minimum height of the hole centre is shown in figure 1 and on the wall fixing template.

- **2.13** Minimum allowable distances from the terminal are shown in table 1 and figure 2: -
- **2.14** In England and Wales the Building Regulations require a terminal guard to be fitted if the terminal could come into contact with people near the building or be subject to damage.

Fitting a terminal guard is recommended where contact with or damage to the terminal is possible even if regulations do not demand it.

A suitable guard is supplied with this fire.

**2.15** No special ventilation bricks or vents into the room containing the appliance are required.

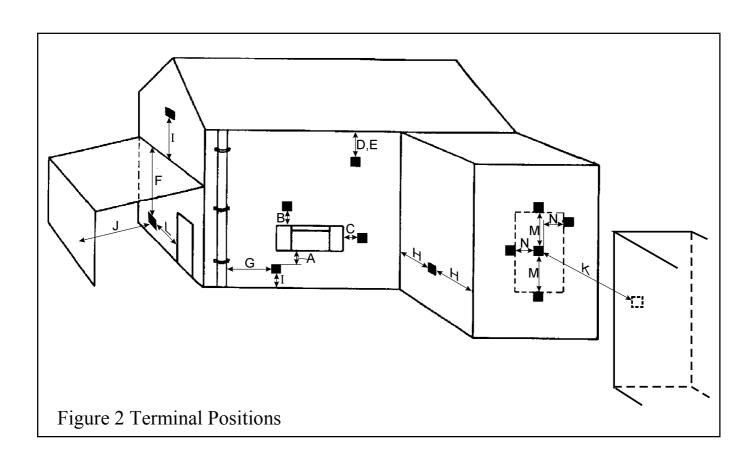
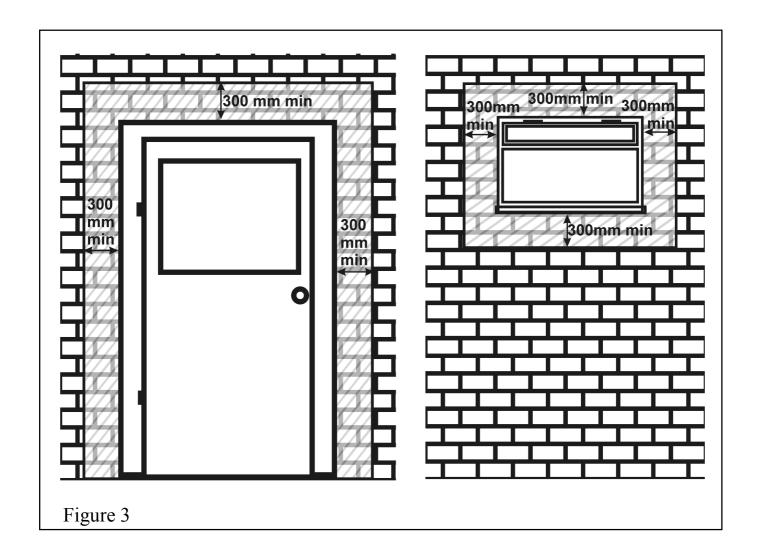


Table 1.

Dimension	Terminal Position	Minimum
(See figure 2)		Distance
A*	Directly below an opening, air brick, opening	300mm
	window etc.	
B*	Above an opening, air brick, opening window etc.	300mm
C*	Horizontally to an opening, air brick, opening	300mm
	window etc.	
D	Below gutters, soil pipes or drain pipes	300mm
Е	Below eaves	300mm
F	Below balconies or car port roof	600mm
G	From a vertical drain pipe or soil pipe	300mm
Н	From an internal or external corner	600mm
I	Above ground, roof or balcony level	300mm
J	From a surface facing the terminal	600mm
K	From a terminal facing the terminal	600mm
L	From an opening in a car port (e.g. door, window)	1200mm
	into dwelling	
M	Vertically from a terminal on the same wall	1500mm
N	Horizontally from a terminal on the same wall	300mm
О	From the wall on which the terminal is mounted	N/A
P	From a vertical structure on the roof	N/A
Q	Above intersection with roof	N/A

<sup>\*</sup>In addition, the terminal should not be nearer than 300mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame or door frame. See figure 3.



# 3. UNPACKING

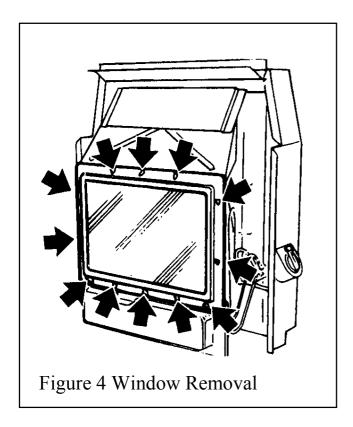
The carton contains the following: -

- 1 Fire assembly
- 1 Ceramic fuel base
- 4 Ceramic coals
- 1 Flue unit
- 1 Terminal Guard
- 1 Inlet elbow
- 1 Pack fixing screws and wall plugs
- 1 Wall fixing template
- 1 Length of flue sealing tape

Remove all the items carefully to prevent damage. Some items may be contained in the packaging fitments - Examine the packaging carefully before discarding. Check that all the items are present and undamaged.

