

Wonderfire

I N S T A L L E R G U I D E

for

MODEL BR419

(G.C. 32-032-08)

Inset Live Fuel Effect

Gas Fire

with

MONACO

Fireslide

or

LINCOLN

Fireslide

Front

Please keep in a safe place for future reference

Please leave this Installer Guide with the user

As supplied, this appliance is for use with natural gas (G20)
When converted using conversion kit no. 591149 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.

C U S T O M E R C A R E

This Installer Guide gives sufficient details to enable the appliance to be installed and maintained. If further information is required, our Wonderfire service department will be pleased to help.

Please phone us on 0121 386 6203.

In the Republic of Ireland call 353 183 75114.

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1. APPLIANCE DATA

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 temporary irritation to eyes, skin and respiratory tract. Consequently, it makes sense to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these RCF articles is kept to a minimum, during installation and servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the fire before and after working on the fire. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as RCF waste. This is not classified as “hazardous waste” and may be disposed of at a tipping site licensed for the disposal of industrial waste. Protective clothing is not required when handling these articles, but we recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area and always wash your hands before eating or drinking.

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

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

Gas	Natural (G20)	Propane (G31)*
Inlet Pressure	20mbar	37mbar
Input - Max. (Gross)	6.0kW (20,500Btu/h)	6.1kW (20,800Btu/h)
Input - Min. (Gross)	2.7kW (9,200Btu/h)	4.3kW (14,650Btu/h)
Output - Max.	3.5kW (11,900Btu/h)	3.6kW (12,280Btu/h)
Output - Min	1.3kW (4,450Btu/h)	2.1kW (7165Btu/h)
Burner Test Pressure (Cold)	17.0± 0.75mbar (6.8± 0.3in w.g.)	35.6± 0.75mbar (14.3± 0.3in w.g.)
Gas Connection	8mm pipe	8mm pipe
Burner Injector	Bray Cat. 18 Size 400	Bray Cat. 18 Size 170
Pilot & Atmosphere Sensing Device	SIT Ref. OP9030	SIT Ref. OPLPG9222
Ignition	Electronic (Battery 9V PP3)	Electronic (Battery 9V PP3)
Aeration	Non-adjustable	Non-adjustable

* When converted using conversion kit no. 591149.

Fire Front Dimensions

	Monaco	Lincoln
Height	630mm	620mm
Width	540mm	555mm
Side clearance to projecting combustible wall (min.)	143mm	135mm

2. GENERAL INSTALLATION REQUIREMENTS

2.1 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) The current edition of the Building Regulations issued by the Department of the Environment and the Welsh Office or the Building Standards (Scotland) 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 715
 - BS 1251
 - BS 1289 Part 1
 - BS 1289 Part 2
 - BS 4543 Part 2
 - BS 5440 Part 1
 - BS 5440 Part 2
 - BS 5871 Part 2
 - BS 6461 Part 1
 - BS 6891
 - BS 8303

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

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

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

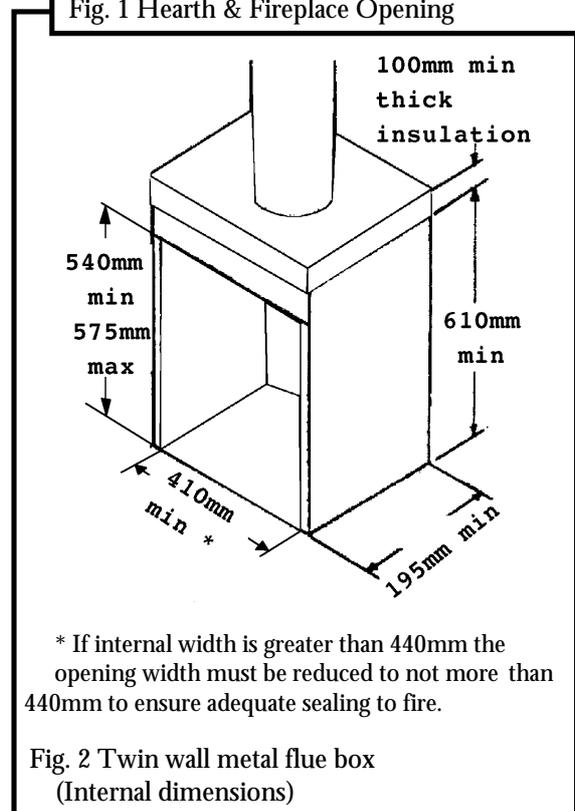
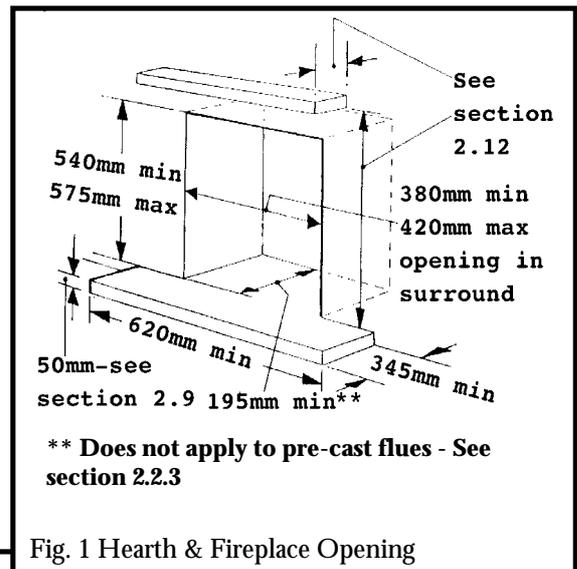
2.2.1 To a fireplace complete with surround and hearth as shown in figure 1 and complying with BS1251. The required fireplace, hearth, debris catchment area and clearance dimensions are shown in figure 1.

2.2.2 To a fireplace incorporating a twin walled metal flue box complying with the constructional requirements of the current edition of BS 715 and standing on a non-combustible base. The dimensions of the flue box must conform to the opening shown in figure 2. For flue details see sections 2.3 & 2.4.

2.2.3 To a fireplace that has a precast concrete or clay flue block system conforming to BS1289. The appliance is suitable for installations conforming to older versions of BS1289 as well as the current edition. The flue blocks must have a minimum width not less than 63mm and a cross-sectional area not less than 13,000mm². Older editions of BS1289 required a cross-sectional area of 13,000mm². The current revision of the standard requires 16,500mm². This appliance is suitable in both cases. The total depth of the opening measured from the finished front of the fireplace (Including plaster, surround etc.) must be **not less than 100mm**.

The flue starter blocks should not be modified.

The current version of BS1289 recommends that there should be an air space or insulation between the flue blocks and the plaster because heat transfer may cause



cracking on directly plastered flues. However, generally this appliance is suitable for installations under all circumstances unless there is a history of cracking problems. Remember that faults such as cracking may be caused by poorly built and restrictive flues, e.g. mortar extrusions, too many bends, flue heights below three metres, restrictive terminations, etc.

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

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

- a) 225mm x 225mm conventional brick flue.
- b) 175mm diameter lined brick or stone flue.
- c) 200mm diameter factory made insulated flue manufactured to BS4543.
- d) 175mm diameter flue pipe. See BS6461 Part 1 for suitable materials.
- e) 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.
- f) A properly constructed precast concrete or clay flue system conforming to BS1289 Part 1 or 2. This system is only suitable when the conditions stated in section 2.2.3 are met.

2.3.1 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.

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

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

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

2.7 If the appliance is intended to be installed to a chimney which 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.

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

2.9 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, the burner bracket and the bottom front cover casting to be aligned horizontally. Any excessive unevenness (uneven tiles, Cotswold stone, etc.) should be rectified.

The appliance must not stand on combustible materials or carpets.

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

2.10 The minimum distance from the outside edge of the appliance front surround to a corner wall or other projection which extends further forward than the front of the appliance at either side is given in section 1.

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

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

2.12 The minimum height from the top surface 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 = 750mm.
- *For a shelf deeper than 150mm*
750mm + 12.5mm for every 25mm depth over 150mm.

2.13 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.

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

2.15 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.

2.16 In the United Kingdom (GB) no special ventilation bricks or vents are required in the room for this appliance.

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

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

3 UNPACKING & PRELIMINARY CHECKS

The items required for this appliance are contained in 2 sections:
The Fascia section will be one of the following options:

Lincoln Fireslide cast surround	Monaco Fireslide burgundy surround
Monaco Fireslide brass surround	Monaco Fireslide green surround
Monaco Fireslide black surround	Monaco Fireslide blue surround
Monaco Fireslide champagne surround	

Warning! The Lincoln front is cast iron weighing around 20kg (44lbs). If you have any doubt of your ability to easily lift or remove this front, ask someone to assist you.

