

COBRA[®]

Gas Salamander *Model CS9*



INSTALLATION AND OPERATION MANUAL

MANUFACTURED BY

Moffat Limited

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CS9 Gas Salamander

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Part 1 Introduction

We are confident that you will be delighted with your **Cobra Series** Salamander, and it will become a most valued appliance in your commercial kitchen.

To ensure you receive the utmost benefit from your new **Cobra** Appliance, there are two important things you can do.

Firstly:

Please read this instruction book carefully and follow the directions given. The time taken will be well spent.

Secondly:

If you are unsure of any aspect of the installation, instructions or performance of your appliance, contact your **Cobra Series** dealer promptly. In many cases a phone call could answer your questions.

CE Only:

These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the supplier of this appliance to obtain the technical instructions for adapting the appliance to the conditions for use in that country.

WARNING:

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS APPLIANCE.

WARNING:

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE USER SMELLS GAS, ARE TO BE POSTED IN A PROMINENT LOCATION. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING THE LOCAL GAS SUPPLIER.

WARNING:

GREAT CARE MUST BE TAKEN BY THE OPERATOR TO USE THE EQUIPMENT SAFELY TO GUARD IT AGAINST RISK OF FIRE.

- THE APPLIANCE MUST **NOT** BE LEFT ON UNATTENDED.
- IT IS RECOMMENDED THAT A REGULAR INSPECTION IS MADE BY A COMPETENT SERVICEMAN TO ENSURE CORRECT AND SAFE OPERATION OF YOUR APPLIANCE IS MAINTAINED.
- **DO NOT** STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPOURS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.
- **DO NOT** SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

CAUTION:

This appliance is;

- For professional use and is to be used by qualified persons only.
- Only qualified service persons are to carry out installation, servicing and gas conversion operations.
- Components having adjustments protected (e.g. paint sealed) by the manufacturer should not be adjusted by the user / operator.

Part 2 Specifications

Model Covered in this Specification -

CS9 Gas Salamander.

General

A commercial heavy duty, wall mounted gas fired infra-red grilling Salamander for a wide range of foods. Cobra Salamanders feature independently controlled heat zones for left and right side of the cooking area.

Two high speed infrared surface combustion burners in the ceiling of the cavity are independently operated with the left and right hand side controls. Each main burner is provided with flame failure feature for ease of operation and safety. The main burners are manually lit with each burner having LO to HI settings to provide full cooking flexibility.

Rack supports have 4 fixed height positions offering flat and angled rack positioning.

Cobra Salamanders come standard with a crumb / drip tray for collection of cooking grease and crumbs from the cooking operations. The tray is easily removed (slide out) for cleaning and to provide easy cleaning access to the rear and sides of the cooking area.

A Branding Plate is available as an optional accessory item and provides a deep grooved / ribbed cooking surface which can be used with this racking system. Refer to the Replacement Parts List. The Branding Plates can be fitted onto the standard wire rack allowing ease of change as required between menus.

Gas Supply Requirements

- Australia:

	Natural Gas	LP Gas (Propane)
Input Rating	31.5 MJ/hr	31.5 MJ/hr
Supply Pressure	1.13 - 3.4 kPa	2.75 - 4.5 kPa
Burner Operating Pressure (*)	1.0 kPa (*)	2.55 kPa (*)
Gas Connection	1/2" BSP Male	

- New Zealand:

	Natural Gas	LP Gas
Input Rating	31.5 MJ/hr	31.5 MJ/hr
Supply Pressure	1.13 - 3.4 kPa	2.75 - 4.5 kPa
Burner Operating Pressure (*)	1.0 kPa (*)	2.55 kPa (*)
Gas Connection	1/2" BSP Male	

- United Kingdom:

Category: **II_{2H3P} (20, 30 / 37).**

Flue Type: **A1.**

	Nat Gas (G20)	Propane (G31)
Heat Input (nett)	8.8 kW	8.8 kW
Gas Rate	0.84 m ³ /hr	0.63 kg/hr
Supply Pressure	20 mbar	37 mbar
Burner Operating Pressure (*)	10 mbar (*)	26 mbar (*)
Gas Connection	1/2" BSP Male	

NOTE:

(*) Measure burner operating pressure at manifold test point with both burners operating at 'High Flame' setting. Operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gases, if required. Refer to 'Gas Conversion' Section in this manual for further details.