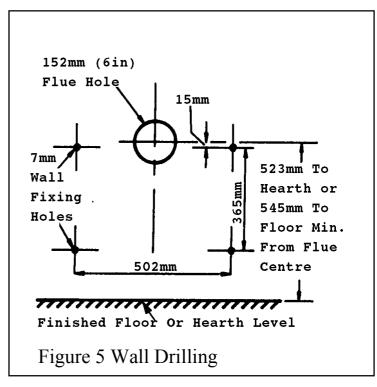
#### 4. PREPARE THE FIRE

- **4.1** Stand the fire upright
- **4.2** Detach the case front by removing the knurled nuts and washers at the case sides (see figure 1).
- **4.3** Pull the bottom of the case forwards and then left to remove.
- **4.4** Remove the window unit by detaching the 12 wing nuts securing the window frame (see figure 4) and pulling forward.



# 5. PREPARE THE WALL

The flue must be installed so that it is at right angles to the back panel of the fire all round the flue circumference. The fire itself should be fitted vertically against a flat wall. Where this is difficult to achieve due to building inaccuracies care should be taken to ensure that the back of the fire is not stressed in any way due to distortion of the assembly when tightening the fixing screws. Where necessary, noncombustible packing pieces should be used to provide a satisfactory fixing surface. Before cutting the hole in the wall make sure that the height to the top surface of the finished floor is known. The minimum acceptable height from this surface to the flue hole centre is shown in figure 5.



If a loose hearth or plinth is to be used, the height from its top surface must be used when determining the minimum flue height. Where installation is to a timber frame wall, the appliance should be positioned so that the right side wall fixings are into timber studs to absorb any pressure generated by operating the control knob.

Proprietary cavity fixings should be used at the left side if the fixing at this side is into plasterboard.

- **5.1** Place dust sheets on the floor and over any furnishings etc.
- **5.2** Place the template against the wall. Make sure that the centre of the flue hole is not less than the minimum shown in figure 5.
- **5.3** Pierce the centre of the screw fixing holes and the flue hole and mark the positions on the wall.

Remove the template.

**5.4** Cut the hole for the flue unit. Make sure that it is straight and level. Though a hammer and chisel can be used, using a core drill is by far the quickest and simplest method for normal brickwork.

#### 5.5 Core Drilling

**5.5.1** Drill a pilot hole through the wall. Inspect the hole to ensure that it is in the brickwork and not in mortar. If it is in mortar, it is advisable to reposition the hole approximately 25mm away (making sure that the minimum side clearances and height are complied with). Remember to reposition the screw fixing holes.

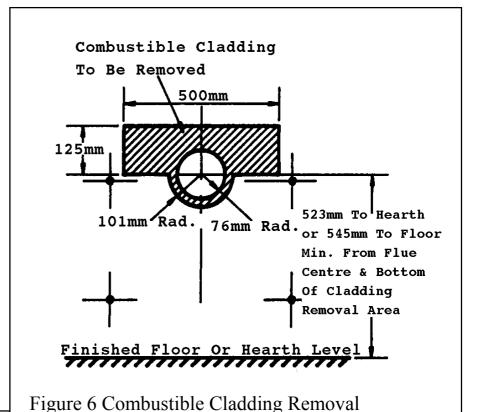
5.5.2 Drill the flue hole with a 6in. (152mm) core drill. Where practical, it is recommended that the hole is drilled from inside the building to about half the wall depth with the remainder drilled from outside. This ensures that the edges of the hole are clean on both sides.

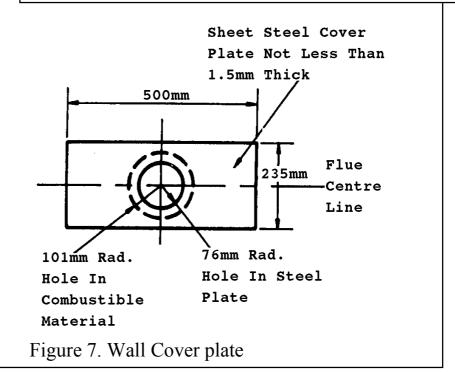
# 5.6 Hammer & Chisel Cutting

**5.6.1** Mark a 152mm (6in) diameter circle for the flue hole. Chisel out the area marked.

5.6.2 It may be necessary to make good both the internal and external wall faces. To achieve a neat finish and to make any future removal of the flue unit easier, it is recommended that a cardboard cylinder be formed around the flue unit and inserted in the hole while making good. Remove the cardboard cylinder after making good.

