



# F900 SERIES

User, installation and servicing instructions

## SOLID TOP & RANGES

G9081/G9181

Read these instructions before use

DATE PURCHASED:

MODEL NUMBER:

SERIAL NUMBER:

DEALER:

SERVICE PROVIDER:

**T100892**

Rev 9

Dear Customer,  
Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from [www.falconfoodservice.com](http://www.falconfoodservice.com) Or scan here



**IMPORTANT:** Please keep this manual for future reference.

## **Falcon Foodservice Equipment**

### **HEAD OFFICE**

Wallace View, Hillfoots Road, Stirling. FK9 5PY. Scotland.

### **WEEE Directive Registration No. WEEE/DC0059TT/PRO**



At end of appliance life, dispose of appliance and any replacement parts in a safe manner, via a licensed waste handler. Appliances are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

## SYMBOLS



• SPANNER



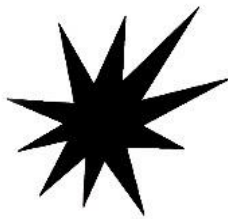
• SCREWDRIVER



• COOKING OIL



• GREASE



• SPARK IGNITION



• FLAME



• WARNING



• VIEWPORT



• ALLEN KEY



• IGNITER



**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 technical instructions for adapting the appliance to the conditions for use in that country.**

**Installation must meet national or local regulations. Attention must be paid to: gas safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.**

**To prevent shocks, all appliances must be earthed.**

**This equipment is for professional use only and must be used by qualified persons.**

**The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.**

**Only competent persons are allowed to service or convert the appliance to another gas type.**

**Gas appliances must have a stop cock fitted in the supply pipe work. The user must be familiar with the location and operation of this device in order to turn off the supply of gas in the event of an emergency.**

**Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer.**

**Take care when moving an appliance fitted with castors.**

**The appliance must be serviced regularly by a qualified person. Service intervals should be agreed with the service provider.**

**This appliance may be discolored due to testing.**

# Contents

1.0	APPLIANCE INFORMATION .....	6
2.0	OPERATION .....	7
2.1	COMPONENT PARTS .....	7
2.2	CONTROLS.....	8
2.3	USING THE APPLIANCE.....	9
2.4	TURNING THE BURNERS OFF .....	11
3.0	CLEANING AND MAINTENANCE .....	11
3.1	HOB .....	11
3.2	OVEN.....	11
3.3	FLUE CAPPER.....	12
4.0	SPECIFICATION .....	13
4.1	TABLE A – Technical Data.....	13
4.2	TABLE B – Heat Inputs.....	14
5.0	DIMENSIONS / CONNECTION LOCATIONS .....	15
6.0	INSTALLATION .....	16
6.1	SITING / CLEARANCES .....	16
6.2	VENTILATION.....	16
6.3	GAS SUPPLY & CONNECTION .....	17
6.4	ASSEMBLY .....	17
6.5	COMMISSIONING - HOB.....	18
6.6	COMMISSIONING – OVEN.....	18
6.7	SUITING .....	19
7.0	CONVERSION.....	21
7.1	GAS CONVERSION CHECK LIST .....	21
8.0	SERVICING .....	22
8.1	CONTROL PANEL .....	22
8.2	INJECTOR (HOB) .....	23
8.3	PILOT (HOB).....	23
8.4	REMOVAL OF DOOR.....	24
8.5	INJECTOR (OVEN) .....	25
8.6	PILOT (OVEN) .....	26
8.7	AERATION (HOB).....	26
8.8	GAS VALVE (HOB).....	27
8.9	GAS VALVE (OVEN).....	28
8.10	PRESSURE ADJUSTMENT.....	29
8.11	GOVERNOR.....	29
9.0	FAULT FINDING .....	30
10.0	SPARE PARTS.....	31
11.0	SERVICING INFORMATION .....	32

## 1.0 APPLIANCE INFORMATION

This appliance has been CE-marked on the basis of compliance with the relevant EU directives for the heat inputs, gas pressures and voltages stated on the data plate.

<b>Falcon Foodservice Equipment</b>		P.I.N		STD.					
<b>A</b> Ser No.		<b>B</b> MODEL		<b>C</b> TYPE		I.P.			
<b>D</b> Cat.	ES, GB, GR, IE, IT, PT, SI	BE, FR	BG, CZ, DK, EE, FI, HR, LT, LV, NO, RO, SE, SI, SK, TR	CY, HU, IS, MT, NL	AT, CH	PL	LU	DE	-
<b>E</b> p mbar	20;28-30/37	28-30/37	20;30	30	20;50	20;30	20	20;50	-
<b>F</b> GAS TYPE	G20	G30	G31						
<b>G</b> GAS RATE	m <sup>3</sup> /h	kg/h	kg/h						
<b>H</b> $\Sigma$ Qn	kW	kW	kW	kW					
<b>I</b> EL.								Hz	
<b>J</b> $\Sigma$ kW	kW		<b>K</b> kHz					kHz	
<b>L</b>	L1	A	L2	A	L3	A			

