

# Dovre 250 Cast Iron Gas Stove

NATURAL GAS AND LPG



# Dovre 250 GAS STOVE FOR NATURAL GAS AND LPG

**THIS PRODUCT IS FOR USE ONLY  
IN GREAT BRITAIN AND IRELAND**

**These instructions are to be left  
with the customer, should be  
read carefully and kept in a safe  
place. They will be necessary  
when servicing the appliance.**

## IMPORTANT

**THIS APPLIANCE SHOULD ONLY  
BE OPENED AND SERVICED BY A  
PROFESSIONALLY QUALIFIED AND  
ACCREDITED ENGINEER.  
(EG C.O.R.G.I REGISTERED).**

## CONTENTS

### GENERAL SECTION

Dimensions of Stove	2
Technical Information	3
Safety Note	3
Flue Requirements	3

### INSTALLER SECTION

Ventilation	3
Locating the Appliance	4
Flue Connection	4
Gas Connection	4
Pressure Testing	5
Arranging the Layout of the Coals	5
Completing the installation	6
Commissioning the Stove	6

### USER SECTION

Operating the Stove	6
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### SERVICING SECTION

Servicing Instructions	7
Ten year Warranty	7
Troubleshooting	8

## 1. STOVE DIMENSIONS

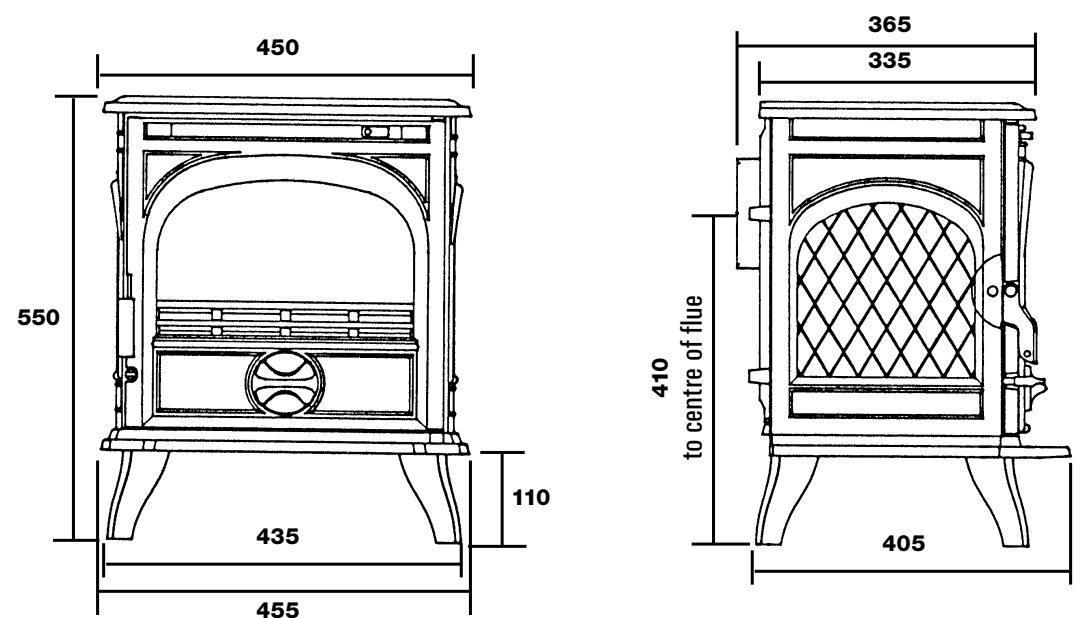


Fig. 1 – Stove dimensions

All dimensions are in mm

## 2. TECHNICAL INFORMATION

Inlet pipe connection	8mm compression
Chimney requirements	Class I or Class II
Flue fitting	5" diameter Top or Rear outlet
Stove control	Variable rotary gas control with integrated Piezo ignition, Permanent pilot facility, Flame failure device and flue monitor.
Flue monitor	100°C Temperature limit switch
NOx level	class 5 (i.e. below 100 mg/kWh)

