



User Instructions

for the Housewarmer Mainflame gas fire

Fitted to either the
Housewarmer 45 Electronic back boiler
or
Housewarmer 55 Electronic back boiler.

G.C. Appliance No's.

Housewarmer 45 Electronic back boiler with Mainflame gas fire	44 494 39
Housewarmer 55 Electronic back boiler with Mainflame gas fire	44 494 37

For use with Natural Gas only.

Your Housewarmer gas boiler will provide you with central heating and stored hot water. These notes tell you how to light and turn off your boiler and fire, and to operate them in order to achieve the working results you require.

Before starting make sure that the water system is in full working order.

The boiler and fire must be installed by a competent installer in accordance with the Gas Safety (Installation and Use) Regulations 1990.

GENERAL SECTION

You may use the fire and boiler together, or either on its own, at any time you wish. The boiler is situated behind the fire and, when in use, you may hear the main burner light up as it is automatically controlled.

The fire is lit by a spark igniter which is operated by the fire control knob. It does not require batteries or connecting to the electricity supply.

In the event of a cut in the electricity supply, the boiler will not operate but the fire may be used as normal.

When choosing your operating times for the boiler you might find it useful to remember these points:

- Central heating takes some time, from ½ hour to an hour, to become effective. It is advised that the boiler is switched on 1 hour in advance. Its effectiveness remains for some time, e.g. ½ hour to an hour, after shut down.
- A similar time should be allowed if the hot water cylinder is cold. But when you switch the boiler off, a cylinder full of hot water will stay hot for a long time if the cylinder is well insulated.

1. Boiler thermostat

For central heating and hot water in the coldest weather a thermostat setting of 4 or 5 is recommended. This may be reduced in milder weather to 3 or 4.

For hot water only, e.g. in summer, turn the thermostat to 1 or 2.

2. Room thermostat (if fitted)

Set this control to the required room temperature.

Note that the setting of the boiler thermostat will still determine the temperature of the domestic hot water supply.

3. Summer use

To turn off the central heating only, e.g. in summer, switch the programmer (if fitted) to hot water only or turn the room thermostat (if fitted) to off or to the lowest setting. Reduce the setting of the boiler thermostat, as described previously, to give the required domestic hot water temperature.

4. Air supply

Your installer will have made arrangements for an adequate supply of fresh air to the boiler for combustion. Do NOT block up these airways, which may be let into a wall or door. Do NOT obstruct air flow around the sides of the fire by boxing in with a new fireplace. Always leave at least 115 mm clearance at each side of the fire for air movement.

Caution: Always consult your local Gas Region or service engineer before fitting any type of extract fan in the premises.

5. Clearances

Ensure that there is at least 115 mm clearance at each side of the fire to give access for servicing, sufficient air supply to the boiler and access to view the boiler thermostat control markings.

Do NOT fit any carpeting under the fire.

A shelf may be fitted a minimum of 150 mm above the top point of the fire provided that it is not more than 150 mm deep. Alternatively, for every 10 mm added to the minimum height clearance, the shelf depth can be increased by 10 mm, up to a maximum of 240 mm.

6. Fire dimensions

Height 698 mm Width 674 mm Depth 316 mm.

7. Frost precautions

In severely cold weather the boiler may be damaged by frost: it should be kept in operation continuously with the boiler thermostat set at position 1 overnight or if the house is unoccupied.

If a programmer is fitted, it should be set to continuous. This will also serve to protect the circulating water pipes and radiators. Pipes and tanks in the loft space must be insulated. Alternatively if the house is to be unoccupied for any length of time during severe weather, the whole system including the boiler should be drained to avoid the risk of freezing up.

If in doubt consult your installer.

8. Wall finishes

Any appliance producing warm air can cause dust staining above it in time. You are advised not to use white or other light coloured wall finishes or coverings close to the fire. Blown vinyl wallpaper, which has a raised pattern is easily scorched or discoloured by heat, and is unsuitable for use close to the fire.

9. Servicing

Servicing is important in order to ensure continuing high efficiency and long life for your appliance. You should arrange annual servicing arrangements with your local Gas Region or C.O.R.G.I. registered Installer.

10. Gas leak

If a gas leak or fault is suspected, turn off the appliance and consult your local Gas Region or C.O.R.G.I. registered Installer.

Warning: The glass panel on the fire conforms to the requirements of BS1945:1971 and satisfies the Heating Appliances (Fireguards) Regulations 1973. The panel is to prevent the risk of fire or injury from burns and should not be permanently removed.

The glass panel does NOT give full protection for young children, the elderly and the infirm. Extra security can be provided by fitting a fireguard which complies with BS3140 (Solid Fuel Fires).

Never obstruct the convection opening at the top of the fire, e.g. with clothes.

The glass panel prevents contact with the flames, but becomes very hot.

ELECTRICITY SUPPLY

Connections should be made to a 240V ~ 50Hz supply.

The appliance must be protected by a 3A fuse.

WARNING: THIS APPLIANCE MUST BE EARTHED.

BOILER AND FIRE CONTROLS

See Fig. 1

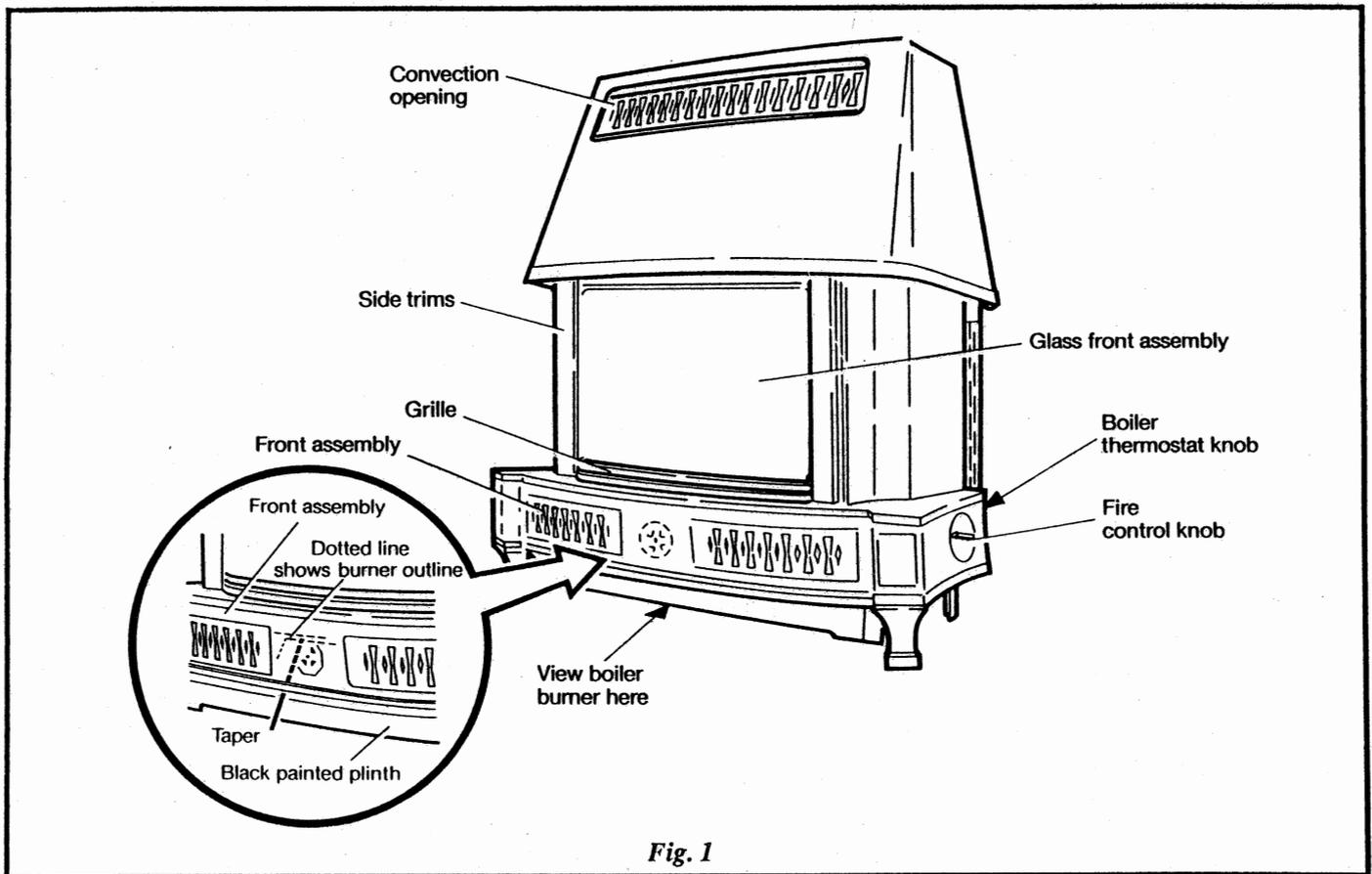


Fig. 1

BOILER SECTION

TO LIGHT THE BOILER

See Fig. 1

1. Ensure that the boiler thermostat knob is turned to OFF and that the electricity, gas and water supplies are turned on.
2. Set any external time controls to an 'on' position.
Turn the room thermostat, if fitted, to a high setting.
3. Turn the boiler thermostat knob clockwise to position 5.
The boiler will go through the automatic ignition sequence and the burner will light. The burner can be seen by looking under the fire at floor level in the direction of the arrow as shown in Fig. 1.
Note: If the burner has not lit within about 60 seconds the automatic ignition sequence ceases.
To reset, turn the boiler thermostat knob to OFF, wait 10 seconds, then turn to position 5.
If ignition continually fails and the instructions given in 1, 2 and 3 above have been carried out, call your local Gas Region or service engineer.
4. When the burner has lit, turn the boiler thermostat knob to the required position. (See General note 1 on page 1).
5. If a programmer is fitted, set the clock and selector switches.
Turn the room thermostat, if fitted, to the desired setting.
Note: If the electricity supply is cut off for any reason, the boiler will light automatically when it is restored. If the gas supply is ever cut off the boiler thermostat knob must be reset, see para 3, when it is restored.

TO TURN OFF THE BOILER

For short periods - turn the boiler thermostat knob and room thermostat, if fitted, to OFF, or switch off at the programmer, if fitted. To re-start, return the controls to the required settings.

For long periods - turn the boiler thermostat knob to OFF. Switch off the electricity supply to the boiler. The electricity, gas and water supplies may be turned off at the mains, if desired.

To re-light, follow the full lighting instructions under "To light the boiler".

Note: If a time switch or programmer is fitted, ensure that the clock is set at the correct time when the electricity supply is restored.

FIRE SECTION

GENERAL

The Mainflame is a live fuel effect fire. The fuel effect is created by the use of ceramic coals mounted on a ceramic coal bed that glows red when heated by the main burner and four flicker flames that produce the flame effect.

It is IMPORTANT that the coals are always correctly positioned so that you get the best from your fire and that the flame effect is not affected.

After a time, the stainless steel sides and back of the firebox, the ceramic coals and the coal bed may start to discolour. This is quite normal and will enhance the appearance of the fire.

The fire is controlled by the control knob on the side of the case, see Fig. 1.

Due to the newness of the components, an odour will be noticeable when the fire is first lit after installation. This is quite normal and will disappear after a few hours of use.

When the fire is first lit, the glass panel might steam up. It will quickly disperse and is quite normal.

Read the following important notes before lighting the fire:-

1. The fire is fitted with a Flame Supervision Device, this means that if the fire should go out for any reason, the gas supply to the fire will automatically shut-off until the fire is re-lit. Wait 5 minutes before re-lighting the fire.
2. The glass panel on the front prevents fumes entering the room and is essential for safety. NEVER USE the fire with the glass panel removed or if it is broken. DO NOT use the fire until the glass panel has been replaced by a competent person.
3. The fire must not be used with any of the coals missing or damaged.

TO LIGHT THE FIRE

See Fig. 1

If lighting the fire for the first time or if the gas has been turned off at the mains, it may be necessary to operate the ignition sequence several times before the fire lights.

The setting position indicator is above the fire control knob.

Push the fire control knob in and turn it anticlockwise to the '⚡' (Ignition) setting. A loud click will be heard as it reaches this setting, this is the ignition unit operating and the fire should now be lit. Keep the control knob pushed in for 10 seconds then release, the fire will remain alight.

Look into the 'U' shaped section at the front right of the coal bed (in line with coal No. 4 - see Fig. 7) or look under the fire, flames will be visible. Push in and turn the control knob to setting '4', leave the fire running at this setting for 10 minutes to allow it to warm up.

Note: If the fire does not light, turn the control knob back to the 'OFF' position and repeat the lighting sequence.

If the fire does not remain alight after releasing the control knob, turn back to 'OFF', repeat the lighting sequence but keep the control knob pushed in for a little longer.

In the event of failure of the fire ignition unit, (which must be replaced as soon as possible), the fire may be lit by a taper as follows:-

1. Insert the lighted taper towards the left hand side of the fire above the black plinth but below the front assembly, see Fig. 1. The lighted end of the taper should be as close as possible to the burner face.
2. Push and turn the control knob anticlockwise to the '⚡' setting, keep the knob pushed in.
3. The burner will now light, keep the control knob pushed in for 10 seconds then release, the fire will remain alight.

TO ALTER THE FIRE SETTINGS

'⚡' to '1' Turn the control knob anticlockwise from '⚡'.

The knob can be set at any position between '⚡' and '1' and can be turned to either marked setting without pushing in.

'1' to '4' Push in and turn the control knob anticlockwise from '1'.

The knob can be set at any position between '1' and '4' and can be turned to either marked setting without pushing in.

'4' to '1' Push in and turn the control knob clockwise from '4'.

'1' to '⚡' Push in and turn the control knob clockwise from '1'.

DESCRIPTION OF SETTINGS

Setting '⚡' This is the lowest practical setting for the fire and the flicker flame effect will be off.

Setting '1' The burner will be at approximately half rate and the flicker flame effect will be on.

Setting '4' The burner will be on full rate and the flicker flame effect will be on.

Tip: To obtain the best flame picture, we recommend that after lighting, the control knob be set to '4' and the fire left running for 10 minutes before turning down to a lower setting.

TO TURN OFF THE FIRE

Push and turn the control knob clockwise back through the settings to the 'OFF' position.

To re-light the fire follow the full lighting instructions under "To light the fire".

WARNING: Always wait 5 minutes before re-lighting the fire. If it is re-lit within a short time, the heat retained by the coals and coal bed may ignite the burner prematurely.

CLEANING THE FIRE

Before cleaning, ensure that the fire is turned OFF and has been left to cool.

Metal and painted parts: A light spray from a silicone based polish and a rub over with a dry lint free cloth will remove any marks.
DO NOT USE ABRASIVE CLEANERS - THEY WILL SCRATCH THE SURFACES.

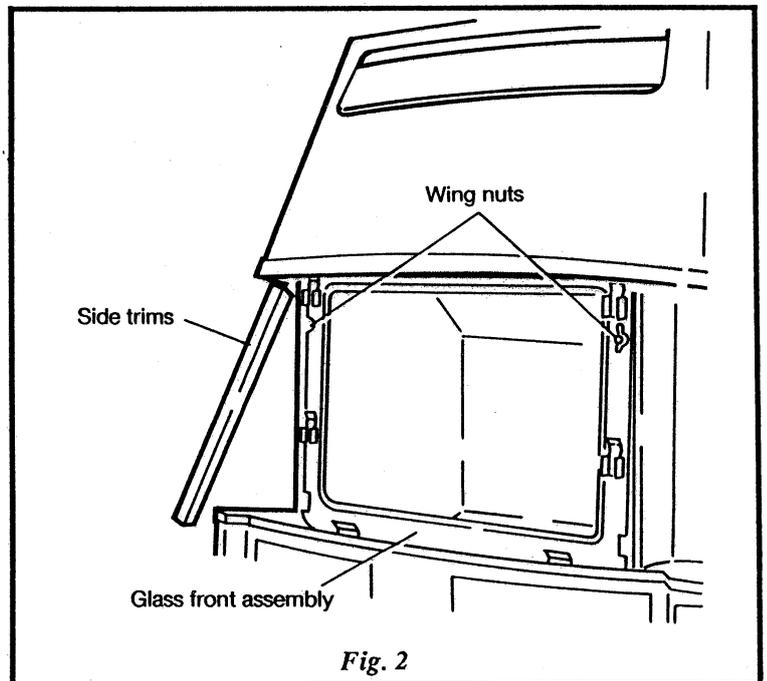
Ceramic coals and coal bed: Occasionally, the coals and coal bed will need to be taken out and any soot deposits removed using a soft brush. Take care as these items are FRAGILE.

Glass panel: This may require regular cleaning to remove any marks that may appear on its inside face. It should only be cleaned with a proprietary ceramic hob cleaner.
DO NOT USE ABRASIVE CLEANERS - THEY WILL SCRATCH THE GLASS.

TO CLEAN THE GLASS FRONT

See Fig. 2

1. Lift the grille away from the front of the glass front assembly. See Fig. 1.
2. Slide up and pull forward the side trims as shown.
3. Unscrew and remove the two wing nuts as shown.
4. Pull the glass assembly forward to clear the studs. Lift the assembly into the underside of the canopy until the bottom of the glass front assembly clears the fire case. Swing the bottom edge of the glass front assembly forward and pull it clear of the fire.
5. After cleaning the glass replace the assembly in reverse order.
Note: Ensure that the two notches in the sides of the frame are at the bottom as shown and that the assembly is located in the lower support brackets. Also ensure that when secured the wing nuts are vertical otherwise the side trims will not seat correctly.
6. Replace the side trims. The curved part of the side trims goes to the outside of the fire.
7. Fit the grille into its location holes in front of the glass front.

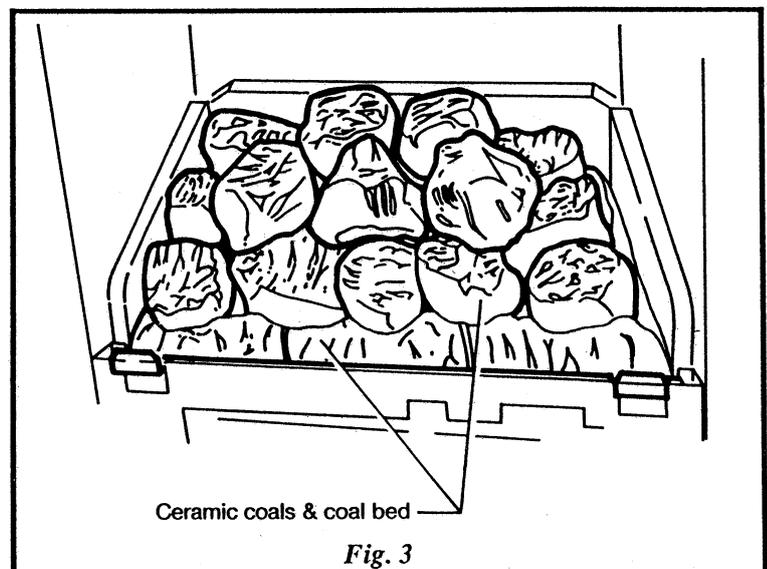


TO REMOVE THE COALS AND COAL BED

See Fig. 3

Warning: These items should only be placed onto a non combustible surface. Do NOT place them on carpets or furniture.

1. Remove the glass front assembly as previously described.
2. Carefully remove the coals.
3. Carefully remove the coal bed.



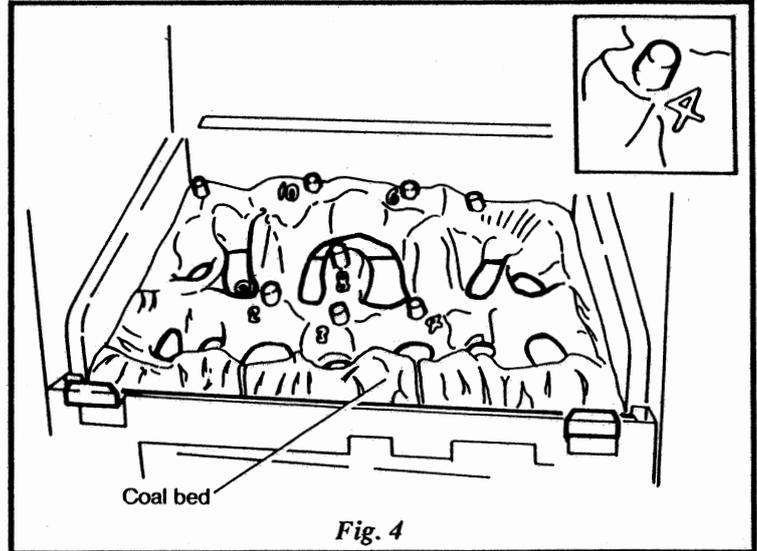
TO REPLACE THE COAL BED AND LOOSE COAL

See Figs. 4, 5, 6, 7, 8 and 9

See Fig. 4

1. Carefully fit the coal bed, ensure it is centrally located and that it is seated on the two flanges at the front of the firebox and on the base bricks at the rear.

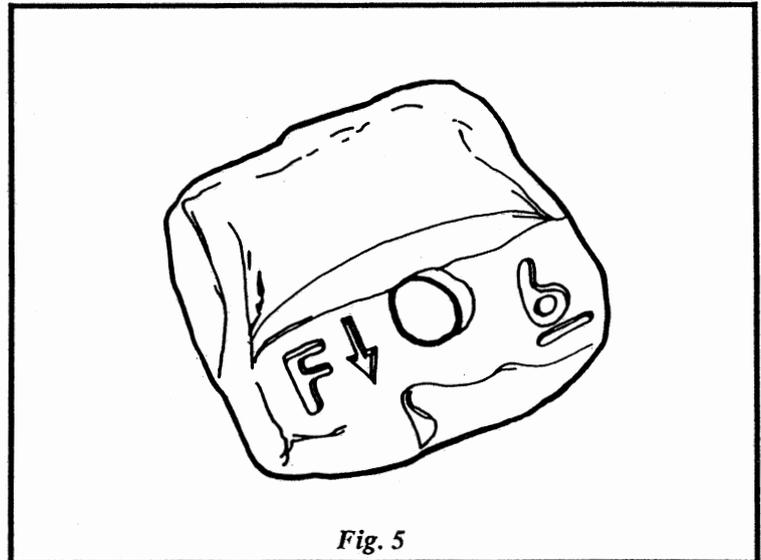
Note: The coal bed has numbers marked on it and location lugs that provide a positive fixing for the coals.



See Fig. 5

Note: Each coal has a number, the letter 'F' and an arrow marked on the underside. The number corresponds to its location point, the 'F' means forward and the arrow points forward i.e. to the front of the coal bed. Coals No.'s 2, 3, 4, 6, 7, 8, 9 and 10 have holes in the underside that locate over the location lugs.

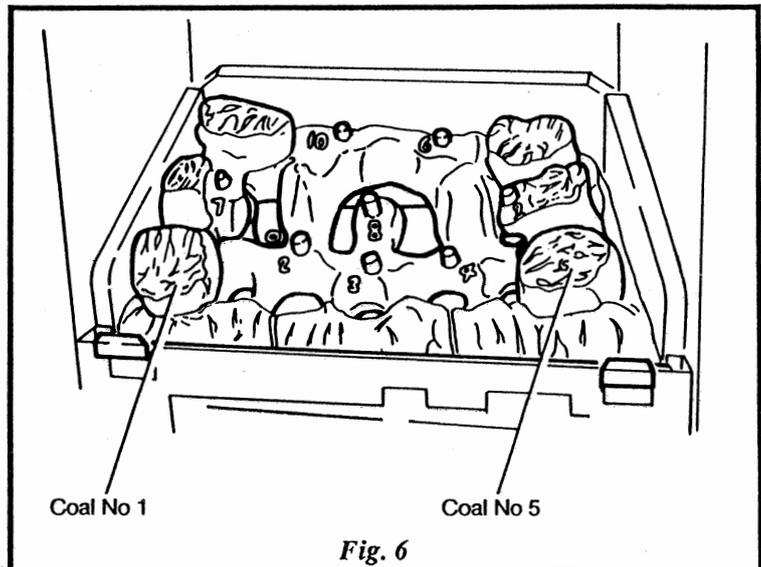
When fitting any of the coals, ensure that the arrow is pointing to the front of the coal bed.



See Fig. 6

2. Fit the Coals No. 1 and 5 onto the coal bed as shown.

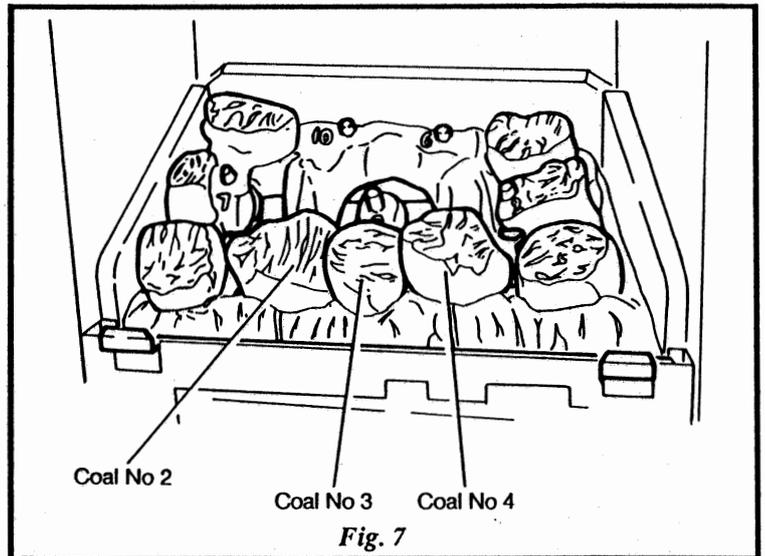
Note: For location of the top coals, Coal No. 1 has a 7 marked on the top and Coal No. 5 has a 9 marked on the top.



