



EVOLUTIONSERIES

INSTALLATION AND OPERATION MANUAL

GAS TARGET TOP RANGE/ CONVECTION OVEN

G576

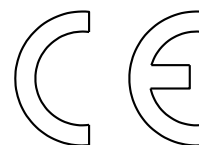


Date Purchased _____

Serial Number _____

Dealer _____

Service Provider _____



For use in GB & IE

230097-11

MANUFACTURED BY

Moffat Limited

Rolleston 7675
New Zealand

INTERNATIONAL CONTACTS

AUSTRALIA

Moffat Pty Limited

E.Mail: vsales@moffat.com.au
Main Office: (tel): +61 (03) 9518 3888
(fax): +61 (03) 9518 3838
Service: (tel): 1800 622 216
Spares: (tel): 1800 337 963
Customer Service: (tel): 1800 335 315
(fax): 1800 350 281

CANADA

Serve Canada

Web: www.servecanada.com
E.Mail: info@servecanada.com
Sales: (tel): 800 551 8795 (Toll Free)
Service: (tel): 800 263 1455 (Toll Free)

NEW ZEALAND

Moffat Limited

Web: www.moffat.co.nz
E.Mail: sales@moffat.co.nz
Main Office: (tel): 0800 663328

UNITED KINGDOM

Blue Seal

Web: www.blue-seal.co.uk
E.Mail: sales@blue-seal.co.uk
Sales: (tel): +44 121 327 5575
(fax): +44 121 327 9711
Spares: (tel): +44 121 322 6640
(fax): +44 121 327 9201
Service: (tel): +44 121 322 6644
(fax): +44 121 327 6257

UNITED STATES

Moffat

Web: www.moffat.com
Sales: (tel): 800 551 8795 (Toll Free)
(tel): +1 336 661 1556
(fax): +1 336 661 9546
Service: (tel): 800 858 4477 (Toll Free)
(tel): +1 366 661 1556
(fax): +1 336 661 1660

REST OF WORLD

Moffat Limited

Web: www.moffat.co.nz
E.Mail: export@moffat.co.nz

The reproduction or copying of any part of this manual by any means whatsoever is strictly forbidden unless authorized previously in writing by the manufacturer.

In line with policy to continually develop and improve its products, Moffat Ltd. reserves the right to change the specifications and design without prior notice.

© Copyright Moffat Ltd. December 2014.

Blue Seal Gas Target Top Range Convection Oven**G576 Gas Target Top Range Convection Oven.**

Introduction	2
Specification	3
Model Numbers Covered in this Specification	
General	
Gas Supply Requirements	
Gas Connection	
Electrical Supply Requirements	
Dimensions	6
Installation	7
Installation Requirements	
Unpacking	
Location	
Clearances	
Assembly	
Gas Connection	
Electrical Connection	
Commissioning	
Operation	10
Operation Guide	
Description of the Controls	
Lighting Pilot Burner - (Target Top)	
Lighting Main Burner - (Target Top)	
Lighting Pilot Burner (Oven)	
Oven - Main Burner / Thermostat	
Oven Fan	
Turning the Oven to 'Stand-By' (Pilot 'ON' Only)	
Oven 'Shut Down'	
Cleaning and Maintenance	14
General	
After Each Use	
Daily Cleaning	
Weekly Cleaning	
Routine Maintenance	
Fault Finding	16
Wiring Schematic	17
Gas Conversion and Specifications	18
Conversion Procedure	
Gas Specifications	
Replacement Parts List	25

Introduction

We are confident that you will be delighted with your BLUE SEAL Target Top Range Convection Oven and it will become a most valued appliance in your commercial kitchen.

To ensure you receive the utmost benefit from your new Blue Seal appliance, there are two important things you can do.

Firstly:

Please read the 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 BLUE SEAL dealer promptly. In many cases a phone call could answer your question.

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 SERVICE PERSON 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 only to be used by qualified persons.**
 - **Only authorised service persons are 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.**
 - **DO NOT operate the appliance without the legs supplied, fitted.**
-

Model Numbers Covered in this Specification

G576 Gas Target Top Range Convection Oven.

General

A commercial heavy duty, general purpose fully modular, gas fired Target Top Range Convection Oven, having a high output, two stage double-ring cast iron burner offering accurate temperature control and infinitely variable heat with heat radiating out from centre of Target Top. Main Burner is located underneath removable cast target top plates.

The Target Top uses a 45 Mj/hr burner and as standard is fitted with full pilot, flame failure protection.

The Oven utilizes a 30 Mj/hr oven main burner with pilot and flame failure protection and is fitted with piezo ignition to the oven pilot burner. Oven is fitted with a 100 watt heavy duty motor with 200mm diameter heavy duty circulation fan.

The oven is controlled with a 50 to 320°C thermostat. Indicator lights for power and heating. Burner automatically cuts-off when oven door is opened. Access to oven main and pilot burner is via a drop down door and a removable front lintel on lower part of oven.

The appliance is built to facilitate easy cleaning and maintenance with all parts being front accessible once appliance is installed.

Specifications

Gas Supply Requirements

- Australia:

	Natural Gas		LP Gas (Propane)	
	Target Top	Oven	Target Top	Oven
Input Rate (N.H.G.C.)	45 MJ/hr	30 MJ/hr	45 MJ/hr	30 MJ/hr
Gas Supply Pressure	1.13 - 3.40 kPa		2.75 - 4.50 kPa	
Burner Operating Pressure (*)	1.0 kPa		2.60 kPa	
Gas Connection	3/4" B.S.P. Male			

- New Zealand:

	Natural Gas		LP Gas	
	Target Top	Oven	Target Top	Oven
Input Rate (N.H.G.C.)	45 MJ/hr	30 MJ/hr	45 MJ/hr	30 MJ/hr
Gas Supply Pressure	1.13 - 3.40 kPa		2.75 - 4.50 kPa	
Burner Operating Pressure (*)	1.0 kPa		2.60 kPa	
Gas Connection	3/4" B.S.P. Male			

- UK Only:

Category: II_{2H3P}.
Flue Type: A₁.