GAS	NATURAL G20/I2H	GAS LPG G31/I3P
Heat Input	5.0 kW	5.0 kW
Supply Pressure	20mbar	37 mbar
Burner Pressure	16.4 mbar	35.4 mbar
Gas rate	0.47m <sup>3</sup> /h	0.18m <sup>3</sup> /h
Injector	320	140

## 3. SAFETY NOTES

The Dovre 250 Gas stove incorporates a 100°C TTB Flue Spillage Monitoring system. This is located under the draught diverter on the rear of the stove, and must not be adjusted by the installer. This Flue Monitoring system must not be put out of operation, and if any parts require changing, only original manufacturers parts shall be used.

The Dovre 250 gas stove is designed to be used with either Natural Gas or LPG, however each individual appliance is only capable of using the gas specified at the time of purchase. It is important to note that once a gas type has been specified, the stove cannot be used with any other gas. The type of gas the stove is capable of burning is stated on the data plate located on the Right Hand side of the stove, by the control knob, check that the appliance has been correctly supplied.

This appliance has been designed, tested and approved to meet standards in place for product use, performance and safety. However the appliance must now be installed in accordance with the Gas Safety (Installation and Use) Regulation 1994 (+ amendment 1996), relevant parts of Local and National Building Regulations and of course the instructions included in this booklet.

This appliance is designed as an efficient heating device and consequently all body parts of the stove become very hot in use. Except for the control knob; which is designed to stay cool, all other parts are working surfaces and should not be touched.

The window and frame on this appliance act as a fireguard conforming to BS: 1945 – 1971 and satisfies the Heating Appliance (Fireguards) regulations 1991. No part of the window or frame should be permanently removed. **It does not give full protection for young children or the infirm**, extra protection should be considered for these conditions conforming to BS 6539 or BS 6778.

Bearing in mind that the heat given off by this appliance may affect articles placed close to it, curtains should not be placed within 12" (30cm).

The appliance is not designed as a dryer. It is not therefore recommended that the appliance be used in such a manner. Do not place any articles within 12" (30cm) of the stove as this may result in damage to the articles.

## 4. FLUE REQUIREMENTS

The flue that the appliance is to be attached must conform to BS 5440 1990:pt.1. Before the appliance is installed, the flue system or chimney must be inspected and passed as suitable.

This stove is suitable for installation onto either flexible or fabricated steel flue system and is also suitable for pre-cast flues, pre-cast chimney block, pre-cast flue block and ridge tile vent.

The minimum effective height of the flue must be three metres measured from the hearth to the termination of the flue. If the flue has any non-vertical sections, the height should be increased in line with BS 5440 pt.1.

Prior to installation, the installer should ensure that the flue is free from obstruction, ideally should be swept and subsequently smoke tested. Ensure that any dampers are fixed in a permanently open position.

The appliance has been designed with a built in draught diverter, and as such no further draught diverter need be fitted to the flue system.

## 5. VENTILATION

The Dovre 250 gas stove is rated at less than 7kW; it therefore does not normally require additional ventilation in the room to conform to BS 5871 pt.2. However it is important that adequate air for complete combustion is available, and also if other gas appliances or extractor fans are fitted in the same room or adjacent area, then it will be necessary to refer to BS 6714 and BS 5440: pt.2. to ascertain the additional ventilation requirements.