See Fig. 7

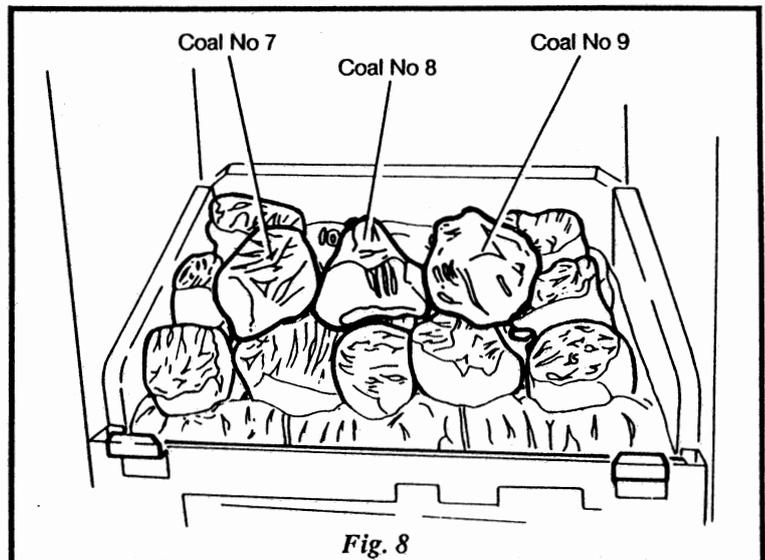
Tip: When fitting all the remaining coals, rotate each one when fitted to ensure that they positively locate.

3. Fit Coal No.'s 2, 3 and 4 over their location lugs.



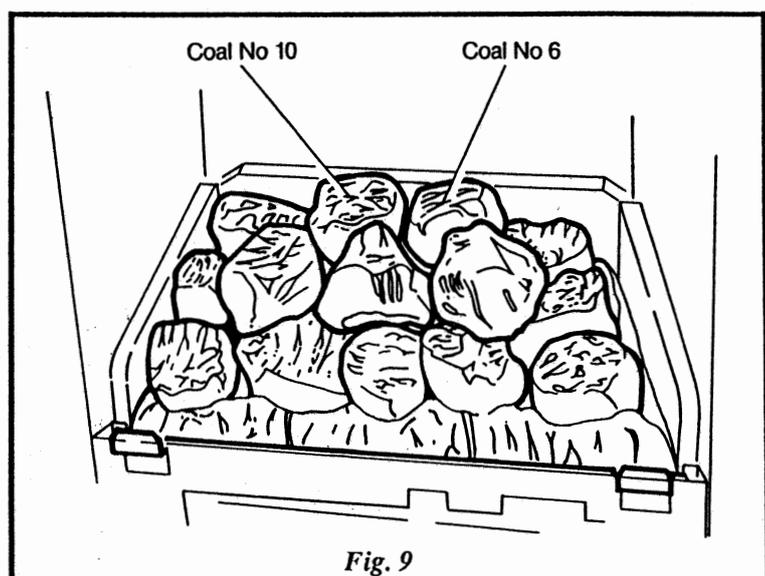
See Fig. 8

4. Fit Coal No. 8 onto its location lug in the centre of the coal bed. Position it so that it rests against Coal No. 3.
5. Fit Coal No. 7 onto its location lug on Coal No. 1. Position it so that it rests against Coal No. 2.
6. Fit Coal No. 9 onto its location lug on Coal No. 5. Position it so that the cut out in the base of the coal locates into the cut out in the top of Coal No. 4.



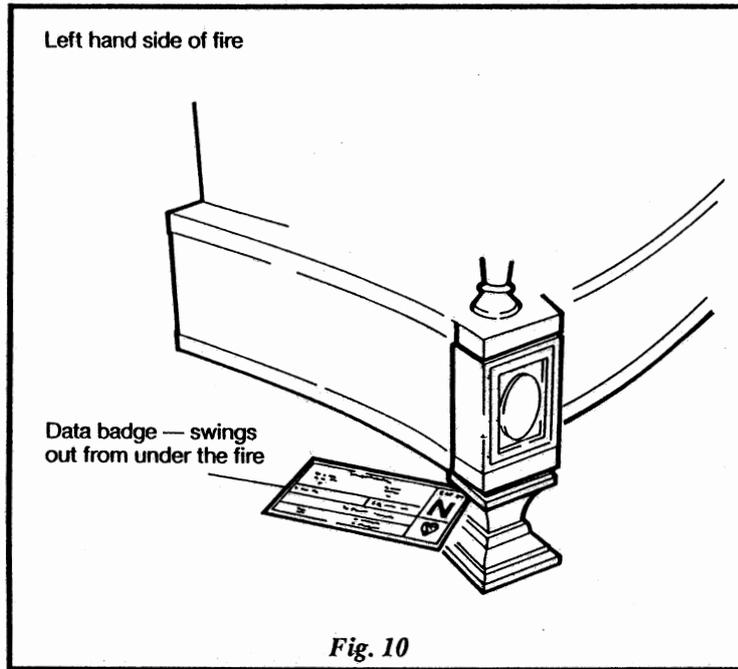
See Fig. 9

7. Fit Coal No. 6 and Coal No. 10 onto their location lugs at the rear of the coal bed. Because of their design, they will overhang the rear of the coal bed.
8. Replace the glass front assembly and complete the reassembly as described in the section "To clean the glass front".

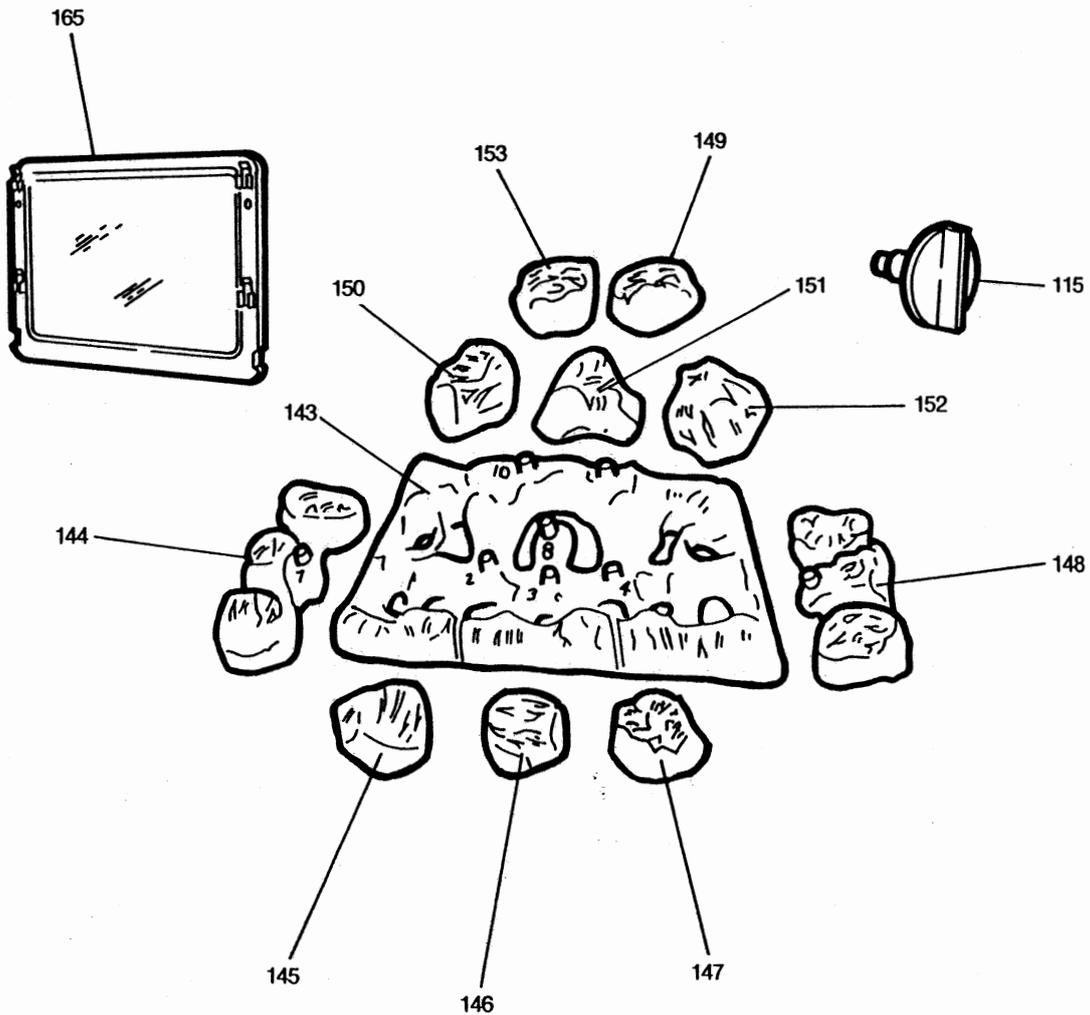


LIST OF SPARE PARTS

If spare parts for the fire are required, always quote the Fire Name, Serial Number and G.C. Numbers shown on the Data Badge which is located at the bottom left hand side of the fire. The badge will be just visible and can be swung out to the left - see Fig. 10.



The following parts are available from your supplier and are the only parts which can be replaced by the user.



Key No.	G.C. No.	Description	Qty.	Part No.
115	127 104	Control knob assembly	1	942/1051
117	127 105	Control knob assembly (Handicapped Persons)	1	942HP/1051
143	127 123	Coal bed	1	942/9911
144	127 124	Coal No. 1 (left hand side)	1	942/2040
145	127 125	Coal No. 2 (left hand front)	1	942/2041
146	127 126	Coal No. 3 (centre front)	1	942/2042
147	127 127	Coal No. 4 (right hand front)	1	942/2043
148	127 128	Coal No. 5 (right hand side)	1	942/2044
149	127 129	Coal No. 6 (right hand rear)	1	942/9844
150	127 130	Coal No. 7 (left hand top)	1	942/2045
151	127 131	Coal No. 8 (centre top)	1	942/2046
152	127 132	Coal No. 9 (right hand top)	1	942/2047
153	127 133	Coal No. 10 (left hand rear)	1	942/2050
165	127 142	Glass front assembly	1	942/9910



Installation and Servicing Instructions

for the Housewarmer Mainflame gas fire

**This fire is only for use with the
Housewarmer 45 Electronic back boiler
or
Housewarmer 55 Electronic back boiler.**

G.C. Appliance No's.

Housewarmer 45 Electronic back boiler with Mainflame gas fire
Housewarmer 55 Electronic back boiler with Mainflame gas fire

44 494 39
44 494 37

IMPORTANT

FOR USE WITH NATURAL GAS ONLY.

**Read these instructions and the separate boiler instructions, supplied with
the boiler, thoroughly before working on the boiler or fire.
Leave these instructions with the User for use on future calls.**

These instructions must be read together with the separate instructions for the boiler, supplied with the boiler.

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If you have any reason to complain of any shortage of components, supply a list of the item(s) concerned, fire model, your name, address and any information which may help us avoid further error.

Address for return:

Spare Administration Manager

Curzon Components Ltd.

Earlsway

Team Valley Trading Estate

Gateshead, Tyne and Wear

NE11 0SA

1. TECHNICAL DATA

Fire	Housewarmer Mainflame
Burner type	Simplex - Fixed aeration
Burner injector	Marked G1
Fuel effect restrictor	Marked RB1
Spark gap	3.0 to 4.0 mm
Ignition	Piezo unit (tap operation)
Weight	26 kg (57 lb)

NOMINAL FIRE RATINGS

Fire	Control knob setting	Output		Input	
		kW	Btu/h	kW	Btu/h
Housewarmer	4	4.04	13 800	6.74	23 000
Mainflame	1	2.12	7 250	3.80	12 950
	⚡	0.98	3 360	1.76	6 000

Operating Pressure - Cold 9.9 ± 0.5 mbar (4.0 ± 0.2 in wg)

Operating Pressure - Hot 10.3 ± 0.5 mbar (4.1 ± 0.2 in wg)

The fire data plate is positioned on the left hand side of the fire under the plinth assembly and can easily be swung out into view without removing any part of the fire, see Fig. 2.

2. INTRODUCTION

Housewarmer Mainflame gas fire.

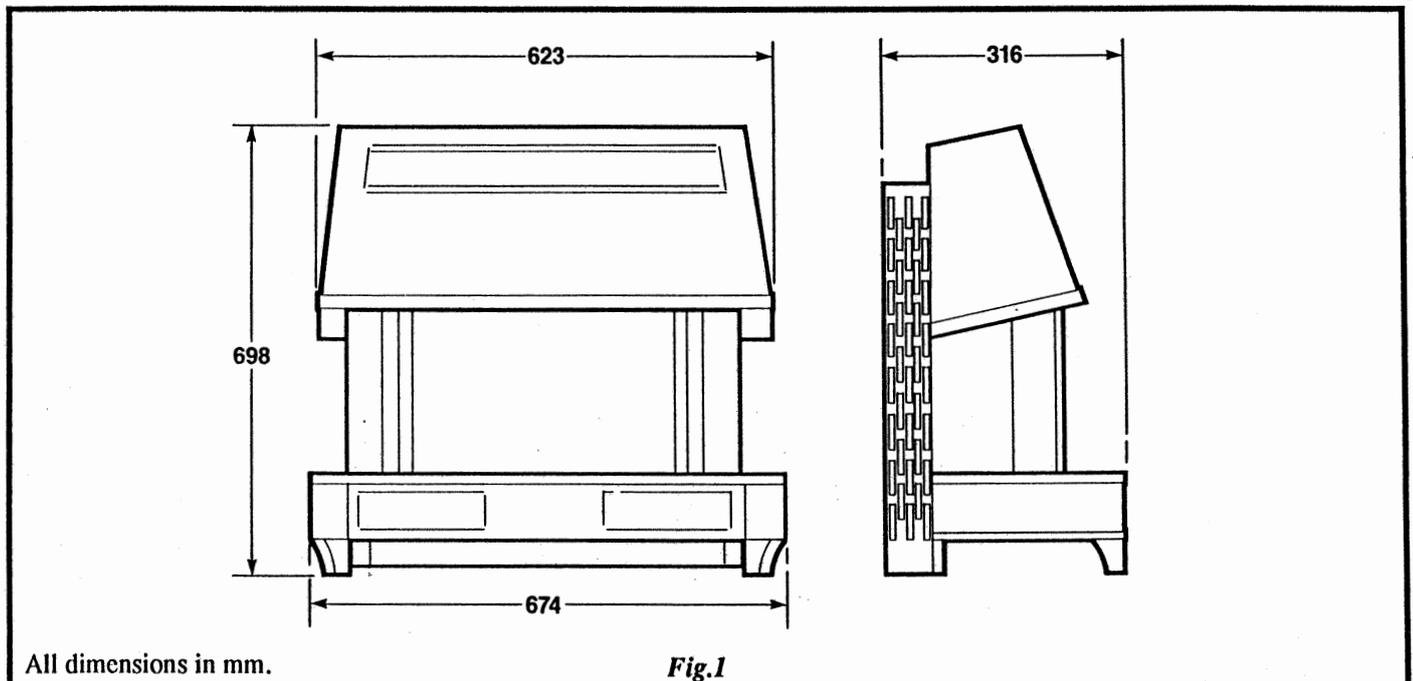
This fire is only suitable for use with a Housewarmer Electronic back boiler (45 or 55 model).

The fire is a live fuel effect fire lit by a piezo spark igniter so batteries or an electricity supply for the fire are not required. The live fuel effect is created by the use of ceramic coals mounted on a ceramic coal bed that glows red when heated by the main burner and four flicker flames that produce the flame effect.

The fire is fitted with a flame supervision device, this means that if the fire should go out for any reason, the gas supply to the fire will automatically shut-off until the fire is relit. If the fire does go out for any reason or is turned off, it must NOT be relit for 5 minutes.

3. FIRE DIMENSIONS

See Fig. 1.



4. FIREPLACE OPENING

The front opening of the fireplace recess must measure between 405 - 440 mm wide and 560 - 640 mm high.

The minimum flat area required around the opening of the fireplace recess is 904 mm wide and 822 mm high. This flat area must be non combustibile and should not be covered by wall coverings such as Blown Vinyl as these are easily affected by heat and may shrink or discolour when close to a heating appliance.

The fire **MUST** be fitted on a non combustibile hearth which **MUST** be at the same level as the base of the fireplace recess on which the boiler is positioned. The minimum hearth dimensions are as follows:- 12 mm thick, 350 mm deep and 675 mm wide. Carpeting must **NOT** be laid over the hearth or extended under the fire.

5. CLEARANCES

The fire requires at least 115 mm clearance at each side to give access for servicing and sufficient air supply to the boiler. These clearances have been taken into account when giving the minimum flat area width in section 4.

If the fire is to be recessed in a surround then the recess depth should not be more than 90 mm if the minimum side clearance of 115 mm is used. This will ensure that the boiler thermostat control markings are visible. The recess depth may be increased as the side clearance is increased.

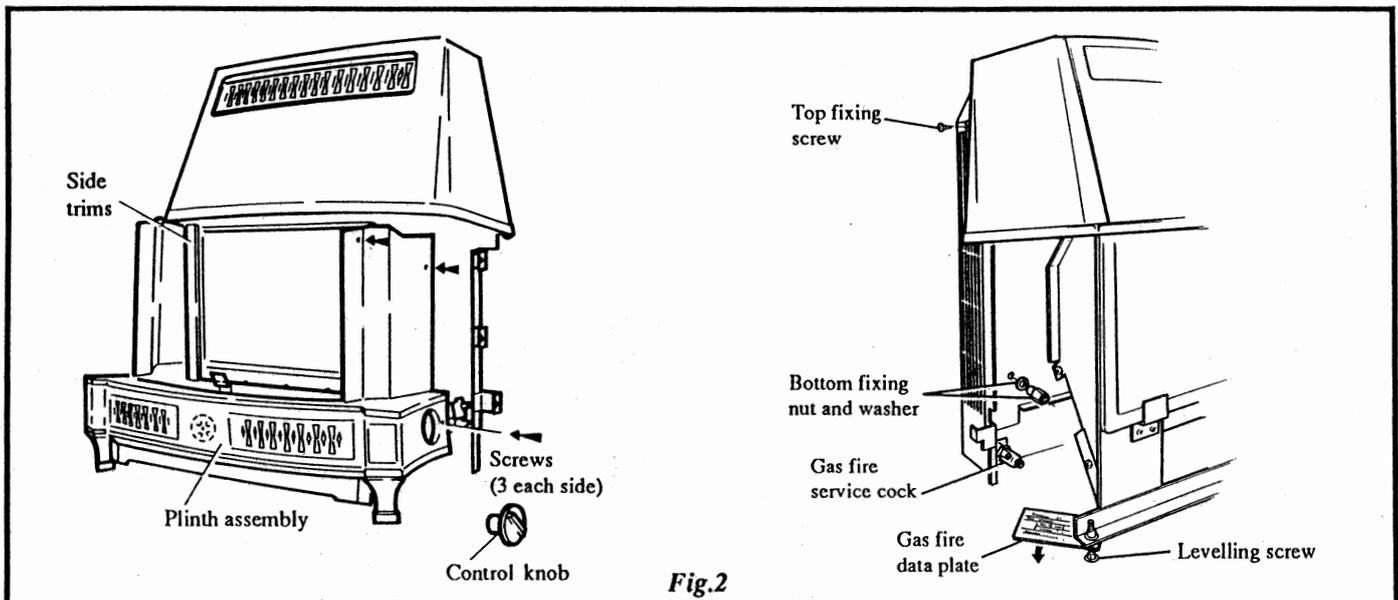
A shelf may be fitted 150 mm above the top point of the fire provided that it is not more than 150 mm deep. Alternatively, for every 10 mm added to the minimum height clearance, the shelf depth can be increased by 10 mm, up to a maximum of 240 mm.

6. UNPACK THE FIRE

Remove the fire, fire grille (see Fig. 13) and ceramics pack from the carton. Place the ceramics pack safely aside until required.

7. INSTALLATION PROCEDURE

7.1 To prepare and fit the fire - see Fig. 2.



1. Pull off the control knob.
2. Slide up and pull forward the two side trims and remove.
3. Remove the six screws and washers (three each side) securing the plinth assembly and withdraw the complete plinth assembly.
4. Remove the two wing nuts securing the glass front assembly to the firebox. Pull the glass front assembly forward at the top to clear the studs, lift to clear the lower support brackets and remove the assembly. Place safely aside until required at a later stage.
5. Ensure that the self adhesive gasket is in position around the flue spigot on the back of the fire, and is in good condition.
6. Place the fire in position and rest the back of the fire on the support brackets on the boiler sealing plate extensions.
7. Carefully push the fire back to engage the flue spigot into the opening in the front of the boiler draught diverter and the two studs on the boiler sealing plate extensions into the fire back plate.
8. Secure the top of the fire (each side) to the end fixings on the boiler spacing channel using the two No.10 x 22 lg screws, supplied with the boiler, through the holes at the top of the side grilles.
9. Secure the bottom of the fire using the two nuts removed from the boiler scaling plate extensions and two of the washers supplied with the boiler.
10. Connect the gas supply pipe on the fire to the fire gas service cock on the boiler. Make sure the fire control tap is OFF, open the fire gas service cock and test the gas supply assembly for gas soundness.
11. Adjust the levelling screws until they touch the hearth.

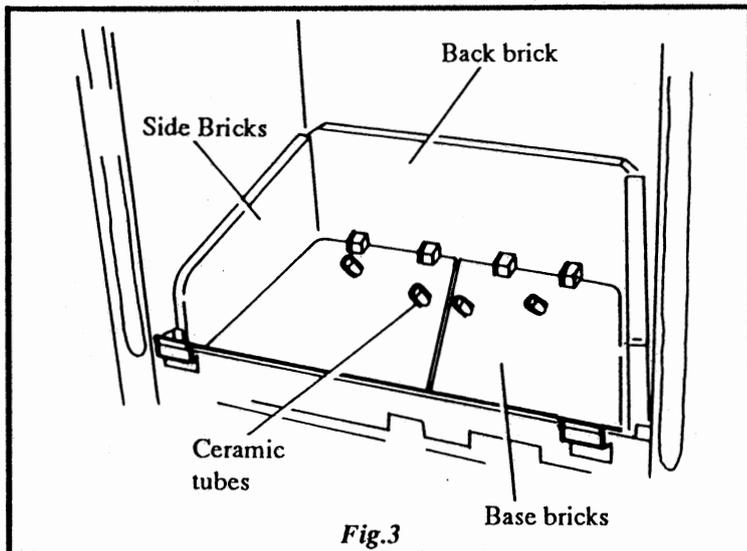
7.2 To Fit the ceramics - see Figs. 3, 4, 5, 6, 7, 8 and 9.

Carefully unpack the ceramics.

Note: The ceramics are very fragile. Take great care when unpacking them and when fitting them.

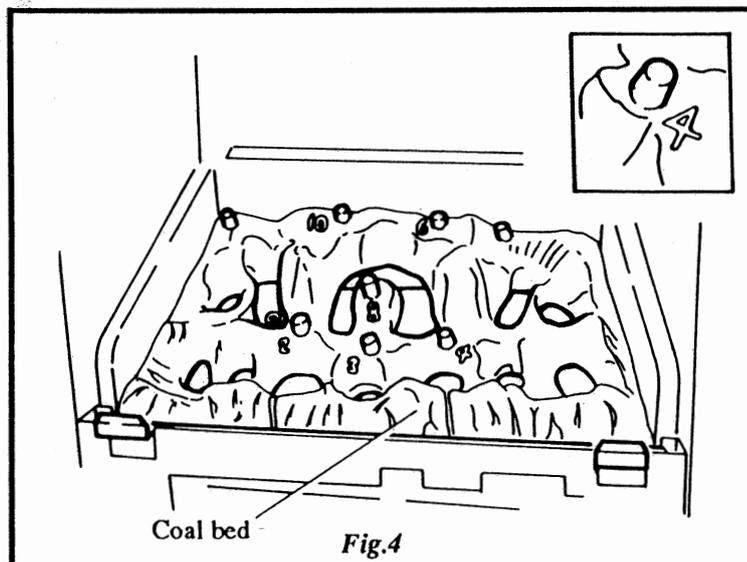
See Fig. 3.

1. With the words 'LH FACE DOWN' facing down, carefully fit the left hand base brick over the flicker flame injectors and into the base of the firebox. Repeat the operation for the right hand brick marked 'RH FACE DOWN'.
2. Fit the four ceramic tubes over the flicker flame injectors.
3. With the arrow pointing downwards and towards the front of the fire, carefully fit the two side bricks. They are shaped to match the top surface of the base bricks.
4. With the words 'THIS FACE TO THE REAR' facing the rear of the firebox, carefully slide the back brick as far as it will go, down behind the base bricks.
5. With the arrow pointing downwards and towards the front of the fire, carefully fit the two side bricks. They are shaped to match the top surface of the base bricks.



See Fig. 4.