Fire Unit Section contains:-

- 1 Burner & Convection box Unit
- 1 Nut & olive for 8mm inlet pipe
- 1 Flue restrictor plate
- 2 Tapping screws (For restrictor plate)
- 1 Ceramic back wall
- 1 Front base coal
- 1 Rear base coal
- 1 Pack of 9 loose coals
- 2 Small "U" seals for convection box side flanges
- 1 Strip of floor sealing tape
- 6 Fibre plugs
- 4 Woodscrews
- 2 Fire retaining cables
- 2 Cable clamps
- 4 Eyebolts
- 1 Installation template
- 1 Battery
- 1 Smoke match tube
- 1 Literature pack

Fascia Section contains:-

- 1 Fire front surround
- 1 Fire front casting
- 1 Bottom front cover casting
- 1 Upper case front support
- 3 Screws for upper support strip
- 2 Lower case support brackets
- 4 Screws for lower support brackets
- 1 Slider knob extension bracket
- 4 Screws for knob extension bracket
- 1 Burner tray trim
- 2 Machine screws for front surround fixing (Monaco only)

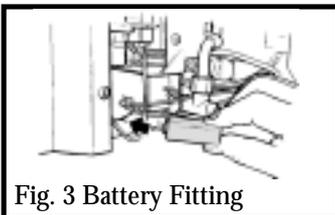


Fig. 3 Battery Fitting

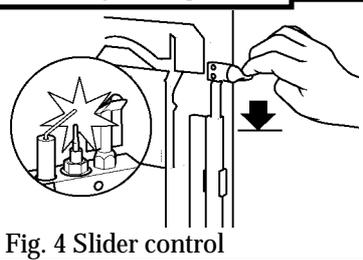


Fig. 4 Slider control

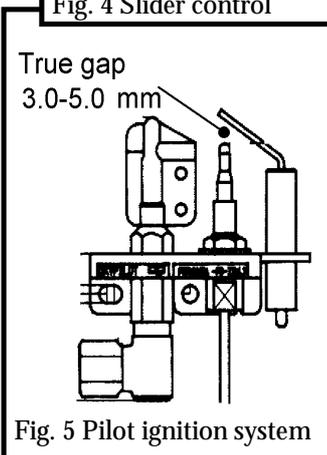


Fig. 5 Pilot ignition system

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

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

Check Ignition Spark

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

3.1.1 Fit the battery to the ignition block located below the burner tray at the left side (see figure 3). The positive terminal (+) is to the right as you insert.

3.1.2 Depress the slider as far as it will go (see figure 4). This should close the ignition circuit.

Sparks should be seen tracking from the electrode pin to the thermocouple tip (see figure 5).

If there are no sparks make the following checks.

- a) Check condition of battery and that it is correctly fitted.
- b) Check spark gap between electrode wire and thermocouple tip (see figure 7).
- c) If a & b are satisfactory, check the ignition circuit and components - see the servicing section in this manual

4. THE FIREPLACE

4.1 Fireplace size

In the United Kingdom the fireplace must comply with the requirements described in section 2.2. The debris catchment area shown in figure 6 must be kept clear of obstructions.

4.2 Fireplace general condition

The fireplace floor should be reasonably flat to ensure that the convection box can be installed without it rocking and so that a good seal can be made at the bottom front of the box. The front face of the fireplace should be reasonably flat over the area covered by the convection box top and side flange seals to ensure good sealing. These faces should be made good if necessary. If the appliance is to be fitted against a wall with combustible cladding, the cladding must be removed from the area covered by the fire front surround. We suggest that the actual fire front is used as a template to mark the area for combustible cladding removal.

4.3 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 7 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 rawlplugs and woodscrews. If necessary, make sound with a suitable cement.

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

4.4 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).

4.5 Fireplace flue pull

After preparing the fireplace, carry out the flue flow test as detailed in BS5440: Part 1.

Note - A 13 gramme smoke pellet will generate the required volume of smoke, anything smaller may give a false pass result.

Observe the smoke. If there is a definite flow into the opening continue with the installation. If there is not a definite flow, preheat the chimney for ten minutes and recheck. If there is still no definite flow, the chimney may need attention. ***Do not fit the appliance. Seek expert advice***

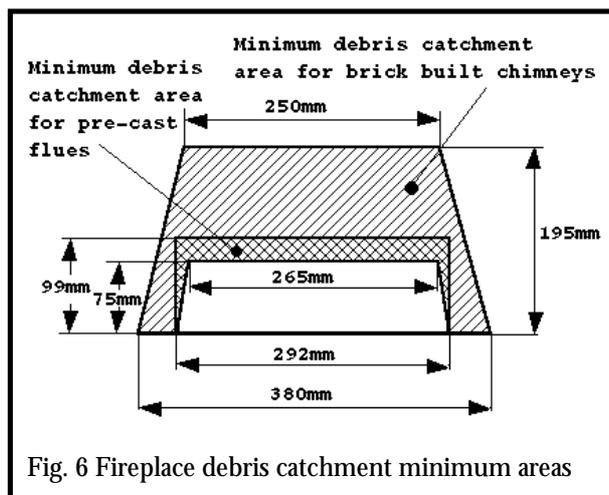


Fig. 6 Fireplace debris catchment minimum areas

5. GAS SUPPLY PIPE

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

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

5.1 Concealed supply pipe connection

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

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

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

5.1.1 Cut the template to the shape shown by the "Debris catchment area". Note that the areas are different for fireplaces with conventional brick flues and precast flues.

5.1.2 Place the template on the fireplace floor (printed side upward) with the front line level with the front surface of the fireplace. The centre line of the template should line up with the centre of the fireplace. Tape the template securely in this position

5.1.3 Make sure that the fireplace is clear of all material over the full area covered by the template including that marked "Debris catchment area".

5.1.4 Install the supply pipe to run through the thick line marked "Supply pipe entry" and up to the inlet elbow position.

Note that the centre of the appliance inlet elbow is 25mm above the fireplace floor. The inlet elbow should be removed from the appliance and fitted to the supply pipe at this stage. Remove the template.

5.2 Side supply pipe connection

The appliance is designed to allow a side supply pipe to run in front of the front surround and through a cut-out at either rear bottom corner of the fire front casting.

For side connection, final installation of the supply pipe should be left until the appliance is installed in the fireplace. For a right side connection the pipe will have to be formed to clear the burner unit mechanism.

6. PREPARING APPLIANCE FOR INSTALLATION

6.1 Disconnect the control linkage from the burner unit by removing the shouldered screw which joins the control linking bar to the control pivot unit (see figure 7).

6.2 Detach the burner unit from the convection box by removing two screws (see figure 8). Lift the burner unit clear.

6.3 Fit the two lower case support brackets to the convection box side flanges. See figure 9.

6.4 Fit the two small "U" section seals to the bottom edges of the convection box side flanges (see fig. 10).

6.5 For concealed connection only

Pierce a hole in the seal at the back of the convection box in the position shown in figure 11. The seal must envelop the pipe. If the hole is larger than the pipe, seal it with tape. **Do not pierce the seal unless the supply pipe is to pass through it.**

6.6 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. Fit the restrictor with two screws (See figure 12).

There may however, be certain exceptional circumstances where fitting the restrictor causes the fire to fail the spillage test (See section 11). In such cases the restrictor will have to be removed. After removal conduct the spillage check again.

6.7 Fit the upper case front support to the top of the convection box, using three screws inserted from the back of the appliance. (See figure 13).

6.8 Detach the slider knob by removing and discarding 2 screws. Attach the slider knob extension bracket to the slider arm using two of the screws supplied in the bag containing the extension bracket. Attach the slider knob to the slider extension bracket using the other two screws supplied in the bag containing the extension bracket. See figure 14.

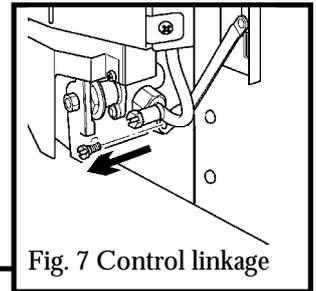


Fig. 7 Control linkage

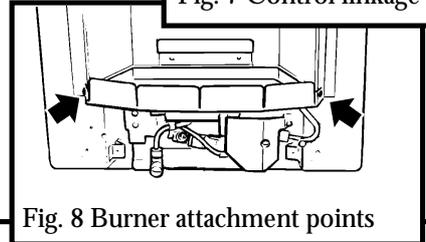
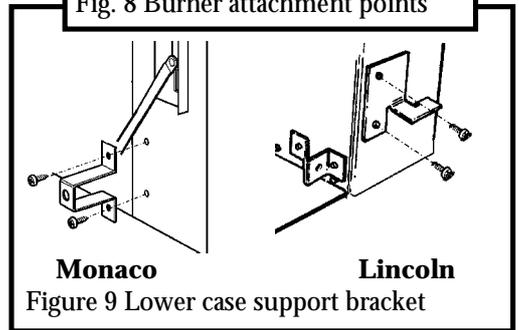


