

# INSTALLER GUIDE



Model 944

CAST-IRON GAS STOVE

Fitted with a Ceramic Coal fuel effect.

(GC No. 32-264-20)

**THIS APPLIANCE IS FOR USE WITH NATURAL GAS (G20).  
WHEN CONVERTED USING CONVERSION KIT NO. 0595261 THIS  
APPLIANCE IS FOR USE WITH PROPANE GAS (G31).  
THIS APPLIANCE IS SUITABLE ONLY FOR INSTALLATION IN THE UNITED  
KINGDOM (GB) AND THE REPUBLIC OF IRELAND (IE).**

For technical advice firstly contact your retailer.  
If further advice is required then call 01204 868550.

**INSTALLER: Please leave this guide with the owner**

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Because our policy is one of constant development and improvement, details may vary slightly from those given in this publication

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## 1. SAFETY

### Installer

Tiger stoves are efficient appliances giving off convected, conducted and radiated heat. All the surfaces of the stove - except the controls - are working surfaces and become hot in use. They must not be touched or have any combustible objects or materials placed on or near them. A fire guard complying with BS 8423 should be fitted for the protection of young children, the elderly, the infirm or pet animals.

The appliance is fitted with a flue safety device. If the appliance closes down after a period of operation for no apparent reason, the consumer should be informed to stop using the appliance until the installation and appliance have been thoroughly checked. Under no circumstances should the flue safety device be altered or bypassed in any way. Only a genuine manufacturers replacement part should be fitted.

Before continuing any further with the installation of this appliance please read the following guide to manual handling:

- The lifting weight of this appliance is 70 kg. We therefore recommend that two people should be sufficient to lift the stove. If fitting or moving the stove alone we recommend the use of suitable lifting apparatus.
- When lifting always keep your back straight. Bend your legs and not your back.
- Avoid twisting at the waist. It is better to reposition your feet.
- Avoid upper body/top heavy bending. Do not lean forward or sideways whilst handling the stove.
- Always grip with the palm of the hand. Do not use the tips of fingers for support.
- Always keep the stove as close to the body as possible. This will minimise the cantilever action.
- Use gloves to provide additional grip.
- Always use assistance if required.

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## 2. APPLIANCE DATA

Gas	Natural (G20)	Propane (G31) *
Inlet Pressure	20mbar	37mbar
Input - Max. (Gross)	6.85kW (23,372 Btu/h)	6.7kW (22,860 Btu/h)
Input - Min. (Gross)	2.3kW (7,850 Btu/h)	4.0kW (13,650 Btu/h)
Inlet Test Pressure (Cold)	20.0 ± 1.0mbar (8.0 ± 0.4in w.g.)	37.0 ± 1.0 mbar (14.85 ± 0.4in w.g.)
Gas Connection	8mm pipe	8mm pipe
Burner Injector	Stereomatic Cat 82 - 072	Stereomatic Size 130
Pilot	Copreci Ref. O.D.S 21500/212	Copreci Ref. O.D.S 21500/212 Fitted with RBM 180 -02 injector
Ignition	Integral piezo (Mounted on gas valve)	Integral piezo (Mounted on gas valve)
Aeration	See section 7.1	Non-adjustable

\*When converted using kit 0595261.

The efficiency of this appliance has been measured as specified in BS EN 613 and the result is as below :

<b><u>Model</u></b>	<b><u>Efficiency % (Gross)</u></b>
944	73
944 when converted to LPG.	75

The gross calorific value of the fuel has been used for this efficiency calculation. The test data from which it has been calculated has been certified by Advantica Certification services (0087). The efficiency value may be used in the UK Government's Standard Assessment Procedure (SAP) for energy rating of dwellings.

Gas	Conversion factor from <b>net</b> to <b>gross</b> efficiency
Natural Gas	0.901
LPG	0.921

The conversion of **net** efficiency to **gross** was achieved by multiplying the net efficiency by the following conversion factor from Table E3 of SAP 2005, rounding down to the nearest whole number.