		Natural Gas (G20)		Propane (G31)	
		Target Top	Oven	Target Top	Oven
Heat Input (nett)	Nominal	11.5 kW	8.0 kW	11.5 kW	8.0 kW
	Reduced	4.7 kW	2.4 kW	7.9 kW	2.4 kW
Gas Rate (nett)	Nominal	1.22 m ³ /hr	0.85 m ³ /hr	0.89 kg/hr	0.62 m ³ /hr
	Reduced	0.50 m ³ /hr	0.25 m ³ /hr	0.61 kg/hr	0.19 m ³ /hr
Supply Pressure		20 mbar		37 mbar	
Burner Operating Pressure (*)		9.9 mbar		26.8 mbar	
Gas Connection		3/4" B.S.P. Male			

* Measure burner operating pressure at target top hob manifold test point with target top burner (Inner and Outer Ring) operating at full setting. Operating pressure is ex-factory set through appliance regulator and not to be adjusted, apart from when carrying out gas conversion, if required. (Refer to 'Gas Conversion' section for details).

- All Other Markets:

	Natural Gas		Town Gas (**)	
	Target Top	Oven	Target Top	Oven
Input Rate (N.H.G.C.)	45 MJ/hr	30 MJ/hr	45 MJ/hr	30 MJ/hr
Gas Supply Pressure	1.13 - 3.40 kPa		0.75 - 1.50 kPa	
Burner Operating Pressure (*)	0.95 kPa		0.63 kPa	
Gas Connection	$\frac{3}{4}$ " B.S.P. Male			

	LP Gas (Propane)		Butane	
	Target Top	Oven	Target Top	Oven
Input Rate (N.H.G.C.)	45 MJ/hr	30 MJ/hr	45 MJ/hr	30 MJ/hr
Gas Supply Pressure	2.75 - 4.50 kPa		2.75 - 4.50 kPa	
Burner Operating Pressure (*)	2.60 kPa		2.60 kPa	
Gas Connection	$\frac{3}{4}$ " B.S.P. Male			

NOTE:

- (**) Measure burner operating pressure at target top hob manifold test point with target top burner (Inner and outer ring) operating at full setting.
- NAT, LPG & Butane Only - Operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gasses, if required.
- TOWN GAS Only - Burner operating pressure is to be adjusted using adjustable gas regulator supplied. Town Gas Option is only available with specific ex-factory built Town Gas models, which can also be converted to any other gas. Standard models can only be converted between Nat. Gas, LP Gas and Butane, but not Town Gas.
- Refer to 'Gas Conversion and Specifications' section of this manual for further details.

Gas Connection

Gas supply connection point is located at rear of the appliance, 130mm from right hand side, 32mm from rear and 655mm from floor and is reached from beneath appliance. (Refer to 'Dimensions' section).

Connection is $\frac{3}{4}$ " BSP male thread.

Electrical Supply Requirements

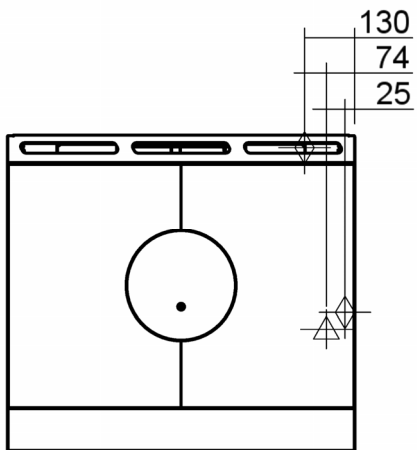
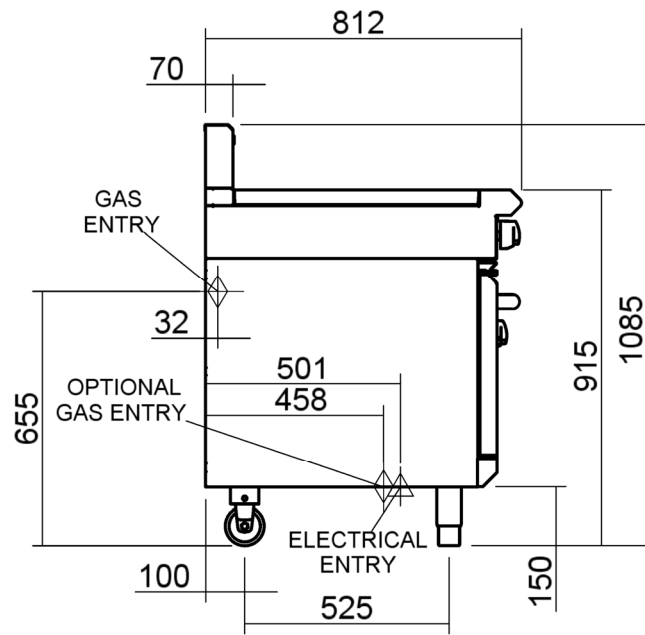
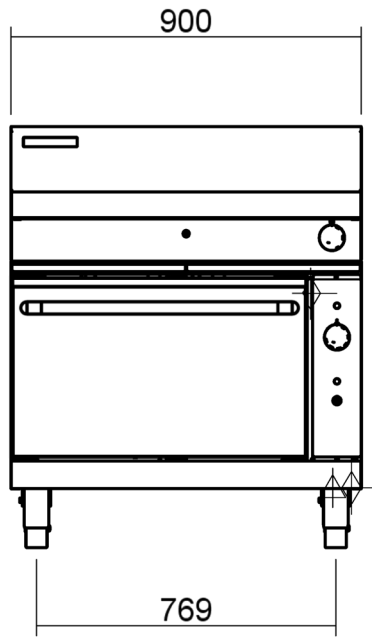
Electrical supply connection point is located at the rear of the appliance, 74mm from right hand side, 501mm from rear and 150mm from the floor and is reached from beneath appliance. (Refer to 'Dimensions' section).



230-240 V a.c, 50 Hz, 1.6 A, 1P+N+E, 0.4kW

Oven Fan Motor - 100 W.

Dimensions

G576



-  Electrical Connection Point.
-  Gas Connection Point.

Installation Requirements

NOTE:

- It is most important that this appliance is installed correctly and that operation is correct before use. Installation shall comply with local gas, electrical and health and safety requirements.
- This appliance shall be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of health harmful substances in the room, the appliance is installed in.

Blue Seal Target Top Range Convection Oven 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, electrical and fire safety.

