

Wonderfire

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

For

MODEL BR517S

(G.C. 32-032-12)

**Side Fan Flued Inset
Gas Fire**

with

LINCOLN

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 back wall 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 and wiring diagram are on a tie below the burner and are 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)	2.2kW (7,500Btu/h)	3.6kW (12,280Btu/h)
Output - Max.	3.12kW (10,600Btu/h)	3.6kW (12,280Btu/h)
Output - Min	1.1kW (3,750Btu/h)	1.8kW (6,140Btu/h)
Burner Test Pressure (Cold)	18.2± 0.75mbar (7.3± 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 360	Bray Cat. 18 Size 170
Pilot & Atmosphere Sensing Device	SIT Ref. OP9044	SIT Ref. OPLPG9222
Ignition	Piezo Electric. Integral with Gas Tap	Piezo Electric. Integral with Gas Tap
Aeration	Non-adjustable	Non-adjustable
Electrical supply	230V ~ 50Hz AC	230V ~ 50Hz AC
Fan motor rating	55W	55W
Fuse rating	3A 	3A 

*When converted using kit 591149.

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, all electrical supply installation must be installed in accordance with the current edition of the IEE Wiring Regulations (BS7671).

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 5440 Part 1
BS 5871 Part 2
BS 6891

In the republic of Ireland the installation must also conform with:

- a) The current edition of IS 813.
- b) All relevant national and local rules in force.
- c) The current ETCI National Rules for Electrical Installation.

2.2 Electrical isolation of the unit should be by means of a switched fuse spur that should be readily accessible to the user, easily identifiable and preferably sited adjacent to the appliance. It should only connect this appliance.

2.3 This fire is a fan flued appliance. This appliance is designed for installation in a room which does not have a purpose built flue or chimney and where it is intended to be against a wall where the fanned flue can not be sited directly behind the heater.

2.4 The appliance is suitable for the following flue duct arrangements:-

- i. A straight horizontal run up to a maximum of 4.5m. For normal timber frame buildings a straight run will not be possible. See section 2.5.
- ii. A horizontal run up to a maximum of 3m including one or two bends.
Minimum wall thickness 90mm.
- iii. A vertical run up to a maximum of 3m (two bends are required for a vertical installation). Minimum wall thickness 90mm.

The above run lengths are the total measurements from the rear of the fan box to the duct connection at the side of the appliance

The flue duct can be fitted to either side of the appliance.

Figure 1 shows the critical installation dimensions.

The standard appliance is supplied with a total of 3m of straight ducting.

The following optional extra kits are available:

- | | | |
|-----------------|---|---|
| Kit No. 517IBK | - | Internal elbow bend kit |
| Kit No. 517EBK | - | External elbow bend kit. |
| Kit No. 517 FDK | - | 1.5m extra flue duct length with covers. |
| Kit No. 517DK | - | 1.5m extra flue duct length without covers. |

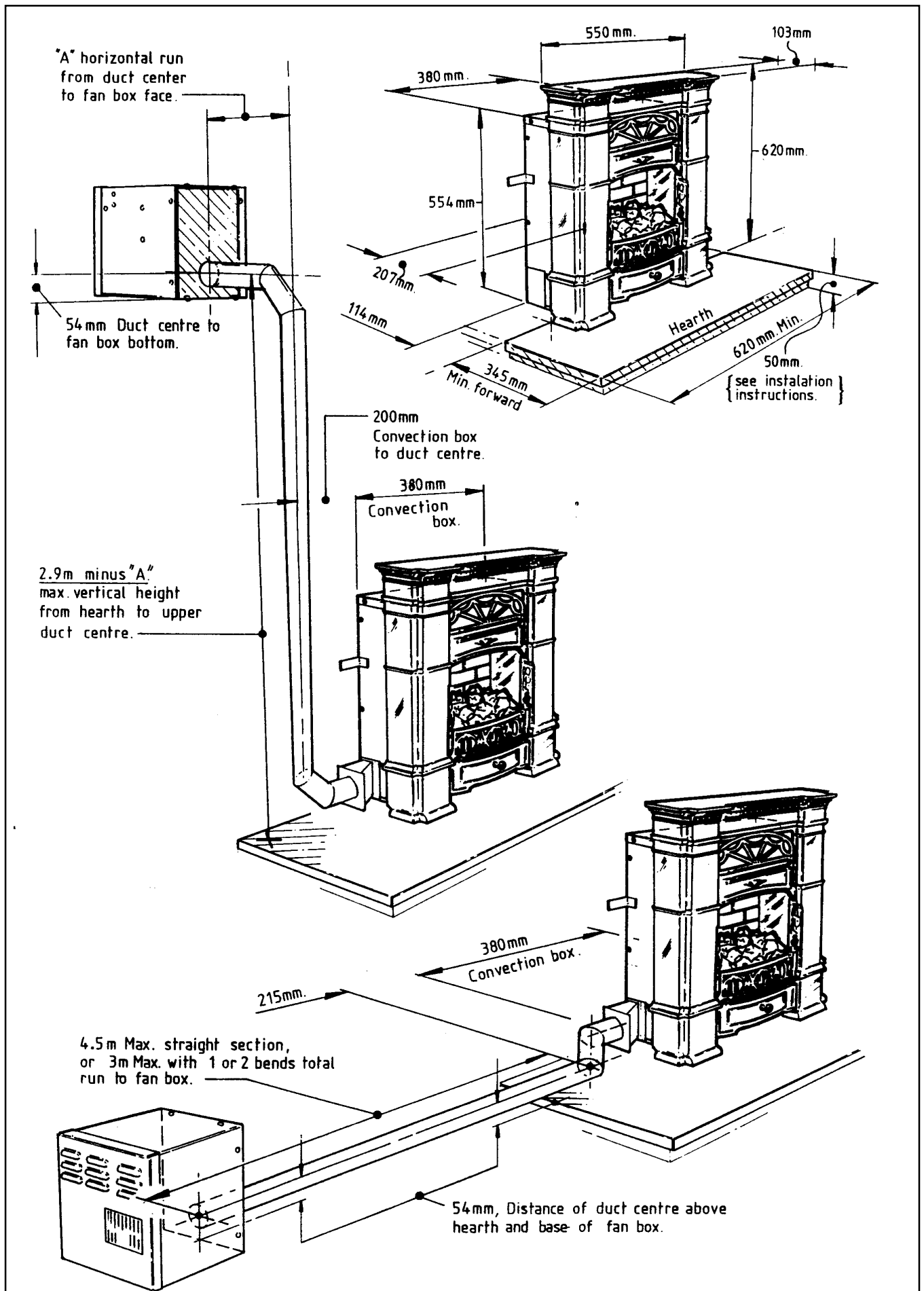


Figure 1 General Installation Dimensions

2.5 This appliance is suitable for installation in conventional buildings constructed of brick, stone etc. and in timber framed buildings. Installation in timber framed buildings 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.**

In timber framed installations an annular non-combustible sleeve should be fitted around the flue tube where it passes through the combustible inner wall. There should be a minimum 25mm air gap between the flue tube and the sleeve. The gap shall be sealed to prevent the passage of air, heat and moisture. The space between the flue ducts and the wall on which the appliance is mounted is less than 25mm. Elbow bends will therefore be necessary to allow the annular sleeve to clear of the wall on which the appliance is mounted.

2.6 This appliance must be mounted with a non-combustible hearth (n.b conglomerate marble hearths are considered as non-combustible). The fire box must be mounted on a non-combustible surface. The hearth must project at least 345mm forward of the convection box front and be at least 620mm wide (See figure 1). 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.

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

The appliance can be fitted to a purpose made proprietary class "O" 150°C surround.

2.8 The minimum allowable distance from the outside edge of the metal front surround of the appliance to a corner wall having combustible materials is 178mm at either side (see figure 2).

2.9 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 (See figure 2):-

For a shelf up to 150mm deep

Minimum height = 750mm.

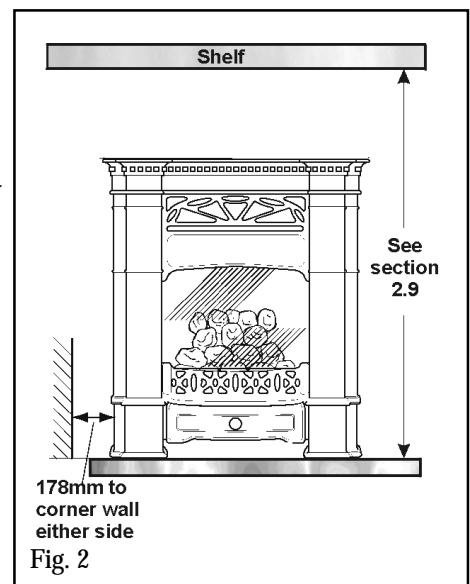
For a shelf deeper than 150mm

Minimum height = 750mm + 12.5mm for every 25mm depth over 150mm.

2.10 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.

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

2.12 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 extractor fan is likely to affect the appliance, the appliance must not be installed unless the fan is permanently disconnected.



178mm to corner wall either side
Fig. 2

2.13 A fan-powered flue system tends to depressurise the room containing the appliance. In the United Kingdom no additional ventilation should normally be required. In the Republic of Ireland permanent ventilation must comply with the rules in force. In exceptional circumstances however, the spillage check (See further on in this guide) may indicate a need for further ventilation in order to ensure that there is adequate air replacement. If necessary seek expert advice.

2.14 Make sure that the damp course or any electrical wiring, piping etc in the wall is not affected when cutting the flue box or spigot installation hole.

2.15 Any gas supply pipe installed in the wall, floor or cavity of a cavity wall must be continuous and enclosed in a factory fitted gas tight sleeve (Ref: Gas safety (Installation & Use) Regulations 1994 as amended & Certificate of exemption no.1 1996).

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

2.17 A concealed gas supply connection can be made through grommet near the right corner of the rear panel. Visible front connection can be from the left or right side.

