

# G2522 Grill



## Installation and Servicing Instructions

The appliance must be installed and serviced by a qualified person as stipulated by the Gas Safety (*Installation & Use*) Regulations.

### IMPORTANT

The installer must ensure that the installation of the appliance is in conformity with these instructions and National Regulations in force at the time of installation. Particular attention **MUST** be paid to:

**Gas Safety (*Installation & Use*) Regulations  
Health And Safety At Work etc. Act  
Local and National Building Regulations Fire  
Precautions Act**

Detailed recommendations are contained in Institute of Gas Engineers published documents:  
**IGE/UP1, IGE/UP/2  
BS6173 and BS5440**

The appliance has been CE-marked on the basis of compliance with the Gas Appliance Directive for the Countries, Gas Types and Pressures as stated on the data plate.

**WARNING: TO PREVENT SHOCKS, ALL APPLIANCES WHETHER  
GAS OR ELECTRIC, MUST BE EARTHED.**

On completion of the installation, these instructions should be left with the Engineer-in-Charge for reference during servicing. Further to this, The Users Instructions should be handed over to the User, having had a demonstration of the operation and cleaning of the Appliance.

**IT IS MOST IMPORTANT THAT THESE INSTRUCTIONS BE CONSULTED BEFORE INSTALLING AND COMMISSIONING THIS APPLIANCE. FAILURE TO COMPLY WITH THE SPECIFIED PROCEDURES MAY RESULT IN DAMAGE OR THE NEED FOR A SERVICE CALL.**

### PREVENTATIVE MAINTENANCE CONTRACT

In order to obtain maximum performance from this unit we would recommend that a maintenance contract be arranged with **SERVICELINE**. Visits may then be made at agreed intervals to carry out adjustments and repairs. A quotation will be given upon request to the contact numbers below.



**WEEE Directive Registration No. WEE/DC0059TT/PRO** At end of unit life, dispose of appliance and any replacement parts in a safe manner, via a licensed waste handler.

Units are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

### Falcon Foodservice Equipment

#### HEAD OFFICE AND WORKS

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

T100576 Ref. 4

#### SERVICELINE CONTACT

Phone: 01438 363 000

Fax: 01438 369 900

# IMPORTANT INFORMATION

## Warranty Policy Shortlist

Warranty does not cover :-

- Correcting faults caused by incorrect installation of a product.
- Where an engineer cannot gain access to a site or a product.
- Repeat commission visits.
- Replacement of any parts where damage has been caused by misuse.
- Engineer waiting time will be chargeable.
- Routine maintenance and cleaning.
- Gas conversions i.e. Natural to Propane gas.
- Descaling of water products and cleaning of water sensors where softeners/ conditioners are not fitted, or are fitted and not maintained.
- Blocked drains
- Independent steam generation systems.
- Gas, water and electrical supply external to unit.
- Light bulbs
- Re-installing vacuum in kettle jackets.
- Replacement of grill burner ceramics when damage has been clearly caused by misuse.
- Where an engineer finds no fault with a product that has been reported faulty.
- Re-setting or adjustment of thermostats when unit is operating to specification.
- Cleaning and unblocking of fryer filter systems due to customer misuse.
- Lubrication and adjustment of door catches.
- Cleaning and Maintenance
  - Cleaning of burner jets
  - Poor combustion caused by lack of cleaning
  - Lubrication of moving parts
  - Lubrication of gas cocks
  - Cleaning/adjustment of pilots
  - Correction of gas pressure to appliance.
  - Renewing of electric cable ends.
  - Replacement of fuses
  - Corrosion caused by use of chemical cleaners

# SECTION 1 – INSTALLATION

UNLESS OTHERWISE STATED, PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE INSTALLER.

**Warning** – Take care when removing or installing cast components as they are heavy items

**Brander – 6kg**

## 1.1 Model Numbers, Nett Weights and Dimensions

Model	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)	Gas Conn.
G2522	900	585	505	74	Rp½

The grill may be mounted on any of the following options –

**Bench Legs, floor stand or wall bracket**

## 1.2 Siting

There must be 150mm clearance all around the grill from any combustible wall or object liable to damage when overheated.