**A** - Serial No

**B** - Model No

**C** - Flue Type

**D** - Gas Category

**E** - Gas Pressure

**F** - Gas Type

**G** - Gas Rate

**H** - Total Heat Input

**I** - Electrical Rating

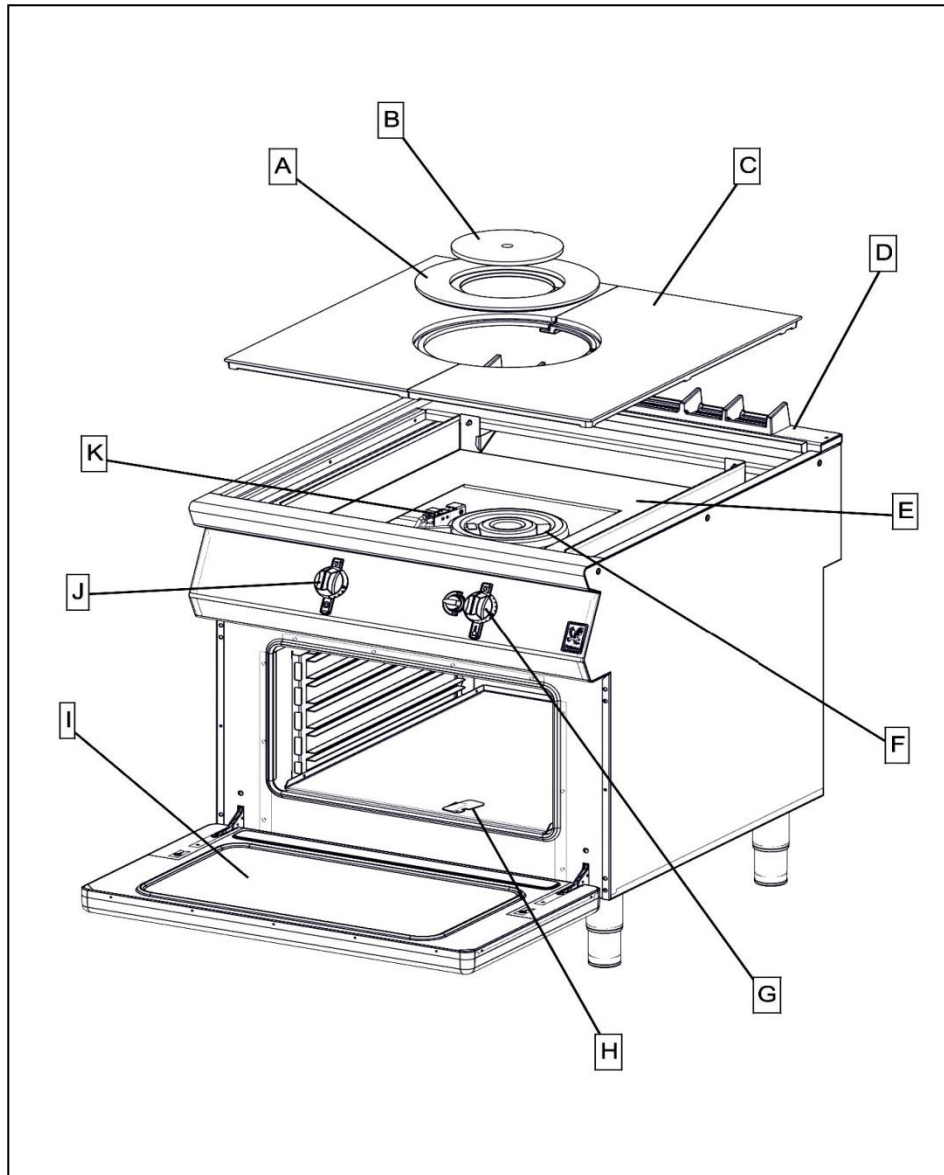
**J** - Total Electrical Power

**K** - Magnetic Field Frequency

**L** - Electrical Phase Loading

## 2.0 OPERATION

### 2.1 COMPONENT PARTS



**A** – Outer Ring

**B** – Inner Ring

**C** – Cast Plate

**D** – Flue Capper

**E** – Hob Tray

**F** – Hob Burner

**G** – Oven Control

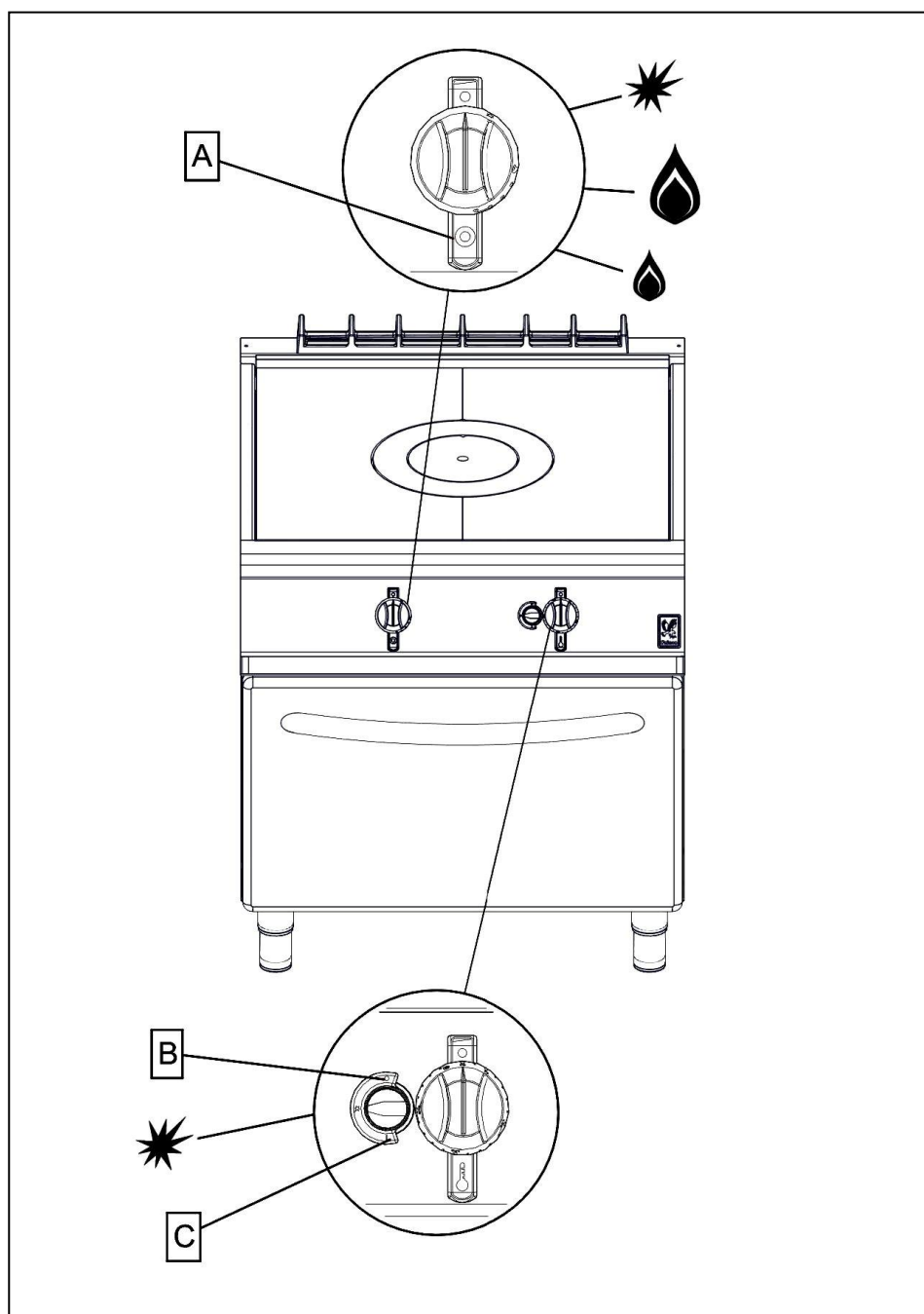
**H** – Viewport

**I** – Door

**J** – Hob Control

**K** – Hob Pilot

## 2.2 CONTROLS



**A** – Solid Top Burner

**B** – Oven Pilot OFF

**C** – Oven Pilot ON



## 2.3 USING THE APPLIANCE

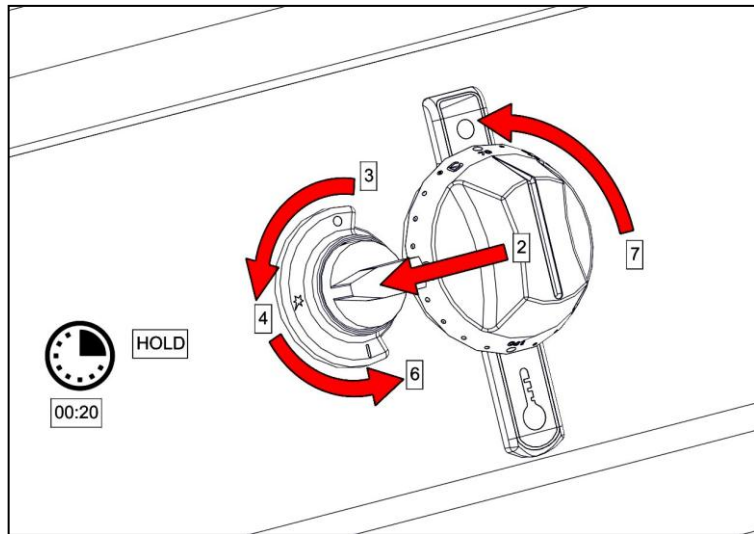
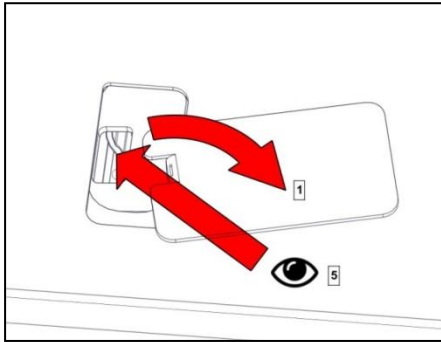
2.3.0 Before use, clean the appliance. See section 3.0.

2.3.1 **Oven** - Ignite the Pilot burners as shown. Push the knob in to turn.

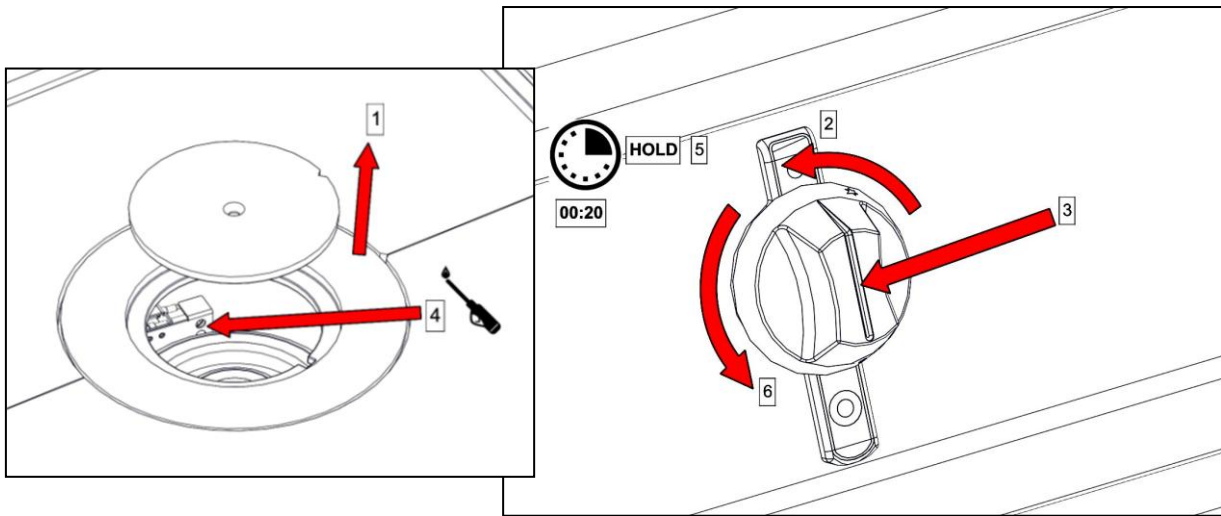
2.3.2 Use temperature control knob to adjust temperature. (Oven only)

Initial oven heat up time will be approximately 30 minutes from ambient.

**Caution:** Opening the oven door will result in the escape of hot air. Care should be taken to avoid being burned by such action.



2.3.3 **Hob** – Ignite the Pilot burners as shown. Push the knob in to turn.



The minimum temperature of the hottest point of the solid top is 270°C.



**IF A BURNER TURNS OFF, WAIT 3 MINUTES BEFORE RE-LIGHTING.**

## **2.4 TURNING THE BURNERS OFF**

- 2.4.0 **Oven** - Turn pilot knob to 'OFF' position. Look through the view port to make sure the pilot is off.
- 2.4.1 **Hob** – Turn control knob to "OFF" position.