2.18 Electrical connection to the isolating switched fused spur is from the left side.

2.19 The flue terminal should be located so that the wind can blow freely across it at all times and where any blockage due to leaves, snow, etc. is unlikely. The minimum allowable distances from the terminal are shown in the following table and figure 3. *Note: The distances are from the edge of the vertical exit slots in the terminal not from the edges of the rectangular box (See figure 3a).*

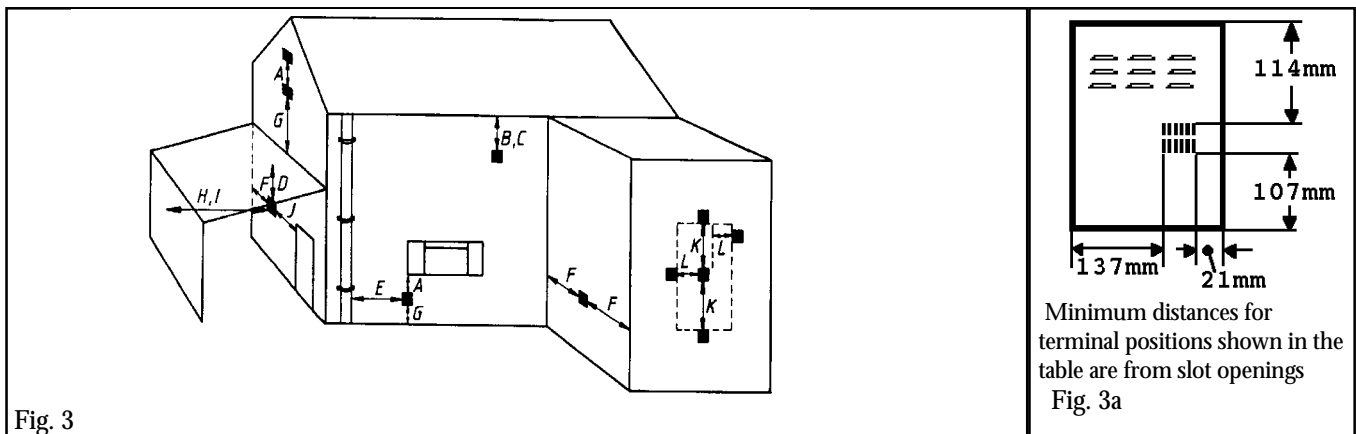


Fig. 3

	Terminal Position	Minimum Distance
A	Directly below an opening, air brick, windows, etc.	300mm
B	Below gutters, soil pipes or drain pipes	75mm
C	Below eaves	200mm
D	Below balconies or car port roof	200mm
E	From a vertical drain pipe or soil pipe	75mm
F	From an internal or external corner	200mm
G	Above ground, roof or balcony level	300mm
H	From a surface facing the terminal	600mm
I	From a terminal facing the terminal	1200mm
J	From an opening in a car port (e.g. door, window) into dwelling	1200mm
K	Vertically from a terminal on the same wall	1500mm
L	Horizontally from a terminal on the same wall	300mm
M	Projection outwards from wall	50mm

2.20 This appliance is supplied with a terminal guard. In England and Wales, the Building Regulations require that the terminal guard is fitted if the flue terminal can come in contact with people near the building or be subject to damage. Even if the regulations do not demand it, we recommend that the guard is fitted to prevent damage or blockage of the flue system by leaves etc.

3. UNPACKING

This appliance is contained in three packs. The packs contain the following (see figure 4).

Pack 1 contains:

- 1 Burner & convection box unit
- 1 Fan & flue box unit (with wall mounting brackets attached)*.
- 1 Terminal guard.
- 1 Flue duct connector unit & gasket.
- 1 Flue duct Z coupling.
- 1 Nut & olive for 8mm inlet pipe.
- 1 Ceramic back wall.
- 1 Front base coal
- 1 Rear base coal.
- 1 Pack of 9 loose coals.
- 1 Pipe bending template.
- 1 Surround cutting metal template.
- 1 Smoke match tube.
- 1 Terminal weather shield.
- 1 Junction box with cable clip, earth lead sleeve & fixings.
- 1 Pack of fixings
- 1 Literature pack.
- 1 Strip gasket & sealing tape (For surround insulation)

Pack 2 contains:

- 1 Cast iron fire front
- 1 Ash pan cover

Pack 3 contains:

- 2 1.5m long flue ducts.
- 2 1.5m long duct backing plates.
- 2 1.5m long duct front covers.
- 4 Duct support brackets
- 4 Machine screws & nuts
- 4 Spring clips (for cable).
- 3 Joint covers.
- 1 Duct bridging tube
- 4 Woodscrews, plastic washers & wall plugs
- 2 Lengths sealing tape

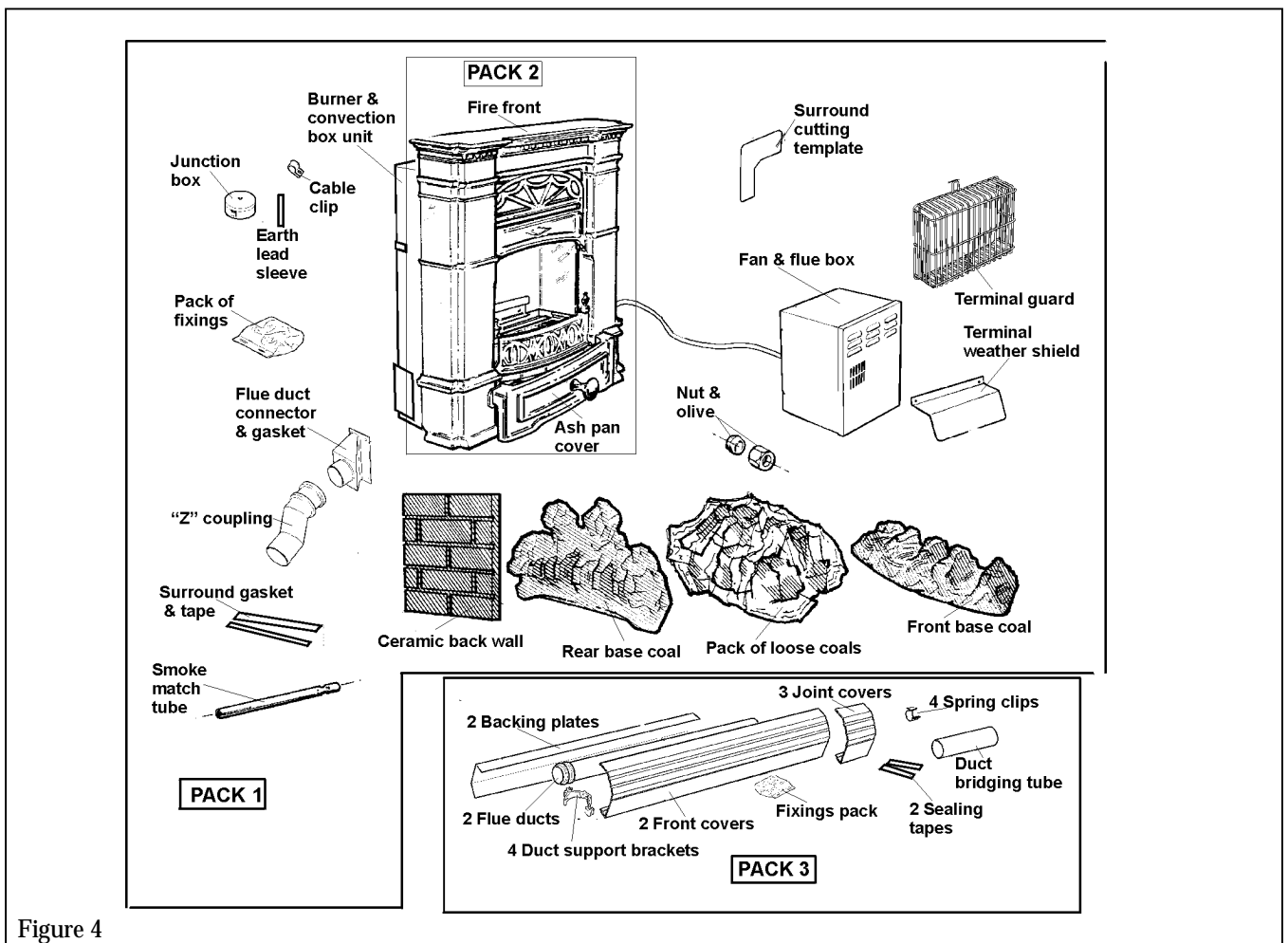


Figure 4

4. PREPARING APPLIANCE FOR INSTALLATION

4.1. Cut the fan cable

The appliance is supplied with the fan supply cable linking the fan box to the convection box unit. To enable the fan unit to be installed to the wall, the cable will have to be cut. A junction box is supplied for reconnecting the cable after installation of the fan unit and ducting. The junction box is intended to be fixed to the wall at the side of the appliance. It should be positioned so that it will be behind the fireplace surround.

Cut the cable at the point suitable for reconnecting to the junction box. This will usually be just past the end of the grey abrasion resistant insulation sleeve.

!Always cut the cable before the mains cable is connected to the electricity supply system.

4.2. Check ignition spark

Before attempting to install, it is worth checking that the piezo electric spark ignition system operates satisfactorily.

To initiate the spark, depress the control knob and while keeping it depressed, turn anticlockwise through approximately 60° to the "PILOT/IGN" position. A spark should track from the electrode pin to the thermocouple tip. If there is no spark or incorrect tracking, check the spark gap between the electrode wire and thermocouple tip (see figure 5). If the spark gap is correct, check the ignition wiring.

4.3. Detaching fittings

4.3.1 Detach the terminal guard and other fittings from the back of the convection box by removing two screws and washers. The two screws are for transit purposes only but ***the washers will be required to fit the guard to the fan box outlet - Do not discard them.***

4.3.2 For transit purposes the wall fixing brackets are fitted to the convection box facing inwards. Remove the brackets and refit them with the long legs facing outwards (see figure 6).

4.3.3 In the majority of cases temporary removal of mains cable will make connection to the isolating switch easier. To allow this, the burner unit will need to be detached. Detach the burner unit from the convection box by removing two screws (see figure 7).

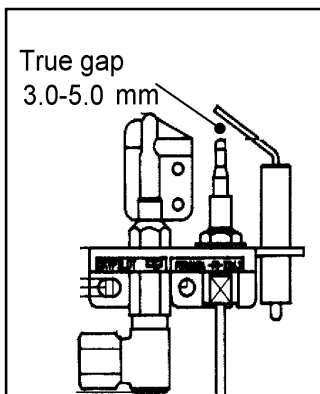


Figure 5 Pilot Ignition System

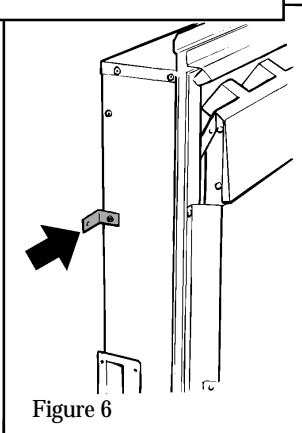


Figure 6

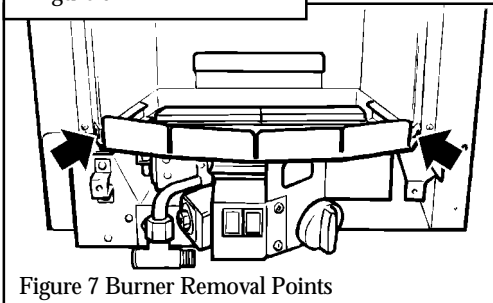


Figure 7 Burner Removal Points

5. ELECTRICAL INSTALLATION

5.1 Install a power supply at a switched fuse having a minimum separation of 3mm at all poles. The spur should be readily accessible to the user, easily identifiable and preferably sited adjacent to the appliance. It should only connect this appliance.