Fig. 8 Burner attachment points



Monaco Lincoln
Figure 9 Lower case support bracket

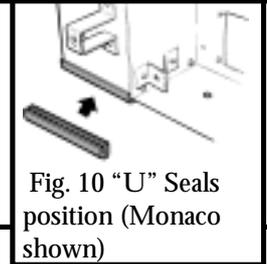


Fig. 10 "U" Seals position (Monaco shown)

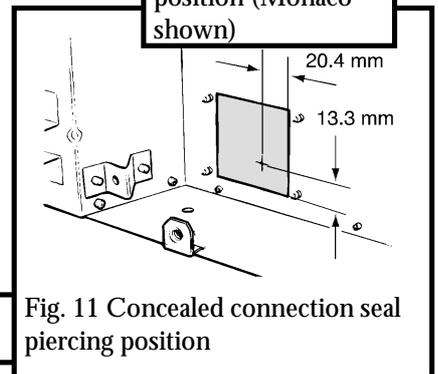


Fig. 11 Concealed connection seal piercing position

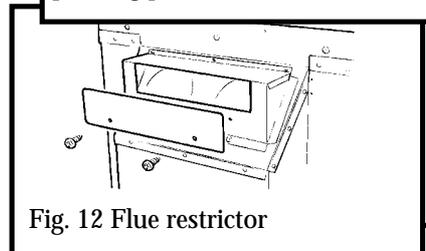


Fig. 12 Flue restrictor

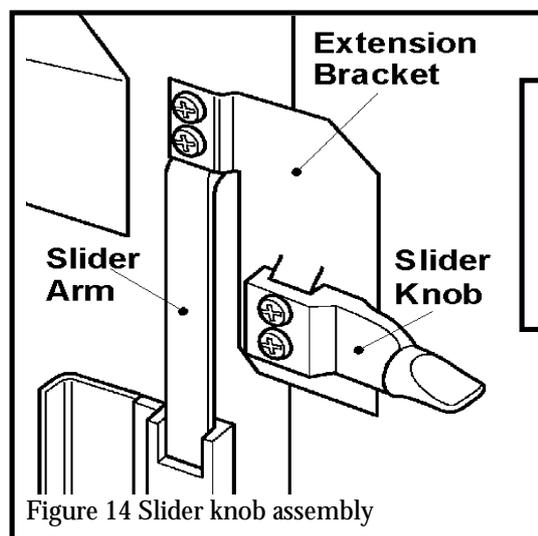


Figure 14 Slider knob assembly

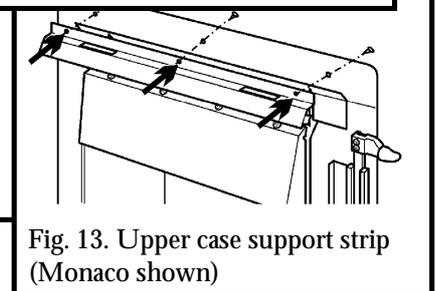


Fig. 13. Upper case support strip (Monaco shown)

7. CONVECTION BOX INSTALLATION

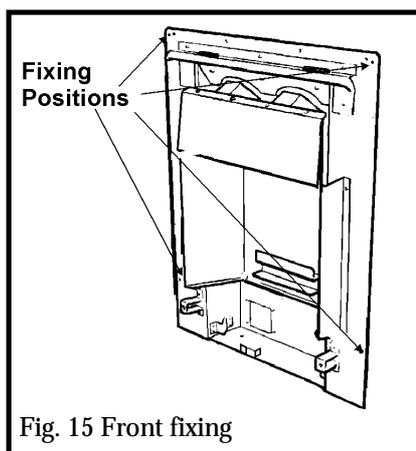


Fig. 15 Front fixing

7.1 METHOD (1) - FRONT FIXING TO FIREPLACE SURROUND

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.

7.1.1 Place the convection box centrally in the fireplace in the position in which it is to be permanently installed.

If a concealed connection is being used, insert the convection box into the fireplace feeding the supply pipe through the pierced hole in the rear seal.

7.1.2 Mark the fireplace front surround through the four fixing holes in the side flanges of the convection box (see figure 15).

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

7.1.4 Insert a rawlplug into each hole.

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

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

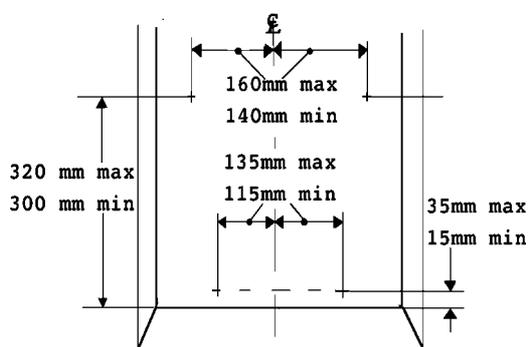


Fig. 16 Eyebolt positions

7.2 METHOD 2 - CABLE RETENTION AND FLOOR FIXING

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

7.2.1 Drill four holes in the rear wall of the fireplace for the eyebolt plugs. The holes should be drilled within the range of positions shown in figure 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.

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

7.2.3 Place the convection box unit close to the fireplace but allow sufficient access into the fireplace opening so that the cables can be threaded through the eyebolts and returned through the back of the convection box.

If a concealed connection is being used, insert the convection box into the fireplace feeding the supply pipe through the pierced hole in the rear seal.

7.2.4 The convection box has two holes at each side of the convected air opening. Insert one end of each cable (one cable each side) from the back through the lower of the two holes and return the end through the upper of the holes (see figure 17). Give the cables a pull so that they grip against the convection box flanges.

7.2.5 Thread the cables through the upper eyebolts in the rear wall and then through the lower eyebolts. Return the cables through the holes near the bottom of the convection box back panel and through the "V" shaped brackets near the bottom front sides of the convection box (see figure 18).

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

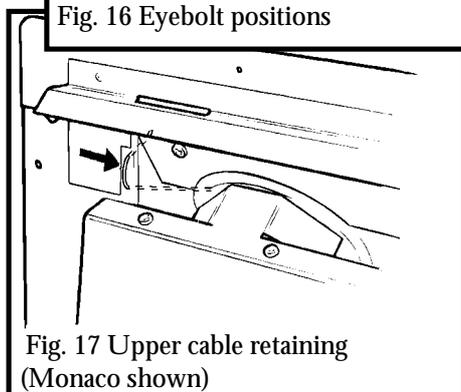


Fig. 17 Upper cable retaining (Monaco shown)

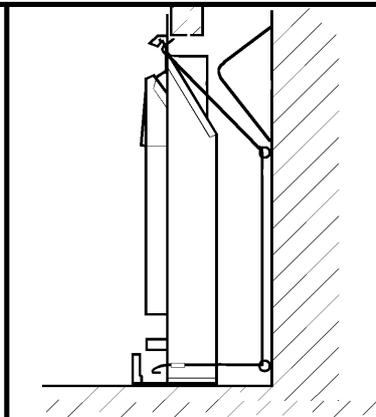


Fig. 18 Cable route

7.2.7 Fit a cable retainer over the bottom end of each cable (see figure 19).

7.2.8 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 19).

7.2.9 Drill a hole into the fireplace floor through each of the two holes in the base of the convection box, using a no.12 masonry drill (see figure 20).

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

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

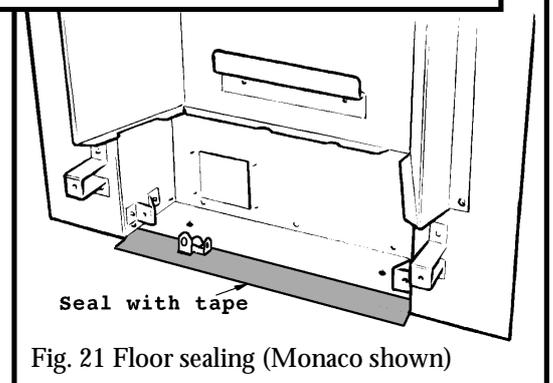
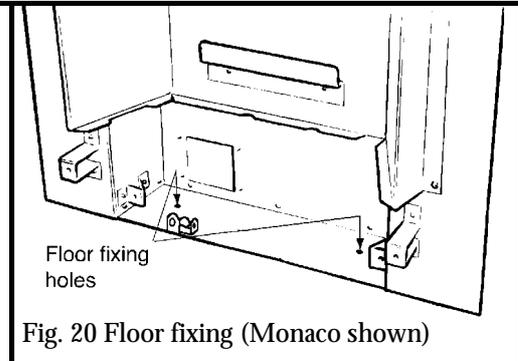
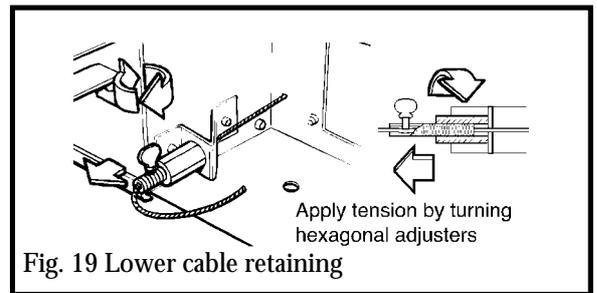
7.2.12 If the convection box is not correctly aligned, release the tension on the cables by slackening the screws and turning the hexagonal adjusters fully anticlockwise.