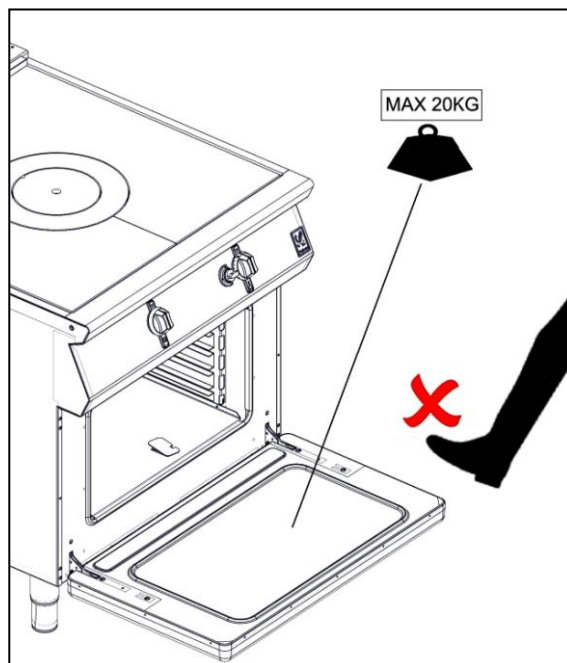
## **3.0 CLEANING AND MAINTENANCE**

---

### **3.1 HOB**

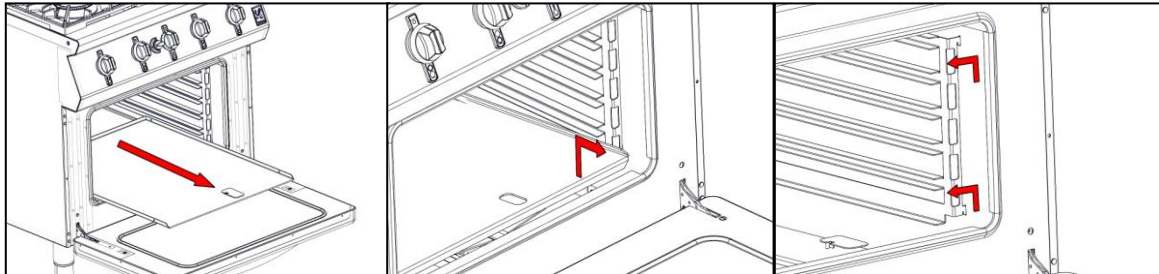
- 3.1.0 When unit has cooled down.
- 3.1.1 Remove cast components.
- 3.1.2 Clean hob and oven chamber using soap and water.
- 3.1.3 Clean cast components using soap and water.

### **3.2 OVEN**



3.2.0 Turn off and wait until unit has cool down.

3.2.1 Remove base tray, base and shelf hangers

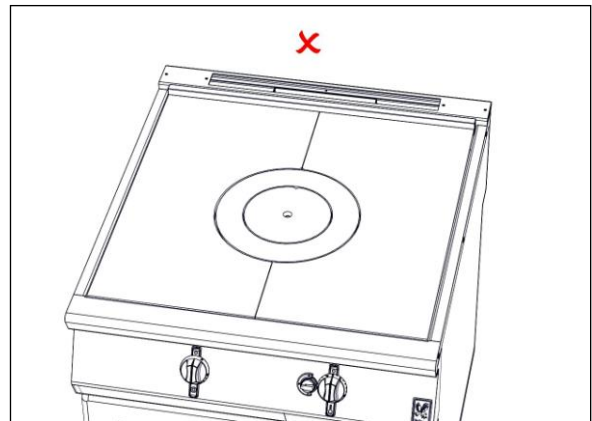
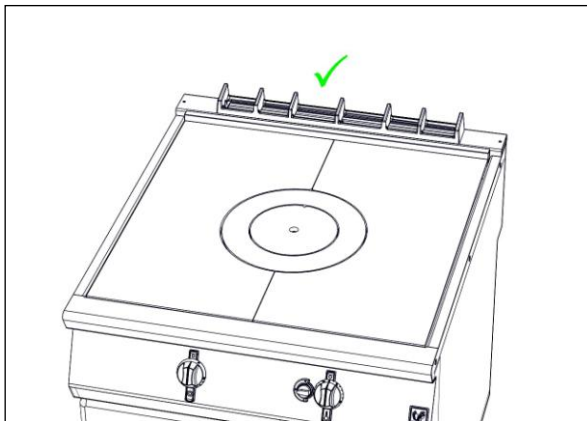


3.2.2 Clean oven chamber.

3.2.3 Clean shelves and base tray.

### 3.3 FLUE CAPPER

3.3.0 The flue capper can be removed for cleaning but must be replaced for use.



**FAILURE DUE TO LACK OF PROPER CLEANING IS NOT COVERED BY WARRANTY**

## 4.0 SPECIFICATION

### 4.1 TABLE A – Technical Data

TECHNICAL DATA – TABLE A					
		G20	G31	G30	
<b>Solid Top</b>					
Injector		Ø2.65mm	AMAL 360		
Pilot Injectors		N18	L10		
Low Rate Screw		185	97		
Supply Pressure	mbar	20	37	29	50
	Inches w.g	8.0	14.9	11.6	20.1
Operating Pressure	mbar	15	37	29	
	Inches w.g	6.0	14.9	11.6	
Low Rate Pressure	mbar	2	5.5	4.3	
	Inches w.g	0.8	2.2	1.7	
<b>Oven</b>					
Injector		230	130		
Pilot Injectors		31.2	25		
Supply Pressure	mbar	20	37	29	50
	Inches w.g	8.0	14.9	11.6	20.1
Operating Pressure	mbar	14	37	29	
	Inches w.g	6.0	14.9	11.6	

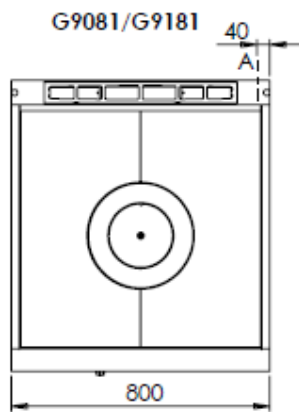
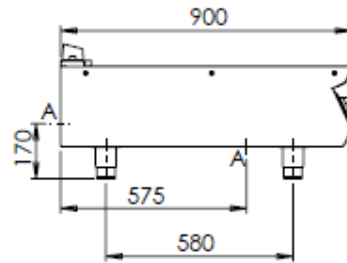
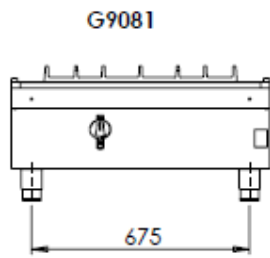
#### 4.2 TABLE B – Heat Inputs

HEAT INPUTS – G20 (kW net & Btu/hr gross)			
		G9181	G9081
Total Input	kW	17.8	10.3
	Btu/hr	66826	38,669
Reduced Heat Input	kW	4.0	4.0
	Btu/hr	15017	15017

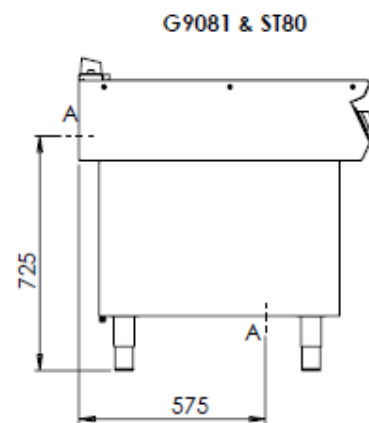
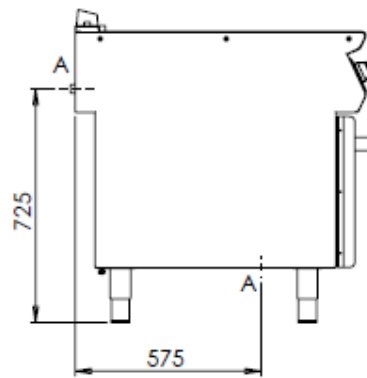
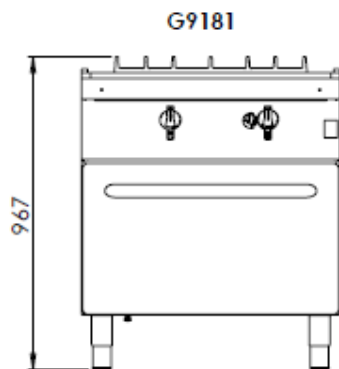
HEAT INPUTS –G30-G31 (kW net & Btu/hr gross)			
		G9181	G9081
Total Input	kW	17.3	10.3
	Btu/hr	64,949	38,669
Reduced Heat Input	kW	4.0	4.0
	Btu/hr	15017	15017