AUSTRALIA:	- AS5601	- Gas Installations.
NEW ZEALAND:	- NZS5261	- Gas Installation.
UNITED KINGDOM:	- Gas Safety (Installation & Use) Regulations 1998.	
	- BS6173	- Installation of Catering Appliances.
	- BS5440	- 1 & 2 Installation Flueing & Ventilation.
	- BS7671	- Requirements for Electrical Installation.
IRELAND:	- IS 820	- Non - Domestic Gas Installations.

Installations must be carried out by authorised 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 authorised service agent. They are not to be adjusted by the installation person.

Unpacking

- Remove all packaging and transit protection from appliance including all protective plastic coating from exterior stainless steel panels.
- Check equipment and parts for damage. Report any damage immediately to carrier and distributor.
- Report any deficiencies to distributor who supplied appliance.
- Check available gas and electrical supply is correct to as shown on rating plate located on front right hand corner of bottom sill.

Location

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

Combustion Air Requirements:	
Natural Gas	20 m³/hr
LPG / Butane	20 m³/hr
Town Gas	20 m³/hr

2. Installation must include adequate ventilation means, to prevent dangerous build up of combustion products.
3. Never directly connect a ventilation system to appliance flue outlet.
4. Any gas burning appliance requires adequate clearance and ventilation for optimum and trouble-free operation. Minimum installation clearances shown overleaf are to be adhered to.
5. Position appliance in its approximate working position.
6. All air for burner combustion is supplied from beneath appliance. Legs must always be fitted to appliance and no obstructions placed on underside or around base of appliance, as obstructions will cause incorrect operation and / or failure of appliance.

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

Installation

Clearances

	Combustible Surface	Non Combustible Surface
Left / Right Hand Side	50mm	0mm
Rear	50mm	0mm

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

Assembly

NOTE:

- All Models are delivered completely assembled. No further assembly is required. Refer to information below for installation instructions.
- This appliance is fitted with adjustable feet to enable appliance to be positioned securely and level. This should be carried out on completion of gas connection. Refer to 'Gas Connection' section.

Optional Accessories (Refer to Replacement Parts List)

- Plinth Kit. For installation details, refer to instructions supplied with each kit.

1. Check all feet (or castors) are securely fitted.
2. Adjust feet to make appliance steady and level.

Gas Connection

NOTE: ALL GAS FITTING MUST ONLY BE CARRIED OUT BY AN AUTHORISED PERSON.

1. It is essential that gas supply is correct for appliance to be installed and that adequate supply pressure and volume are available. The following checks should be made before installation:-
 - a. **Gas Type** the appliance has been supplied for is shown on the 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 that adequate supply pressure exists.
 - c. **The Input Rate** of this appliance is stated on Rating Plate and in 'Specifications' section of this manual. Input rate should be checked against available gas supply line capacity. **Particular note should be taken if appliance is being added to an existing installation.**

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

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

NOTE: Gas pressure regulator provided with this appliance is convertible between Natural Gas and LPG as shown in 'Gas Conversion Section' in this manual.

Ensure regulator is converted to correct gas type that appliance will operate on.

Regulator outlet pressure is fixed ex-factory for gas type that regulator is converted to and it is **NOT to be adjusted.**

Regulator connections are $\frac{3}{4}$ " BSP female.

Connection to appliance is $\frac{3}{4}$ " BSP male.

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

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

3. Correctly locate appliance into its final operating position and using a spirit level, adjust legs so that appliance is level and at correct height.
4. Connect gas supply to appliance. A suitable joining compound which resists breakdown action of LPG must be used on every gas line connection, unless compression fittings are used.
5. Check gas operating pressure is as shown in 'Specifications' section.
6. 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.

7. Check gas operating pressure is as shown in 'Specifications' section.

NOTE: Operating pressure to be measured at manifold test point and with burners operating at 'High Flame' setting.

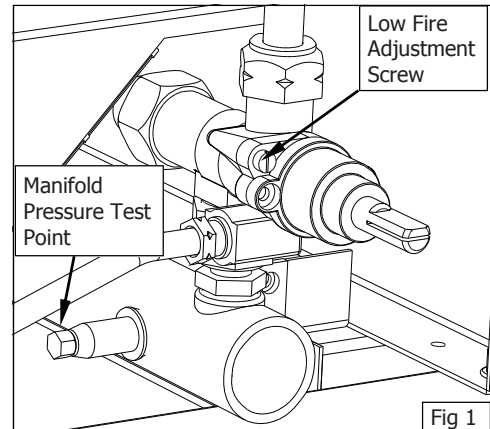
8. Verify operating pressure remains correct.

Electrical Connection

NOTE: ALL ELECTRICAL CONNECTIONS MUST ONLY BE CARRIED OUT BY AN AUTHORISED PERSON.

Each appliance should be connected to an adequately protected power supply and isolation switch mounted adjacent to, but not behind appliance. This switch must be clearly marked and readily accessible in case of fire.

1. Check electricity supply is correct as shown on Rating Plate located on front right hand corner of bottom sill.
2. Electric fan motor and all corresponding electrical switches are connected through a 2m, 10 Amp flex located at rear of oven.
3. For immediate electrical supply, simply fit a plug to flex (if a plug is not already fitted) and plug lead into a properly earthed, 3 pin socket.



Commissioning

1. Before leaving the new installation;
 - a. Check the following functions in accordance with operating instructions specified in 'Operation' section of this manual.
 - Light the Target Top Pilot Burner.
 - Light the Target Top Main Burner.
 - Light the Oven Pilot and Main Burners.
 - Check the Oven Main Burner Thermostat operation.
 - Check the Low Fire Burner operation for Target Top and Oven.
 - Check the High Fire Burner operation for Target Top and Oven.
 - b. Ensure operator has been instructed in areas of correct lighting, operation, and shutdown procedure for appliance.
2. This manual must be kept by owner for future reference, and a record of **Date of Purchase, Date of Installation** and **Serial Number of Appliance** recorded and kept with this manual. **(These details can be found on Rating Plate located on front right hand corner of bottom sill. Refer to 'Gas Connection' section).**

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

Operation

Operation Guide



Caution

- This appliance is for professional use and is only to be used by qualified persons.
- Only authorised service persons are 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. Blue Seal appliances have been designed to provide simplicity of operation and 100% safety protection.
2. Improper operation is almost impossible, however bad operation practices can reduce the life of the appliance and produce a poor quality product. To use this appliance correctly please read the following sections carefully:-
 - Lighting the Pilot Burner (Target Top).
 - Lighting the Main Burner (Target Top).
 - Oven Pilot Ignition.
 - Oven Main Burner / Thermostat.
 - Turning Oven to 'Stand-By' Mode.
 - Oven 'Shut-Down'.