There must be a minimum vertical clearance of 900mm above the top edge of the flue to ensure no overheating of overlying combustible surfaces.

A minimum clearance of 400mm from the sides should be provided to allow removal of outer panels for service access. Methods of mounting the unit are available as detailed in Section 1.1. No grill should be mounted directly upon a table.

Furthermore, a minimum working clearance of 1000 mm from the front face of the grill is required to operate the grill.

**Note** - Upper sections of the unit are likely to become very hot. It should therefore be positioned in a manner which minimises the risk of accidental touching.

**Warning** - Remember, dirty extraction filters and drip trays become combustible, hence the importance of adhering to the specified flue clearance distance to these items. Regular cleaning of extraction filters and drip trays must be carried out.

## 1.3 Ventilation

The grill **MUST** be installed level in a well lit and draught free position. Adequate ventilation, whether natural or mechanical, must be provided to ensure sufficient air for combustion and removal of combustion products and cooking vapours, which may be harmful to health.

This appliance is to be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to health in the room which they are installed.

The fresh air requirement for this appliance at a rate of 1M<sup>3</sup>/hour per kW is 13.2 M<sup>3</sup> of fresh air per hour.

Care must be taken not to disturb the air for combustion admission and evacuation of products of combustion on appliances fitted with open burners.

Recommendations for Ventilation of Catering Appliances are given in BS5440:2.

For multiple installations the requirements for individual appliances should be added together. Installation should be made in accordance with local and/or national regulations applying at the time. A competent installer **MUST** BE employed.

The appliance flue discharges vertically through the grille at the top of the unit. There must be no direct connection of the flue to any mechanical extraction system or the outside air. Siting the unit under a ventilated canopy is the ideal arrangement. Remember, dirty extraction filters and drip trays may become a fire hazard due to drip-down on to equipment below. Regular cleaning of extraction filters and drip trays must be carried out.

## 1.4 Gas Supply

The incoming service must be of sufficient size to supply the full rate without excessive pressure drop. A gas meter is connected to the service pipe by the Gas Supplier.

An existing meter should be checked, preferably by the Gas Supplier, to ensure that it is adequate to cope with the rate of gas supply required. Installation pipes should be fitted in accordance with IGE/UP/2.

The pipework size, from the meter to the appliance, must not be less than the appliance inlet connection, Rp½ (½" BSP).

An isolating cock must be located close to the appliance (on the inlet side of the governor on Natural Gas appliances) to allow shut down during an emergency or routine service.

Details of the position of this cock must be given to the user and or responsible person in charge.

The installation **MUST BE TESTED FOR GAS SOUNDNESS**, details of which can be found in IGE/UP/1

Gas supply tubing or hose shall comply with the national requirements in force, and shall be periodically examined and replaced as necessary. The tubing or Flexible hose must not exceed 1.5m in length.

### 1.5 Electrical Supply

Not applicable to this appliance

### 1.6 Water Supply

Not applicable to this appliance.

### 1.7 Heat Inputs - Natural (I<sub>2</sub>h) and Propane (I<sub>3</sub>p)

	Natural (I <sub>2</sub> h)		Propane (I <sub>3</sub> p)	
	kW	Btu / hr	kW	Btu / hr
Model				
G2522 Full	13.2	49,500	13.2	49,500
Low/turndown	6.8	25,500	6.8	25,500
Pilot	0.25	938	0.25	938

### 1.8 Injector Diameters

#### Natural Gas (I<sub>2</sub>h)

Model	Main Burners	X-lighting Burners	Pilot Burner
G2522	3 x Amal 380	2 x Amal 20	SIT No. 30

#### Propane Gas (I<sub>3</sub>p)

Model	Main Burners	X-lighting Burners	Pilot Burner
G2522	3 x Amal 160	2 x Amal 10	SIT No. 19

### 1.9 Setting Pressure

Gas Type	Mbar	Inches w.g.
Natural (I <sub>2</sub> h)	15	6
Propane (I <sub>3</sub> p)	37	14.8

#### Low / Turndown manifold pressures;

The following low / turndown pressures are factory pre set and should not require adjustment under normal circumstances.