**5.7** Recheck the screw fixing holes relative to the flue hole.





- **5.8** Drill the four fixing holes to a minimum depth of 42mm using a 7mm diameter masonry drill.
- **5.9** Insert the four wall plugs supplied.
- **5.10** Remove any combustible wall cladding material from the area shown in figure 6.

#### 5.11 Leaving a Hole, Building under Construction

It will be convenient to use a non-corrosive metal tube 160mm diameter built into the wall at the correct position for the flue unit.

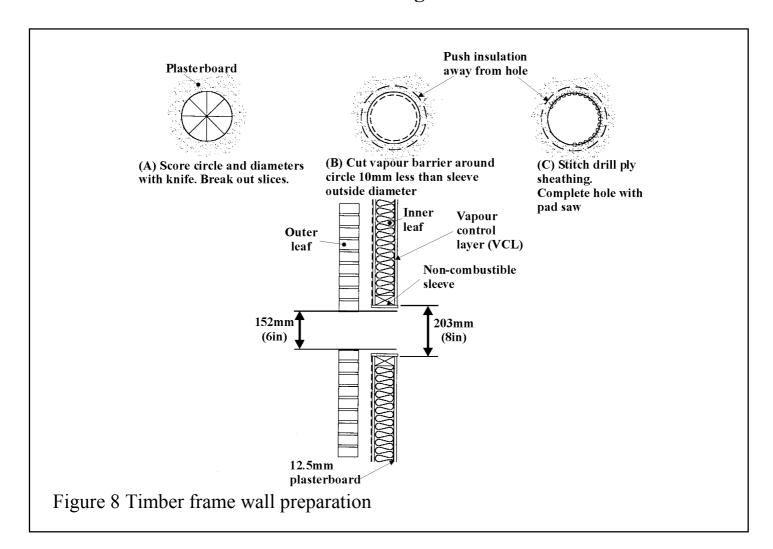
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#### 5.12 Combustible Walls (Wood, Fibreboard, Plasterboard etc.)

Building regulations require that the inlet and outlet ducts and terminal bust not be closer than 25mm to combustible material.

- **5.12.1** Mark out and cut a hole 202mm diameter through the combustible part of the wall. A 152mm diameter hole can be cut through non-combustible parts of the wall (see figure 7).
- 5.12.2 Cover the hole with a rectangular sheet steel plate 500mm x 235mm with a 152mm diameter hole cut out of the centre (see figure 7). The steel should be not less than 1.5mm thick. Fix with suitable screws and plugs.
- **5.12.3** Where the whole wall is of combustible material, a non-corrosive plate 455mm x 455mm with a 152mm diameter hole in the centre must be fitted to the outer wall. The hole through the wall should be lined with a non-corrosive metal tube 202mm diameter

#### Cut the Flue Hole -Timber Frame Buildings



Drill the pilot hole and hole in outer wall as section 5.5.

• Since the flue will pass through combustible material in the inner leaf of the wall, a non-combustible sleeve 203mm (8in.) diameter will be required round the flue. See figure 8.

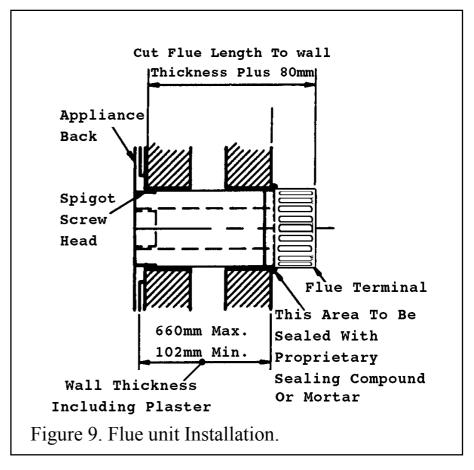
#### A Timber Frame Flue Clearance Kit is available. Part Number 0583141