5.2 To simplify installation of the cable supplied, it may be most convenient to disconnect it from the appliance as described below, install it to the wall and then reconnect to the appliance:

To disconnect the cable:

1. Detach the burner (See section 4.3).
2. Detach the control unit from the convection box left side flange by removing two screws (see figure 8). Carefully pull the unit slightly forward.
3. Detach the control unit cover by removing one screw (See figure 9).
4. Remove the cable by releasing the cable clamp and detaching the leads from the terminal block and earth contact tag.

5.3 When installing the cable, leave a minimum of 200mm of the cable slack at the cable clamp end to allow installation of the appliance after reconnection to the control box and to allow future removal of the control box for servicing.

5.4 If the spur is at the right side of the appliance, run the cable under the hearth. ***The cable must not run directly under or behind the appliance.***

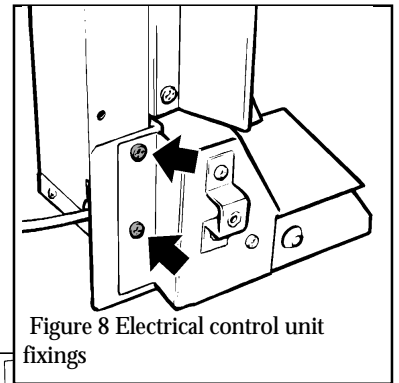


Figure 8 Electrical control unit fixings

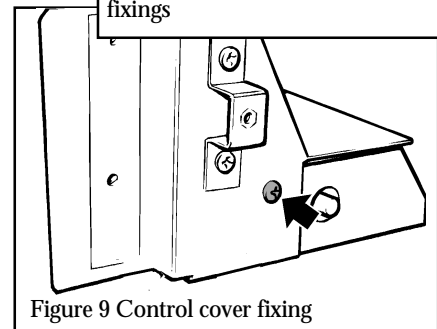


Figure 9 Control cover fixing

!WARNING: Do not switch on the power supply until after the fan cable has been correctly connected to the junction box - See part 8.

6. GAS SUPPLY & FLUE SITING

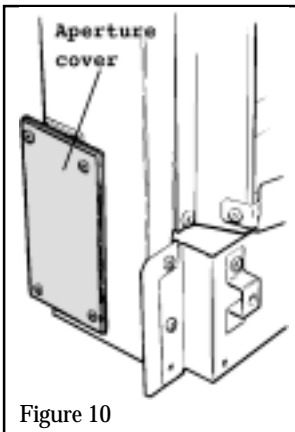


Figure 10

6.1 If the gas supply pipe is to enter through the concealed rear opening, pierce the grommet. If the supply pipe is sleeved, trim the sleeve back where it enters the appliance and seal the sleeve to the pipe.

If the supply pipe is to run from the side of the appliance and enter through the concealed rear opening, the wall will usually have to be chased to accommodate the pipe at the back of the heater.

6.2 An installation template is supplied which includes a diagram for forming the pipe so that it avoids various components below the burner.

6.3 This appliance is designed for installation with a 114mm. (4.5in.) deep fire surround or false chimney breast. For horizontal duct installations the skirting board will have to be removed from behind the hearth and along the total length of the flue duct run. If the skirting is not removed the depth of the fire surround will need to be increased accordingly.

6.4 Place the hearth in its proper location. Place the appliance on the hearth in its proper location. Mark the position of the wall fixing brackets. *Note: If a surround deeper than 114mm is to be installed, spacers will be needed behind the wall mounting brackets.*

6.5 Remove the appliance. Drill holes at the marked positions using a no.10 drill and plug.

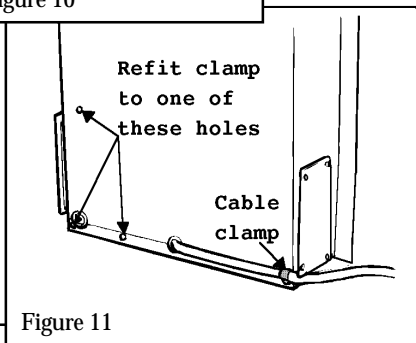


Figure 11

6.6 For duct connection from the right side:

6.6.1 Remove the flue aperture cover and gasket and fit them to the left side (see figure 10). Be careful not to damage the gasket.

6.6.2 Remove the fan cable clamp from the rear left of the convection box. Replace the screw thus removed into the convection box. Clamp the cable at one of the screws at the right side of the box (see figure 11).

6.7 Fit the flue duct connector to the open side of the convection box with four tapping screws. The narrow edge of the connecting plate must be at the back (see figure 12).

6.8 Place the appliance back in position. Secure it to the wall through the two side brackets using two woodscrews provided.

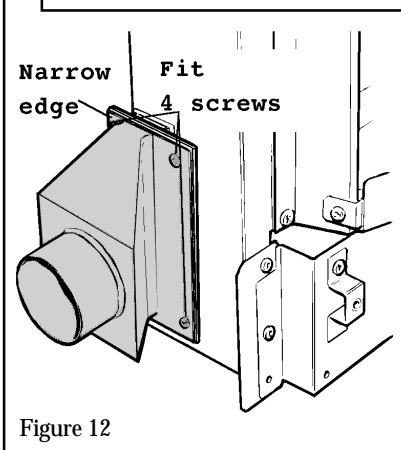


Figure 12

6.9 For horizontal duct installations: Fit the "Z" shaped duct coupling to the duct connector pushing firmly to ensure a good seal. Rotate the coupling so that its open end is as low as possible (see figure 13).

6.10 For vertical duct installations: Fit an elbow bend duct to the duct connector pushing firmly to ensure a good seal. (see figure 14).

6.11 Mark the wall at the centre line of the flue duct (54mm above the hearth for horizontal installations, 200mm from the side of the convection box for vertical installations). Draw a line at this position along the wall from the heater to where the fan box hole will be drilled.

6.12 Drill the flue hole through the wall. The hole centre should be on the flue duct centre line. For buildings constructed of brick, stone etc use a 3½in. (89mm) core drill. For timber framed buildings a sleeved 25mm gap is required between the flue duct and the combustible leaf. For horizontal installations, elbow ducts will be required to keep the gap clear of the wall on which the appliance is mounted (see section 2.5.1). Drill a 5in (127mm) dia. hole. The interior surface of the wall where the hole is exposed must be finished with non-combustible materials.

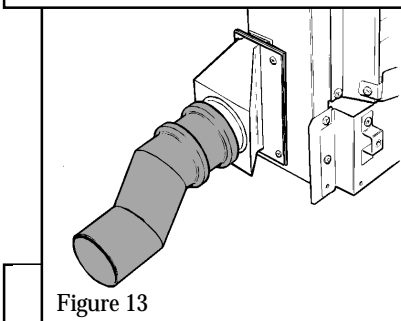


Figure 13

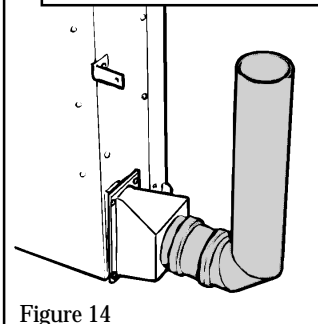


Figure 14

6.13 If it is intended to recess the fan box into the outer wall, make a rectangular opening as shown in figure 15. The depth of the recess is 145mm leaving the 50mm minimum projection required outside the wall.
Note that the fan box is not designed to be recessed into a timber framed building.

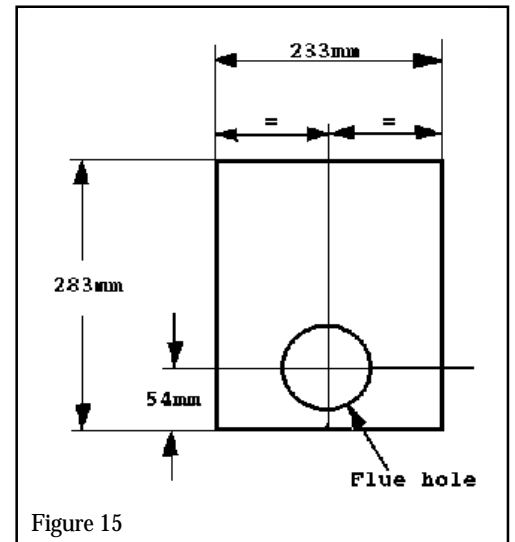


Figure 15

7. FAN BOX INSTALLATION

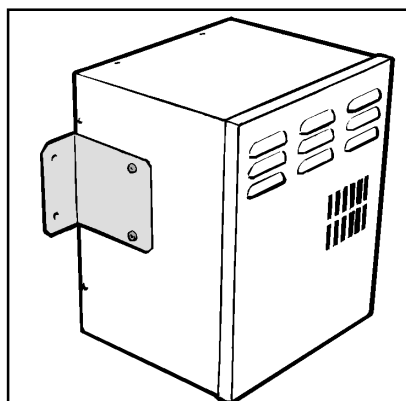


Figure 16 For box totally outside wall

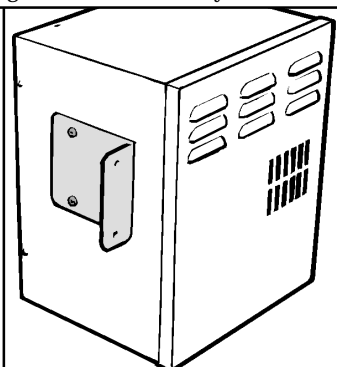


Figure 17 For box recessed in wall

7.1 For transit purposes the fan mounting brackets are supplied fitted to the fan box facing inwards. Remove them and refit as described below.

7.1.1 If the fan box is to be sited totally outside the wall fit the brackets with the short flanges flush with the air intake end of the fan box (see figure 16).

7.1.2 If the fan box is to be recessed into the wall fit the brackets with the short legs 50mm from the air outlet face of the fan box (see figure 17).

7.2 Place the fan box in position with the duct connection spigot in the hole in the wall and, if applicable, the fan box in the recess. Push the box in so that the fixing brackets are against the wall and mark the screw fixing positions on the wall.

7.3 Remove the fan box. Drill the marked positions using a no.10 drill and plug the holes.

7.4 Push the fan cable through the hole in the wall into the room.

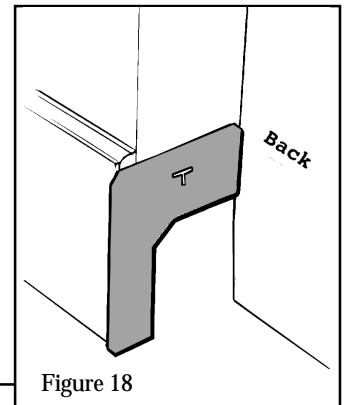
7.5 Replace the fan box in position on the wall. Make sure when inserting the duct connection spigot that its end does not cut into the cable.