Description of the Controls



Fig 2

Target Top Gas Control Knob



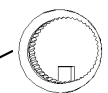
- OFF Position
- ★ PILOT Burner
- △ HIGH Flame
- △ LOW Flame

Oven Thermostat Control



- Temperature Graduations 50°C to 320°C.

Oven Gas Control



- OFF Position
- ★ PILOT Burner
- △ HIGH Flame

Oven Piezo Igniter



Lighting Pilot Burner (Target Top)

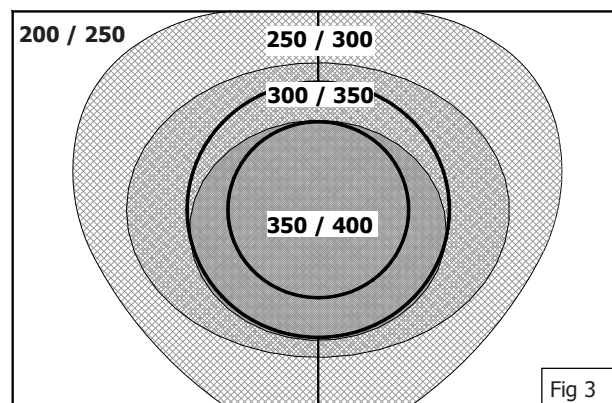
1. Remove centre casting with casting removal tool.
2. Depress control knob and rotate anti-clockwise to 'PILOT' position.
3. With control knob depressed, manually light pilot burner located in front of main burner.
4. Hold in control knob for approximately 10 to 15 seconds, then release.
5. Pilot burner should remain alight. If not repeat **Items 2 to 4** above until pilot burner lights.

Lighting Main Burner (Target Top)

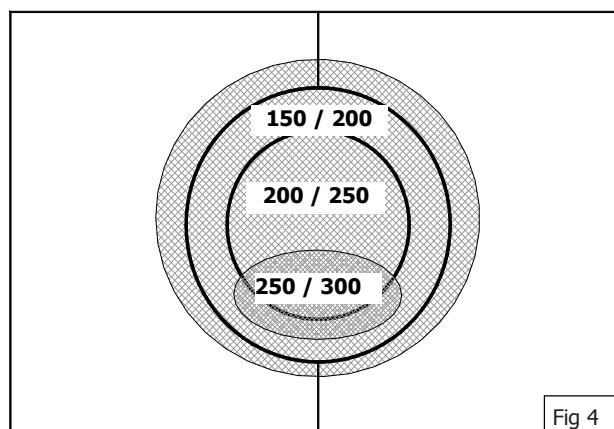
1. Ensure pilot burner is alight by checking through hole in centre of front control panel or by removing centre casting using casting removal tool.
2. Rotate gas control knob anti-clockwise to position marked 'HIGH'.
3. Main burner will ignite automatically off pilot burner.
4. Once lit, main burner will be burning at full rate. For a lower heat, turn gas control knob fully anti-clockwise to 'LOW' position.
5. For intermediate heat, position gas control knob between 'HIGH' and 'LOW' positions.

NOTE: Always set gas control knob to 'HIGH' position when lighting main burner. If pilot burner goes out during normal operation wait 5 minutes before re-lighting.

6. The cast iron work surface has a heat pattern that can be used effectively by positioning cooking pans etc. appropriately according to heat requirement.



Heat Pattern for target top on full heat (°C)



Heat Pattern for target top on Low Heat (°C)

Operation

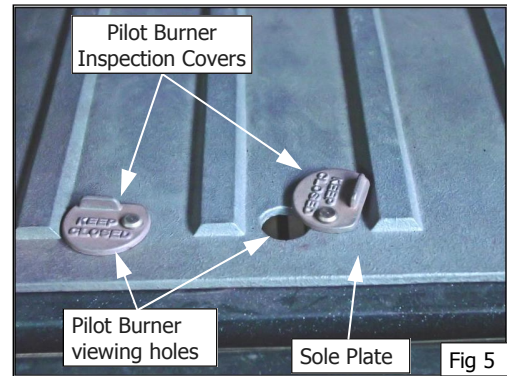
Oven Pilot Ignition

This oven is fitted with a pilot as a standard option and flame failure protection, which is incorporated by way of a thermo-electric system for the main burner. Flame failure protection will shut off gas supply to burner in the event that pilot burner goes out, so that un-burnt gas is not expelled. ***This is an important safety feature which is slowly becoming law throughout the world.***

! IMPORTANT

DO NOT USE aluminium foil or trays directly on cast iron sole plate(s). NEVER block or cover openings on each side of sole plate(s).

1. Open oven door.
2. Depress oven gas control knob and rotate anti-clockwise to 'PILOT' position.
3. While holding oven gas control knob depressed, press piezo ignition button to ignite pilot burner. Repeat Items 1 and 2 until pilot burner is lit.
4. Release gas control knob approximately 10-20 seconds after lighting pilot.
5. Pilot should now remain alight - if not, repeat Steps 2 to 3 above.
6. Ensure pilot burner is alight by opening pilot viewing covers and looking through pilot burner viewing holes in cast oven sole plate.



NOTE: Ensure pilot viewing covers are closed once pilot is lit.

Oven - Main Burner / Thermostat

1. Ensure oven door is closed.
2. Turn 'On' electrical power at mains supply, (white) power indicator light will illuminate on oven control panel.
3. With pilot burner alight, depress and rotate oven gas control knob to 'Main Flame' position. (This puts gas valve in 'Stand-By' position and control of main burner is now carried out through oven thermostat control).
4. Turn oven thermostat to desired oven temperature setting required, this will regulate gas supply to oven main burner.
5. Oven fan will start up and oven main burner will ignite.
6. Amber heating indicator light will show that oven main burner is 'ON' and oven is heating. When amber heating indicator light goes out, oven has reached pre-selected temperature, main burner will cycle 'OFF'.

Oven Fan

1. Fan is operational only when oven thermostat is set to a temperature. Fan is controlled by a microswitch which in turn is controlled by opening and closing the oven door. Oven fan will only operate with oven door closed.

