BLUE SEAL

G91 GAS SALAMANDER

SERVICE MANUAL

Revision 3/F3547

⚠ **WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

CONTENTS

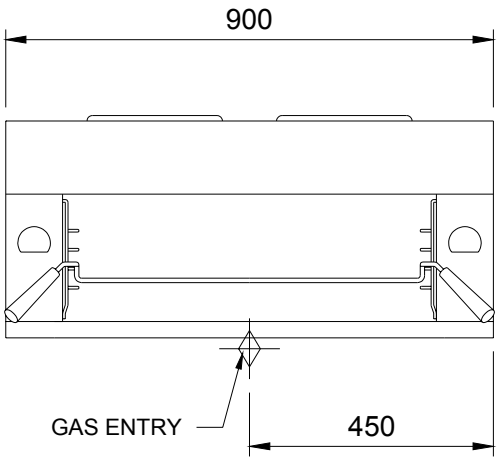
This manual is designed to take a more in depth look at the G91 gas salamander for the purpose of making the units more understandable to service people.

There are settings explained in this manual that should never require to be adjusted, but for completeness and those special cases where these settings are required to change, this manual gives a full explanation as to how, and what effects will result.

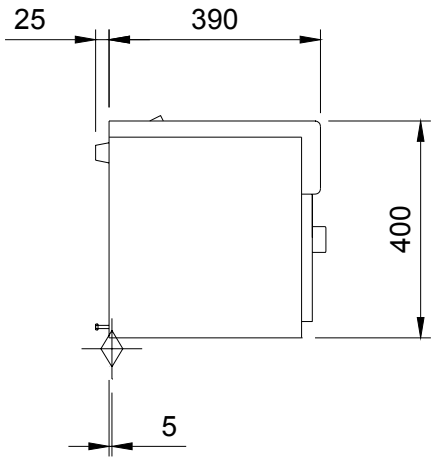
IMPORTANT: MAKING ALTERATIONS MAY VOID WARRANTIES AND APPROVALS.

1. SPECIFICATIONS

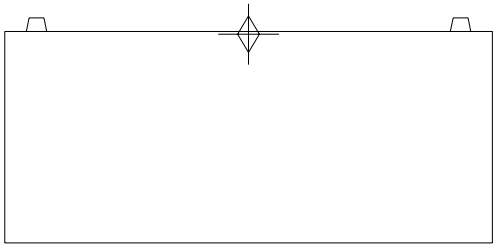
MODEL: G91



FRONT



SIDE



PLAN

LEGEND

- Gas connection entry point - ½" BSP female

Dimensions shown in millimetres.

INSTALLATION CLEARANCES

	Combustible	Non-Combustible
Sides	250mm	25mm
Back	—	25mm
Top (Non UK)	600mm	600mm
Top (UK)	1200mm	1200mm
Bottom	If unit is to be wall mounted above a cooking surface, a 600mm clearance must be maintained.	

OVERALL DIMENSIONS

Width	900mm
Height	420mm (Including trough tray)
Depth	540mm (Including rack handle)

INTERNAL DIMENSIONS

Width	685mm
Height	260mm
Depth	330mm

GAS SUPPLY SPECIFICATION OPTIONS (NON UK UNITS)

	Natural	LPG
Input Rating	26 MJ/hr 24650 Btu/hr	26 MJ/Hr 24650 Btu/hr
Operating Pressure	1.0 kPa 4.0”w.c.	2.75 kPa 11”w.c.

GAS SUPPLY SPECIFICATION OPTIONS (UK UNITS ONLY)

	Natural (G20)	Propane (G31)
Input Rating	8.8 kW	8.8 kW
Gas Rate	0.84 m³/hr	0.63 kg/hr
Operating Pressure	15 mbar 6.0”w.c.	37 mbar 14.8”w.c.

GAS CONNECTION SPECIFICATIONS

½” BSP female

INJECTOR SIZES (NON UK UNITS)

	Natural	LPG
Main Injectors	Ø1.65 mm	Ø1.00 mm
Pilot Injectors	Ø0.46 mm	Ø0.25 mm

INJECTOR SIZES (UK UNITS ONLY)

	Natural	Propane
Main Injectors	Ø1.70 mm	Ø1.05 mm
Pilot Injectors	Ø0.32 mm	Ø0.23 mm

2. INSTALLATION

⚠ **WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

It is important that this salamander is installed correctly, and that the operation is correct before handing over to the user.

This appliance must be installed in accordance with national installation codes and in accordance with relevant national / local codes covering gas and fire health.

UNITED KINGDOM -Gas Safety (Installation & Use) Regulations 1984 (Amendment 1990).
AUSTRALIA - AG601 - 1992, Gas Installation Code.
NEW ZEALAND - NZS5261, Installation of Burning Appliances and Equipment.

2.1 BEFORE CONNECTION

Each unit requires the rack and wall mounting bracket or legs to be fitted. Remove all these items along with tray(s) and instruction book from the unit.

Check all dismantled parts and hidden parts for transit damage. Report any damage to the carrier and supplier. Report any deficiencies to your supplier.

Check the gas supply with respect to the gas type, pressure and capacity to ensure that they are in accordance with the requirements of this oven. This information is on a rating plate located on the right hand side panel.

2.2 ASSEMBLY

With all loose items removed from the unit, the following assembly is required:

a) Wall Mounted Units

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 cooking appliance beneath the unit. This will insure that the bottom of the Salamander is at least 600mm (24”) above any cooking appliance.

Fit the two black plastic spacers to the top rear corners of the unit. Do not tighten.

Fit the two adjusting screws/bolts into the nutserts at the bottom rear corners of the unit.

Hang the unit from the wall mounting bracket by the black plastic spacers. Tighten the black spacers securely and by adjusting the levelling screws/bolts, ensure that the unit is level.

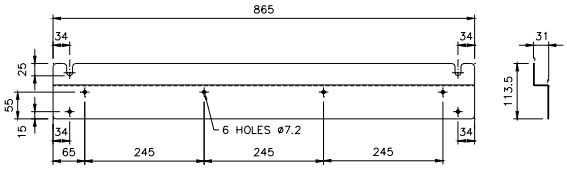


Figure 2.1 - Wall Mounting Bracket

b) Bench Mounted

Lift the unit onto its back, remove all plastic covering, and screw four legs (optional extra) into the hank nuts at each corner of the appliances.

Lift onto its legs and ensure the unit is level by adjusting the feet.

NOTE: It is important to leave at least 25mm (1") of air space around both the sides and rear of this unit. It is also important that there is no obstruction to the air intake slots below the unit.

c) All Units

Remove plastic film from stainless steel tray and slide into unit. Branding plate models - screw tap into black enamelled trough tray and fit in the stainless steel tray. Slide trough tray into the unit.

The installation of the rack is dependent on the cooking function.

d) Gas Connection

The gas connection point is at the bottom rear of the unit. The unit is supplied with ½" BSP female thread. Ensure pipe is firmly secured.

A regulator is provided for use on Natural Gas installations only. On LP Gas installations the pressure is controlled by a supply regulator at the LP Gas supply tank.

It is important that adequate sized piping is run directly to the connection of the unit, with as few tees and elbows as possible to give maximum supply volume.

An accessible shut-off valve must be fitted on the supply line before the connection joint.

Use a suitable jointing compound which resists the breakdown from LP Gas on every joint from supply to appliance.

Check all connections for leaks. **DO NOT USE A FLAME**. Make good any joints found to be faulty.

NOTE: All gas fitting must be carried out by a qualified person.

2.3 COMMISSIONING

Before leaving the new installation, check that all the connections are correct and gas tight, and that the unit functions in accordance with the operating instructions.

Check the operating pressure at the test point nipple located at the bottom rear of the unit. Operating pressures are as follows:

Natural Gas (Not UK)	1.00 kPa (4.0" WG)
LP Gas	2.75 kPa (11.0" WG)
Natural Gas (G20 UK)	15 mbar (6.0" WG)
Propane Gas (G31 UK)	37 mbar (14.8" WG)

NOTE: It is intended that after installation and commissioning, that the pilot burners should remain alight continuously.

