

# **Model 60 SM - 50D0**

## *Gas Salamander*

INSTALLATION - OPERATION - MAINTENANCE

**NOT AGA CERTIFIED FOR USE WITH PROPANE GAS  
UNDER CERTIFICATE 5263**



**Dunbrae Pty Ltd t/as Global Food Equipment**

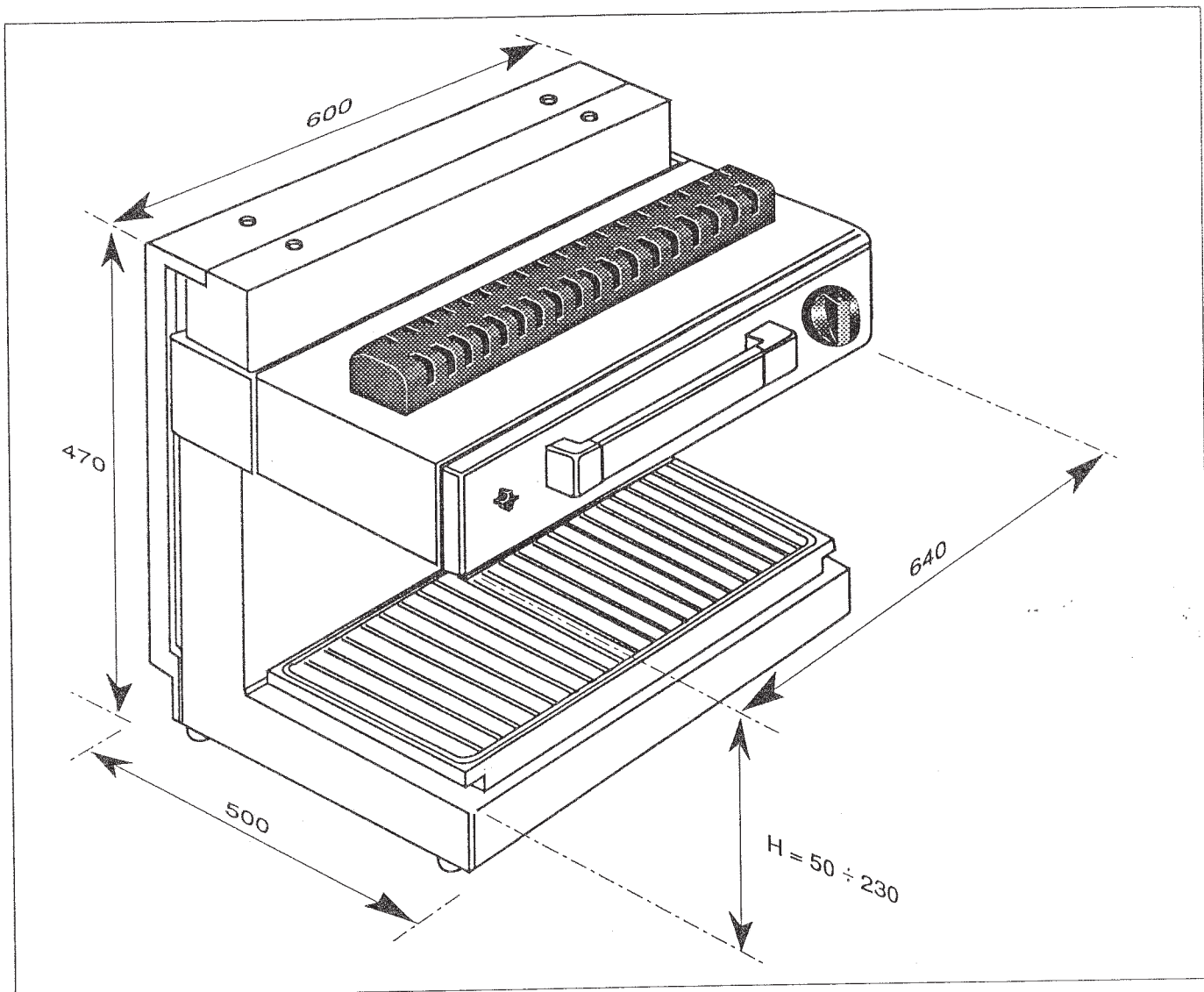
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# INSTRUCTIONS FOR THE INSTALLER