The convection box should then automatically realign itself. Pull each cable taut again and push the cable retainers back against the “V” brackets. Again, tighten the screws in the retainers and apply tension to the cables by turning the hexagonal adjusters clockwise as far as possible.

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

7.3 SEAL THE FLOOR FRONT (ALL INSTALLATIONS)

Using the floor sealing tape supplied, seal the bottom of the convection box to the fireplace and hearth floor. (See figure 21).



8. BURNER INSTALLATION

8.1 Refit the burner unit to the convection box with two screws. Reconnect the slider control linkage firmly to the burner control pivot with the shouldered screw using a screwdriver (Not finger tight only).

8.2 Connect the supply line to the appliance.

8.3 Pressure check the installation pipework for gas soundness. In the United Kingdom check in accordance with the current edition of BS6891. In the Republic of Ireland check in accordance with the rules in force.

8.4 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.***

8.4.1 If closed, open the isolating valve at the inlet elbow.

8.4.2 Depress the slider knob as far as it will go and hold in this position (see section 3.1.2 and figure 4). This should close the ignition circuit and (now that the gas is connected) simultaneously open the gas tap allowing the gas to flow to the pilot. Wait a few seconds while the air is purged. The electronically generated sparks should light the pilot. The pilot should then light the main burner at its low setting. There may be a delay of up to four seconds between the pilot lighting and ignition of the gas at the main burner. This is normal and is due to the time required to fill the main burner compartment with sufficient gas for ignition.

8.4.3 When the burner is operating properly, gradually slide the control knob upwards. The burner flames should gradually increase until the knob is nearly at its highest position. You should feel some resistance when the slide button reaches the maximum burner flame position. Sliding further upwards until the knob comes to a stop should then turn the burner and pilot off. ***When the above checks have been completed close the isolating valve on the inlet elbow.***

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

9. FRONT SURROUND INSTALLATION

9.1 MONACO FRONT

9.1.1 Pick up the outer surround. Locate the two lugs at the top of the front surround in the slots in the upper case front support (See figure 22). Swing the bottom of the surround sides back against the convection box and lower the surround so that the lugs are fully seated in the slots in the convection box hood.

9.1.2 Secure the surround sides to the convection box brackets with the two screws provided (See figure 23).

9.2 LINCOLN FRONT

Warning! The Lincoln front is cast iron weighing around 20kg (44lbs). To avoid any risk of injury, if you have any doubt of your ability to easily lift this front ask someone to assist you. Having assistance when installing this front will also reduce the risk of damaging the front or anything nearby. We suggest that parts of the cardboard packaging, or similar, is used to protect the hearth and fireplace surround.

9.2.1 The front has a location plate at the rear of the mantle shelf and a lug at the rear of each vertical column. These locate into the convection box. Carefully lift the cast front into position square with the convection box taking care not to damage the slide control mechanism.

Holding the cast front a little above the top surface of the convection box, locate the two lugs into the lower case support brackets and the upper location plate into the two slots in the upper case front support. Gently lower the cast front onto the hearth making sure that it causes no damage to the hearth or fireplace surround. The cast front should sit squarely on the hearth and against the vertical surface of the fireplace. See figure 24.

Note: If the gas supply is across the hearth, make sure that the supply pipe is located through the purpose provided slot in the front casting – See figure 25.



Fig. 22 Outer surround top location - Monaco

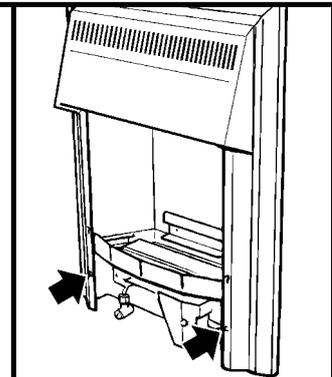


Fig. 23 Outer surround sides attachment - Monaco

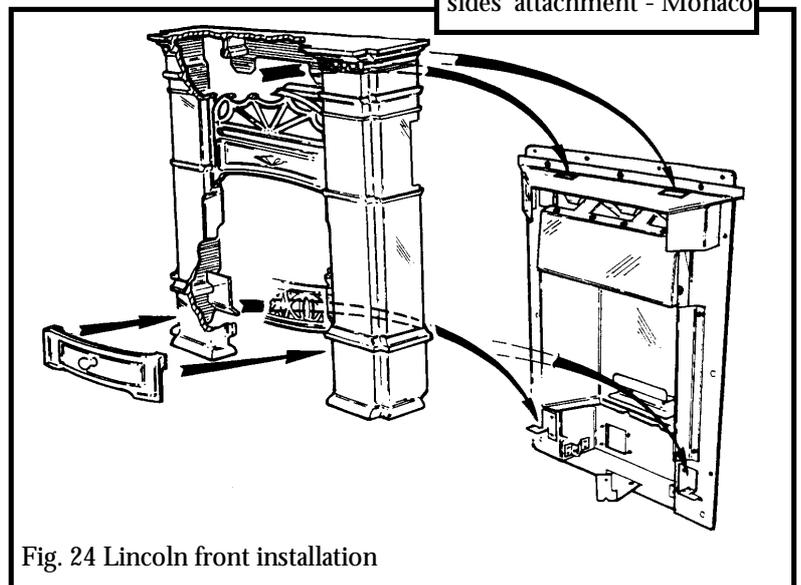


Fig. 24 Lincoln front installation

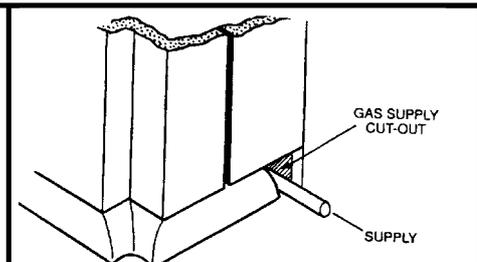


Fig. 25 Side supply pipe entry - Lincoln

10. CERAMICS INSTALLATION

10.1 With its feather edge at the top, place the ceramic rear wall into the channel at the back of the firebox. Push the wall flat against the rear of the fire box. (See figure 26).

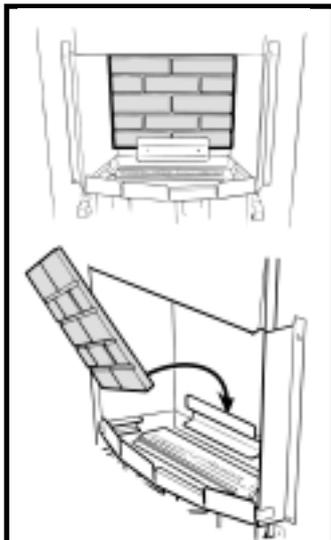


Fig. 26 Ceramic rear wall installation

10.2 Fit the tray trim over the front edge of the burner tray. Make sure that it is pushed down fully. Place the front base coal in the burner compartment so that it rests on the ledges at the sides and front. Pull the coal forward so that it is immediately behind the front rim of the burner compartment. (See figure 27).

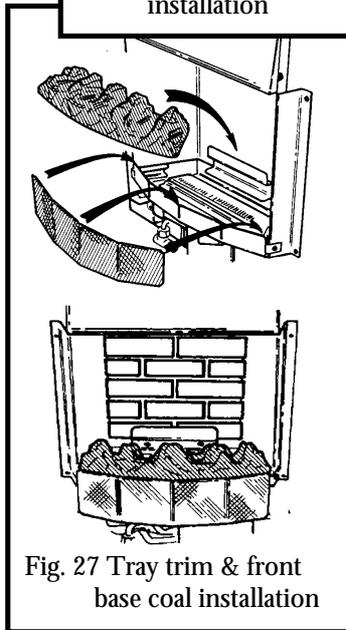


Fig. 27 Tray trim & front base coal installation

10.3 Place the rear base coal in the burner compartment behind the front coal. It should rest on the ledge at the back of the burner compartment and its rear face should touch the rear ceramic wall (See figure 28)

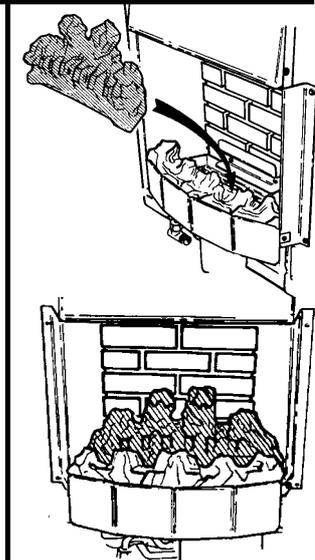


Fig. 28 Rear base coal installation

10.4 Install the 9 loose coals as follows. The smooth surfaces of the coals should be at the bottom and back.

10.4.1 Select the two smallest coals and put them aside until all the other coals are installed. Place four of the medium size coals in the four valleys of the front coal. Place the left side coal so that the pilot flame will be visible. (See figure 29).