LIGHTING THE PILOT

Check gas supply is on, check main burner controls are off.

Turn gas control to PILOT. Push in and hold the gas control knob, then light the pilot burner.

NOTE: On new installations the pilot will not ignite until all air has been purged from the gas lines.

When pilot is alight, keep knob pressed in for 10-20 seconds.

If pilot goes out when the knob is released, repeat above instructions.

When pilot remains alight, rotate control knob to HIGH position and allow burners to remain on for 20 minutes to remove any moisture from the plaques.

NOTE:

1) Make sure that the gas supply is shut off before any service or maintenance work is carried out.
2) It is important to re-light the pilot after reconnecting the gas supply or after changing gas cylinders.

2.4 RATING PLATE LOCATION

Units manufactured from July 2002.

The rating plate for the G91 and G91B salamanders is located on the RH side front bottom corner. An internal rating plate is located inside on the RH side lower front corner.

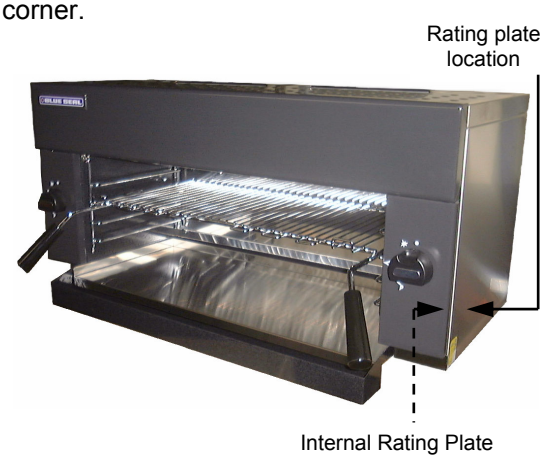


Figure 2.2

Units manufactured up to July 2002.

The rating plate for the G91 and G91B salamanders is located on the underside of the RH side panel.

Figure 2.3

3. OPERATION

NOTE: A full user's operation manual is supplied with the product and can be used for further referencing of installation, operation and service.

3.1 OPERATION

⚠ WARNING:

1) **NO MATERIALS SHOULD BE PLACED ON TOP OF THIS APPLIANCE.**
2) **THE BOTTOM TRAY OF SALAMANDER CAN BECOME EXTREMELY HOT WHILE OPERATING.**
3) **NEVER OBSTRUCT THE FLUE OUTLET ON TOP OF THE APPLIANCE.**

LIGHTING THE PILOT

1) Check gas supply is on.
2) Check main burner controls are off.
3) Turn gas control to PILOT ✸.
4) Push in and hold the gas control knob, then light the pilot burner.
5) When pilot is alight, keep knob pressed in for 10-20 seconds.

If pilot goes out when the knob is released, repeat above instructions (1-5).

With the pilot burners alight, the individually controlled main burners can be operated to suit food quantity requirements.

After two minutes operation, the burners should be a "glowing orange" with the outer extremities not burning at all. The stability and orange glow of the burner can be observed better if lights are turned off.

NOTE: On non-UK units the inner burner does not burn.

Each burner is operated by an OFF ● / PILOT ✸ /HIGH 🔥 /LOW 🔥 gas control. The HIGH 🔥 position is recommended for most grilling, cheese melting functions and LOW 🔥 for a reduced heat.

The rack fitted to the salamander is self-supporting when withdrawn to allow easy loading of food.

When the branding plate is being used, the sloping rack position allows oil and grease to run off into the trough tray. Note the closed position of the drain valve. This drain valve should be connected to a ½" diameter hose for ease of emptying the trough.

The removable tray(s) must always be in position when the grill is in use.

NORMAL OPERATION

1. Check pilot burner is alight.
2. Select the burner. Turn the main burner control knob anti-clockwise until the HIGH 🔥 position is engaged. The burner will now light.
3. To turn unit off, set main burner control knob to PILOT ✸. Pilot burner remains alight.

RACK POSITION

Branding plate - Install trough tray under rack with the rack sloping as below to allow oil and grease to run off into the trough tray.

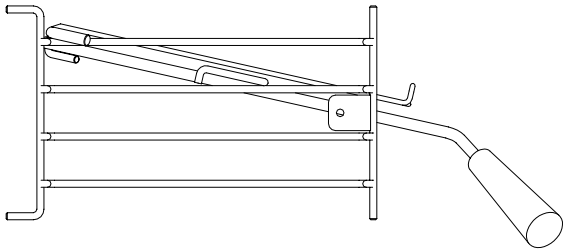


Figure 3.1

No branding plate - Install rack in horizontal position as illustrated below.

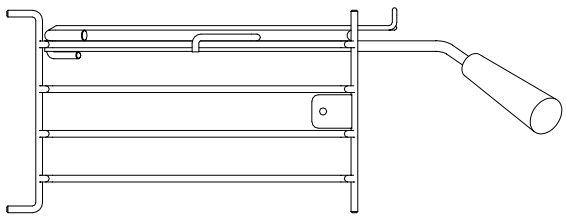


Figure 3.2

3.2 EXPLANATION OF CONTROL SYSTEM

SAFETY SYSTEM

The purpose of the safety system is to shut off the flow of gas if the pilot flame goes out. It is comprised of the flame itself, the thermocouple, and the flame failure gas valve.

The pilot flame is lit by holding in the gas control knob, which in turn temporarily pushes the plunger inside the safety valve open and allows gas to flow through. Once the burner is lit, the thermocouple will begin to generate millivolts (after about 10 to 30 seconds of being heated) and will energize the electromagnet inside the gas valve. Once energized the electromagnet holds the plunger inside the gas valve in the open position. The plunger has to have been pushed all the way in for the electromagnet to be able to hold it in place. If the burner flame goes out for some reason, the thermocouple will cool after about 10 to 30 seconds and stop generating millivolts. The electromagnet will then de-energize, and the plunger will snap shut, cutting off the flow of gas.

Detail of each component in the safety system is explained below.

THERMOCOUPLE

The thermocouple is a device that generates electricity when heat is applied to the tip.

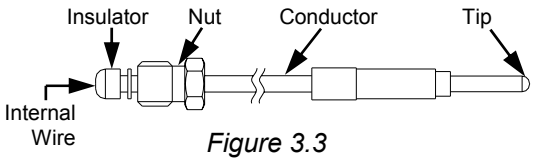


Figure 3.3

The tip of the thermocouple is located in the pilot burner flame, and the nut at the other end of the thermocouple screws into the back of the gas valve. Inside the copper tubing is a wire which is joined at the tip but insulated from the rest of the tubing. These two parts (the copper tubing and wire) make up the "wiring" for an electrical circuit. When these two dissimilar metals, wire and tip, are heated an electrical voltage is produced. This type of thermocouple generates between 7 and 30 millivolts when heated in the pilot flame.

ELECTROMAGNETIC FLAME FAILURE GAS VALVE

The purpose of the safety valve is to shut off the flow of gas if the pilot flame goes out.

Inside the body of the gas valve is an electromagnet connected to a spring loaded plunger. When the electromagnet is energized, it holds the plunger in, allowing gas to flow through the valve. When the electromagnet is de-energized, the plunger snaps to the closed

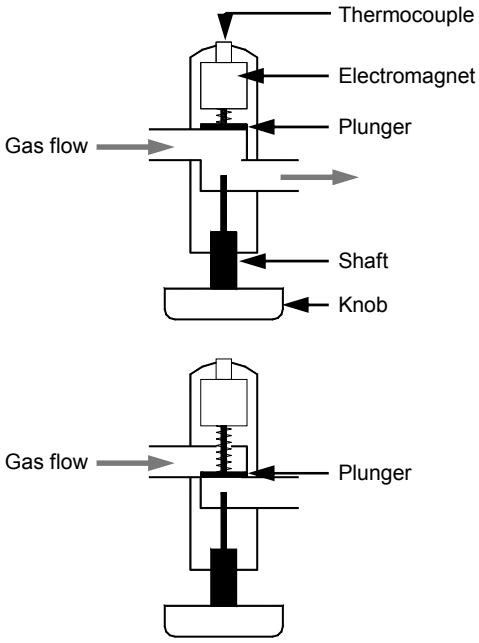


Figure 3.4

position, stopping the flow of gas.