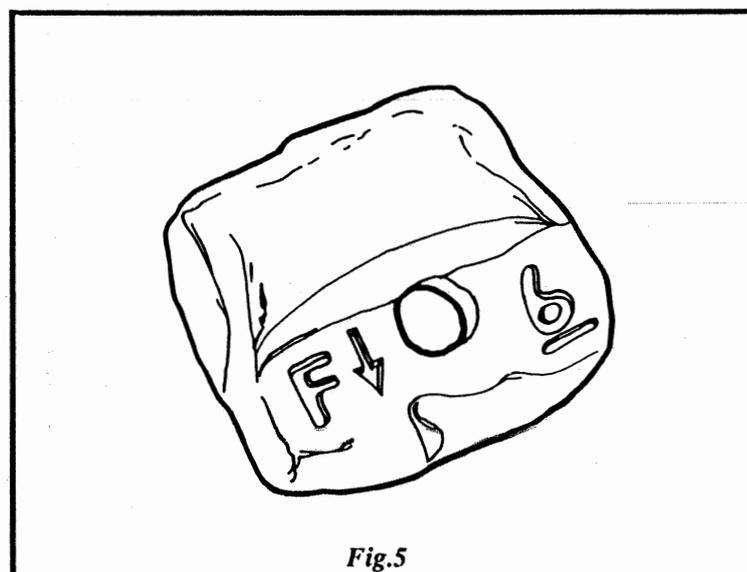
6. Carefully fit the coal bed, ensure it is centrally located and that it is seated on the two flanges at the front of the firebox and on the base bricks at the rear. The coal bed has numbers marked on it and location lugs that provide a positive fixing for the coals.



See Fig. 5.

Note: Each coal has a number, the letter 'F' and an arrow marked on the underside. The number corresponds to its location point, the 'F' means forward and the arrow points forward i.e. to the front of the coal bed. Coal No.'s 2, 3, 4, 6, 7, 8, 9 and 10 have holes in the underside that locate over the location lugs.

When fitting any of the coals, ensure that the arrow is pointing to the front of the coal bed.



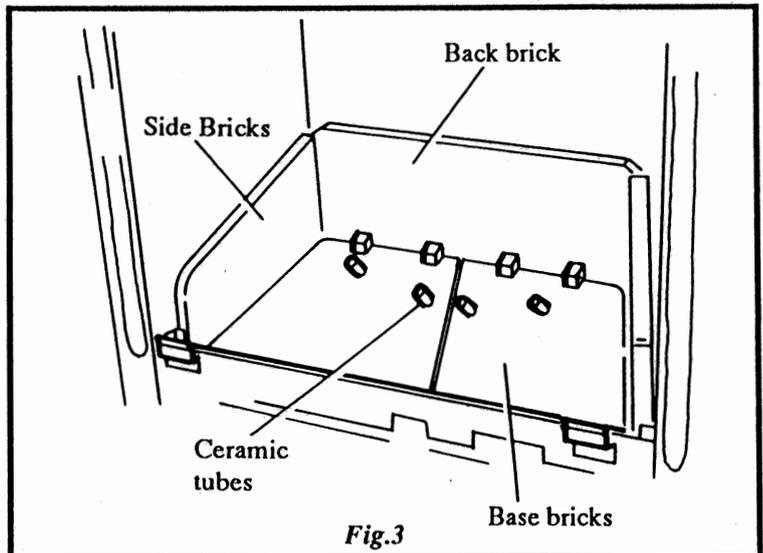
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Carefully unpack the ceramics.

Note: The ceramics are very fragile. Take great care when unpacking them and when fitting them.

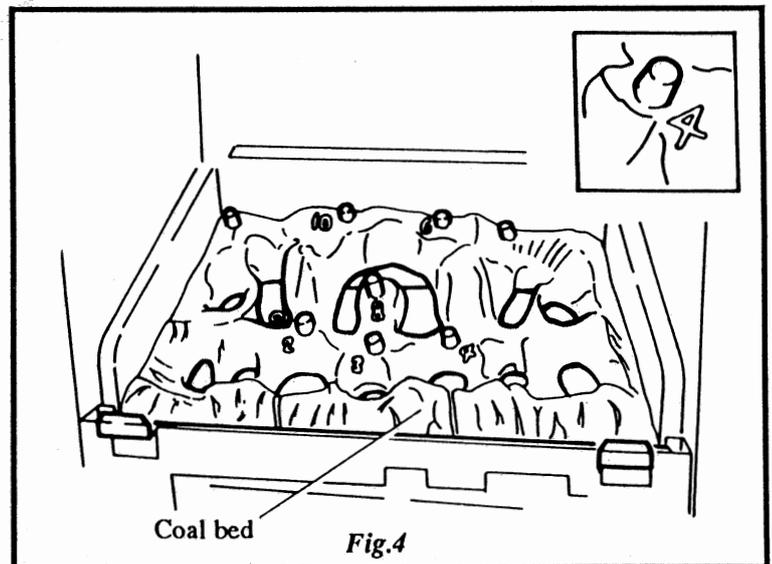
See Fig. 3.

1. With the words 'LH FACE DOWN' facing down, carefully fit the left hand base brick over the flicker flame injectors and into the base of the firebox. Repeat the operation for the right hand brick marked 'RH FACE DOWN'.
2. Fit the four ceramic tubes over the flicker flame injectors.
3. With the arrow pointing downwards and towards the front of the fire, carefully fit the two side bricks. They are shaped to match the top surface of the base bricks.
4. With the words 'THIS FACE TO THE REAR' facing the rear of the firebox, carefully slide the back brick as far as it will go, down behind the base bricks.
5. With the arrow pointing downwards and towards the front of the fire, carefully fit the two side bricks. They are shaped to match the top surface of the base bricks.



See Fig. 4.

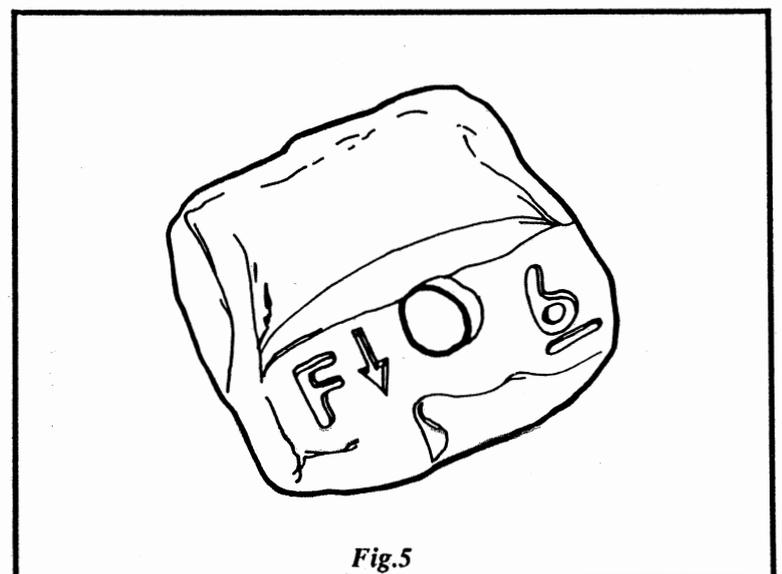
6. Carefully fit the coal bed, ensure it is centrally located and that it is seated on the two flanges at the front of the firebox and on the base bricks at the rear. The coal bed has numbers marked on it and location lugs that provide a positive fixing for the coals.



See Fig. 5.

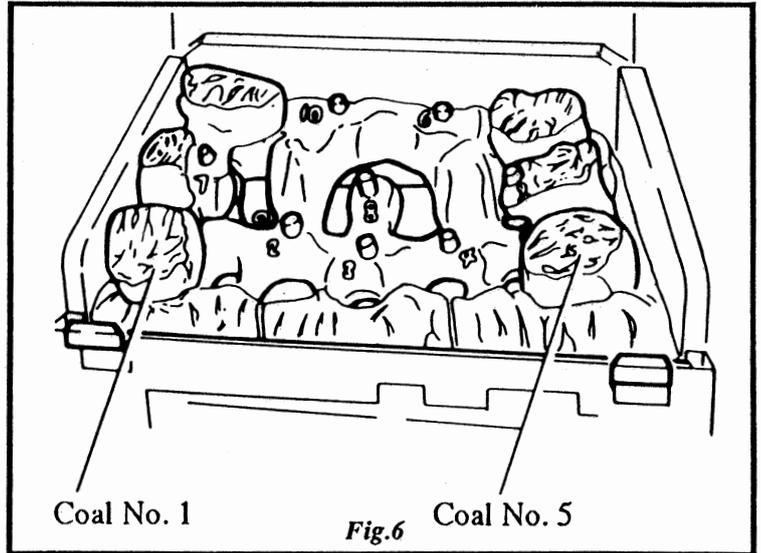
Note: Each coal has a number, the letter 'F' and an arrow marked on the underside. The number corresponds to its location point, the 'F' means forward and the arrow points forward i.e. to the front of the coal bed. Coal No.'s 2, 3, 4, 6, 7, 8, 9 and 10 have holes in the underside that locate over the location lugs.

When fitting any of the coals, ensure that the arrow is pointing to the front of the coal bed.



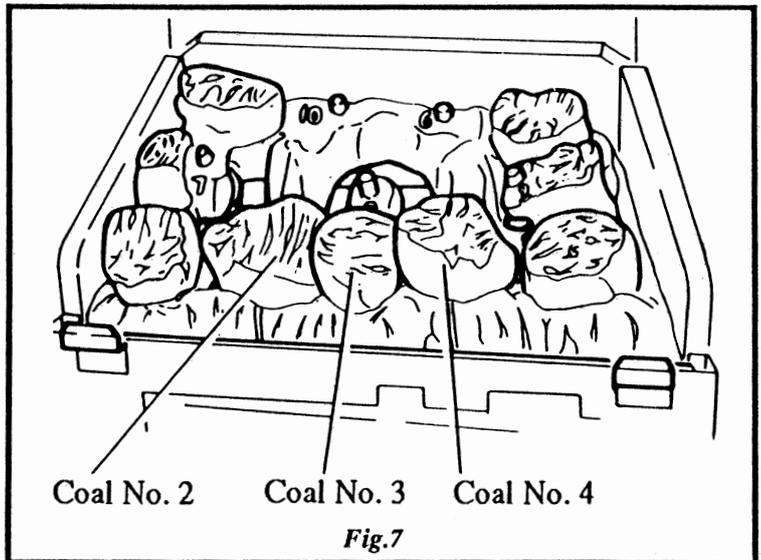
See Fig. 6.

7. Fit coals No. 1 and 5 onto the coal bed as shown.
Note: For location of the top coals, Coal No. 1 has a number 7 marked on the top and Coal No. 5 has a 9 marked on top.



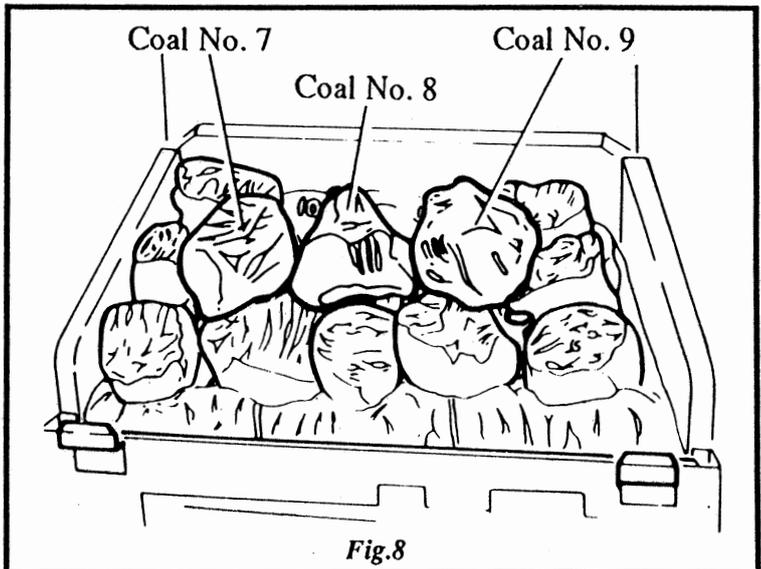
See Fig. 7.

- Tip: When fitting all the remaining coals, rotate each one when fitted to ensure that they positively locate.
8. Fit Coal No.'s 2, 3 and 4 over their location lugs.



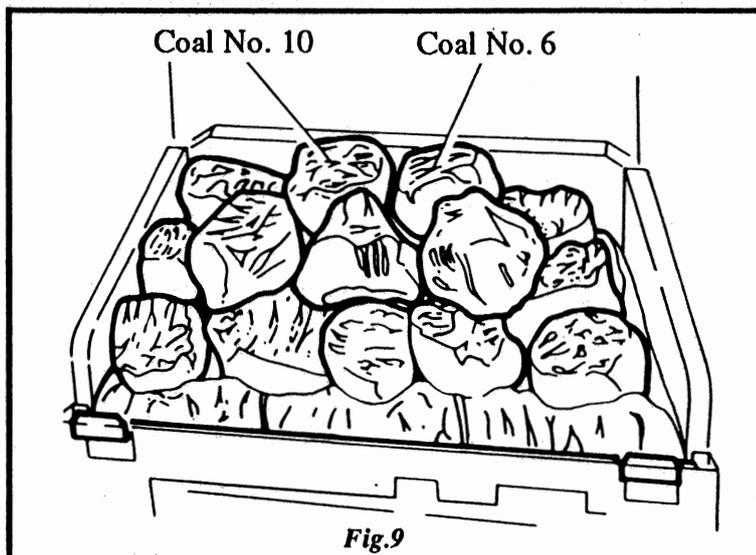
See Fig. 8.

9. Fit Coal No. 8 onto its location lug in the centre of the coal bed. Position it so that it rests against Coal No. 3.
10. Fit Coal No. 7 onto its location lug on Coal No. 1. Position it so that it rests against Coal No. 2.
11. Fit Coal No. 9 onto its location lug on Coal No. 5. Position it so that the cut out in the base of the coal locates into the cut out in the top of Coal No. 4.



See Fig. 9.

12. Fit Coal No. 6 and Coal No. 10 onto their location lugs at the rear of the coal bed. Because of their design, they will overhang the rear of the coal bed.

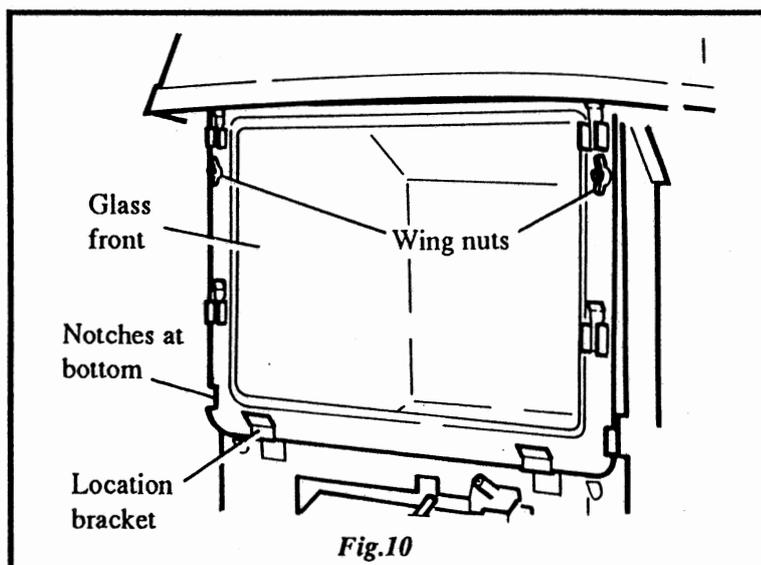


7.3 To replace the glass front assembly - see Fig. 10.

Note: Before fitting the glass front assembly, ensure that the glass panel is clean and free from marks. It can be cleaned using a proprietary ceramic hob cleaner.

1. Locate the base of the glass front assembly into the lower support brackets on the front of the firebox (ensure the notches in the frame are at the bottom). The two holes in the frame will locate over the studs on the firebox.
2. Secure in position using the two wing nuts previously removed.

Note: Ensure that when secured, the wing nuts are vertical otherwise the side trims will not seat correctly.



8. FIRE COMMISSIONING

Refer to Figs. 11 and 12.

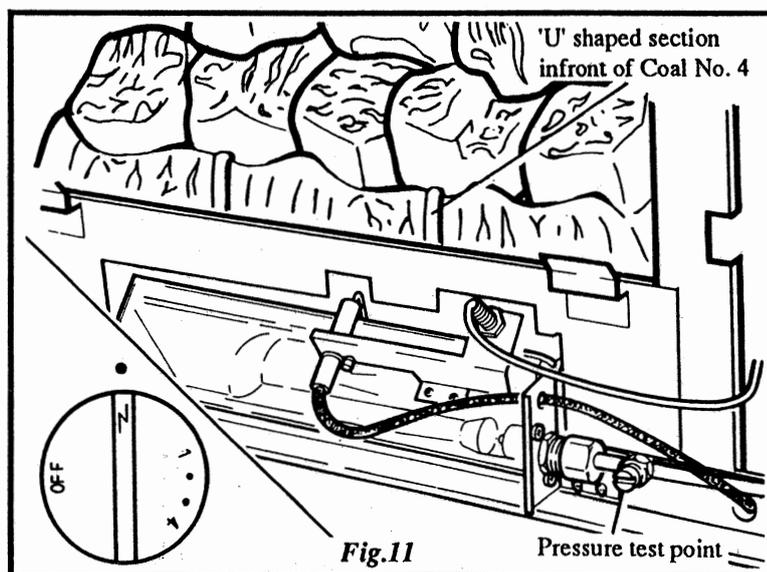
The fire is fitted with a flame supervision device, this means that if the fire should go out for any reason, the gas supply to the fire will automatically shut-off until the fire is relit. If the fire does go out for any reason or is turned off, it must NOT be relit for 5 minutes.

The burner pressure is not adjustable but must be checked as follows:

1. Remove the fire pressure test point sealing screw on the right hand side of the burner, see Fig. 11 and connect a pressure gauge.
2. Turn on the fire service cock.
3. Refit the control knob and lit the fire as follows: Push in and turn the control knob anticlockwise to the '⚡' setting, the piezo unit will fire and the fire should light. Continue holding the knob in for about 10 seconds, then release. If the fire does not light, or stay alight, push in the control knob and turn it clockwise to 'OFF' and repeat the operation more slowly.

To view the burner look into the 'U' shaped section at the right hand side of the front of the coal bed, see Fig. 11 or look under the fire, flames will be visible.

If lighting the fire for the first time or if the gas has been turned off at the mains, it may be necessary to repeat the ignition sequence several times before the fire lights.



4. When the fire is lit push in the control knob and turn it anticlockwise to setting '4' and check the gas pressure, it should be:-
Cold: 9.9 ± 0.5 mbar (4.0 ± 0.2 in wg).
Note: This pressure will only be obtained if the incoming pressure is 20 mbar (8 in wg).
5. Push in and turn the control knob clockwise to the 'OFF' position. Disconnect the pressure gauge and refit the test point sealing screw.
Light the fire and test for gas soundness on all gas carrying components.

6. **Test for spillage as follows:**

Close all doors and windows. Leave the fire burning at full rate (setting '4') for 10 minutes. Light a smoke match and position it as shown in Fig. 12 at the opening of the draught diverter. If the smoke is definitely drawn into the fire, the installation is satisfactory. If the smoke shows a pronounced tendency to spill, remove the fire and check that the flue spigot gasket is intact and that the spigot engages into the draught diverter opening on the boiler. Repeat the test.

If smoke still spills **DISCONNECT THE FIRE AND SEEK EXPERT ADVICE.**

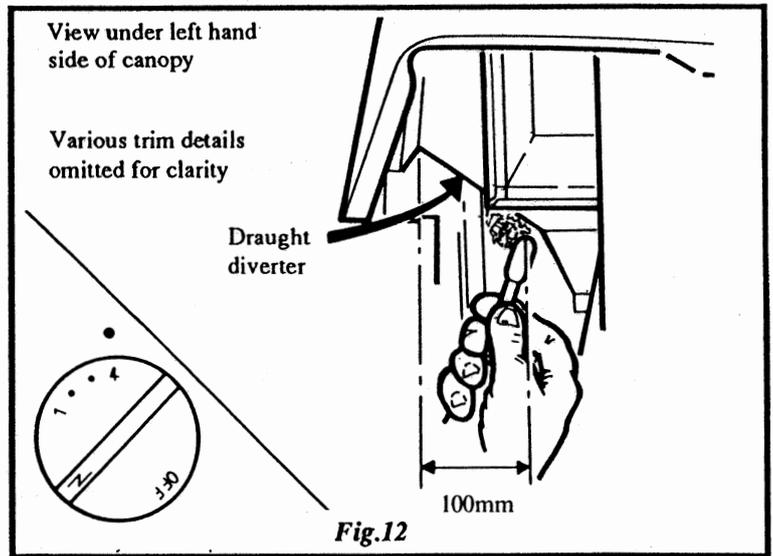
7. With the fire alight test the control tap operation as follows:

Setting '4' - At this setting the burner will be at full rate and the flicker flame effect will be on.

Setting '1' - Push in the control knob and turn it clockwise to '1'. The burner will be at approximately half rate and the flicker flame effect will be on.

Setting '1/2' - This is the lowest practical setting for the fire and the flicker flame effect will be off.

The control knob can be set at any position between '1/2' and '1' or '1' and '4', and can be turned to a marked setting without pushing in.



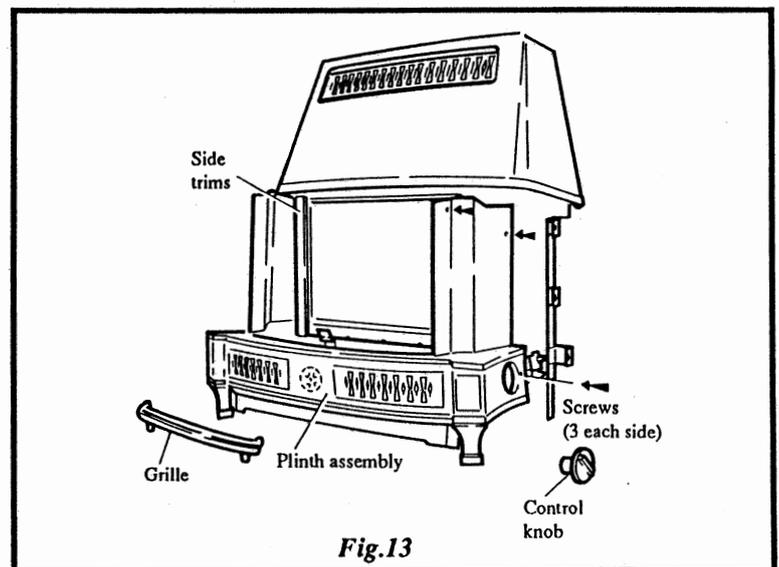
9. **FINAL FIRE ASSEMBLY**

Refer to Fig. 13.

1. Pull off the control knob.
2. Refit the plinth assembly and secure in position with six screws and washers previously removed.
3. Refit the side trims. The curved part of the trim goes to the outside of the fire.
4. Refit the control knob.
5. Fit the grille into its location holes in the top of the plinth assembly just forward of the glass front.
6. Adjust the decorative leg screws on the plinth assembly until the decorative legs touch the hearth.

10. **HAND OVER THE INSTALLATION**

1. Hand the User instruction booklet to the User and instruct in the safe operation of the boiler, fire and controls.
2. Advise the User of the precautions necessary to prevent damage to the system and to the building in the event of the system remaining inoperative during frost conditions.
3. Advise the User that for continued efficient and safe operation of the boiler and fire it is important that adequate servicing is carried out at least once a year by the local Gas Region or a C.O.R.G.I. registered Installer..
4. Explain the following to the User:
 - a. That any smell emitted from the appliance is due to 'newness' and will disappear with use.
 - b. The procedure for replacing the coals, and that the fire must not be used if any of the coals are missing or broken.
 - c. That the fire must NOT be used if the glass panel is cracked, broken or missing.
 - d. That after a time, the inside of the stainless steel firebox, the ceramic coals and coal bed will start to discolour, this is quite normal and will enhance the appearance of the fire.
 - e. That the glass panel will stain and may require regular cleaning. It should only be cleaned with a ceramic hob cleaner.
 - f. That when the fire is first lit, the glass panel will steam up, this will quickly disperse and is quite normal.
 - g. That certain types of wall coverings, e.g. Blown Vinyl, are easily affected by heat. They may shrink and discolour when close to a heating appliance. They should bear this in mind when decorating the room.
5. Leave the boiler and fire Installation and Servicing instructions with the User for use on future calls.



11. ANNUAL SERVICING OF FIRE

Refer to Fig. 15 for position of fire components.

Refer to the separate boiler instructions supplied with the boiler for cleaning the boiler.

To ensure continued efficient operation of the appliance, it is recommended that it is checked and cleaned as necessary at regular intervals. The frequency of servicing will depend upon the particular installation conditions and usage but in general once per year should be adequate. It is the law that any service work must be carried out by a competent person such as British Gas or other C.O.R.G.I. registered personnel.

The following aspects of the fire and installation should be examined and rectified as necessary.

1. Run the fire and check the operation of its controls and observe the flame picture.
2. Check if the burner requires cleaning.
3. Examine the main injector orifice and ensure it is clear and undamaged.
4. Carry out a spillage test, see Fire Commissioning instructions, section 8.