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This product uses fuel effect pieces containing Refractory Ceramic Fibres (RCF), which are man-made vitreous silicate fibres. Excessive exposure to these materials may cause irritation to eyes, skin and respiratory tract. Consequently, it is important to take care when handling these articles to ensure that the release of dust is kept to a minimum. To ensure that the release of fibres from these RCF articles is kept to a minimum, during installation and servicing we recommend that you use a HEPA filtered vacuum to remove any dust and soot accumulated in and around the stove before and after working on the stove. When replacing these articles we recommend that the replaced items are not broken up, but are sealed within a heavy duty polythene bag, clearly labelled as RCF waste. RCF waste is classed as a stable, non-reactive hazardous waste and may be disposed at a landfill licensed to accept such waste. Protective clothing is not required when handling these articles, but we recommend you follow the normal hygiene rules of not smoking, eating or drinking in the work area and always wash your hands before eating or drinking. This appliance does not contain any component manufactured from asbestos or asbestos related products.

The appliance data label is located on a plate at the base of the stove.

## 3. UNPACKING

Before installation, check that the following components, where required, have been delivered.

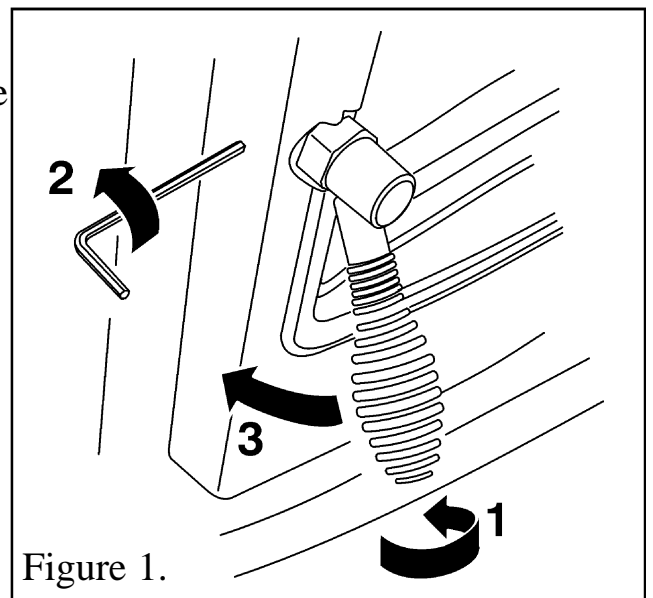
**Loose parts box** - Contains the Deflector, Flue Collar, Diverter box, 4 Feet, 2 handles of different colour, Fire bar, Lower front casting, Bottle of touch-up paint, 2 floor securing screws and plugs, Bolts and Screws.

**Stove body** - Contains the Stove body with Hexagonal key, Restrictor Plate and securing bolts.

Contained in the stove body are two boxes as below. To access these, insert the required handle into the door latch, unlock the lock nut at the side of the latch using the Hexagonal key and turn the handle clockwise (See figure 1).

**Box 1** - Contains the burner assembly, the flue safety switch and leads assembly, the inlet 'T' connector, the control knob assembly and burner securing screws.

