

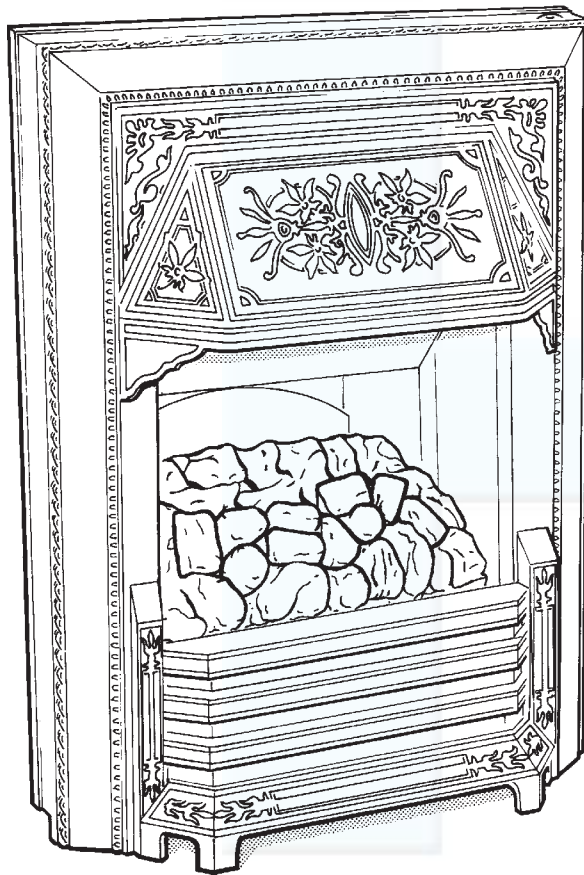
Glow-worm

Installation and Servicing Instructions

To be left with the user

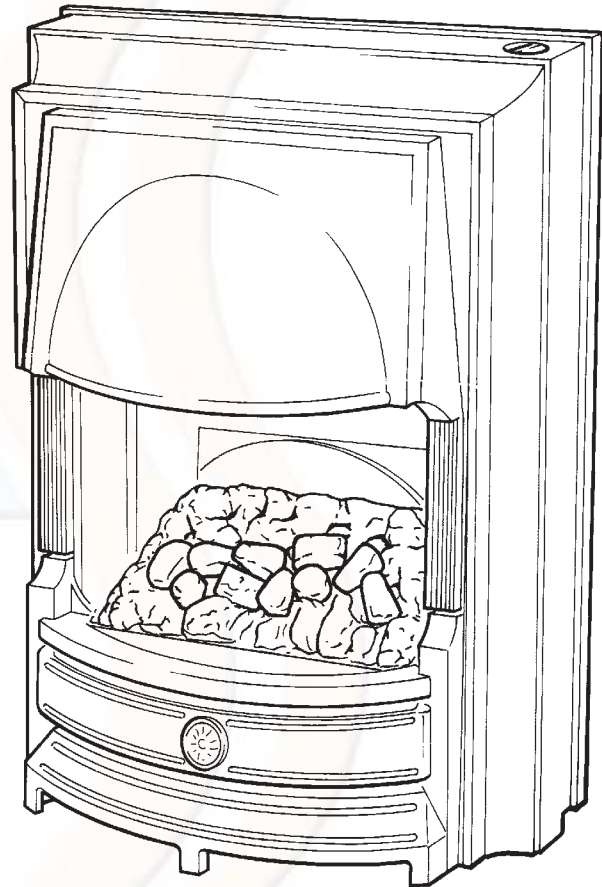
REVIVAL

FIRE G.C. No. 37 315 16



FIREBLAZE

FIRE G.C. No. 37 315 14



4031



This is a Cat I_{2H} Appliance



BS 6332
BS 5258

For use with
**Glow-worm 45F, 45FR, 56F or 56FR
Back Boiler Units**

HEATCALL

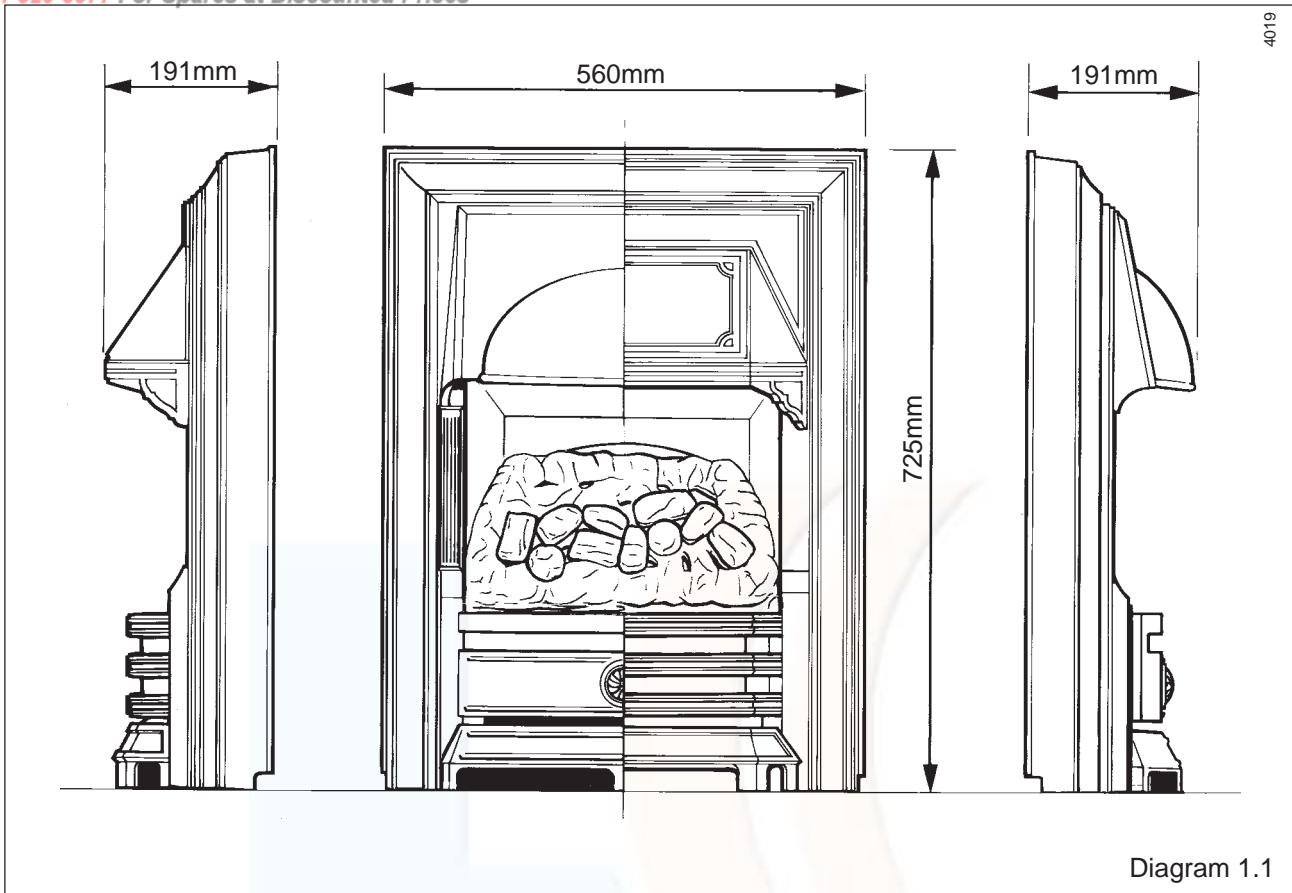
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The instructions consist of three parts, Installation and Servicing Instructions for the Back Boiler, Installation and Servicing Instructions for the Fire Front and Instructions for Use. They are the property of the user and must be handed to them on completion of the installation.

1 General Notes and Information

This Glow-worm Gas fire front is to be used only with a Glow-worm 45F, 45FR, 56F or 56FR Back Boiler Unit.

The fire front is delivered in two cardboard cartons, which together contain all the parts necessary for the installation of the fire front.

If the back boiler and fire front are to be installed at the same time please read both sets of Installation Instructions before starting.

Wherever possible, all materials, appliances and components to be used shall comply with the requirements of applicable British Standards.

Where no British Standards exists, materials and equipment should be fit for their purpose and of suitable quality and workmanship.

1.1 Important Notice

This fire front and back boiler are for use on natural gas as distributed in the United Kingdom (G20) and cannot be used on any other gas.

Sheet Metal Parts

WARNING. When installing or servicing this fire care should be taken when handling sheet metal parts, to avoid any possibility of personal injury.

1.2 Statutory Requirements

The installation of this fire front must be carried out by a competent person, in accordance with the current issue and relevant requirements of:

Manufacturer's instructions, supplied.

The Gas Safety (Installation and Use) Regulations, The Building Regulations, Local Gas Undertaking, The Building Standards (Scotland) Regulations (applicable in Scotland), The Health and Safety at Work Act and Control of Substances Hazardous to Health, The Electricity at Work Regulations and any applicable local regulations.

Detailed recommendations are contained in the current issue of the following British Standards and Codes of Practice:

BS1251, BS5440 Part 1 and 2, BS5871, BS6891, BS7671.

Manufacturer's instructions must not be taken as overriding statutory requirements.

1.3 B.S.I. Certification

This fire front is certificated to the current issue of S.I.T 15, for performance and safety. It is, therefore, important that no alteration is made to the fire without permission, in writing, from Hepworth Heating Ltd.

2 Types of Installation and Flue

2.1 Hearth

In ALL cases a fireproof hearth to the minimum dimensions as shown in diagram 2.1, must be fitted.

2.2 With Surround

The combustion chamber assembly is designed to fit into a standard builder's opening as shown in diagram 2.2.

A wider opening will require to be reduced in width using non-combustible materials.

The surround must have a minimum clear flat area as shown in diagram 1.2. Any projection on the surround must be outside this area.

Any combustible material, for example, blown vinyl wall covering, on the fire front fixing face area of the surround must be removed, see diagram 2.3.

This area, to the depth removed should then be rendered with a sand/cement mixture.

2.3 Without Surround

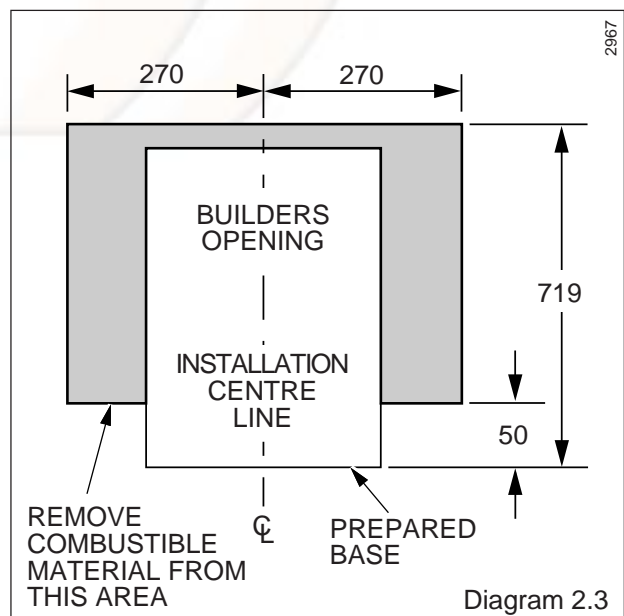
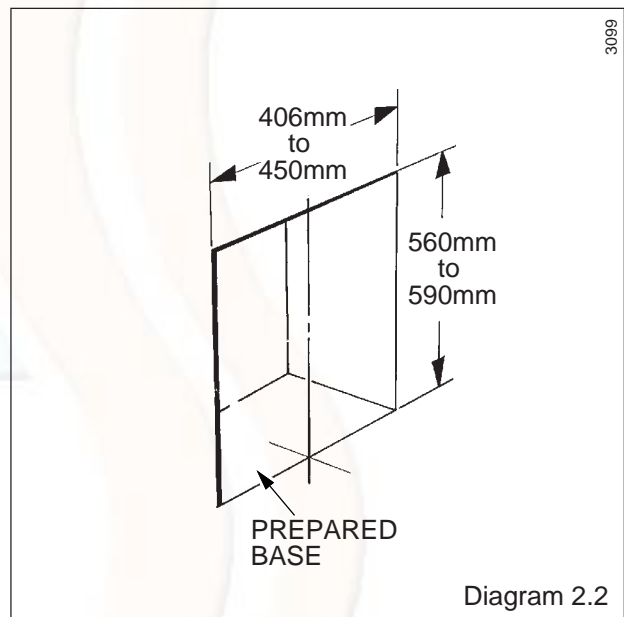
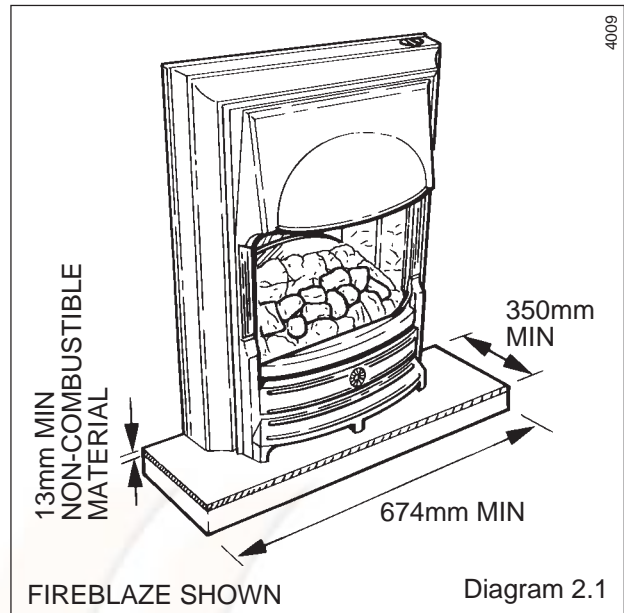
The fire front fixing wall face must be flat over an area as shown in diagram 1.2. This also shows the minimum clearances for shelves or projections on the fire front fixing wall face.