The fire data plate is positioned on the left hand side of the fire under the plinth assembly and can easily be swung out into view without removing any part of the fire, see Fig. 2.

On completion of the service run the boiler and fire and ensure that they operate satisfactorily.

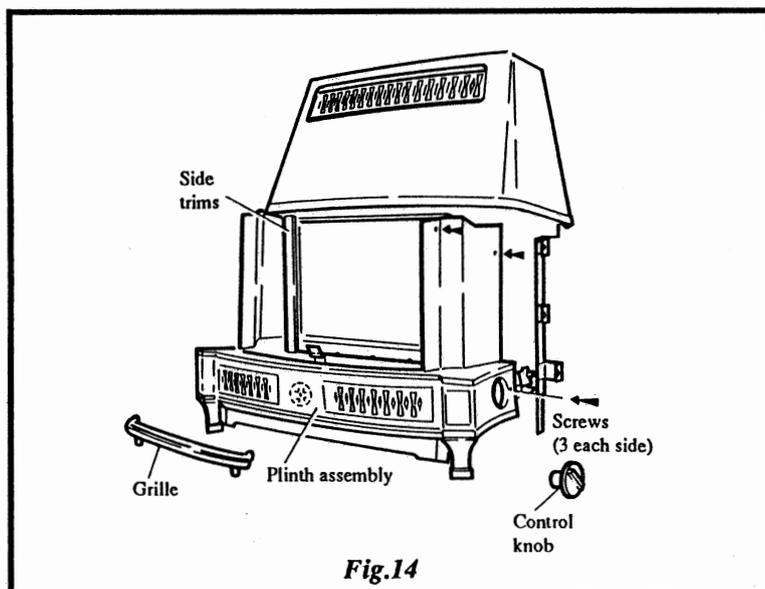
WARNING: Before commencing work turn the fire off. Turn the boiler thermostat to 'OFF'.

Isolate the electricity supply to the boiler and allow the fire and boiler to cool.

IMPORTANT: Always test for gas soundness after completing any servicing of gas carrying components and carry out functional checks of controls.

11.1 Remove the fire - see Fig. 14.

1. Pull off the control knob.
2. Lift off the grille from the top of the plinth assembly.
3. Slide up and pull forward the two side trims and remove - On reassembly, the curved part of the trim goes to the outside of the fire.
4. Remove the six screws and washers (three each side) securing the plinth assembly and withdraw the complete plinth assembly.
5. Remove the two wing nuts securing the glass front assembly to the firebox. Pull the glass front assembly forward at the top to clear the studs, lift to clear the lower support brackets and remove the assembly.
6. Carefully remove the loose coals and place them safely aside in a safe place.
7. Close the gas fire service cock, see Fig. 2 and undo the union.
8. Remove the two top and bottom fixings (each side of the fire) securing the fire to the boiler, see Fig. 2.
9. Remove the fire by carefully pulling it forward away from the boiler.



11.2 Cleaning the fire.

1. Carefully brush off dust and any deposits from the coals and coal bed. Examine all the ceramics and replace any that are broken or cracked, ensure that no loose pieces are left behind.
2. Undo the union nuts at the tap and injector carrier then remove the pipe. Unscrew the injector carrier, (to provide access for a spanner it may be necessary to remove the screw just above the injector carrier, see Fig. 19). Remove the two screws securing the electrode/thermocouple bracket to the burner. Remove the L.H. fixing screw and the two screws securing the burner to the location bracket then lift the burner away from the fire. See Fig 20.
3. Examine the burner and brush off any deposits. Check that the flame ports are clear. Any blockage may be removed with a fine wire brush. With the open end of the burner facing down, gently tap to remove any deposits from inside the burner.
4. Support the injector housing with a suitable spanner and unscrew the injector. Clean the injector by blowing through or washing. Do NOT clear the injector with a pin or wire. Replace the injector using a small amount of jointing compound.
5. Check the condition of the thermocouple, remove any deposits from the tip using a fine wire brush.
6. Replace the burner in reverse order and check that the spark gap between the tip of the electrode and the burner face is 3.0 to 4.0 mm, see Fig. 17. If necessary, adjustment can be made by gripping the base of the tip with one pair of pliers whilst gently bending the end of the tip with another pair. Take care not to crack the ceramic liner.
7. Undo the union nuts either side of the restrictor block, see Fig. 21 and remove the restrictor block. Examine the restrictor block to ensure it is clear. Replace the restrictor block and secure the union nuts.

11.3 Replace the fire.

1. Ensure that the self adhesive gasket is in position around the flue spigot on the back of the fire, and is in good condition. Replace if necessary.
2. Place the fire in position and rest the back of the fire on the support brackets on the boiler sealing plate extensions.
3. Carefully push the fire back to engage the flue spigot into the opening in the front of the boiler draught diverter and the two studs on the boiler sealing plate extensions into the fire back plate.
4. Secure the top of the fire (each side) to the end fixings on the boiler spacing channel using the two No.10 x 22 lg screws, previously removed, through the holes at the top of the side grilles.
5. Secure the bottom of the fire using the two nuts and washers previously removed.
6. Connect the gas supply pipe on the fire to the fire gas service cock on the boiler. Make sure the fire control tap is OFF, open the fire gas service cock and test the gas supply assembly for gas soundness.
7. Refer to section 7.2 and replace the ceramics.
8. Ensure that the glass panel is clean and replace the glass front assembly, see Fig. 10. Locate the base of the glass front assembly into the lower support brackets on the front of the firebox (ensure the notches in the frame are at the bottom). The two holes in the frame will locate over the studs on the firebox. Secure in position using the two wing nuts previously removed.
Note: Ensure that when secured, the wing nuts are vertical otherwise the side trims will not seat correctly.
9. Refer to the Fire Commissioning instructions, section 8. Light the fire, test all gas connections (including the restrictor block unions) for gas soundness and check the control tap operation.
10. Refit the plinth assembly, referring to Fig. 14 as follows - Pull off the control knob. Refit the plinth assembly and secure in position with six screws and washers previously removed. Refit the side trims, the curved part of the trim goes to the outside of the fire. Refit the control knob and fit the grille into its location holes in the top of the plinth assembly just forward of the glass front.

12. REPLACEMENT OF FIRE PARTS

Refer to Fig. 15 for position of fire components.

Refer to the separate boiler instructions supplied with the boiler for replacing boiler parts.

To replace any of the following fire parts the fire need not be removed from the boiler.

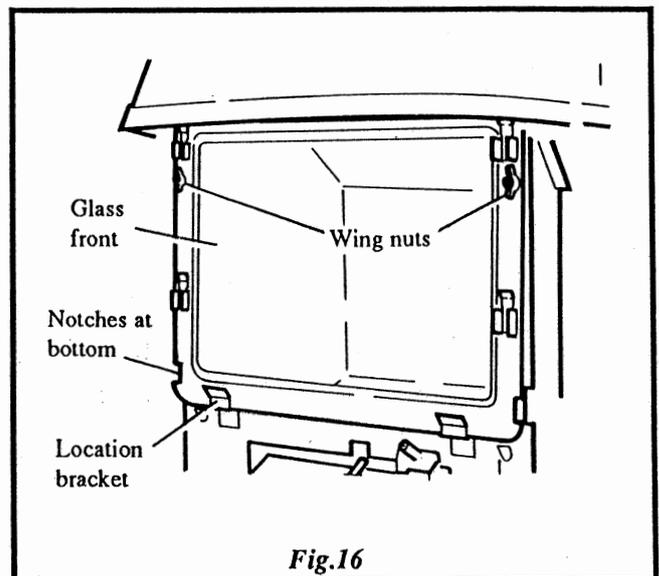
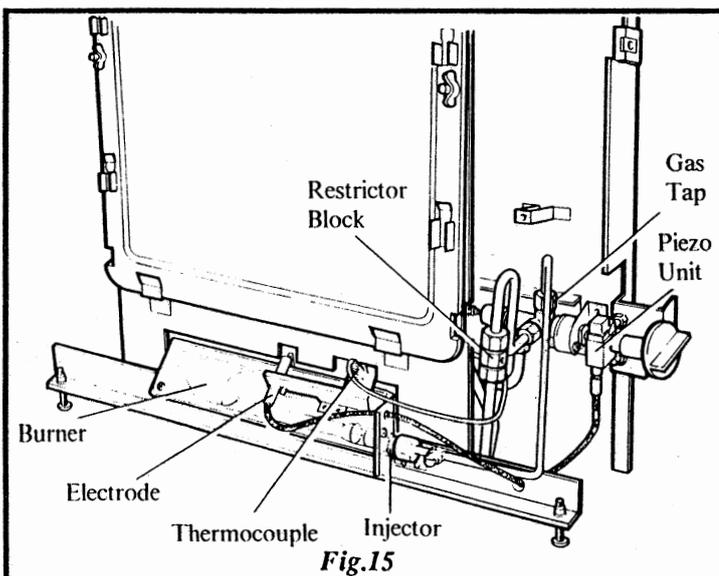
WARNING: Before commencing work turn the fire off. Turn the boiler thermostat to 'OFF'.

Isolate the electricity supply to the boiler and allow the fire and boiler to cool.

IMPORTANT: Always test for gas soundness after completing any replacement of gas carrying components and carry out functional checks of controls.

12.1 To replace a ceramic - see Fig. 16.

1. Lift off the grille from the top of the plinth assembly.
2. Slide up and pull forward the two side trims and remove - On reassembly, the curved part of the trim goes to the outside of the fire.
3. Remove the two wing nuts securing the glass front assembly to the firebox. Pull the glass front assembly forward at the top to clear the studs, lift to clear the lower support brackets and remove the assembly.
4. Carefully remove the loose coals from the coal bed.
To replace the coal bed, carefully remove the coal bed and replace with a new one.
Replace any damaged ceramics ensuring that no loose pieces are left behind.
5. Refer to section 7.2 and replace the ceramics.
6. Reassemble in reverse order ensuring that the wing nuts retaining the glass front assembly are vertical otherwise the side trims will not seat correctly.
7. Light the fire to ensure correct operation.



12.2 To replace the electrode - see Fig. 17.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Disconnect the electrode lead from the piezo unit.
3. Remove the two screws securing the electrode/thermocouple bracket to the burner.
4. To release the electrode, remove the screw securing it to the bracket.
5. Fit the new electrode ensuring that the electrode lead is routed through the hole in the injector bracket and through the plunged hole at the right hand side of the channel. Connect the electrode lead to the piezo unit (ensure that the lead is correctly located on the piezo unit) and replace the electrode/thermocouple mounting bracket.
6. Check that the spark gap between the electrode tip and the burner face is 3.0 to 4.0 mm. If necessary, adjustment can be made by gripping the base of the tip with a pair of pliers whilst gently bending the end of the tip with another pair. Take care not to crack the ceramic liner.
7. Reassemble in reverse order.
8. Light the fire to ensure correct operation.

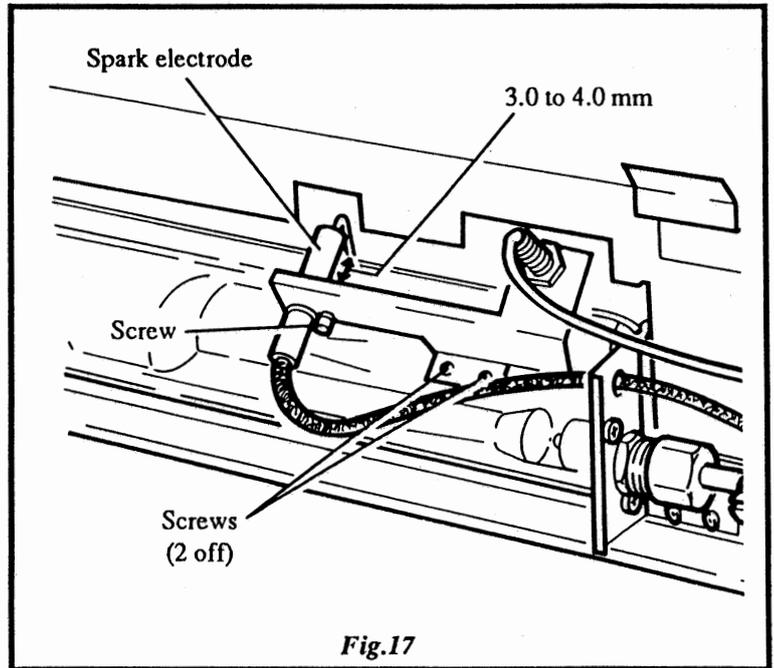


Fig.17

12.3 To replace the thermocouple - see Fig. 18.

1. Remove the plinth assembly, glass front assembly and loose coals as described in section 11.1 paragraphs 1 to 6.
2. Carefully remove the coal bed.
3. Remove the two ceramic tubes from the right hand base brick.
4. Remove the right hand base and right hand side bricks to expose a metal cover plate secured by a screw. Remove the screw and lift out the plate.
5. Disconnect the thermocouple from the rear of the tap assembly.
6. Remove the two screws securing the electrode/thermocouple bracket to the burner. To release the thermocouple, remove the locknut securing it to the bracket.
7. Fit a new thermocouple ensuring it is routed the same way as the discarded one.

Note: When connecting the thermocouple to the tap, DO NOT overtighten, finger tight and a quarter turn will be sufficient.

8. Ensure that the cover plate is fitted and check the spark gap as described in section 12.2, paragraph 6. Reassemble in reverse order. Light the fire to ensure correct operation.

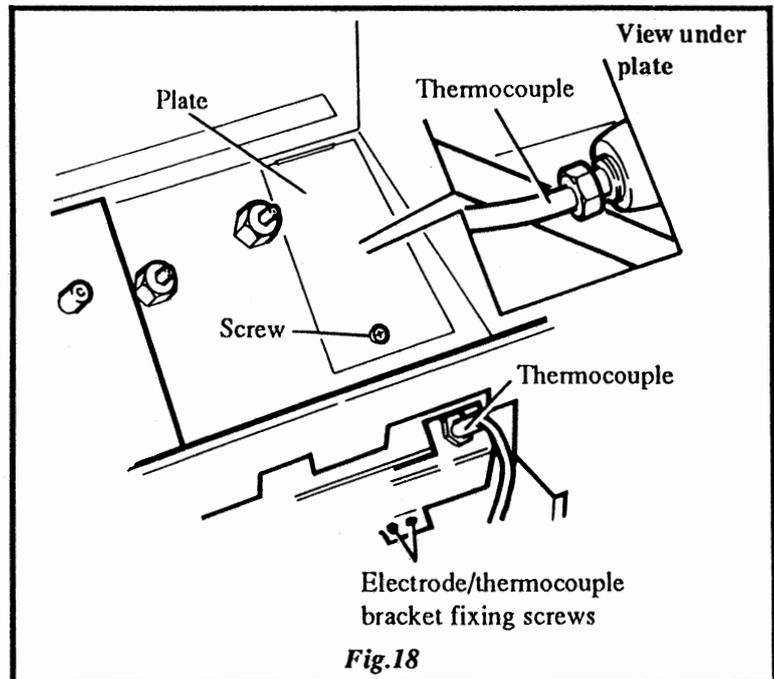
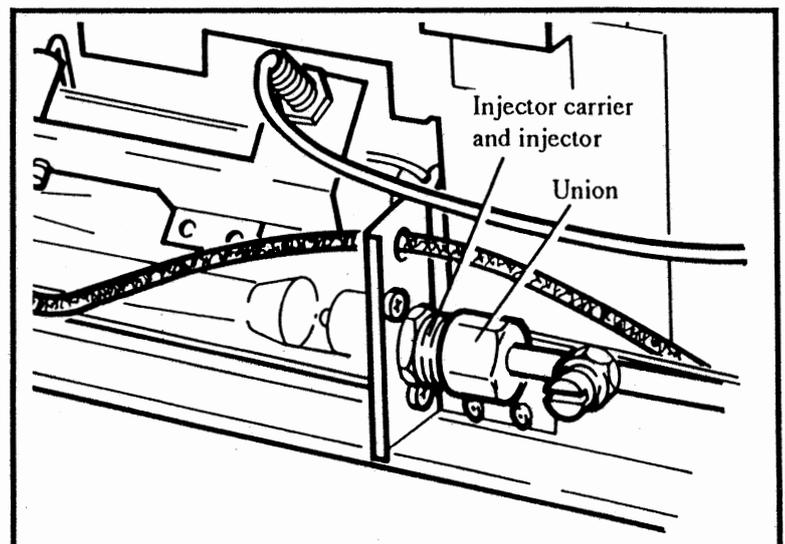


Fig.18

12.4 To replace the injector - see Fig. 19.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Undo the union nuts at the tap and injector carrier then remove the pipe. Unscrew the injector carrier, (to provide access for a spanner it may be necessary to remove the screw just above the injector carrier, see Fig. 19).
3. Unscrew the injector from the carrier and fit a new one using a small amount of jointing compound.
4. Reassemble in reverse order. Before the plinth assembly is fitted temporarily replace the control knob, light the fire and test for gas soundness.



12.5 To replace the burner - see Fig. 20.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Undo the union nuts at the tap and injector carrier then remove the pipe. Unscrew the injector carrier, (to provide access for a spanner it may be necessary to remove the screw just above the injector carrier, see Fig. 20).
3. Remove the two screws securing the electrode/thermocouple bracket to the burner.
4. Remove the L.H. fixing screw and the two screws securing the burner to the location bracket then lift the burner away from the fire.
5. Reassemble in reverse order with a new burner. Check the spark gap as described in section 12.2, paragraph 6.
Before the plinth assembly is fitted temporarily replace the control knob, light the fire and test for gas soundness.

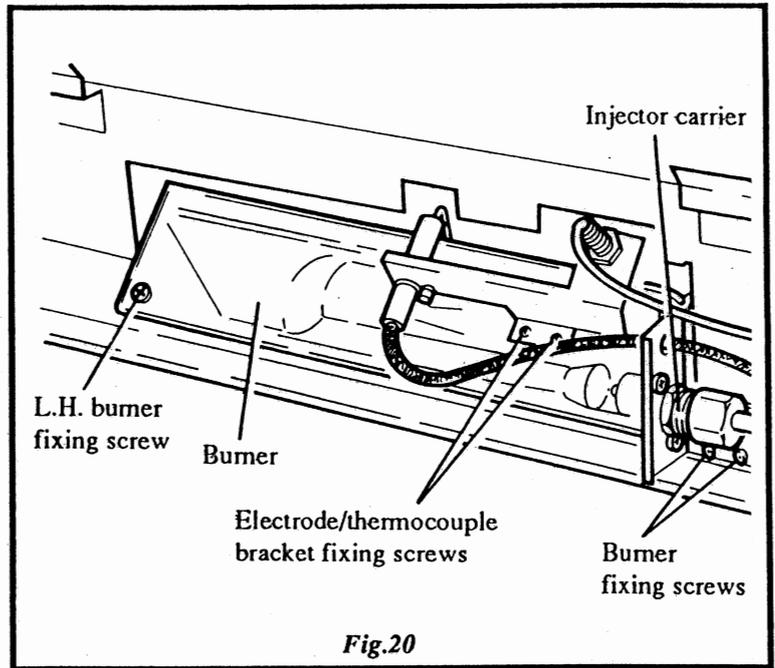


Fig.20

12.6 To replace the restrictor block - see Fig. 21.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Undo the union nuts either side of the restrictor block and remove the restrictor block. Fit a new restrictor block and secure the union nuts.
3. Temporarily replace the control knob, light the fire and test the restrictor block unions for gas soundness.
4. Reassemble in reverse order.

12.7 To replace the piezo unit - see Fig. 21.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Disconnect the electrode lead from the piezo unit.
3. Remove the circlip and slide off the piezo unit.
4. Reassemble in reverse order with a new piezo unit (ensure that the electrode lead is correctly located on the piezo unit). Light the fire to ensure correct operation.

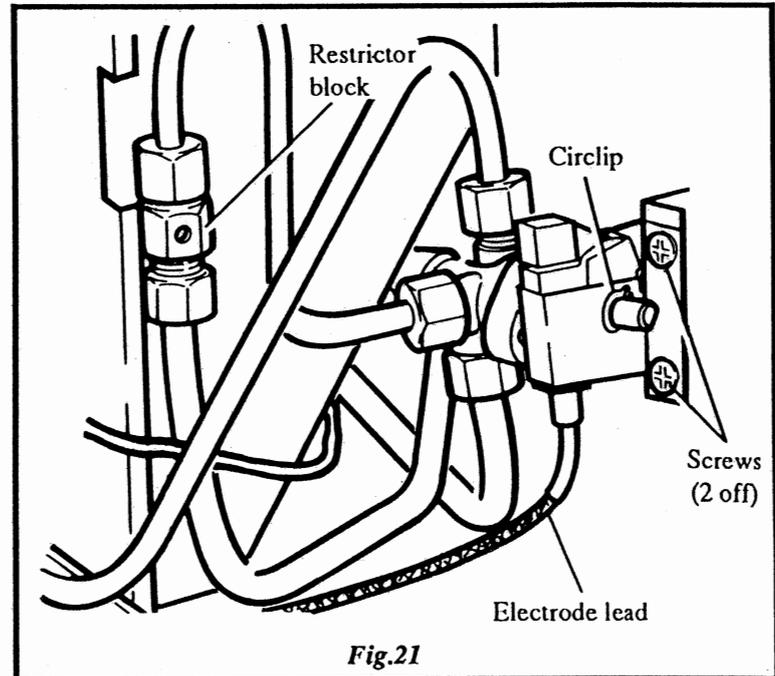


Fig.21

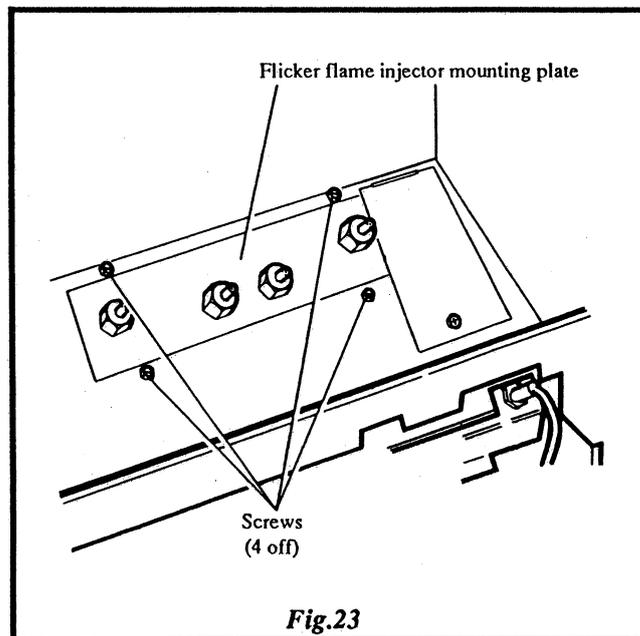
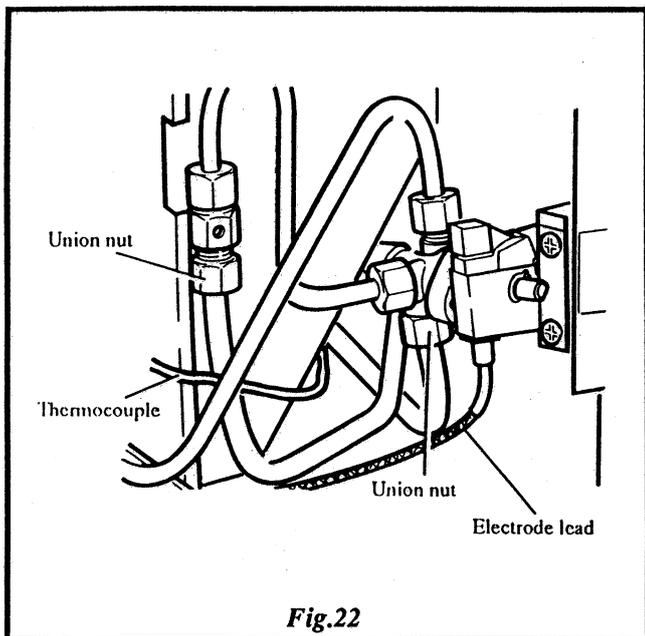
12.8 To replace the gas tap - see Fig. 21.

The replacement gas tap is supplied with a new piezo unit and tap bracket.

1. Remove the plinth assembly as described in section 11.1 paragraphs 1 to 4.
2. Remove the circlip and slide off the piezo unit.
3. Undo the three union nuts on the tap. Undo the union nut at the injector carrier (right hand side of the burner) and remove the pipe.
4. Remove the two screws securing the tap bracket. Withdraw the tap slightly to expose the thermocouple connection at the rear of the tap, then disconnect the thermocouple.
5. Reassemble in reverse order with the new tap.
Note: Do not overtighten the thermocouple, finger tight and a quarter turn is sufficient.
Before the plinth assembly is fitted temporarily replace the control knob, light the fire and test for gas soundness.
6. Refer to the Fire Commissioning instructions, section 8 and check the control tap operation.