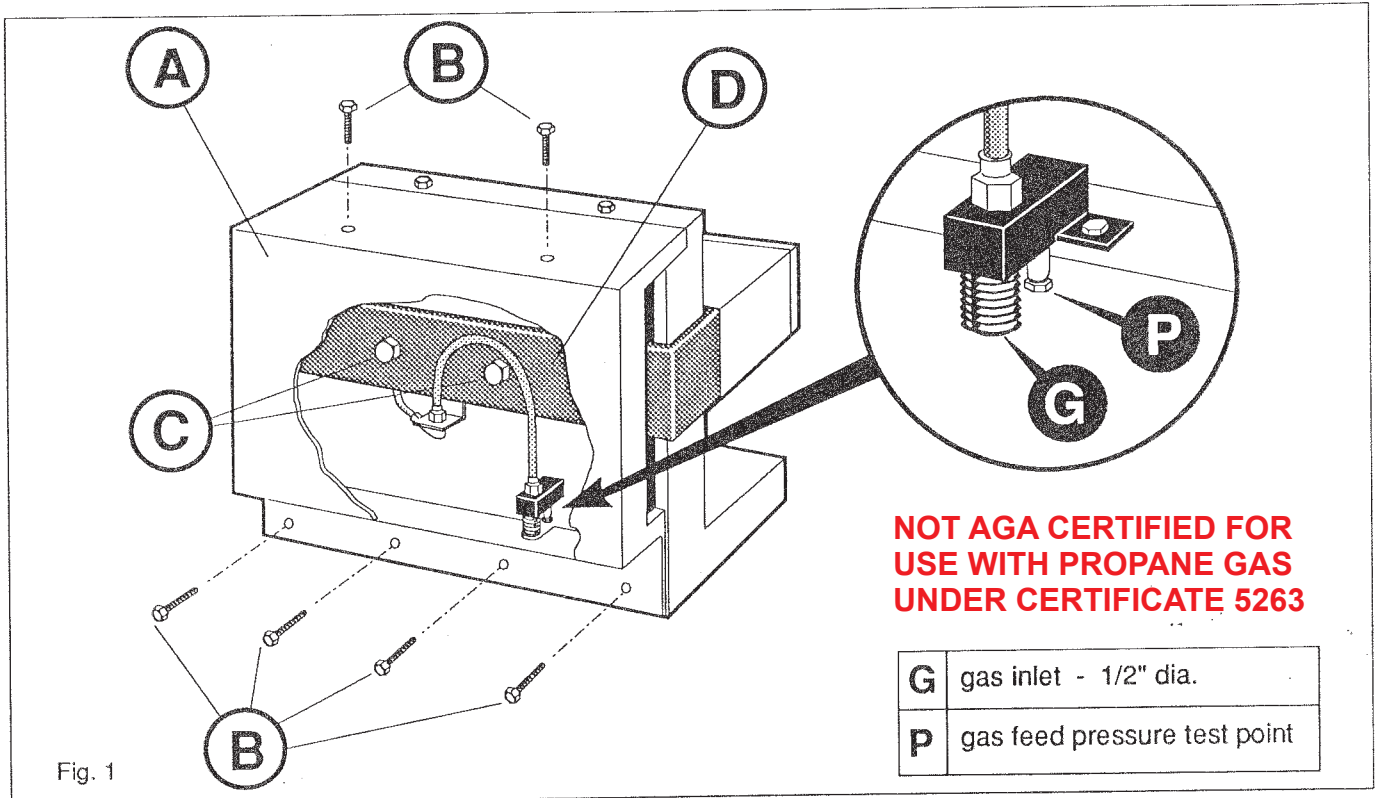


Table I: technical data (see also page 7)

MODEL	DIMENSIONS	THERMAL POWER	GAS RATING	
<b>60 SM</b>	640x500x480 h	23 MJ/h	L.P.G. 0.46 kg/h	N.G. 0,58 m <sup>3</sup> /h

Table II: nozzle diameter (in hundredth of millimeter)

L.P.G. . = <b>130</b>	Natural gas = <b>210</b>
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Table III: characteristics of gases

Natural gas (group H) - 1.0 kPa - 39.82 MJ/m <sup>3</sup>	L.P.G. (G31 propane) - 2.65 kPa - 100.9 MJ/m <sup>3</sup> = 50.4 MJ/kg
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## INSTALLATION

### STANDARDS

Gas connection, change over operations for different types of gas, starting up and troubleshooting must be carried out by qualified engineers. **Caution:** indoor gas network as well as ambients where the appliance is installed, must strictly comply with Standards and Safety Regulations in force.