Turning Oven to 'Standby' (Pilot 'ON' Only)

1. To turn 'Off' oven main burner / heating, set oven thermostat to '0' temperature position, this will turn oven main burner 'OFF', but will leave oven pilot burner 'ON'.
2. In this position pilot burner will remain alight, but oven main burner will not operate until thermostat control knob is set to a temperature.
3. If oven pre-heating is required, set thermostat control knob to temperature 190°C and allow 20 minutes before cooking in oven to allow oven to warm up.

Oven 'Shut-Down'

1. To 'Shut Down' oven, turn oven thermostat to '0' position, oven main burners will go out.
2. Turn gas control valve to 'OFF' position and this will extinguish pilot burner. (To relight pilot burner, refer to 'Oven Pilot Ignition' above).
3. Turn 'OFF' electrical power at mains supply, (white) power indicator light will extinguish.

NOTE: If main burner has recently been turned 'OFF', should you wish to re-light oven, the interlock will not allow gas valve to be turned to main burner position until interlock has reset (Approximately 1 minute). **DO NOT FORCE GAS VALVE TO MAIN BURNER POSITION UNTIL INTERLOCK HAS RESET**, as this will damage gas control valve.

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, appliance requires **IMMEDIATE** service by a qualified service person and should not be used until such service is carried out.

Cleaning and Maintenance

General



Caution

Always turn 'Off' gas supply before cleaning.

This appliance is not water proof.

Do not use water jet spray to clean interior or exterior of this appliance.

Clean the Target Top / Range regularly. A clean appliance looks better, will last longer and will perform better. Carbonised grease on cooking surface will hinder transfer of heat from cooking surface to food. This will result in loss of cooking efficiency.

DO NOT use water on Target Top / Range while this item is still hot as warping and cracking may occur. Allow Target Top / Range to cool down before cleaning.

NOTE:

- **DO NOT use abrasive detergents, sharp scrapers, strong solvents or caustic detergents as they could corrode or damage Target Top.**
- **In order to prevent rust forming on Target Top, ensure that any detergent or cleaning material has been completely removed after each cleaning. The appliance should be switched 'On' briefly to ensure Target Top becomes dry.**

To keep your Target Top / Range Convection Oven clean and operating at peak efficiency, follow the procedures shown below:-

After Each Use

Clean target top with a stiff nylon brush or a flexible spatula to remove any build up of carbon.

Daily Cleaning

1. Thoroughly clean splash back, interior and exterior surfaces of Target Top / Range with hot water, a mild detergent solution and a soft scrubbing brush. Clean control panel with a damp cloth moistened with a solution of mild detergent and water.
2. Brush Target Top (cast iron) with a soft bristled brush followed by wiping with a cloth to prevent accumulation of carbon.
3. Remove drip tray and clean with a mild anti bacterial detergent and hot water solution using a soft bristled brush. Dry drip tray thoroughly with a dry cloth.
4. Dry Target Top / Range thoroughly with a dry cloth and polish with a soft dry cloth.

Weekly Cleaning

NOTE:

- **If target top range usage is very high, we recommend that weekly cleaning procedure is carried out more frequently.**
- **Ensure protective gloves are worn during cleaning process.**
- **DO NOT use harsh abrasive detergents, sharp scrapers, strong solvents or caustic detergents as they will damage Target Top / Range.**
- **DO NOT use water on target top while it is still hot as warping may occur. Allow castings to cool down before cleaning.**

Target Top

- a. This should be kept clean of any build up of spillage's of food. Provided cast iron work surface is regularly used it will maintain itself in good condition with no special cleaning requirements required.
- b. Clean any food residue and spillage from channels around centre casting and main plates before use.

- c. **DO NOT use water on the castings while they are still hot as cracking may occur.** Should it be necessary to clean the castings, allow the castings to cool and then remove for cleaning. Clean using a soft cloth moistened with a mild detergent and hot water solution and a scrubbing brush. Dry thoroughly with a dry cloth.
- d. Remove the drip tray and clean with a mild anti bacterial detergent and hot water solution using a soft bristled brush. Dry the drip tray thoroughly with a dry cloth.

Oven Interior

- a. Do not use wire brushes, steel wool or other abrasive materials to clean the oven interior.
- b. Clean the oven regularly with a good quality domestic oven cleaner.
- c. Once a week, remove and clean any built up of grease etc. from the oven racks and the bottom spill over cover.
- d. Dry the oven thoroughly with a dry cloth and polish with a soft dry cloth.

Stainless Steel Surfaces

- a. Clean the exterior surfaces of the target top / range with hot water, a mild detergent solution and a soft scrubbing brush. Note that the gas control knobs are a push fit onto the gas control valve spindles and can be removed to allow cleaning of the front control panel.
- b. Baked on deposits or discolouration may require a good quality stainless steel cleaner or stainless steel wool. Always apply cleaner when the appliance is cold and rub in the direction of the grain.
- c. To remove any discolouration, use an approved stainless steel cleaner or stainless steel wool. Always rub in the direction of the grain.
- d. Remove the drip trays and clean with a mild anti bacterial detergent and hot water solution using a soft bristled brush. Dry the drip trays thoroughly with a dry cloth before re-fitting.
- e. Dry all components thoroughly with a dry cloth and polish with a soft dry cloth.

Periodic Maintenance

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

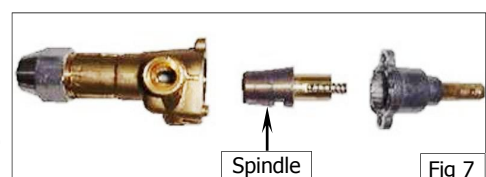
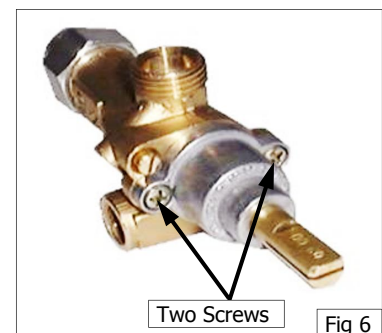
To achieve the best results cleaning must be regular and thorough and all controls and mechanical parts should be checked and adjusted periodically by a qualified service person. If any small faults occur, have them attended to promptly. Don't wait until they cause a complete breakdown. It is recommended that the appliance is serviced every 6 months.