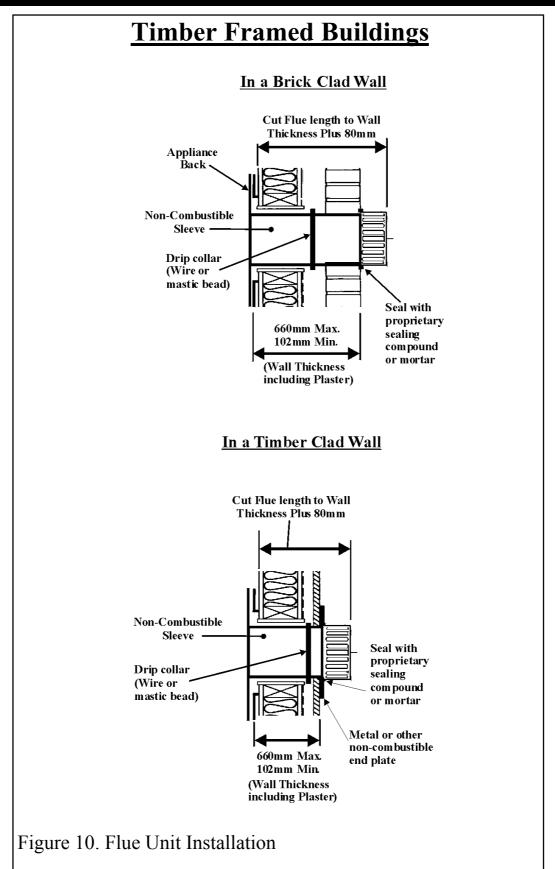
- Cut a hole through the inner leaf to accommodate a non-combustible sleeve 203mm (8in.) outside diameter. To minimise the effect of breaking through the vapour control layer (VCL), if possible, cut the hole approximately 10mm undersize so that the sleeve will be forced through the layer. A recommended technique for cutting the inner leaf is shown in figure 8.
- Fit the non-combustible sleeve to the inner leaf. The sleeve must extend to be at least flush with the breather membrane/timber sheathing but must not protrude more than 10mm into the cavity.
- The annular gap between the flue unit and the sleeve must be sealed to prevent air heat and moisture passing along it.

#### 6. PREPARE FLUE UNIT

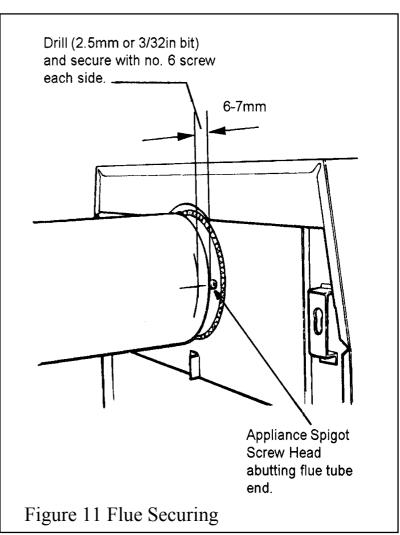
(See Figure 9 & 10)

- 6.1 Measure the total wall thickness from the outside surface to the inside face. Add 80mm to this measurement to obtain the correct length of flue unit required.
- 6.2 Mark off the flue length on the outer (air) tube measuring from the end of the terminal.
- 6.3 Insert the polystyrene ring between the inner and outer tubes to support them and cut both tubes squarely at the marked distance.
- 6.4 Important: Remove all polystyrene from the flue unit after cutting.





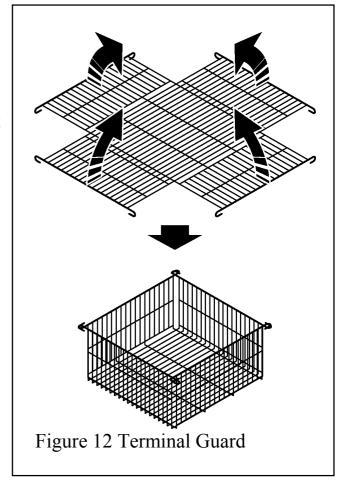
- **6.5** Fit the flue unit tubes firmly over the spigots at the rear of the fire. **Make sure that the seam on the flue tube is not at the bottom**. Push on until the outer tube touches the screw heads on the outer spigot.
- **6.6** If it is felt of benefit, the flue unit may be additionally secured to the fire with one or two suitable self tapping screws (we suggest No.6) before installing into the wall as follows: -
- **6.6.1** Using a suitable metal cutting drill bit, drill through the outer flue tube and outer spigot at a distance of between 6mm & 7mm from the cut end of the outer flue tube See figure 11.
- **6.6.2** Fit the self-tapping screw(s) in the drilled hole(s).
- **6.7** Seal the flue unit all round the circumference of the fire spigot with the tape supplied.
- **6.8** Insert the plugs into the wall fixing holes. Insert the top right fixing screw leaving the plain shank proud to allow the top-fixing keyhole in the fire back to go over the screw.
- **6.9** Offer the fire complete with flue unit through the wall and hook the top right keyhole slot over the previously fitted wall screw.
- **6.10** Insert the top left and two bottom fixing screws and tighten.
- 6.11 Seal the outer flue tube to the outside surface of the wall with fireclay or cement. Make sure that the slots in the flue terminal are not closer than 8mm to the wall and are not obstructed by cement.