The information regarding the fire front opening must be followed together with the last two paragraphs of "With Surround".

2.4 Flue and Ventilation

The back boiler flue collector assembly accepts the combustion chamber assembly flue spigot.

Note. Provision must have been made during installation of the back boiler for the total ventilation requirement of the combined appliance. See the relevant Section in the Back Boiler Installation and Servicing Instructions



3 Unpacking

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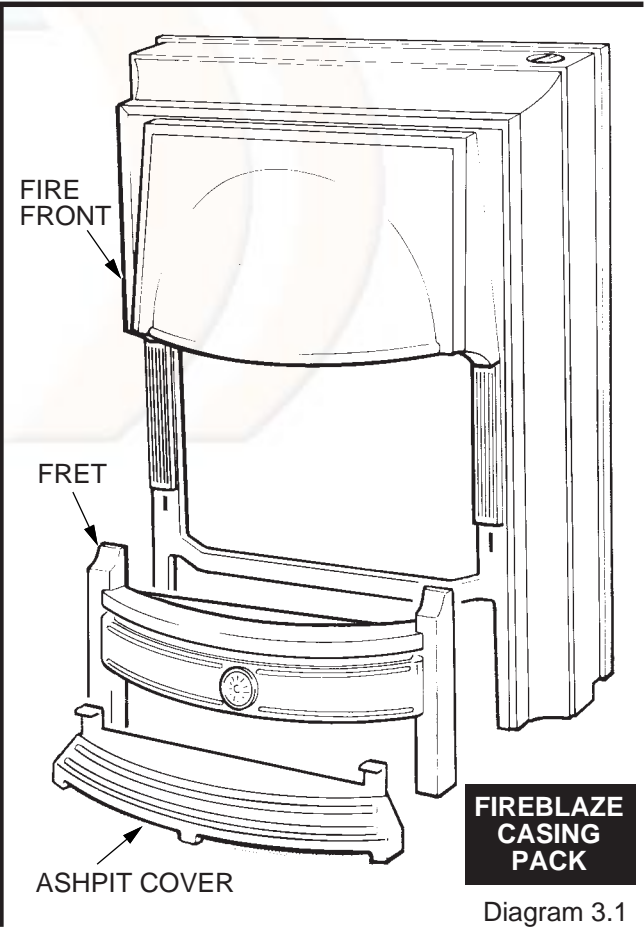
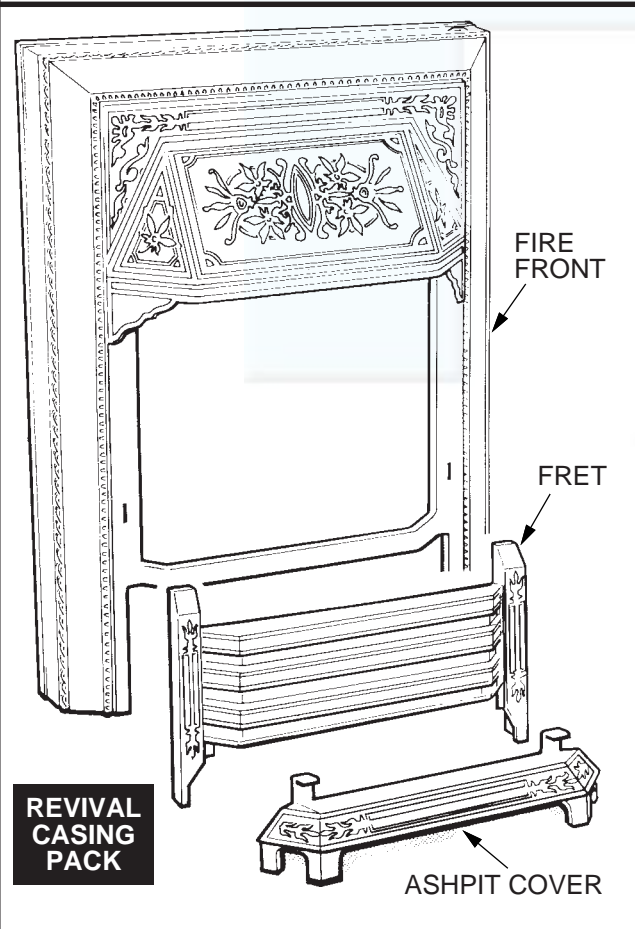
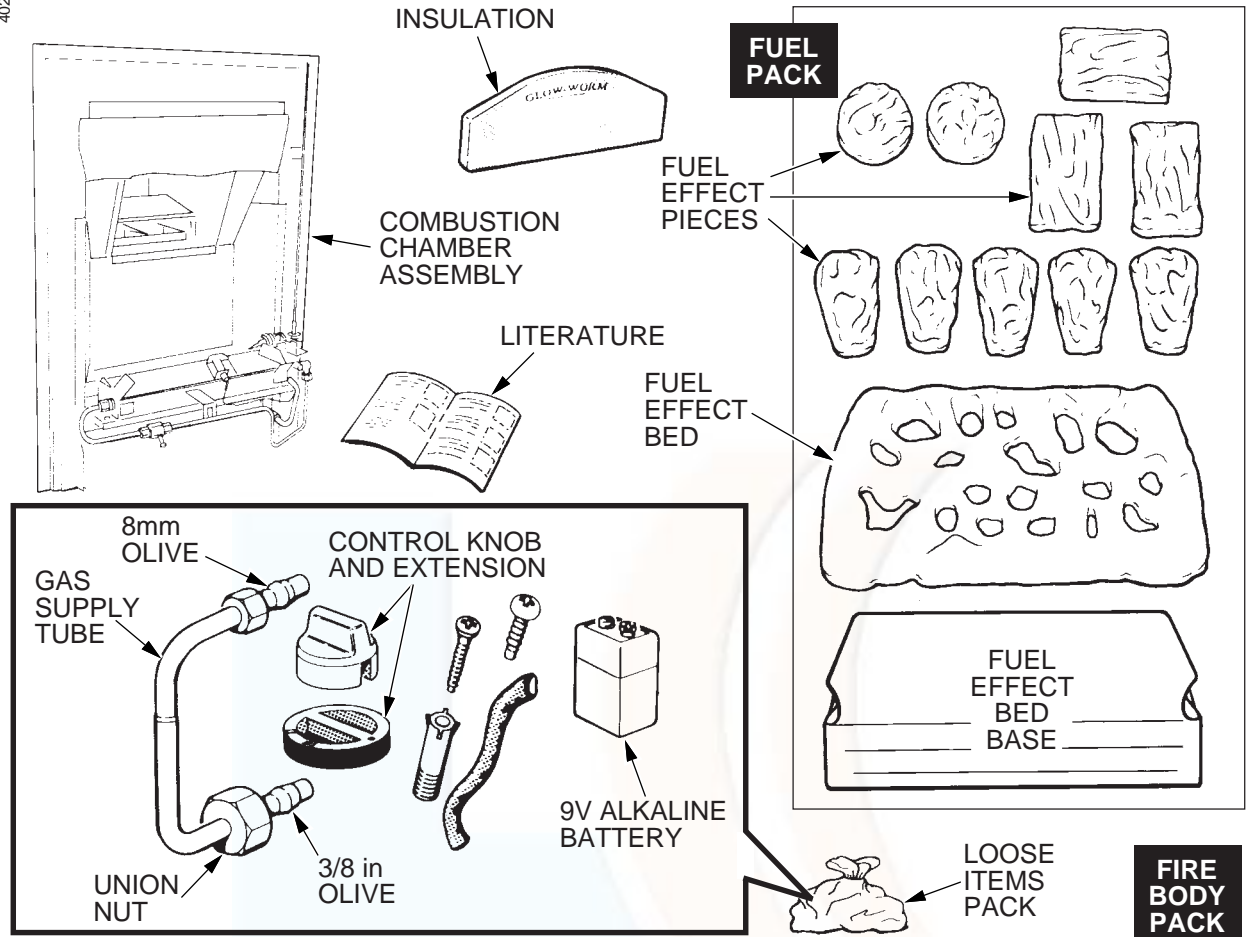


Diagram 3.1

3 Unpacking

3.1 Unpacking

The fire front is delivered in two packs, one contains the combustion chamber assembly, fuel pack(s) and loose items pack. The other contains the fire front, fret, ash pit cover and fire control knob extension.

Refer to diagram 3.1 to identify the parts.

Check contents of loose items pack against packed list.

3.2 Gas Supply to Fire Front

Check that the gas service cock is in the boiler only on position, see diagram 3.2.

The inlet supply tube is packed with the loose items.

The supply tube may need to be cut at the larger end dependent upon the position of the back boiler unit in the opening.

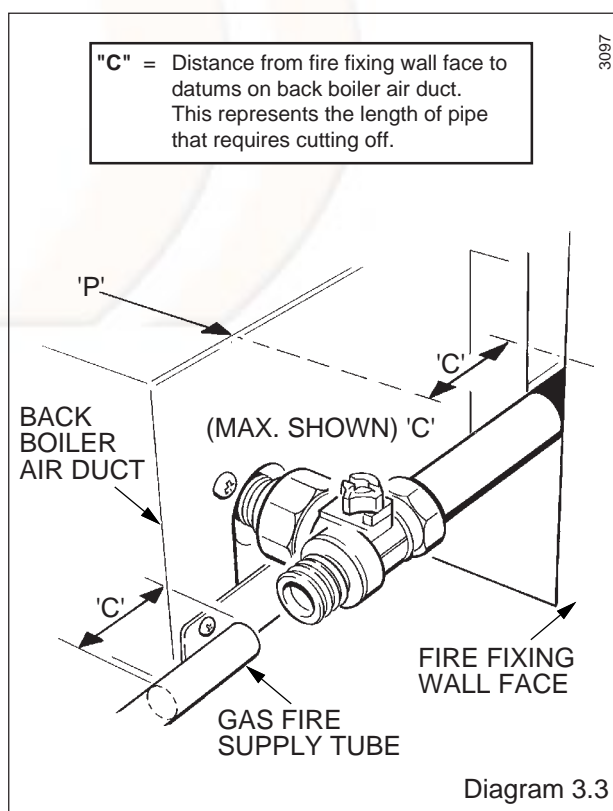
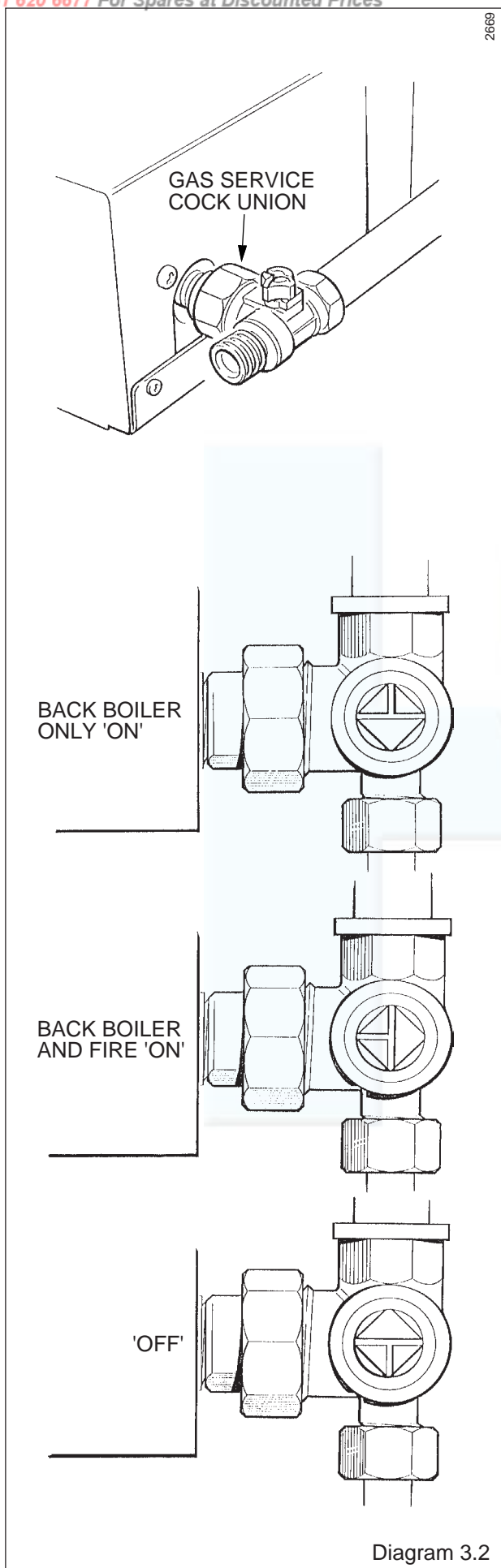
Measure the distance "C", see diagram 3.3, from the front mark "P" on the air duct to the fire fixing wall face.

Use a straight edge across the opening.

Shorten the gas supply tube by distance "C" + 21mm at the larger end.

The maximum distance for "C" will be 25mm (1inch).

Deburr the tube end inside and out.



4 Installation

4.1 Positioning the Combustion Chamber Assembly

Note: Before fitting, again make sure the wall surface to which the combustion chamber assembly is to be fitted is vertical and flat. Any unevenness may cause the whole assembly to become twisted or distorted when fixing to the wall.

Place the combustion chamber assembly into the fire opening and make sure that the flue spigot fits into the boiler flue collector assembly and locates onto the back boiler combustion chamber extension and burner assembly, see diagram 4.1.

Push well back to the fire fixing wall face.

Mark the four combustion chamber assembly fixing points (making sure that the area is sufficiently firm), through the holes in the surround refer to diagram 4.2.

Pull the combustion chamber assembly forwards and remove.