Millivolts are provided to the electromagnet by the thermocouple (not shown) which generates millivolts when heated. The thermocouple screws into a fitting at the back of the gas valve to make an electric connection. By pressing in the gas control knob, the plunger can be temporarily held open while lighting. There's two reasons for this; gas has to flow through the safety valve to make it possible to light the pilot burner, and secondly the plunger has to be pushed all the way in for the electromagnet to hold it in. I.e.; the electromagnet is strong enough to hold the plunger in once there, but is not strong enough to pull it in by itself. Sometimes a problem with the flame not staying lit after releasing the button can be attributed to not pushing the plunger all the way in.

The Troubleshooting Guide (Section 5) should be used to identify any incorrect operation. On correct identification of the operating fault the Troubleshooting Guide will make reference to the corrective action required, or refer to the Fault Diagnosis section and/or

4. MAINTENANCE

4.1 CLEANING

STAINLESS STEEL SURFACES

Clean with detergent. Baked on deposits or discolouration may require a good quality stainless steel cleaner. Always apply 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 interior regularly with a good quality domestic oven cleaner. Remove the rack and side racks from the salamander - this allows easy cleaning of the flat enamelled side walls. Leave the tray in to collect all residue.

CRUMB TRAY AND GREASE TROUGH

Empty and clean daily.

GENERAL

To achieve the best results, cleaning must be thorough, and all controls and mechanical parts checked and adjusted periodically by a competent serviceman. If any small faults occur, have them attended to promptly. Don't wait until they cause a complete breakdown. It is recommended that a service check is conducted every six months.

4.2 ROUTINE PROCEDURES

It is recommended that a service check is conducted every six months.

1) Visual check of the pilot and main burners, to see if correct size flame, and colour on main burner.
2) Check the gas pressure with a manometer (water gauge).
3) Check and clean inside control area, making sure that all connections are secure.
4) Check condition of the gas supply pipe, regulator and fittings.
5) Check for gas leaks at all fittings inside and outside the salamander.
6) Check gas control operation, smooth to operate. Regrease gas controls if required (refer section 6.4.3).
7) Check thermocouple operation, pilot should hold quickly after lighting, replace thermocouple if required.

5. TROUBLE SHOOTING

⚠ **WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

FAULT	POSSIBLE CAUSE	REMEDY
PILOT WON'T LIGHT	Knob on gas control won't go fully in.	Remove obstruction. Correct control panel mounting. Replace gas control. **(Refer service section 6.3.10)**
	No gas supply.	Ensure gas is connected and on (bottles not empty).
	Gas pressure too low.	Check gas supply pressure. **(Refer specifications section)**
	Blocked pilot injector.	Clean or replace pilot injector. **(Refer service section 6.3.6/ 6.3.7)**
PILOT FLAME SMALL	Gas pressure too low.	Check gas supply pressure. **(Refer specifications section)**
	Pilot injector restricted.	Clean or replace pilot injector. **(Refer service section 6.3.6)**
PILOT GOES OUT WHEN KNOB RELEASED	Releasing knob before the thermocouple is heated.	Hold control in for longer (30 s), see if pilot will stay lit.
	Pilot flame too small. **(Refer fault:Pilot Flame Small)**	Correct fault.
	Thermocouple faulty. **(Refer fault diagnosis 6.1.1)**	Replace thermocouple. **(Refer service section 6.3.8)**
	Gas magnet faulty. **(Refer fault diagnosis 6.1.1)**	Replace gas magnet. **(Refer service section 6.3.11)**
PILOT GOES OUT WHEN MAIN BURNER COMES ON	Incorrect gas pressure.	Check supply / adjust pressure. **(Refer specifications section)**
	Faulty gas control.	Replace gas control. **(Refer service section 6.3.10)**
MAIN BURNERS WILL NOT LIGHT	Wrong size or blocked injectors.	Replace / clean injectors. **(Refer service section 6.3.3)**
	Small pilot flame. **(Refer fault:Small Pilot Flame)**	Correct fault.
	Incorrect supply pressure.	Check supply correct pressure.
	Faulty gas control.	Replace gas control. **(Refer service section 6.3.10)**

FAULT	POSSIBLE CAUSE	REMEDY
BURNER FLAME INCORRECT COLOUR / FLAME NOT STABLE	Incorrect supply pressure. Pilot too small. **(Refer fault: Pilot flame small)** Incorrect injector sizes. Injector blocked.	Check supply pressure. Correct fault. Check injector sizes and replace if necessary. **(Refer service section 6.3.3)** Clean injector. **(Refer service section 6.3.3)**
BURNER POPPING / BLOW BACK	Gas leak in burner plaque. **(Refer fault diagnosis 6.1.2)** Gas leak at the salamander side wall gasket.	Replace burner. **(Refer service section 6.3.1)** Replace gasket.

6. SERVICE PROCEDURES

⚠ **WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.**

⚠ **WARNING: ENSURE GAS SUPPLY IS SWITCHED OFF BEFORE SERVICING.**

SECTION **PAGE NO.**

⚠ **WARNING: ALWAYS CHECK/TEST FOR GAS LEAKS AFTER SERVICE REPAIRS ON THE GAS SYSTEM.**

6.1 FAULT DIAGNOSIS

6.1.1 PILOT DROPS OUT

Pilot flame too small

If pilot can be lit but the flame is too small to impinge on the thermocouple, then check the gas pressure. If ok, remove pilot injector from pilot burner and check for blockages and/or correct size.

Thermocouple faulty

Check thermocouple connection to gas control is firm (loose connections will cause resistance in millivolt circuit and result in pilot outage).

If connection is OK, then disconnect the thermocouple from the solenoid, light the pilot, and whilst holding the control knob in, measure voltage between the thermocouple and earth (e.g. the body of the gas control). This should read approximately 30mV. If this reading is less than 10mV then the thermocouple is faulty—replace.

Gas magnet faulty

If thermocouple milli-voltage is above 10mV, and the pilot still will not hold, then the gas magnet is faulty - replace.

6.1.2 BURNER POPPING / BLOW-BACK

Gas leak in burner plaque

With burner operating check for hairline cracks (these appear as brighter orange lines on burner tiles. If visible, replace burner.

Gas leak at gasket

If burner is ok, remove burner and check the gasket for deterioration. If faulty replace.

6.2 ACCESS

6.2.1 SIDE PANEL

1) Remove the tray(s).
2) Pull off control knob and remove control panels (2 screws under panel).

Figure 6.2.1

3) Loosen the two outer screws at the side panel rear (¼" AF spanner).

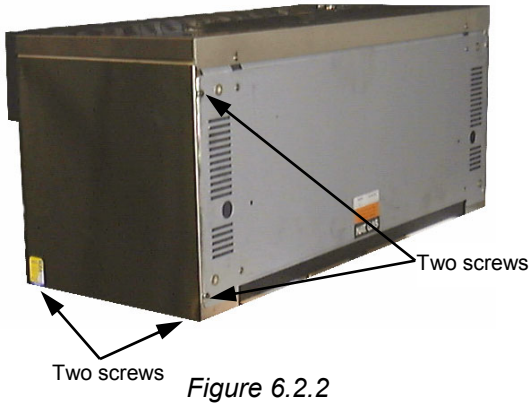


Figure 6.2.2

4) Remove the two screws on the underside of the side panel.
5) Remove the side panel by pulling down.
6) Refitting is the reversal of the above procedure.