# 7. TERMINAL GUARD FITTING

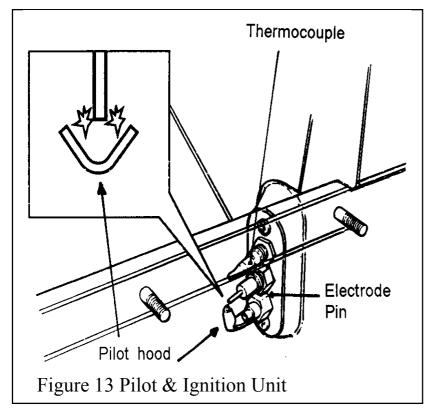
#### **Fitting Terminal Guard**

- **7.1** Fold the terminal guard as shown in figure 12.
- **7.2** Place the guard centrally over the flue terminal.
- **7.3** Holding the guard in position and using it as a template, mark on the wall the positions of the four fixing holes.
- 7.4 Remove the guard. Drill and plug the holes with the four plugs supplied.
- **7.5** Replace the guard and refix with four woodscrews supplied.



#### 8. CHECK IGNITION SPARK

The pilot ignition unit is situated at the bottom right side of the firebox - See figure 13.



Check that there is an ignition spark between the pilot hood and the electrode pin.

- **8.1** Depress the control knob and, while keeping it depressed, turn to IGN position. Turning the control should normally cause two consecutive sparks to occur between the pilot hood and the electrode pin.
- **8.2** If there is no spark, check that the wire connection is secure.
- **8.3** If there is still no spark disconnect the electrode wire from the pilot unit and place the end of the wire close to a bright metal part of the appliance.
- **8.4** Operate the control again keeping your hand away from the

end of the wire. If there is a spark, the pilot unit is at fault.

- **8.5** The spark gap on the pilot unit is non-adjustable. Replace the pilot unit or its components.
- **8.6** If there is no spark, the gas tap piezo unit should be changed.

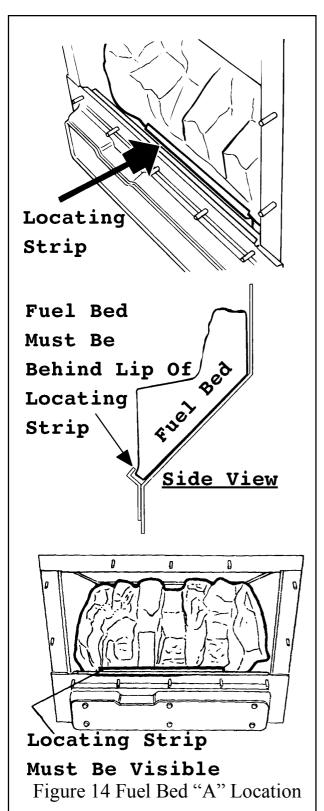
#### 9. CONNECT TO THE GAS SUPPLY

**9.1** Extend the gas supply pipe to a convenient point beneath the appliance and connect it to the inlet pipe at the right side of the fire using the Rp1/4 (1.4in. B.S.P) isolating elbow provided.

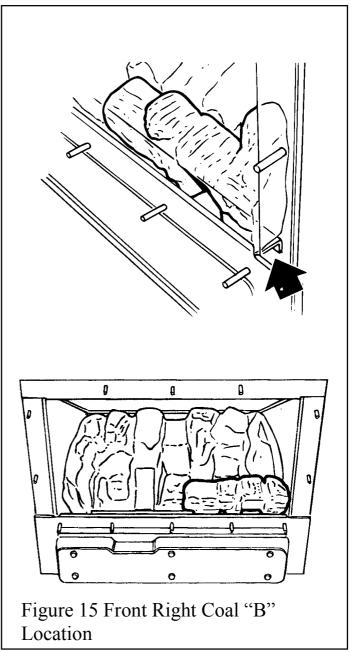
The supply pipe must be of rigid material (e.g. copper). Flexible connections must not be used.

- **9.2** Provision for isolation of the gas supply upstream of the fire must be provided for safety and servicing.
- **9.3** Pressure test the installation for gas soundness in accordance with the current edition of B.S.6891.

#### 10. FITTING COALS



**10.1** Place the fuel bed (embossed 'A' underneath) in position. The front edge of the fuel bed locates under the flange of the locating strip at the base of the firebox - see figure 14.