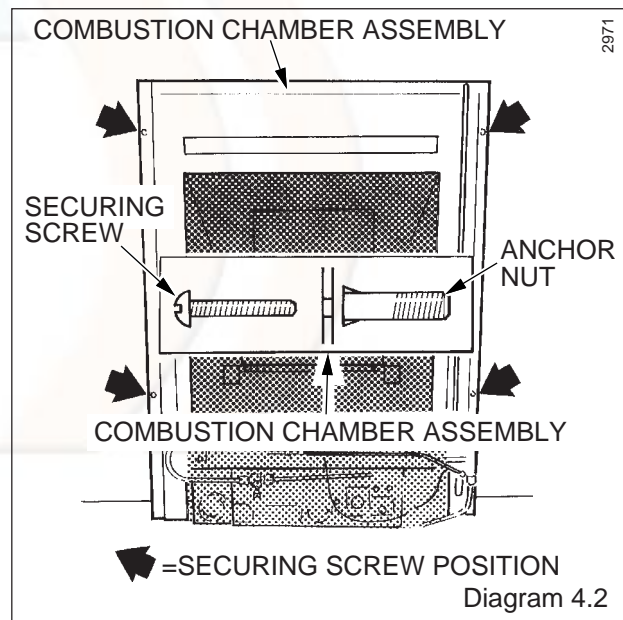
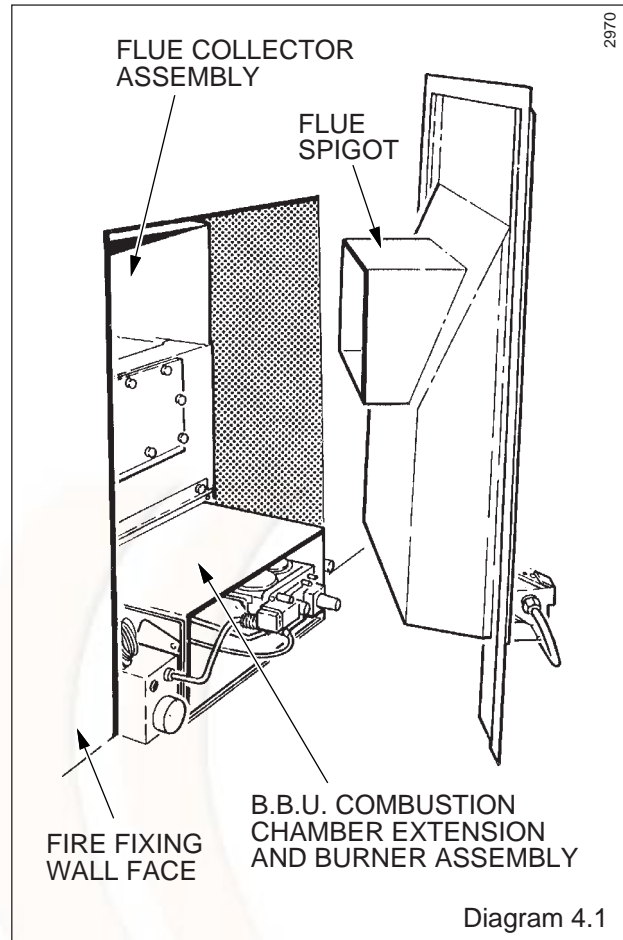
Drill the fire front fixing wall face, using a 10mm masonry drill to a minimum depth of 40mm to accept the reusable anchor nuts and screws provided.

Place the anchor nuts in the holes.

Note. If the fire front fixing wall face is not of a solid construction to a minimum depth of 40mm, for example, hollow brick or metal an alternative and rigid form of fastening for the combustion chamber assembly must be used and extra care taken.

Fit the combustion chamber assembly, making sure that it is correctly positioned onto the back boiler unit, see diagram 4.1, secure with the screws provided.

Important: If the electrical supply to the boiler comes from the right, make sure that when fitting the combustion chamber assembly the cable is routed and clear, as shown in diagram 4.1.

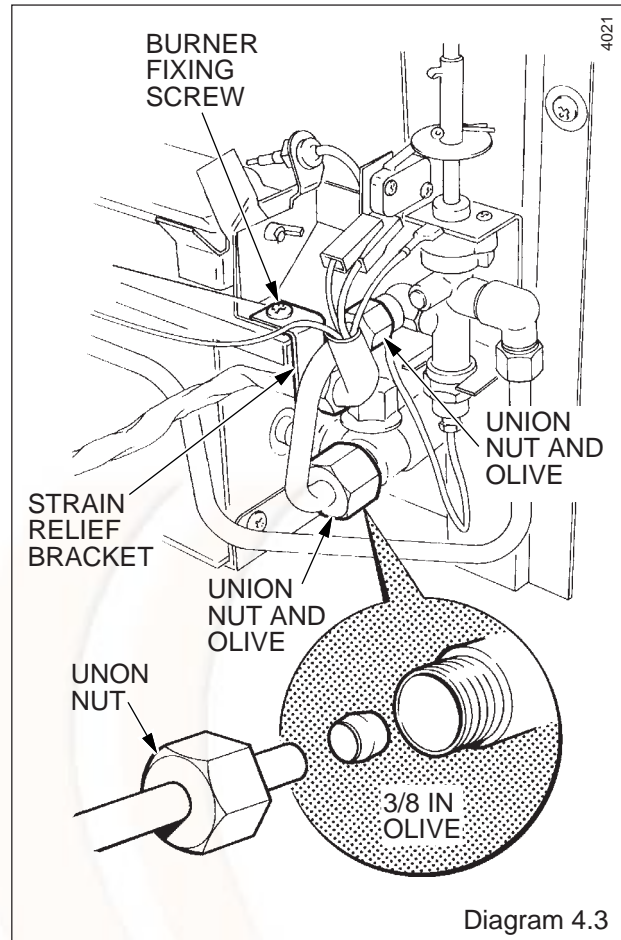


4 Installation

4.2 Gas Connection

Place the union nut and olive, from the loose items pack, onto the prepared end of the gas supply tube, see diagram 4.3.

Connect the gas supply tube, as diagram 4.3 tighten the nut and olive at the gas service cock and union nut at the gas tap.



5 Lighting, Testing and Fitting Internal Parts.

5.1 Lighting and Testing

Make sure that the gas tap is in the off position, that is, the flat on the drive rod faces the wall, see diagram 5.1. Take the length of black insulating material from the loose items pack. Slide the insulation down the drive rod as shown in diagram 5.1 and then fit the control knob.

MAKE SURE THAT THE ELECTRICAL SUPPLY TO THE BACK BOILER IS SWITCHED OFF.

Take the ash pit cover from the packing, make sure that the harness strain relief is fully located into the slot and that the locknut is tightened.

Now fit the strain relief bracket by removing the burner fixing screw, place the strain relief bracket on top of burner end bracket and then replace screw, see diagram 4.3.

Connect the wiring harness to the microswitch and electrode, see diagram 7.3 and 7.4.

Fit the battery, from the loose items pack, see diagram 9.1.

Note the ash pit cover can be left connected up to the micro switch and tap.

Remove the pressure test nipple screw and fit a suitable pressure gauge, see diagram 5.2.

Turn the gas service cock to BACK BOILER AND FIRE "ON", see diagram 3.2.

To check for gas soundness apply leak detection fluid to the two joints on the previously fitted gas supply tube.

WARNING: Take care when carrying out the following check, as the burner flame is fully exposed.

Push the control knob in slightly and turn it anti-clockwise to position I ↺, now fully push in, clicking of the ignition will be heard and the burner will light.

IMPORTANT: If the burner does not light within 3 seconds, release the tap, wait 10 seconds and repeat the lighting operation.

Keep the knob pushed in for 10 seconds, during this time the ignition system will continue to operate, indicated by the clicking.

5 Lighting, Testing and Fitting Internal Parts.

Air may be present in the supply to the fire so that the initial lighting operation may need to be repeated.

With the burner lit. Check joints at all tap positions for gas soundness in accordance with the current issue of BS6891.

To change settings, refer to diagram 5.4.

Check that the gas pressure is as stated in the Data Section or on the Data Label.

If there is any doubt about the gas rate, check at the meter, having turned off all other gas appliances and pilot lights.

The gas rate for this fire front is about 0.63m³/h (17.75ft³/h), equal to, after 10 minutes, about 3 minutes 23 seconds for 1ft³.

Push in and turn the control knob fully clockwise to turn off, remove the pressure gauge, replace the test nipple screw and ensure that a gas tight seal is made.

5.2 Fire Front

Remove the castings from the packaging.

Lift the fire front up, take care as it is heavy, and slide it down to locate the pins into the brackets, see diagram 5.3.

Secure the fire front to the combustion chamber assembly (base), using the M4 screw provided in the loose items pack, see diagram 5.3.

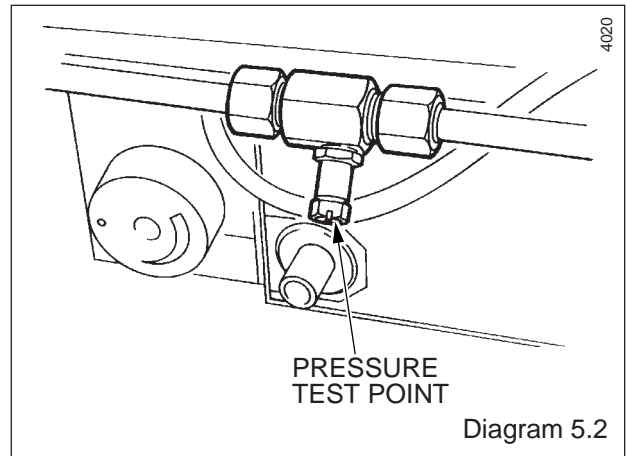


Diagram 5.2

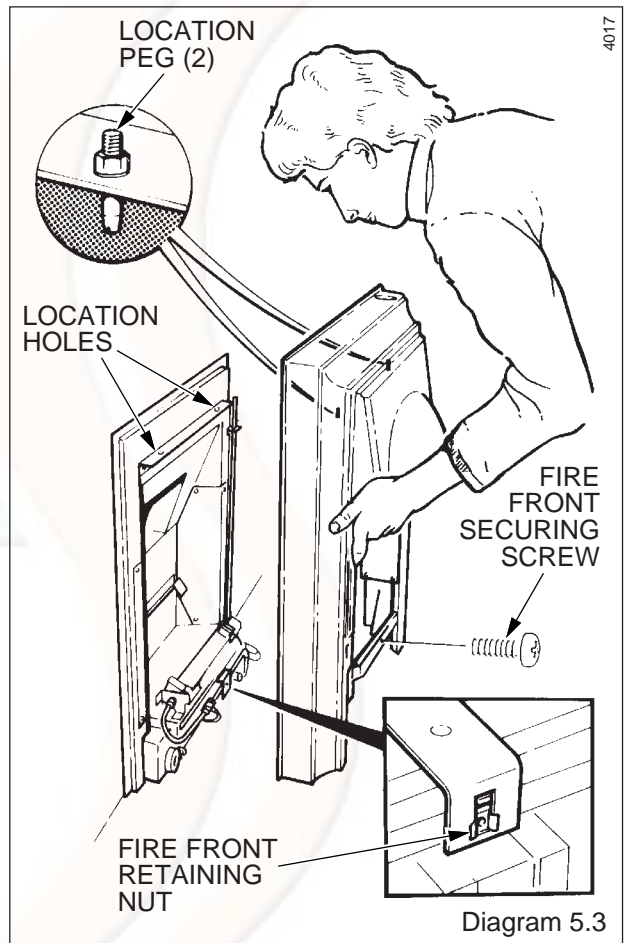


Diagram 5.3

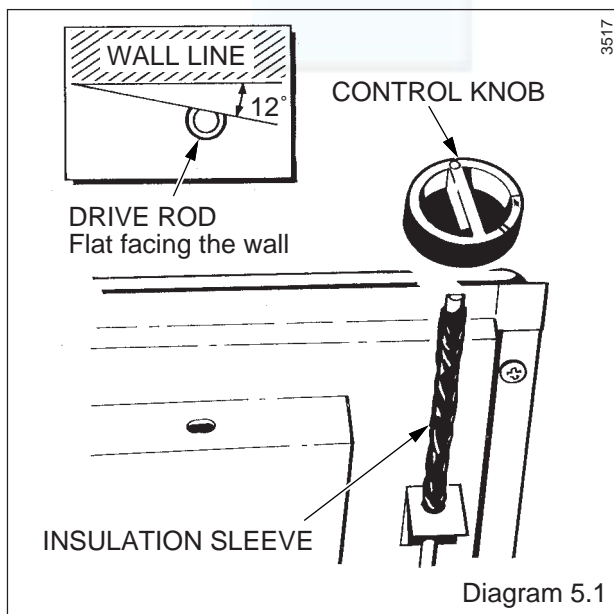
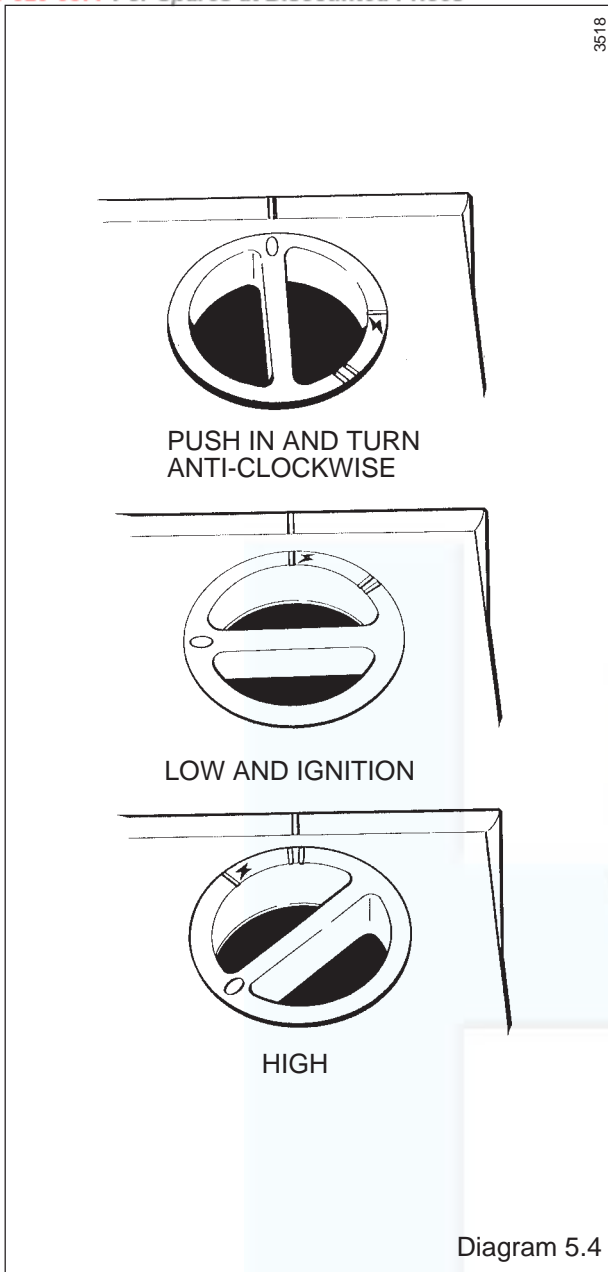


Diagram 5.1

5 Lighting, Testing and Fitting Internal Parts.



5.3 Internal Parts - Fitting

CAUTION. If the insulation, fuel effect bed base, fuel effect bed and fuel effect pieces are damaged do not light the fire or further test before replacement parts are fitted.