7.6 Secure the fan box to the wall with the wood screws supplied.

7.7 Make good around the flue box ensuring that there are no gaps between the fan box and wall.

8. FLUE DUCTING INSTALLATION

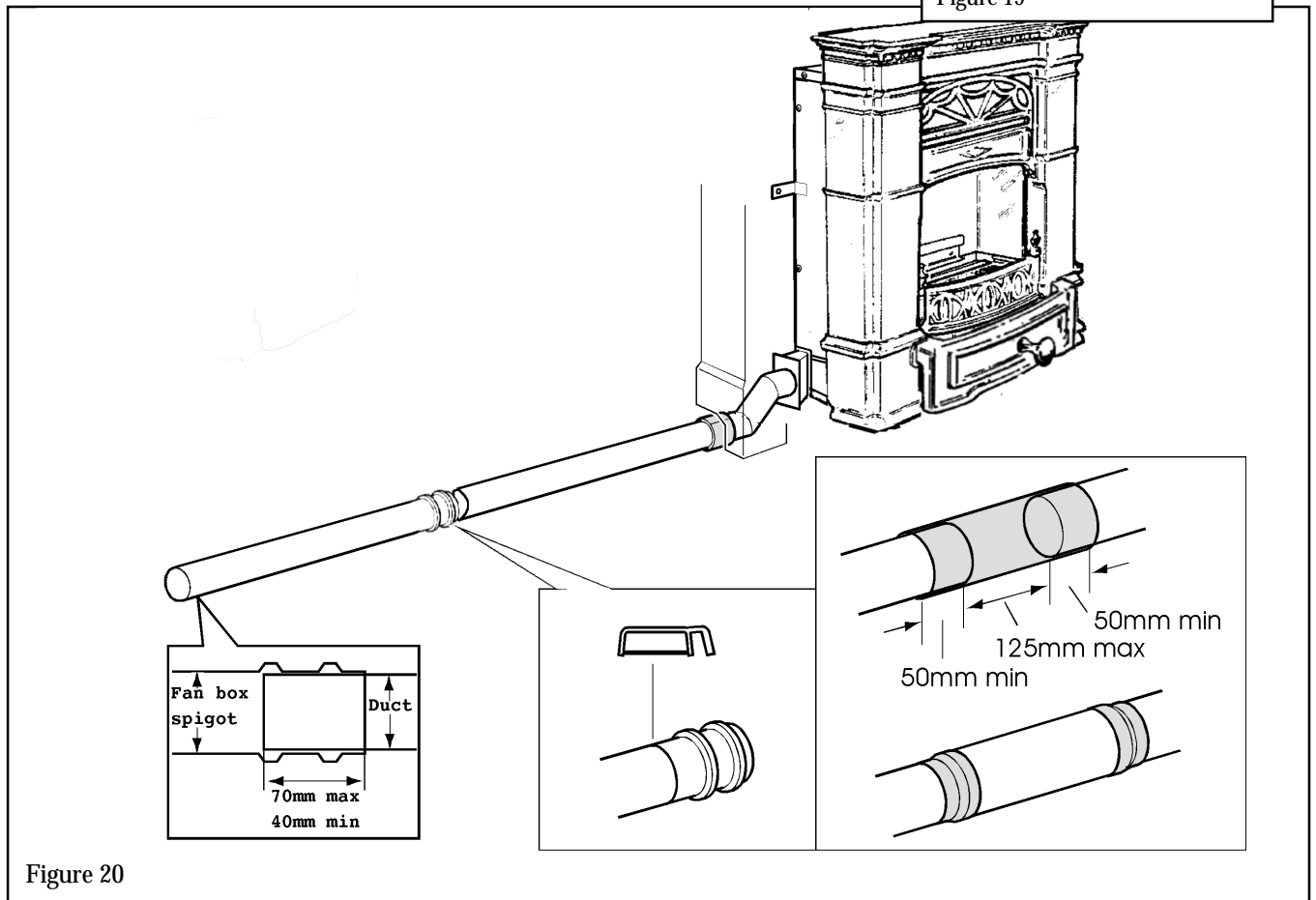
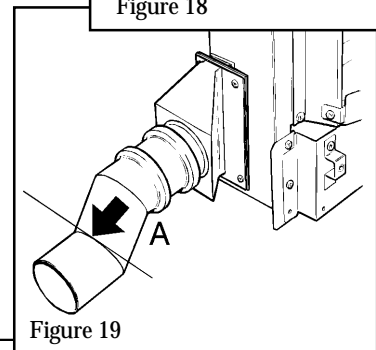
8.1 The fireplace surround will have to be cut away at the side where the duct connects to the appliance. A template is supplied to aid accurate cutting. It will be simpler if the side is cut before assembling the top to the sides. Place the template against the surround side as shown in figure 18. Mark the shape of the opening on the surround. Cut the opening.



8.2 Cut the backing plates to length. Note that the appliance end of the backing plate should abut against the outside face of the fireplace surround side. It does not go inside the surround.

For corner installations the ends of the plates must be mitred and butted together even when covered by the elbow front covers. Small children could touch the hot ducting if there are any gaps between the top horizontal flanges or bottom angled flanges of the backing plates.

8.3 Measure the length of the duct run between the intersection of the horizontal and sloping sections of the "Z" coupling ("A" in fig. 19), fan box spigot and, if applicable, elbows. The ducts must run from within 10mm of the intersection "A" and enter the fan box spigot or elbow by a minimum of 40mm and a maximum of 70mm. A bridging tube is supplied to aid manipulation of the ducts while installing. The swaged end of one duct (the end with the seal) can be cut to allow a gap of up to 125mm to be bridged (see figure 20). Cut the ducts to suit the installation.



8.4 Align the backing plates so that the centres of the fixing holes are at the height of the duct centre line drawn on the wall (see section 6.11). Mark the wall through two of the slotted holes in each backing plate. Usually the best fixing positions will be those which are closest to the ends of the backing plates.,

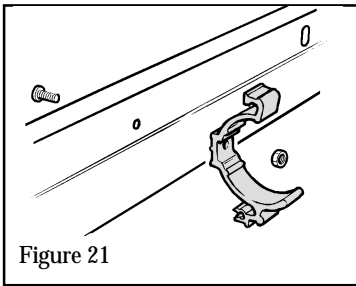


Figure 21

8.5 Remove the backing plates. Drill the wall at the marked positions using a no. 10 drill. Fit the wall plugs supplied.

8.6 Fit two plastic duct support brackets to each backing plate through the round holes with the machine screws and nuts supplied. The screw heads must be on the outside (back) face of the backing plates (see figure 21).

The brackets should be fitted so that they will support the ducts as near as practical to the ends of the ducts. Note, however

- The brackets will not go over the swaged ends of the ducts.
- The brackets will not go over the bridging tube.
- The bottom angled edges of the backing plates should not catch in the cable clip slots in the brackets.

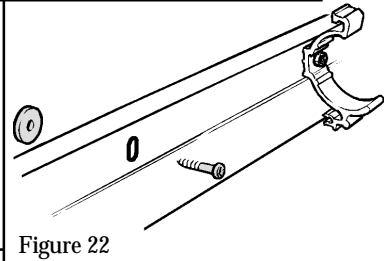


Figure 22

8.7 Fix the backing plates to the wall. The plastic spacing washers must be fitted between the backing plates and the wall. Fit using the wood screws provided (see figure.22).

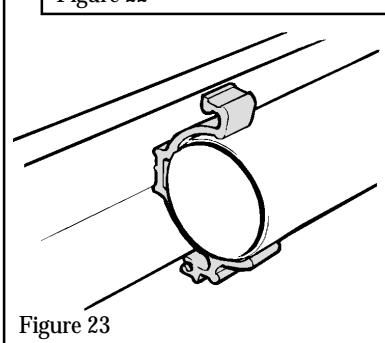


Figure 23

8.8 Place the flue ducts in position. Fit the bridging tube over one of the ducts. Locate the ducts to the "Z" coupling, flue box and, if applicable, elbows. The flue ducts snap into the plastic support brackets (see figure 23).

If the alignment of the backing plates and ducts is not quite right, remove the ducts, slacken the screws holding the backing plates to the wall and realign them. Refit the ducts.

8.9 Slide the bridging tube so that it overlaps each duct by a minimum of 50mm. Seal each end of the bridging tube to the ducts with the tape supplied (see figure 20) .

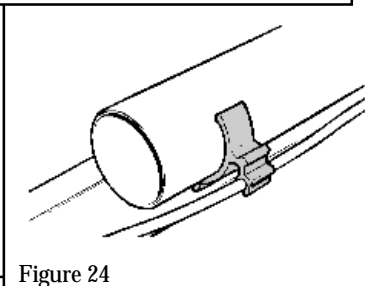


Figure 24

8.10 Fit the fan cable into the "C" sections at the bottom of the support brackets (see figure 24).

8.11 Further support for the fan cable (especially at corners) can be provided using the spring cable clips supplied in the pack. Fit the clips to the bottom edge of the backing plates and attach the cable (see figure 25).

8.12 Select a suitable location for the fan cable junction box. Fit the box and connect the cables as follows (see figure 26):

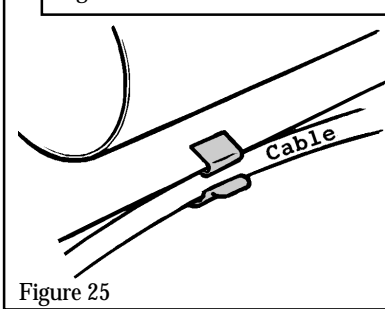


Figure 25

8.12.1 Remove the screw from the centre of the junction box. Remove the cover.

8.12.2 Place the junction box in position. Mark the wall through the two holes in the box.

8.12.3 Drill the wall and fit the wall plugs supplied.

8.12.4 Fix the junction box to the wall with the two screws provided.

8.12.5 If necessary shorten the cable attached to the fan box to a suitable length so that it does not need to be coiled up.

8.12.6 Strip the ends of the wires. Cut the earth lead sleeve (yellow & green) into two pieces so that they will cover the exposed ends of the earth wires. Slide a length over the bare earth wire in each cable.

8.12.7 Connect the leads to the junction box as shown in figure 26. Ensure that the colours of the leads in the fan cable connect with the matching colours in the appliance cable.

8.12.8 Fit the cable clip over both cables as shown in figure 26. Place the clip in position against the wall. Mark the wall through the fixing hole. Move the cables and clip out of the way. Drill and plug the wall. Replace the clip. Screw the clip to the wall making sure that the two cables are firmly clamped. Refit the junction box cover.