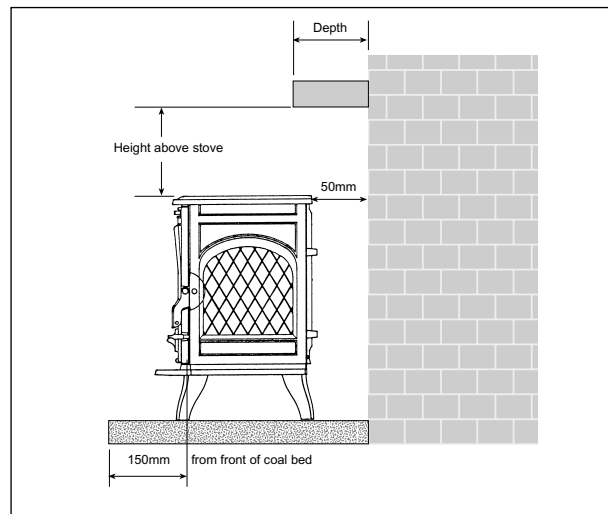
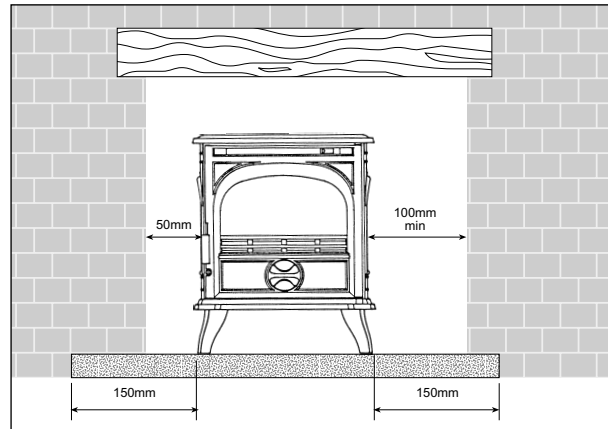
## 6. LOCATING THE APPLIANCE

The stove must stand on a fireproof hearth, which must be of a non-combustible material with a minimum thickness of 12mm and extend 150mm from the front of the coal bed.

The hearth must not be capable of inadvertent covering by a rug or carpet. This may be achieved by either the hearth being 50mm above the level of the floor, or a fender or kerb around the hearth to a height of 50mm.

The appliance must not be fitted against a rear wall constructed from a combustible material; a gap of 80mm should be given all round the stove before combustible materials may be used in the wall construction.

If the appliance has to be located in an opening, there must be a clearance of at least 50mm at the left hand side of the appliance, 50mm at the back of the appliance and 50mm above from any non-combustible materials. This distance must be extended to a minimum clearance of 80mm from any combustible materials. There should ideally be a minimum gap of 150mm at the right hand side of the stove (this will ensure the best possible access



**Fig. 2 – Minimum clearances to non-combustible materials, hearth and shelf details.**

to the control knob). This measurement may be reduced to a minimum gap of 100mm if needed however extra care should be taken when operating the control knob when the appliance is hot.

The stove must be located at least 80mm from any combustible materials.

A combustible shelf may be fitted over the appliance, if in the case of a 150mm or less deep shelf, there is at least 280mm clearance above the top of the stove. The shelf depth may increase at the same rate as the increase in clearance; i.e. a shelf depth of 200mm would require a clearance of 330mm.

## 7. FLUE CONNECTION

The Dovre 250 stove may be installed as either top or rear flue, and as such comes with all relevant parts to enable connection of flue to either flue system.

It is recommended that a minimum height of 610mm from the stove should be established before any significant changes in direction of the flue. Horizontal or negative gradients in the flue pipe should be avoided.

The flue system may now be connected to the stove; this should be sealed using a fire resistant sealant.

Please note that all flue systems should be installed in accordance with the flue manufactures recommendations and BS5871: pt.1.

## 8. GAS CONNECTION

It is important to ensure that all pipework installed is fitted in accordance with BS6891 and is capable of supplying sufficient gas flow and pressure to meet the minimum pressures quoted in section 9 of this manual. A minimum pipe size of 15mm should be used for the gas supply to within 1 metre of the appliance. 8mm pipe may only be used for the final connection to the stove, or within 1 meter of the appliance. An 8mm nut and olive is supplied with the stove for the final pipe joint.