USE ONLY THE "FUEL EFFECT" APPROVED FOR THIS FIRE FRONT.

To fit the insulation, fuel effect bed base, (pulling it forward to fit by using the finger holes) fuel effect bed and fuel effect pieces follow the sequence given in diagram 5.5, 5.6, 5.8 and 5.9.

Diagram 5.7 shows the different shapes of the fuel effect pieces and fuel effect bed.

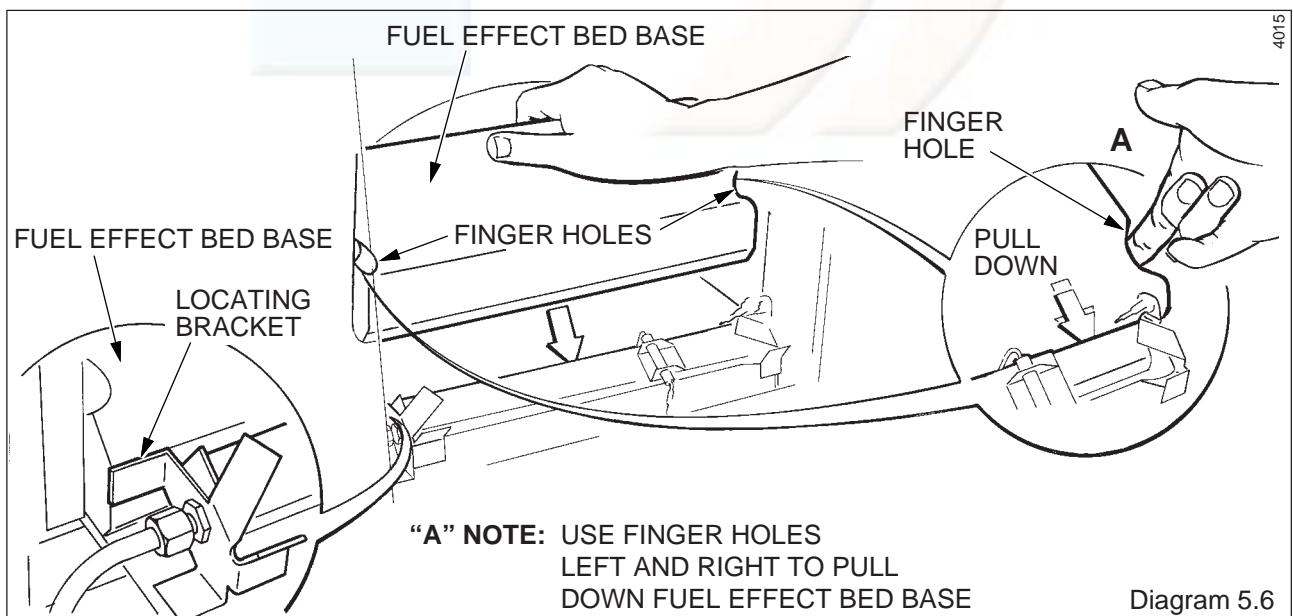
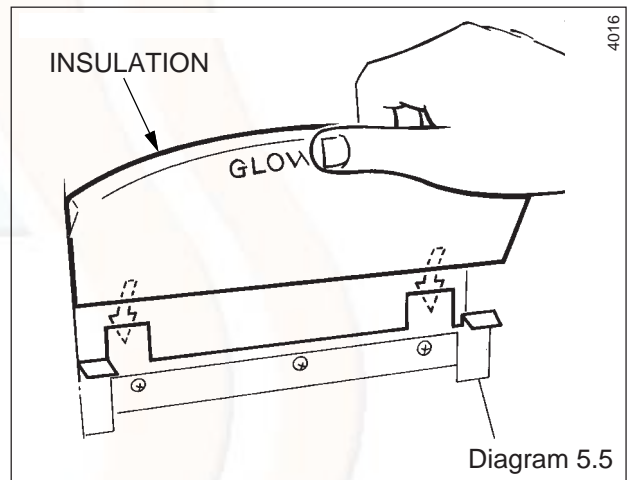
Fit fret, see diagram 5.10.

5.4 Heat Settings

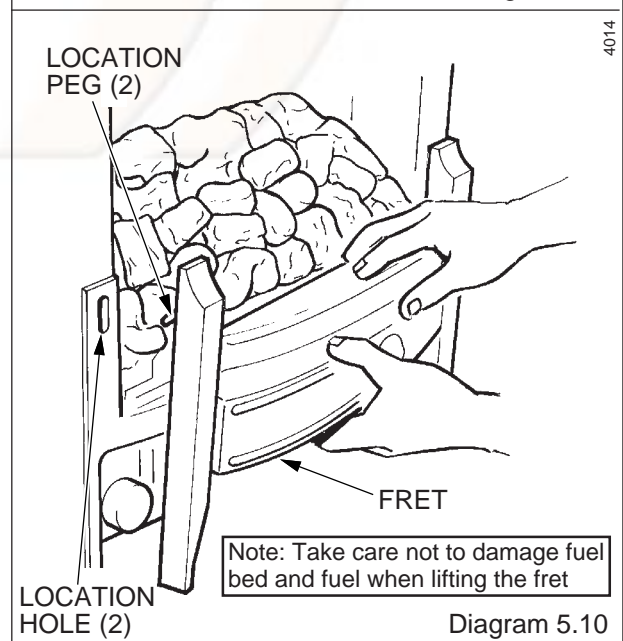
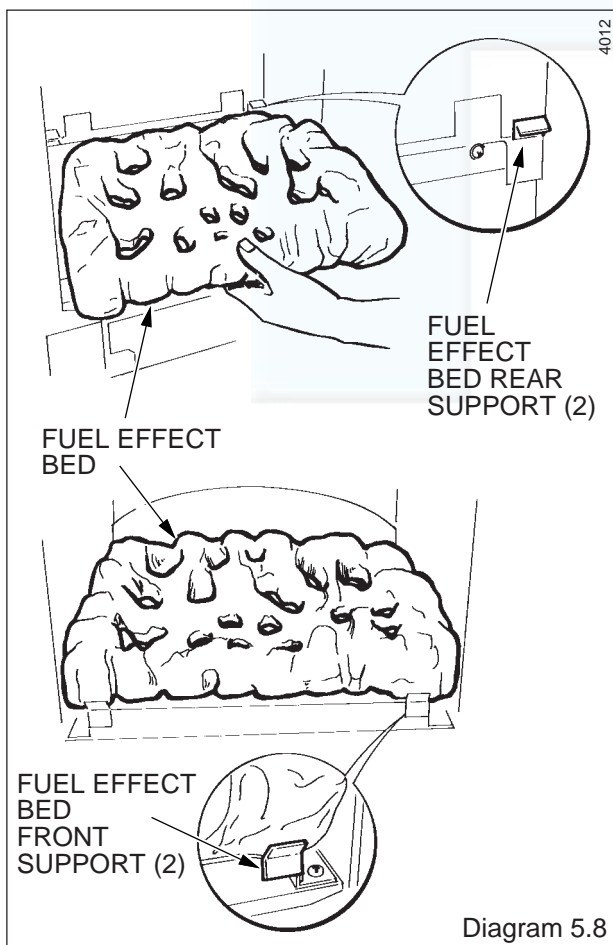
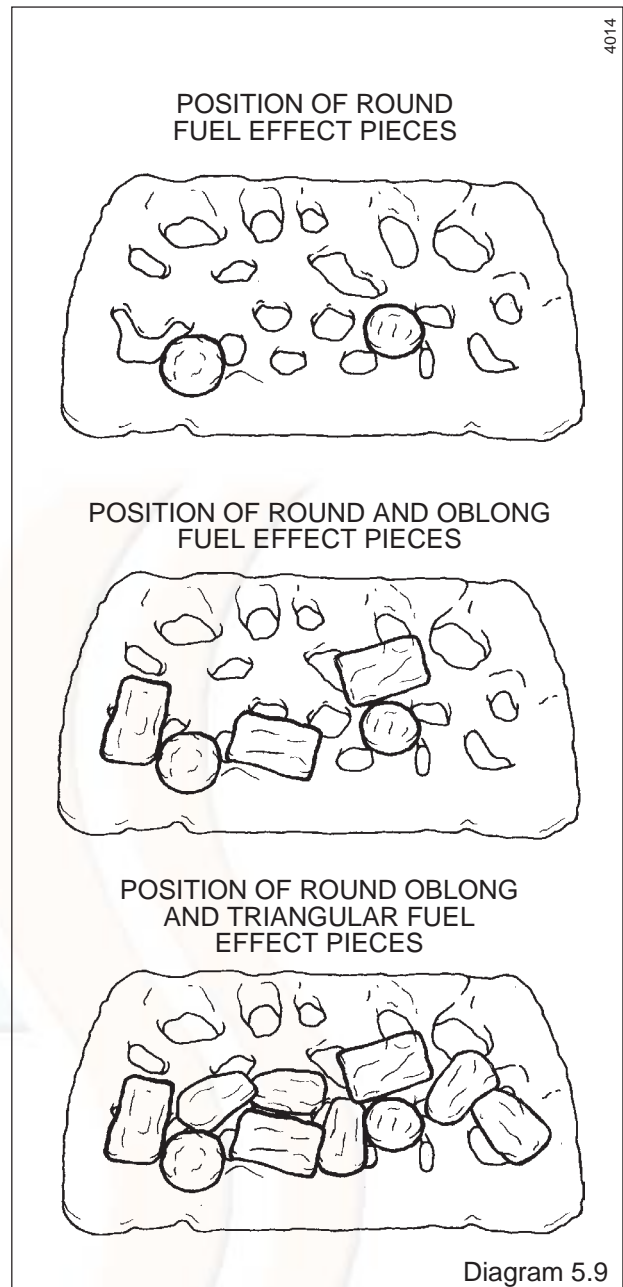
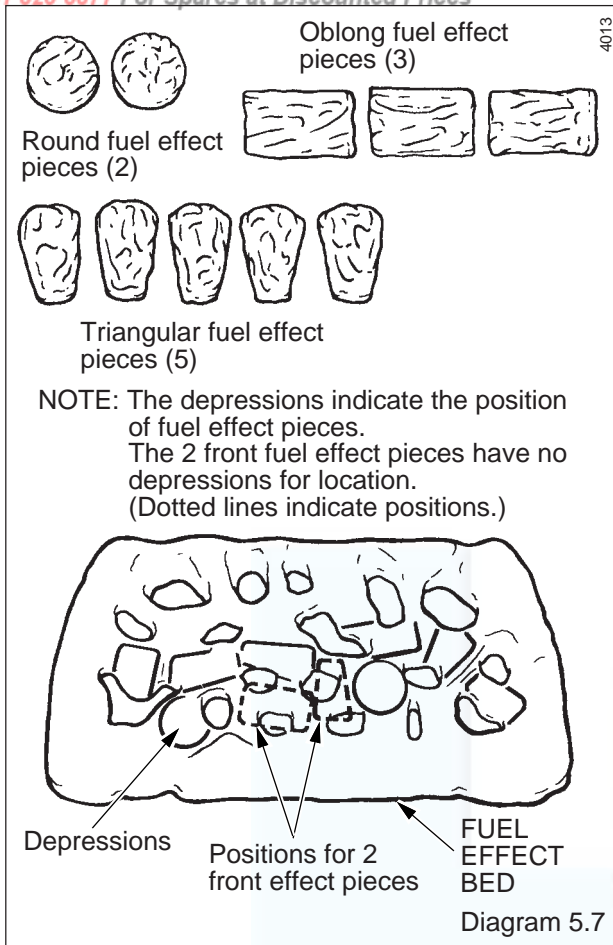
Refer to diagram 5.4.

In the unlikely event of the burner going out whilst fire is on, turn off. Wait 3 minutes before relighting.

If relighting for any other reason, wait 2 minutes before doing so.



5 Lighting, Testing and Fitting Internal Parts.



5 Lighting, Testing and Fitting Internal Parts.

5.5 Test for Clearance of Products

Notes.

(a) **WARNING.** The fire front burner has an open flame.

(b) **WARNING:** Take care. The appliance will get hot during testing.

(c) For the test you will need a smoke match and an extension.

(d) **IN ALL CASES,** if spillage continues after the specified test periods steps must be taken to rectify the fault(s).

Possible causes include, flue obstruction, down draught or restricted fresh air supply into the room.

If the problem cannot be put right the appliance must be disconnected and expert advice sought.

TEST: WHERE NO FAN IS PRESENT

Close all outside doors, doors and windows in the room in which the appliance is fitted.

Light the fire front only and set to tap position II. After 5 minutes apply a spillage test as shown in diagram 5.11.

If spillage occurs, leave fire front alight for up to a further 10 minutes and repeat test. Turn the fire front off.

Next light the boiler only. After 10 minutes apply spillage test as shown in diagram 5.11.

If spillage occurs, leave the boiler alight for up to a further 5 minutes and repeat tests.