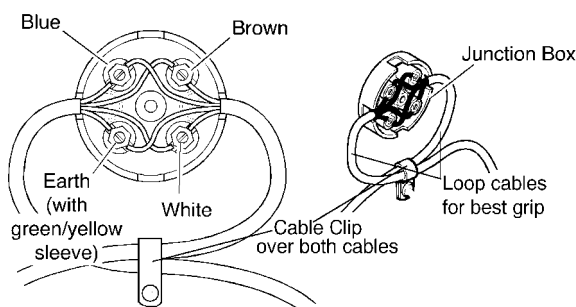


Figure 26

8.13 When installed in a fire surround made of wood or other “combustible” material, the ducting must be insulated from the surround where it passes through the aperture in surround side. Wrap the insulating gasket round the duct and secure with the sealing tape supplied as shown in figure 27.

8.14 For horizontal duct installations:

8.14.1 Size and cut the duct front covers and, if applicable, the elbow front covers. Note that the appliance end of the duct front cover should abut against the outside face of the fireplace surround side. It does not go inside the surround.

8.14.2 Secure the covers in front of the ducts by springing them over the location channels in the support brackets (see figure 28).

8.14.3 Where applicable, snap fit the joint covers over the joints between the duct covers and snap fit elbow covers at the corners.

8.15 For vertical duct installations:

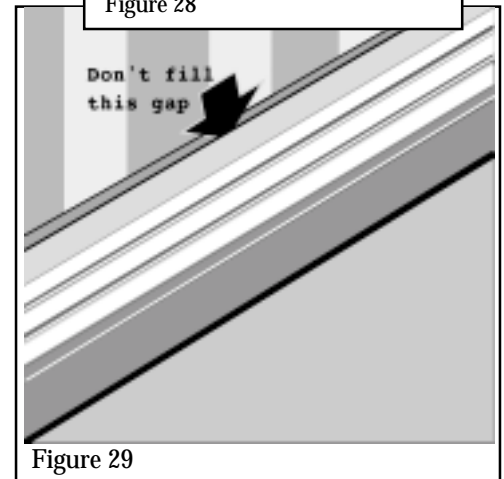
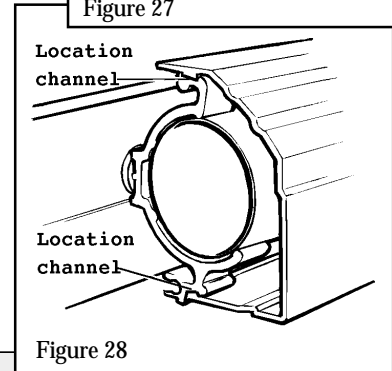
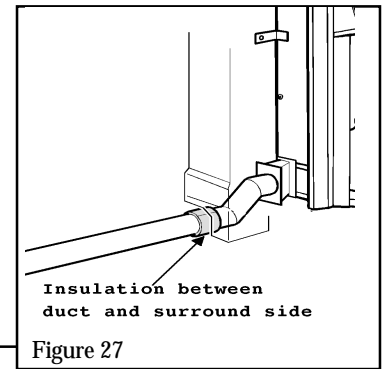
Normally a false chimney breast will be constructed to hide the ducting. The duct front covers will not, therefore, be required for these installations, but there must be at least 25mm space between the duct pipes and any combustible surfaces. If, however, the ducting will be visible, fit the front covers as described for horizontal installations (section 8.14).

8.16 Install the fireplace surround or complete the false chimney breast.

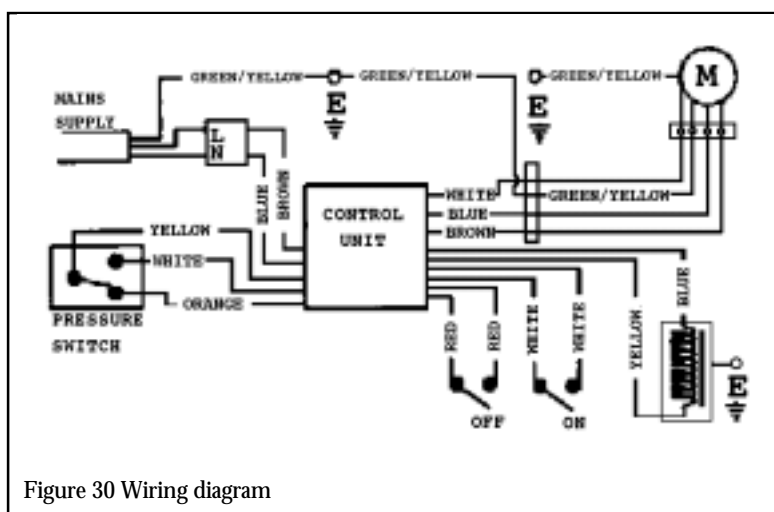
Important: The appliance must not be left with the customer in a condition where it can be turned on unless the hearth and surround (or false chimney breast) are completely installed.

8.17 The backing plates, front covers and joint covers can all be painted to suit the room decor with any of the widely available primer and finishing paints suitable for coating metal surfaces.

8.18 Do not block the gap between the top horizontal flange of the duct backing plates and the top rear edge of the front covers (see figure 29).



9. ELECTRICAL TEST



9.1 Switch on power supply. The red indicator light at the left side of the burner should be on .

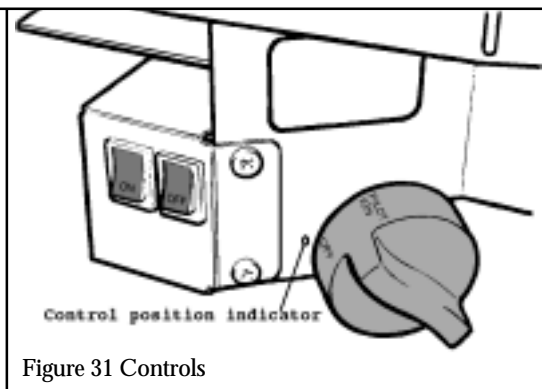
9.2 Press and hold in the “on” switch. Within two seconds, the Fan motor should start and the indicator light should go out.

9.3 Release the “on” switch. The fan should continue to run.

9.4 Press the “off” switch. The fan should stop and the indicator light should come on.

9.5 The fan has a “boost” speed intended to clear any minor exhaust obstructions. To check its operation:

- i) Switch the fan on (9.1 to 9.3 above).
- ii) Go outside the building and place a hand over the rectangular exhaust outlet of the terminal. The fan should be heard to increase to “boost” speed within approximately two seconds.
- iii) Remove the hand. The fan should revert to normal speed after approximately three seconds.



9.6 The unit includes a blocked flue sensor system. To check its operation:

- i) Switch the fan on (9.1 to 9.3 above).
- ii) Block off the rectangular exhaust outlet of the terminal. The system should shut down and the indicator should light within ten seconds.

iii) After checking remove the flue blockage.

If the above tests are not satisfactory, refer to the servicing section of this manual.

Note: At times of very windy weather or low voltage conditions the fan may switch between boost and normal speeds. A click from the atmospheric pressure sensor may be heard as the fan switches speeds.

10. TERMINAL GUARDING

Fit the weather shield and guard to the back of the flue unit as detailed below (see figures 32 & 33).

10.1 Remove the two screws near the sides of the terminal end just below the louvres. Remove the screw near the bottom of the terminal end.

10.2 Place the weather shield in position aligning the holes in the shield with those at the sides of the end plate. Secure with the two screws previously removed. see figure 32.

10.3 Fit the terminal guard (see figure 33). Secure the guard at the bottom and at the top between the two right hand columns of louvres using screws included in the fixings pack and the washers which were holding the guard to the convection box for transit (see section 4.3).

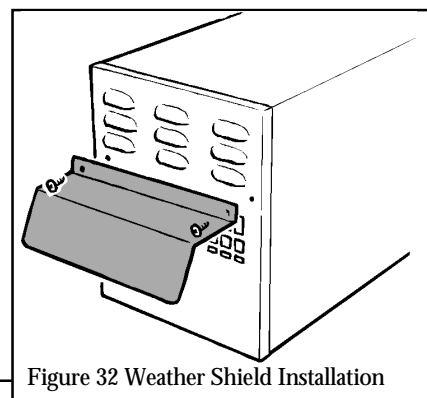


Figure 32 Weather Shield Installation

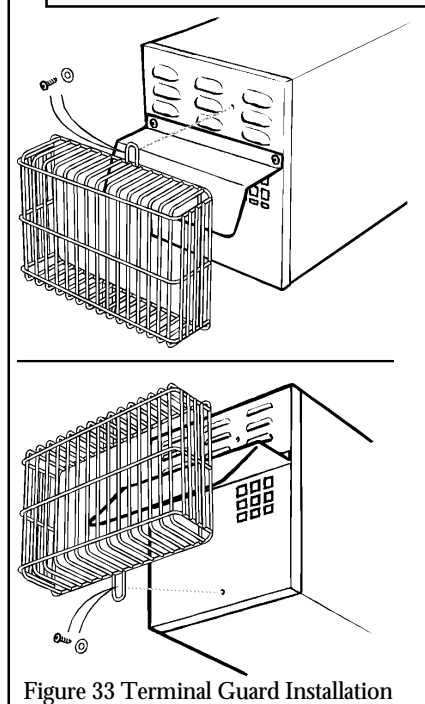


Figure 33 Terminal Guard Installation

11. INSTALLING THE CAST IRON FIREFRONT

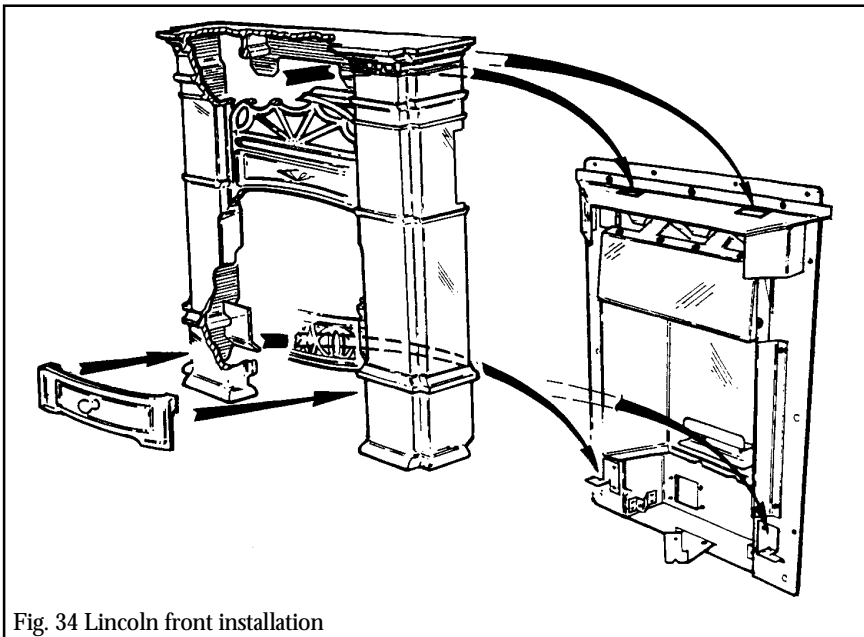


Fig. 34 Lincoln front installation

9.1 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 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 34.