A gas supply tap must be installed in the supply pipework in a location that is easily accessible, such that the appliance may be isolated if necessary.

Do not make any connections to the appliance until all supply pipes have been purged to expel any dust or debris. Failure to do this may result in a blocked injector or tap and will invalidate the guarantee.

Although a gas soundness test is made on all appliances before they leave the factory, the appliance should be tested for soundness before operating the stove. This is to ensure that the burner has not been damaged in transit.

## 9. PRESSURE TESTING

The gas pressure to the burner must be measured; this should be measured with all gas appliances after the gas meter operating on full, including the Dovre 250 stove.

### PROCEDURE

- A** Remove the test point screw.
- B** Connect flexible hose from manometer to exposed test point.
- C** Ensure manometer reading is on zero with stove off.
- D** Light the burner and turn to "HIGH".
- E** Let the stove settle for a few minutes.
- F** Take manometer reading.
- G** Ensure reading is within tolerance of values shown below for appropriate gas type, and write the burner pressure in the space provided on the back page.
- H** Turn burner off, remove hose and replace screw.

For **NATURAL GAS**, burner pressure = 17.5 mbar (+/- 5%)

For **PROPANE**, burner pressure = 36.3 mbar (+/- 5%)

The above values are on "HIGH" and should be measured whilst all appliances are on full.

## 10. ARRANGING LAYOUT OF COALS

Only the ceramic coals supplied with this appliance are to be used. The coals must be laid only as shown on the following pages. Replacement coals, ceramic and mat are available from your dealer, but should only be installed by a qualified installation engineer.

The stove should arrive with the following parts as required for the coal layout:

- 1 No. Ceramic Mat
- 1 No. Matrix
- 9 No. Ceramic Coals

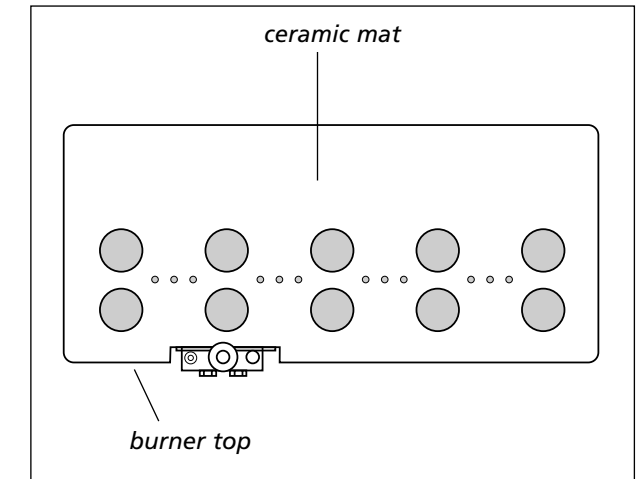
Please check that the correct parts and quantities have been delivered before commencing installation.

### PROCEDURE FOR ARRANGEMENT

Ensure that the Pilot Assembly remains unobstructed when arranging the coals. Note that there is a viewing slot in the matrix such that the Pilot Flame will be visible when lit, this must also be kept clear.

Please note that once the stove is lit, the coals become very hot, care must be taken when adjusting coals after the appliance has been lit and Dovre accept no responsibility for any injury sustained whilst handling hot ceramics.

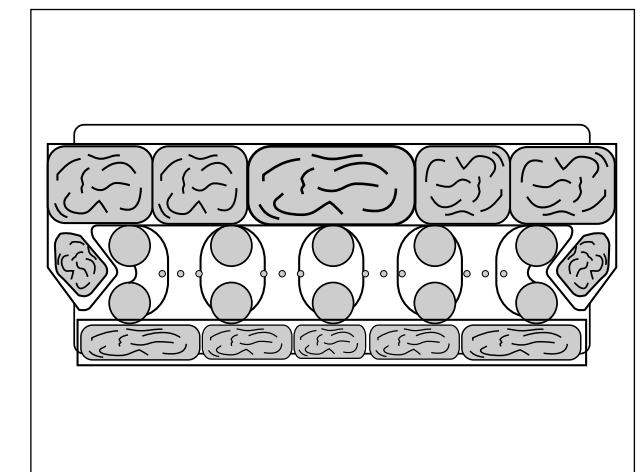
### Stage 1



**Fig. 5 – Ceramic Mat placement.**

Lay the Ceramic Mat on top of the Burner as shown in Fig. 5 making sure that all holes including the 12 small cross lighting holes are not blocked, and that the pilot assembly is not obstructed.