Leave the boiler alight.

Now light fire front. After 10 minutes apply spillage tests as shown in diagram 5.11.

If spillage occurs leave the boiler and fire front alight for up to a further 5 minutes and repeat the tests.

TEST: WHERE A FAN IS PRESENT

A fan means an extract fan or a fan for other open flued appliances or a circulating fan for a warm air unit, whether or not gas fired). With the fan switched off carry out the appropriate spillage test with all doors and windows closed, as above.

If the above spillage test is satisfactory proceed as follows:

Open all doors connecting the room containing the appliance and the room in which the fan is fitted. Close all other doors and windows in the premises.

If the fan is in the same room as the appliance, close all doors and windows in that room. Switch the fan on and repeat the spillage test as above.

5.6 Completion

Fit ash pit cover by hooking up under the fret, see diagram 5.12.

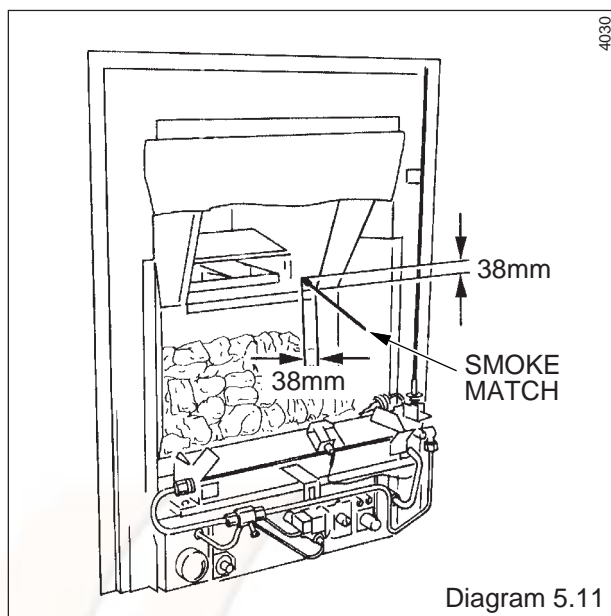
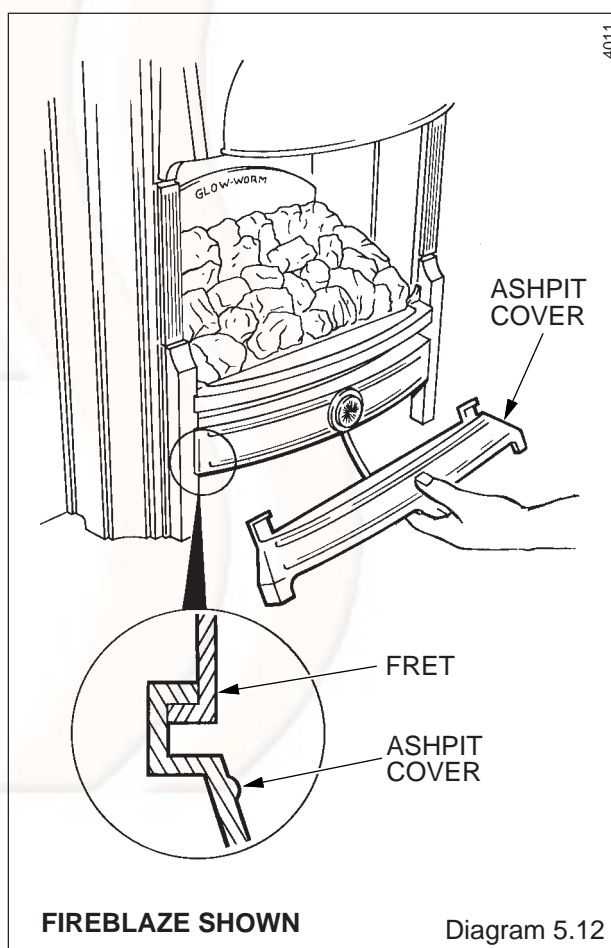


Diagram 5.11



FIREBLAZE SHOWN

Diagram 5.12

6 Instructions to User

Hand the Instructions for Use to the user and make sure that they are understood.

Instruct the user in the correct operation of the fire front and boiler.

Advise the user that, if desired, the control knob extension, from the loose items pack, can be used, see diagram 6.2.

Before demonstrating lighting the fire front with a spill or long match, warn the user that the fire front has an exposed flame. Refer to diagram 6.1.

Hold a lighted spill or long match and insert it into the hole as shown in diagram 6.1, position the spill so that the flame is over the burner.

Keep the spill in position, push in slightly and turn the gas tap knob to position I ↗ , now fully push in for about 10 seconds and the burner will light, if not, repeat the process.

Once lit operate the gas tap normally.

Advise that this is a temporary measure only and the battery should be replaced or the ignition system be repaired as soon as possible.

Advise the user that there are wires behind the ash pit cover and care should be taken when removing it.

Advise that any smell which may be apparent on initial lighting is quite normal and it will quickly disappear.

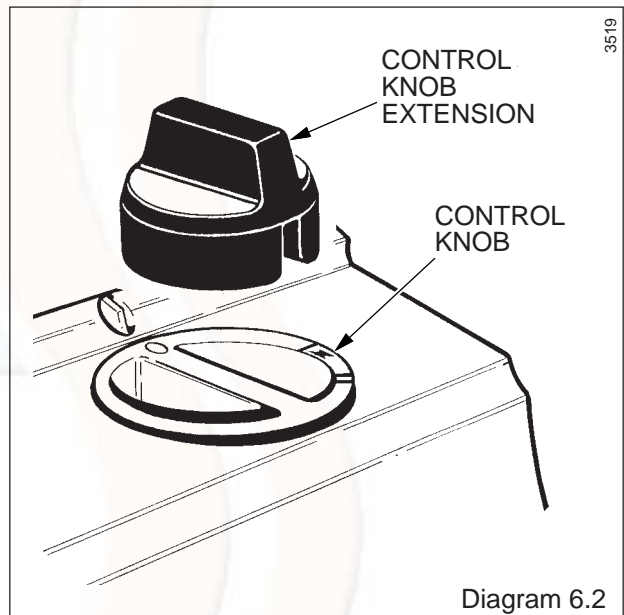
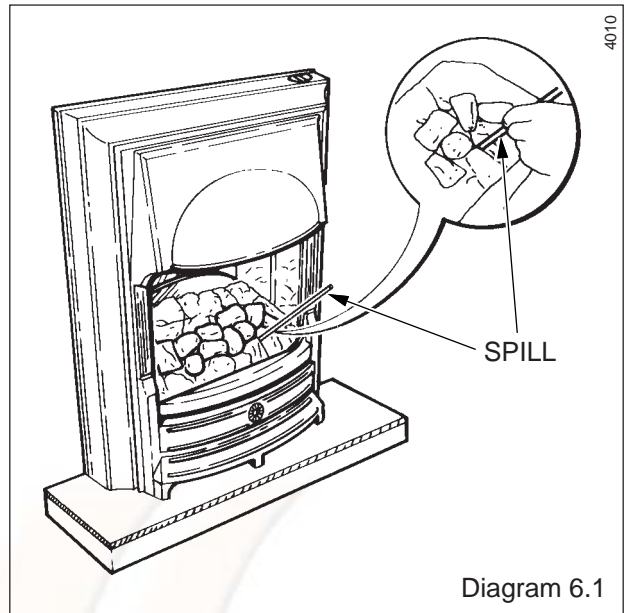
Important. Advise that soft wall coverings, for example, blown vinyl wallpaper, are easily affected by heat, they may, therefore, scorch or become discoloured when close to a heating appliance. This should be borne in mind when having a heating appliance installed and when redecorating.

Advise that to ensure the continued efficient and safe operation of the appliance it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the particular installation and usage, but in general once a year should be enough.

Draw attention, if applicable to the current issue of the Gas Safety (Installation and Use) Regulations Section 35, which imposes a duty of care on all persons who let out any property containing a gas appliance

It is the law that any servicing must be carried out by a competent person.

Reminder, leave these instructions with the user.



7 Servicing

7.1 Notes.

- (a) To ensure the continued efficient and safe operation of the appliance it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the particular installation and usage, but in general once a year should be enough.
- (b) It is the law that any servicing must be carried out by a competent person.
- (c) Make sure the fire front is cold before carrying out any servicing.
- (d) **BEFORE SERVICING ISOLATE THE GAS AND ELECTRICAL SUPPLIES.**
- (e) After servicing of parts always test for gas soundness with a suitable leak detection fluid.
 To test the gas tap apply leak detection fluid to all joints, light the burner and check all the joints for leakage at all tap settings.
WARNING: Take care as the burner flame is fully exposed.
- (f) Carry out functional check on controls.
- (g) After removing or disconnecting any pipe work always make sure that it is refitted correctly and does not interfere with the fitting of the fire front.

- (h) Unless stated otherwise reassembly of all components should be in the reverse order to that for removal.
- (j) It is recommended that the back boiler be serviced at this time.
 Refer to Back Boiler Installation and Servicing Instructions.

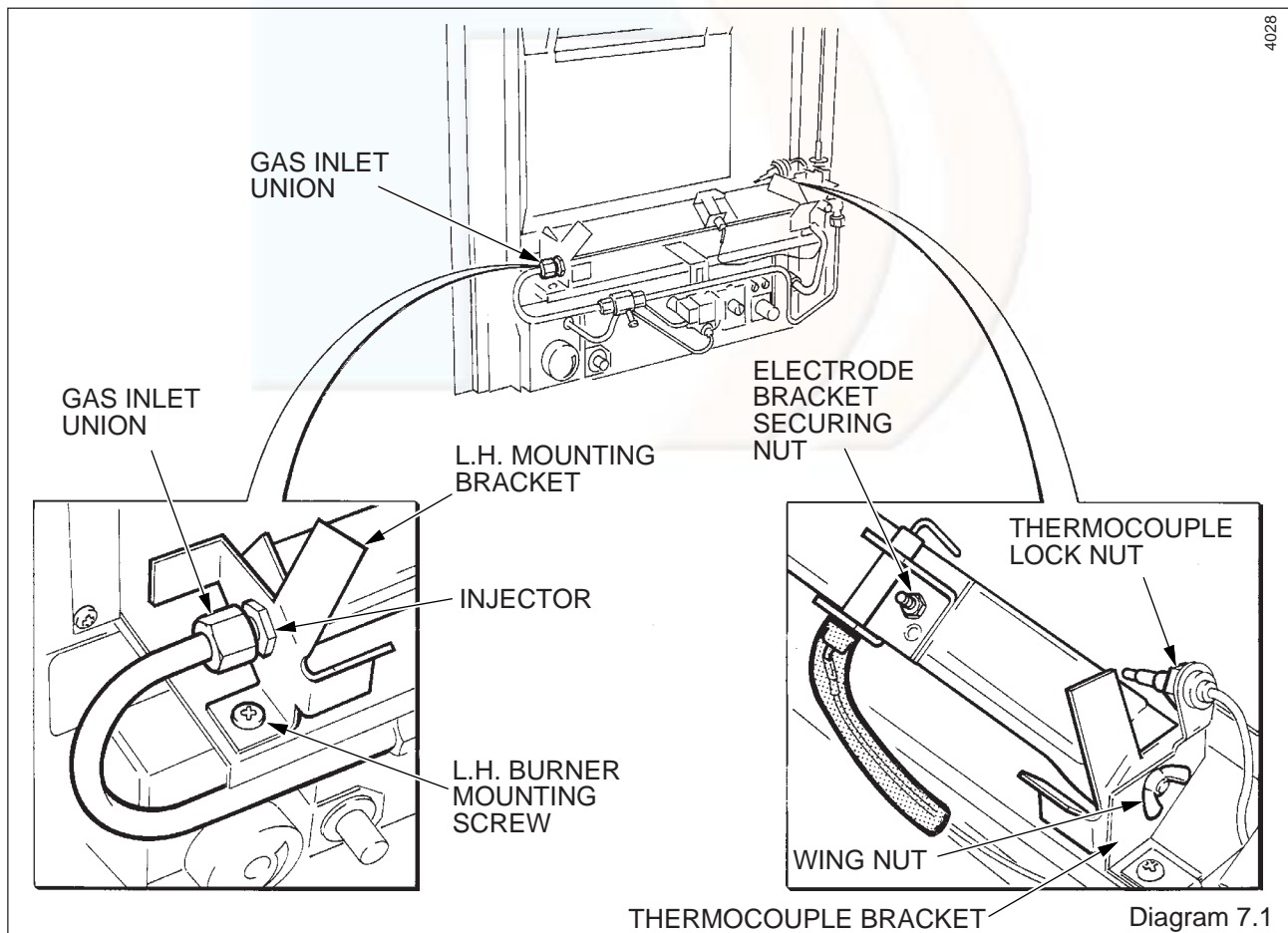
7.2 Fire Front - Castings

Remove the ash pit cover by unhooking from the fret, take care as there are wires attached, see diagram 5.12. The ash pit cover can be left attached by the harness to the micro switch/gas tap.

Remove the fret by unhooking from the fire surround, see diagram 5.10.

When removing the fire front, first remove the M4 screw from the base of the combustion chamber assembly, see diagram 5.3. Lift the fire front up to clear the location pins, see diagram 5.3.

Take care when removing the fire front as it is heavy.



7 Servicing

7.3 Fuel Effect and Insulation

Carefully remove the fuel effect pieces, see diagram 5.8.

Carefully remove the fuel effect bed by lifting clear, see diagram 5.7.

Carefully remove the fuel effect bed base by lifting clear, see diagram 5.6.

Note: When refitting the fuel effect bed base make sure it is correctly fitted, see insert "B" in diagram 5.6.

Carefully remove the insulation by lifting clear, see diagram 5.5.

Clean these items with a soft brush, do not use a vacuum cleaner.

If any of these items are damaged they must be replaced before the fire front is used again.

Clean out the combustion chamber base with a brush or vacuum cleaner.

7.4 Combustion Chamber Assembly

Make sure that the gas supply is isolated at the gas service cock, fire off position, see diagram 3.2.