- All Other Markets:

	Natural Gas	Town Gas (**)
Input Rating	31.5 MJ/hr	40 MJ/hr
Supply Pressure	1.13 - 3.4 kPa	0.76 - 1.50 kPa
Burner Operating Pressure (*)	1.0 kPa (*)	0.63 kPa (*)
Gas Connection	1/2" BSP Male	

LP Gas / Butane

Input Rating	31.5 MJ/hr
Supply Pressure	2.75 - 4.5 kPa
Burner Operating Pressure (*)	2.55 kPa (*)
Gas Connection	1/2" BSP Male

NOTE:

- (*) Measure burner operating pressure at manifold test point with both burners operating at the 'High Flame' setting.
- NAT, LPG & Butane Only - Operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gases, if required.
- (**) TOWN GAS Only - Burner operating pressure is to be adjusted using the adjustable gas regulator supplied.
- Refer to 'Gas Conversion and Specifications' section in this manual for further details.

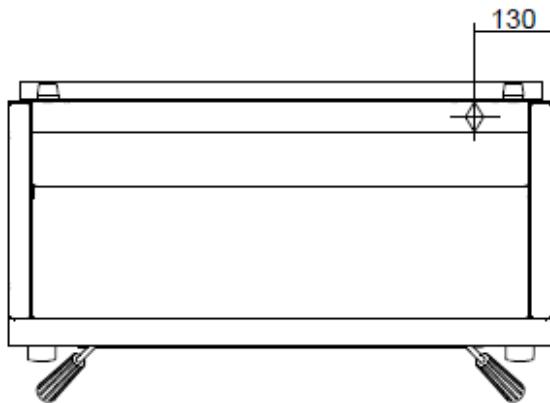
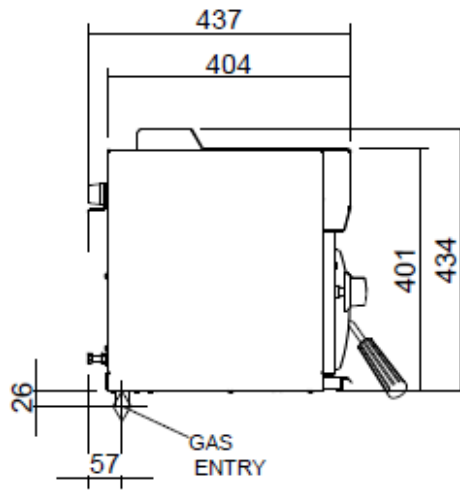
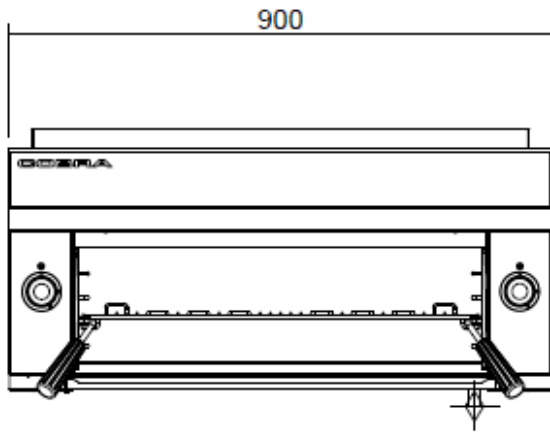
Gas Connection

Gas supply connection point is located at the back, 130mm from right hand side of the appliance, and entered from beneath the appliance.

Connection is 1/2 BSP male.

Dimensions

CS9 Gas Salamander.



Installation Requirements

NOTE: It is most important that this salamander is installed correctly and that operation is correct before use. Installation shall comply with local gas and health and safety requirements.

Waldorf Salamanders are designed to provide years of satisfactory service, and correct installation is essential to achieve the best performance, efficiency and trouble-free operation. This appliance must be installed in accordance with National installation codes and in addition, in accordance with relevant National / Local codes covering gas and fire safety.

Australia:

AS 5601 - Gas Installations.

New Zealand:

NZS 5261 - Gas Installation.

Installations must be carried out by qualified service persons only. Failure to install equipment to the relevant codes and manufacturer's specifications shown in this section will void the warranty.

Components having adjustments protected (e.g. paint sealed) by the manufacturer, are only to be adjusted by an qualified service agent. They are not to be adjusted by the installation person.

Unpacking

- Remove all packaging and transit protection from the appliance including all protective plastic coating from the exterior stainless steel panels.
- Check equipment and parts for damage. Report any damage immediately to the carrier and distributor.
- Report any deficiencies to the distributor who supplied the appliance.
- Check that the available gas supply is correct to that shown on the rating plate located on the front lower corner of the right hand side panel.
- Check that the following parts have been supplied with the appliance:-

1 x Salamander Rack.

1 x Trough Tray.

1 x Gas Regulator.