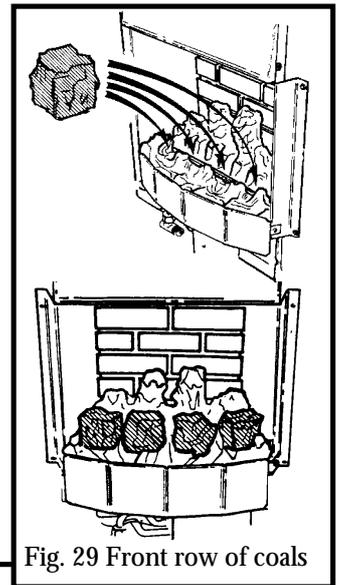


Fig. 29 Front row of coals

10.4.2 Place the three remaining medium size coals behind and approximately midway between each of the coals in the front row (See figure 30).

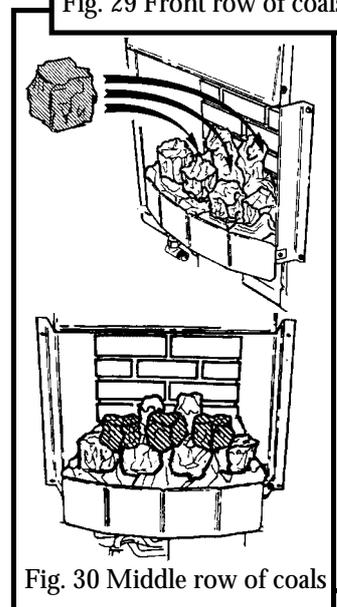


Fig. 30 Middle row of coals

10.4.3 Place the two remaining small coals alongside the main coals (See figure 31)

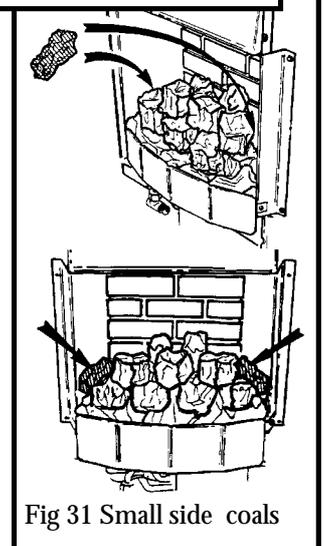


Fig 31 Small side coals

11 FULL OPERATING CHECKS

11.1 Check the FireSlide control

The control position markings on the front surround are shown in figure 32. When first turned on from cold, the flames will appear predominantly blue. Please note that, 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.

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

11.1.2 Open the isolating valve on the inlet elbow.

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

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

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

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

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

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

11.2 Check reference pressure

The appliance is pre-set to give the correct heat input at the inlet pressure shown in section 1 of this manual. No adjustment is necessary. Check the burner pressure by fitting a pressure gauge at the test point. The test point is on the pipe situated below the bottom right corner of the burner unit (See figure 33). Check the pressure with the appliance alight and set at maximum output. After checking, turn off the appliance. Remove the pressure gauge and replace the test point sealing screw. Relight the appliance. Turn to the maximum output position and test around the sealing screw for gas soundness with a suitable leak detection fluid.

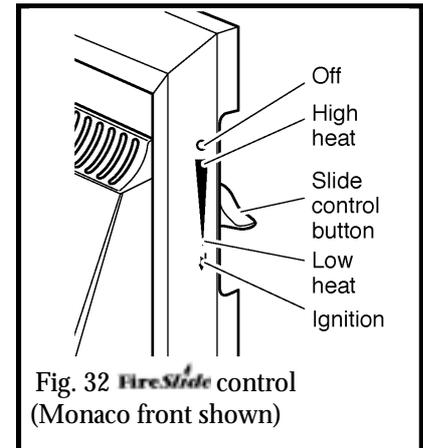


Fig. 32 FireSlide control (Monaco front shown)

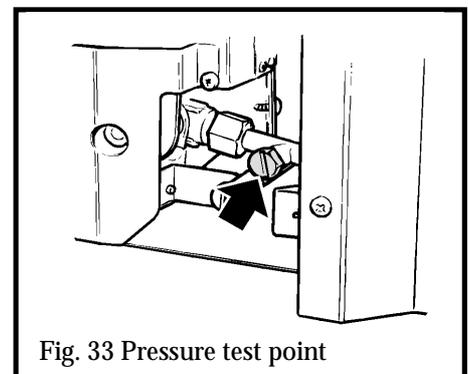
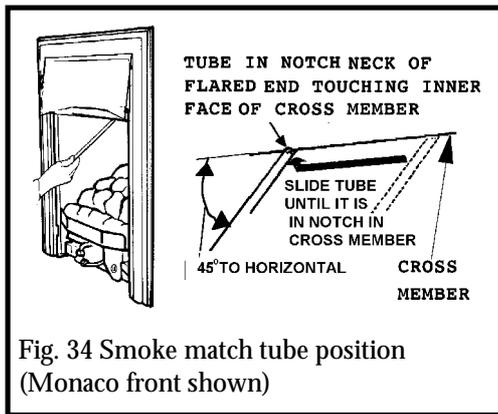


Fig. 33 Pressure test point



11.3 Spillage check

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

11.3.1 Close all doors and windows in the room containing the appliance.

11.3.2 Light the appliance and set the slide control to the maximum burning position.

11.3.3 Leave the appliance on for five minutes.

11.3.4 Place the smoke match tube into the convection box at the right hand side and immediately below the black top cross member. Angle it at approximately 45° to the horizontal.

Insert the tube so that the neck of its flared end touches the inside surface of the edge of the cross member (figure 34).

Keeping the neck of flared end in contact with the edge of the cross member, slide the tube to the left until you feel it enter the notch in the edge of the cross member. Make sure that the tube is pointed upwards at 45° to the horizontal. The installation is satisfactory if the smoke is drawn into the appliance. If the smoke is not drawn into the appliance, leave the appliance alight at the maximum setting for a further ten minutes and then repeat the test. If the smoke is still not drawn into the appliance, inspect the sealing to the fireplace surround. If the sealing is satisfactory but the appliance is installed with the flue restrictor (see section 6.6), remove the restrictor, reseal the appliance and retest. If smoke is still not drawn into the appliance ***disconnect the appliance and seek expert advice.***

11.3.5 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. 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.***

12 FINAL REVIEW

12.1 Monaco: Fit the fire front casting centrally and flush with the front surround.

12.2 Place the bottom front cover casting in position below the fire front casting.

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

12.4 Hand these instructions and the user's instructions to the customer.

12.5 Advise the customer how to operate the appliance. Point out that lighting instruction details are on the metal plate attached at the bottom of the appliance (Leave the plate visible in front of the bottom front cover as a reminder.

12.6 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.

12.7 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".

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

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

If using the appliance for long periods it is beneficial to change between settings.

This will also help to remove any carbon deposits that may form during use.

This is explained in the Owner's manual under the section 'Operating the Fire'.

Point this out to the customer before leaving.

12.10 Recommend that the appliance should be serviced and the chimney inspected by a competent person at least annually.

13 SERVICING & PARTS REPLACEMENT

- **Always turn off the gas supply before commencing any servicing (The inlet elbow for this appliance incorporates an isolating valve).**
- **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 temporary irritation to eyes, skin and respiratory tract. Consequently, it makes sense 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 coals causing an imperfect flame.
- Check that soot or debris is not impairing the electrode spark or pilot burner.
- Check that soot or debris is not blocking any of the slots in the main burner.
- After servicing, make sure that the ceramic walls and coals are replaced correctly as described in the installation instructions.
- **Always test for gas soundness and spillage after servicing the appliance.**

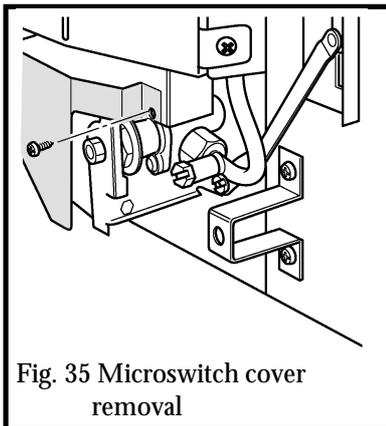


Fig. 35 Microswitch cover removal

13.1 To remove the ignition microswitch (Figures 35 & 36)

The ignition microswitch is stamped V4NT9C4YC

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

13.1.2 Detach the microswitch cover by removing one screw and pulling clear of the location lug (see figure 35).

13.1.3 Disconnect the leads from the ignition microswitch (The lower of the two microswitches - See figure 36).

13.1.4 Detach the microswitch and insulation pad by removing two screws.

13.1.5 Replace in the reverse order. Check that the microswitch operates correctly by fully closing it and observing that there are sparks at the pilot electrode.