Gas Control Valve Re-Greasing

Gas control valve should be dismantled and greased every 6 months to ensure correct operation.

To carry out this operation;-

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



Fault Finding

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

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 Trade Name and Serial Number of Appliance.** (Both can be found on Technical Data Plate located on appliance).

Fault	Possible Cause	Remedy
Pilot won't light.	No gas supply. Blocked pilot injector.	Ensure gas isolation valve is turned on, and that bottles are not empty. Call service provider.
Pilot goes out when gas control knob released.	Releasing knob before thermocouple has heated. Pilot flame too small. - Gas pressure too low. - Partially blocked pilot injector. Thermocouple connection to gas control is loose or faulty. Thermocouple faulty. Electromagnet in rear of gas control unit is faulty.	Hold knob in for at least 20 seconds following ignition of pilot. Clean or replace pilot injector. Tighten thermocouple connection. Check thermocouple is producing between 20-30mV. Inspect and replace if not in good working order. Call service provider.
Main burner will not light.	Incorrect supply pressure. Faulty gas control.	Call service provider. Call service provider.
Piezo Ignition spark is being generated but not sparking from ignition electrode to pilot burner hood.	HT lead damaged or broken. Check ignition electrode is not cracked and is correctly positioned. Piezo igniter faulty.	Repair or replace HT lead. Re-position or replace ignition electrode. Replace piezo igniter. Call service provider.

NOTE: Components having adjustments protected (e.g. paint sealed) by manufacturer, are only to be adjusted by an authorised service agent. They are not to be adjusted by an unauthorised service person.

Gas Conversion and Specifications

Conversion Procedure



Caution

Ensure Appliance is isolated from gas and electrical supplies 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.
- Adjustment of components that have adjustments / settings sealed (e.g. paint sealed) can only be adjusted in accordance with the following instructions and shall be re-sealed before re-commissioning this appliance.
- For all relevant gas specifications refer to 'Gas Specification Tables' at rear of this section.

Remove the following:-

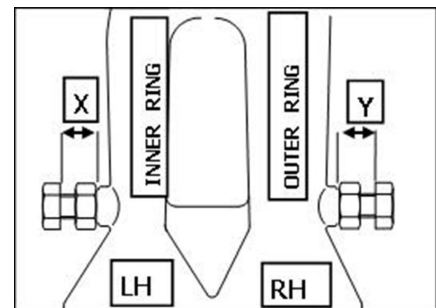
- Control knob from the target top control panel.
- Centre casting.
- Two half plate castings.
- Two front fire bricks.
- R/H main fire brick.

Main Burner Injectors

1. Remove main burner to reveal inner and outer ring injectors.
2. Remove injectors and replace with correct size injectors as shown in 'Gas Specifications Tables' at rear of this section.
3. Refit main burner to target top.

NOTE: Ensure main burner is pulled fully towards front of unit before tightening 2 main burner securing screws.

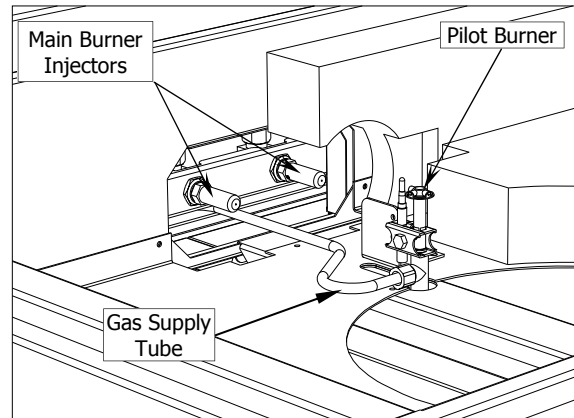
4. Set burner aeration screws 'X' and 'Y' for correct gas type aeration, as shown in 'Gas Specifications Tables' at rear of this section.



Gas Conversion and Specifications

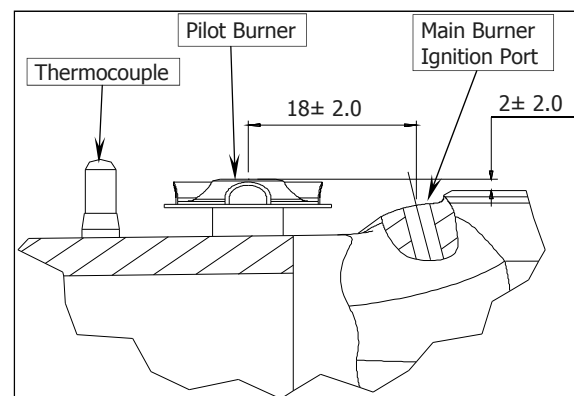
Pilot Burner

1. Disconnect gas supply tube from base of pilot burner.
2. Remove pilot burner and thermo couple retaining plate.
3. Remove pilot burner from mounting bracket.
4. Remove injector and spring from pilot burner and replace with correct size injector as shown in 'Gas Specifications Tables' at rear of this section.
5. Refit the pilot burner to retaining bracket - ensuring pilot burner ports are at same height as thermo-couple.



NOTE: Ensure pilot burner and thermocouple are correctly located and pilot burner aligns with main burner ignition port. (Refer to figure opposite for correct fitting and alignment dimensions).

- Re-connect gas supply tube to pilot burner.
- Refit RH main fire brick.
- Refit 2 front fire bricks.
- Refit 2 half plate castings - ensure they are correctly interlocked.
- Refit centre casting.
- Refit front control panel and control knob.



Low Fire Adjustment

NOTE: Adjust low fire adjustment screw on gas control valve to as shown in 'Gas Specifications Tables' at rear of this section.

1. Light main burner and check flame size on simmer (LOW) position.

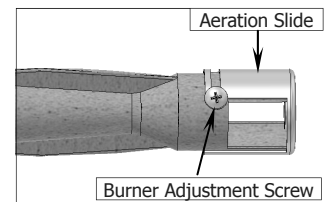
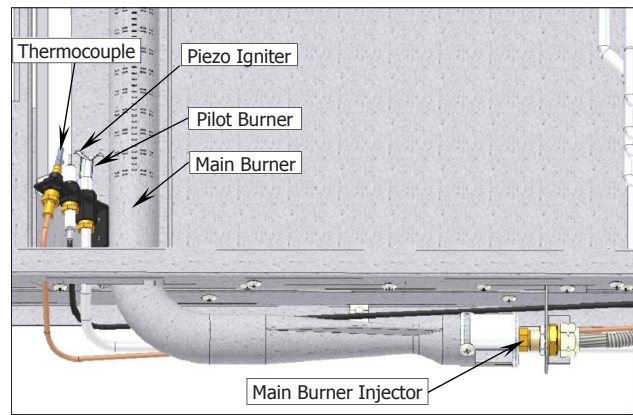


NOTE: 'Low Fire Screw' should be sealed with coloured paint on completion of low fire adjustment.