12.9 To replace the flicker flame injectors - see Figs. 22 and 23.

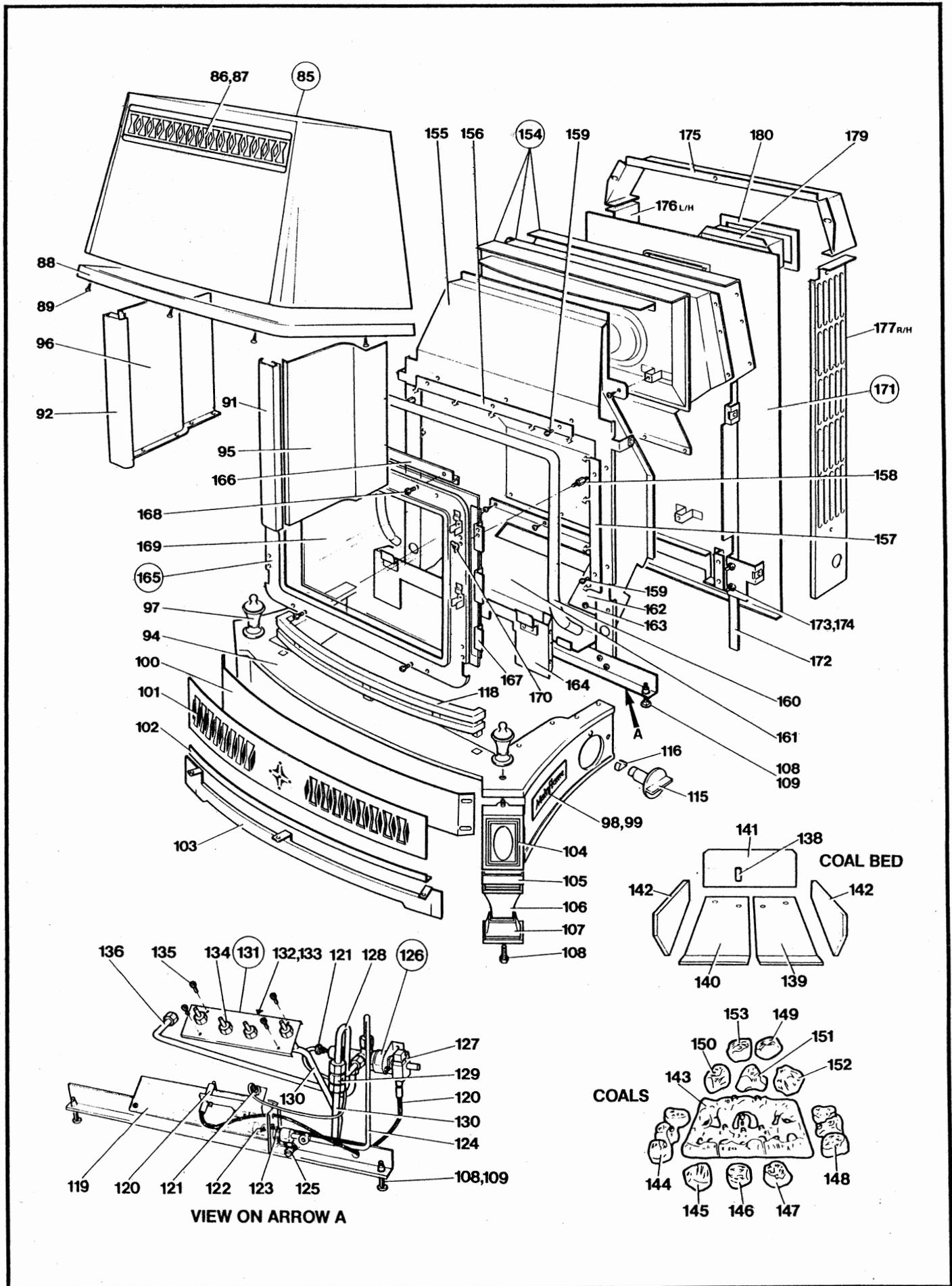
1. Remove the fire as described in section 11.1.
2. Carefully remove the coal bed. Remove the two side bricks, four ceramic flicker flame tubes, the two base bricks and the back brick.
3. Disconnect the electrode lead from the piezo unit and move it out of the way.
4. Undo the union nut securing the gas supply pipe to the tap and remove the pipe.
5. Undo the union nut beneath the restrictor block.
6. Remove the four screws securing the flicker flame injector mounting plate to the firebox base. As you remove the last screw, the mounting plate will drop down.
7. Manoeuvre the assembly out from the right hand side of the fire.
8. Reassemble in reverse order (do not fully tighten the mounting plate screws until all four are inserted).
Note: Ensure that the thermocouple is routed on the outside of the pipe, as shown in Fig. 22 and not trapped between the pipe and the firebox.
9. Replace the fire and test for gas soundness as described in section 11.3.



13. FIRE FAULT FINDING GUIDE

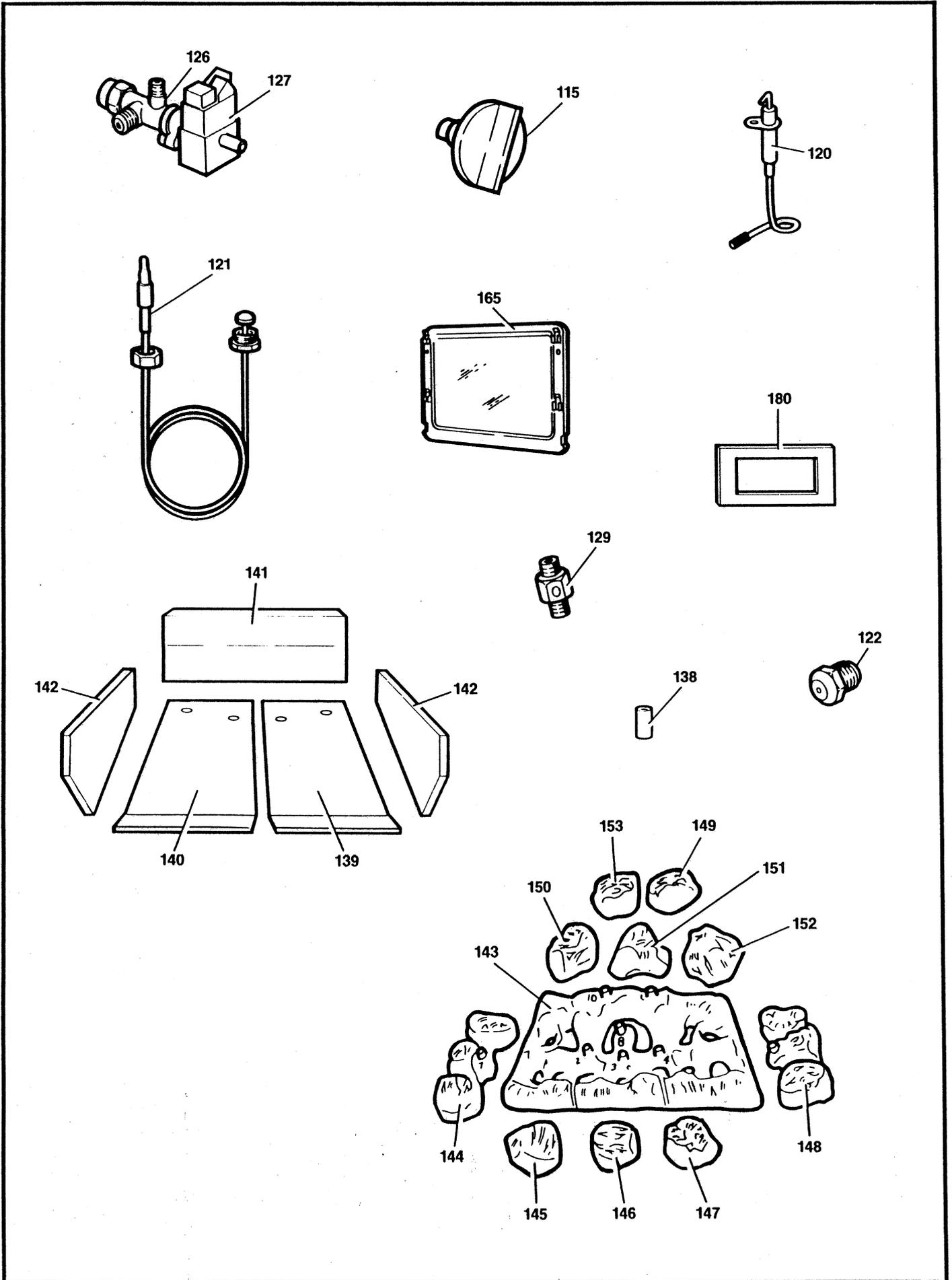
SYMPTOM	POSSIBLE CAUSE	ACTION REQUIRED
Fire will not ignite.	Gas supply interrupted.	Check that fire service cock is open.
	No spark present.	Check that the spark gap is 3.0 to 4.0 mm. Check electrode lead and connections. Replace the piezo unit.
Irregular flames.	Ceramic coals displaced.	Reset the ceramic coals.
	Incorrectly set or damaged coal bed.	Reset or replace coal bed.
	Blocked restrictor block.	Clean or replace restrictor block.
	Flicker flame injectors blocked.	Check that flicker flame injectors are clear.

14. FIRE EXPLODED VIEW
Housewarmer Mainflame fire.



15. FIRE SHORT LIST SPARE PARTS

See next page for list of parts.



Key No.	G.C. No.	Description	Qty.	Part No.
115	127 104	Control knob assembly	1	942/1051
120	127 108	Spark electrode	1	942/9446
121	127 147	Thermocouple	1	942/1198
122	127 109	Injector (marked G1)	1	942/705
126	127 111	Tap assembly (includes piezo unit, Key 127)	1	942/1044
127	385 855	Piezo unit	1	942/9387
129	127 113	Restrictor block (marked RB1)	1	942/7258
138	127 118	Ceramic tubes (flicker flames)	4	942/1193
139	127 119	Right hand base brick	1	942/9563
140	127 120	Left hand base brick	1	942/9562
141	127 121	Back brick	1	942/9354
142	127 122	Side bricks	2	942/1022
143	127 123	Coal bed	1	942/9911
144	127 124	Coal No. 1 (left hand side)	1	942/2040
145	127 125	Coal No. 2 (left hand front)	1	942/2041
146	127 126	Coal No. 3 (centre front)	1	942/2042
147	127 127	Coal No. 4 (right hand front)	1	942/2043
148	127 128	Coal No. 5 (right hand side)	1	942/2044
149	127 129	Coal No. 6 (right hand rear)	1	942/9844
150	127 130	Coal No. 7 (left hand top)	1	942/2045
151	127 131	Coal No. 8 (centre top)	1	942/2046
152	127 132	Coal No. 9 (right hand top)	1	942/2047
153	127 133	Coal No. 10 (left hand rear)	1	942/2050
165	127 142	Glass front assembly	1	942/9910
180	192 378	Flue spigot gasket	1	945/838

Note: Always quote the fire model and serial No. (see fire data plate) when ordering spare parts for the fire.

Potterton Myson Ltd

Eastern Avenue, Team Valley Trading Estate, Gateshead, Tyne & Wear, NE11 0PG, England.

Telephone: 091 491 4466. Telex: 53265 MYSEAS G. Telefax: 091 482 6141.

POTTERTON MYSON
PART OF BLUE CIRCLE



BS5258
BS6332

This leaflet is accurate at the date of printing but will be superseded and should be disregarded if specifications and/or appearances are changed in the interests of continued improvement.

All goods sold are subject to our official Conditions of Sale, copy of which may be obtained on application.

Installation and Servicing Instructions

for the Housewarmer 45 and 55 Electronic back boiler units

The following Housewarmer gas fires may be used with these back boiler units
Economy 2, Elegant 2, Epic 2, Windsor, Emberglow II, Mainflame or Legend

G.C. Appliance No's.

Housewarmer 45 Electronic back boiler with Economy 2 gas fire	44 494 25
Housewarmer 45 Electronic back boiler with Elegant 2 gas fire	44 494 26
Housewarmer 45 Electronic back boiler with Epic 2 gas fire	44 494 27
Housewarmer 45 Electronic back boiler with Windsor gas fire	44 494 22
Housewarmer 45 Electronic back boiler with Emberglow II gas fire	44 494 28
Housewarmer 45 Electronic back boiler with Mainflame gas fire	44 494 39
Housewarmer 45 Electronic back boiler with Legend gas fire	44 494 40
Housewarmer 55 Electronic back boiler with Economy 2 gas fire	44 494 29
Housewarmer 55 Electronic back boiler with Elegant 2 gas fire	44 494 30
Housewarmer 55 Electronic back boiler with Epic 2 gas fire	44 494 31
Housewarmer 55 Electronic back boiler with Windsor gas fire	44 494 12
Housewarmer 55 Electronic back boiler with Emberglow II gas fire	44 494 32
Housewarmer 55 Electronic back boiler with Mainflame gas fire	44 494 37
Housewarmer 55 Electronic back boiler with Legend gas fire	44 494 38

IMPORTANT

FOR USE WITH NATURAL GAS ONLY.

Read these instructions and the separate gas fire instructions, supplied with
the fire, thoroughly before working on the boiler or fire.

Leave these instructions with the User for use on future calls.

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If you have any reason to complain of any shortage of components listed in Fig. 5, supply a list of the item(s) concerned, boiler model, your name, address and any information which may help us avoid further error.

Address for return:

Spare Administration Manager

Curzon Components Ltd.

Earlsway

Team Valley Trading Estate

Gateshead, Tyne and Wear

NE11 0SA

1. TECHNICAL DATA

Boiler	Housewarmer 45 Electronic	Housewarmer 55 Electronic
Burner type	Furigas 175-003-000 or Aeromatic AC13/112502	Furigas 175-500-026
Burner injector	7 x 1.30 (NOMINAL)	7 x 1.47 (NOMINAL)
Pilot burner	Honeywell Q389A1014	SIT 0.140.020
Pilot injector	Honeywell 4500-4108-005 marked 56/42A	SIT 0.977.103 marked 34
Pilot flame	35 to 40 mm long	25 to 30 mm long
Spark gap	3.0 to 4.0 mm	
Ignition	Intermittent pilot	
Weight (empty)	45 kg (99 lb)	47 kg (103 lb)
Water content	3.9 litre (0.86 gal)	5.0 litre (1.1 gal)
Max. flow temperature	80°C	
Design temperature rise	11°C	
Maximum static head	30.5 m (100 ft)	
Minimum static head	2.0 m (6.5 ft)	
*Head loss	0.3 m (12 in)	
Recommended flow through the boiler	17 litre/min (3.75 gal/min)	21 litre/min (4.63 gal/min)
Flue size	125 mm (5 in)	
Water connections	R1 gravity flow and return, R¾ pumped flow and return	
Gas connection	Rc½	

* Head loss is given between the ¾ in connections, for a temperature rise across the boiler of 11°C (20°F).

NOMINAL BOILER RATINGS

Boiler	Output		Input		Burner setting pressure	
	kW	Btu/h	kW	Btu/h	mbar	in wg
Housewarmer 45 Electronic	8.8	30 000	12.0	40 800	7.6	3.0
	11.0	37 500	14.9	50 800	12.0	4.8
	13.2	45 000	17.7	60 400	16.1	6.4
Housewarmer 55 Electronic	13.2	45 000	18.3	62 500	9.8	3.9
	14.7	50 000	19.9	68 000	11.6	4.7
	16.1	55 000	21.5	73 300	13.5	5.4

For the boiler Serial No. and Model see the boiler data plate on the boiler sealing plate (visible after removing the gas fire).

2. INTRODUCTION

Housewarmer Electronic back boiler.

This unit is the boiler section of a combined back boiler and gas fire designed for installation in a living room. It is fitted in the normal fireplace recess at the base of the chimney. The boiler is designed for use with an open central heating system and/or an indirect hot water system. IT MUST NOT BE CONNECTED TO A DIRECT CYLINDER OR TO A SEALED SYSTEM.

The boiler and gas fire are for use on natural gas only.

The 45 model is range rated from an output of 8.8 to 13.2 kW (30 000 to 45 000 Btu/h).

The 55 model is range rated from an output of 13.2 to 16.1 kW (45 000 to 55 000 Btu/h).

Any of the Housewarmer gas fires listed on the front of this booklet may be used with the Electronic boilers.

3. GENERAL REQUIREMENTS

The boiler and gas fire must be installed in accordance with: the Gas Safety (Installation and Use) Regulations 1990 and the current issue of - The Building Regulations, Building Standards (Scotland) Regulations, Local Building Regulations, Model and local Water Undertaking By-laws and IEE Wiring Regulations.

Detailed recommendations are stated in the following British Standards: BS5440:1:1990, BS5440:2:1989, BS5449:1990, BS5546:1990, BS5871:1:1991, BS6798:1987 and BS6891:1989.

Note: Gas Safety (Installation and Use) Regulations 1990 - It is the law that all gas appliances are installed by competent persons, in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution. It is in your own interest, and that of safety to ensure that the law is complied with.

4. DELIVERY

Complete delivery is in two packages, one containing the boiler and one containing the chosen gas fire.

A third package, containing the gas fire canopy, is supplied with the Emberglow II gas fire.

5. GAS SUPPLY

The natural gas requirements are as follows:

45 Electronic back boiler and gas fire: 2.3 m³/h (82 ft³/h).

55 Electronic back boiler and gas fire: 2.7 m³/h (95 ft³/h).

The meter and supply pipes must be capable of delivering this quantity of gas in addition to the demand from any other appliances in the house.

The complete installation must be tested for gas soundness and purged as described in BS6891.

6. ELECTRICITY SUPPLY

240V ~ 50Hz via a fused double pole switch with a contact separation of at least 3 mm in both poles.

Fuse the supply at 3A. The minimum requirement for the power supply cable is that it should be a PVC sheathed flexible cord at least 0.75 mm² (24 x 0.2 mm) (code designation HO5 VV-F or HO5 VVH2-F) as specified in table 16 of BS6500:1984.

All wiring external to the boiler shall comply with the latest IEE Wiring Regulations, and any local regulations which apply.

The appliance must be earthed.

In the event of an electrical fault after installation of the appliance, preliminary electrical systems checks must be carried out i.e. Earth Continuity, Short Circuit, Polarity and Resistance to Earth.

7. AIR SUPPLY

All airways under and around the fire must be kept clear of obstructions.

Allow at least 50 mm at each side of the Economy 2, Elegant 2 or Epic 2 fire for air movement and at least 115 mm at each side of the Windsor, Emberglow II, Mainflame or Legend fire for air movement and access for servicing.

The room in which the boiler is installed must have a permanent air vent either direct to the outside air or to an adjacent room which itself has a permanent air vent direct to the outside air.

The minimum effective area of the air vent required is as follows:

45 Electronic back boiler and gas fire: 79 cm².

55 Electronic back boiler and gas fire: 96 cm².

The air supply must be into the room in which the boiler is installed and **NOT** directly into the builders opening from outside.

If there is any type of extract fan fitted in the premises, there is a possibility that if adequate air inlet area from outside is not provided, spillage of products from the boiler could occur, a spillage test with the fan running must be carried out as described in BS5440:1, clause 4.3.2.3. The air inlet areas given above may have to be increased to prevent spillage.

8. FLUE SYSTEM

The boiler requires a minimum effective flue height of 2.5 m for the flue products to be cleared.

Due account must be taken of the resistance imposed by the route of the flue and by fittings, offsets and terminal.

If an existing chimney is to be used it should first be swept and cleared of any obstructions and must be lined with an approved 125 mm flue liner. A GC1 or approved alternative flue terminal must be fitted.

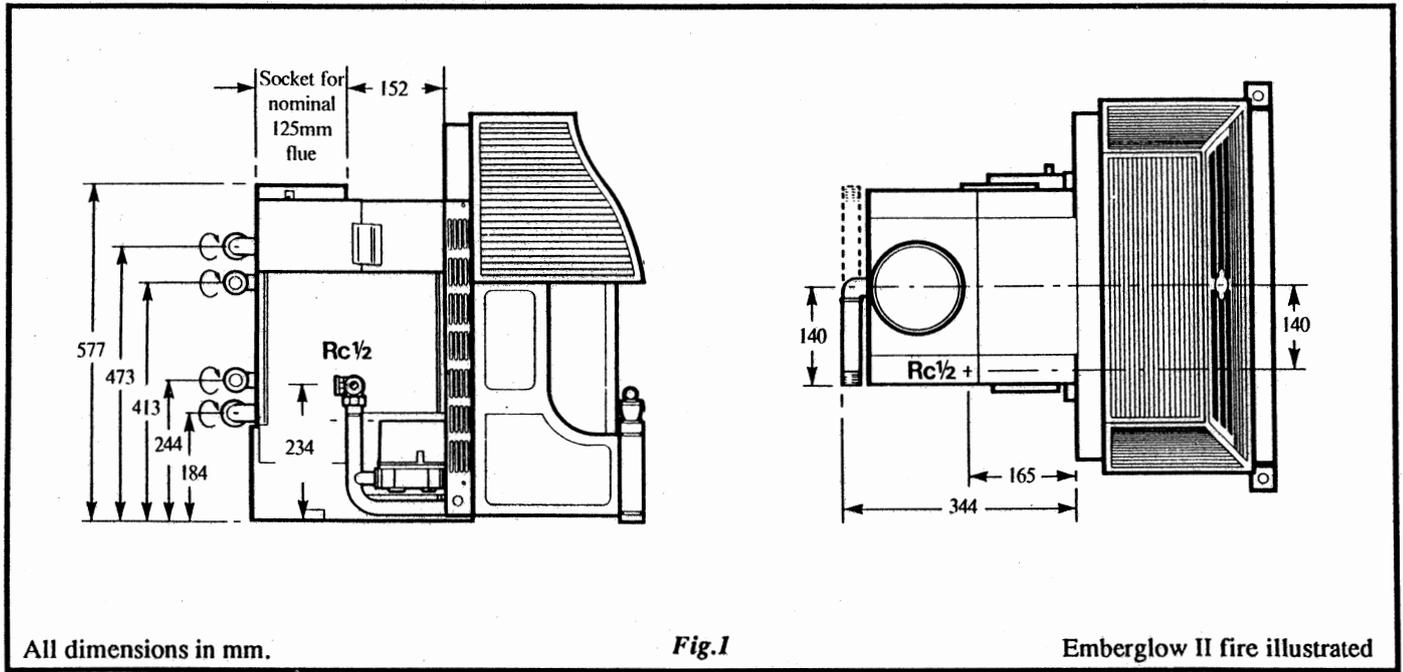
When the boiler is to be fitted to a flexible flue liner, three No.10 x 25 lg self tapping screws are supplied to centre and retain the liner. Always ensure that the liner is cut square.

Steps must be taken to prevent air from entering the space around the boiler except from the room in which the boiler is installed. Where the brick flue is defective or opens into a roof or other space in the house, the gap between the flue liner and the brick flue must be sealed, preferably at the top of the fireplace recess.

The boiler may be used with pre-cast flues provided they are correctly designed and constructed to BS5440:1.

9. BOILER DIMENSIONS AND CONNECTIONS

See Fig. 1.



10. BOILER LOCATION

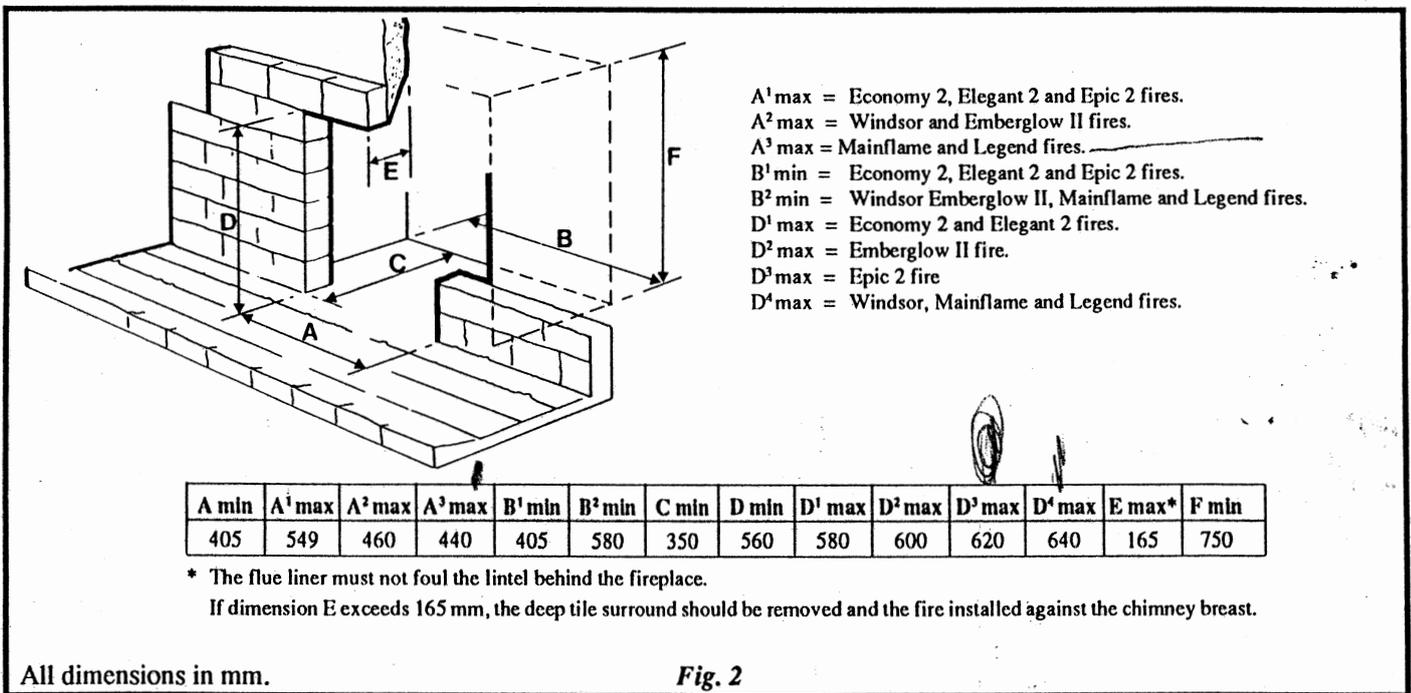
The boiler must stand firm and level. The base of the boiler opening must be non-combustible, i.e. brick or concrete, and at least 25 mm thick. See Building Regulations 1985, J/1/2/3 Part C.