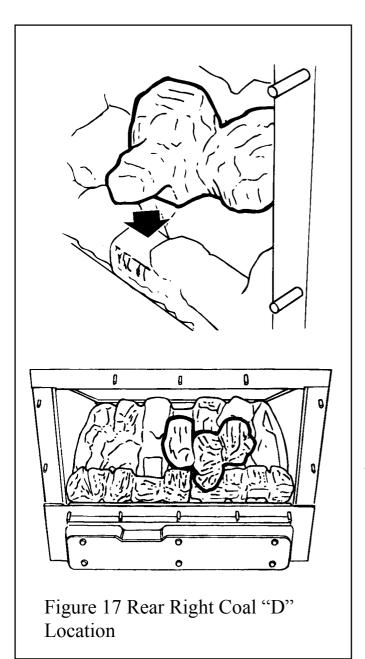


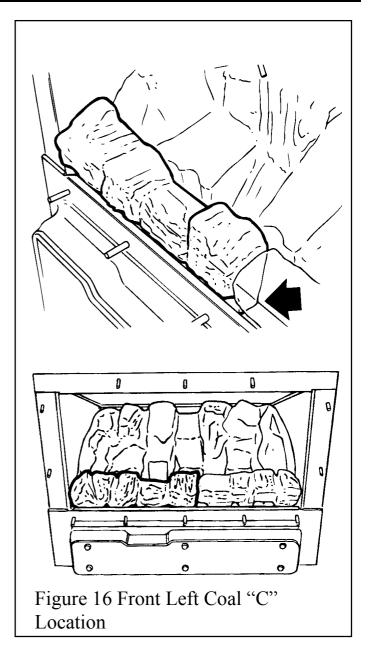
**10.2** Place the front right coal (embossed 'B' underneath) in position. The flat bottom front face of the coal should rest on the metal ledge

immediately behind the bottom front of the firebox opening. Slide the coal to the right side. See figure 15.

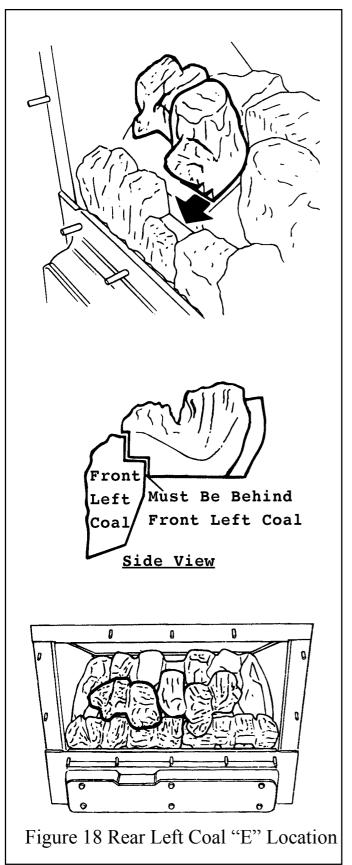
10.3 Place the front left coal (embossed 'C' underneath) in position at the side of the first coal. The flat bottom front face of the coal should rest on the metal ledge immediately behind the bottom front of the firebox opening. See figure 16.

**10.4** Close any gap between the two front coals by sliding them together to meet at the centre.





**10.5** Place the rear right coal (embossed 'D' underneath) in position as shown in figure 17.



10.6 Place the rear left coal (embossed 'E' underneath) in position as shown in figure 18.10.7 Replace the window unit and tighten the 12 wing nuts.

# 11. CHECK APPLIANCE OPERATION

- 11.1 If closed, open the isolating valve at the inlet elbow
- 11.2 Turn on the gas supply and check all joints up to the appliance gas tap for gas soundness using a soap solution or leak detection fluid.
- 11.3 Depress the control knob. While keeping it depressed, turn to IGN position. Turning the control should normally cause two consecutive sparks to occur between the pilot hood and the electrode pin that should ignite the pilot gas.

The pilot flame can be seen by looking through the gap at the front of the right side front coal.

If the pilot does not ignite, keep the knob depressed for a few seconds to purge air from the supply pipes, then, turn back to OFF and repeat the ignition procedure.

- **11.4** When pilot ignition has been achieved, keep the control knob depressed for a few seconds then release it. If the pilot does not remain alight ensure that the air has been purged.
- 11.5 Partially depress the knob and turn to position 1. Both main and decorative flame burners should light at the lowest setting. The decorative flames should just be visible. If the decorative flames are visible, the main burner must be alight since it lights the decorative burner.
- 11.6 Turn the control knob gradually to MAX position. Both burners should gradually increase in output until at MAX position the main burner is at its greatest heat output and the decorative flames are at their full magnitude.
- 11.7 Turn back to off after checking.

Depress the control knob partially, turn clockwise to OFF and release the knob. If any resistance is felt when turning, release the downwards pressure on the knob before continuing to turn.

#### 12. CHECK THE REFERENCE PRESSURE

The burner aeration is non-adjustable. The appliance is pre-set to give the correct heat input on Natural Gas at 20-mbar (8in w.g) inlet pressure and no further adjustment is necessary. The burner pressure should be checked at the pressure test point located on the pipe connecting the gas tap to the main burner. The pressure check should be carried out using a calibrated pressure gauge after removing the test point screw. The fire should be alight and the control knob at MAX setting. The pressure setting should be within the limits shown in the appliance specifications - see section 1.

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

# 13. REPLACE OUTER CASE

- 13.1 Lower the outer case into position with its top rear rim behind the vertical flange at the top of the ear case and with the outer case bottom angled forward slightly. Then, ease the case bottom inwards to engage the fixing studs through the holes in the rear case.
- **13.2** Secure the case with the two knurled nuts and washers.