1 x Gas Conversion Kit.

1 x Wall Mounting Bracket, including;

- 2 x 25 mm Black Plastic Spacers.

Location

1. Installation must allow for a sufficient flow of fresh air for the combustion air supply.

Combustion Air Requirements

Natural Gas	9 m³/hr minimum.
LPG / Butane	9 m³/hr minimum.
Town Gas	9 m³/hr minimum.

2. Installation must include adequate ventilation means, to prevent dangerous build up of combustion products.
3. This appliance must be mounted onto a non-combustible wall or tailored stand, using the rear wall bracket and spacing screws provided.
4. Combustible walls must not protrude past the front of the appliance.
5. This appliance must not be mounted on a combustible surface or metal surface, as radiated heat will cause these surfaces to become extremely hot.
6. Caution should be taken as intense heat is emitted at the bottom front of the appliance.
7. Components having adjustments protected (e.g. paint sealed) by manufacturer are only to be adjusted by an qualified service agent. They are not to be adjusted by the installation person.
8. The unit should be mounted under an extraction hood in compliance with all local regulations.

In the event that the unit is not mounted under an extraction hood, the installer must ensure that all regulations are met and that there is an unobstructed minimum distance of 750mm from the top surface of the unit to the ceiling, which must be of non-combustible material.

NOTE:

Do not obstruct or block the appliances flue. Never directly connect a ventilation system to appliance flue outlet.

Part 3 Installation

Clearances

NOTE:

Only non-combustible materials can be used in close proximity to this appliance.

	Combustible Surface	Non Combustible Surface
LH / RH Side	100 mm	25 mm (*)
Rear	50 mm	30 mm
Top Clearance to:		
- Extraction Hood		200 mm
- Grease Arresting Filter (**)		400 mm
- Ceiling (***)		750 mm

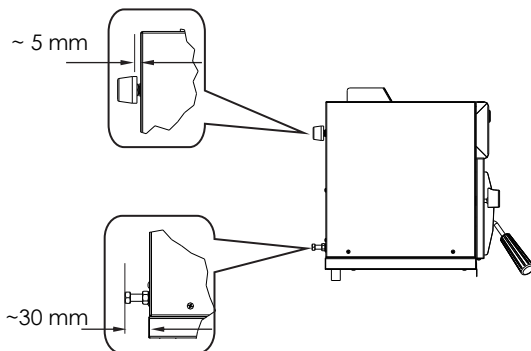
We recommend allowing a clearance of 100 mm on either side of the appliance to allow access to the side panels for servicing purposes.

** Using the wall mounting accessories provided with this appliance.

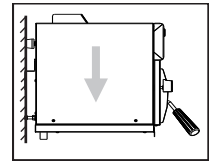
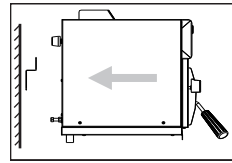
*** Top clearances can be reduced where local fire protection system is provided, if allowed by the local regulations.

Wall Mounting (To Non-Combustible Wall Only)

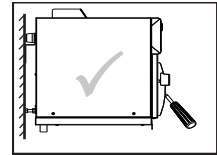
1. Fix the wall mounting bracket to the wall with six screws, in such a position that the top of the bracket is level and at least 945mm (38") above any surface beneath the unit. This will ensure that the bottom of the Salamander is at least 600mm (24") above any surface.
2. Fit the two black plastic spacers to the top rear corners of the unit. Leave them unscrewed by approximately 5mm.
3. Fit the two adjusting screws / bolts into the nutserts at the bottom rear corners of the unit. These should protrude approximately 30mm from the rear of the Salamander.
4. Lift the Salamander onto the wall bracket, lining up the black plastic spacers on the salamander with the mounting notches in the bracket.



5. Lower the Salamander onto the mounting bracket.



6. Tighten the black spacers securely and adjust the levelling screws / bolts to ensure that the unit is level.



Gas Connection

NOTE:

ALL GAS FITTING MUST ONLY BE CARRIED OUT BY A QUALIFIED SERVICE PERSON.

1. Cobra salamanders do not require an electrical connection, as they function totally on the gas supply only.
2. It is essential that the gas supply is correct for the salamander to be installed and that adequate supply pressure and volume are available. The following checks should therefore be made before installation:-
 - a. **Gas Type** the appliance has been supplied for, is shown on a coloured stickers located above the gas connection and next to the rating plate. Check that this is correct for the gas supply the appliance is being installed for. The gas conversion procedure is detailed in this manual.
 - b. **Supply Pressure** required for this appliance is shown in the 'Specifications' section of this manual. Check the gas supply to ensure adequate supply pressure exists.
 - c. **Input Rate** of this appliance is stated on the Rating Plate fitted to the R/H side panel and in the 'Specifications' section of this manual. The input rate should be checked against the available supply line capacity. **Particular note should be taken if the salamander is being added to an existing installation.**

NOTE:

It is important that adequately sized piping runs directly to the connection joint on the appliance with as few tees and elbows as possible to give maximum supply volume.