Gas Conversion and Specifications

Convection Oven

1. Carry out the following:-
 - Remove lower lintel at front of oven.
 - Open oven door and remove sole plate(s).
 - Loosen clamp bracket and remove main burner.
 - Remove thermocouple and piezo igniter from mounting bracket. (For access purposes).
 - Disconnect pilot supply tube from pilot burner to access pilot injector.
2. With Main Burner removed, ensure aeration gap is adjusted for type of gas being used as shown in 'Gas Specifications Tables' at end of this section.
3. Remove pilot and main injectors and replace with correct size injectors as shown in 'Gas Specifications Tables' at end of this section.
4. Refit the following:-
 - Re-connect pilot supply tube to pilot burner.
 - Re-connect piezo igniter and thermocouple to mounting bracket.
 - Refit main burner and secure clamp bracket.
 - Refit sole plate(s) and lower lintel.



NOTE: There is no 'Low Fire' adjustment on the gas control valve for the GC Oven.

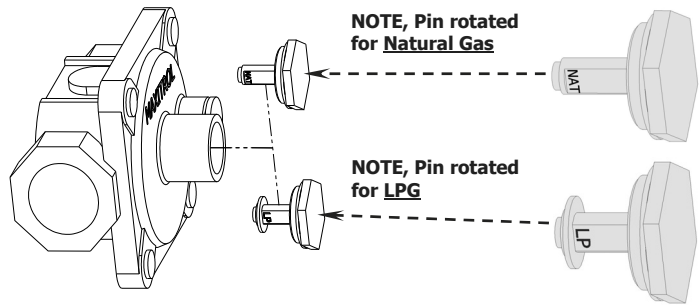
- Refit the oven control panel.

Gas Conversion and Specifications

Gas Regulator

- NAT Gas / LPG / Butane Only.

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

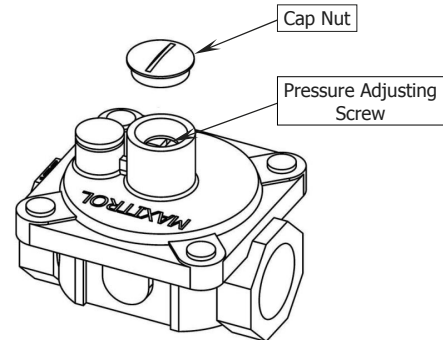


- Town Gas Only.

1. Remove slotted cap from regulator.
2. Turn 'On' gas supply and appliance.
3. Adjust pressure adjusting screw to achieve correct burner operating pressure.

NOTE: Measure operating pressure at manifold test point with two burners operating at 'High Flame' setting.

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



Gas Type Identification Label

On completion of gas conversion, replace gas type identification label located at:-

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

Commissioning

Before leaving the installation;

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



Warning



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

2. Carry out a 'Commissioning' check of appliance as shown in Installation Section of this manual.
3. Ensure any paint sealed components are re-sealed on completion of adjustments.



Gas Conversion and Specifications

Gas Specifications

- Australia

		Nat. Gas	LP Gas (Propane)
Target Top	Main Burner Injector (Inner Ring)	Ø 1.70mm	Ø 1.10mm
	Main Burner Injector (Outer Ring)	Ø 2.60mm	Ø 1.55mm
	Pilot Burner Injector	0.35	0.25
	Burner Aeration Screw X (Inner)	25mm	25mm
	Burner Aeration Screw Y (Outer)	28mm	28mm
	Low Fire Adjustment	2½ turns out (ccw)	1 turn out (ccw)
Oven	Main Burner	Ø 2.60mm	Ø 1.60mm
	Pilot Burner	0.35	0.23
	Burner Aeration Setting	Fully Open	Fully Open
Supply Pressure		1.13 - 3.40 kPa	2.75 - 4.50 kPa
Burner Operating Pressure (*)		1.00 kPa	2.60 kPa
Gas Regulator Cap Screw			

- New Zealand:



		Nat. Gas	LP Gas (Propane)
Target Top	Main Burner Injector (Inner Ring)	Ø 1.70mm	Ø 1.10mm
	Main Burner Injector (Outer Ring)	Ø 2.60mm	Ø 1.55mm
	Pilot Burner Injector	0.35	0.25
	Burner Aeration Screw X (Inner)	25mm	25mm
	Burner Aeration Screw Y (Outer)	28mm	28mm
	Low Fire Adjustment	2½ turns out (ccw)	1 turn out (ccw)
Oven	Main Burner	Ø 2.60mm	Ø 1.60mm
	Pilot Burner	0.35	0.23
	Burner Aeration Setting	Fully Open	Fully Open
Supply Pressure		1.13 - 3.40 kPa	2.75 - 4.50 kPa
Burner Operating Pressure (*)		1.00 kPa	2.60 kPa
Gas Regulator Cap Screw			

* Measure burner operating pressure at target top hob manifold test point with target top burner (Inner and outer ring) operating at full setting. Operating pressure is ex-factory set through appliance regulator and not to be adjusted, apart from when carrying out gas conversion, if required. (Refer to details in this section for information).

Gas Conversion and Specifications

- UK Only:


Category: **II_{2H3P}**
 Flue Type: **A₁**


		Natural Gas (G20)	Propane (G31)
Target Top	Main Burner Injector (Inner Ring)	Ø 1.70mm	Ø 1.10mm
	Main Burner Injector (Outer Ring)	Ø 2.60mm	Ø 1.55mm
	Pilot Burner Injector	0.35	0.25
	Burner Aeration Screw X (Inner)	25mm	20mm
	Burner Aeration Screw Y (Outer)	28mm	25mm
	Low Fire Adjustment	2 ¹ / ₂ turns out (ccw)	1 ³ / ₄ turn out (ccw)
Oven	Main Burner	Ø 2.60mm	Ø 1.60mm
	Pilot Burner	0.35	0.23
	Burner Aeration Setting	Fully Open	Fully Open
Supply Pressure		20 mbar	37 mbar
Burner Operating Pressure (*)		9.9 mbar (*)	26.8 mbar (*)
Gas Regulator Cap Screw			

* Measure burner operating pressure at target top hob manifold test point with target top burner (Inner and outer ring) operating at full setting. Operating pressure is ex-factory set through appliance regulator and not to be adjusted, apart from when carrying out gas conversion, if required. (Refer to details in this section for information).