# 14. MAKE FINAL CHECKS AND INSTRUCT USER

- **14.1** Recheck the pilot ignition and operate the fire through the range of settings.
- 14.2 Instruct the user on the correct operation of the fire and especially advise that:
- 14.2.1 The fire has a pilot. To light the pilot, the control knob must be depressed and turned to IGN position.
- 14.2.2 The pilot flame can be viewed to ensure that it is alight. Show the user where to view the pilot and point out the illustration in the users instructions showing how to view the pilot.
- 14.2.3 The pilot can be left alight. Advise, though, that if the premises are to be left unoccupied for a lengthy period, it is advisable to turn the pilot off.
- 14.3 Advise the user that the fire may give off a slight odour while new. This is normal and it will disappear after a short period of use.
- **14.4** Advise the user that the bright metal firebox will discolour with use.
- **14.5** Emphasise that if the glass panel is broken or damaged, the fire should be turned off and not used until the window unit is refitted with an authorised replacement.
- **14.6** Recommend that the appliance should be serviced by a competent person (*In the UK a CORGI registered 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.
- **14.7** Hand this guide to the customer.

#### 15. SERVICING

This product uses fuel effect pieces, burner compartment walls 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.

Turn off the gas and make sure that the appliance is cool before commencing any servicing.

Always test for gas soundness after refitting the appliance.

#### 15.1 To Remove Outer Case.

- **15.1.1** Remove the knurled screws at the case sides (see figure 1).
- 15.1.2 Pull the bottom of the case forwards and then lift the case clear.

#### 15.2 To Remove Window Unit

- **15.2.1** Remove the outer case as 15.1 above.
- Remove the window unit by detaching the 12 wing nuts securing the frame (see figure 4) and pulling forward.

#### 15.3 To Remove The Ceramic Fuel Items

- **15.3.1** Remove the outer case as 15.1 above.
- **15.3.2** Remove the window unit as 15.2 above
- **15.3.3** Remove the coals carefully
- 15.3.4 Lift out the coal bed
- **15.3.5** Replace the items as described in the installation instructions.

#### 15.4 To Remove Burner(s)

- 15.4.1 Remove the outer case as 15.1 above
- **15.4.2** Remove the window unit as 15.2 above.
- **15.4.3** Remove the ceramic items as 15.3 above.
- **15.4.4** Remove the burner front cover by unscrewing 14 screws.
- 15.4.5 Remove the front ceramic support bar by unscrewing 1 screw each side.

- **15.4.6** Remove the burner(s) by unscrewing one screw at the left side and lifting clear.
- 15.4.7 The main and decorative flame burners are of different lengths. They cannot be fitted in the wrong positions.

#### 15.5 To Remove Injectors(s)

- **15.5.1** Remove the outer case as 15.1 above.
- **15.5.2** Release the pipe compression fitting(s) to the injector(s).
- 15.5.3 Loosen the pipe compression fitting(s) to the tap and move the pipe(s) clear.
- **15.5.4** Remove the injector(s) and carrier(s) from the firebox side.
- **15.5.5** Remove the injector(s) from the carrier(s)

#### 15.6 To Remove Thermocouple

- **15.6.1** Remove the outer case as 15.1 above.
- **15.6.2** Disconnect the thermocouple at the gas tap end.
- 15.6.3 Undo the nut securing the thermocouple to the pilot unit bracket outside the firebox side. Withdraw the thermocouple.

#### 15.7 To Remove Electrode Pin

- **15.7.1** Remove the outer case as 15.1 above.
- **15.7.2** Disconnect the electrode lead at the pilot unit end.
- 15.7.3 To gain access to the electrode nut, disconnect the thermocouple at the pilot unit end as 15.6.3 above.
- 15.7.4 Undo the nut securing the electrode ceramic and pin to the pilot unit bracket.

#### 15.8 To Remove Pilot Pipe & Jet

- **15.8.1** Remove the outer case as 15.1 above
- Unless the appliance is sufficiently high above the floor to allow access from underneath, remove the thermocouple and electrode pin from the pilot bracket as 15.7.3 and 15.7.4 above.
- **15.8.3** Release the pilot pipe from the gas tap.
- 15.8.4 Unscrew the pilot pipe from the pilot bracket.
- 15.8.5 Carefully withdraw the pilot pipe from the pilot bracket when withdrawing, the pilot jet will be pulled out.
- When replacing, make sure that the pilot jet is hooked over the seating at the end of the pipe.

#### 15.9 To Remove The Gas Tap And Piezo Unit

- **15.9.1** Remove the outer case as 15.1 above.
- **15.9.2** Remove the window unit as 15.2 above.
- **15.9.3** Remove the ceramic items as 15.3 above.
- **15.9.4** Remove the burner front cover by unscrewing 14 screws.