- Fit the gas regulator supplied, into the gas supply line as close to the appliance as possible.

NOTE:

- The burner operating pressure is to be measured at the manifold test point with two burners operating at the 'High Flame' setting.
- NAT, LPG & Butane Only - The operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gasses, if required.
- TOWN GAS Only - The burner operating pressure is to be adjusted using the adjustable gas regulator supplied.
- Refer to the 'Gas Conversion and Specifications' section of this manual for further details.

The regulator connections are 1/2" BSP female.

The connection to the appliance is 1/2" BSP male.

(Refer to the the 'Specifications' section for the gas supply location dimensions).

NOTE:

A Manual Isolation Valve must be fitted to the individual appliance supply line.

- Correctly locate the appliance into its final operating position and using a spirit level, adjust the legs so that the unit is level and at the correct height.
- Connect the gas supply to the appliance. A suitable jointing compound which resists the breakdown action of LPG must be used on every gas line connection, unless compression fittings are used.
- Check all gas connections for leakages using soapy water or other gas detecting equipment.

WARNING:

DO NOT USE A NAKED FLAME TO CHECK FOR GAS LEAKAGES.

- Check that the gas operating pressure is as shown in 'Specifications' section.

NOTE:

The operating pressure to be measured at the manifold test point and with both burners operating at the 'High Flame' setting.

- Verify that the operating pressure remains correct.

Commissioning

The following commissioning checks must be carried out before the appliance is handed over for use, to ensure that the unit operates correctly and the operator(s) understand the correct operating procedure.

- Before leaving the new installation;
 - Check the following functions in accordance with the operating instructions specified in the 'Operation' section of this manual.
 - Light the Main Burners.
 - Check the Low Fire burner operation.
 - Check the High Fire burner operation.
 - Check the Racking System operation.
 - Ensure that the operator has been instructed in the areas of correct lighting, operation, and shutdown procedure for the appliance.
- This manual must be kept by the owner for future reference, and a record of **Date of Purchase**, **Date of Installation** and **Serial Number of Unit** recorded and kept with this manual. (These details can be found on the Rating Plate attached to the R/H side panel (refer to the 'Gas Connection' section).

NOTE:

If for some reason it is not possible to get the unit to operate correctly, shut off the gas supply and contact the supplier of this unit.

Operation Guide

CAUTION:

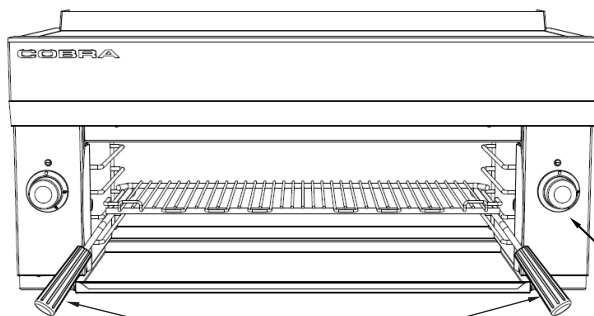
- **This appliance is for professional use and is only to be used by qualified persons.**
- **Only qualified service persons are allowed to carry out installation, servicing or gas conversion operations.**
- **Components having adjustments protected (e.g. paint sealed) by the manufacturer should not be adjusted by the user/operator.**

1. Cobra Salamanders have been designed to provide simplicity of operation and 100% safety protection.
2. Improper operation is therefore almost impossible, however bad operation practices can reduce the life of the salamander and produce a poor quality product. To use this salamander correctly please read the following sections carefully:-
 - Lighting the Main Burners.
 - Racking System.
 - Cooking Recommendations.

Description of Controls

The salamander has individual heat controls for the left and right sides. Select the desired heat level and allow a few minutes for the elements to heat up.

- Cobra salamanders provide two independently controlled heat zones.
- High speed grilling is provided by the two infrared gas burners in the ceiling of the grilling compartment.
- The left hand and right hand gas control knobs operate the left side and right side burners respectively, independently of each other.
- Each burner is provided with flame failure protection.