### Stage 2

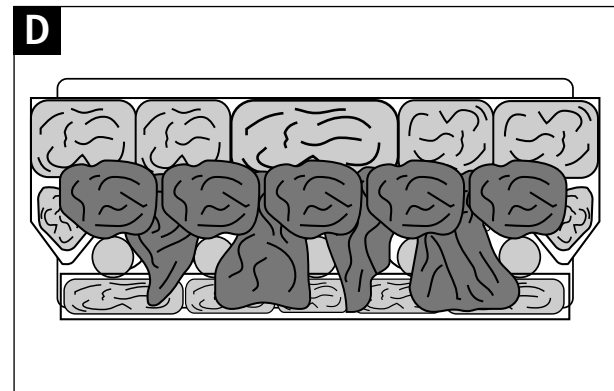
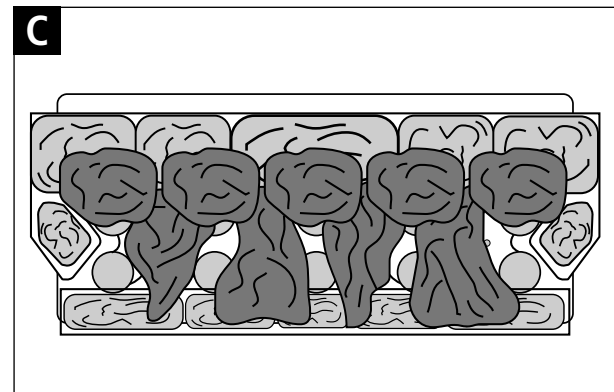
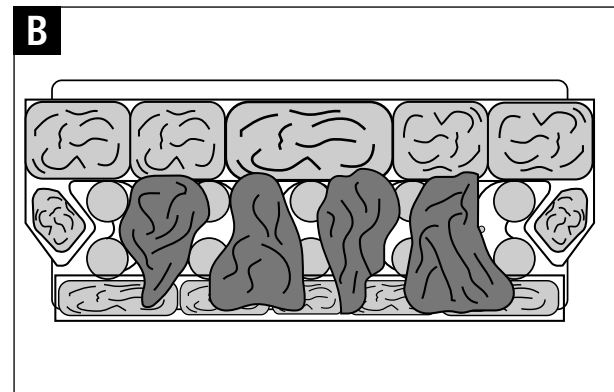
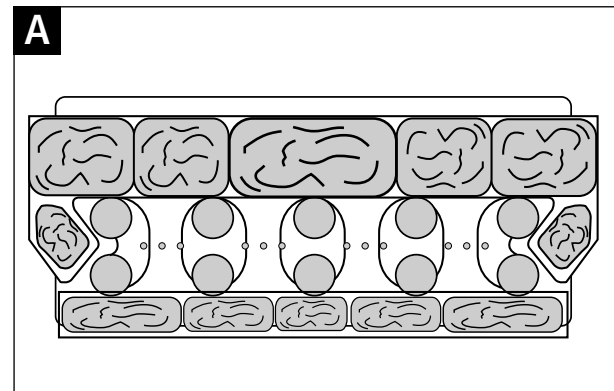


**Fig. 6 – Matrix placement**

Place the Ceramic Matrix on top of the Mat as shown in Fig. 6

Place 4 coals on top of Matrix **A** as shown in picture **B**. Place the 5 remaining coals as shown in picture **C** for all **LPG models and Natural Gas REAR FLUE**.