**Box 2** - Contains the ceramic fuel effect.



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## 4. STOVE SET UP

### Standard legs:

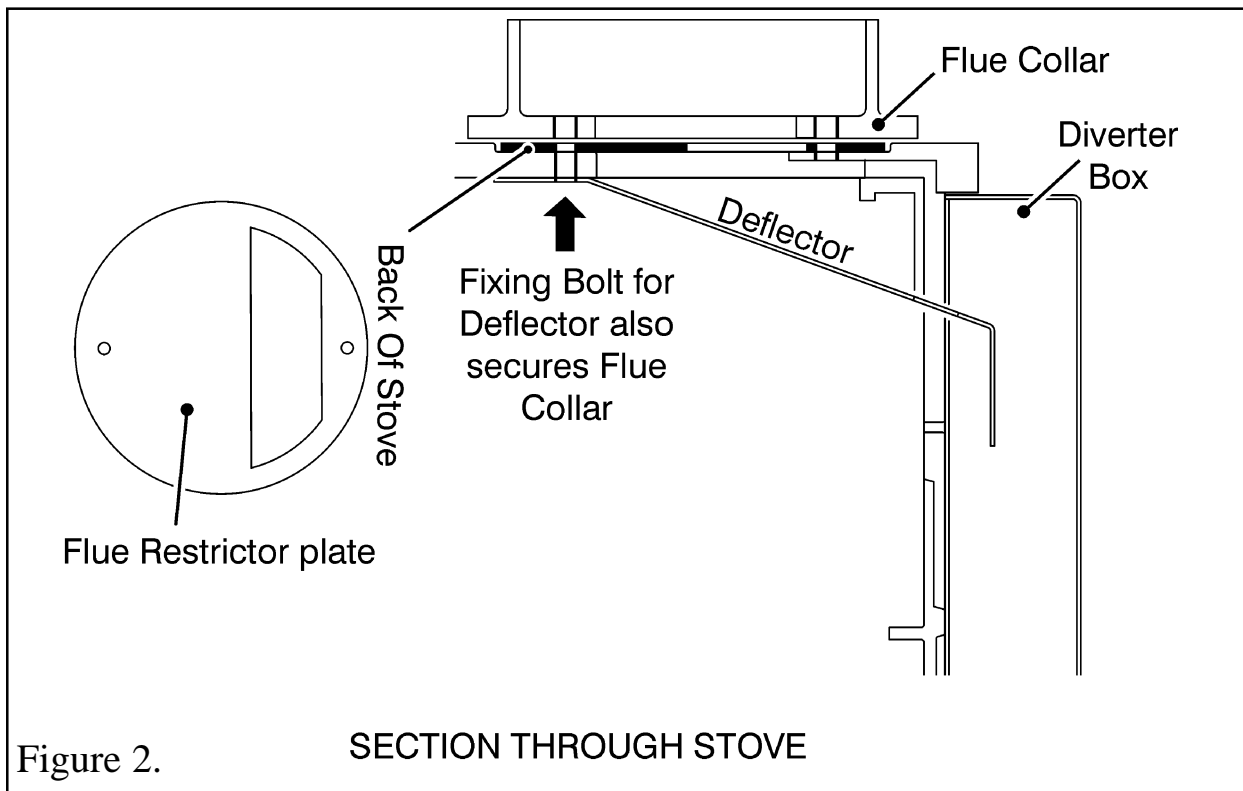
We recommend that the two legs with fixing holes be fitted to the back of the stove for neater appearance. If the hearth is uneven, fit one or more extra washers between any leg and the stove body to extend the leg.

### Lower front casting.

Attach the lower front casting to the front underside of the stove using the screws and washers supplied.

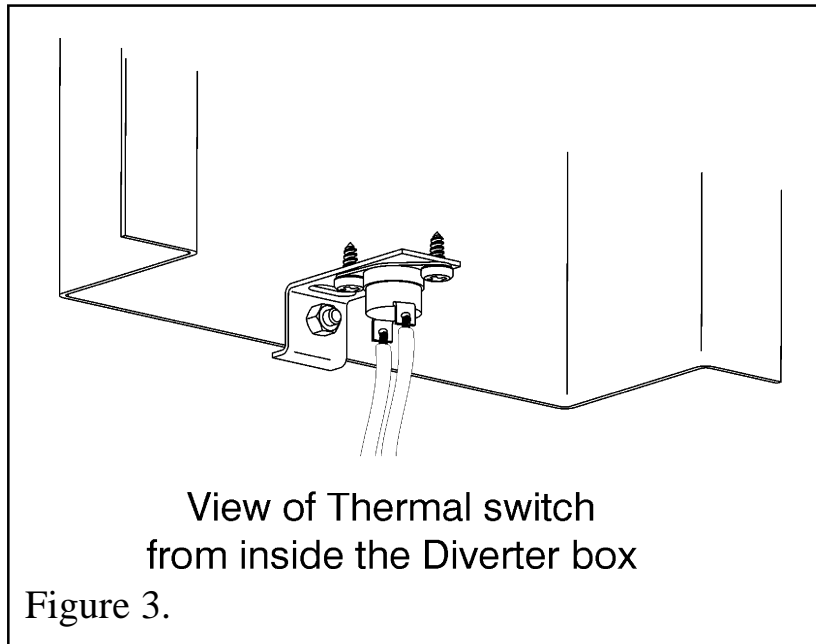
### Flue Collar, Deflector, Diverter Box and Flue Restrictor Plate.

1. These should be assembled to the stove as in figure 2. We recommend that the rear bolt is fitted first for ease. The front bolt that secures the deflector must be tight and the top of the deflector **MUST** be sealed against the top of the stove casting.