Rack Handles

Lighting the Main Burners

1. Rotate the control knob anti-clockwise to the position marked HIGH.
2. Manually light the main burner.
 - hold the gas control knob depressed for approx. 10 - 15 secs then release.
3. Once lit the main burner will be burning at full rate. For a lower heat, push in the gas control knob and turn fully anti-clockwise to the LOW position.
4. Also for intermediate heat, position the control knob between the HIGH and LOW positions.
5. Repeat **Items 1 to 4** to light the second main burner.

WARNING:

ALWAYS SET THE GAS CONTROL TO THE 'HIGH' POSITION WHEN LIGHTING THE MAIN BURNER.

IF THE MAIN BURNER GOES OUT DURING NORMAL OPERATION OR FOR ANY REASON, WAIT 3 MINUTES BEFORE ATTEMPTING TO RE-LIGHT THE MAIN BURNER

Racking System

The Rack System fitted to the Salamander is self-supporting when withdrawn, to allow easy loading of food. The installation of the rack is dependent on the cooking function required.

Gas Control Knobs

- OFF Position.
- ▲ HIGH Flame.
- ▲ LOW Flame.

Cooking Recommendations

WARNING:

TO AVOID THE RISK OF FIRE:-

- **DO NOT LEAVE THIS APPLIANCE UN-ATTENDED WHEN IN USE, AS IT DOES COOK FAST.**
- **DO NOT USE OR PLACE ANY COMBUSTIBLE MATERIAL WITHIN 600MM OF THE FRONT COOKING ZONE WHEN THE APPLIANCE IS IN USE.**
- **SYSTEMATICALLY CHECK AND CLEAN THE COOKING AREA , PARTICULARLY THE GRILL RACK AND DRIP TRAY, BEFORE LIGHTING THE BURNERS.**

MAXIMUM ALLOWABLE LOAD INTO THIS APPLIANCE IS 10KG INCLUDING ANY ADDITIONAL ACCESSORIES, IF USED. IT IS NOT TO BE EXCEEDED.

1. The Cobra Salamander has been designed to give a good evenness of heat across the rack area, so toasting, cheese melting and grilling should be relatively even wherever food is placed.
2. The HIGH position is recommended for most grilling, cheese melting functions and LOW position for a reduced heat.
3. For cooking food through rather than just surface browning, rack position three and four from the top is recommended.
4. With a Branding Plate fitted, the unit is able to aid the chef in its ability to produce "medium rare" steaks in the front and "well done" steaks at the rear - achieved with the sloped Branding Plate rack position. (Shelf 2 and 3 from the top).
5. Heating the Branding Plate under the burners before cooking commences, also allows the "sealed in flavoured goodness" to be achieved.

IMPORTANT

Should any abnormal operation like;

- **ignition problems,**
- **abnormal burner flame,**
- **burner control problems,**
- **partial or full loss of burner flame in normal operation,**

be noticed, the appliance requires IMMEDIATE service by a qualified service person and shall not be used until such service is carried out.

General

CAUTION:

Always turn off the gas supply at the mains supply before cleaning. This appliance is not water proof. Do not use water jet spray to clean interior or exterior of this appliance.

- To achieve the best results cleaning must be regular and thorough. All controls and mechanical parts should be checked and adjusted periodically by a qualified service person. If any small faults occur, have them attended to promptly.
- Don't wait until they cause a complete breakdown. It is recommended that the appliance is serviced every 6 months.
- Clean the salamander regularly. A clean appliance looks better, will last longer and will perform better.

Racking

- For ease of cleaning of this unit and the racking system and to achieve the best results, it is recommended that the racking is removed completely from the unit and cleaned independently. This will allow for a more thorough cleaning of the Salamander.
- To remove the racking system, carry out the following instructions.
 1. Remove the Crumb / Drip Tray from the underside of the salamander unit.
 2. Remove the Branding Plate from the rack (if fitted).
 3. Slide the rack out of the side racks and remove from the unit.
 4. Remove the left and right hand side racks from the unit by removing the single securing screw from each of the side racks.
 5. Withdraw the left and right hand side racks from the unit.
 6. Refit the racking in the reverse order once cleaning has been completed.

Stainless Steel Surfaces

- Clean with detergent. Baked on deposits or discolouration may require a good quality stainless steel cleaner or stainless steel wool. Always apply the cleaner when the Salamander is cool and rub in the direction of the "grain".

Vitreous Enamel Surfaces

- Do not use wire brushes, steel wool or other abrasive material. Clean the enamelled surfaces regularly with a good quality domestic oven cleaner. Remove the rack and side racks from the Salamander - this allows easy cleaning of the flat side walls. Leave the crumb / drip tray in to collect all residue.