6.3 REPLACEMENT

6.3.1 BURNER

1) Remove the side panel (refer 6.2.1).
2) Remove the two centre fixing screws and remove the centre bracket.

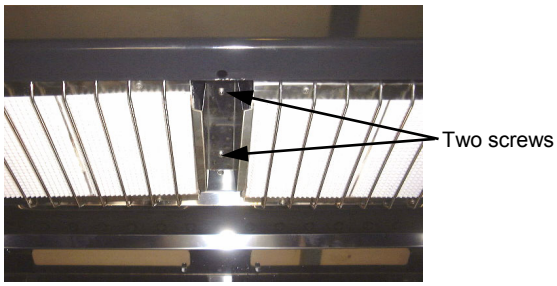


Figure 6.3.1

3) Holding the burner, remove the two screws located in the control area which fix to the burner flange. The burner can now be removed.

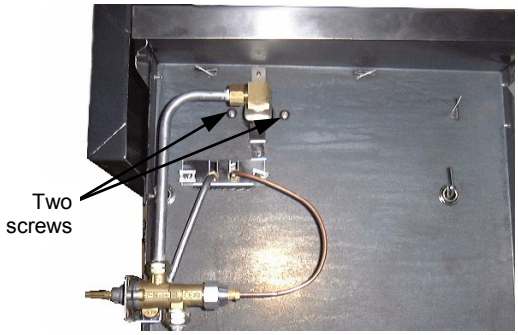


Figure 6.3.2

4) Replace and reassemble in reverse order.

NOTE: On refitting, the burner gasket must be inspected and replaced if damaged.

6.3.2 BURNER PLAQUE (NON UK UNITS ONLY)

1) Remove burner (refer 6.3.1).
2) Remove burner guard, and the two screws securing each burner clamp to the burner.

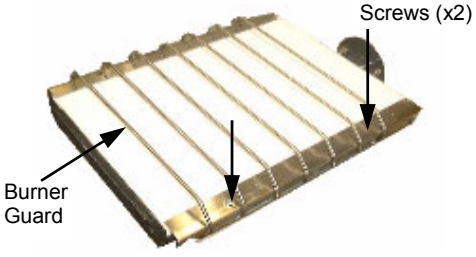


Figure 6.3.3

3) Cut out damaged plaque with a sharp craft knife. Replace the burner gasket if necessary.
4) Apply fire cement to plaque.
5) Fit plaque with blanked out area of plaque facing the centre of the burner.
6) Reassembly is the reversal of steps 1-2.

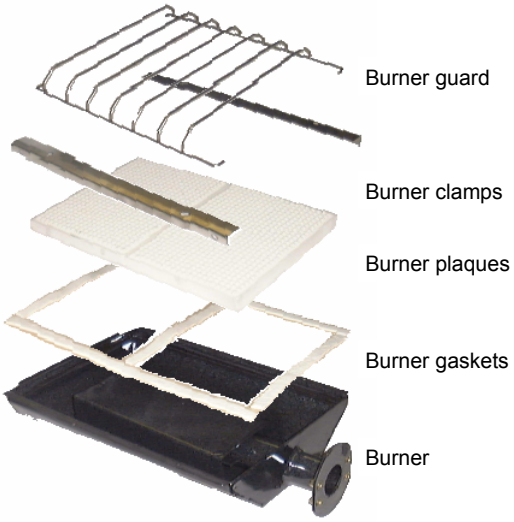


Figure 6.3.4

6.3.3 MAIN INJECTOR

1) Remove the side panel (refer 6.2.1).
2) Unscrew the main burner injector.

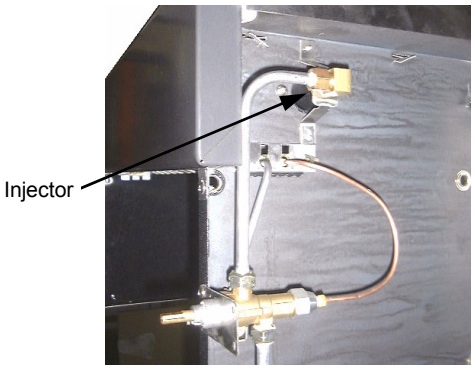


Figure 6.3.5

3) Clean or replace injector and reassemble in reverse order.

NOTE: It is important that the injector aligns centrally with the burner venturi.

6.3.4 PILOT BURNER (NON UK UNITS ONLY)

1) Remove side panel (refer 6.2.1).
2) Undo pilot tube and thermocouple from gas control.

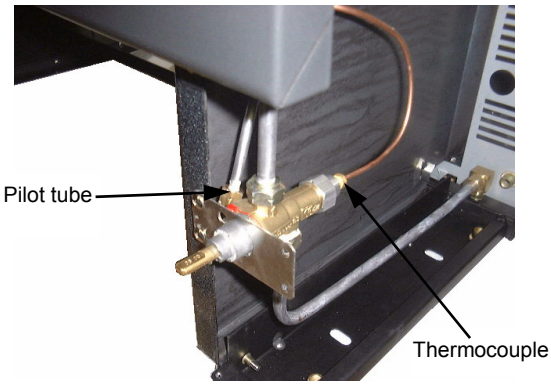


Figure 6.3.6

3) Remove two screws securing pilot bracket (inside salamander) and withdraw the pilot assembly.

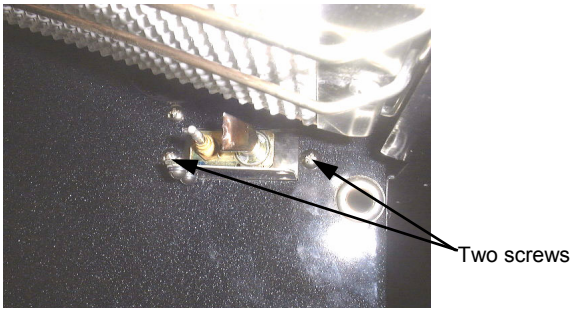


Figure 6.3.7

4) Remove the pilot supply tube and thermocouple from pilot burner assembly, and transfer to new pilot burner.

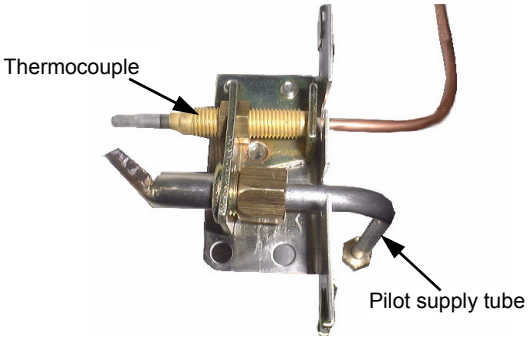


Figure 6.3.8

5) Re-assemble in reverse order, ensuring that the pilot spud is refitted.

6.3.5 PILOT BURNER (UK UNITS ONLY)

1) Remove the side panel (refer 6.2.1)
2) Undo the pilot supply tube and the thermocouple from the pilot burner.

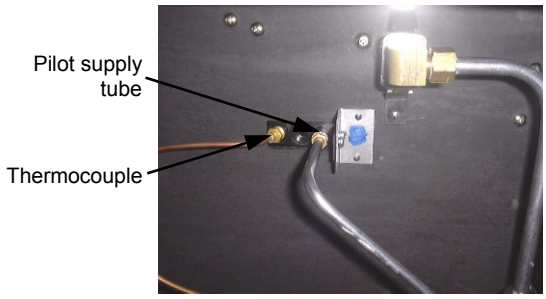


Figure 6.3.9

3) Remove the 2 screws securing the pilot bracket (inside salamander) and withdraw the pilot burner and bracket.