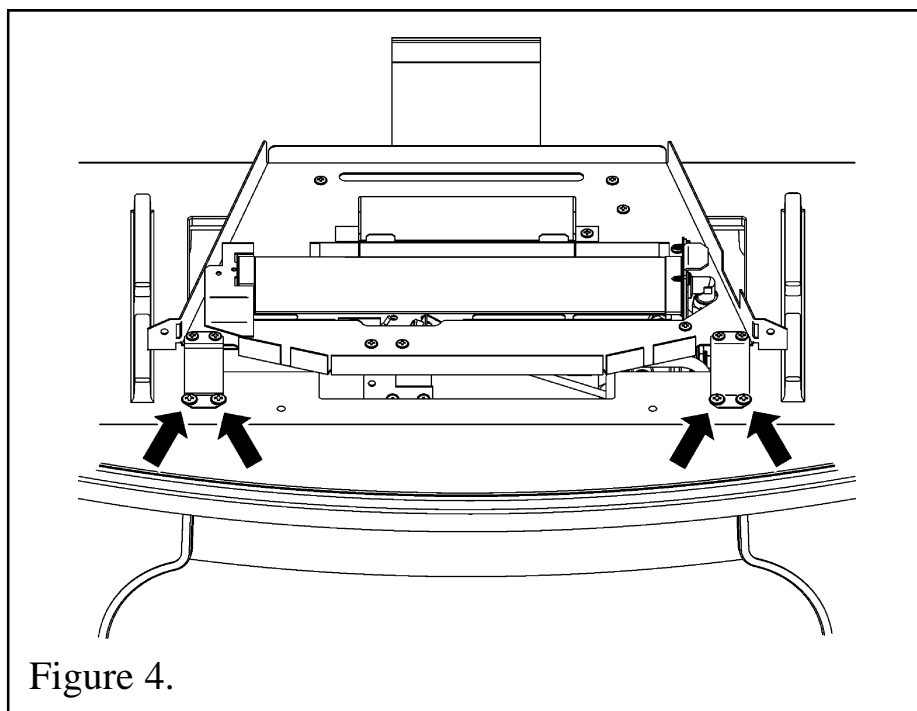
2. The Thermal Switch should be fitted to the inside of the Diverter Box as in figure 3. Secure using the nut and bolt supplied. Never modify the fixing bracket and always ensure that the switch is fitted correctly. **NEVER USE THE STOVE IF THE THERMAL SAFETY SWITCH HAS BEEN REMOVED OR IF IT IS DAMAGED IN ANY WAY.**

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### 3. Unpack the burner module.

- Secure the control knob assembly to the gas valve, the screw tail should secure onto the flat on the gas valve spindle.
- Offer the burner module into the stove and connect the thermal switch leads to the tags mid way along the thermocouple.
- Locate the burner assembly inside the stove body as in figure 4 (The outer body of the stove is not shown for clarity). The rear leg of the burner should sit in the recess at the rear of the casting and on top of the two lugs that protrude. Secure using the screws supplied.



## 5. GENERAL INSTALLATION REQUIREMENTS

The installation must be in accordance with these instructions.

For the user's protection, in the United Kingdom it is the law that all gas appliances are installed by competent persons in accordance with the current edition of the Gas Safety (Installation and Use) Regulations. Failure to install the appliance correctly could lead to prosecution. The Council for the Registration of Gas Installers (CORGI) requires its members to work to recognised standards.

In the United Kingdom the installation must also be in accordance with all the relevant parts of local regulations.

BS 5440 Part 1

BS 5440 Part 2

BS 4543 Part 2

BS 5871 Part 1

BS 6891

BS 8303

In England and Wales, the current edition of the Building Regulations issued by the Department of the Environment and the Welsh Office

In Scotland, the current edition of the Building Standards (Scotland) Regulations issued by the Scottish Executive.

In Northern Ireland, the current edition of the Building regulations (Northern Ireland) issued by the Department of the Environment for Northern Ireland.

In the republic of Ireland the installation must be carried out by a competent person and also conform to the relevant parts of:

- a) The current edition of IS 813 "Domestic Gas Installations"
- b) All relevant national and local rules in force.

Where no specific instructions are given, reference should be made to the relevant British Standard Code of Practice.

### **The Hearth.**

- The appliance must be mounted on a non-combustible hearth (N.B. conglomerate marble hearths are considered as non-combustible). The hearth material must be at least 12mm thick. The hearth must protrude at least 150mm (6") in front of the stove body. In most buildings with solid concrete floors this requirement will be met by the floor itself.

### **Clearances.**

- Clearances from combustible and non-combustible materials must be at least those shown in figure 5.