## 5.0 DIMENSIONS / CONNECTION LOCATIONS

---

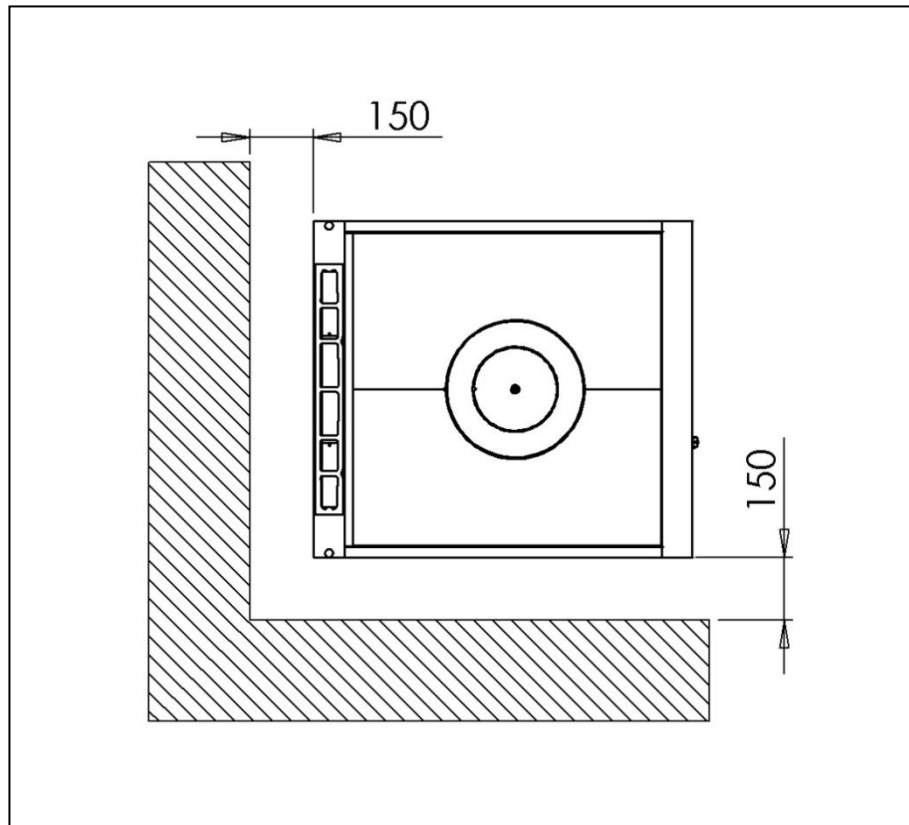


A - GAS INLET



## 6.0 INSTALLATION

### 6.1 SITING / CLEARANCES



**CAUTION: WALLS CLOSER THAN 150mm TO THE APPLIANCE MUST BE NON COMBUSTABLE. IF SITING THE NECESSARY CLEARANCES TO ANY CUMBUSTIBLE WALL MUST BE THE LARGEST FIGURE GIVEN FOR INDIVIDUAL APPLIANCES INSTRUCTIONS.**

### 6.2 VENTILATION

These appliances are to be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room in which they are installed. Installer must consult any additional local / national regulations.

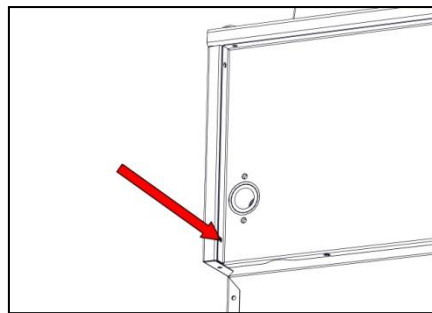
COMBUSTION AIR REQUIREMENTS		
	G9181	G9081
G20	10m <sup>3</sup> h	10m <sup>3</sup> h
G30	16m <sup>3</sup> h	17m <sup>3</sup> h
G31	16m <sup>3</sup> h	17m <sup>3</sup> h



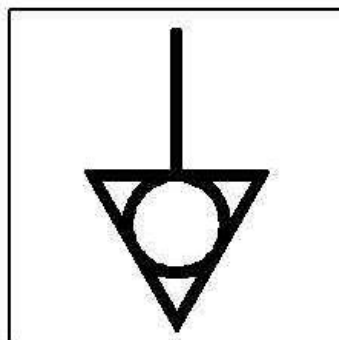
### 6.3 GAS SUPPLY & CONNECTION

6.3.0 Installation pipe work should be fitted in accordance with local / national standards. The pipe work must not be smaller than unit gas inlet connection, i.e. Rp $\frac{3}{4}$  ( $\frac{3}{4}$ " B.S.P.). If using flexible hosing, the hose must be sized to conform with the hose manufacturers specifications and must not exceed 1.5m. An isolating valve must be located close by for shut-down during an emergency or servicing.

6.3.1 If flexible hose is used, it shall comply with national requirements. These must be periodically examined and replaced as necessary. If a retention chain is required then attach this to the fixing shown below.

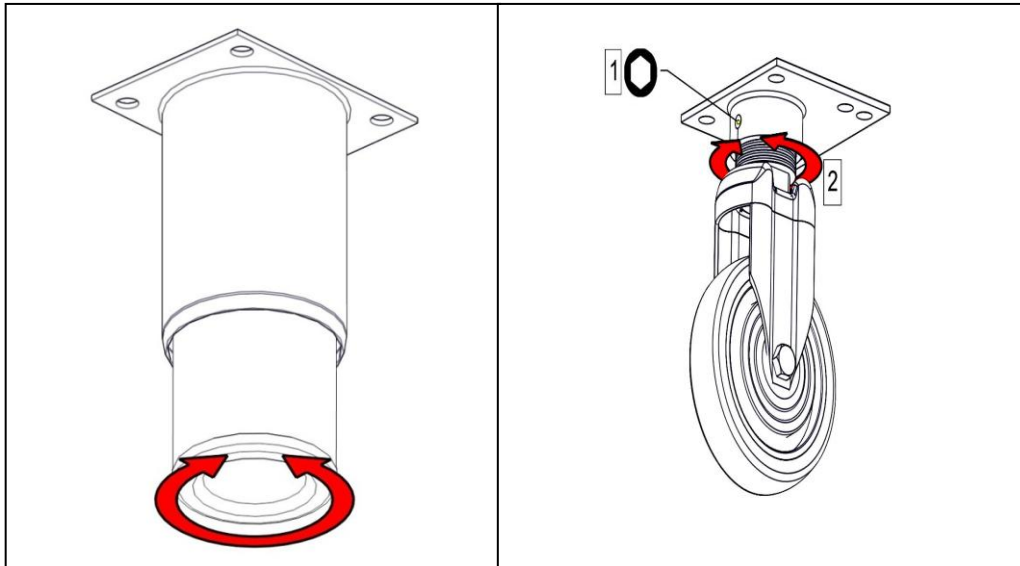


6.3.2 This appliance is also provided with a terminal for connection of an external equipotential conductor. This terminal is in effective electrical contact with all fixed exposed metal parts of the appliance and shall allow the connection of conductor having a nominal cross-section area of up to 10mm<sup>2</sup>. It is located at the rear of the unit and identified by the following label and must only be used for bonding purposes.



### 6.4 ASSEMBLY

6.4.0 Position appliance and level using feet or caster adjusters as shown below.



6.4.1 Connect appliance to gas supply and test for gas tightness.

### 6.5 COMMISSIONING - HOB

- 6.5.0 Remove control panel. (see 8.1)
- 6.5.1 Ensure line gas pressure is correct. (see 4.0)
- 6.5.2 Light pilot and ensure it stays lit.
- 6.5.3 Turn on burner. Ensure correct lighting occurs.
- 6.5.4 Check for flame stability.
- 6.5.5 Operate controls ensuring they turn smoothly.
- 6.5.6 Turn off appliance.
- 6.5.7 Replace control panel.

### 6.6 COMMISSIONING – OVEN

- 6.6.0 Remove oven base tray and panel. (see 3.2 & 8.5)
- 6.6.1 Ensure burner pressure is correct. (see 4.0 & 8.9)
- 6.6.2 Light pilot and ensure it stays lit.
- 6.6.3 Turn on burner. Ensure correct lighting occurs.
- 6.6.4 Check for flame stability.
- 6.6.5 Operate controls ensuring they turn smoothly.  
Note: Oven temperature should be checked against the dial with the solid top on.
- 6.6.6 Turn off appliance.
- 6.6.7 Replace oven base tray and panel.
- 6.6.8 Replace control panel.

If the appliance does not operate correctly please refer to section 9.0 and rectify the problem.

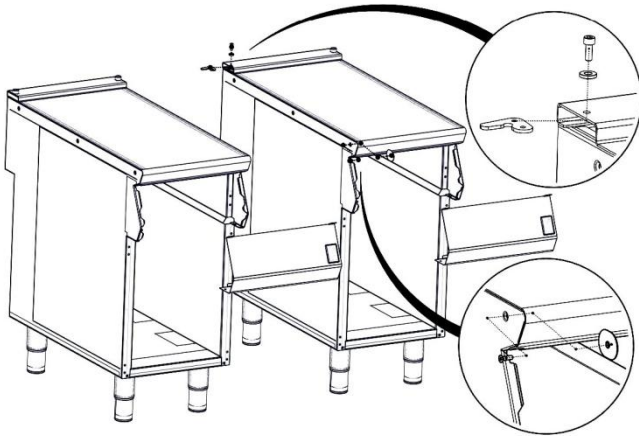


**PLEASE FILL OUT THE INFORMATION TABLE ON THE FRONT COVER AFTER COMMISSIONING.**

## 6.7 SUITING

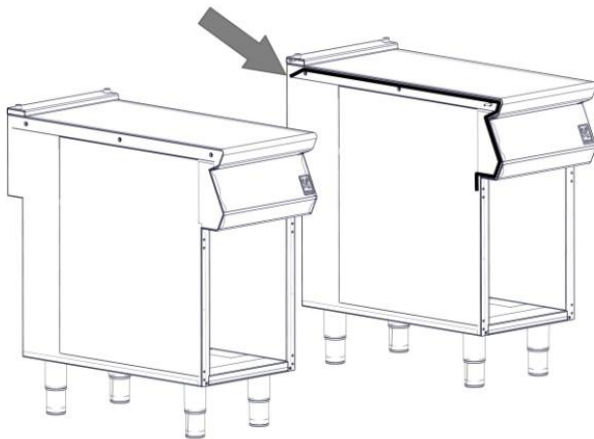
***“Patent pending, application no. GB 1511389.7”***

- 6.7.1 Before leveling and suiting units ensure the units are fully built, including all accessories and castings.
- 6.7.1 Undo the 4 fixing screws on the control panel and remove.
- 6.7.2 Remove the hob rear infill and replace with rear suiting plate and fixings.
- 6.7.3 Remove the front side panel countersunk screw and suiting plate.