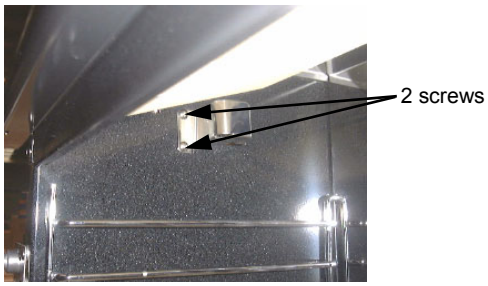


Figure 6.3.10

4) Remove 2 screws securing the pilot burner to bracket.
5) Fit new burner to bracket, and reassemble in reverse order.

6.3.6 PILOT INJECTOR (NON UK UNITS ONLY)

1) Remove the pilot burner bracket (refer 6.3.4, steps 1-3).
2) Remove the pilot supply tube from the pilot burner assembly.
3) Remove the pilot injector.
4) Clean or replace injector as required, and reassemble in reverse order.

6.3.7 PILOT INJECTOR (UK UNITS ONLY)

1) Remove the side panel (refer 6.2.1)
2) Remove the pilot supply tube from the pilot burner (refer figure 6.3.9).
3) Extract the injector from the pilot burner.
4) Replace and reassemble in reverse order.

6.3.8 THERMOCOUPLE (NON UK UNITS

1) Remove the pilot burner bracket from the salamander (refer 6.3.4, steps 1-3)
2) Remove the two nuts securing the thermocouple to the pilot assembly.

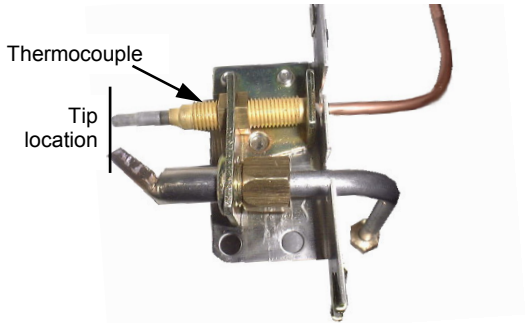


Figure 6.3.11

3) Replace and reassemble in reverse order.

NOTE: The thermocouple tip should be located in line with the pilot hood.

IMPORTANT: WHEN SCREWING THERMOCOUPLE BACK INTO GAS CONTROL, ONCE THREADED UP, TIGHTEN UP ANOTHER ¼ TURN ONLY. **DO NOT OVER TIGHTEN.**

6.3.9 THERMOCOUPLE (UK UNITS ONLY)

1) Remove the side panel (refer 6.2.1)
2) Unscrew the thermocouple from the gas control and the pilot burner (refer figure 6.3.9).
3) Replace and reassemble in reverse order.

IMPORTANT: WHEN SCREWING THERMOCOUPLE BACK INTO GAS CONTROL, ONCE THREADED UP, TIGHTEN UP ANOTHER ¼ TURN ONLY. **DO NOT OVER TIGHTEN.**

6.3.10 GAS CONTROL

1) Remove the side panel (refer 6.2.1).
2) Disconnect the thermocouple and all piping to the gas control.
3) Undo two screws securing gas control bracket to salamander.

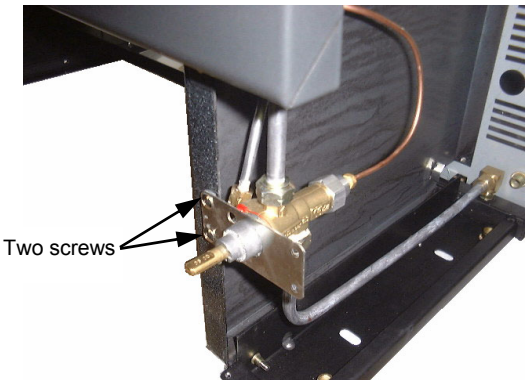


Figure 6.3.12

4) Extract the gas control, replace and reassemble in reverse order.

6.3.11 GAS MAGNET

1) Remove side panel (refer 6.2.1).
2) Disconnect thermocouple and all piping from the gas control.
3) Undo two screws securing gas control bracket to salamander.
4) Remove the gas control.
5) On suitable work surface, remove rear nut from gas control.

Figure 6.3.13

6) Extract gas magnet.
7) Replace and reassemble in reverse order.

Figure 6.3.14

6.4 ADJUSTMENT / CALIBRATION

6.4.1 GAS TYPE CONVERSION

1) Remove main burner injectors refer 6.3.2), and replace with alternative gas injector.

   LPG 1.00mm
   Nat 1.65mm

2) Remove pilot burner injectors (refer 6.3.6 / 6.3.7) and replace with alternative gas injector.

   LPG 0.25mm (0.010")
   Nat 0.46mm (0.018")

3) Adjust burner to required pressure.

   LPG 2.75 kPa (11" w.c)
   Nat 1.00 kPa (4" w.c)

NOTE: For LPG the supply cylinder has an independent regulator, and therefore the existing regulator must be removed from the supply line.

For natural gas a suitable gas regulator must be fitted to the supply line.

4) Adjust the low fire rate (refer 6.4.2)

6.4.2 LOW FIRE RATE ADJUSTMENT

1) Pull off the control knob and remove the control panel (2 screws at bottom of panel).
2) With burner running and control in low fire position, adjust low fire screw to achieve an even low burn.
3) Replace control panel and control knob.

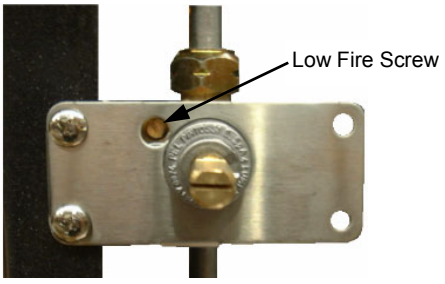


Figure 6.4.1

6.4.3 RE-GREASING GAS CONTROL

1) Remove gas control (refer 6.3.10).
2) Remove two screws securing shaft of gas control.

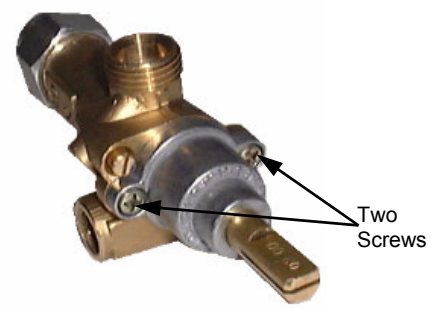


Figure 6.4.2

3) Withdraw spindle from gas control barrel, noting it's orientation.

Figure 6.4.3

4) 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 the spindle.
5) Replace spindle and re-assemble gas control in reverse order.

7. SPARE PARTS

PART NO	DESCRIPTION
13202	Control Knob
17963	Rack
13395	Rack Handle
17965	Side Rack (To serial number 214583)
23961	Side Rack (From serial number 214584)
13315	Stainless Steel Tray
13418	Branding Plate
04050	Trough Tray
13048	4” Legs
13347	Wall Mounting Bracket