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 35.

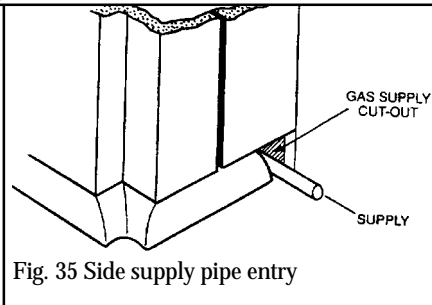


Fig. 35 Side supply pipe entry

12. GAS SUPPLY INSTALLATION

12.1 Connect the supply line to the appliance.

Unless the supply pipe connection is from the left front side, the supply pipe will have to be formed to avoid various components below the burner. An installation template is supplied which contains a diagram for bending this supply pipe.

12.2 Gas soundness check

Pressure check the installation pipework for gas soundness in accordance with the current edition of BS6891. Do not use leak detection sprays on this appliance. Sprays may affect the operation of electrical components. Keep all liquid detection fluids clear of electrical components. A long brush may be required to reach some joints.

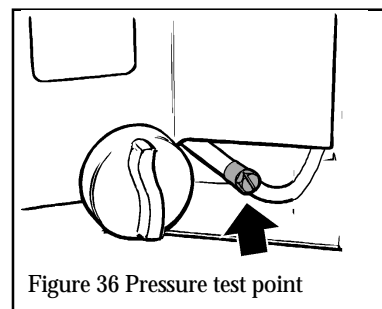


Figure 36 Pressure test point

12.3 Preliminary Burner Checks

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

12.3.1 Switch on electrical power supply. The red indicator light at the left side of the burner should be on.

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

12.3.3 Press and hold in the “on” switch. Within two seconds, the Fan motor should start and the indicator light should go out.

12.3.4 Release the “on” switch. The fan should continue to run.

12.3.5 Depress the control knob and turn anticlockwise partially towards the “PILOT/IGN” position until some resistance is felt. Keep depressed at this position to purge air from the system then, while keeping it depressed, turn fully to the “PILOT/IGN” position. A spark should be generated at the pilot while turning. The spark should ignite the pilot.

12.3.6 When pilot ignition has been achieved, keep the control knob depressed for approximately ten seconds to allow the thermocouple probe to warm up and then release it. If the pilot does not remain alight, ensure that the air has been purged, that the pilot orifice is clear and that the thermocouple connections are sound. Replace the pilot unit if necessary (see servicing section of this manual).

12.3.7 When the pilot is alight and stable, partially depress the knob and turn to “LOW”. 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.

12.3.8 With the burner at “LOW”, partially depress the control knob and gradually turn it anti-clockwise. The burner flames should gradually increase until the knob reaches the “HIGH” position. **When the above checks have been completed partially depress the control knob and turn to “OFF”.**

12.3.9 Press the “off” switch. The fan should stop and the indicator light should come on.

12.3.10 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.

12.4 Check Reference Pressure.

The appliance is pre-set to give the correct heat input at the inlet pressure shown in part 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 36). Check the pressure with the fan on, 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. **Do not use leak detection sprays on this appliance. Sprays may affect the operation of electrical components. Keep all liquid detection fluids clear of electrical components.**

13. CERAMIC COALS & WALL INSTALLATION

13.1 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 37).

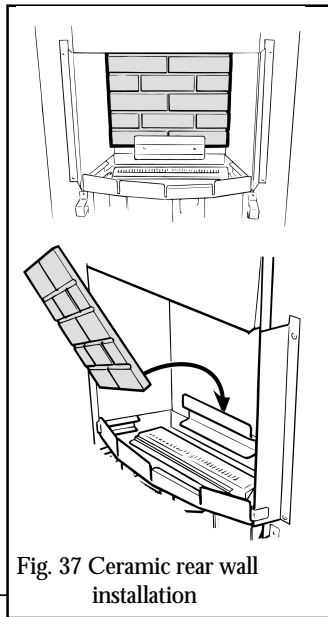


Fig. 37 Ceramic rear wall installation

13.2 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 38).

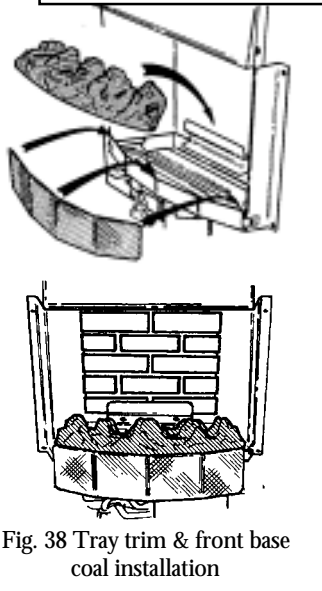


Fig. 38 Tray trim & front base coal installation

13.3 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 39).

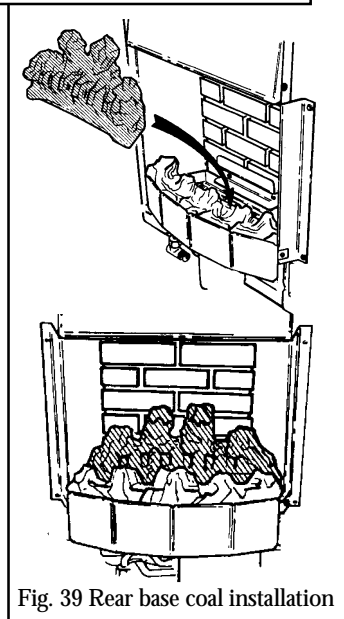


Fig. 39 Rear base coal installation

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

13.4.1 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 40).

13.4.2 Place the three remaining medium size coals behind and approximately midway between each of the coals in the front row (See figure 41).

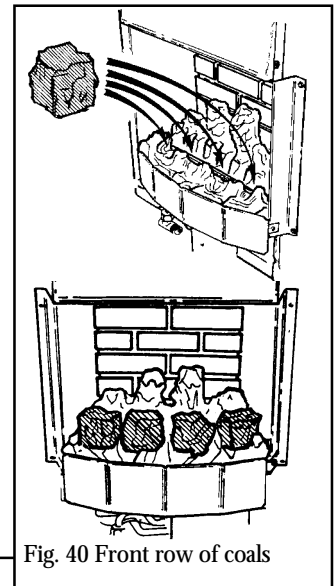


Fig. 40 Front row of coals

13.4.3 Place the two remaining small coals alongside the main coals (See figure 42).

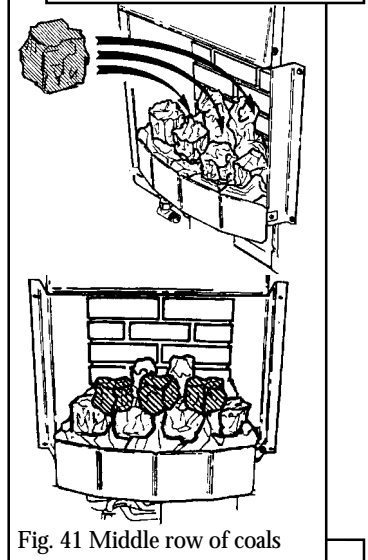


Fig. 41 Middle row of coals

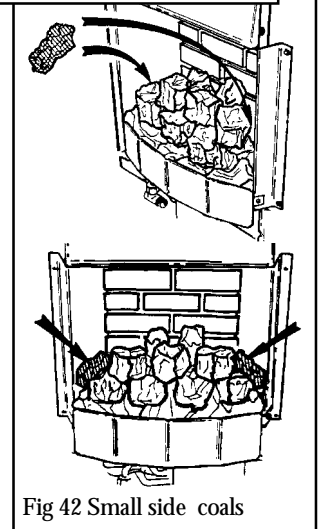


Fig. 42 Small side coals

14. FULL OPERATING CHECKS

14.1 Recheck Control Settings

Now that all the ceramic fuel effects are in position, the control operation must be fully rechecked.

14.1.1 Make sure that the isolating valve at the inlet elbow is open and that the electrical power supply is on (the indicator light should glow).

14.1.2 Press and hold in the “on” switch. Within two seconds, the Fan motor should start and the indicator light should go out.

14.1.3 Release the “on” switch. The fan should continue to run.

14.1.4 Depress the control knob and turn anticlockwise partially towards the “PILOT/IGN” position until some resistance is felt. Keep depressed at this position to purge air from the system then, while keeping it depressed, turn fully to the “PILOT/IGN” position. A spark should be generated at the pilot while turning. The spark should ignite the pilot. Check that the pilot flame is visible.

14.1.5 When pilot ignition has been achieved, keep the control knob depressed for approximately ten seconds to allow the thermocouple probe to warm up and then release it. If the pilot does not remain alight, ensure that the pilot orifice is clear.

14.1.6 When the pilot is alight and stable, partially depress the knob and turn to “LOW”. 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.

14.1.7 When the burner is operating properly, partially depress the knob and gradually turn it anti-clockwise. The burner flames should gradually increase until the knob reaches the “HIGH” position.

14.1.8 Partially depress the control knob and turn back to “PILOT/IGN”. The main burner flames should be extinguished but the pilot should remain alight.

14.1.9 Partially depress the control knob and turn to “OFF”. The pilot should be extinguished.

14.1.10 Press the “off” switch to turn off the fan (the indicator light should glow).

14.2 Check For Spillage

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

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

14.2.2 Turn on the fan. Light the appliance. Turn the control to “HIGH”.

14.2.3 Leave the appliance on for five minutes.

14.2.4 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 (fig. 43).

Insert the tube so that the neck of its flared end touches the inside surface of the edge of the cross member (figure 43).

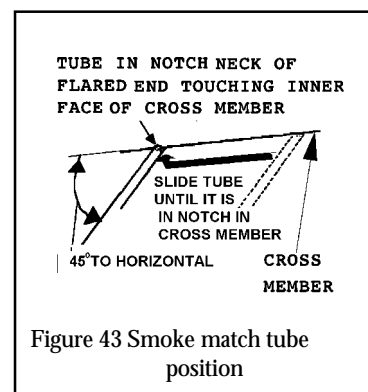
Keeping the neck of flared end in contact with the edge of the cross member, slide the tube to the left until you feel it enter the notch in the edge of the cross member. Make sure that the tube is pointed upwards at 45° to the horizontal.