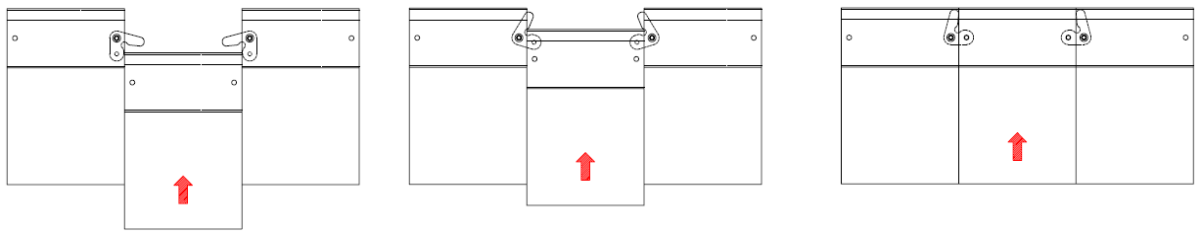


**NOTE:** The DLS system is designed to give a quick and easy suiting solution. If you require an improved seal between appliances we recommend you use, a food grade, high temperature silicon sealant. This can be supplied by Falcon part no – 523400021

- 6.7.4 Run a bead of silicon 5mm from profile edge as highlighted below.



6.7.6 Slide suited units into position.



6.7.7 (A) Right hand unit: Screw the M5 x 40 screw (supplied in the kit) into one of the suiting plates as shown and then insert through the front fixing holes of both units.

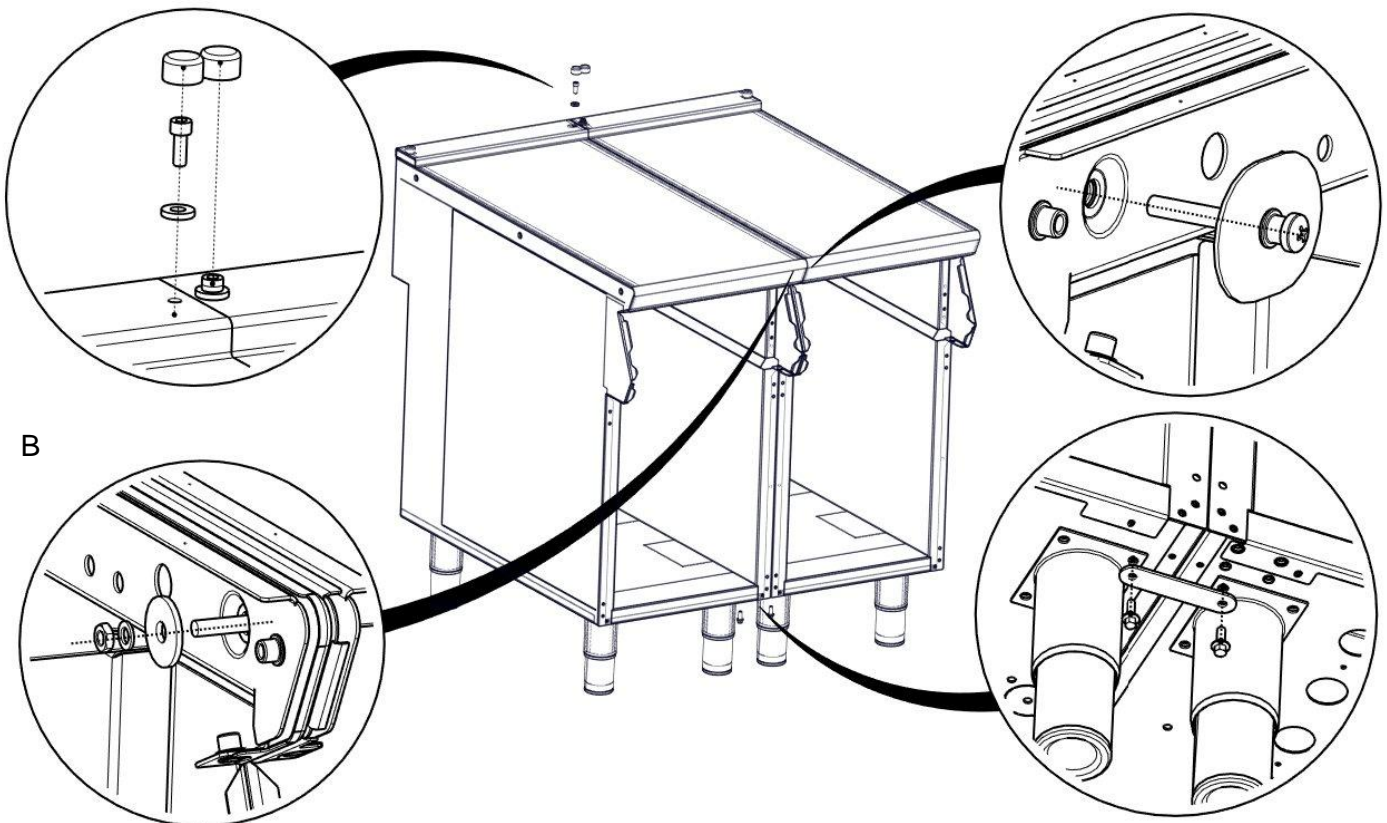
6.7.8 (B) Left hand unit: Slide the penny and lock washer on to the screw and secure using the M5 nut.

6.7.9 (C) Remove the front bolts from feet, insert base tie plate and secure the bolts back into position.

6.7.10 (D) Replace fixings on the rear hob and tighten screw caps into position.

D

A



B

C

6.7.11 Replace control panel.

## 7.0 CONVERSION

---



**BEFORE INSPECTION, SERVICING OR CONVERSION, TURN OFF GAS AT ISOLATOR.**

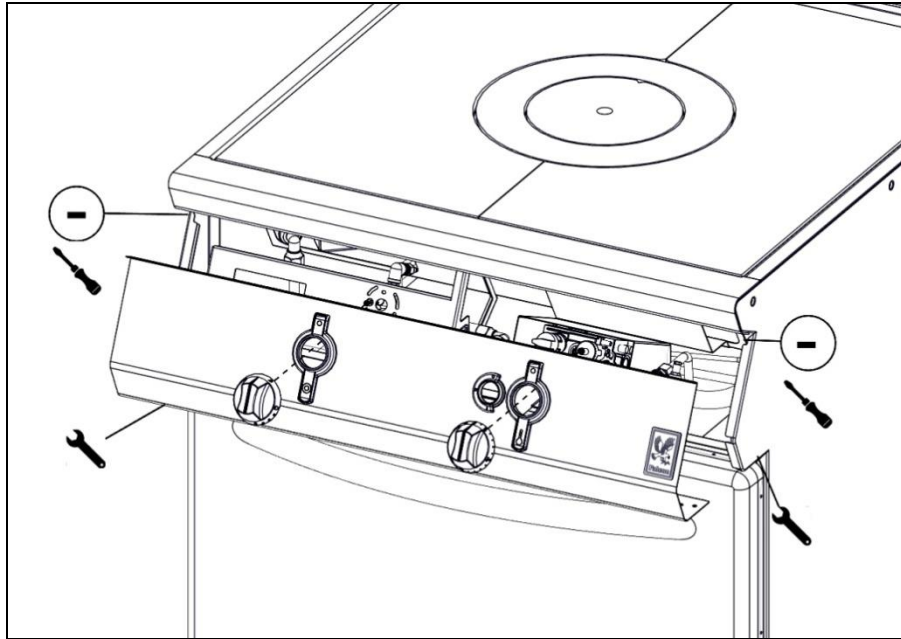
### 7.1 GAS CONVERSION CHECK LIST

- Change injectors in burners and pilots (see 8.2 8.3– 8.5)
- Change low rate screw on hob gas valve (see 4.1 & 8.8)
- Change aeration setting on hob burner (see 8.7)
- Adjust pressure of oven valve stated in section 4.1(see 8.10)
- Change gas type label.
- If supply pressure of G30 is 50mbar fit governor. Set to values stated in section 4.0. (see 8.11 for pressure adjustment of Falcon supplied governor)