Disconnect the gas supply tube at the gas service cock, see diagram 4.3.

Remove the four securing screws, see diagram 4.2.

Pull the combustion chamber assembly forwards and remove by lifting over the gas service cock.

Take care if the ash pit cover and harness are attached to the micro switch/tap.

7.5 Burner

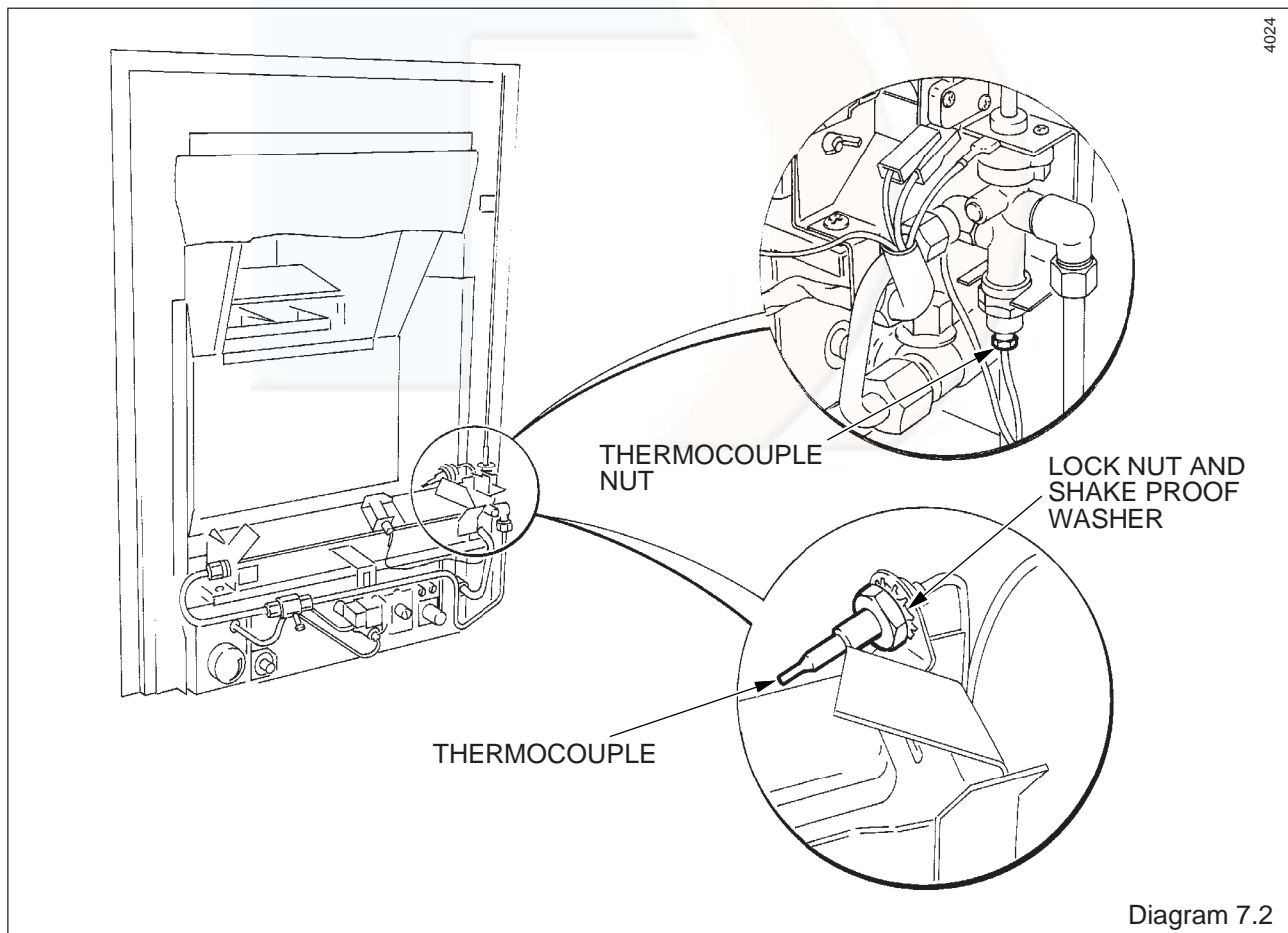
The burner can be cleaned whilst in place, using a suitable brush and vacuum cleaner.

Do not use a brush with wire bristles.

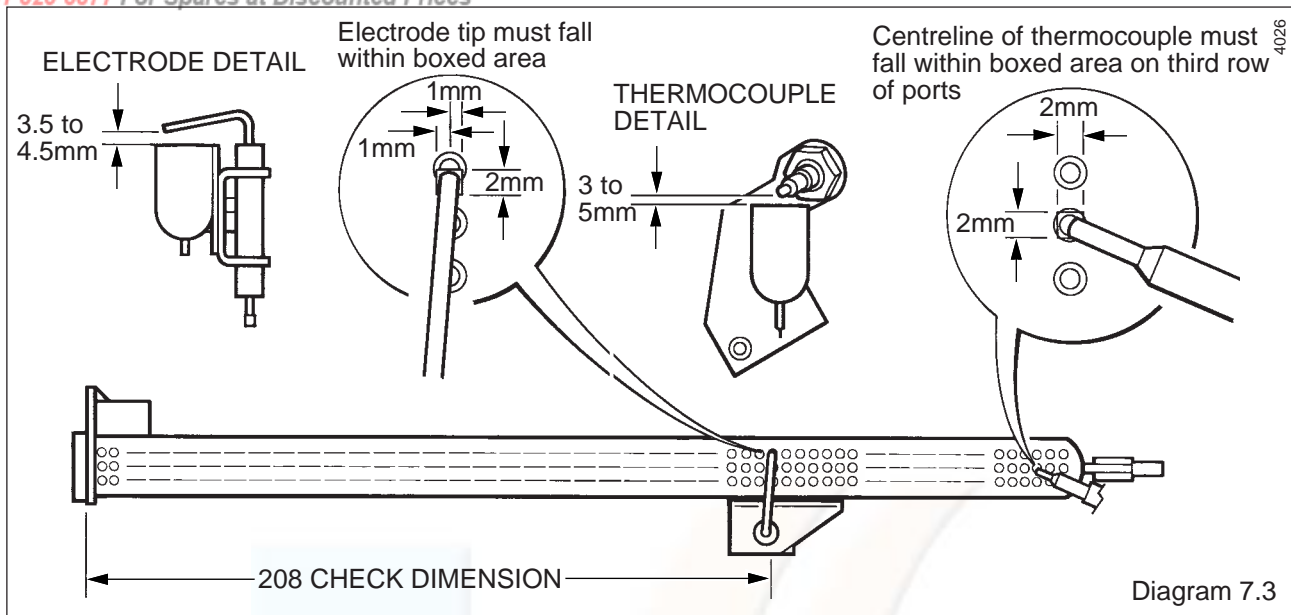
7.6 Injector

Clean around the injector.

If necessary disconnect the gas inlet union nut from the injector, see diagram 7.1. Remove the injector. Do not use a wire or sharp instrument to clean out the holes.



7 Servicing



7.7 Thermocouple and Electrode

Inspect and clean the tips of both items.

Check that the electrode spark gap is as shown in diagram 7.3.

7.8 Gas Tap and Micro Switch Assembly

Note. This item need not be serviced every year.

If servicing is required, remove the leads at the microswitch and electrode then disconnect all union connections at the tap, see diagram 7.5.

Disconnect the thermocouple from the tap, see diagram 7.2.

Remove the bottom split pin from the connecting drive rod, see diagram 7.5.

Disconnect the gas supply pipe union and remove the pipe.

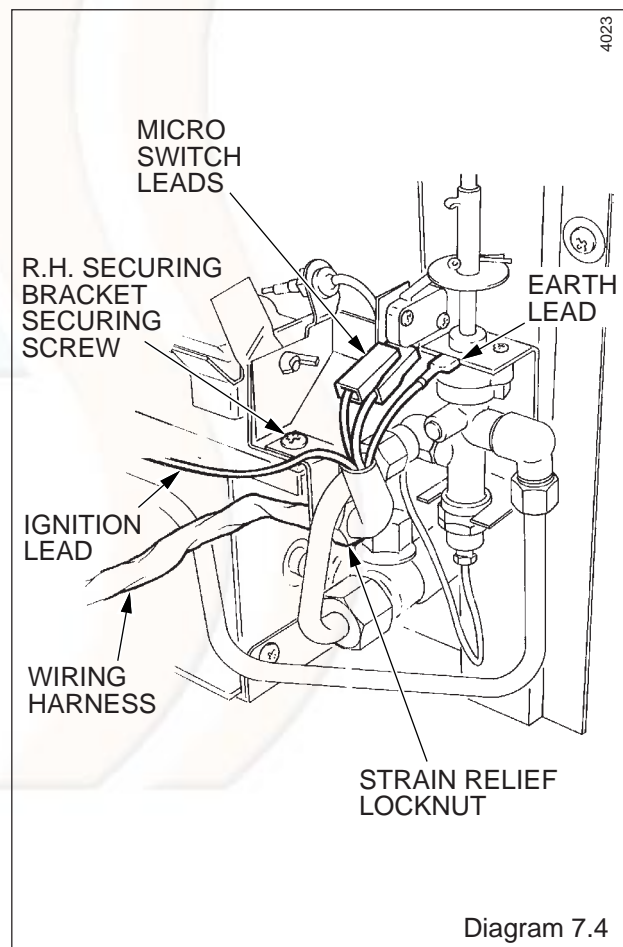
To remove the gas tap and micro switch remove the two screws from the gas tap bracket, see diagram 7.5 and withdraw the tap complete with bracket.

To service the gas tap, remove the operating disc, see diagram 7.6 and lift off.

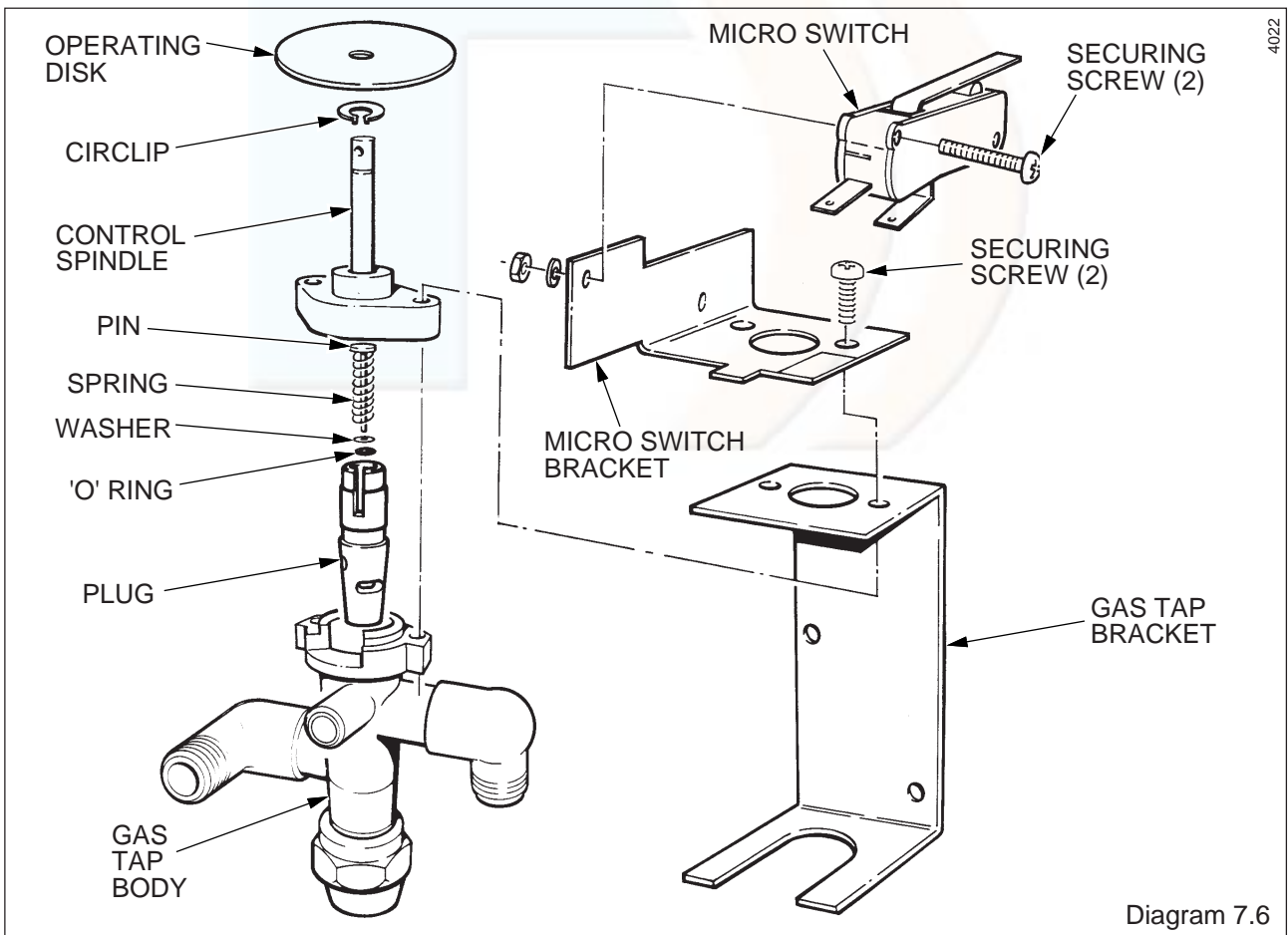
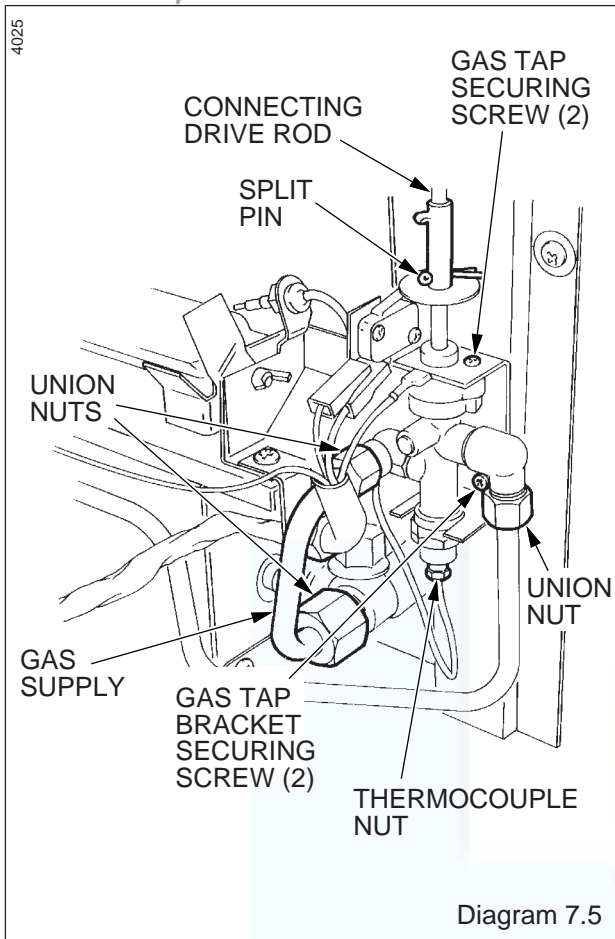
Remove the gas tap niting plate securing screws, see diagram 7.6. Take care as there is a spring beneath the niting plate. Remove the plug, pin, spring washer, plain washer and "O" ring, see diagram 7.6.