It may be necessary to adjust these settings however, when the appliance is converted to another gas category, or serviced for instance.

In these cases, the Manifold pressures are as follows;

	Natural (I <sub>2</sub> h)	Propane (I <sub>3</sub> p)

	millibars	Inch WG	millibars	Inch WG
Low/ turndown	3.5	1.4	9	3.6

A spring loaded governor supplied with the appliance, **MUST BE FITTED** to Natural gas (I<sub>2</sub>h) models.

No governor is to be fitted on Propane (I<sub>3</sub>p) models.

A pressure test point is accessible upon removal of the side panel.

The Low/ turndown adjustment screw is located on the gas control, under the control knob spindle.

## 1.10 Burner Adjustment

### Burner Aeration

The burners are fitted with fixed injectors. Aeration is adjustable by means of a screw, positioned at the burner inlet.

After setting pressure, the stability of the flame cones should be checked. If necessary, the aeration screw should be adjusted to achieve satisfactory cross lighting of burners on both HIGH and LOW settings. This will also prevent yellow tipping of the flame or lift-off.

## SECTION 2 – ASSEMBLY AND COMMISSIONING

### 2.1 Assembly

#### 2.1.1 Grill Unit

Unpack grill and check that all components are undamaged. Parts supplied loose are specified in the contents list below.

**Brander Drip Trough**

**Brander Plate**

**Grid Shelf**

**Drip Tray**

**Gas Governor (Natural Gas only)**

Additionally, the necessary plaques, supports and cross-lighting burners are supplied as follows:-

Model	Plaques	Centre Point	End Support	X-Lighting Burner
G2522	12	6	4	2

#### 2.1.2 Appliance Mounting Accessories

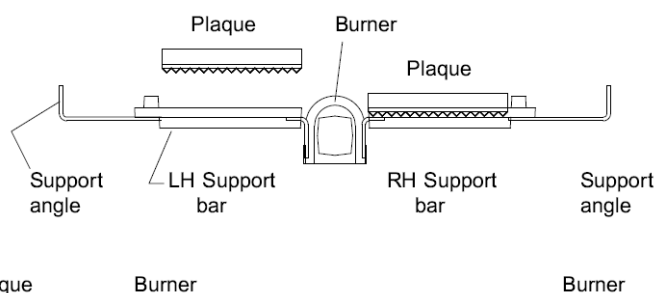
Details of various mounting options can be obtained by contacting Falcon Sales, distributor or place of purchase.

Refer to the individual instructions supplied with the individual means of mounting.

Adherence to positioning clearances indicated in Section 1.2 of this manual is mandatory.

#### 2.1.3 Assembly of Support Bars and Plaques

- When unit has been installed in desired location, the centre support bars can be positioned between the burner lugs. Similarly LH and RH plaque supports are located between burner lugs and support angle. See Figure 1 below.
- With support bars in position, plaques may be inserted by placing these upon bars as illustrated below.



## 2.2 Connection to the Gas Supply

Installation should be carried out in accordance with the various regulations listed on the cover of this document.

On NATURAL gas appliances, the adjustable governor supplied, MUST be fitted to gas circuit and securely fixed in a position that enables adjustment to be carried out during commissioning. PROPANE appliances do not require a governor.

Ensure that gas isolating cock is fitted to the supply in convenient proximity to the grill.

Gas supply tubing or hose shall comply with the national requirements in force, and shall be periodically examined and replaced as necessary. The tubing or Flexible hose must not exceed 1.5m in length.

## 2.3 Connection to an Electrical Supply

Not applicable to this appliance.

## 2.4 Connection to a Water Supply

Not applicable to this appliance.

## 2.5 COMMISSIONING

### 2.5.1 Testing and Purging

Pressure test installation for gas soundness and purge any air from the supply.