## 8.0 SERVICING

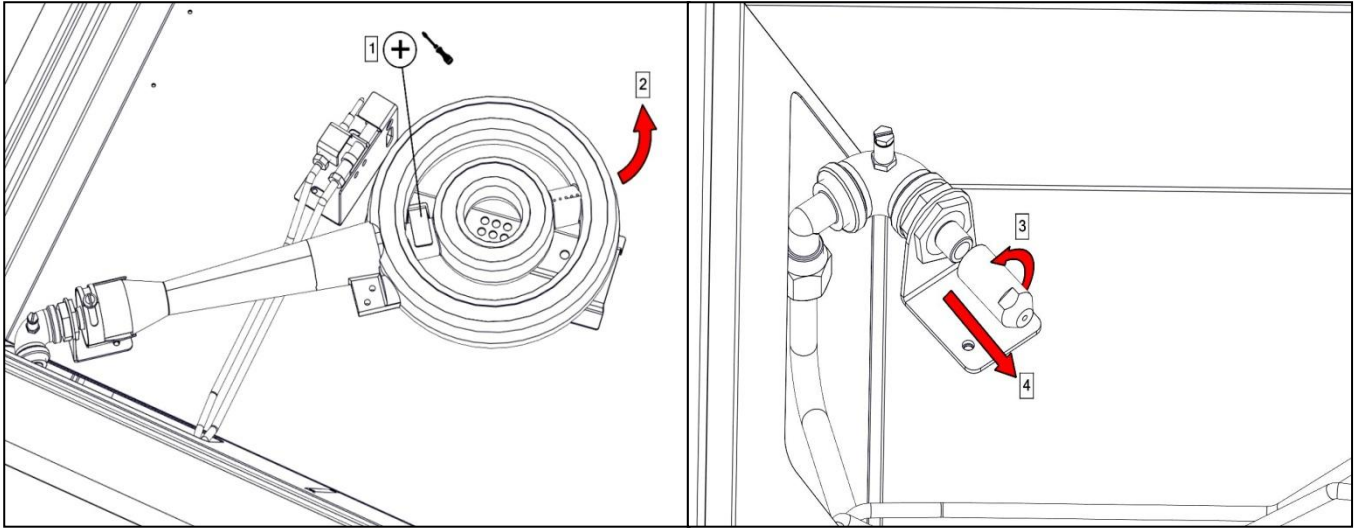
---

### 8.1 CONTROL PANEL



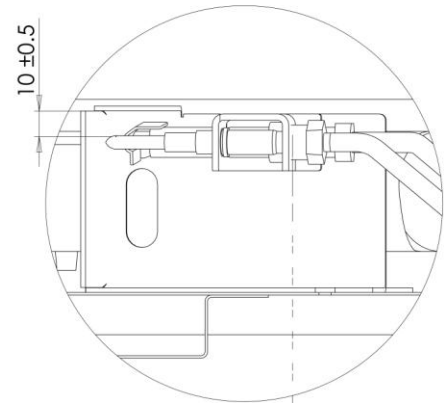
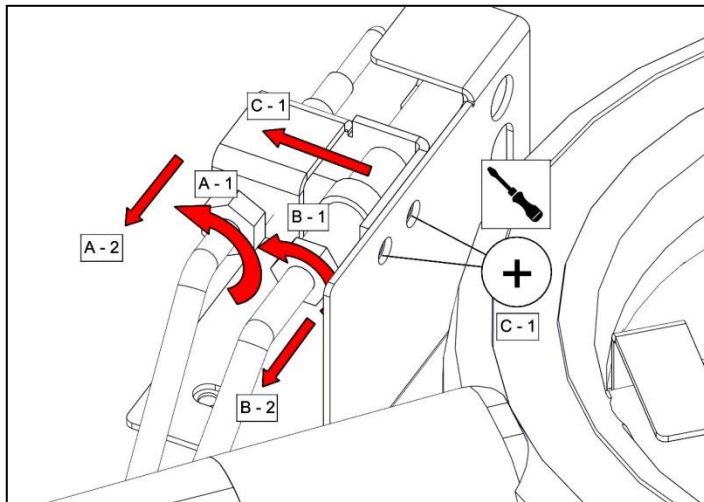
8.1.0 Remove control panel as shown

## 8.2 INJECTOR (HOB)



- 8.2.0 Remove injector as shown. Access from top of unit.
- 8.2.1 Clean injector.
- 8.2.2 After replacement, check burner performance.

## 8.3 PILOT (HOB)



- 8.3.0 Remove pilot assembly as shown.
- A – Thermocouple
- B – Pilot gas pipe
- C – Assembly removal

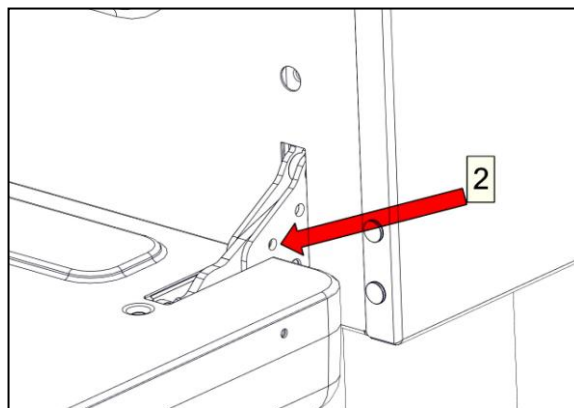
## 8.4 REMOVAL OF DOOR



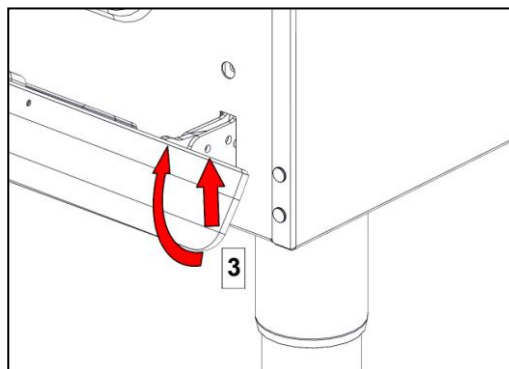
**THE HINGE SPRING IS UNDER TENSION AND NO ATTEMPT SHOULD BE MADE TO REMOVE THE PINS WHEN THE DOOR IS OFF.**

8.4.0 Turn off oven and cool down.

8.4.1 Open the door fully and push the supplied  $\text{\O}4\text{mm}$  R pin into the hole on each hinge.

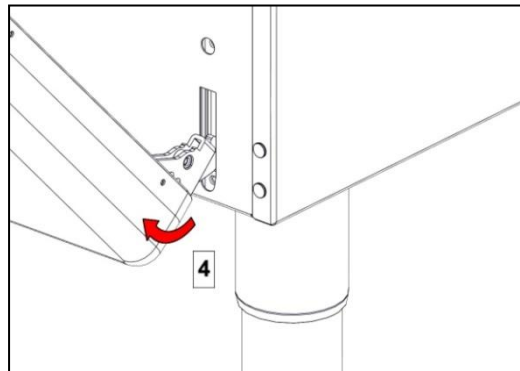


8.4.2 Holding the door with both hands half way down each side, rotate and lift up until the hinge hits the top of the hinge aperture.





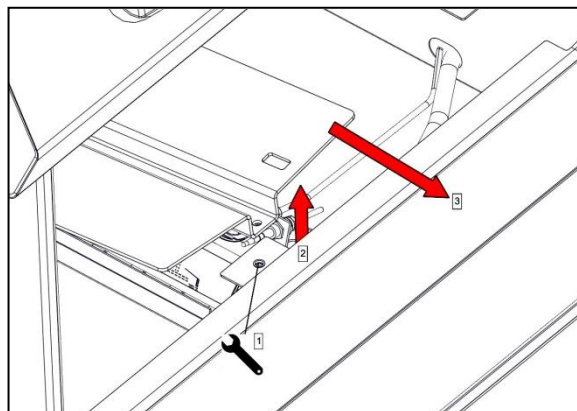
8.4.3 Rotate hinge out of hinge aperture and lift door away.



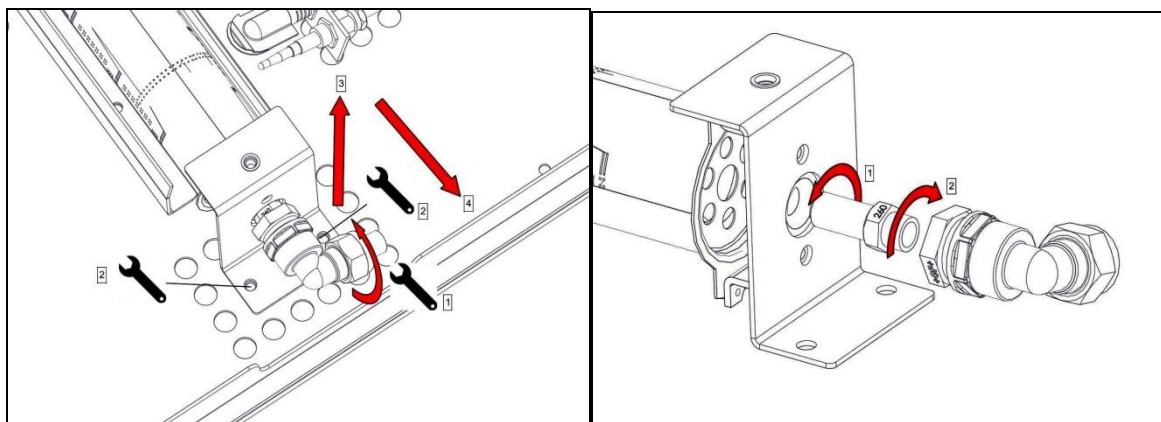
8.4.4 Replace in reverse order.