Gas System - Non UK Units

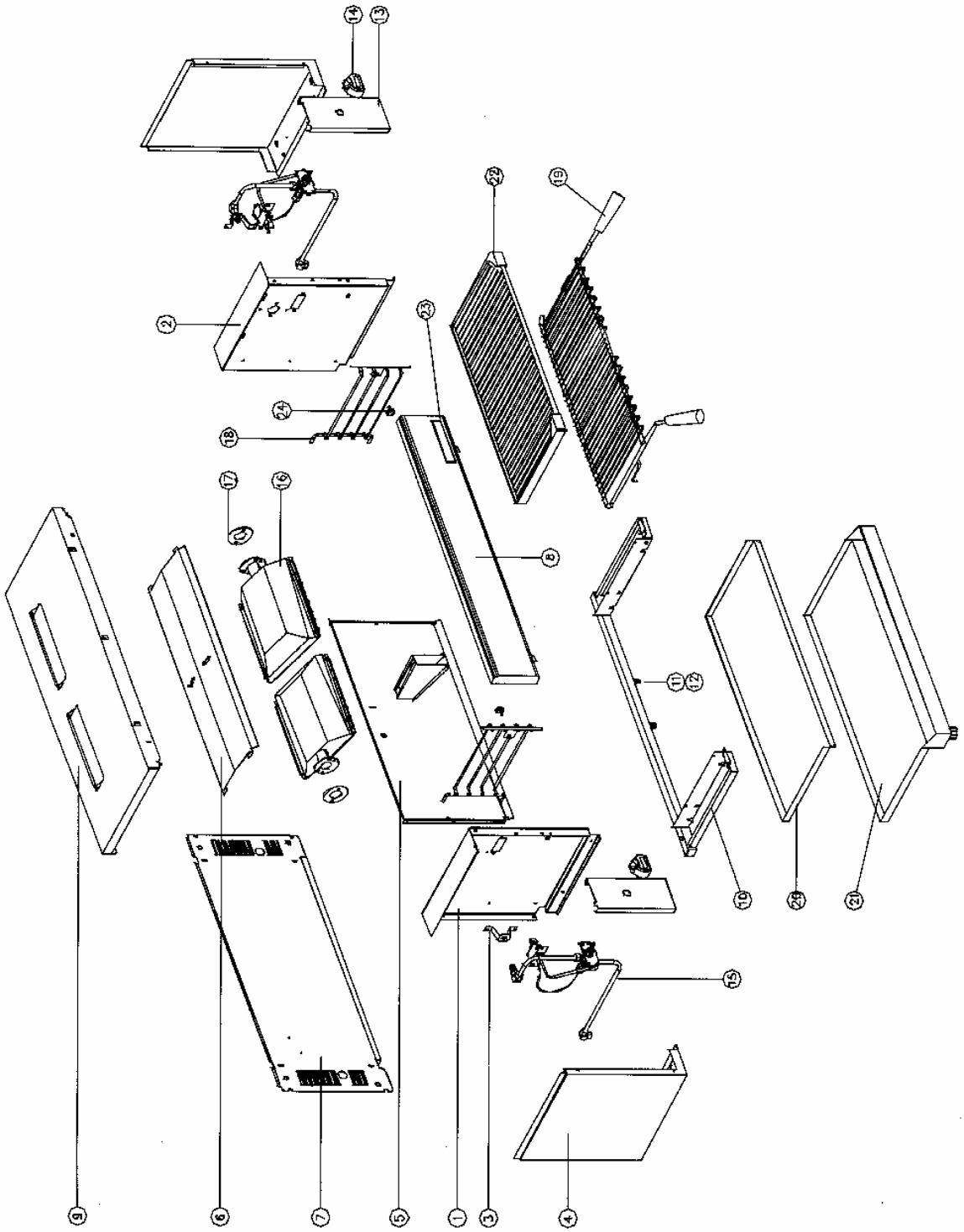
17800	Gas Control
13848	Thermocouple
20120K	Pilot Burner Kit
32100	Main Injector LP Gas 1.00mm
32165	Main Injector Natural Gas 1.65mm
11650	Injector Pilot LP Gas 0.25mm
11651	Injector Pilot Natural Gas 0.46mm
13336K	Burner Kit

Gas System - UK Units Only

17800	Gas Control
19218	Thermocouple
18691K	Pilot Burner LH Kit
19215K	Pilot Burner RH Kit
34105	Main Injector Propane Gas 1.05mm
34170	Main Injector Natural Gas 1.70mm
19217	Injector Pilot Propane Gas 0.23mm
18693	Injector Pilot Natural Gas 0.32mm
19214	Burner