### 2.5.2 Gas Pressure and Burner Flame Adjustment

- a) Remove RH Side Panel.
- b) Fit a pressure gauge to test point and light grill.
- c) With burner at Full Flame position, setting pressure should be as detailed in Section 1.9. On Natural gas models, adjust governor as required.
- d) With gas control in the Full Flame position, check the flame cone is approximately 30mm in length. If necessary, adjust by means of the aeration screw in burner throat. Tighten locknut when complete. (Refer to Section 1.10.)
- e) Check all burner ports cross light satisfactorily.
- f) Turn control to Low Flame position and check that flame cone reduces in length.

**Note** - LOW Flame position is set at factory. Re-setting is NOT necessary in normal conditions.

**If Low flame adjustment is required**, i.e. when appliance has been converted from another gas, refer to section 2.5.3. below.

### 2.5.3 Adjusting Low flame/Turndown Setting.

- a) Remove RH Side Panel and Control panel.
- b) Fit a pressure gauge to test point and light grill.
- c) With gas control turned to Low/Turndown position, observe manometer and adjust low position screw on gas control, (*situated below spindle*) to give following pressures;

Natural gas (I<sub>2</sub>h) – 3.5 millibar.

Propane gas (I<sub>3</sub>P) – 9 millibars.

### 2.5.4 Soundness Checking and Re-assembly

Whilst grill is lit, test all integral gas carrying joints and components for gas soundness. Use a suitable leak detection fluid.

TURN OFF gas control tap. REMOVE pressure gauge and replace test point sealing screw.

ENSURE THAT A GAS TIGHT JOINT IS MADE.

Re-assemble all panels and components removed during installation and commissioning. The drip tray, wire grid and brander can then be placed in position.

## 2.6 Instruction to User

Hand over User manual. Ensure user understands the procedures for lighting, cleaning and correct use of appliance. Point out the location of the isolating cock which may require to be shut down in event of an emergency.

## SECTION 3 – SERVICING AND CONVERSION

**Important** - Before carrying out any inspection, servicing or exchange of components, turn OFF the gas at the isolating cock and take steps to ensure that it is not inadvertently turned on. Always remove the brander and grid shelf.

After any maintenance task, check the appliance to ensure that it performs correctly and carry out any necessary adjustments as detailed in Section 1.

After carrying out any servicing or exchange of gas carrying components –

### ALWAYS CHECK FOR GAS SOUNDNESS

#### 3.1 Gas Conversion Check list

##### To convert from NATURAL to PROPANE gas –

Change main, cross lighting and pilot injectors,

Remove governor and check supply pressure accordingly, (section 1.9).

Adjust aeration.

Adjust Low flame / Turndown setting, (section 2.5.3).

Change data plate.

##### To Convert from PROPANE to NATURAL gas

Change main, cross lighting and pilot injectors.

Connect governor and adjust inlet pressure accordingly, (section 1.9).

Adjust aeration.

Adjust Low flame / Turndown setting, (section 2.5.3).

Change data plate.

#### 3.2 Removal of Plaques and Burners;

**Warning: To avoid burns, ensure grill is at room temperature before removing components.**

##### 3.2.1 Plaques Only;

- a) Remove drip tray, grid shelf and brander.
- b) Plaques may be replaced by reaching inside compartment top and placing your fingers on plaque face. Push plaque up carefully to dislodge it from seating between bars and support angle.
- c) Carefully replace plaque so that it is properly seated on bar and support angle. The plaque should be positioned hard against the burner.

##### 3.2.2 Burners

- a) Remove top fixings from LH and RH outer side panels.
- b) Remove top panel by lifting up from the front and pulling forwards to release tabs from back panel.
- c) Remove bottom and rear fixings from LH outer side panel (*viewed from rear*) and lift clear.
- d) Remove bottom and side fixings from outer back and lift clear.
- e) Remove inner top panel above burners by loosening two fixings at LH side and removing six fixings at rear, and lift top panel clear.
- f) Reach inside top of compartment and remove ceramic plaques and support bars.

- g) The burners without pilot bracket may now be removed from injector seating.
- h) To remove burner with pilot, lift upwards from injector seating, undo the two fixings holding in the pilot bracket and lift burner clear.