### 8.5 INJECTOR (OVEN)

8.5.0 Remove oven base tray (see 3.3)

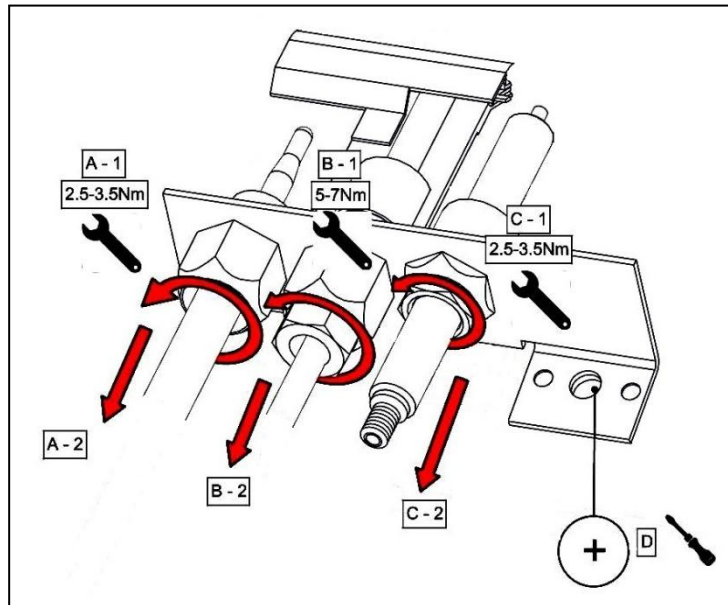


8.5.1 Remove oven base panel and burner shield.



8.5.2 Remove burner and injector as shown.

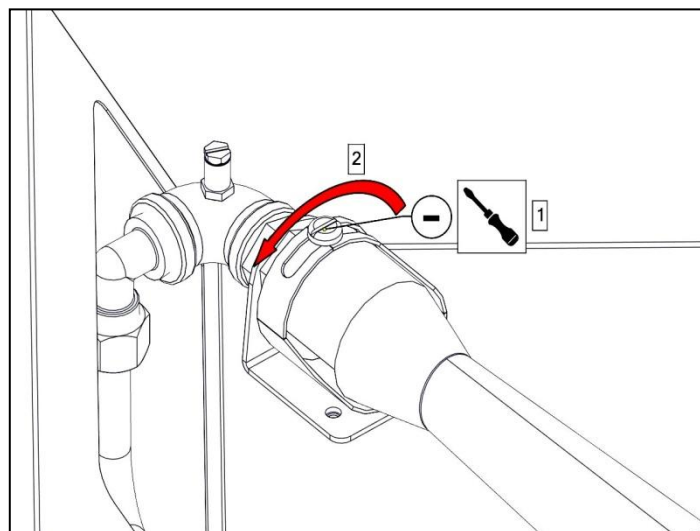
## 8.6 PILOT (OVEN)



8.6.0 Remove pilot components as shown.

- A – Thermocouple
- B – Pilot gas pipe
- C – Spark electrode
- D – Pilot bracket

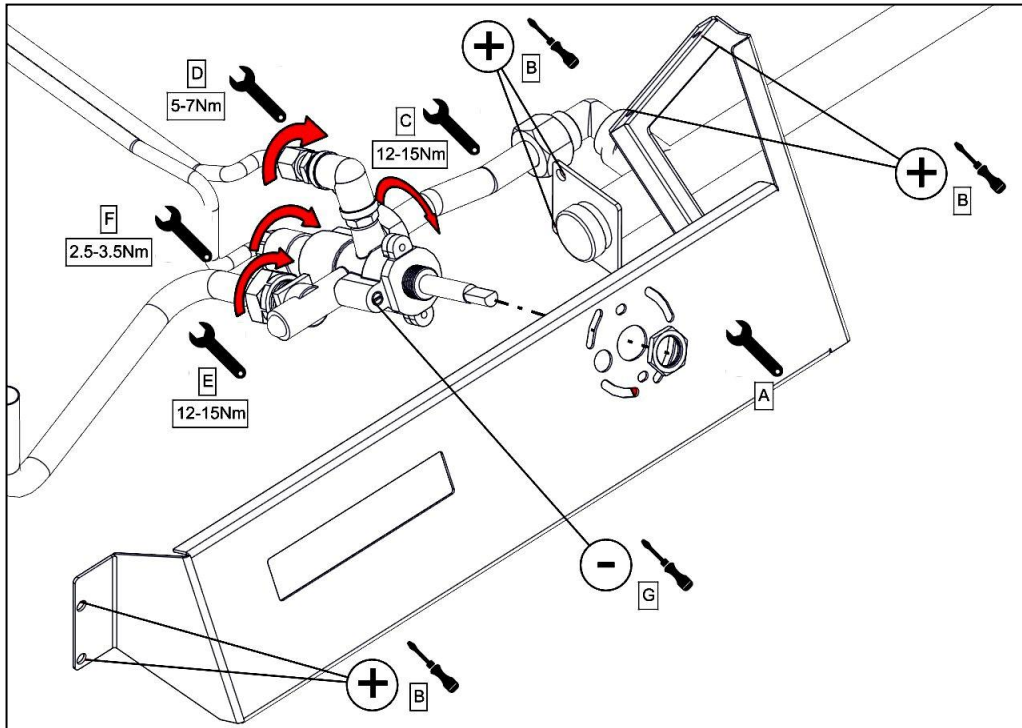
## 8.7 AERATION (HOB)



8.7.0 Adjust opening for gas type used.

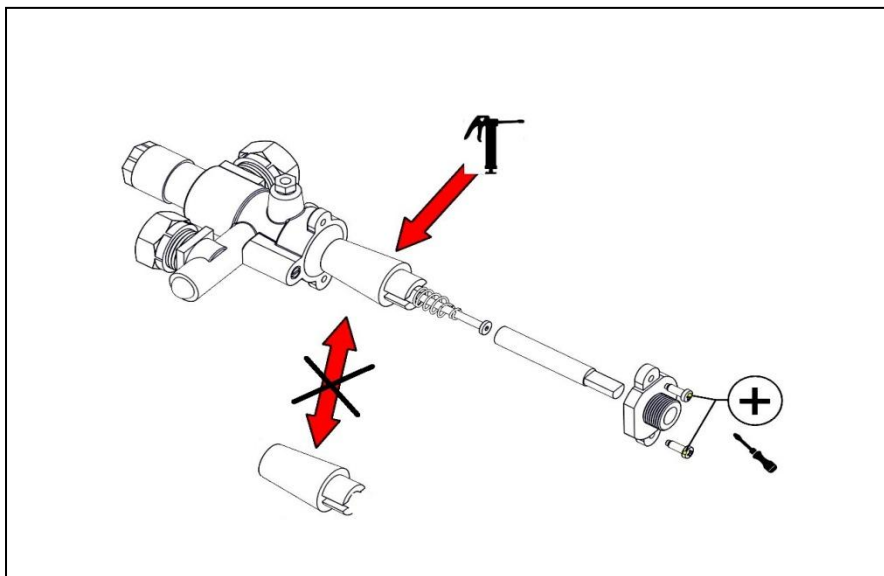
- G20 – Adjust between 3mm and 6mm
- G31 – Fully Open
- G30 – Fully Open

## 8.8 GAS VALVE (HOB)



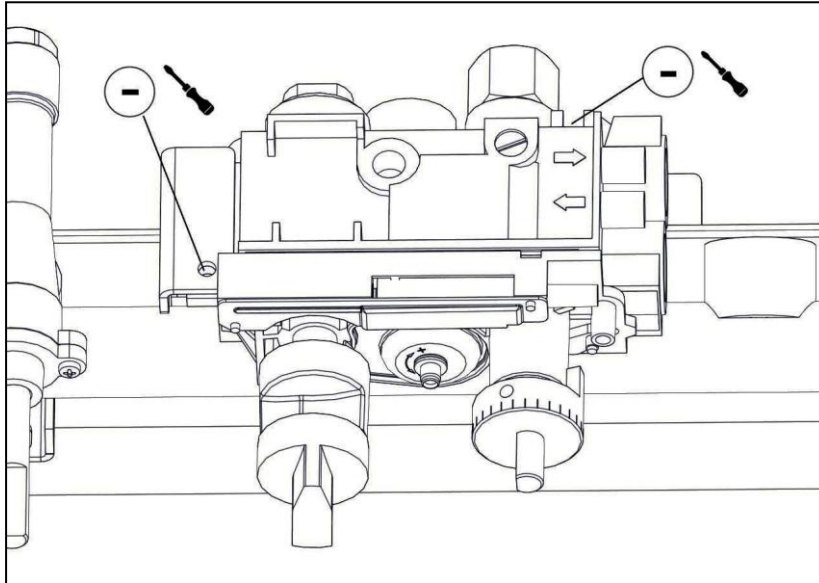
8.8.0 Remove gas valve as shown.