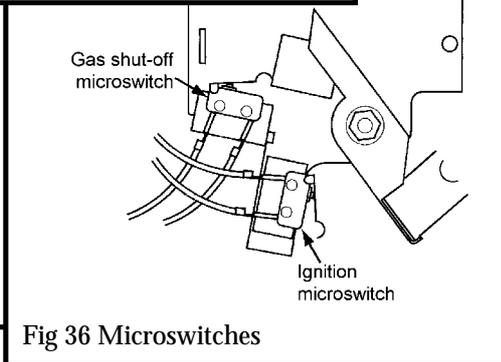


Fig 36 Microswitches

13.2 To remove the gas shut-off microswitch (Figures 35, 36 & 37)

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

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

13.2.2 Detach the microswitch cover by removing one screw and pulling clear of the location lug (see figure 35).

13.2.3 Loosen the thermocouple nut to free the microswitch leads and pull the leads clear of the thermocouple interrupter block (see figure 37).

13.2.4 Detach the microswitch assembly by removing two screws (see figure 36).

13.2.5 Replace in the reverse order. When refitting the leads to the interrupter block, make sure that they are secured firmly to give a good electrical contact.

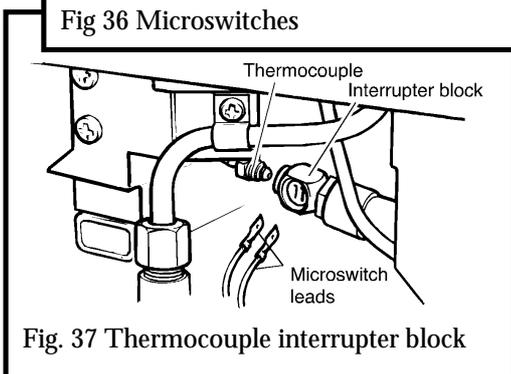


Fig. 37 Thermocouple interrupter block

13.3 To remove the fire front surround

13.3.1 Monaco Front

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

13.3.1.2 Remove the two screws securing the bottom of the front surround to the sides of the convection box (See fig. 38).

13.3.1.3 Raise the front surround to allow the retaining lugs at the top to clear the slots in the convection box hood (see figure 38) . Carefully remove the surround. Place carefully aside.

13.3.1.4 Refit as follows:-

13.3.1.4.1 Locate the two lugs at the top of the front surround in the slots in the convection box hood. Swing the bottom of the surround sides back against the convection box and lower the surround so that the lugs are fully seated in the slots in the convection box hood.

13.3.1.4.2 Fit the two screws to secure the surround sides to the convection box brackets.

13.3.1.4.3 Replace the bottom front cover casting and fire front casting.

13.3.2 Lincoln Front

Warning! The Lincoln front is cast iron weighing around 20kg (44lbs). To avoid any risk of injury, if you have any doubt of your ability to easily lift this front ask someone to assist you.

13.3.2.1 Remove the bottom front cover.

13.3.2.2 Raise the Cast front surround so that the lugs in the lower case support brackets and upper location plate are released from their locations in the fire unit – See figure 39. Lift the cast front clear and place safely.

13.3.2.3 Refit as follows:-

13.3.2.4 Holding the cast front a little above the top surface of the convection box, locate the two lugs into the lower case support brackets and the upper location plate into the two slots in the upper case front support.

Gently lower the cast front onto the hearth making sure that it causes no damage to the hearth or fireplace surround. The cast front should sit squarely on the hearth and against the vertical surface of the fireplace. See figure 39.

13.3.2.5 If the gas supply is across the hearth, make sure that the supply pipe is located through the purpose provided slot in the front casting.

13.3.2.6 Replace the bottom front cover.

13.4 To replace the control slide knob

13.4.1 Remove the front surround - See section 13.3.

13.4.2 Detach the slider knob from the extension bracket by removing two screws. See figure 40.

13.4.3 Refit in the reverse order.

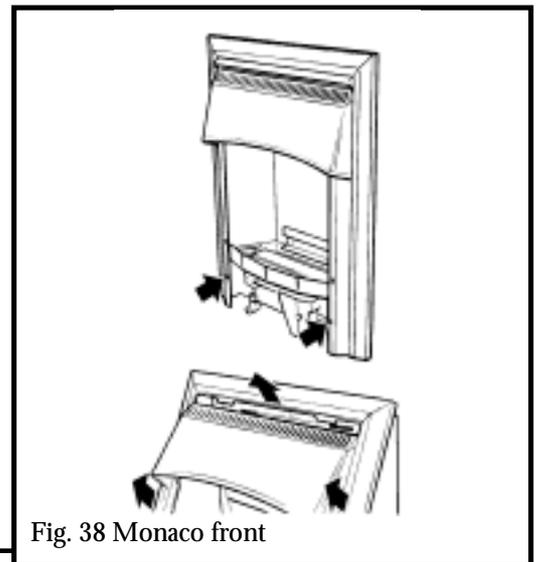


Fig. 38 Monaco front

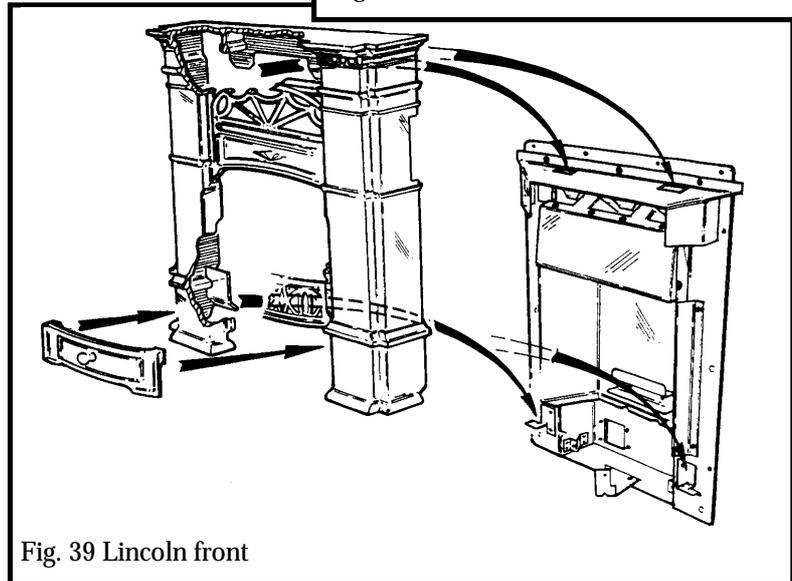


Fig. 39 Lincoln front

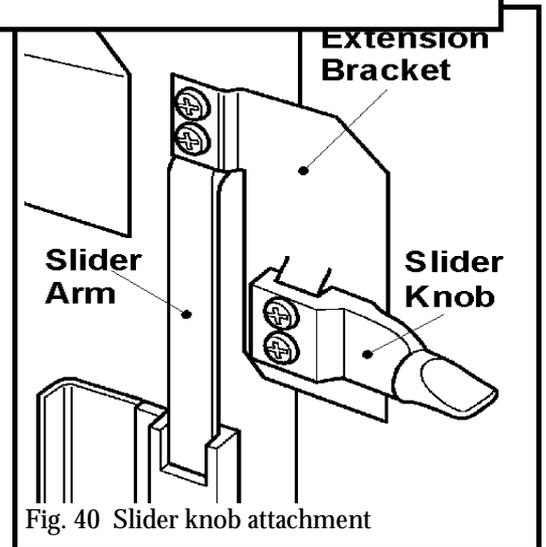


Fig. 40 Slider knob attachment

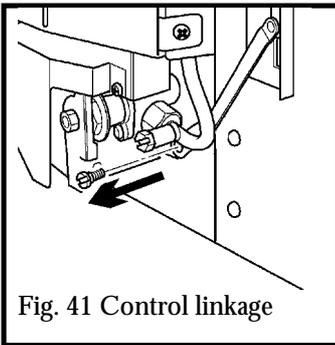


Fig. 41 Control linkage

13.5 To remove the burner unit

13.5.1 Remove the bottom front and fire front castings and the front surround - see section 13.3.

13.5.2 Remove the 9 loose coals, the front coal, the base coal and rear wall.

13.5.3 Disconnect the control linkage by removing the knurled screw which connects the control linking bar with the control pivot unit (see figure 41)

13.5.4 Support the inlet isolating elbow to avoid straining the pipework and disconnect the appliance from the elbow.

13.5.5 Remove the burner assembly by removing the two fixing screws, one at each end of the burner tray (see figure 42). Carefully remove the burner assembly.