### 3.3 Removal of Injector

Following removal of burner, the injector may be cleaned or replaced as desired. See Section 1.8 for injector dimension details.

### 3.4 Burner and Injector Cleaning

Burners require to be cleaned periodically to ensure that ports are free from blockage. This may be facilitated by means of wire brushing. Individual ports may be cleared with a suitable metal instrument.

Dislodged material should then be shaken out of open burner end.

**Warning: Should it become necessary to wash the burner(s), ensure that they are completely dry and free from cleaning materials before re-fitting to the appliance.**

The injectors also require regular inspection and may be cleaned with a wooden splinter or fuse wire. Hard metal implements MAY DAMAGE THE ORIFICE and MUST NOT be used.

Upon re-fitting, check adjustment and flame picture as described in Section 2.5.2.

### 3.5 Flame Failure Thermocouple

- a) Remove RH outer side panel (*viewed from front*), by removing fixings at top, rear and bottom.
- b) Undo nut that secures thermocouple to SIT pilot bracket.
- c) Undo nut that secures thermocouple to gas tap.
- d) Withdraw thermocouple and replace in reverse order.

### 3.6 Gas Valve

#### 3.6.1 To Remove

Proceed as follows-

- a) Remove control knob, and front fascia panel bottom fixing nuts. Pull fascia panel lower edge forward then downwards to remove fascia panel.
- b) Remove RH outer side panel (*viewed from front*), by removing fixings at top, rear and bottom.
- c) Undo nut that secures burner feed pipe to control.
- d) Release pilot tubing nut from control and ease pilot tube clear of location.
- e) Remove fixings that secure control to gas pipe.
- f) Undo nut that secures thermocouple to control.
- g) Remove fixings that secure control to appliance.
- h) Remove two side fixings and large nut securing the gas tap, and remove panel.
- i) Withdraw control.

#### 3.6.2 To Re-grease Control Tap

- a) Remove control knob, and front fascia panel bottom fixing nuts. Pull fascia panel lower edge forward then downwards to remove fascia panel.
- b) Remove two side fixings and large nut securing the gas tap, and remove panel.
- c) Remove fixings that retain front niting securing plate while holding plate against internal spring pressure.
- d) Carefully withdraw plate, complete with operating spindle.
- e) Withdraw exposed rod, spring, brass washer, and sealing washer, taking care not to lose any parts.
- f) Withdraw plug and clean with a soft rag and also clean mating surfaces in control body. Springly re-grease plug with an approved heat-resistant grease.

Re-assemble in reverse order taking care with the central pin assembly. Fit spring to pin first, then brass washer and finally sealing washer.

Ensure sealing washer fits snugly into recess at base of plug. When re-fitting operating spindle, ensure niting pin engages in plug slot.



### 3.7 Governor

#### 3.7.1 General

The governor will normally require little servicing.

Before proceeding with any inspection or servicing, TURN OFF THE GAS AT ISOLATING COCK.

#### 3.7.2 Procedure

Check and if necessary, clear air breather hole of any blockage. Ensure valve and seating are clean and that diaphragm is in good condition.

ALWAYS RE-CHECK GAS PRESSURE at test point after servicing governor.

## SECTION 4 - SPARES

When ordering spare parts, ALWAYS quote appliance TYPE and SERIAL No. This information can be found on the data badge. A list of items available, together with codes, is as follows:-

Description	Part No.
Plaque (single)	531600010
Thermocouple	531600030
Pilot burner body	531600050
Pilot orifice (Natural Gas)	531600070
Pilot orifice (Propane Gas)	531600075
Governor	535900001
Gas control	537560020
Knob for gas control	535900000
Disc for grid shelf handle	531600410
Handle for grid shelf	531600420
Grid shelf	531620130
Brander plate	531620110
Burner	531600230
Injector (Natural Gas)	531600220
Injector (Propane Gas)	531600225
X-Lighting burner	531610150
X-Lighting injector (Natural)	531610140
X-Lighting injector (Propane)	531610145
Drip trough	531630140
Brick support - centre	531550130
Brick support - end	531540120