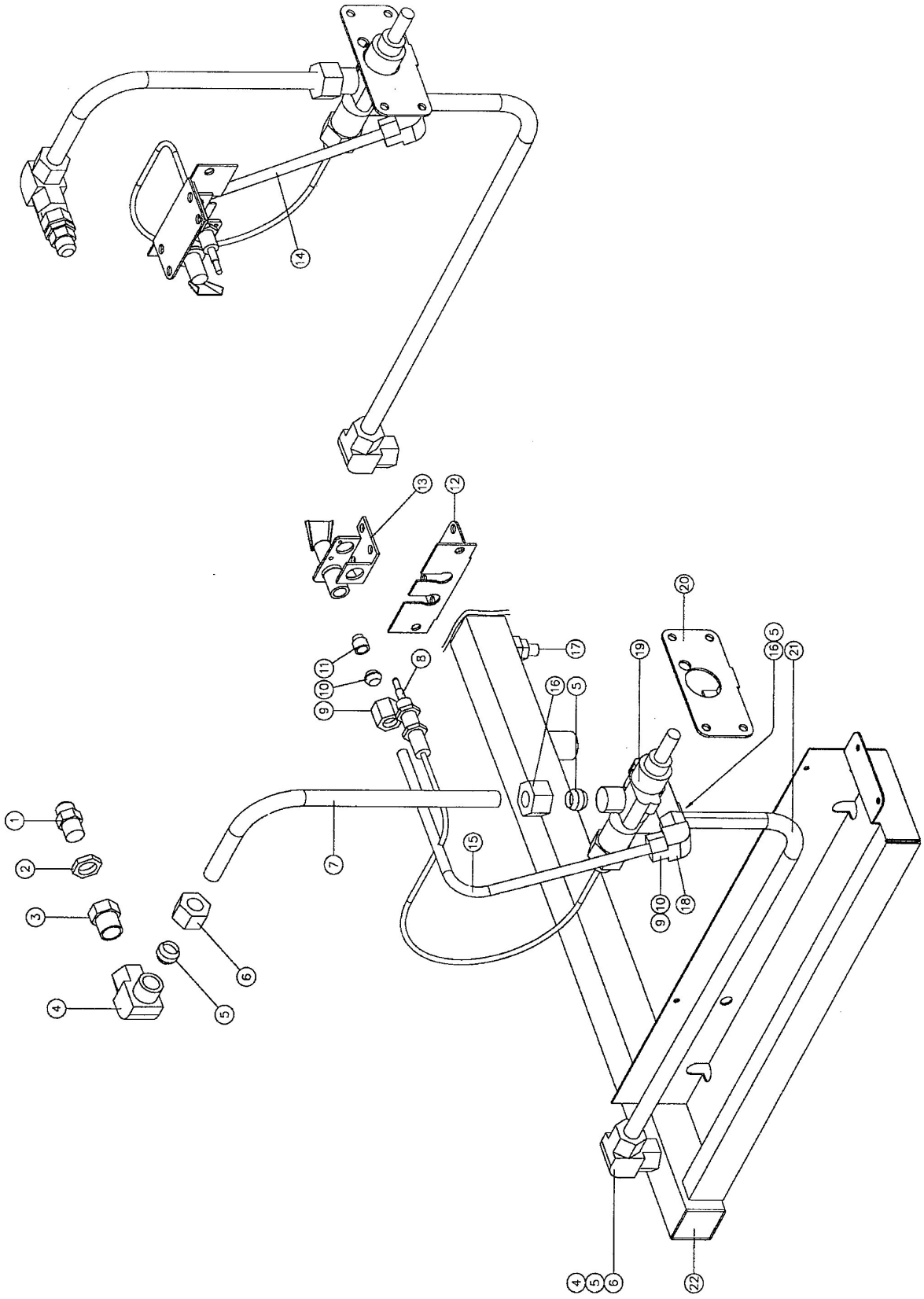
8. PARTS DIAGRAM

8.1.1 MAIN ASSEMBLY (Non UK Units)



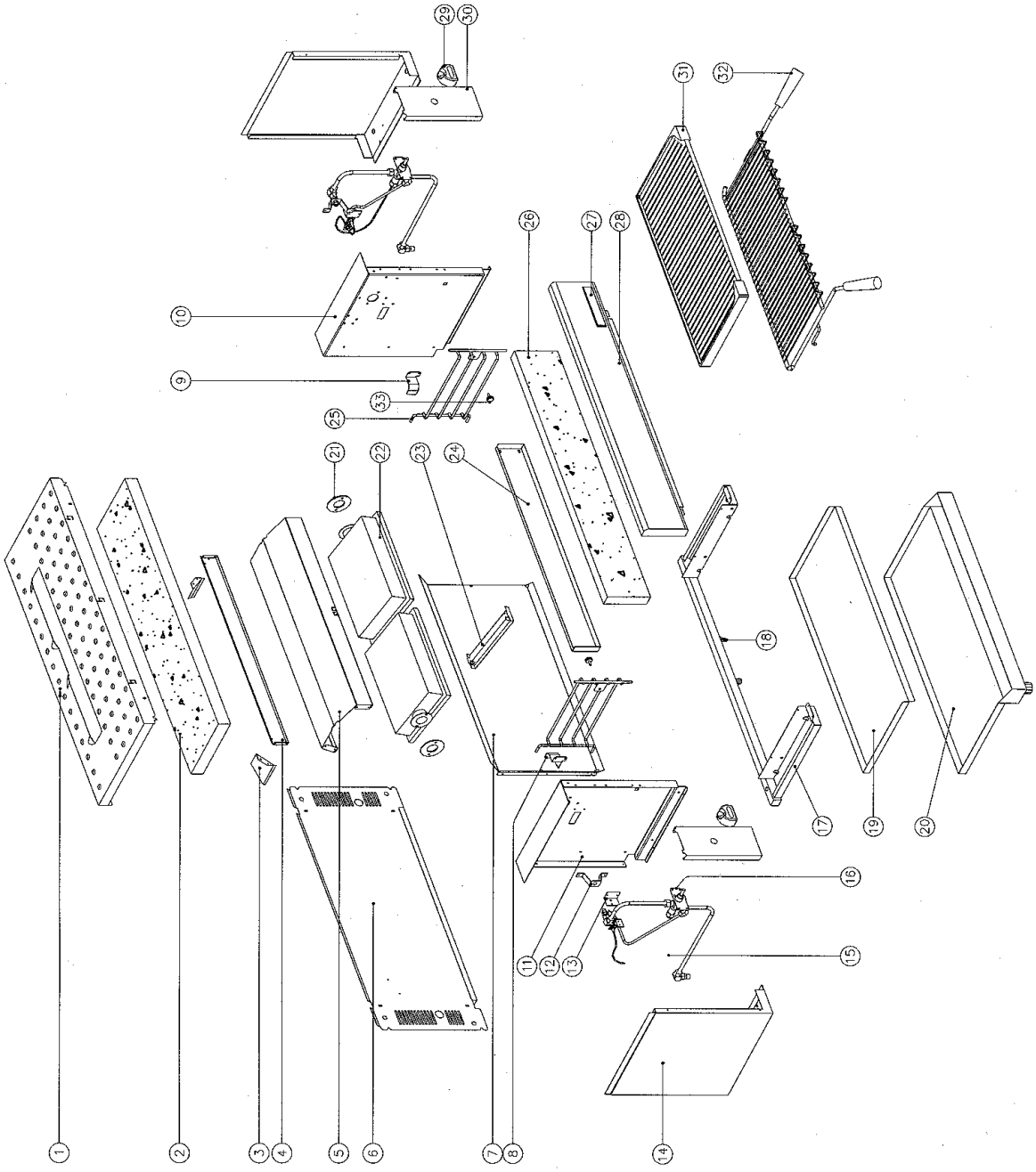
Pos	Part No.	Description
1	004883	INNER PANEL - L.H – **FROM S/N 214584**
	004040	INNER PANEL - L.H – **TO S/N 214583**
2	004884	INNER PANEL - R.H – **FROM S/N 214584**
	004041	INNER PANEL - R.H – **TO S/N 214583**
3	017808	INJECTOR SUPPORT BRACKET
4	013879	SIDE PANEL
5	023958	REAR REFLECTOR – **FROM S/N 214584**
	013332	REAR REFLECTOR – **TO S/N 214583**
6	013331	TOP REFLECTOR
7	013872	BACK PANEL
8	004345	FRONT COVER
9	015487	TOP COVER
10	004519	MANIFOLD
11	019220	PRESSURE TEST POINT
12	011147	REDUCING BUSH - 1/4" x 1/8"
13	004046	CONTROL PANEL
14	013202	KNOB ASSEMBLY
15	017799	PIPING ASSEMBLY **(REFER SECTION 8.1.2)**
16	013336K	BURNER ASSEMBLY KIT **(INCLUDES ITEM 17)**
	013366K	BURNER PLAQUE KIT - MODIFIED **(INCLUDES ITEM 17)**
	014577	BURNER GUARD
17	013367	BURNER GASKET
18	023961	SIDE RACK – **FROM S/N 214584**
	017965	SIDE RACK – **TO S/N 214583**
19	017693	RACK
	013395	RACK HANDLE
20	013315	BOTTOM TRAY
21	004050	TROUGH TRAY **(G91B ONLY)**
	013362	DRAIN VALVE **(NOT SHOWN)**
22	013418	BRANDING PLATE **(G91B ONLY)**
23	004656	NAME BADGE
	013048	LEG - 4" **(NOT SHOWN)**
	015080	FOOT PAD - 1" **(NOT SHOWN)**
	013347	WALL MOUNTING BRACKET **(NOT SHOWN)**
	013908	SPACER ASSEMBLY **(NOT SHOWN)**
24	023068	SIDE RACK SCREW – **FROM S/N 214584**
GAS CONVERSION		
	012460	NATURAL GAS TO LPG
	012515	LPG TO NATURAL GAS

8.1.2 GAS PIPING ASSEMBLY (Non UK Units)



Pos	Part No.	Description
1	032100	INJECTOR Ø1.00 mm - LPG
	032165	INJECTOR Ø1.65 mm - NATURAL GAS
2	025093	LOCKNUT **(FROM S/N 246144)**
	011740	JET BACKNUT **(UP TO S/N 246143)**
3	025091	MOUNTING BUSH **(FROM S/N 246144)**
	011147	REDUCING BUSH - 1/4" x 1/8" **(UP TO S/N 246143)**
4	015155	ELBOW 3/8" x 1/4" F
	017815	HEX NIPPLE 1/4"
5	015153	OLIVE - 3/8"
6	018978	COMPRESSION NUT
7	017809	INJECTOR SUPPLY PIPE
8	013848	THERMOCOUPLE
	024573	THERMOCOUPLE LOCK-NUT **(NOT ILLUSTRATED)**
9	011287	NUT - 1/4"
10	011286	OLIVE - 1/4"
11	011650	PILOT INJECTOR Ø0.010" - LPG
	011651	PILOT INJECTOR Ø0.018" - NATURAL GAS
12	013342	PILOT BRACKET
13	020120K	PILOT BURNER KIT **(INCLUDES ITEMS 9,10,11)**
14	017812	PILOT TUBE - R.H
15	017811	PILOT TUBE - L.H
16	018978	NUT
17	019220	PRESSURE TEST POINT
18	013836	ELBOW
19	017800	GAS CONTROL
20	017807	GAS CONTROL BRACKET
21	017810	SUPPLY TUBE
22	004519	MANIFOLD
	011853	REGULATOR - NATURAL GAS ONLY **(NOT ILLUSTRATED)**