13.5.6 Refit in the reverse order.

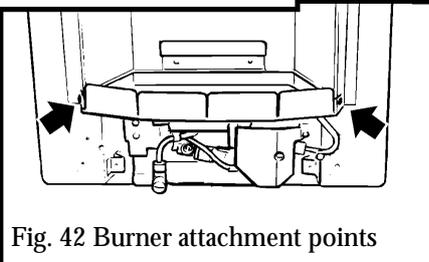


Fig. 42 Burner attachment points

13.6 To remove the electronic ignition generator

13.6.1 Remove the bottom front and fire front castings. and front surround - see section 13.3.

13.6.2 Remove the battery.

13.6.3 Remove the burner unit - see section 13.5.

13.6.4 Remove the two leads to the switch and remove the spark lead, marking them if necessary to ensure that they are replaced on to the correct terminals.

13.6.5 Remove the two fixing screws that attach the generator unit to the bracket. The igniter generator can now be exchanged.

13.6.6 Refit in the reverse order.

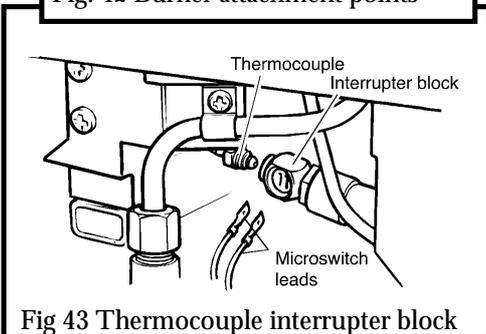


Fig. 43 Thermocouple interrupter block

13.7 To remove the thermocouple interrupter block

(See figure 43)

13.7.1 Remove the bottom front cover

13.7.2 Detach the thermocouple from the interrupter block by unscrewing the thermocouple nut.

13.7.3 Detach the two microswitch leads from the interrupter block.

13.7.4 Remove the interrupter block by unscrewing from the gas shut-off tap.

13.7.5 Refit in the reverse order. If the microswitch leads cannot be easily attached to the interrupter block when it is fully tightened to the gas shut-off tap, slacken it and rotate to allow the leads to be fitted. Retighten making sure that the leads remain in place in the interrupter block. Fit and tighten the thermocouple nut making sure that the leads are secured in the interrupter block to give a good electrical contact.

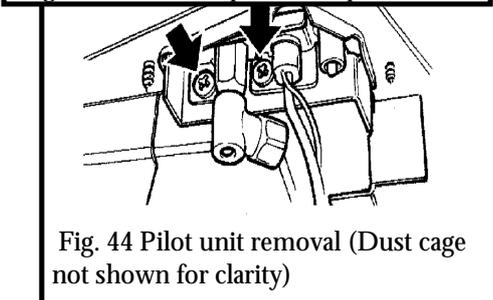


Fig. 44 Pilot unit removal (Dust cage not shown for clarity)

13.8 To remove the pilot unit

13.8.1 Remove the burner unit - See section 13.5.

13.8.2 Detach the pilot pipe from the gas shut-off tap.

13.8.3 Detach the thermocouple from the interrupter block by unscrewing the thermocouple nut.

13.8.4 Detach the electrode lead from the underside of the electrode tab.

13.8.5 Remove the first screw securing the dust cage to the pilot unit & burner. Carefully remove the dust cage and place aside. See figure 44.

13.8.6 Remove the second screw securing the pilot unit to the burner. Remove the pilot unit and place it aside. See figure 44.

13.8.7 Disconnect the pilot pipe from the pilot unit elbow.

13.8.8 Refit in the reverse order.

Note 1 The pilot unit must be replaced as a whole assembly. Its individual components are not separately replaceable.

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

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

13.9 To remove the shut-off tap (see figure 45)

13.9.1 Remove the burner unit - See section 13.5.

13.9.2 Turn the burner unit upside down. Detach the thermocouple and interrupter block from the tap - See sections 13.7.2 to 13.7.4.

13.9.3 Detach the pilot pipe from the tap.

13.9.4 Detach the inlet pipe.

13.9.5 Remove the hexagonal nut securing the tap to the mounting bracket.

13.9.6 Detach the elbow by unfastening the hexagonal nut connecting it to the flow rate controller. Lift the tap (complete with elbow) clear

13.9.7 Loosen the hexagonal locknut securing the elbow to the tap. Remove the elbow by rotating it.

13.9.8 If fitting a new tap, remove the hexagonal nut at the mounting bracket end of the old tap and fit to the replacement tap. Refit in the reverse order - **NOTE** - prior to refitting the elbow to the shut-off tap, apply an approved sealant to the elbow thread. Refer to figure 46 to ensure accurate refitting dimensions of the valves and subsequently into the mounting bracket. When refitting, make sure that the tap spindle is in the correct relationship relative to the control pivot bracket. Rotate the pivot bracket fully clockwise. The tap spindle should "bottom out" (i.e. the tap should be fully open) after the pivot bracket has actuated the ignition microswitch but before it has pushed the microswitch leaf against the microswitch body.

When refitting the thermocouple and interrupter block, make sure that the microswitch wires are properly secured to give a good electrical contact.

13.10 To remove the gas flow rate controller (see figure 47)

13.10.1 Remove the burner unit - See 13.5.

13.10.2 Detach the microswitch cover - See section 13.1.2.

13.10.3 Detach the shut-off tap as detailed in sections 13.9.2 to 13.9.6

13.10.4 Detach the burner pipe from the controller. Support the controller while detaching to prevent excessive strain.

13.10.5 Remove the nut and washer securing the control pivot bracket to the controller at the front. Support the pivot bracket while removing the nut to prevent possible damage to the microswitch.

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

13.10.7 Detach the control pivot bracket.

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

13.10.9 Refit in the reverse order.

13.10 To remove the main burner injector (see figure 48)

13.10.1 Remove the burner unit - See section 13.5.

13.10.2 Disconnect the main burner pipe from the injector at the venturi end. If necessary, loosen the pipe at the flow rate controller end to swing the pipe clear of the injector.

13.10.3 Unscrew the injector from the rear support bracket.

13.10.4 Refit in the reverse order.

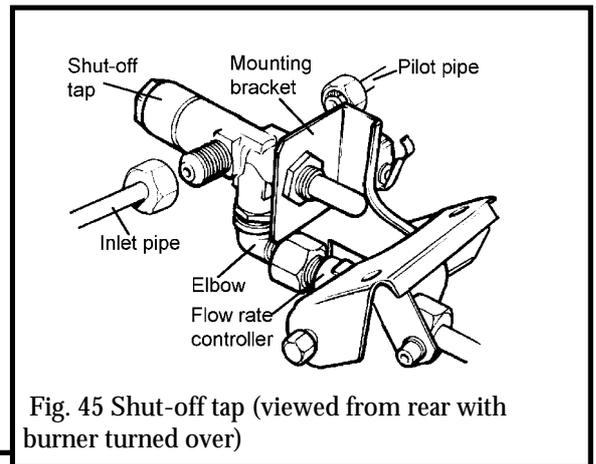


Fig. 45 Shut-off tap (viewed from rear with burner turned over)