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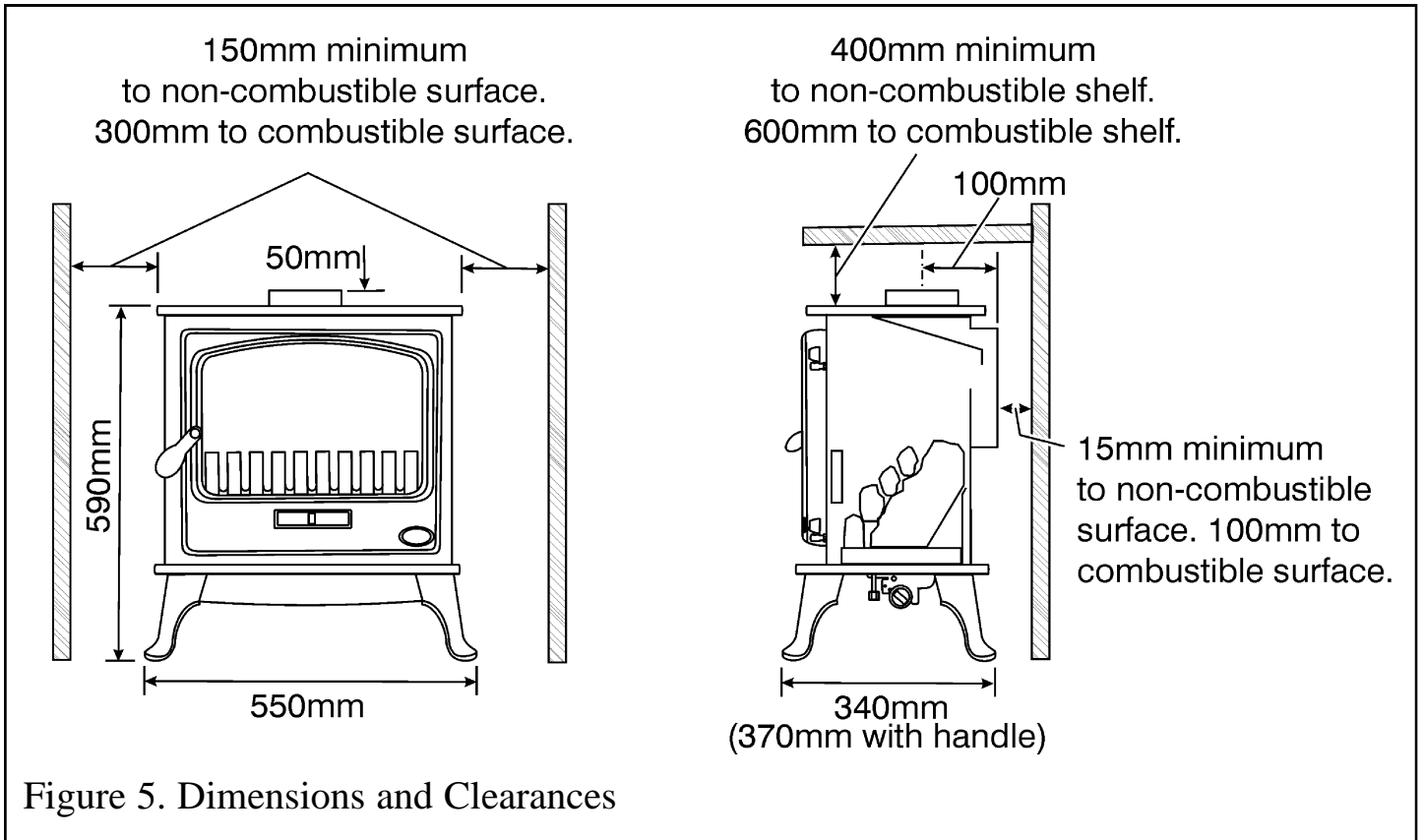


Figure 5. Dimensions and Clearances

## Flue / Chimney.

- The stove is approved for use with 125mm (5 inch) diameter insulated flue.
- Before you install the stove make sure the chimney flue outlet is correctly positioned to align with the flue outlet on the stove and that the chimney is in good condition. If not, a chimney liner must be installed or a suitable class 2 gas flue used. A draught is necessary to ensure the products of combustion are fully evacuated. Connect and seal the the stove flue collar to the chimney using full depth of collar. The flue must have a minimum effective height of 3 metres (10ft), however to, to ensure optimum performance we recommend 3.66 metres (12ft) or higher. The flue must be free of obstruction and any dampers must be fixed in a permanently open position. Ensure that the chimney is not closed and that it has been swept prior to the stove being installed. Make sure that rain, birds or any foreign bodies cannot get into the chimney and cause blockage or damage. This problem can normally be overcome by fitting an approved Gas Cowl. It is essential to the effective running of your stove that the chimney draws properly and allows the products of combustion to escape.