Clean and relubricate using a suitable grease.

When replacing make sure the operating disc, with circlip underneath, micro switch and leads are correctly located, see diagram 7.6 and 7.4.



7 Servicing



8 Fault Finding

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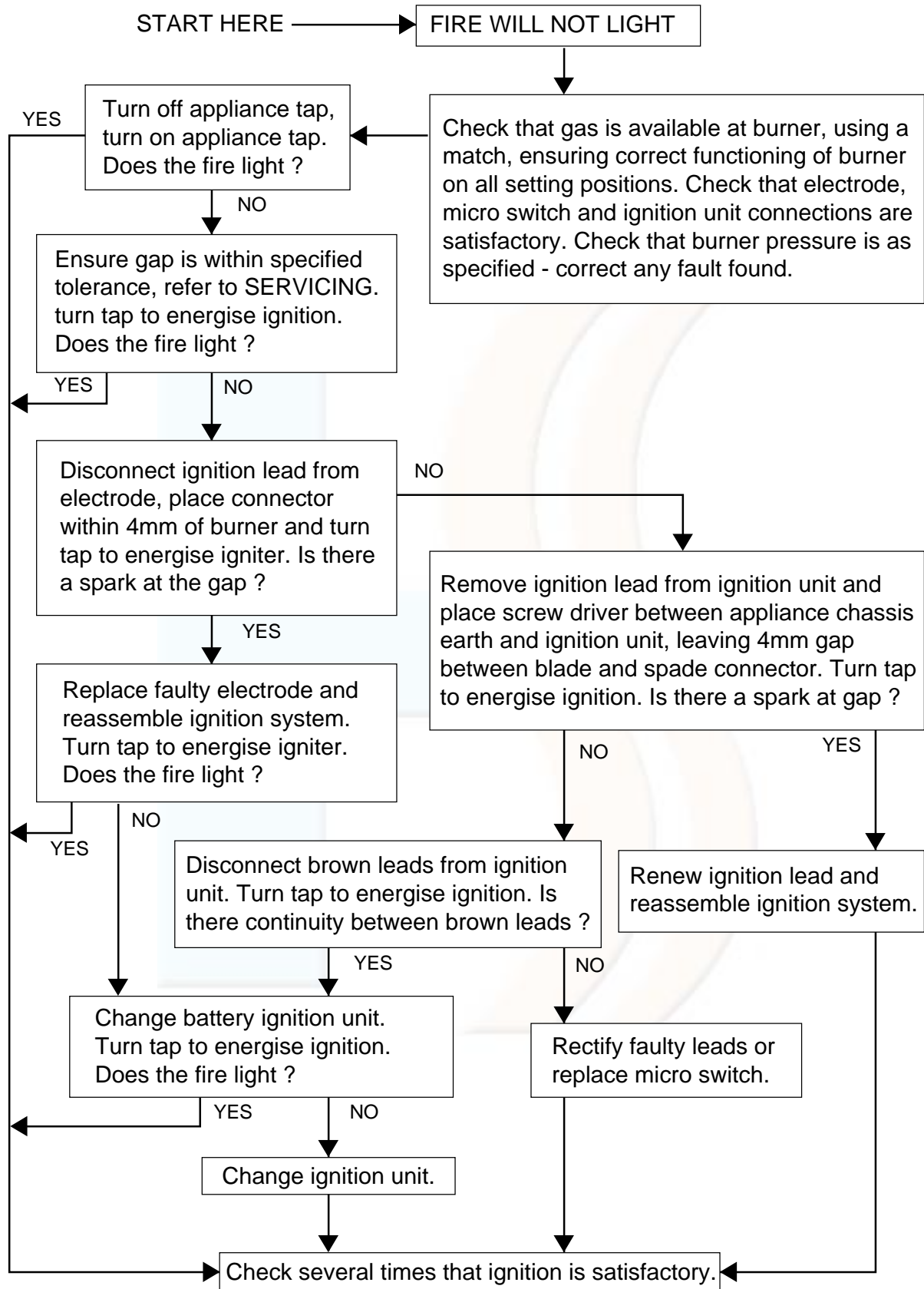


Diagram 8.1

8 Fault Finding

8.1 Fire Front Ignition

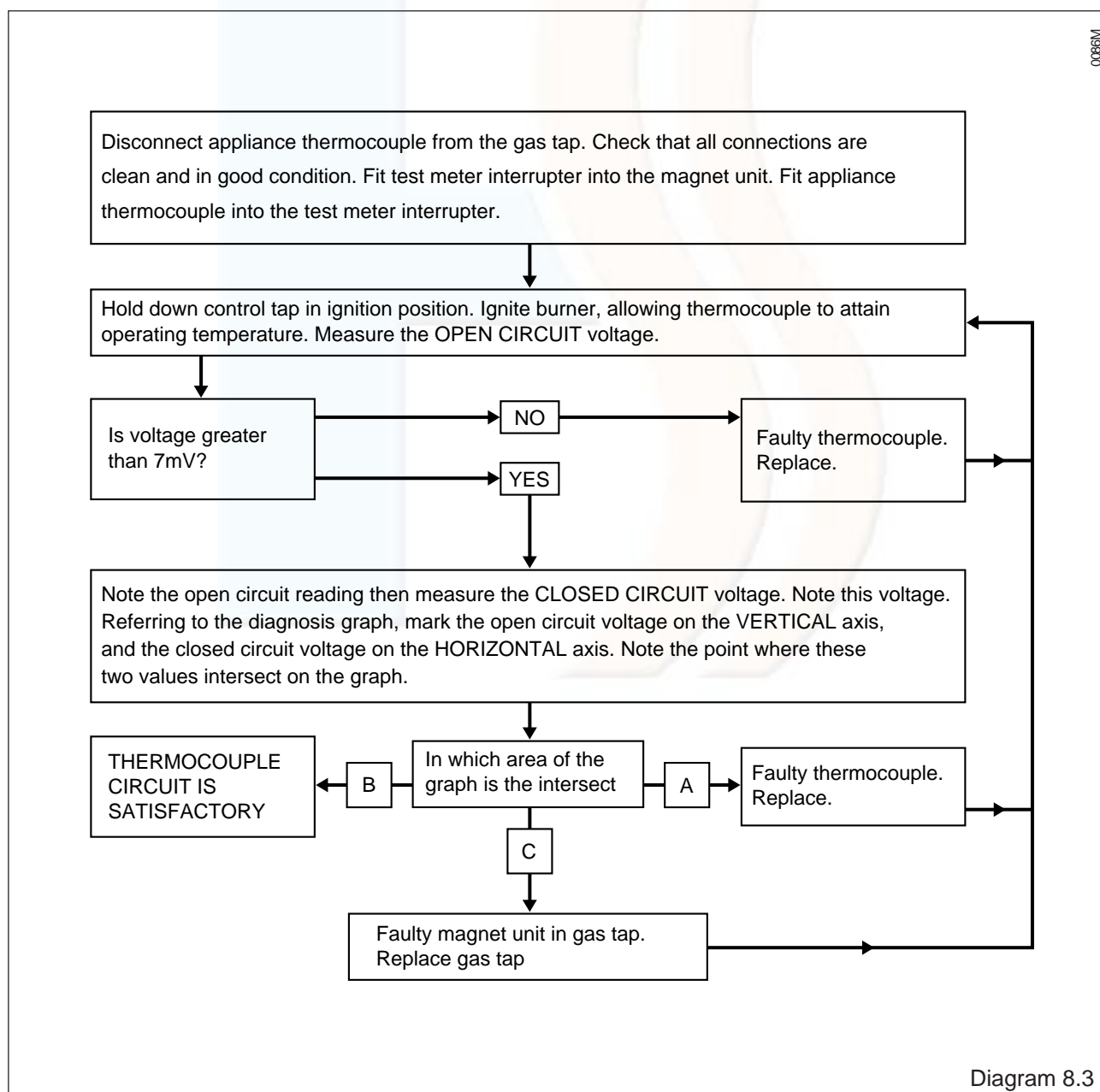
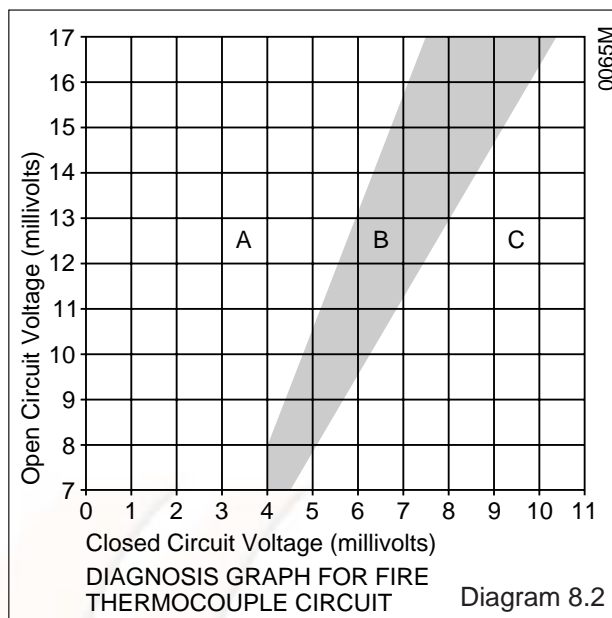
Remove the ash pit cover, front fret and fuel effect beds and pieces.

Refer to diagram 8.1 "Fire Front Ignition Fault Finding", diagram 8.4 and 8.5.

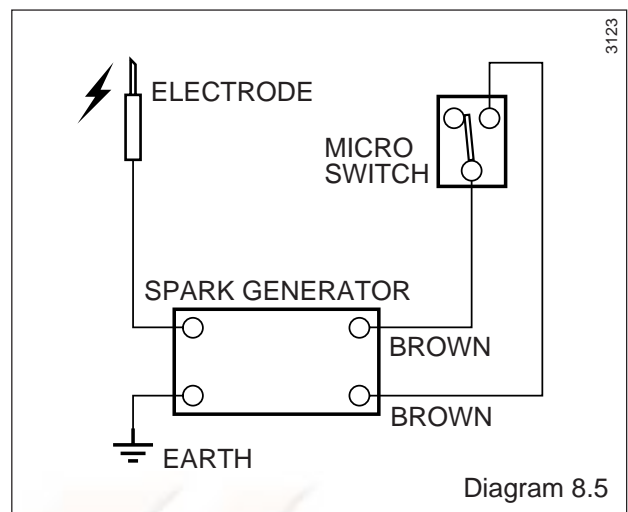
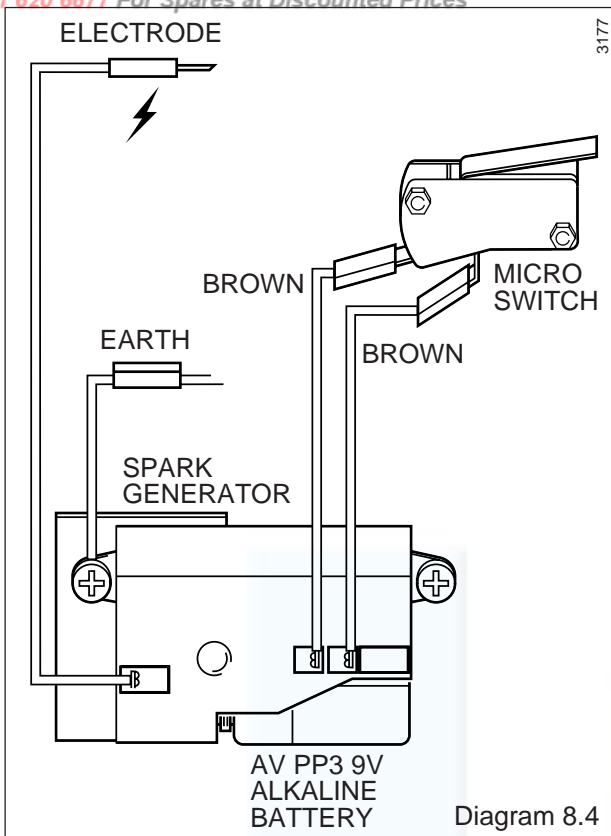
8.2 Thermocouple

To test a thermocouple, a meter with a range of 0 to 30mV is required together with a thermocouple interrupter test unit similar to the British Gas Minitest 6 Multimeter and Interrupter.

Refer to fault finding diagram 8.3 and diagnosis graph, diagram 8.2.