Economy 2, Elegant 2 and Epic 2 gas fires - As these fires are secured to the boiler and do not stand on the floor, the boiler may be fitted at any height from the floor as required. From an appearance aspect it is recommended that the fire is NOT more than 305 mm off the floor. The base of the fireplace recess, on which the boiler stands, should therefore be no more than 305 mm from the room floor level. If the fire is installed over a combustible hearth or floor covering the base of the fireplace recess **MUST** be built up to at least 75 mm above the level of the hearth or floor covering.

If using a hearth, the minimum dimensions are as follows:- 12 mm thick, 300 mm deep and 700 mm (800 mm Epic 2) wide.

Windsor, Emberglow II, Mainflame and Legend gas fires - These fires **MUST** be fitted on a non-combustible hearth at least 12 mm thick, 395 mm (all except the Mainflame and Legend which must be at least 350 mm) deep and at least 675 mm (Mainflame and Legend), 686 mm (Windsor) or 915 mm (Emberglow II) wide. These fires are NOT suitable for wall mounting.

a. Fireplace recess - see Fig. 2.



All dimensions in mm.

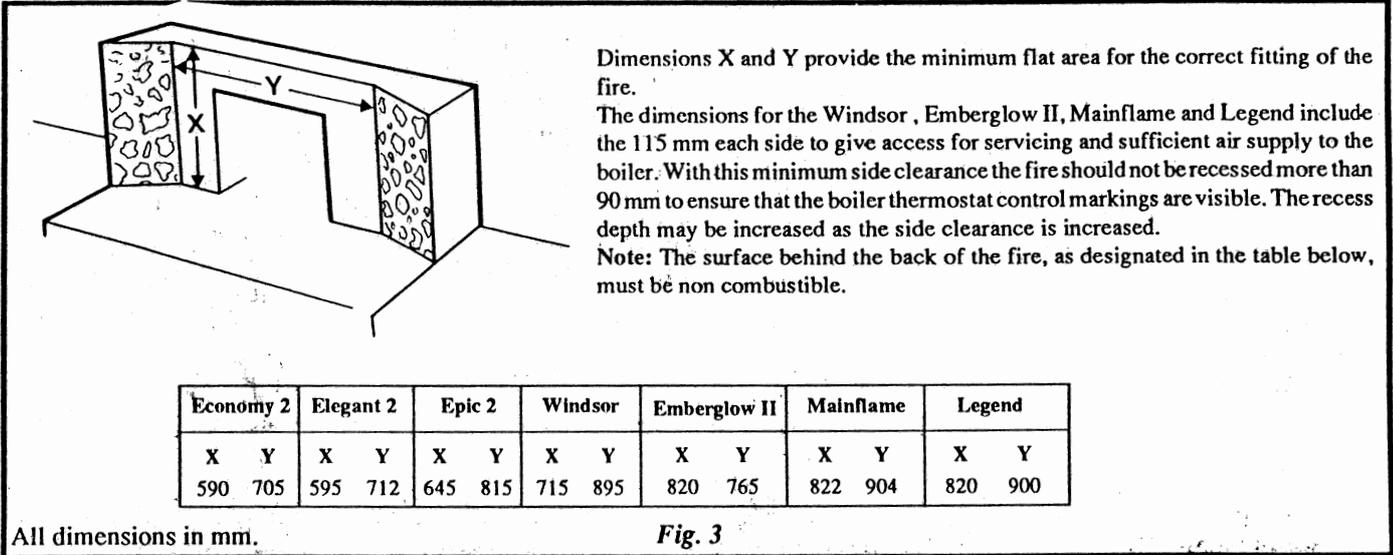
Fig. 2

The fireplace recess shown in Fig. 2 represents a standard fireplace, taken down to the brickwork i.e. after removal of side cheeks etc., if fitted. The base of the recess must be firm and level.

The base of the recess must NOT be below the level at which the Economy 2, Elegant 2 or Epic 2 fire is to be sited and it MUST be level with the hearth for the Windsor, Emberglow II, Mainflame or Legend fire.

If water connections are to be made in from the side(s), the apertures in the breast side wall(s) should be made before installation starts. Seal around the pipes and all other openings in the walls or base, with a non-combustible material, to prevent excess air flow into the fireplace recess.

b. Minimum flat area required around fireplace recess - see Fig. 3.



If the fire surround projects forward each side of the flat area, as shown in Fig. 3, dimension Y MUST be increased by 50 mm at each side for the Economy 2, Elegant 2 and Epic 2 fires so that the air supply to the boiler is not restricted.

c. Fitting a shelf above the gas fire

Economy 2, Elegant 2 and Epic 2 - If any type of shelf is fitted above the fire allow at least 90 mm clearance between the underside of the shelf and the top of the fire. The maximum depth of the shelf should NOT be more than 180 mm.

Windsor - A shelf up to 150 mm deep may be fitted above the Windsor fire, provided it is NOT closer than 50 mm. Alternatively if there is a minimum clearance of 300 mm between the shelf and the top of the fire, the shelf depth is unrestricted.

Emberglow II - A combustible shelf NOT more than 150 mm deep may be placed above the fire providing at least 200 mm clearance is maintained. For deeper shelves, add an extra 25 mm of clearance for each extra 25 mm of depth.

Mainflame and Legend - A shelf may be fitted 150 mm above the top point of the fire provided that it is not more than 150 mm deep. Alternatively, for every 10 mm added to the minimum height clearance, the shelf depth can be increased by 10 mm, up to a maximum of 240 mm.

11. WATER CONNECTIONS

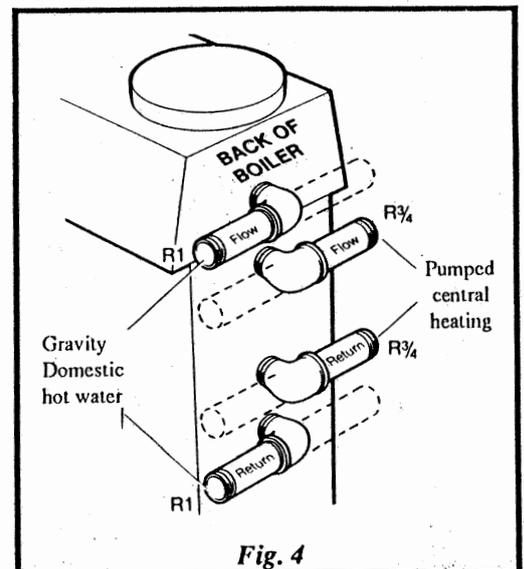
See Fig. 4.

The flow and return pipes and elbows are supplied loose with the boiler. Jointing compound must be applied and the elbows tightened into the boiler in turn facing left or right as required. If the final position of the elbow is less than 3/4 of a turn past hand tight, then the elbow must be tightened for a further complete turn to its final position. Ensure that the 1 x 3/4 in elbows are positioned in the top and bottom tappings and that the gravity flow pipe (top) is inclined slightly upwards from the boiler. This will ensure proper venting.

For a fully pumped system the bottom tapping should be used for the cold feed connection with the return connected to the second tapping from the bottom. Alternatively the cold feed can be connected to the return pipe remote from the boiler and the return connected to the bottom tapping. The flow should be connected to the top tapping with the vent connected to the flow pipe remote from the boiler.

All unused tappings must be plugged and sealed.

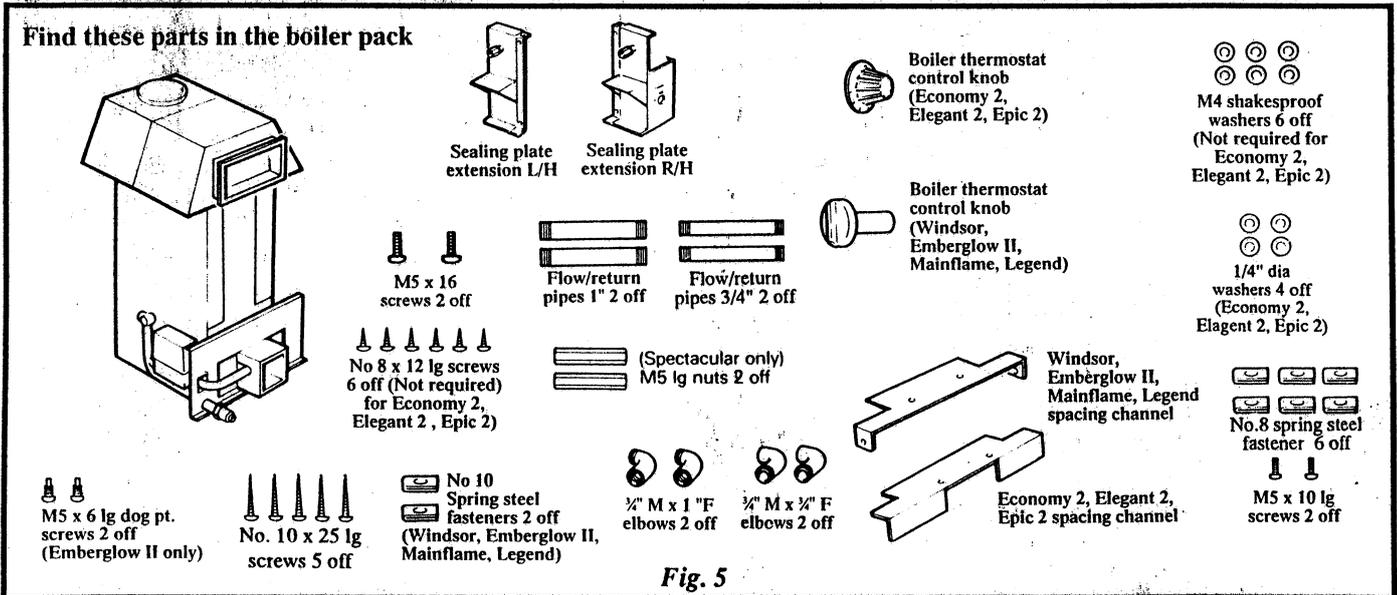
Care should be taken in positioning the pump in the system to prevent air ingress or pumping over at the open vent. Ensure that the pump is accessible for servicing. Fit one or more draining taps (BS2879) to enable the water system to be fully drained.



12. BOILER INSTALLATION PROCEDURE

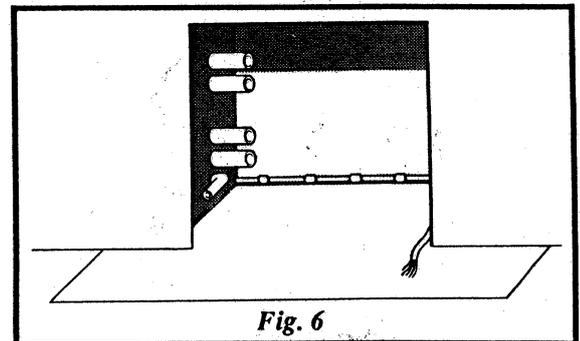
12.1 Unpack the boiler - see Fig. 5.

Carefully unpack the boiler. Do not discard the packing until all the items shown in Fig. 5 are found.



12.2 Prepare the pipework - see Fig. 6.

The pipework for central heating, domestic primaries and gas supply should first be brought into the builders opening. See section 10a. Note the positions for making these connections as specified in sections 9 and 11. It is essential that the electrical supply cables to the boiler are clipped to the floor or side wall of the builders opening to ensure that they cannot come into contact with hot surfaces. This is particularly important when the cables enter the builders opening from the left hand side. In this case they must run behind the boiler at or near floor level and be clipped to the rear wall.



12.3 Prepare the boiler - see Figs. 7 and 8.

1. Fit the flow and return elbows and pipes to the back of the boiler as described in section 11.
2. If a flexible flue liner is being used position the three No.10 x 25 lg screws, supplied, into the holes around the boiler flue socket. The screw at the rear of the socket should be screwed in with approximately 8 mm projecting towards the centre. The other two screws need only be located at this stage.
3. If the Emberglow II fire is being fitted, remove the four screws securing the spacer to the front of the draught diverter as shown in Fig. 7. Discard the spacer, gasket and screws.

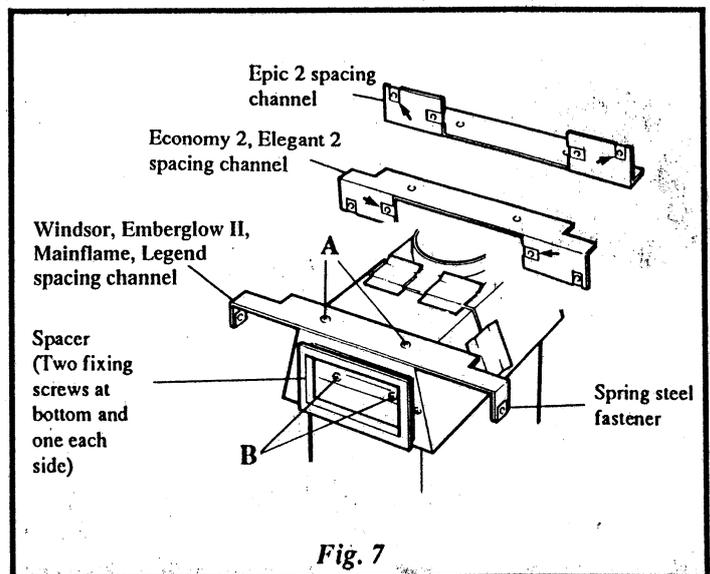
Note: This spacer is only to be removed if the Emberglow II fire is being fitted.

4. Select the correct spacing channel, see Figs 5 and 7, for the fire being fitted. The spacing channels are clearly identified with a label.

If the Windsor, Emberglow II, Mainflame or Legend fire is being fitted fit the two No.10 spring steel fasteners, supplied, to the ends of the spacing channel, see Fig. 7. Ensure that the flat side of the spring steel fastener is facing outwards.

5. Fit the correct spacing channel to the draught diverter with two M5 screws A, supplied, as shown in Fig. 7. Note that the Economy 2, Elegant 2 and Epic 2 fires use the same spacing channel except it is fitted differently depending which fire is used - see Fig. 7.

6. If the fireplace opening height is less than 577 mm the flue socket should be removed from the boiler and retained for refitting when the boiler is secured in position. See section 12.4.



- If the Windsor, Emberglow II, Mainflame or Legend fire is being fitted the sealing plate extensions should now be fitted. Remove the two nuts from the front of the sealing plate extensions. Keep these nuts in a safe place until the fire is fitted - they are required for fitting all the fires except the Emberglow II in which case they can be discarded.

Note: Discard the sealing plate extensions if the Economy 2, Elegant 2, or Epic 2 fire is being fitted.

Fit the sealing plate extensions to the boiler sealing plate and secure each one in position with three No.8 x 12 lg screws and shakeproof washers, supplied, as shown in Fig. 8.

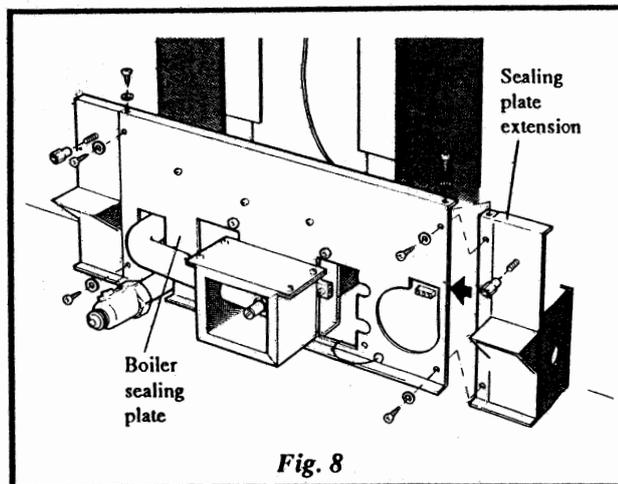


Fig. 8

12.4 Install the boiler - see Figs. 9 and 10.

- The spacing channel is rebated at each end to locate the boiler centrally in the fireplace opening and back to the face of the fire surround or wall. Push the boiler back into the opening until both ends locate as shown in Fig. 9. If the opening is wider than standard the same relative position must be established using a straight edge across the front wall, lining up the front edges of the rebates as shown in Fig. 9.

- When the boiler has been correctly positioned remove both the draught diverter and spacing channel together by removing the two screws 'B' in Fig. 7, securing the draught diverter to the flue hood and pulling them forward.

To assist in the ease of installation the complete burner assembly should be removed at this stage as follows.

- Disconnect the 6-way plug and socket, see Fig. 10, on top of the ignition control box mounting bracket.
- Disconnect the electrode lead, see Fig. 10, from the ignition control box.
- Remove the four screws, see Fig. 10, securing the boiler sealing plate assembly and withdraw the complete burner assembly.
- Mark through the holes in the fixing lugs at each side of the boiler base. Remove the boiler and drill and plug the floor of the fireplace recess. Reposition the boiler and secure it to the floor of the fireplace recess.
- Replace the flue socket if it was removed, ensure that the seal between the socket and the flue hood is intact and in position. If a flexible flue liner is being used also ensure that the screw projecting about 8 mm into the socket is at the rear.

Connect the flue liner. If a flexible flue is being connected, ensure that it has been cut squarely and that it is a good fit in the flue socket. Secure the flexible liner by evenly tightening the front two of the screws in the flue socket. The flue joint should then be packed, with a suitable caulking string, and sealed with a suitable fire cement.

- Connect the water system pipework to the elbows and pipe ends previously fitted (section 12.3).

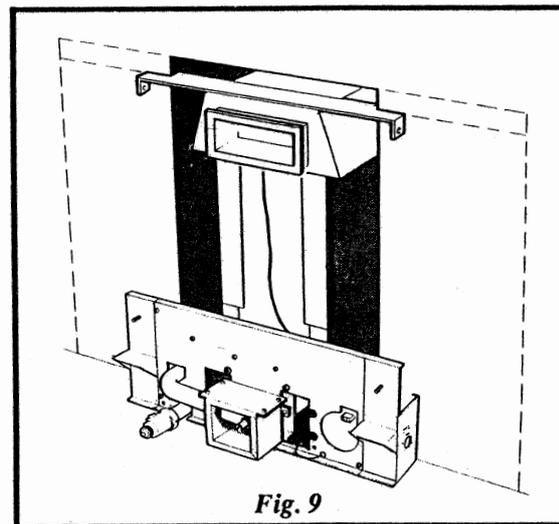


Fig. 9

12.5 Connect the power supply cable - see Fig. 11.

Important: Refer to section 12.2 before wiring up the appliance.

- Disconnect the 3-way plug and socket on the top of the boiler wiring centre.
- Remove the four rear screws securing the cover of the wiring centre and carefully lift off the cover complete with the ignition control box.
- Slacken the two screws in the cable clamp, see Fig. 11. Feed the power supply cable under the cable clamp and connect the wires, brown to L, blue to N and green and yellow to \perp on the terminal block. See Wiring Diagrams, page 17.

Do NOT attempt to connect any wires to the terminal marked 'Do not use' as this is used as an internal link and MUST NOT be used as a source for a switched live connection.

Do not connect any wiring to the terminal marked L1.

- Tighten the cable clamp screws. Ensure that any external control wiring is secured under the cable clamp. **Note:** When connecting the power supply cable to the terminal block, ensure that the length of the earth wire is such, that if the power supply cable slips out of the cable clamp the live and neutral wires become taut before the earth wire.

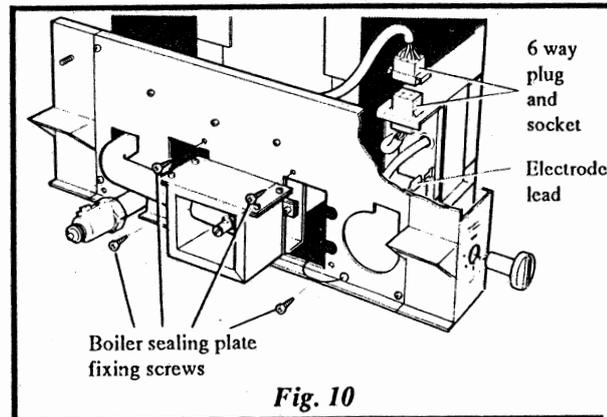


Fig. 10

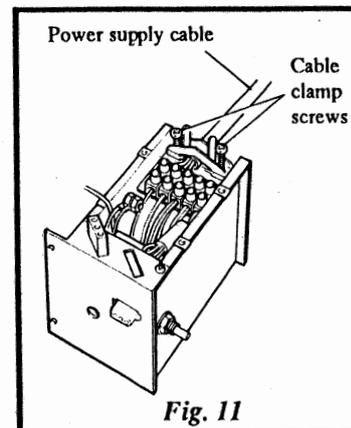


Fig. 11

5. If the Economy 2, Elegant 2 or Epic 2 fire is being fitted the boiler thermostat in the wiring centre MUST be repositioned as follows:
 - a. Remove the nut and washer retaining the thermostat to the right hand side of the wiring centre.
 - b. With the wiring centre front removed (four screws) remove the thermostat by carefully withdrawing it upwards and out of the wiring centre.
 - c. Turn the thermostat around so that the spindle is facing forward and the capillary is at the top. Position it inside the wiring centre and locate the front cover over the spindle, ensuring that the thermostat locating tags are located in the cover.
 - d. Replace the fixing washer and nut.
 - e. Replace the wiring centre front and secure with four screws.

Note: The countersunk head screws must be used on the front at the bottom.

- f. Fit the white thermostat control knob, supplied loose with the boiler, to the thermostat spindle.
 6. Replace the wiring centre cover and secure with four screws. Reconnect the 3-way plug and socket.
- Do not switch on the electricity supply at this stage.**

12.6 Complete the boiler installation.

1. Replace the burner assembly and secure in position with the four screws previously removed in section 12.4.
2. Reconnect the electrode lead to the ignition control box.
3. Reconnect the 6-way plug and socket on top of the ignition control box mounting bracket.
4. Ensure that the boiler gas service cock is positioned so that the operating spindle is accessible then connect the gas supply. Ensure that the gas fire service cock is closed then pressure test for gas soundness and purge the supply in accordance with BS6891.
5. Thoroughly flush the system with cold water without the pump in position. Ensure that all valves are open. With the pump fitted, fill, vent and check for water soundness, using a mirror and torch for the connections at the back of the boiler, rectifying where necessary.
6. Refit the spacing channel/draught diverter assembly, fixing in position with the two screws 'B' in Fig. 7, previously removed.

13. BOILER COMMISSIONING

See Fig. 12 for boiler controls.

Windsor, Emberglow II, Mainflame or Legend fire - Pass the thermostat control knob (supplied loose with the boiler) through the hole in the right hand side sealing plate extension and locate it on the thermostat spindle.

All fires - With the gas supply isolated check the ignition sequence as follows:

Check that all system controls are calling for heat. Turn the boiler thermostat to OFF and switch on the electricity supply to the boiler. Turn the boiler thermostat to position 5 and the automatic ignition sequence will start. A click will be heard indicating that the pilot solenoid has opened, the ignition sparks will also be heard. As the gas supply is not yet turned on, the unit will 'lock-out' after about 60 seconds.

Having checked the above sequence the pilot flame and burner setting pressure must be checked as follows:

1. Turn the boiler thermostat to OFF.
2. Remove the burner setting pressure test point screw on the burner manifold and connect a pressure gauge.
3. Turn on the gas supply and turn the boiler thermostat to position 5. The unit will go through the ignition sequence and the pilot will light. A second or so after the pilot is lit the main gas solenoid will open and the main burner will light. If ignition does not take place, the pilot solenoid is closed and the spark ignition ceases after about 60 seconds.

To reset: Turn the boiler thermostat to OFF wait 10 seconds then turn it to position 5. If ignition continually fails refer to the Boiler Fault Finding Guide, page 16.

Note: The pilot burner is turned off every time the main burner is off. The ignition sequence is automatically activated when the boiler thermostat requires heat.

4. Remove the screw securing the gas valve plastic cover and lift off the cover.
5. Check the pilot flame.

Housewarmer 45 - Check that the pilot throttle is fully open and that the pilot flame (35 to 40 mm long) envelops the electrode and extends 10 mm past it. Adjust if necessary (clockwise to reduce the flame).

Housewarmer 55 - The pilot flame is not adjustable. Check that the flame (25 to 30 mm long) envelops the electrode and extends 10 mm past it.

Note: As the pilot flame is difficult to observe it can be assumed that it is within its limits if the main burner lights satisfactorily.

6. Allow the burner to run for 10 minutes and if necessary adjust the burner setting pressure, as follows, to give the heat input required.

Housewarmer 45 - Turn the adjusting screw clockwise to decrease the burner setting pressure.

Housewarmer 55 - The adjusting screw is under a capscrew, remove this to gain access, turn the adjusting screw anticlockwise to decrease the burner setting pressure. Replace the capscrew after adjusting the pressure.