Crumb / Drip Tray

- Empty and clean daily.

Periodic Maintenance

NOTE: All maintenance operations should only be carried out by a qualified service person.

To achieve the best results cleaning must be regular and thorough and all controls and mechanical parts should be checked and adjusted periodically by a qualified service person. If any small faults occur, have them attended to promptly. Don't wait until they cause a complete breakdown.

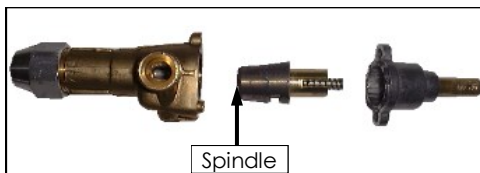
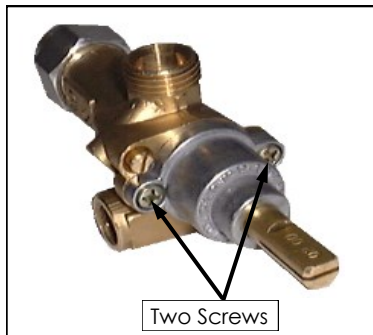
It is recommended that the appliance is serviced every 6 months.

Gas Control Valve Re-Greasing

The gas control valve should be dismantled and greased every 6 months to ensure the correct operation of the gas control valve.

To carry out this operation;-

1. Remove the gas control knobs from the gas tap spindles by pulling the knobs away from the control panel.
2. Remove the crumb / drip tray from the appliance.
3. Remove the two screws on the underside of the control panel, securing the control panel to the hob.
4. Remove the control panel from the front of the appliance.
5. Remove the 2 screws holding shaft plate to gas control body and remove control shaft and plate. Note orientation of shaft for correct re-assembly.
6. Using needle nose pliers or similar, pull out gas control spindle, again noting its orientation.
7. Apply a suitable high temperature gas cock grease or lubricant such as ROCOL - A.S.P (Anti scuffing paste) / Dry Moly Paste to the outside of spindle.
8. Replace spindle and re-assemble the gas control in reverse order.
9. Refit control panel to the appliance and secure with 2 screws.
10. Refit the knobs to the gas control valve spindles.



Part 6 Fault Finding

This section provides an easy reference guide to the more common problems that may occur during operation of your equipment. The fault finding guide in this section is intended to help you correct, or at least accurately diagnose problems with your equipment.

Although this section covers the most common problems reported, you may encounter a problem not covered in this section. In such instances, please contact your local authorised service agent who will make every effort to help you identify and resolve the problem. Please note that the service agent will require the following information:-

- **Model Code and Serial Number of appliance. (both can be found on Rating Plate located on the appliance.**

Fault	Possible Cause	Remedy
Main Burner goes out when gas control knob released.	Releasing knob before thermocouple has heated.	Hold knob in for at least 20 seconds following ignition of main burner.
	Main Burner flame too small:- - Gas pressure too low. - Partially blocked main injector.	Call service provider.
	Thermocouple faulty.	Call service provider.
Main burners will not light.	No gas supply.	Ensure gas isolation valve is turned On , and gas bottles are not empty.
	Incorrect supply pressure.	Call service provider.
	Blocked main injector.	Call service provider.
	Faulty gas control.	Call service provider.
Burner goes out.	Check main burner flame is touching thermocouple.	Call service provider.
	Interruption in gas supply to burner.	Call service provider.
	Main injector size too small. (See Specifications section).	Call service provider.
Lack of glowing. Large haze beneath burner.	Check gas pressure at pressure test point.	Call service provider.
Burner blow-back.	Gas leak in burner plaque. (See Servicing Section).	New burner plaque required. Call service provider.

Gas Conversion Procedure

CAUTION:

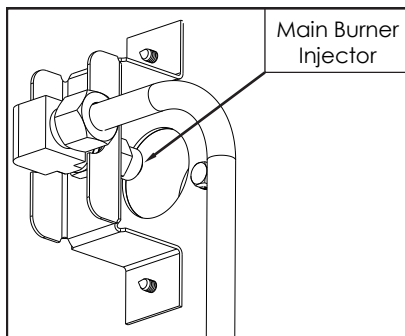
Ensure that the Unit is isolated from the gas supply before commencing servicing.

NOTE:

- These conversions should only be carried out by qualified persons. All connections must be checked for leaks before re-commissioning the appliance.
- For all the following conversion instructions, the side panels have to be removed (Remove the two screws at the bottom of each side panel).
- All conversion details apply to both L/Hand and R/Hand burners.
- For all relevant gas specifications refer to the table at the end of this section.