Gas Conversion and Specifications

- All Other Markets:

		Natural Gas	Town Gas (**)
Target Top	Main Burner Injector (Inner Ring)	Ø 1.70mm	Ø 4.20mm
	Main Burner Injector (Outer Ring)	Ø 2.60mm	Ø 6.30mm
	Pilot Injector	0.35	0.70
	Burner Aeration Screw X (Inner)	25mm	20mm
	Burner Aeration Screw Y (Outer)	28mm	22mm
	Low Fire Adjustment	2 ¹ / ₂ turns out (ccw)	Blank - 1 ¹ / ₂ turns out (ccw)
Oven	Main Burner	Ø 2.60mm	Ø 5.00mm
	Pilot Injector	0.35	0.60
	Burner Aeration Setting	Fully open	Fully open
Supply Pressure		1.13 - 3.40 kPa	0.75 - 1.50 kPa
Burner Operating Pressure (*)		1.0 kPa	0.63 kPa
Gas Regulator Cap Screw			Adjustable Regulator (Adjust to Burner Operating Pressure specified)

		LP Gas (Propane)	Butane
Target Top	Main Burner Injector (Inner Ring)	Ø 1.10mm	Ø 1.00mm
	Main Burner Injector (Outer Ring)	Ø 1.55mm	Ø 1.45mm
	Pilot Injector	0.25	
	Burner Aeration Screw X (Inner)	25mm	
	Burner Aeration Screw Y (Outer)	28mm	
	Low Fire Adjustment	1 turn out (ccw)	
Oven	Main Burner	Ø 1.60mm	Ø 1.45mm
	Pilot Injector	0.23	
	Burner Aeration Setting	Fully open	
Supply Pressure		2.75 - 4.50 kPa	
Burner Operating Pressure (*)		2.6 kPa (*)	
Gas Regulator Cap Screw			

NOTE:

- (*) Measure burner operating pressure at target top hob manifold test point with target top burner (Inner and Outer Ring) operating at full setting.
- NAT, LPG & Butane Only - Operating pressure is ex-factory set and is not to be adjusted, apart from when converting between gasses, if required.
- (**) TOWN GAS Only - Burner operating pressure is to be adjusted using adjustable gas regulator supplied. Town Gas Option is only available with specific ex-factory built Town Gas models, which can also be converted to any other gas. Standard models can only be converted between Nat. Gas, LP Gas and Butane, but not Town Gas.
- Refer to 'Gas Conversion and Specifications' section of this manual for further details.

Replacement Parts List

IMPORTANT:

Only genuine authorized replacement parts should be used for servicing and repair of this appliance. Instructions supplied with parts should be followed when replacing components.

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

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

Target Top

Controls

228853	Burner.		
230511	Pilot Burner.		
235347	Thermocouple Kit.		
017800	Gas Control Valve.		
227378	Gas Control Knob.		
031170	Injector Inner Ring	(Nat)	Ø 1.70mm.
031110	Injector Inner Ring	(LPG)	Ø 1.10mm.
031100	Injector Inner Ring	(Butane)	Ø 1.00mm.
031420	Injector Inner Ring	(Town Gas)	Ø 4.20mm.
031260	Injector Outer Ring	(Nat)	Ø 2.60mm.
031155	Injector Outer Ring	(LPG)	Ø 1.55mm.
031145	Injector Outer Ring	(Butane)	Ø 1.45mm.
031630	Injector Outer Ring	(Town Gas)	Ø 6.30mm.
227985	Pilot Injector	(Nat)	0.35.
227984	Pilot Injector	(LPG / Butane)	0.25.
232310	Pilot Injector	(Town Gas)	0.70.

Oven

232234	Knob Thermostat 80-300°.		
227933	Oven Burner.		
018691K	Oven Pilot.		
020253	Oven Thermocouple.		
018743	Thermocouple Spacer.		
032160	Injector	(LPG)	1.60mm.
032260	Injector	(Nat. Gas)	2.60mm.
032145	Injector	(Butane)	1.45mm.
032500	Injector	(Town Gas)	5.00mm.
019217	Pilot Injector	(LPG / Butane)	0.23.
026488	Pilot Injector	(Nat. Gas)	0.35.
018067	Pilot Injector	(Town Gas)	0.60.
011987	Thermostat.		
020103	Gas Control.		
227508	Piezo Ignitor.		
019407	H.T Lead.		
019479K	Motor Kit.		
010866	Cooling Disc.		
228116	Fan 200 x 40 mm.		
010909	Motor Capacitor 4µf.		
026160	Terminal Block - Mains.		
228704	Door Spring Kit.		
227963	Indicator Neon Amber.		
228922	Indicator Neon White.		
228938	Door Microswitch.		
230268	Pilot Viewing Hole Lid.		
748001	Taptite Screw M5 x 16.		
044018	Nut M5 Glenloch Locknut.		
232350	Oven Baffle.		

Replacement Parts

General

227012	Centre Casting.
227013	Half Plate Casting.
014997	Casting Removal Tool.
227892	Oven Side Rack LH.
227893	Oven Side Rack RH.
023068	Side Rack Screw.
227896	Oven Rack.
227850	Adjustable Leg - 150mm.
229674	Rear Roller Assy.

Regulator

Gas Type	Gas Regulators	
	Part No.	Description
Nat. Gas LPG, Butane	228531	¾" BSP F/F Convertible.
Town Gas	230185	¾" BSP F/F Adjustable.

Gas Conversion Kits

Model	Gas Type to Convert to					
	Nat. Gas	LPG	Butane	Town Gas	Nat. Gas (UK)	LPG (UK)
RN8110G	231976	231975	231977	N/A (*)	231976	231975

Accessories

228800	Ranges 900mm Plinth Kit.
--------	--------------------------