Note: The Housewarmer 45 is factory set to the maximum input and the Housewarmer 55 is set to the middle input. See Technical Data, page 3 for the boiler ratings and setting pressures.

Test all gas carrying components for gas soundness.

7. Turn the boiler thermostat to OFF, disconnect the pressure gauge and refit the test point screw ensuring a gas tight seal is made.
8. Replace the gas valve plastic cover and secure with its screw. Ensure that the cable clamp is located correctly in the cover.
9. Ensure that the arrow on the data plate is against the correct boiler rating.
10. Check the flue for correct operation and test the boiler for spillage as described in BS5440:1, clause 4.3.2.3. Temporarily block the opening in the front of the boiler draught diverter while these checks are being carried out.

Make sure that the temporary blockage is removed after completing the checks.

11. When the system has been tested, drain the water while it is still hot in order to complete the flushing process. Refill, vent and make a final check for water soundness.

Fit the fire as described in the Installation section of the separate fire instructions supplied with the fire.

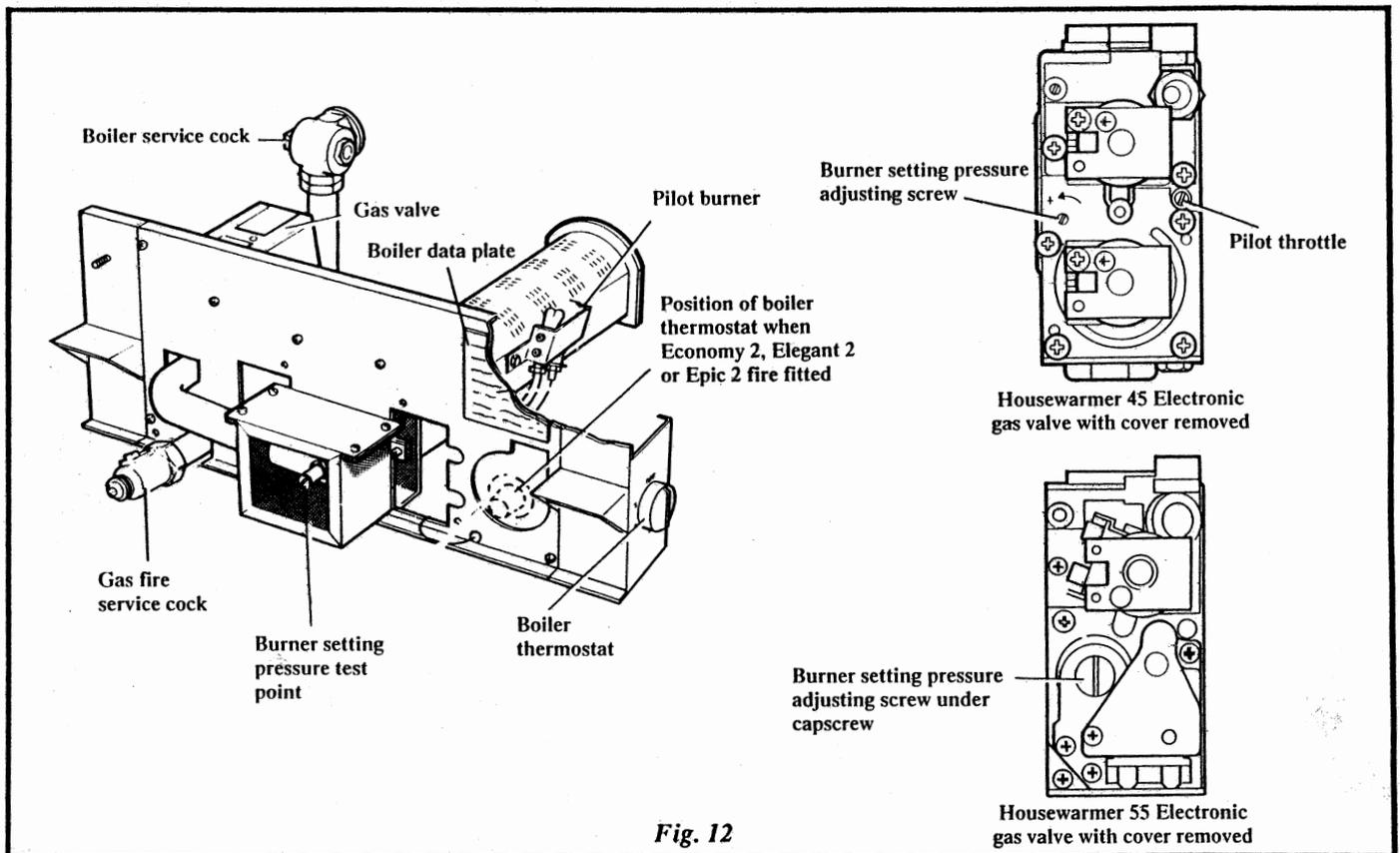


Fig. 12

14. ANNUAL SERVICING OF BOILER

Refer to the separate fire instructions supplied with the fire for removing, replacing and cleaning the fire.

To ensure continued efficient operation of the appliance, it is recommended that it is checked and cleaned as necessary at regular intervals. The frequency of servicing will depend upon the particular installation conditions and usage but in general once per year should be adequate. It is the law that any service work must be carried out by a competent person such as British Gas or other C.O.R.G.I. registered personnel.

The following aspects of the boiler and installation should be examined, and rectified as necessary.

1. Run the boiler and check the operation of its controls, observe the flame picture and ensure that the boiler responds to any switches and programmer.
2. Check if the burner or heat exchanger requires cleaning.
3. Examine the main injector orifice and ensure it is clear and undamaged.
4. If a sufficiently large pilot flame cannot be achieved examine the pilot injector orifice to ensure it is clear and undamaged.
5. Check the flue condition and carry out a spillage test, see Boiler Commissioning Instructions, section 13.

The boiler data plate is positioned on the boiler sealing plate and is visible after the fire is removed, refer to this for the boiler model. On completion of the service run the boiler and fire and ensure that they operate satisfactorily.

WARNING: Before commencing work turn the fire off. Turn the boiler thermostat to OFF.

Economy 2, Elegant 2 or Epic 2 - To gain access to the boiler thermostat remove the lower front panel, which carries the name badge, below the fire. The panel on the Economy 2 and Elegant 2 fires is removed by sliding it forward off the fire and the panel on the Epic 2 is removed by lifting it off the fire.

Isolate the electricity supply to the boiler and allow the fire and boiler to cool.

IMPORTANT: Always test for gas soundness after completing any servicing of gas carrying components and carry out functional checks of controls.

Remove the fire as described in the Servicing section of the separate fire instructions supplied with the fire. After cleaning the boiler clean the fire and replace it as described in the fire Servicing Instructions.

14.1 Dismantle the boiler - see Figs. 13 and 14.

Ensure that the gas supply is off.

1. Close the boiler gas service cock, left hand side of the boiler, see Fig. 13 and undo the union.
2. Pull off the boiler thermostat control knob (Windsor, Mainflame or Legend fire only).
3. Disconnect the 6-way plug and socket on top of the ignition control box mounting bracket.
4. Disconnect the electrode lead from the ignition control box.
5. Remove the four screws, see Fig. 13, securing the boiler sealing plate assembly.
6. Remove the complete burner and gas valve assembly by withdrawing it forward.
7. Remove the two screws, see Fig. 14, securing the draught diverter and remove by pulling forward.
8. Remove the four screws, see Fig. 14, securing the side retaining angles and remove the side retaining angles.
9. Remove the side insulation trays by opening sideways slightly, then lift and pull forward.

14.2 Cleaning the boiler.

1. Brush both sides of the heat exchanger using a suitable brush. Remove any fallen deposits from the boiler base.
2. Check the side insulation blocks, if they require cleaning use a light brush taking great care. Any superficial crazing on the surface of the insulation may be ignored, but a cracked block must be replaced. Extract the damaged block by sliding it out of the tray.
3. Clean the lint filter and burner as follows:
Housewarmer 45 - Remove the burner end cap fixing(s) and remove the end cap. Slide out the lint filter and clean by brushing carefully with a soft brush aided by blowing through the mesh. Brush the burner top and check that the flame ports are clear. Any blockage may be removed using a fine wire brush. Remove any deposits inside the burner by tapping the open end down. Replace the lint filter and end cap.

Housewarmer 55 - Remove the two nuts and washers at the front of the burner bar and withdraw the burner bar. Slide out the lint filter and clean by brushing carefully with a soft brush aided by blowing through the mesh. Brush the burner top and check that the flame ports are clear. Any blockage may be removed using a fine wire brush. Remove any deposits inside the burner by tapping the open end down. Replace the lint filter and burner bar, secure in position with two nuts and washers.

4. Remove the two screws securing the sound retention box, see Fig. 17.
5. Unscrew the injector from the manifold. Clean by blowing through or washing. Do NOT clear the injector with a pin or wire.
6. Replace the injector using a small amount of jointing compound and replace the sound retention box.
7. Undo the securing nut and remove the spark electrode from the pilot assembly, see Fig. 15.
8. Undo the tubing nut and disconnect the pilot supply from the pilot assembly and remove the pilot injector, see Fig. 15.
9. Clean the pilot injector by blowing through or washing. Do NOT clear the injector with a pin or wire.
10. Clean the pilot burner and spark electrode with a fine wire brush if necessary.

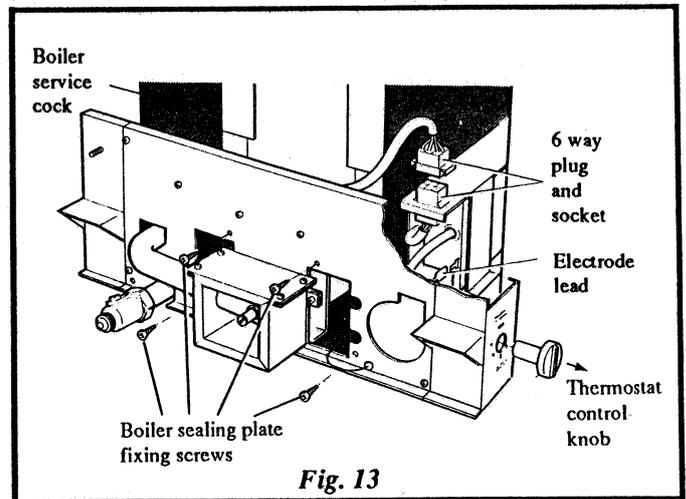


Fig. 13

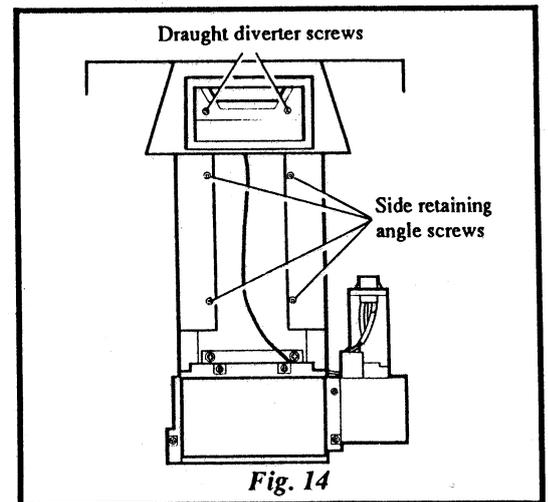


Fig. 14

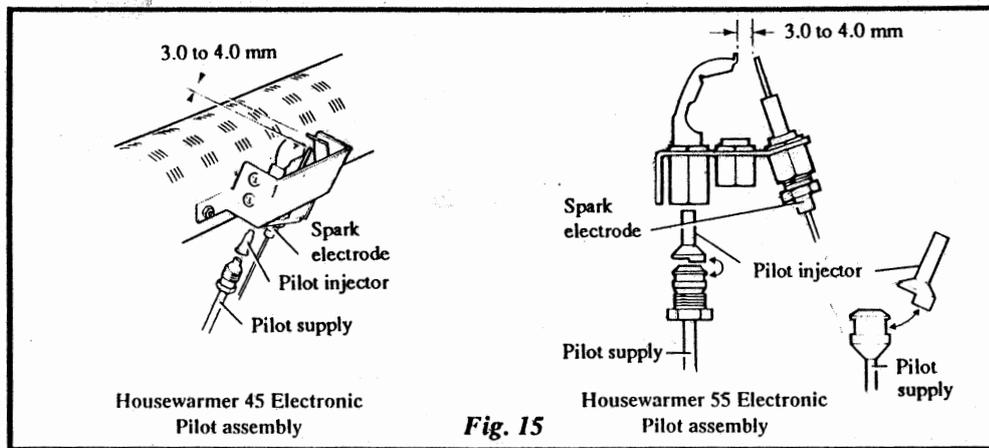


Fig. 15

14.3 Reassemble the boiler.

1. Replace the pilot injector (Housewarmer 55 - Ensure that the pilot injector is located over the end of the pilot supply, as shown in Fig. 15 and carefully position it in the pilot burner). Secure the pilot supply in position with the nut previously removed. Check the tightness of the pilot supply connections.
2. Replace the spark electrode and secure in position with the nut previously removed. Check that the spark gap is 3.0 to 4.0 mm, see Fig. 15.
3. Refit the side insulation trays and secure with the two retaining angles and four screws, see Fig. 14.
4. Replace the draught diverter and secure with two screws, see Fig. 14.
5. Refit the burner and gas valve assembly and secure with four screws, see Fig. 13.
6. Reconnect the 6-way plug and electrode lead to the ignition control box, see Fig. 13.
7. Replace the boiler thermostat control knob, see Fig. 13 (Windsor, Mainflame or Legend fire only).
8. Reconnect the boiler gas service cock.
9. Refer to the Boiler Commissioning Instructions, section 13. Test for gas soundness, check the pilot flame (section 13.5) and check the burner setting pressure.

15. REPLACEMENT OF BOILER PARTS

Refer to the separate fire instructions supplied with the fire for removing, replacing and replacing parts of the fire.

WARNING: Before commencing work turn the fire off. Turn the boiler thermostat to OFF.

Economy 2, Elegant 2 or Epic 2 - To gain access to the boiler thermostat remove the lower front panel, which carries the name badge, below the fire. The panel on the Economy 2 and Elegant 2 fire is removed by sliding it forward off the fire and the panel on the Epic 2 is removed by lifting it off the fire.

Isolate the electricity supply to the boiler and allow the fire and boiler to cool.

IMPORTANT: Always test for gas soundness after completing any exchange of gas carrying components and carry out functional checks of controls.

Remove the fire as described in the Servicing section of the separate fire instructions supplied with the fire.

Replace the fire as described in the fire Servicing Instructions after replacing any boiler parts.

15.1 To replace the spark electrode, pilot injector or pilot burner.

Remove the burner and gas valve assembly as described in section 14.1.

Spark electrode - Undo the nut securing the spark electrode and remove the electrode, complete with lead, from the pilot assembly. Insert a new electrode and secure in position with the nut. Pass the lead through the boiler sealing plate and fix the grommet in position.

Pilot injector - (Housewarmer 45 - Remove the spark electrode first). Undo the nut, disengage the pilot supply from the pilot assembly and remove the pilot injector. Replace the pilot injector (Housewarmer 55 - Ensure that the pilot injector is located over the end of the pilot supply, as shown in Fig. 15 and carefully position it in the pilot burner). Secure the pilot supply in position with the nut previously removed. (Housewarmer 45 - Replace the spark electrode).

Pilot burner - Remove the spark electrode, pilot supply and pilot injector as described above. Remove the two screws securing the pilot burner to the mounting bracket and replace with a new pilot burner. Replace the pilot injector (Housewarmer 55 - Ensure that the pilot injector is located over the end of the pilot supply, as shown in Fig. 15 and carefully position it in the pilot burner). Secure the pilot supply in position with the nut previously removed and replace the spark electrode.

Reassemble as follows:

1. Check the tightness of the pilot supply connections.
2. Check that the spark gap is 3.0 to 4.0 mm, see Fig. 15.
3. Refit the burner and gas valve assembly. Reverse the procedure given in section 14.1.
4. Refer to the Boiler Commissioning Instructions, section 13. Test for gas soundness and check the pilot flame (see section 13.5).

15.2 To replace the burner - see Fig. 16.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Remove the two screws securing the pilot burner to the mounting bracket, see Fig. 16.
3. Remove the two screws securing the sound retention box, see Fig. 16 and remove the box.
4. Remove the two screws securing the burner to the boiler sealing plate, see Fig. 16 and remove the burner.
5. Undo the two brass nuts securing the pilot burner mounting bracket to the burner and remove the bracket.
6. Fit the pilot burner mounting bracket to the new burner and secure with two brass nuts.
7. Fit the new burner and retain with two screws.
8. Refit the pilot burner to the mounting bracket. Check the tightness of the pilot supply connections.
9. Refit the sound retention box.
10. Refit the burner and gas valve assembly to the boiler. Reverse the procedure given in section 14.1.
11. Refer to the Boiler Commissioning Instructions, section 13 and test for gas soundness.

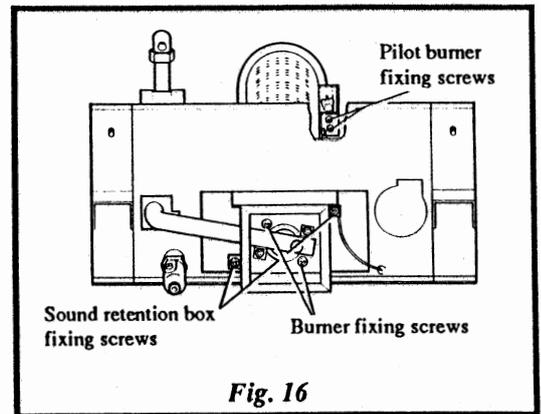


Fig. 16

15.3 To replace the lint filter.

Note: The burner fitted to the Housewarmer 45 may be a Furigas (round section) or an Aeromatic (oval section). The lint filters are NOT interchangeable.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Replace the lint filter as follows:
 - Housewarmer 45** - Remove the burner end cap fixing(s) and remove the end cap. Slide out the lint filter and replace with a new one. Replace the end cap.
 - Housewarmer 55** - Remove the two nuts and washers at the front of the burner bar and withdraw the burner bar. Slide out the lint filter and replace with a new one. Replace the burner bar and secure in position with two nuts and washers.
3. Check the tightness of the pilot supply connections.
4. Refit the burner and gas valve assembly to the boiler. Reverse the procedure given in section 14.1.
5. Refer to the Boiler Commissioning Instructions, section 13 and test for gas soundness.

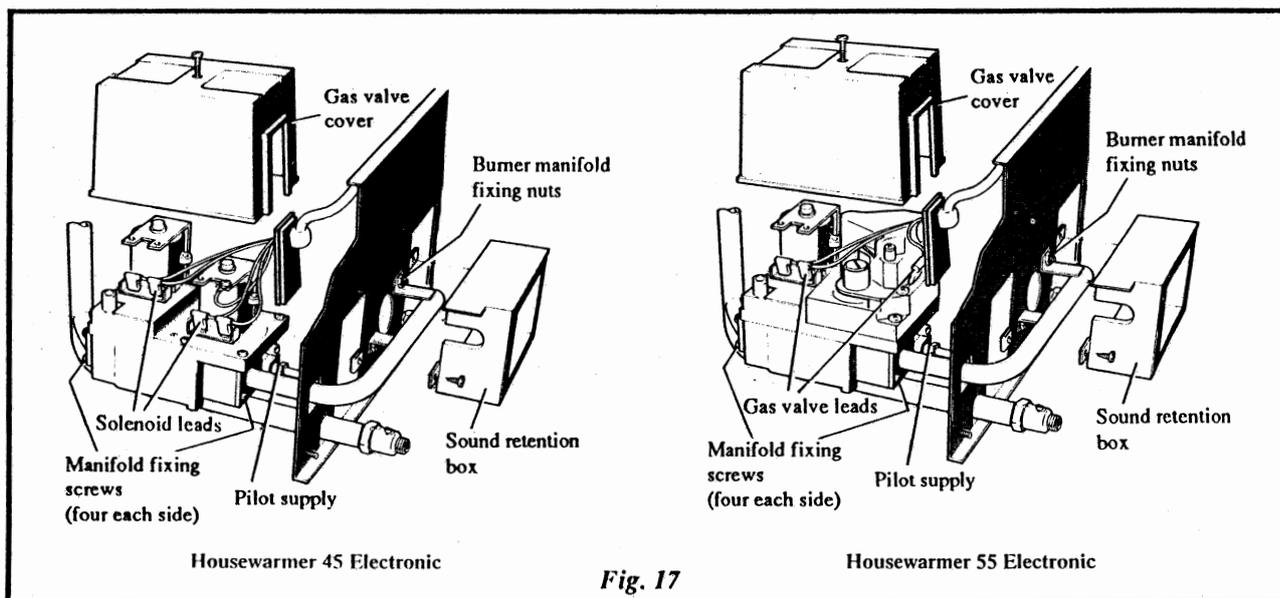
15.4 To replace the boiler thermostat.

Note: The 'Piggy back' connector supplied with the replacement thermostat is not required for Electronic boilers.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Disconnect the 3-way plug and socket on top of the boiler wiring centre.
3. Remove the four rear screws securing the cover of the wiring centre and carefully lift off the cover complete with the ignition control box.
4. Remove the two screws securing the draught diverter, see Fig. 14 and remove by pulling forward.
5. Remove the thermostat phial fixing (screw or split pin) from the thermostat pocket on the front of the heat exchanger. Withdraw the phial from the pocket.
6. Remove the thermostat control knob (Economy 2, Elegant 2 or Epic 2 fire).
7. Remove the four screws securing the wiring centre front and lift off the wiring centre front.
8. Remove the nut and washer retaining the thermostat to the wiring centre front (Economy 2, Elegant 2 or Epic 2 fire) or side (Windsor, Emberglow II, Mainflame or Legend fire).
9. Carefully remove the thermostat and mounting plate (if fitted) from the wiring centre.
10. Disconnect the wires from the thermostat, noting their position and remove the thermostat.
11. The replacement thermostat can now be fitted. Carefully bend the capillary tube to match the discarded one.
12. Reconnect the thermostat wires. See Wiring Diagrams, page 17.
13. Place the mounting plate, supplied with the new thermostat, over the thermostat spindle with the locating tags facing forward and the small locating tag on the thermostat in one of the small cut-outs in the plate. Carefully place the thermostat into the wiring centre (ensure that the capillary is uppermost and that the thermostat and mounting plate locating tags are located) and secure it with the washer and retaining nut (secure to the wiring centre front for the Economy 2, Elegant 2 or Epic 2 fire or to the side of the wiring centre for the Windsor, Emberglow II, Mainflame or Legend fire).
14. Replace the wiring centre front and secure with four screws. **Note:** The countersunk head screws must be used on the front at the bottom.
15. Replace the thermostat control knob (Economy 2, Elegant 2 or Epic 2 fire).
16. Insert the thermostat phial into the thermostat pocket on the front of the heat exchanger and secure in position with the fixing previously removed.
17. Refit the wiring centre cover, ensure that the capillary tube passes through the cut out, and secure with four screws.
18. Reconnect the 3-way plug and socket on top of the boiler wiring centre.
19. Replace the draught diverter and secure with two screws.
20. Check the tightness of the pilot supply connections.
21. Refit the burner and gas valve assembly to the boiler. Reverse the procedure given in section 14.1.
22. Refer to the Boiler Commissioning Instructions, section 13 and test for gas soundness. Light the boiler and allow it to heat up. Check that the boiler thermostat will switch the boiler off when turned to a low setting.

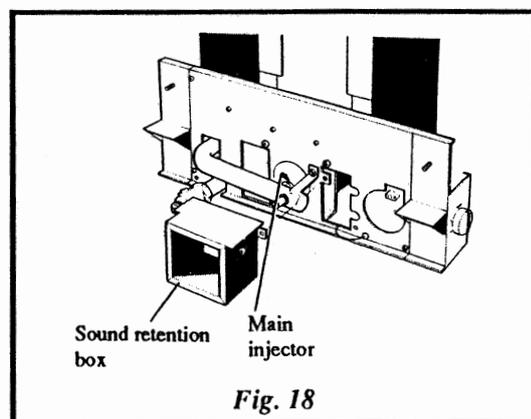
15.5 To replace the gas valve - see Fig. 17.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Remove the two screws securing the sound retention box, see Fig. 17.
3. Remove the two nuts securing the burner manifold to the boiler sealing plate, see Fig. 17.
4. Remove the screw securing the gas valve plastic cover and lift off the cover. Leave the cable clamp on the cable.
5. Disconnect the pilot supply from the gas valve.
6. Disconnect the push on terminals and unscrew the earth terminal from the gas valve.
The polarity of these wires is not important but the blue and a black wire must go to the pilot solenoid and the brown and a black wire to the outlet solenoid (Housewarmer 45) or operator (Housewarmer 55). See Wiring Diagrams, page 17.
7. Remove the eight screws (four each side) securing the inlet and outlet manifolds to the gas valve.
8. Remove and discard the two 'O' rings fitted in the inlet and outlet manifolds.
9. Fit two new 'O' rings to the manifolds (both these 'O' rings are the same size).
10. Reassemble the new gas valve to the burner assembly in reverse order, but do not replace the gas valve plastic cover at this stage.
11. Check the tightness of the pilot supply connections.
12. Refit the burner and gas valve assembly to the boiler. Reverse the procedure given in section 14.1.
13. Refer to the Boiler Commissioning Instructions, section 13. Check the pilot flame (see section 13.5), test for gas soundness and check the burner setting pressure, adjust if necessary. Replace the gas valve cover.