The installation is satisfactory if the smoke is drawn into the appliance. If the smoke is not drawn into the appliance the powered fan is not operating correctly. **Do not allow the appliance to be used until the fault is corrected.**

14.2.5 If the above test is satisfactory, open all internal connecting doors, hatches, etc. in the room. Switch on any extractor fan or other air circulating system installed in the same room as the appliance or in a connecting room. Keep all doors and windows that open to the outside of the building closed. 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**

14.2.6 If any other non-sealed gas appliances are installed in the room or connecting rooms, check that to ensure that there is no spillage from these appliances when Model



BR517 is operating with its fan on. Check these other appliances by the procedure supplied by the manufacturer.

14.3 Flame Supervision & Spillage Monitoring System

This pilot unit incorporates a system which will automatically shut off the gas supply if the pilot flame goes out or if there is insufficient oxygen due to spillage or lack of ventilation.

Check that the system operates properly as follows;

14.3.1 Turn on the fan. Light the appliance and turn the control knob to "HIGH".

Leave for one minute.

14.3.2 Turn back to "OFF" to extinguish the pilot. *Note the time when the pilot goes out.*

Listen for a snap sound at the gas tap. *Note the time when the sound is heard.* This sound is caused by an electromagnetic valve shutting off the gas supply through the tap. The valve is located in the body of the tap. The valve should operate *within 60 seconds of the pilot going out.* If the valve does not operate within this time limit do not allow the appliance to be used until the fault has been corrected.

This monitoring system must not be adjusted, bypassed or put out of operation.

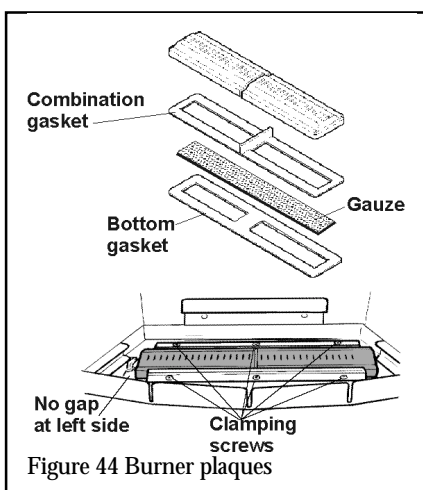
This monitoring system, or any of its parts, must only be exchanged using Wonderfire authorised parts.

15. FINAL REVIEW

- 15.1** Make sure that the cast iron fire front is securely installed. See section 11. Place the bottom front casting in position.
- 15.2** Visually inspect the appliance. Clean off any marks incurred during installation.
- 15.3** Hand this guide, the owner's guide and the smoke match tube to the customer.
- 15.4** Advise the customer how to operate the appliance. Point out that lighting instruction details are on a tie at the bottom of the appliance.
- 15.5** Explain to the customer that the appliance has a flame failure & spillage monitoring system and that the gas supply to the fire will be shut off unless the fan is in operation. Point out the explanation of this system shown in the users guide. Mention that in windy weather or when the mains voltage is low, a slight click may be heard due to the fan control system switching between its normal and boost speeds.
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.
- 15.6** 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 your fire".
- 15.7** ***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.***
- 15.8** Inform the customer that the gap between the top horizontal flange of the duct backing plates and the top rear of the front covers must not be blocked. The gap is to allow cooling air circulation along the ducting run.
- 15.9** Recommend that the appliance should be serviced and the flue unit inspected by a competent person at least annually. If the appliance is in premises in the United Kingdom occupied by a tenant, point out that by law a landlord must have any gas appliance, flue and pipework which is situated in the tenants premises checked for safety at least every 12 months.

16. SERVICING & PARTS REPLACEMENT

- **Always turn off the gas and isolate the electric supply before commencing any servicing and make sure that the appliance is cold. (The inlet elbow for this appliance incorporates an isolating valve).**
- **This product uses fuel effect pieces, a burner compartment rear wall and gaskets containing Refractory Ceramic Fibres (RCF), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause 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.**
- **Remove any lint from the components**
- **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 and check operation of all controls. (Do not use leak detection sprays on this appliance. Sprays may affect the operation of electrical components. Keep all liquid detection fluids clear of electrical components.)**



16.1. To Replace Burner Plaques (See Figure 44)

16.1.1 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 cast front surround or bottom front casting.

16.1.2 Remove the plaque clamping strips by detaching 6 screws.

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

16.1.4 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.

16.1.5 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.

16.1.6 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.

16.1.7 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.

16.1.8 Refit the ceramic fuel effects and wall as described in part 13 of this manual.

16.2. To Remove The Front Surround

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.

16.2.1 Remove the bottom front cover.

16.2.2 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 45. Lift the cast front clear and place safely.

16.2.3 Refit the cast front as follows:-

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 45.

16.2.4 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.

16.2.5 Replace the bottom front cover.

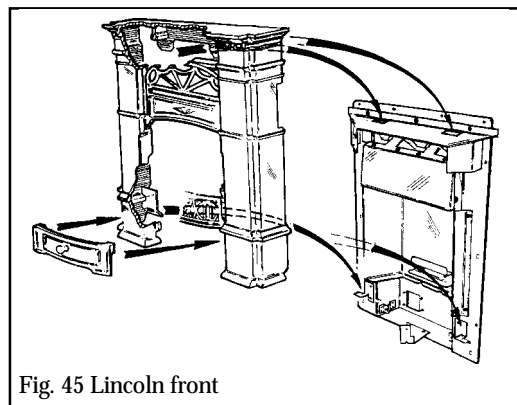


Fig. 45 Lincoln front

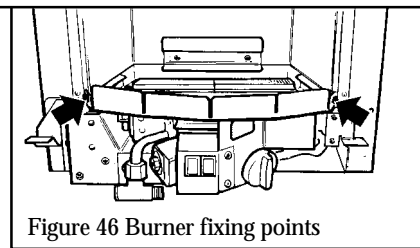


Figure 46 Burner fixing points

16.3. To Remove The Pilot Unit

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

16.3.2 Remove the cast front surround unit - See section 16.2.

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

16.3.4 Detach the burner unit from the convection box by removing 2 screws (see figure 46). Carefully lift the burner unit forward making sure that the unit does not snag on any leads. Rest the burner on its front face to allow access to the pilot and gas tap.

16.3.5 Disconnect the electrode lead from tab underneath the electrode.

16.3.6 Undo the thermocouple nut at the gas tap.

16.3.7 Disconnect the pilot pipe from the pilot unit elbow.

16.3.8 Remove the first screw securing the dust cage to the pilot unit & burner (see figure. 47). Carefully remove the dust cage and place aside.

16.3.9 Remove the second screw securing the pilot unit to the burner. Remove the pilot unit and place it aside.

16.3.10 Refit in the reverse order. Make sure that no leads are trapped.

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.

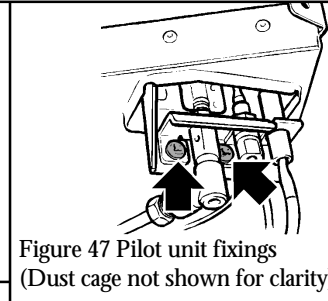


Figure 47 Pilot unit fixings
(Dust cage not shown for clarity)

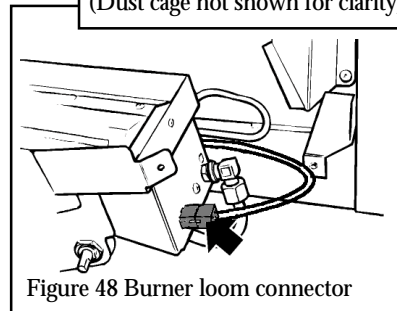


Figure 48 Burner loom connector

16.4. To Completely Remove The Burner Unit

16.4.1 Remove the ceramics and cast front surround, disconnect the appliance and detach the burner unit from the convection box as sections 16.3.1 to 16.3.4.

16.4.2 Detach the burner wiring loom connection at the right side of the burner (see figure 48).

16.4.3 Refit in the reverse order. Make sure no leads are trapped.

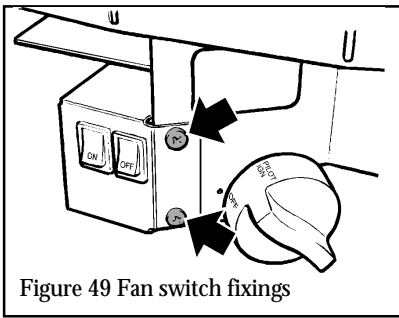


Figure 49 Fan switch fixings

16.5. To Remove The Gas Tap/F.S.D & Solenoid Assembly

- 16.5.1** Remove the burner unit - See section 16.4.
- 16.5.2** Disconnect the electrode lead from tab underneath the electrode.
- 16.5.3** Undo the thermocouple nut at the gas tap.
- 16.5.4** Disconnect the inlet pipe at the solenoid junction.
- 16.5.5** Disconnect the main burner pipe at the tap end.
- 16.5.6** To gain access to the pilot pipe connection, detach the fan switch bracket from the burner control bracket by removing two screws (see figure 49).
- 16.5.7** Disconnect the pilot pipe at the tap end.
- 16.5.8** Pull off the control knob.
- 16.5.9** Remove the gas tap fixing nut.
- 16.5.10** Disconnect the two burner wiring loom leads from the solenoid unit.
- 16.5.11** Disconnect the earth lead from the solenoid unit.
- 16.5.12** Pull the tap & solenoid unit clear.
- 16.5.13** To separate the tap from the solenoid, detach the solenoid unit at the gas tap end
- 16.5.14** Replace in the reverse order.

16.6. To Remove The Piezo Generator

- 16.6.1** Remove the gas tap & solenoid unit as sections 16.5.1 to 16.5.12.
- 16.6.2** Make sure that the tap is in the off position.
- 16.6.3** Remove the circlip holding the piezo unit to the tap. Remove the piezo unit.
- 16.6.4** Replace in the reverse order.

16.7. To Remove The Main Burner Injector

- 16.7.1** Detach the burner unit from the convection box as section 16.4.
- 16.7.2** Disconnect the main burner pipe from the injector. If necessary, loosen the pipe at the gas tap end to swing the pipe clear of the injector.
- 16.7.3** Unscrew the injector from the support bracket.
- 16.7.4** Refit in the reverse order. Make sure that no leads are trapped.

16.8. To Remove an “On” or “Off” Fan Switch

- 16.8.1** Detach the fan switch bracket from the burner control bracket by removing two screws (see figure 49). Carefully pull clear of the burner unit.
- 16.8.2** Detach the two leads from the switch which is to be removed.
- 16.8.3** Press in the plastic spring grips at the ends of the switch and pull the switch clear of the bracket.
- 16.8.4** Replace in the reverse order. Make sure the correct leads go to each switch (see wiring diagram figure 30). Make sure that no leads are trapped.