8.2.1 MAIN ASSEMBLY (UK only)

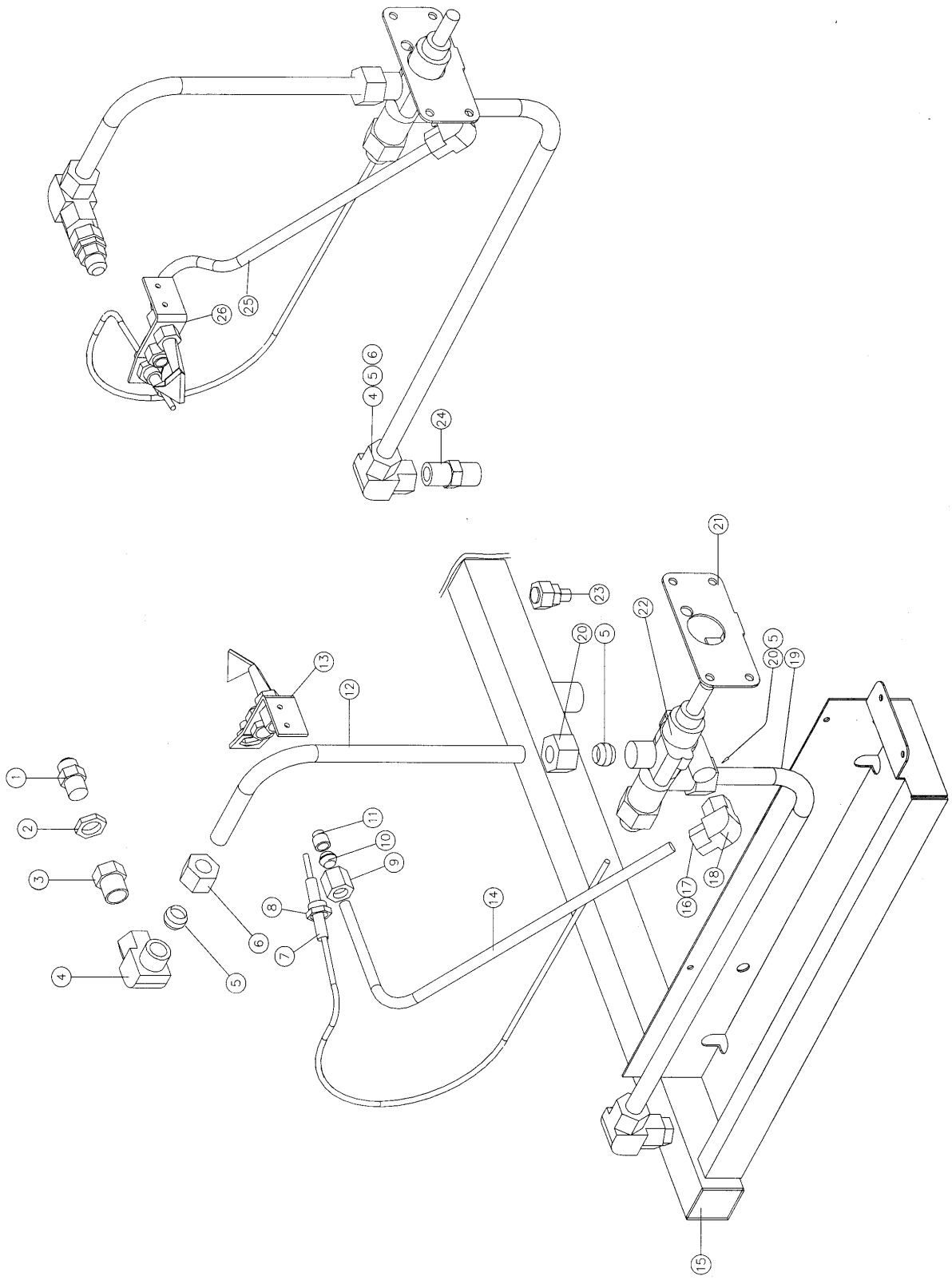


Pos	Part No.	Description
1	019243	TOP COVER
2	----------	INSULATION
3	019246	FLUE DUCT END - L.H
	019247	FLUE DUCT END - R.H
4	019245	FLUE DUCT
5	019228	BURNER MOUNTING PANEL
6	013872	BACK PANEL
7	023959	REAR REFLECTOR – **FROM S/N 214584**
	019242	REAR REFLECTOR – **TO S/N 214583**
8	019395	PILOT COVER - L.H
9	019396	PILOT COVER - R.H
10	004886	INNER PANEL – R.H – **FROM S/N 214584**
	004606	INNER PANEL - R.H – **TO S/N 214583**
11	004885	INNER PANEL L.H – **FROM S/N 214584**
	004605	INNER PANEL - L.H – **TO S/N 214583**
12	017808	INJECTOR SUPPORT BRACKET
13	019225	PILOT MOUNTING BRACKET
14	013879	SIDE PANEL
15	019232	PIPING ASSEMBLY
16	017807	GAS CONTROL BRACKET
17	004519	MANIFOLD
18	019220	PRESSURE TEST POINT
19	013315	BOTTOM TRAY
20	004050	TROUGH TRAY **(G91B MODEL ONLY)**
21	013367	BURNER GASKET
22	019214K	BURNER KIT **(INCLUDE ITEM 21)**
23	019229	BURNER RETAINING CHANNEL
24	019248	FRONT INSULATION PANEL
25	023961	SIDE RACK – **FROM S/N 214584**
	017965	SIDE RACK – **TO S/N 214583**
26	090402	INSULATION
27	004656	BADGE
28	004607	FRONT COVER
29	013202	KNOB ASSEMBLY
30	004046	CONTROL PANEL
31	013418	BRANDING PLATE **(G91B MODEL ONLY)**
32	017963	RACK
	013395	RACK HANDLE
33	023068	SIDE RACK SCREW – **FROM S/N 214584**

GAS CONVERSIONS

20142	NAT -> LPG
20141	LPG -> NAT

8.2.2 GAS PIPING ASSEMBLY (UK only)



Pos	Part No.	Description
1	034170	MAIN INJECTOR Ø1.70mm - NATURAL GAS
	034105	MAIN INJECTOR Ø1.05mm - PROPANE GAS
2	025093	LOCKNUT **(FROM S/N 246144)**
	011740	JET BACKNUT **(UP TO S/N 246143)**
3	025091	MOUNTING BUSH **(FROM S/N 246144)**
	024677	REDUCING BUSH 1/4" x 1/8" **(UP TO S/N 246143)**
4	015155	ELBOW 3/8" x 1/4"
5	015153	OLIVE - 3/8" COMPRESSION **(NOT ILLUSTRATED)**
6	018978	COMPRESSION NUT
7	019218	THERMOCOUPLE - 450mm
8	018471	THERMOCOUPLE NUT **(SUPPLIED AS PART OF ITEM 15 & 16)**
	018743	THERMOCOUPLE SPACER **(SUPPLIED AS PART OF ITEM 15 & 16)**
9	018740	NUT - 1/4" COMPRESSION **(SUPPLIED AS PART OF ITEM 15 & 16)**
10	018739	OLIVE - 1/4" COMPRESSION **(SUPPLIED AS PART OF ITEM 15 & 16)**
11	018693	PILOT INJECTOR Ø0.32mm - NATURAL GAS
	019217	PILOT INJECTOR Ø0.23mm - PROPANE GAS
12	017809	JET SUPPLY PIPE
13	018691K	PILOT BURNER KIT - L.H **(INCLUDES ITEMS 11)**
14	019223	PILOT SUPPLY TUBE - L.H
15	004519	MANIFOLD
16	011287	NUT - 1/4" COMPRESSION
17	011286	OLIVE - 1/4" COMPRESSION
18	013836	ELBOW 1/4" COMPRESSION x 1/8" BSP
19	017810	SUPPLY PIPE
20	018978	NUT - 10mm COMPRESSION
21	017807	GAS CONTROL BRACKET
22	017800	GAS CONTROL
23	019220	PRESSURE TEST POINT
24	017815	NIPPLE 1/4" BSP x 70mm
25	019224	PILOT SUPPLY TUBE - R.H
26	019215	PILOT BURNER ASSEMBLY - R.H

9. SERVICE CONTACTS

AUSTRALIA

VICTORIA - MOFFAT PTY
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740 Springvale Road
Mulgrave VIC 3170
Spare Parts Department

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