Place the 5 coals as shown in **D** for **Natural Gas installations with TOP FLUE**.



## 11. COMPLETING THE INSTALLATION

**THE APPLIANCE MUST NEVER BE OPERATED WITH THE DOOR REMOVED OF GLASS BROKEN.**

When the coals and matrices have been arranged as shown in section 10 above, the door must be closed and a good seal achieved. The sealing set screw must then be applied.

## 12. COMMISSIONING THE STOVE

A spillage test **MUST** be made before the installed fire is left with the customer.

Carry out the test by first closing all doors and windows in the room containing the stove.

Ensure that the fire is burning at full rate for a minimum of 5 minutes to warm the flue.

Using a smoke match – run along the edge of the draught diverter. The smoke should be drawn into the draught diverter. The test should be made over the full width of the draught diverter, and the test may be done from either left or right.

If most of the smoke is not drawn into the draught diverter leave for a further 10 minutes and repeat.

If there is a fan in the room (or adjacent rooms) the spillage test be repeated with the fan running on full power and all connecting doors between the fire and fan left open.

If there are problems, the chimney/flue may require attention. Isolate the stove and seek expert advice.

The stove will produce an odour and/or smoke for the first few hours of use. Please ventilate the room.

## 13. OPERATING THE STOVE

**IT IS VERY IMPORTANT TO READ THESE INSTRUCTIONS THOROUGHLY BEFORE LIGHTING THE STOVE.**

The stove will produce an odour and/or smoke for the first few hours of use when new. Please ventilate the room when first lighting from new.

The controls for the stove are located on the right hand side of the stove, under the base plate.

The Dovre 250 Gas Stove operates with a traditional permanent pilot light. The pilot light is located towards the Left-hand side of the burner, and is visible through the Log Bar in the window of the stove.

If the Flame Supervision Device Actuating Flame (the Pilot Light) is extinguished either by intention or not, no attempt should be made to relight until **3 minutes have elapsed**.

There is a flue spillage monitoring system fitted to this

appliance, which cuts off the gas supply upon the detection of spilled flue gasses. If this system activates and the stove cuts out, allow 3 minutes before retrying the ignition, noting that the control tap must first be returned to the off position. If pilot will not light, allow a further 3 minutes or sufficient time for switch to reset. If the cutting off persists, then a professionally qualified (i.e. CORGI registered) engineer should be informed.

**Important:** Immediately after lighting, the stove must be left on HIGH for ten minutes in order to warm up the chimney.

### i) Igniting the permanent pilot light.

- 1 Depress control knob fully.
- 2 Whilst depressed, turn knob 90° anticlockwise to “PILOT” setting. Repeat until pilot light is visibly lit. This may take a few attempts.
- 3 KEEP KNOB DEPRESSED AT THIS POINT FOR 15 – 20 SECONDS.
- 4 Upon releasing the knob, the permanent pilot will remain lit, if not return to 1.

### ii) Running the stove at high output.

- 1 Ignite permanent pilot as shown in 13 (i).
- 2 With the control knob at “PILOT” setting, turn in an anti clockwise direction to “HIGH” setting.
- 3 The stove is now burning at it’s highest operating output.

### iii) Running the stove at low setting.

- 1 Ignite permanent pilot as shown in 13 (i) and run stove at “HIGH” setting for at least 10 minutes.
- 2 With control knob at “HIGH” setting, turn in a clockwise direction to “LOW” setting, a slight click can be felt when low is engaged.
- 3 The stove is now burning at it’s lowest operating output.

Output can be set at a variable rate between “LOW” and “HIGH”; this can be increased by turning the control knob progressively in an anti-clockwise direction (from “LOW” or clockwise from “HIGH”), until the desired level is achieved.