- A – Valve to bracket
- B – Valve bracket
- C – Gas supply pipe
- D – Pilot gas pipe
- E – Main gas pipe
- F – Thermocouple
- G – Bypass screw

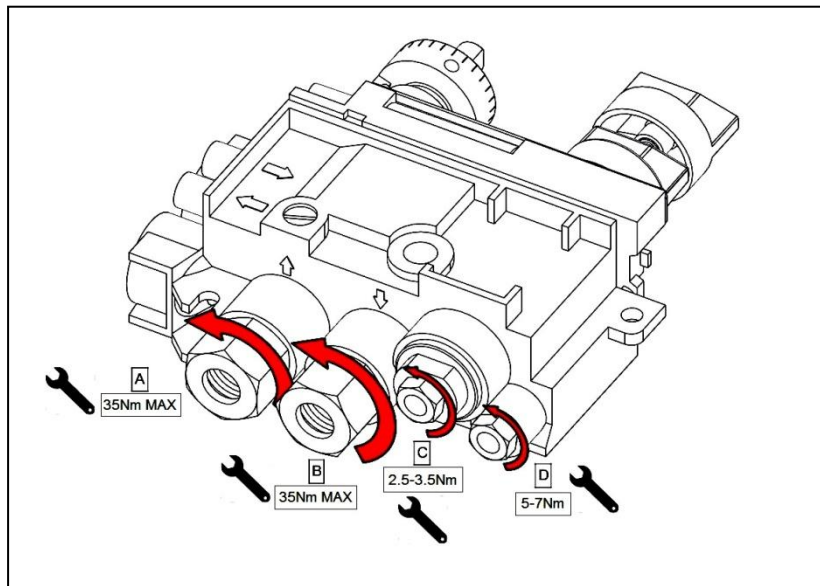


8.8.1 Remove service valve as shown

## 8.9 GAS VALVE (OVEN)



8.9.0 Remove gas valve as shown.

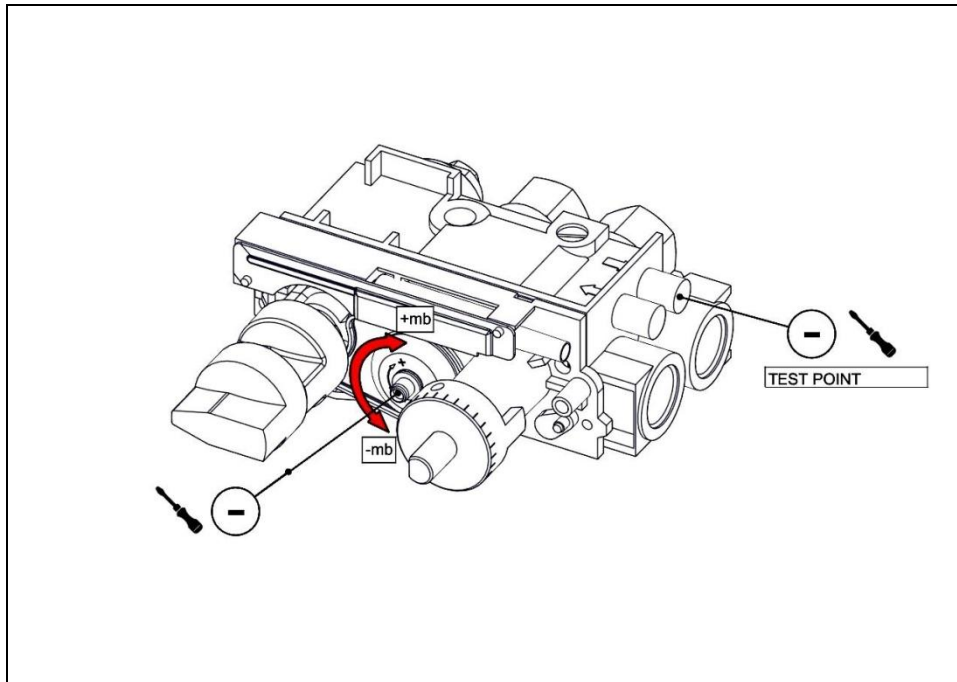


8.9.1 Remove connections as shown.

- A – Gas in
- B – Gas out
- C – Spark electrode
- D – Thermocouple

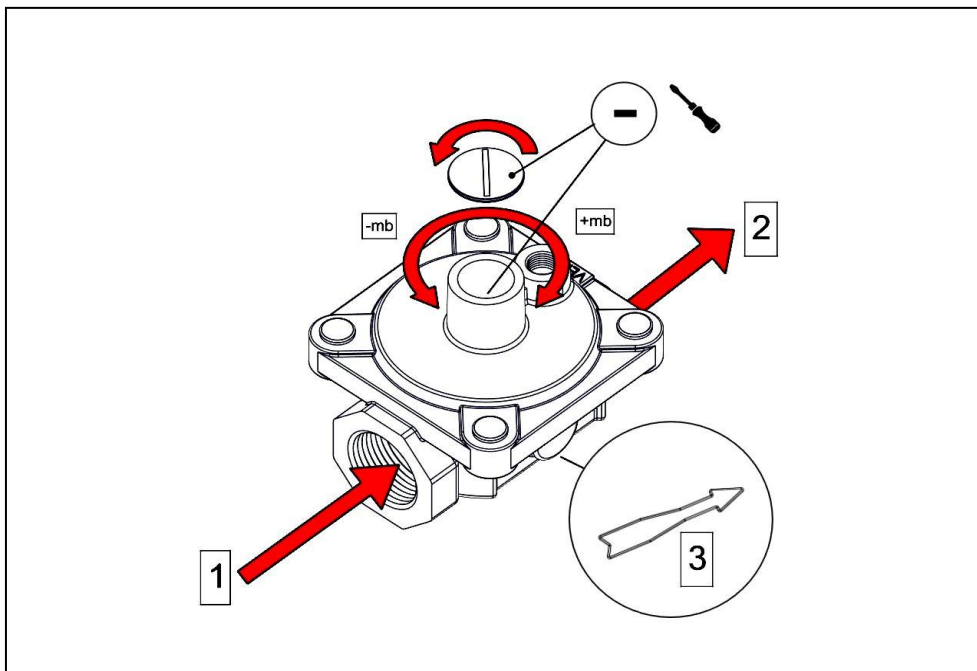
Note: When testing Valve operation, appliance including solid top should be at working temperature.

## 8.10 PRESSURE ADJUSTMENT



## 8.11 GOVERNOR

This applies G30 with supply pressure of 50mbar models only.



**GOVERNOR SUPPLIED IS MAINTENANCE FREE. ENSURE THE BLUE DUST CAP COVERING THE VENT IS FITTED AND IN GOOD CONDITION**

## 9.0 FAULT FINDING

FAULT	POSSIBLE CAUSES	REMEDY
Slow/Poor/No heating	Valve pressure wrong	Check pressure
	Burner ports blocked	Check burner and clean
	Low mains gas pressure	Check with gas supplier
	Gas supply isolated/off	Restore supply Check with gas supplier
Piezo oven igniter not working	Check for short in high tension lead	Replace lead
	Check for electrode fracture	Replace electrode
Burner will not light/stay lit	No gas at burner	Check injector for blockages
	Loose thermocouple	Clean and tighten connections
	Damaged thermocouple	Replace thermocouple
	Damaged valve	Replace valve
Oven not reaching temperature	Faulty thermostat	Replace valve
Flame has yellow/orange tips	Not enough primary air	Check aeration setting
	Contamination in burner	Clean burner and retry
Weak flame	Incorrect valve pressure	Check valve pressure
	Blocked injector	Clean injector and retry
	Incorrect line pressure	Check with gas supplier
Flame 'lifts' off burner	Incorrect primary air	Check aeration setting
	Incorrect line pressure	Check with gas supplier

## 10.0 SPARE PARTS

---

### Main Spare Parts:

- Oven Valve
- Hob Valve
- Oven Injector G20
- Oven Injector G30/G31
- Hob Burner Injector G20
- Hob Burner Injector G30/G31
- Hob Pilot Injector G20
- Hob Pilot Injector G30/G31
- Oven Pilot Injector G20
- Oven Pilot Injector G30/G31
- Hob Pilot Assembly
- Oven Pilot Assembly
- Hob Thermocouple
- Oven Thermocouple
- Hob Control Knob
- Oven Control Knob

When ordering spare parts please quote the following;

**Model Number**

**Serial number**

**Gas Type**

This information will be found on data plate attached to the appliance. (see 1.0)

Visit our website for further spares information.

## **11.0 SERVICING INFORMATION**

---

It is recommended to have a maintenance contract with a local service provider.

### **SERVICELINE CONTACT:**

**(UK only)**

**Phone: +441438 363 000**

### **Warranty Policy Shortlist**

For our warranty policy please go to [www.falconfoodservice.com](http://www.falconfoodservice.com)