## Ventilation.

- Normal adventitious ventilation is usually sufficient to satisfy the ventilation requirements of this appliance. In GB reference should be made to BS5871 Part 1 and in IE reference should be made to the current edition of IS 813 “ Domestic gas installations” which make clear the conditions that must be met to demonstrate that sufficient ventilation is available.
- An extractor fan may only be used in the same room as this appliance, or in any area

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from which ventilation for the appliance is taken, if it does not affect the safe performance of the appliance. Note the spillage test requirements detailed further on in this manual. If the fan is likely to affect the appliance, the appliance must not be installed unless the fan is permanently disconnected.

## Location.

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

## Propane gas

- Propane gas appliances must not be installed in a cellar, basement or other room which is built entirely below ground level  
(See Gas Safety (Installation and use) Regulations).

## Gas connection.

- A nut and olive are provided for an 8mm pipe inlet connection to the elbow at the bottom front of the appliance. The elbow can be rotated to allow a connection from any direction. The elbow includes a valve for isolating the gas supply.
- The supply pipe must be rigid material. Flexible pipe must not be used.
- **Note: Prior to connecting the gas supply it is advisable to blow out the gas supply so that any dirt which may be present in the pipe is cleared and cannot enter the gas valve or pilot burner and so cause a blockage**
- With the supply connected pressure check the installation pipework for gas soundness. In the United Kingdom check in accordance with the current edition of BS6891. In the Republic of Ireland check in accordance with the rules in force.

## Securing the stove.

The stove is supplied with two screws and plugs. Secure the stove in place through the holes in the rear feet.

## Fitting the ceramic fuel effect.

The installer and owner guide for the ceramic fuel effect is supplied with the ceramic fuel effect. It is important that the installer guide for the ceramic fuel effect be placed inside or attached to this guide and handed to the customer following completion of the 'Final review' section.

## Fitting the fire bar.

Locate the fire bar as in figure 6.

Be careful not to damage the ceramic fuel effect when fitting the fire bar.

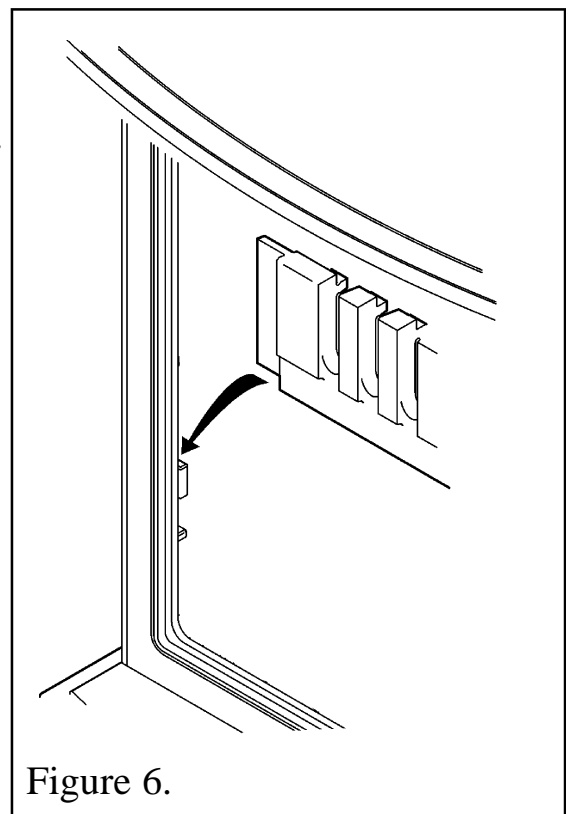


Figure 6.

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## 6. OPERATING THE STOVE

### Pre-lighting checks.

1. Ensure all the building work and flue sealing is complete.
2. Ensure the fire bar is fitted.
3. Ensure all the coals are correctly placed.
4. Ensure that the stove door is closed and secured.
5. Ensure that the stove door is completely sealed.
6. Lock the stove door handle with the locking screw using the key supplied.