Main Burner Injectors

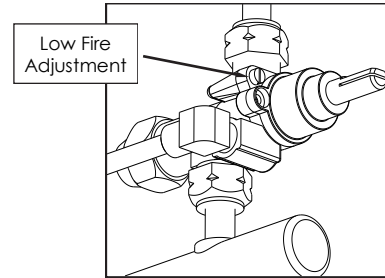
1. Ensure that the gas supply has been turned 'Off'.
2. Unscrew the main burner injectors (1/2" A/F).



3. Determine the correct injector sizes for the corresponding gas type from the rating plate affixed to the right hand side panel front bottom corner.
4. Replace with the correct size injectors.

Low Fire Adjustment

1. Remove the gas control knobs from the front of the unit.
2. Remove the 2 front control panels by removing the two screws (per panel) located at the bottom of each panel.
3. Set the burner low fire adjustment. Low fire screw on gas control valve should be screwed fully in, then unscrewed by the measurement shown in the 'Gas Specifications' table.



NOTE:

The 'Low Fire Screw' should be sealed with coloured paint on completion of low fire adjustment.

Commissioning

Before leaving the converted installation;

1. Check all gas connections for leakages using soapy water or other gas detecting equipment.

WARNING:

DO NOT USE A NAKED FLAME TO CHECK FOR GAS LEAKAGES.

2. Check the following functions in accordance with the operating instructions specified in the 'Operation' section of this manual.
 - Light the Main Burners.
 - Check the Low Fire burner operation.
 - Check the High Fire burner operation.
 - Ensure all controls operate correctly.

NOTE:

If it is not possible to get the appliance to operate correctly, shut off the gas supply and contact the supplier of this appliance.

Gas Type Identification Label

On completion of the gas conversion, replace the gas type labels located at:-

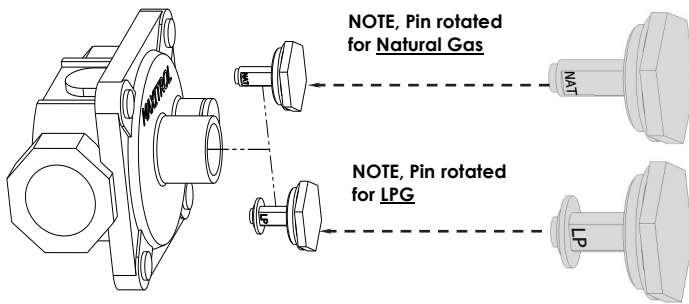
- Rear of unit, above gas connection point.
- Beside the rating plate.

NOTE:

If it is not possible to get the appliance to operate correctly, shut 'Off' the gas supply and contact the supplier of this appliance.

Gas Regulator

- NAT Gas / LPG / Butane Only.

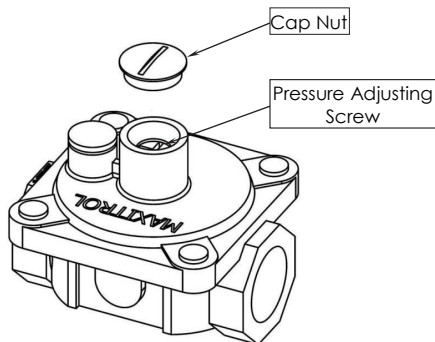


NOTE:

The regulator supplied is convertible between Natural Gas and LP Gas, but its outlet pressure is fixed ex-factory and is NOT to be adjusted.

1. Ensure that the gas supply is turned 'Off' at the mains.
2. Unscrew the hexagonal cap (23mm A/F) from the regulator.
3. Un-clip the plastic pin from the cap, reverse the pin and re-fit it back to the cap the correct way for the gas type to be used. **(Either 'LP' or 'NAT' should be visible on the flank of the pin once re-fitted to the cap).**
4. Screw the cap back into the regulator hand tight only.

- Town Gas Only.



1. Unscrew and remove slotted cap from regulator.
2. Turn 'On' the gas supply and the appliance.
3. Adjust pressure adjusting nut to achieve the correct burner operating pressure.



NOTE:

The operating pressure is to be measured at the manifold test point and with both burners operating at the 'High Flame' setting.



4. Verify the operating pressure remains correct (Re-adjust the regulator if required).
5. Screw the cap nut back onto the regulator.