8 Fault Finding



9 Replacement of Parts

Notes

- Make sure the fire front is cold before replacing any parts.
- Replacement of parts must be carried out by a competent person.
- Remove the fire front castings as in Section 7.2.
- Remove the fuel bed, fuel effect bed base, fuel effect pieces and insulation as in Section 7.3.
- BEFORE REMOVING OR REPLACING ANY FIRE FRONT PART TURN THE GAS SERVICE COCK TO "BACK BOILER ONLY ON", see diagram 3.2.
- ISOLATE THE ELECTRICAL SUPPLY TO THE BACK BOILER.
- After replacing or disconnecting any gas carrying component, always test for gas soundness, using a suitable leak detection fluid and carry out functional check of controls.
- To test the gas tap apply leak detection fluid to all joints, light the burner and check all the joints for leakage at all tap settings.
WARNING: Take care as the burner flame is fully exposed.
- After removing or disconnecting any pipe work always make sure that it is refitted correctly and does not interfere with the fitting of the fire front.
- Unless stated otherwise reassembly of all parts is in the reverse order to removal.

9.1 Burner

Disconnect the gas inlet pipe union nut, the electrode assembly nut and the left hand burner mounting bracket securing screw, see diagram 7.1.

Remove the burner wing nut, releasing the burner.

Remove the injector, burner alignment screw and burner left hand mounting bracket, see diagram 7.1.

9.2 Injector

To remove the injector follow the instructions in Section 7.6, paragraph 2.

9.3 Gas Tap and Micro Switch Assembly

Follow the instructions in Section 7.8 up to and including paragraph 6.

Note: When replacing micro switch now follow instructions in Section 7.8 up to and including paragraph 7.

Make sure that the wiring harness strain relief is correctly located into the slot secured by the locknut, see diagram 7.3 and 7.4.

9.4 Electrode

Disconnect ignition lead from the electrode and remove securing nut to release the electrode from the burner, see diagram 7.3.

When replacing make sure that the spark gap is as shown in diagram 7.3.

9 Replacement of Parts

9.5 Ignition Lead

Disconnect the lead from the spark generator and electrode. Slacken the locknuts securing the strain reliefs see diagram 7.4 and 9.1 and then remove the harness. Remove the strain relief(s) securing screws and remove the ignition lead from the harness.

When replacing the harness make sure that it is correctly fitted and secured by the strain reliefs.

9.6 Thermocouple

Disconnect the thermocouple at the gas tap, see diagram 7.2, remove the wing nut and withdraw the thermocouple complete with its bracket.

Remove the thermocouple from the bracket.

Make sure that when refitting the thermocouple bracket the dimple on it engages in the hole in the burner bracket.

When refitting the thermocouple only tighten the union nut at the gas tap a quarter turn beyond finger tight.

9.7 Spark Generator

Disconnect the ignition lead and brown cables from the spark generator.

Slacken the strain relief locknut and remove from the support bracket.

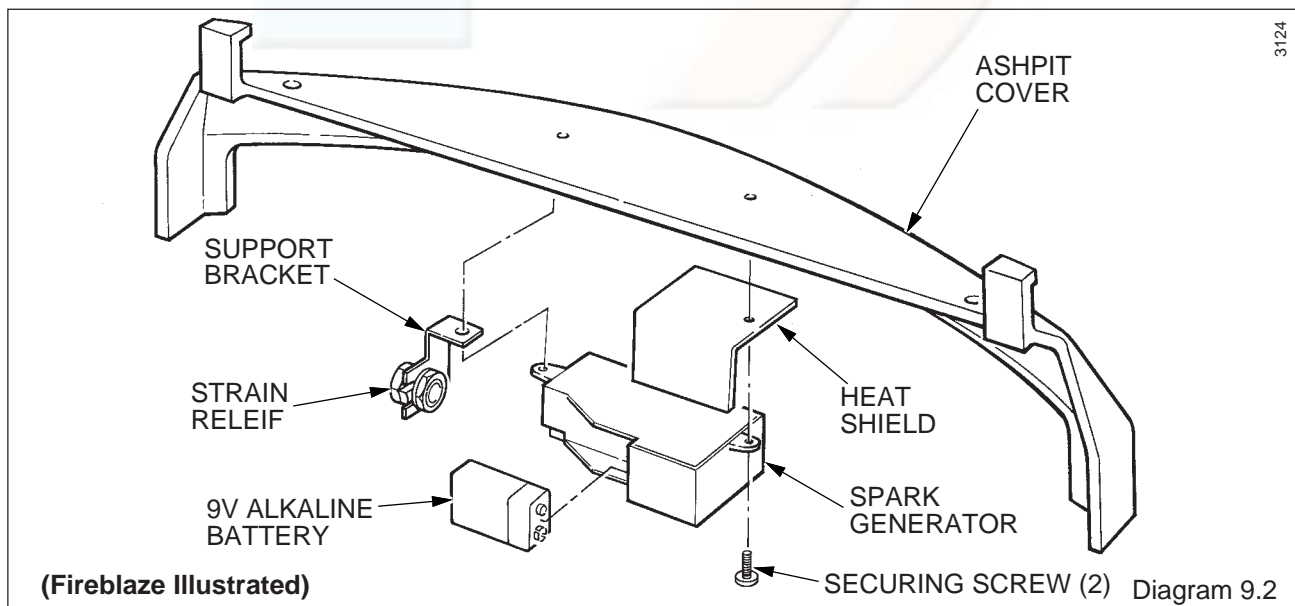
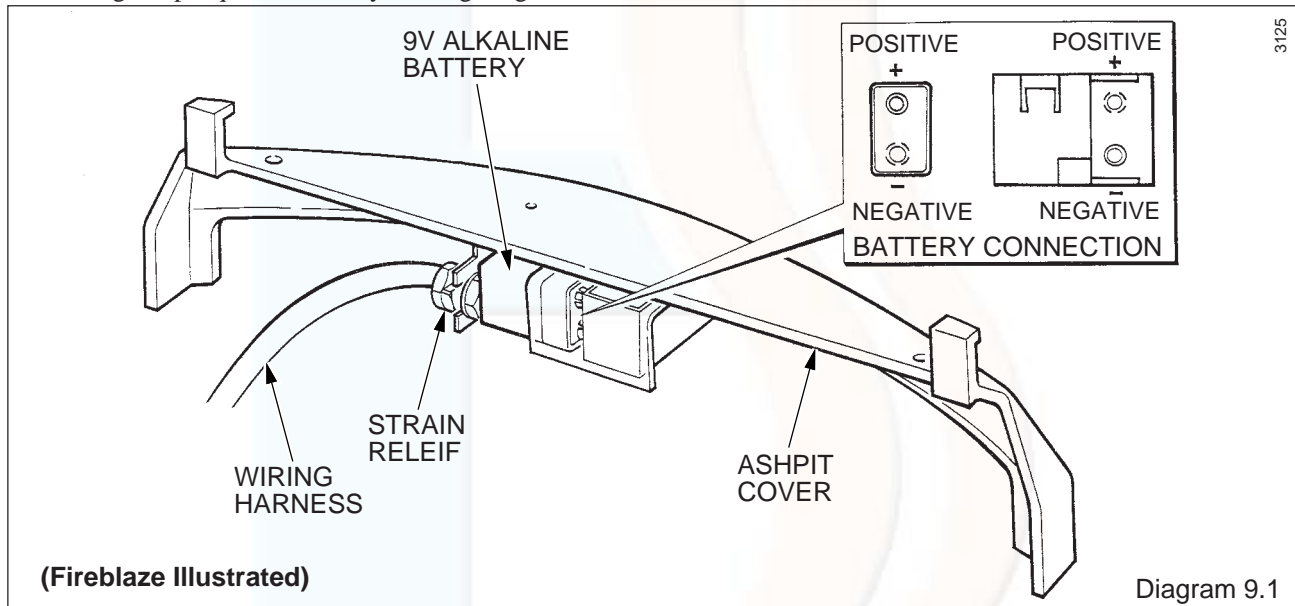
Remove the two screws securing the spark generator, heat shield and strain relief support bracket and earth terminal then pull the generator clear, see diagram 9.2.

When reconnecting the polarity of the connections from the generator to the micro switch is not important.

9.8 Battery

The battery is 9V and we recommend that it be of the alkaline type, obtained locally.

When fitting make sure that it is connected as shown in diagram 9.1.



10 Spare Parts

When spare parts are required please apply to your local supplier.

Use only the Fuel Effect approved for this fire front.

Do not use more Fuel Effect pieces than shown.

Please quote the name of the appliance, Fireblaze or Revival with 45F, 45FR, 56F or 56FR Back Boiler Unit together with the appropriate GC numbers. Refer to data label, positioned on the rear of the left hand side of the fire front or the appliance name label positioned on the ashpit cover.

The fire front serial number, which must be quoted, can be found on the label on the fire chassis adjacent to the boiler electrical control box.

The boiler serial number can be found on the base, after removal of the ashpit cover.

Key No	Part No	Description	GC No
1	445012	Control tap assy c/w micro switch	152 966
2	202179	Spark generator - spare	152 949
3	205711	Injector	398 410
4	202622	Electrode	162 064
5	202430	Thermocouple	385 865
6	WW4606	Ignition lead	334 621
7	210209	Fuel effect pieces - pack	162 061
8	210210	Fuel effect bed	162 071
9	445012	Control knob assembly	152 966
10	230100	Control knob extension	152 920
11	800258	Micro switch assembly	152 941

10 Spare Parts

4027

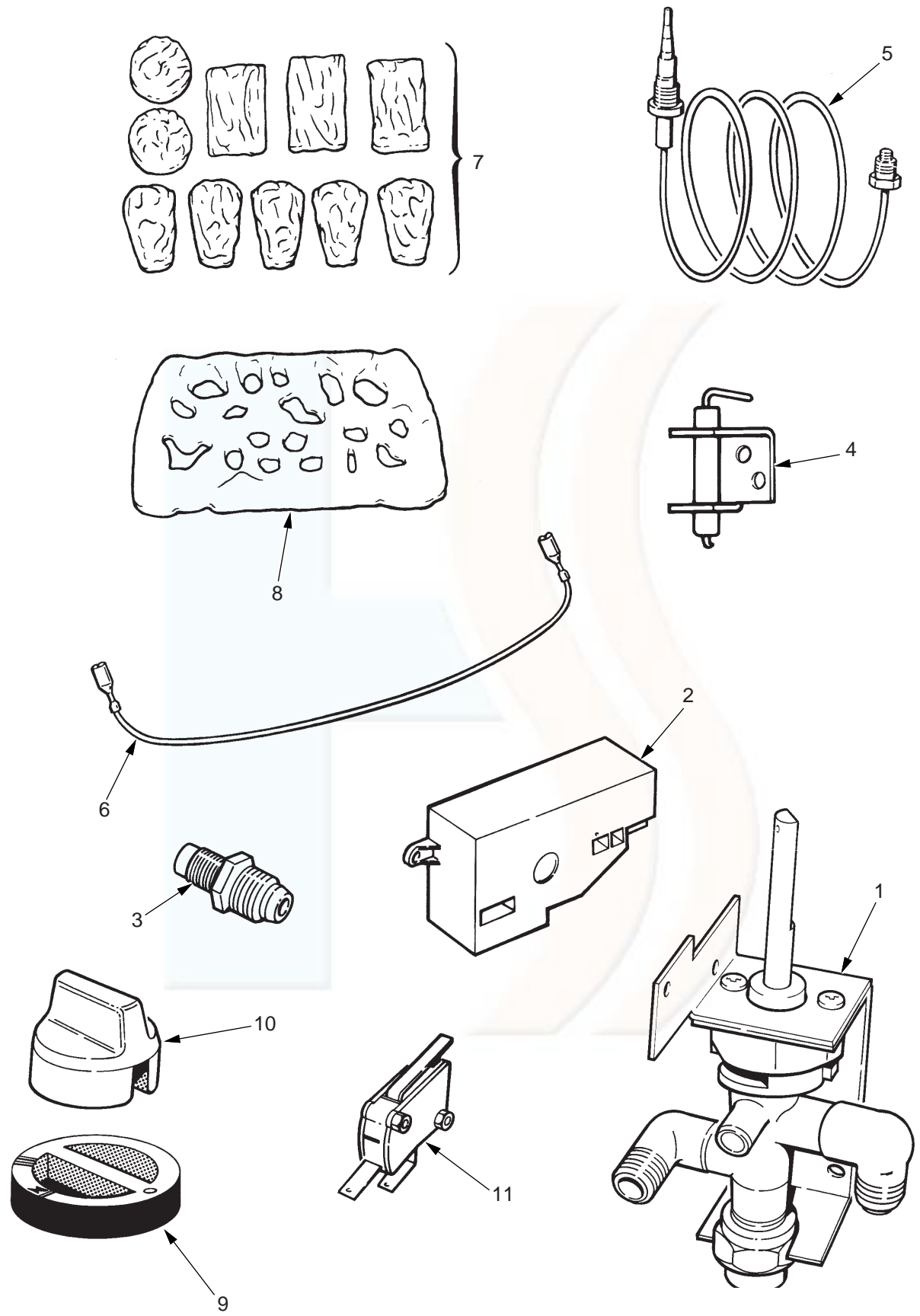


Diagram 10.1

Control of Substances Hardous to Health

Information for the Installer and Service Engineer.

Under Section 6 of The Health and Safety at Work Act 1974, we are required to provide information on substances hazardous to health.

The adhesives and sealants used in this appliance are cured and give no known hazard in this state.

FUELBEDS, ARTIFICIAL FUEL

After handling wash hands thoroughly.

INSULATION PADS/CERAMIC FIBRE

These can cause irritation to skin, eyes and the respiratory tract.

If you have a history of skin complaint you may be susceptible to irritation. High dust levels are usual only if the material is broken.

Normal handling should not cause discomfort, but follow normal good hygiene and wash your hands before eating, drinking or going to the lavatory.

If you do suffer irritation to the eyes or severe irritation to the skin seek medical attention.

Because of our constant endeavour for improvement details may vary slightly from those in the instructions.