### Lighting the burner.

1. If closed, open the isolating valve at the inlet elbow.
2. Depress the control knob and rotate it anticlockwise to the pilot ignition position. A 'click' will be heard as the integral piezo operates.
3. Turn the control knob clockwise to the 'Off' position. Repeat this operation until a flame appears at the pilot. There may be a delay before the pilot lights due to air being purged from the system. When a flame appears at the pilot keep the control knob depressed and hold the pilot ignition position for five seconds. When the control knob is released the pilot flame should remain lit.

### Operating the burner.

1. When the pilot burner is operating properly, gradually turn the control knob anticlockwise to 'HIGH' (Depress the knob slightly to get past the pilot ignition position). The main burner should now light. Depress the control knob slightly to release from the 'HIGH' position and turn back (clockwise) to 'LOW'. While turning, the burner flames should gradually become lower but remain alight. Depress the control knob slightly to release from the 'LOW' position and turn back (clockwise) to the 'Pilot ignition' position. The main burner should extinguish but the pilot should remain alight. Depress the control knob slightly and turn back (clockwise) to turn OFF.

This will extinguish the pilot.

### Inlet pressure check.

The appliance is pre-set to give the correct heat input at the inlet pressure shown in section 2 of this manual. No adjustment is necessary.

1. Check the inlet pressure by fitting a pressure gauge at the test point. The test point is on the inlet 'T' connector (See figure 7). Check the pressure with the appliance alight and set at

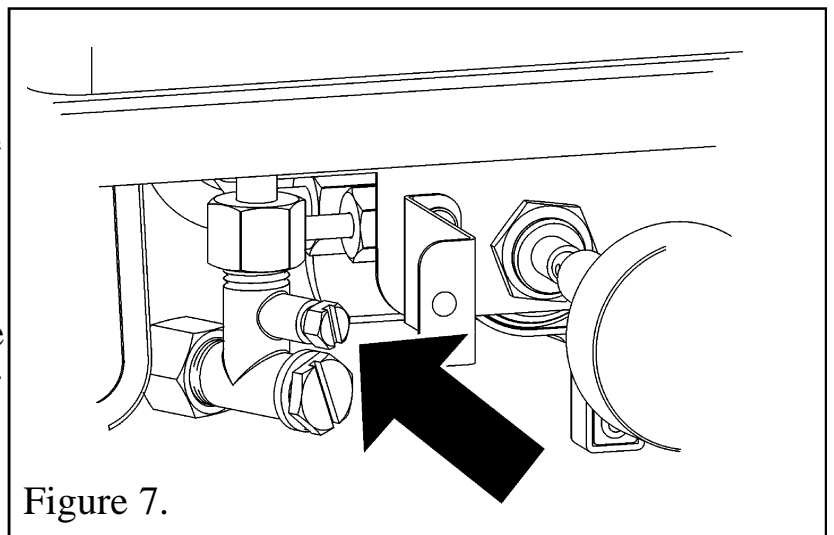


Figure 7.

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maximum output.

2. After checking, turn off the appliance. Remove the pressure gauge and replace the test point sealing screw.
3. Relight the appliance. Turn to the maximum output position and test around the sealing screw for gas soundness with a suitable leak detection fluid.

## Check for spillage.

1. Close all doors and windows in the room containing the appliance.
2. Light the appliance and turn the control knob to the 'HIGH' position.
3. Leave the appliance on for five minutes.
4. A smoke match should be placed close to base of the diverter box. The installation is satisfactory if the smoke is drawn into the appliance/ flue way. Do not use a lighted match or a naked flame.

If the smoke is not drawn into the appliance leave the appliance alight at the maximum setting for a further ten minutes and then repeat the test. If the smoke is still not drawn into the appliance then **disconnect the appliance and seek expert advice.**

5. If the above test is satisfactory open all internal connecting doors, hatches, etc. in the room. Keep all doors and windows that open to the outside of the building closed.

Recheck for spillage as above. If an extractor fan is installed in the same room as the appliance or a connecting room, check that spillage does not occur with the fan operating and all doors and other openings between the fan and the appliance open.