## TEN YEAR WARRANTY

If the castings on this appliance should prove to be defective within ten years of the purchase date, the faulty castings will be replaced free of charge, subject to the following conditions.

- 1 The purchaser shall complete the registration section below within seven days of purchase. Failure to return the registration could result in delays in processing any claims.
- 2 The appliance shall have been installed in compliance with the installation instructions.
- 3 All gas controls and components are guaranteed for a period of 12 months from the date of purchase, provided that installation has been carried out by a professionally qualified and accredited engineer. (eg C.O.R.G.I registered).
- 4 This warranty only applies to the appliance body castings and does not include renewable components including glass and seals.
- 5 This warranty does not cover site visits and any claims should be notified to your dealer.

This warranty does not affect the Statutory Rights of Consumer Purchasers

### iv) Extinguishing the stove back to permanent pilot setting

From any heat setting, turn the knob in a clockwise direction through the “LOW” setting (a click will be felt as the knob passes through “LOW”) to the “PILOT” position

### Extinguishing the stove fully

- 1 From any heat setting, turn to “PILOT” as shown in 13 (iv).
- 2 Depress knob fully and turn clockwise to “OFF”

## 14. SERVICING INSTRUCTIONS

The following outlines only the minimum work that should be performed on an annual basis. This service work, like any other work on the appliance, must only be done by a qualified and competent engineer who is registered with C.O.R.G.I.

- A Open the door.
- B Remove all coals and matrix from top of burner.
- C Remove mat from top of burner.
- D Remove any debris from the top of the burner using a vacuum cleaner and brush.
- E Inspect the burner unit.
- F Perform an ignition check.
- G Perform a flame failure check
- H There should be no need to service the burner. If however this is required, then the engineer should check the setting pressure at inlet to burner; the correct pressure is shown on the data information plate.
- I Brush off and replace coal arrangement as shown in section 10, replacing any broken or damaged pieces.
- J Check all seal on door (including glass) and replace the Door.
- K Check the installation for gas leaks.
- L Check flue for clearance of products of combustion.

If any parts need to be replaced use only genuine Dovre parts, non-standard parts will invalidate the guarantee and may be dangerous.

Please complete and return this section within seven days of purchase to:  
**Dovre Castings Ltd., Weston Works, Weston Lane, Tyseley, Birmingham B11 3RP**

Name: .....

Address: .....

Telephone Number: .....

Model: .....

Date of Purchase: .....

Dealer: .....

## 15. TROUBLESHOOTING

### A) The gas pilot will not ignite or stay lit?

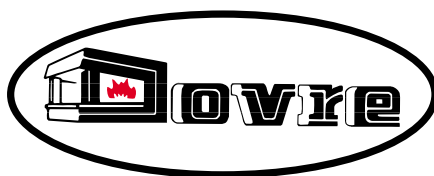
- 1** Ensure the gas is turned on at the appliance and the meter/cylinder.
- 2** Depress the control knob for at least twenty seconds once the pilot is alight to ensure the operation of the safety thermocouple valve.
- 3** Ensure that the pilot injector is not obstructed or blocked and it is free from any dust or dirt.
- 4** Ensure that the thermocouple has not been damaged in transit. This is a very delicate Electro-magnetic device.
- 5** On propane, the cylinder could be empty.

### B) The pilot is not burning or performing correctly?

- 1** Ensure the pilot flame is the correct size for the type of gas. The flame should be focused on the thermocouple probe.
- 2** The pilot flame will have been set correctly in the factory.

### C) The Main Burner does not seem to be burning correctly?

- 1** Ensure adequate gas pressure to the appliance. The pressure can be checked by unscrewing the pressure test nipple and applying a suitable pressure gauge (i.e. a manometer). Ensure adequate volume of gas is being used. Once the fire is burning on maximum, turn off all other gas appliances in the house and calculate the fuel being burned from the gas meter.
- 2** Make sure that the burner is burning correctly. The flame should be even across the top of the burner before any coals are placed on top.



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