- 15.9.5 Remove the control knob by pulling clear of the gas tap spindle.
- **15.9.6** Remove the control bezel by unscrewing 2 screws.
- 15.9.7 Remove the case side and top unit by unscrewing 2 screws at each side near the top and one screw each side near the bottom.
- 15.9.8 Remove the inlet pipe clamp bracket from the case back (one screw).
- **15.9.9** Remove the gas tap bracket from the case (3 screws).
- **15.9.10** Remove the bulkhead plate from the firebox side (3 screws).
- **15.9.11** Lift the manifold unit clear.
- **15.9.12** Disconnect the pipes, thermocouple and bracket from the gas tap.

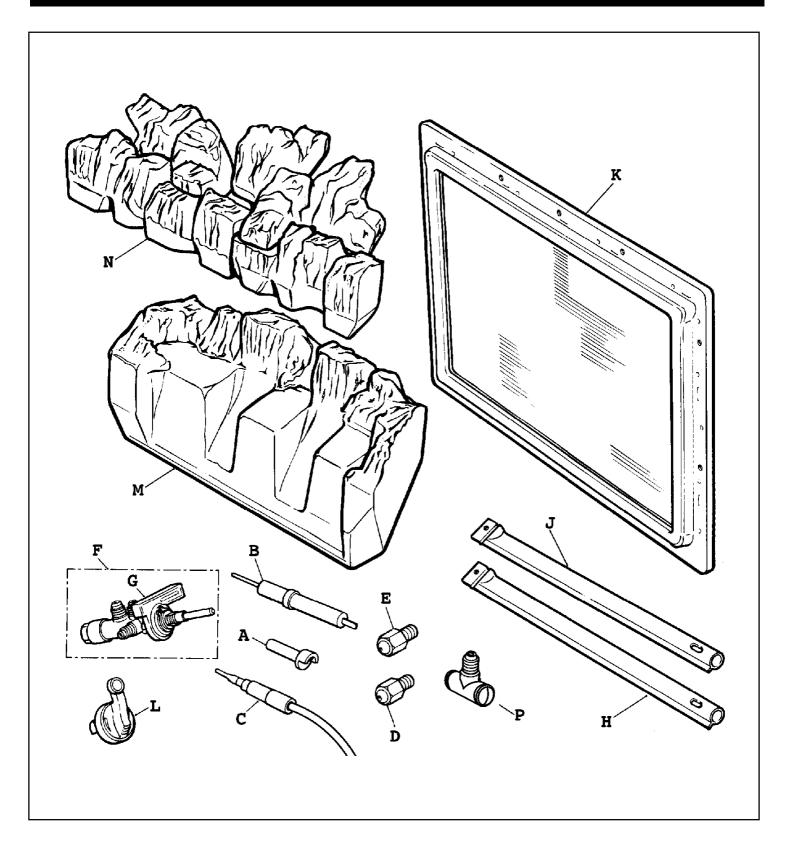
#### 15.10 To Remove The Piezo Generator

- **15.10.1** Remove the gas tap as 15.9 above
- **15.10.2** Make sure that the tap is in the off position.
- 15.10.3 Remove the circlip holding the piezo unit to the tap. Remove the piezo unit.

#### 15.11 To Grease The Control Tap

- **15.11.1** Detach the tap and remove the piezo generator as 15.10 above making sure that the tap is in the off position.
- 15.11.2 Remove the two screws from the head of the tap. Remove the niting head and spindle complete with collar and spring.
- Note the position of the slot in the plug mark its position on the tap body. Remove the plug rotating slightly while pulling.
- 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.
- 15.11.5 Push the plug into the tap body and position the slot in line with the mark previously made on the tap body.
- 15.11.6 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.
- **15.11.7** Refit the piezo generator.

# SHORT LIST OF SPARES



Key	Description	No. Off	Part No.
Α	Pilot Injector SIT Ref. 0.977.113	1	0524949
	(Stamped '27')		
В	Electrode Pin SIT Ref. 0.007.243	1	0524979
C	Thermocouple SIT Ref. 0.290.198	1	0524999
D	Main Burner Injector Bray Cat 960/240	1	0551079
Е	Decorative Burner Injector Bray Cat	1	0525059
	960/130		
F	Gas Tap & Piezo Unit Copreci 21400/88	1	0525069
G	Piezo Generator - Copreci 18600 Twin	1	0525339
	Spark 250mm Lead		
Н	Main Burner	1	0525119
J	Decorative Flame Burner	1	0525129
K	Window Unit	1	0525159
L	Control Knob	1	0525199
M	Coal Bed Base	1	0525259
N	Coals - Set of 4	1	0525269
P	Inlet isolating elbow	1	0541029