The manufacturer does not accept any responsibility for any damage caused either directly or indirectly as a result of failing to comply with above rules.

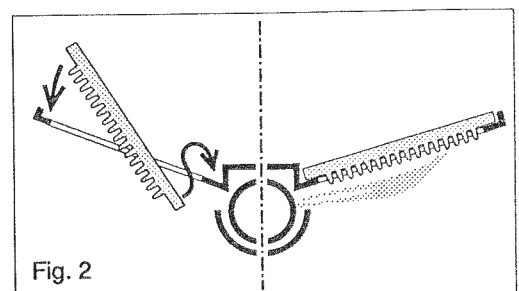
### PLACING THE APPLIANCE

Place the appliance on the site and remove the plastic protection and all the stickers. **Always keep spare injector.** The appliance can be placed on a shelf or can also be installed against a wall by following the instructions in the next page.

### LIFTING RADIANT SYSTEM

For transportation purpose, the counterweight of the lifting system is fixed by means of screws to the supporting fascia of the heat radiant group. To free it unscrew fixing screws **B** (fig. 1) and remove back panel **A**, then free fascia **D** by unscrewing fixing screws **C**; two ring spacers between fascia **D** and lifting system balance weight will drop down by moving it.

Before starting up the appliance, place the refractory tiles in the relevant guides sited next to the burner (fig. 2), **handling them with care** as they are very fragile; the tile cone points must be turned downwards in order to be licked up by the burner flame.



## GAS CONNECTION

Gas inlet connection has a diameter 1/2" BSP and is placed on the back of the appliance (it comes out of the unit, 18cm away from the right hand side of the back part, see fig. at page 1).

Connection must be made at sight, by means of metal pipes (zinc-coated steel or copper).

**Always install an Isolator valve between the gas supply pipe and the appliance**, so that the supply can be turned off at the end of cooking periods. Use approved pipe unions to allow the gas supply to be easily connected and disconnected. Gaskets should be made of metal, synthetic material or any leak proof material.

Copper pipes must be connected with self-sealing joints (without the use of gaskets or putty). Pipe sizes should be adequate to cope with the volume of gas required when all units are working at full power and also taking into account the distance from the gas inlet point (gas meter or gas bottle).

## WALL INSTALLATION

**Caution:** This appliance shall be installed only by authorised persons and in accordance with the manufacturer's installation instructions, local gas fitting regulations, municipal building codes, electrical wiring regulations, local water supply regulations, AS 5601-2004 - Gas Installations and any other statutory regulations.

When the appliance has to be installed against a wall (by using the relevant kit supplied on request) please act as follows:

- provide to carry out holes **A** (fig. 3) on the wall by using a spirit level and bracket **B** as a template;
- unscrew fixing screws **C** and install bracket **B** by using the same screws;
- mount bracket **D** at the center of the back panel;
- install the appliance against the wall by means of screw anchors **E** and check the level before tightening;
- fix bracket **D** in the wall by using screw anchor **F**.

## INFLAMMABLE WALLS

When the appliance has to be installed next to walls constructed with inflammable materials, either the material must be removed or protected against heat damage!

Alternatively, the appliance must be sited at least 200 mm from the wall.