Gas Specifications

- Australia:



		Natural Gas	LP Gas (Propane)
Main Burner Injectors		Ø 1.85mm	Ø 1.15mm
Low Fire	Size	Ø 1.00mm	Ø 1.00mm
	Adjustment	2 turns out (c.c.w.)	½ turn out (c.c.w.)
Supply Pressure		1.13 - 3.40 kPa	2.75 - 4.50 kPa
Burner Operating Pressure (*)		1.0 kPa (*)	2.55 kPa (*)
Gas Regulator Cap Screw			

- New Zealand:

		Natural Gas	LP Gas
Main Burner Injectors		Ø 1.85mm	Ø 1.15mm
Low Fire	Size	Ø 1.00mm	Ø 1.00mm
	Adjustment	2 turns out (c.c.w.)	½ turn out (c.c.w.)
Supply Pressure		1.13 - 3.40 kPa	2.75 - 4.50 kPa
Burner Operating Pressure (*)		1.0 kPa (*)	2.55 kPa (*)
Gas Regulator Cap Screw			

- United Kingdom:

Category: **II_{2H3P} (20, 30 / 37).**
 Flue Type: **A₁.**


		Natural Gas	LP Gas
Main Burner Injectors		Ø 1.85mm	Ø 1.15mm
Low Fire	Size	Ø 1.00mm	Ø 1.00mm
	Adjustment	2 turns out (c.c.w.)	½ turn out (c.c.w.)
Supply Pressure		20 mbar	37 mbar
Burner Operating Pressure (*)		10 mbar	26 mbar
Gas Regulator Cap Screw			


NOTE:

(*) Measure burner operating pressure at manifold test point with **both burners** operating at full setting. Operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gases, if required. (Refer to details in this section for further information.)

Part 7 Gas Conversion

- All Other Markets:

		Natural Gas	Town Gas (**)
Main Burner Injectors		Ø 1.85mm	Ø 3.50 mm
Low Fire	Size	Ø 1.00mm	Ø 1.00 mm
	Adjustment	2 turns out (c.c.w.)	4 turns out (ccw)
Supply Pressure		1.13 - 3.40 kPa	0.76 - 1.50 kPa
Burner Operating Pressure (*)		1.0 kPa (*)	0.63 kPa (*)
Gas Regulator Cap Screw			Adjustable Regulator (Adjust to the Burner Operating Pressure specified)

		LP Gas (Propane)	Butane
Main Burner Injectors		Ø 1.85mm	Ø 1.10mm
Low Fire	Size	Ø 1.00mm	Ø 1.00mm
	Adjustment	2 turns out (c.c.w.)	½ turn out (c.c.w.)
Supply Pressure		1.13 - 3.40 kPa	2.75 - 4.50 kPa
Burner Operating Pressure (*)		1.0 kPa (*)	2.55 kPa (*)
Gas Regulator Cap Screw			

NOTE:

- The burner operating pressure is to be measured at the manifold test point with both burners operating at the 'High Flame' setting.
- NAT, LPG & Butane Only - The operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gases, if required.
- TOWN GAS Only - The burner operating pressure is to be adjusted using the adjustable gas regulator supplied.
- Refer to the 'Gas Conversion and Specifications section of this manual for further details.

Replacement Parts List

IMPORTANT:

Only genuine qualified replacement parts should be used for the servicing and repair of this appliance. The instructions supplied with the parts should be followed when replacing components.

For further information and servicing instructions, contact your nearest qualified service branch (contact details are as shown on the reverse of the front cover of this manual).

When ordering spare parts, please quote the part number and the description as listed below. If the part required is not listed below, request the part by description and quote model number and serial number which is shown on the rating plate.

Controls

019430	Gas Control Valve.	
242622	Control Knob.	
034185	Main Injector (Natural Gas)	1.85mm.
034115	Main Injector (LPG)	1.15mm.
034110	Main Injector (Butane)	1.10mm.
032350	Main Injector (Town Gas)	3.50mm.
019574	Low Fire Screw (Nat. Gas / LPG / Town Gas)	1.00mm.
019214K	Burner Kit.	
026123	Burner Guard.	
230671	Thermocouple.	

General

026096	Wall Mounting Bracket.
013908	Spacer Foot Assy.
017963	Rack.
026093	Side Rack.
227961	Screw Side Rack.
231546	Crumb / Drip Tray.

Accessories (Optional)

013418	Branding Plate	(XP/UK only).
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Gas Regulators

Gas Type	Gas Regulators	
	Part No.	Description
Nat. Gas, LP Gas, Butane	228533	Regulator (RV47) - 1/2" BSP F/F.
Town Gas	230185	3/4" BSP F/F Adjustable (0.63 kPa).

Gas Conversion Kits

Model	Gas Type to Convert to			
	Nat. Gas	LPG (Propane)	Butane	Town Gas
CS9	231551	231552	232081	232082