15.6 To replace the burner injector - see Fig. 18.

1. Remove the two screws securing the sound retention box, see Fig. 18 and remove the box.
2. Unscrew the main injector from the burner manifold, see Fig. 18.
3. Screw in a replacement injector using a small amount of jointing compound.
4. Refit the sound retention box and secure with two screws.
5. Refer to the Boiler Commissioning Instructions, section 13 and light the boiler to check operation.



15.7 To replace a gas valve operating solenoid - see Fig. 19.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Remove the screw securing the gas valve plastic cover and lift off the cover.
3. Disconnect the push on terminals (unscrew the earth wire if necessary) from the solenoid.
The polarity of these wires is not important but the blue and a black wire must go to the pilot solenoid and the brown and a black wire to the outlet solenoid (Housewarmer 45) or operator (Housewarmer 55). See Wiring Diagrams, page 17.
4. Carefully prise out the retaining clip from behind the solenoid and lift off the solenoid and its mounting bracket.
5. Position the new solenoid into the mounting bracket and reassemble in reverse order.
6. Check the tightness of the pilot supply connections.
7. Refit the burner and gas valve assembly. Reverse the procedure given in section 14.1.
8. Refer to the Boiler Commissioning Instructions, section 13 and light the boiler to check the gas valve operation.

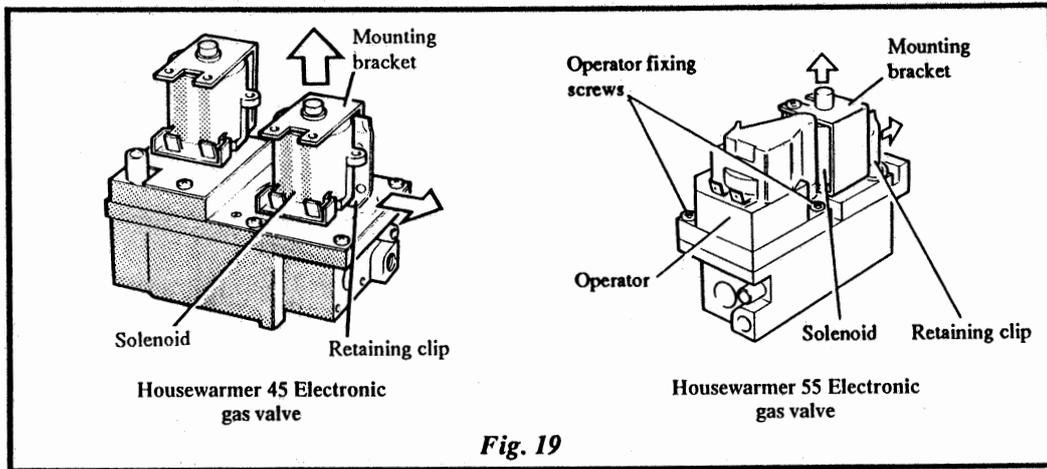


Fig. 19

15.8 To replace the gas valve operator (Housewarmer 55 only) - see Fig. 19.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Remove the screw securing the gas valve plastic cover and lift off the cover.
3. Disconnect the push on terminals (unscrew the earth wire if necessary) from the operator.
The polarity of these wires is not important but the blue and a black wire must go to the pilot solenoid and the brown and a black wire to the operator. See Wiring Diagrams, page 17.
4. Remove the two operator fixing screws, see Fig. 19 lift off the operator and remove the rubber diaphragm (note which way it is fitted).
5. Position the new diaphragm, supplied with the operator, on the valve, fit the new operator, reconnect the wires and replace the gas valve cover.
6. Check the tightness of the pilot supply connections.
7. Refit the burner and gas valve assembly. Reverse the procedure given in section 14.1.
8. Refer to the Boiler Commissioning Instructions, section 13 and light the boiler to check the gas valve operation.

15.9 To replace the ignition control box - see Fig. 20.

1. Remove the burner and gas valve assembly as described in section 14.1.
2. Disconnect the 3-way plug and socket on top of the boiler wiring centre.
3. Remove the four screws securing the cover of the wiring centre and carefully lift off the cover complete with the ignition control box.
4. Remove the 6-way socket from the mounting bracket.
5. Remove the two screws securing the control box to the mounting bracket and withdraw the control box.
6. Secure the new control box and refit the wiring centre cover.
7. Reconnect the 3-way plug and socket.
8. Check the tightness of the pilot supply connections.
9. Refit the burner and gas valve assembly. Reverse the procedure given in section 14.1.
10. Refer to the Boiler Commissioning Instructions, section 13 and test for gas soundness.

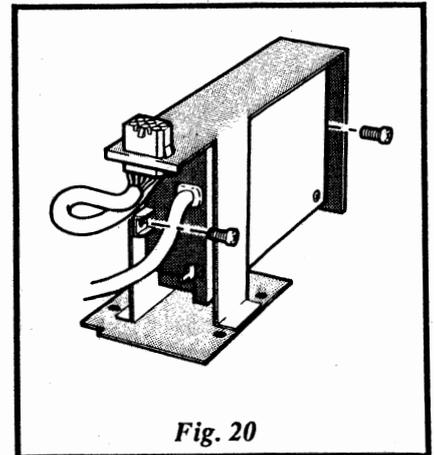
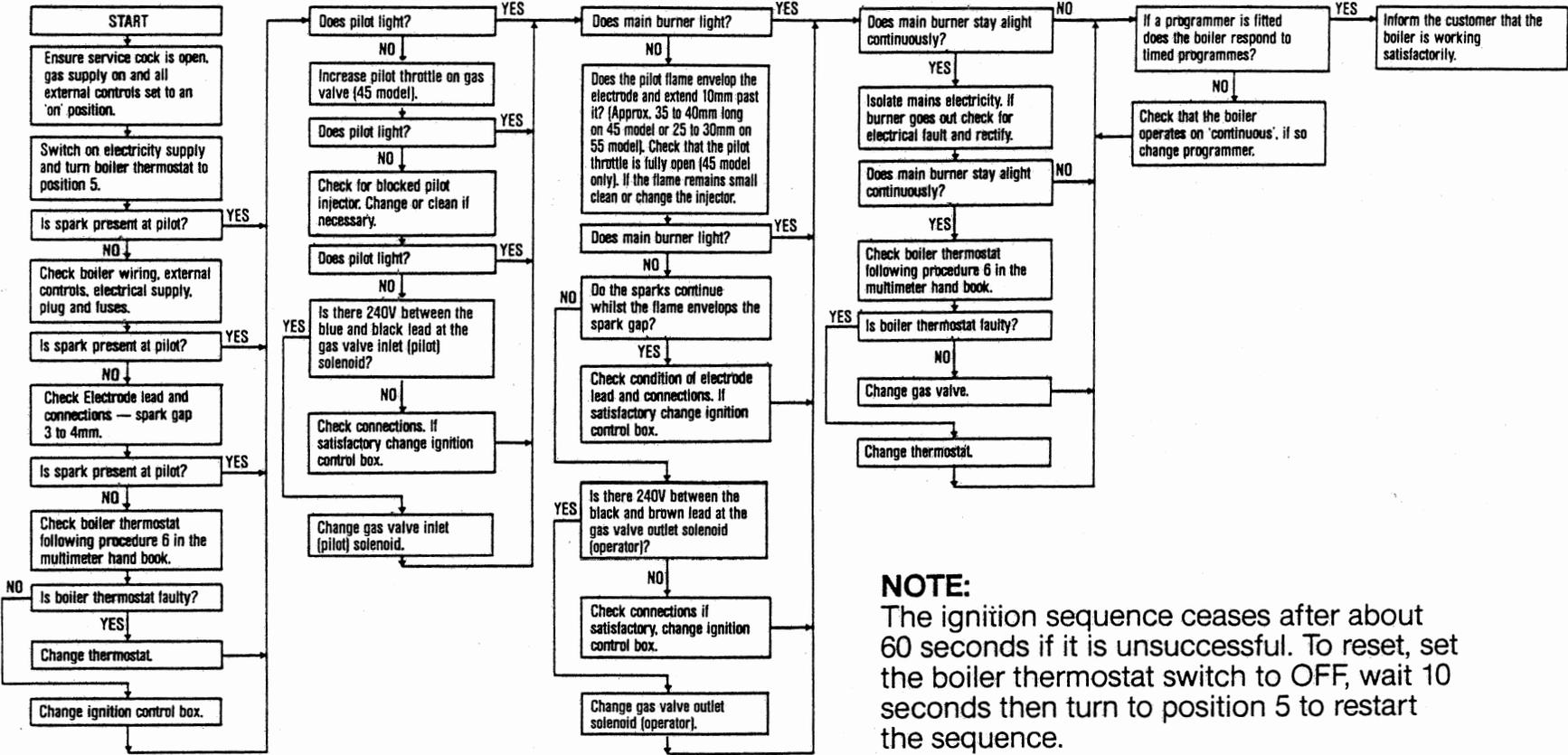


Fig. 20

16. BOILER FAULT FINDING GUIDE

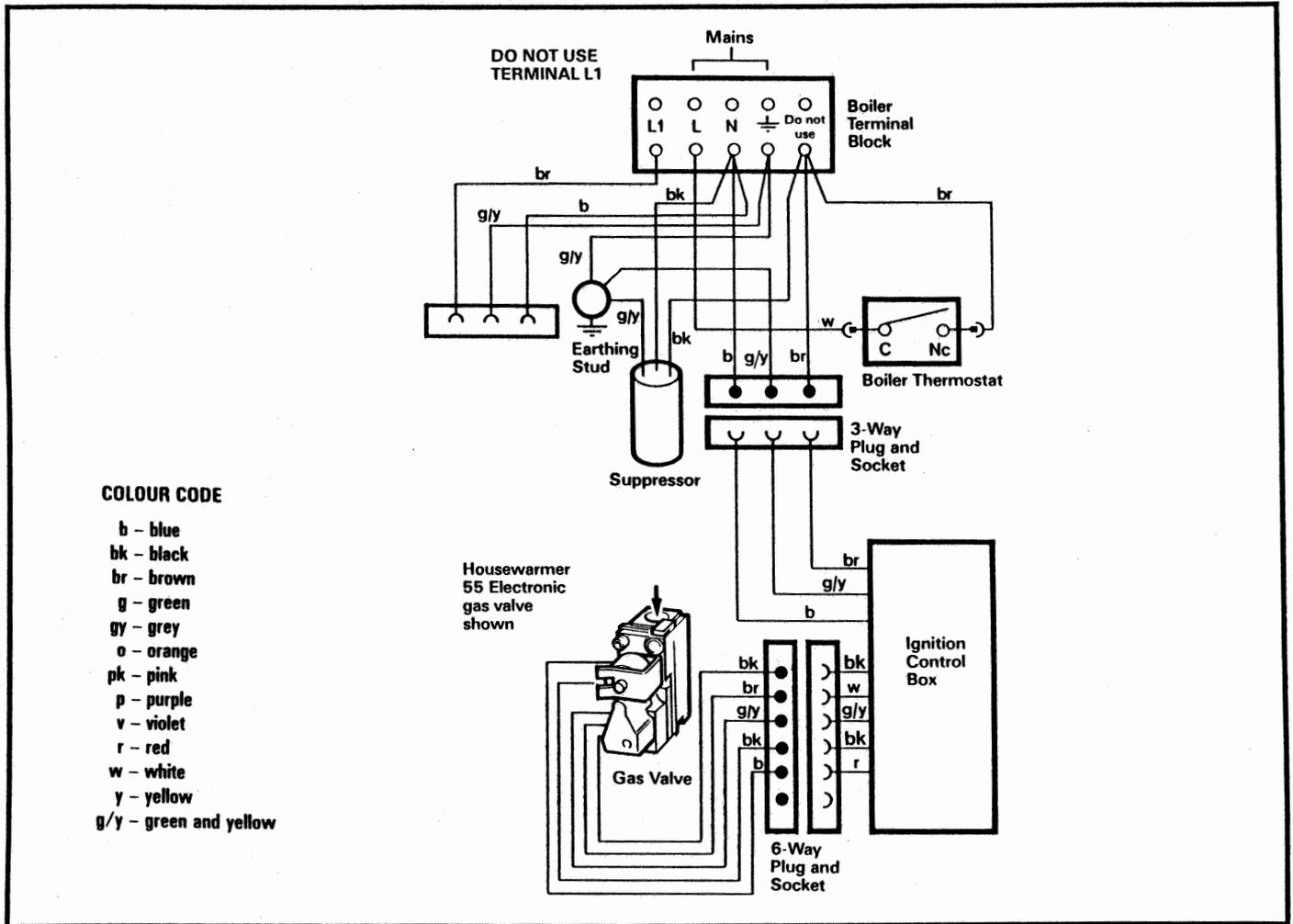
Preliminary electrical system checks i.e. Earth continuity, Short Circuit, Polarity and Resistance to Earth are the first electrical checks to be carried out during a fault finding procedure. On completion of a service/fault finding task which has required the breaking and remaking of electrical connections, then the checks - Earth Continuity, Short Circuit, Polarity and Resistance to earth - must be repeated.



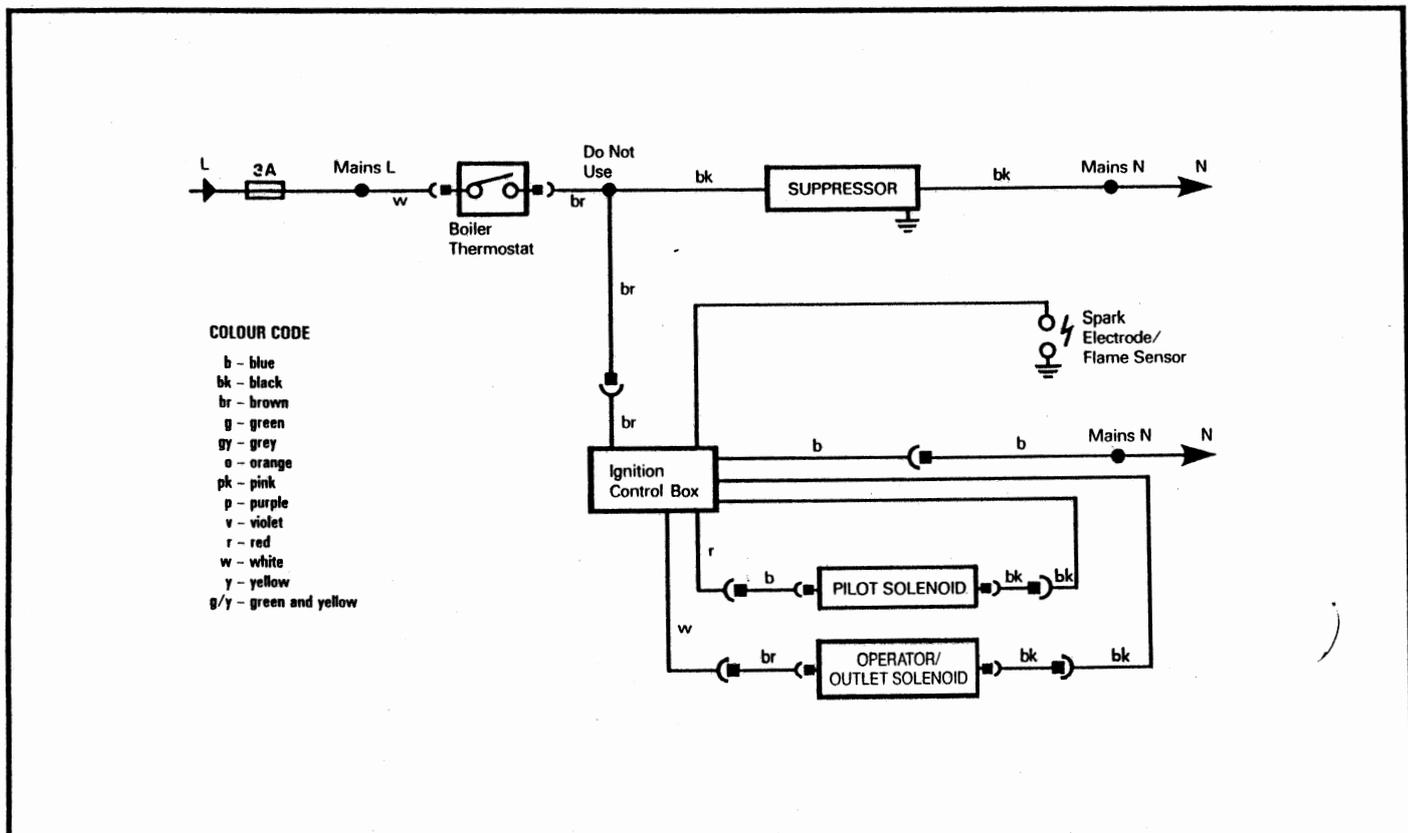
NOTE:
The ignition sequence ceases after about 60 seconds if it is unsuccessful. To reset, set the boiler thermostat switch to OFF, wait 10 seconds then turn to position 5 to restart the sequence.

17. WIRING DIAGRAMS

a. Illustrated wiring diagram

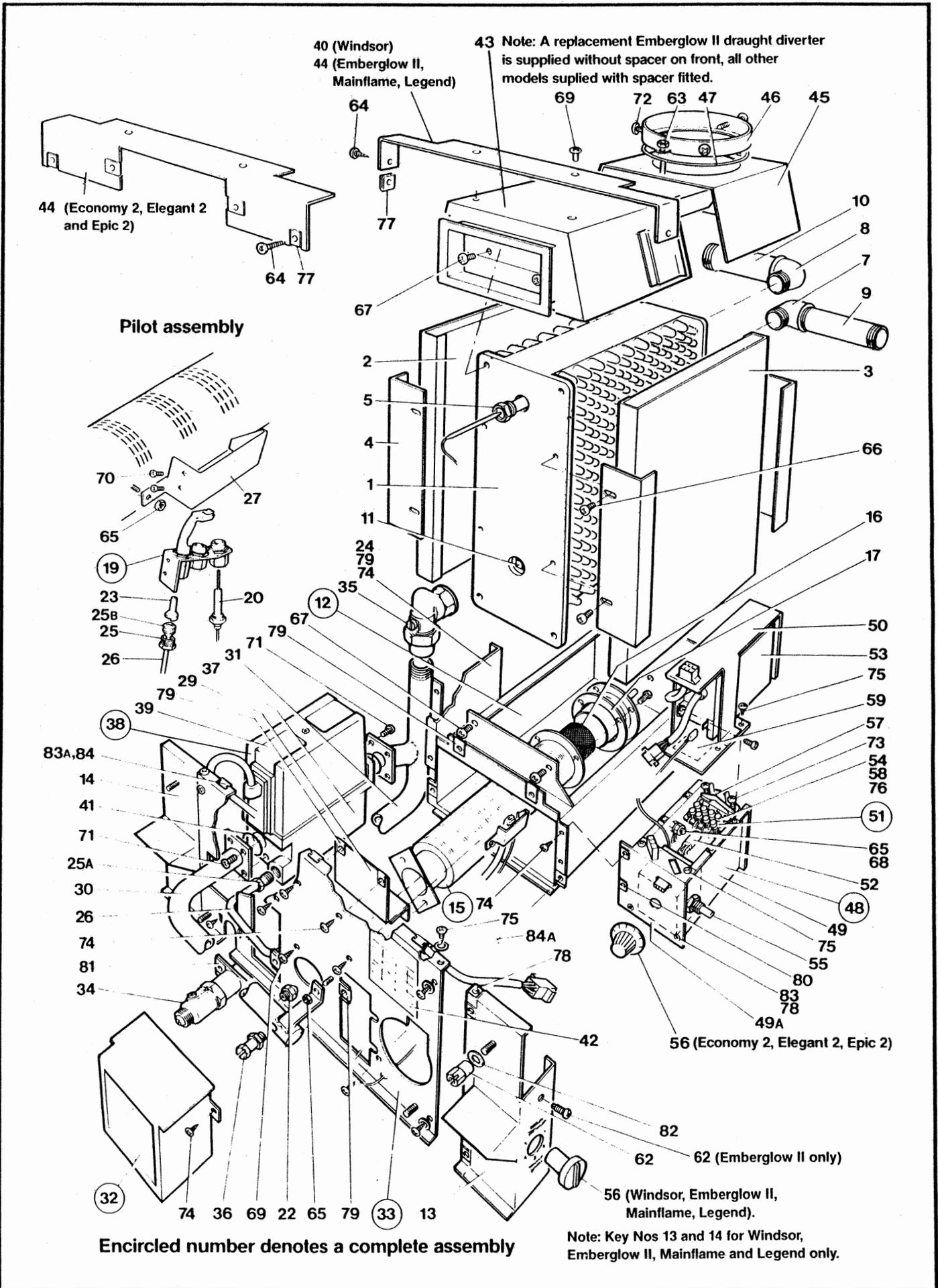


b. Functional flow wiring diagram

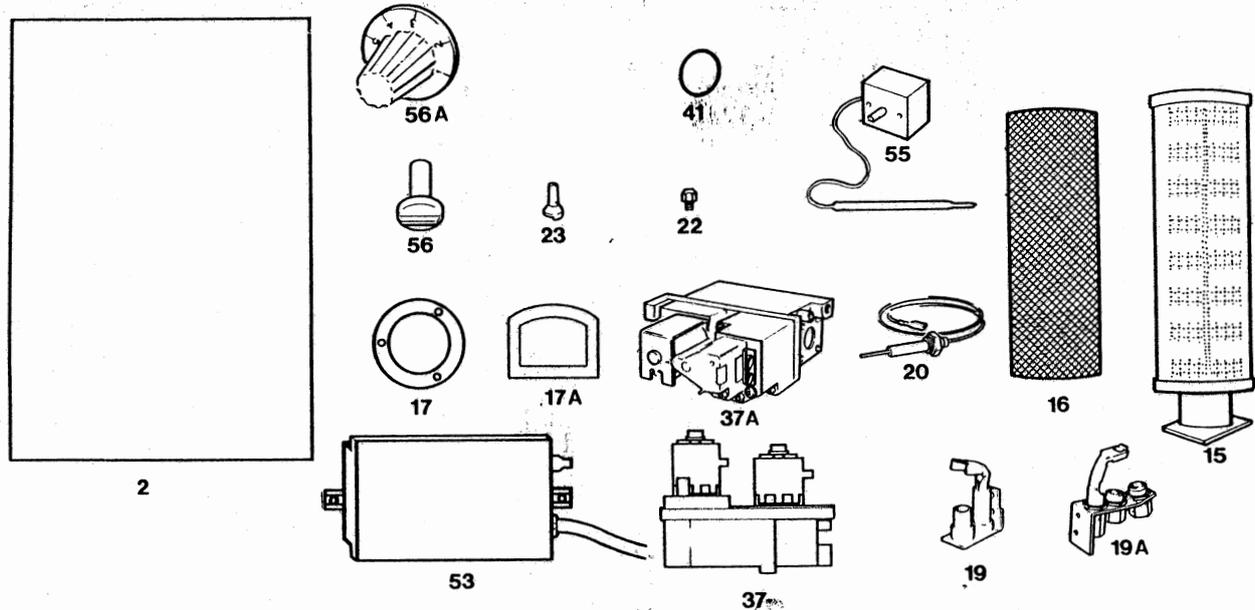


18. BOILER EXPLODED VIEWS

a. Housewarmer 45 Electronic back boiler



19. BOILER SHORT LIST SPARE PARTS



Key No.	G.C. No.	Description	Qty.	Part No.
2	191 001	Caposil block (45)	2	308C037
2A	192 303	Caposil block (55)	2	308C383
15	384 885	Burner (45)	1	308S076
15A	386 747	Burner (55)	1	308S400
16	384 886	Lint filter (45 - Furigas)	1	308S110
16A		Lint filter (45 - Aeromatic)	1	600050
16B	386 749	Lint filter (55)	1	308S425
17	384 887	Burner end plate gasket (45 - Furigas)	1	308S111
17A	386 750	Burner end plate gasket (55)	1	308S426
19	386 527	Pilot burner (45)	1	Q389A1014
19A	381 865	Pilot burner (55)	1	308S414
20	192 237	Spark electrode and lead (45)	1	308A283
20A	192 320	Spark electrode and lead (55)	1	308A428
22	192 393	Burner injector. (45)	1	232087
22A	192 394	Burner injector. (55)	1	232230
23	381 702	Pilot injector, marked 56/42A (45)	1	4500-4108-005
23A	381 949	Pilot injector, marked 34 (55)	1	308S415
37	386 756	Gas valve (45)	1	VR4700E1034
37A	386 620	Gas valve (55)	1	VR4700C4022
41	359 211	Gas valve 'O' ring	2	400-0016-7-32
53	192 175	Ignition control box	1	308A199
55	378 766	Thermostat assembly	1	232366
56	192 339	Thermostat knob with clip (Windsor, Emberglow II, Mainflame, Legend)	1	308A470
56A	192 240	Thermostat knob with clip (Economy 2, Elegant 2, Epic 2)	1	308A293

Note: Always quote the boiler model and serial No. (see boiler data plate) when ordering spare parts for the boiler.

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POTTERTON MYSON
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BS5258
BS6332

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