If the smoke is drawn into the appliance, continue with the installation. If the test is not satisfactory **disconnect the appliance and advise the customer of the cause of failure.**

## Flame supervision and spillage monitoring system.

The pilot unit incorporates a system that will automatically shut off the gas supply if the pilot flame goes out. Check that the system operates properly as follows;

- Light the appliance. Set at the "HIGH" position and leave for one minute.
- Turn back to "OFF" to extinguish the pilot. **Note the time when the pilot goes out.**

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

**This monitoring system must not be adjusted, bypassed or put out of operation. This monitoring system, or any of its parts, must only be exchanged using Baxi Fires Division authorised parts.**

## 7. FINAL REVIEW AND SERVICING

### Final Review.

- Hand the literature pack with this guide to the customer.
- Visually inspect the appliance. Clean off any marks incurred during installation.
- Advise the customer how to operate the appliance. Point out that lighting instruction details are on the metal plate attached to the burner at the bottom of the appliance.
- Explain to the customer that the appliance has a flame failure & spillage monitoring system. Point out the explanation of this system shown in the owner guide under “Operating your stove”. Advise that if the stove goes out for any reason, wait at least ten minutes before relighting. Stress that if the monitoring system repeatedly shuts off the stove, the appliance should be switched off and a specialist should be consulted.
- Advise the customer that they should read their owner guide before operating the stove and always follow the advice in the section headed “Cleaning your stove”.
- **Stress that no extra ceramic fuel effect pieces must be added over and above those supplied with the appliance and that any replacements must only be the authorised spares. Warn that ignoring this advice could cause incomplete clearance of the products of combustion with consequent health hazards.**
- Advise the customer that the appliance will operate to its maximum potential if the flue is primed during the first 20 – 30 minutes of use. To do this, simply turn the control knob to its highest setting. This will also burn off any carbon deposits that may have formed during previous use.

If using the appliance for long periods it is beneficial to change between settings. This will also help to remove any carbon deposits that may form during use.

- Recommend that the appliance should be serviced by a competent person at least annually.
- If the appliance is in premises in the United Kingdom occupied by a tenant, point out that by law a landlord must have any gas appliance, flue and pipework which is situated in a tenant’s premises checked for safety at least every 12 months.
- Explain to the customer that when operating the stove for the first time, some vapours may be given off which may cause a slight odour and could possibly set off any smoke alarms in the immediate vicinity. These vapours are quite normal with new appliances. They are totally harmless and will disappear after approximately twelve hours use.
- **Inform the customer that the Serial number for the appliance is located on the metal plate attached to the burner at the bottom of the appliance underneath the burner module.**

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## Servicing

- Always turn off the gas supply and allow to cool completely before commencing any servicing.

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- Check that the thermal switch is correctly located in the diverter box (See figure 3 on page 7).
- Check that the appliance is clean and that no matter is blocking the burner or pilot which may cause imperfect flames or prevent a correct electrode spark.
- After servicing, make sure that the ceramic fuel effect pieces are replaced correctly as described in the installer and owner guide supplied with the ceramic fuel effect. The ceramic fuel effect guide may have been placed inside or attached to this guide.
- **Always test for gas soundness and spillage after servicing the appliance.**

## 7.1 Checking the aeration setting of the burner.

(For LPG models refer to the conversion guide).

1. The aeration shutter is factory set. It is important to ensure that the aeration setting is correct. Check the aeration shutter setting (See figure 9).
2. To adjust the aeration setting, loosen the two aeration shutter screws, slide the aeration shutter to the position shown in figure 9 and tighten the fixing screws.

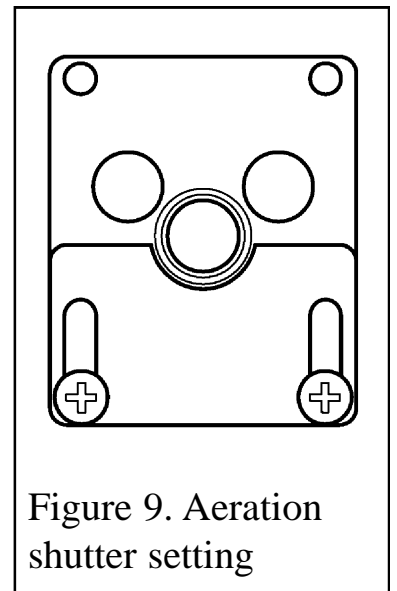


Figure 9. Aeration shutter setting