16.9. For Access to the Electrical Control Components

16.9.1 Remove the burner unit - See section 16.4.

16.9.2 Detach the control unit from the convection box left side flange by removing two screws (see figure 50). Carefully pull the unit slightly forward.

16.9.3 Detach the fan wiring loom connection. (see figure 51).

16.9.4 Detach the plastic vacuum tube from the metal vacuum pipe (see figure 51).

16.9.5 Detach the control unit cover by removing one screw (see figure 52).

16.9.6 The control unit can be pulled forward as far as the slack in the mains lead will allow. **Do not stress the mains lead.**

16.9.7 When replacing the unit make sure that all the leads are correctly and firmly connected (see wiring diagram figure 30), that no leads are trapped and that the vacuum tube is firmly connected.

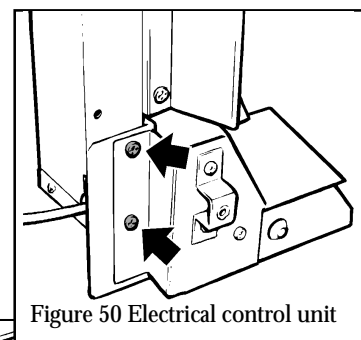


Figure 50 Electrical control unit

16.10. To Remove the Distribution block

16.10.1 To gain access see section 16.9.

16.10.2 Remove the two screws fixing the block to the control bracket.

16.10.3 Disconnect the earth lead from the control bracket.

16.10.4 Remove the cover from the air pressure switch (see figure 53)

16.10.5 Disconnect the three leads (Yellow, orange & white) from the air pressure switch.

16.10.6 Disconnect the two leads (Brown & blue) from the mains cable connection block.

16.10.7 Replace in the reverse order. Make sure that all the leads are correctly and firmly connected (see wiring diagram figure 30), that no leads are trapped and that the vacuum tube is firmly connected.

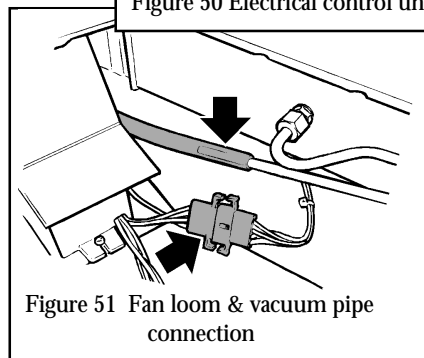


Figure 51 Fan loom & vacuum pipe connection

16.11. To Remove the Air Pressure Switch

16.11.1 To gain access see section 16.9.

16.11.2 Detach the pressure switch from the control bracket by removing two screws, nuts & washers (see figure 54).

16.11.3 Remove the cover from the air pressure switch (see figure 53)

16.11.4 Disconnect the three leads (Yellow, orange & white) from the air pressure switch.

16.11.5 Detach the plastic vacuum tube from the pressure switch.

i) Make sure that the vacuum tube is connected to the shank on the pressure switch closest to the centre of the appliance (marked ⊕) - not the shank closest to the control bracket.

ii) Make sure that all the leads are correctly and firmly connected (see wiring diagram figure 31) and that no leads are trapped.

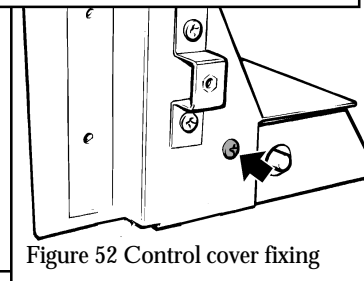


Figure 52 Control cover fixing

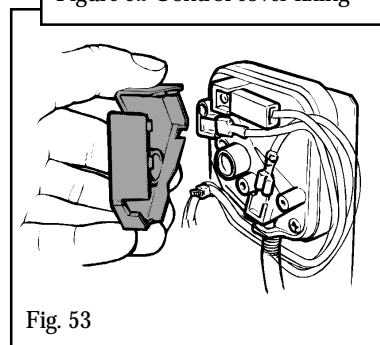


Fig. 53

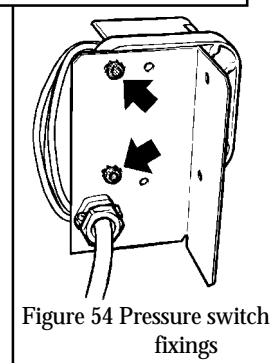


Figure 54 Pressure switch fixings

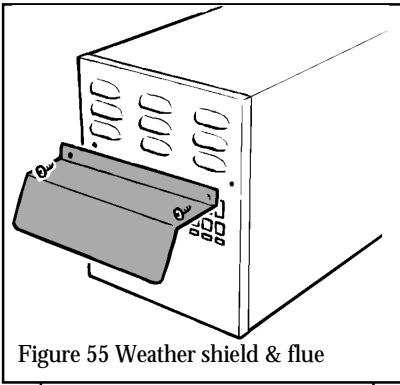


Figure 55 Weather shield & flue

16.12. To Remove the Fan

16.12.1 Remove the terminal guard by detaching two screws and washers.

16.12.2 Detach the weather shield and flue box end plate by removing two screws (see figure 55).

16.12.3 Disconnect the wiring loom connector inside the top right of the flue box (see figure 56).

15.12.4 Slide the fan out of the flue box (see figure 56).

15.12.5 Replace in the reverse order.

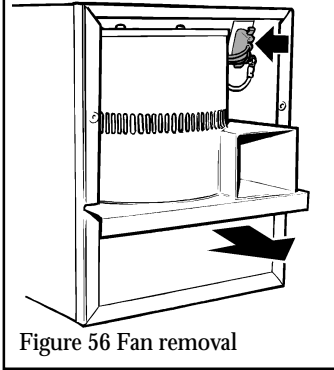
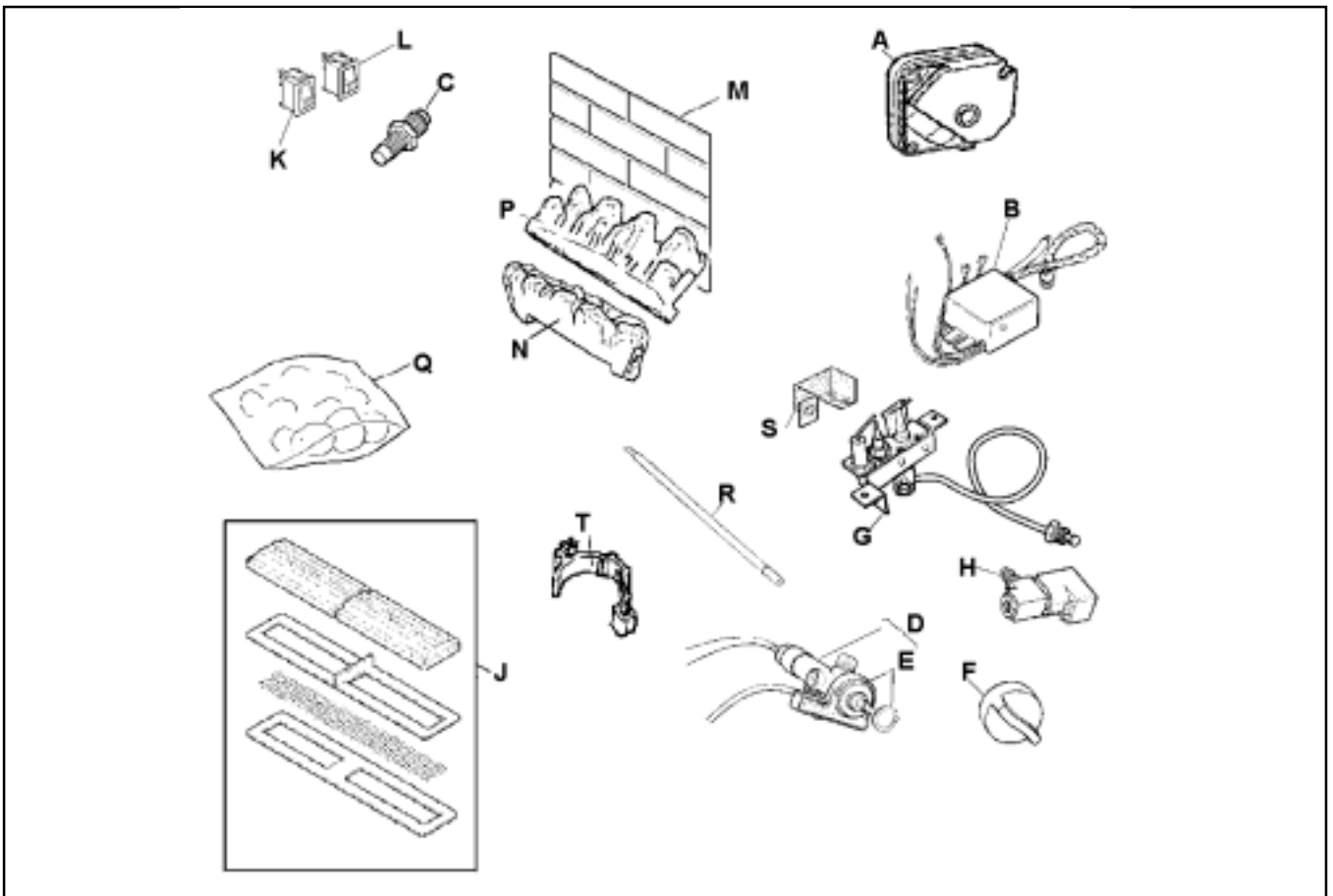


Figure 56 Fan removal

17.SHORT LIST OF SPARES



Key No.	Description	No. off	Part No.
A	Air pressure switch - L.G.W.1.5 A1 0.51 0.1 F.U.	1	561099
B	Electrics control unit	1	559709
C	Injector Bray cat 18 size 360 - <i>For Natural Gas Appliances</i>	1	541609
	Injector Bray cat 18 size 170 - <i>For Propane Appliances</i>		571709
D	Gas tap & spark generator	1	545969
E	Spark generator	1	521069
F	Control knob	1	545979
G	Pilot unit - <i>For Natural Gas Appliances</i>	1	540979
	Pilot unit - <i>For Propane Appliances</i>		544929
H	Solenoid valve	1	559719
J	Burner plaque & gasket set	1	569439
K	"On" switch	1	559729
L	"Off" switch	1	559739
M	Ceramic rear wall	1	545999
N	Front coal	1	9770074
P	Rear base coal	1	9770075
Q	Pack of loose coals	1	9870033
R	Smoke match tube	1	541169
S	Dust cage	1	567619
T	Duct support bracket	4	561029

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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

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Front	Lincoln
Supplier's Name	
Supplier's Address	
Telephone No.	
Date of Purchase	
Guarantee Card No.	



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