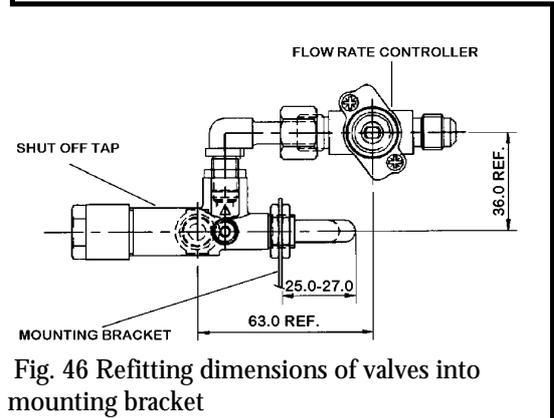


Fig. 46 Refitting dimensions of valves into mounting bracket

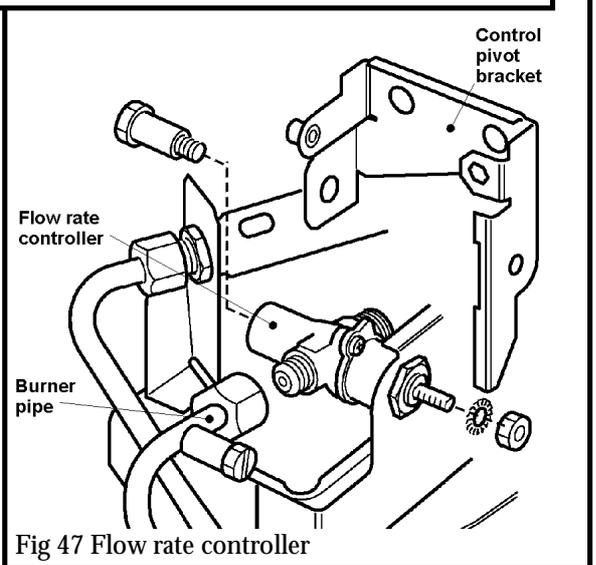


Fig 47 Flow rate controller

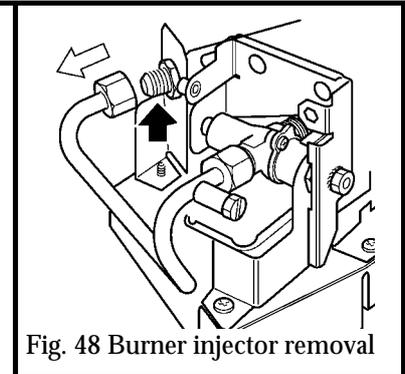


Fig. 48 Burner injector removal

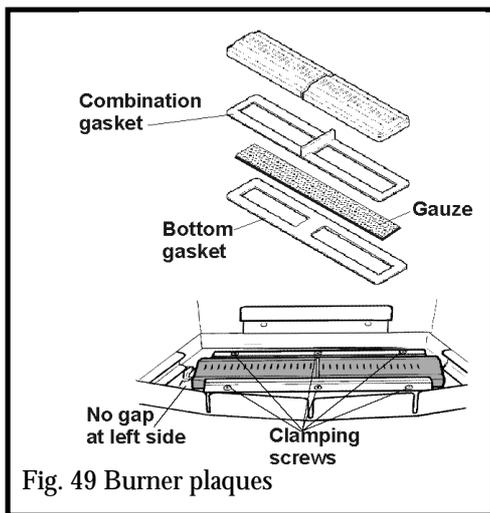


Fig. 49 Burner plaques

13.11 To replace burner plaques (see figure 49)

13.11.1 Remove the 9 loose coals, front base coal, rear base coal and ceramic back wall.

The plaques can then be removed as follows without detaching the front surround or front casting.

13.11.2 Remove the plaque clamping strips by detaching 6 screws.

13.11.3 Remove the plaques and the combination gasket between and under the plaques. If necessary remove the gauze and the gasket beneath it.

13.11.4 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.

13.11.5 Place the new left hand plaque in position. The left side of the plaque must touch the inside edge of the retaining flange at the left side of the burner well.

13.11.6 Place the new right hand plaque in position. Make sure that the centre section of the combination plaque is between the two plaques. If there is any play between the plaques and the end retaining flanges, push the plaques firmly to the left squeezing the centre section of the combination gasket between the two plaques. Any gap should be between the right side of the plaque and the right side retaining flange.

13.11.7 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.

13.11.8 Refit the ceramic fuel effects and rear wall as described in section 10 of this manual.

13.12 To remove the appliance from the fireplace

13.12.1 Remove the 9 loose coals, front coal, rear base coal and ceramic back wall.

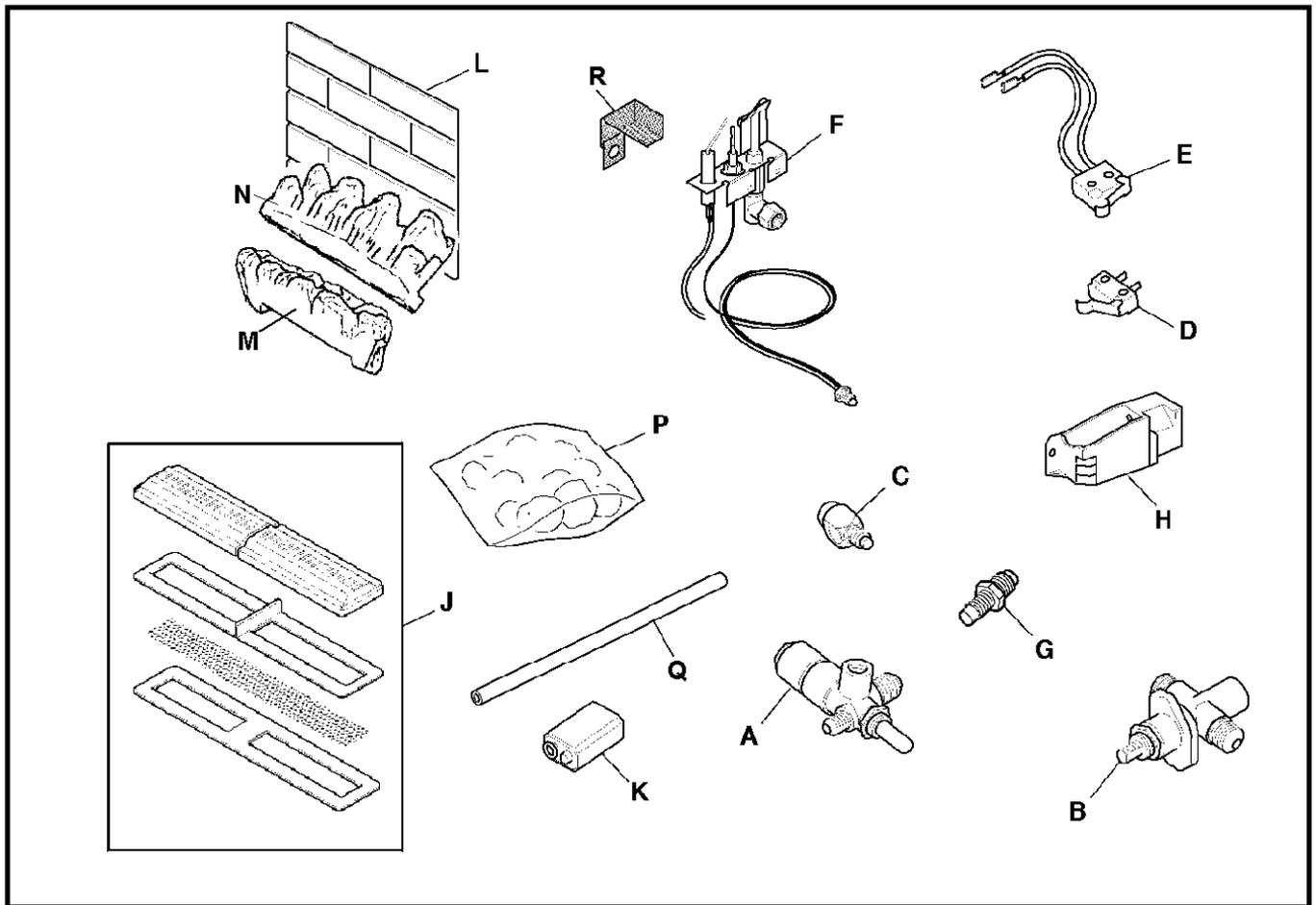
13.12.2 Remove the front surround unit - See section 13.3

13.12.3 If the appliance is fixed to the fireplace floor remove the burner unit (See section 13.5) and remove the two floor fixing screws.

13.12.4 If the appliance is attached by the front fixing method (See section 7.1), remove the four screws attaching the convection box side flanges.

13.12.5 If the appliance is fixed by the cable retention method (See section 7.2), slacken the hexagonal adjusters on the cable retainers and unscrew the thumbscrews to release the cables.

13.12.6 Refit as described in the relevant installation sections. Make sure gas soundness, sealing, spillage test and performance are satisfactory.



14 SHORT LIST OF SPARES

KEY NO.	DESCRIPTION	NO. OFF	MAKER'S PART NO.
A	Shut-off tap	1	540899
B	Gas flow rate controller	1	540919
C	Thermocouple interrupter block	1	522389
D	Ignition microswitch	1	540959
E	Gas shut-off microswitch	1	540969
F	Pilot unit - <i>For Natural Gas Appliances</i>	1	540979
	Pilot unit - <i>For Propane Gas Appliances</i>		544929
G	Injector Bray cat 18 size 400 - <i>For Natural Gas Appliances</i>	1	569519
	Injector Bray cat 18 size 170 - <i>For Propane Gas Appliances</i>	1	571709
H	Igniter unit	1	554949
J	Burner plaque & gasket set	1	569439
K	Battery 9V Size "PP3"	1	553389
L	Ceramic rear wall	1	545999
M	Front coal	1	9770074
N	Rear base coal	1	6770075
P	Pack of loose coals	1	9780033
Q	Smoke match tube	1	541169
R	Dust cage	1	567619
-	Installation template (Not illustrated)	1	564759

All Wonderfire appliances are CE Approved and designed to meet the appropriate British Standards.



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

All Wonderfire gas appliances must be installed by a competent person in accordance with the Installer Guide. If in doubt always use the services of a CORGI Registered Installer

Please fill in the following information for your own future reference. The information should always be quoted in any correspondence with your original supplier or

Wonderfire service department.

In the United Kingdom please telephone **0121 386 6203**.

In the Republic of Ireland please telephone **353 183 75114**

Model	BR419
Front (Tick box)	Monaco <input type="checkbox"/>
	Lincoln <input type="checkbox"/>
Supplier's Name	
Supplier's Address	
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