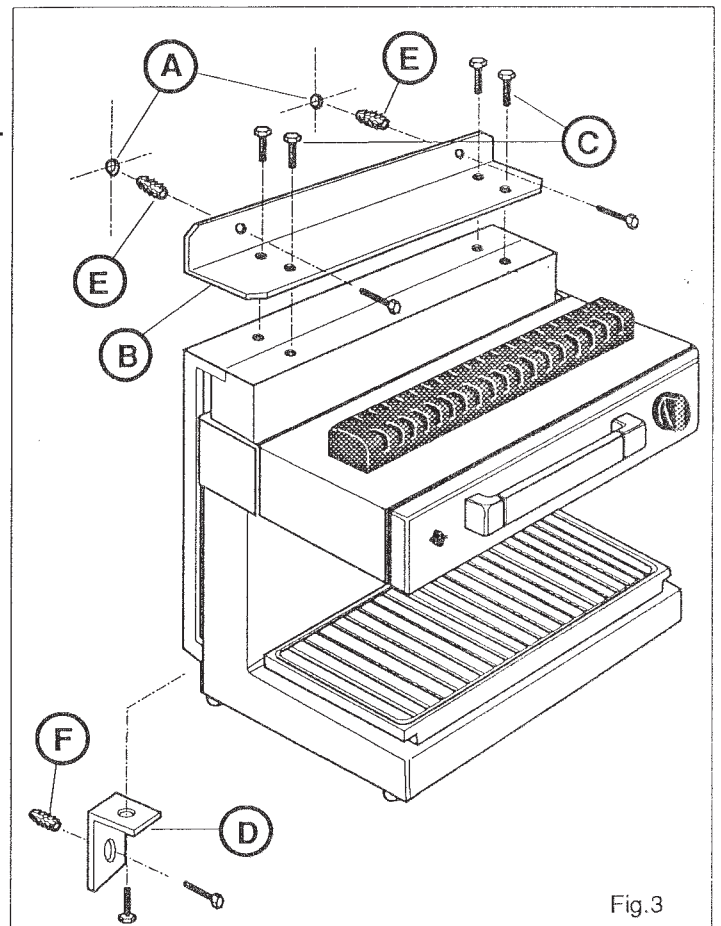


Fig.3

## BURNT GAS EXHAUST - VENTILATION

Burnt gas elimination system (aspirators, hoods, etc.) must have an hourly capacity of at least  $1 \text{ m}^3$  for each 3.6 MJ of combustion; it is also essential to ensure that rooms in which gas appliances are installed are supplied with all the air necessary for the regular combustion.

## GAS LEAK CONTROL

Open the isolator valve for the appliance concerned, bleed the unit then turn off all the burner knobs and check to see if there are any gas leaks (if a gas meter is installed, it should not register any gas consumption for a period of at least ten minutes).

To trace the source of any leaks, put some soapy water on all the joints and any gas leak will be spotted easily by either bubbles or foam.

**Caution:** never use a naked flame to trace gas leaks.

Check that burners and safety devices are working properly.

## WARNINGS

DO NOT store flammable materials in or near this appliance.

DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

## FEEDING PRESSURE

For the correct use, it is necessary that feeding pressure is within the average limits stated.

To check the network pressure, it is necessary to connect a water gauge or a similar instrument to the gas pressure test point which is located behind the gas inlet pipe (see fig. 1 at page 1). Loosen the inner screw of pressure test point P (page 1, fig. 1) and connect the water gauge. Feed pressure must be checked with the burner turned on to the maximum power.

Correct gas feed pressures are:

- natural gas: **1 kPa ±0.1 kPa**;
- L.P.G.: 2.65 kPa (see at page 4 for L.P.G. operation)

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When the network pressure is less than 0.9 kPa for natural gas, the manufacturer does not accept any responsibility for the correct operation, or not, of the appliance.

In case of network pressure being correct, it is necessary to regulate the minimum power of the burner according to the Wobbe-index of the gas.

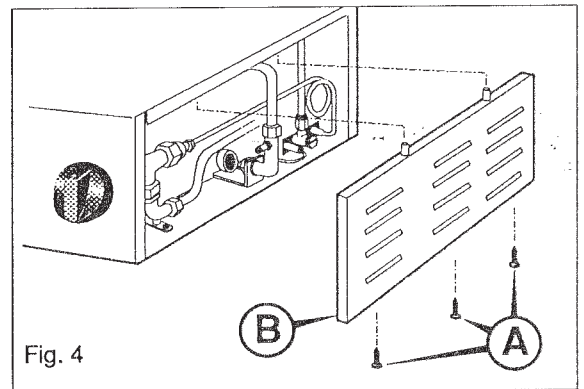
## REGULATING THE MINIMUM POWER OF THE BURNER (for natural gas only)

The burner power adjustment is based on the Wobbe-index which is the ratio between gas calorific value and the gas density:

$$W_o = \frac{H_o}{d}$$

$W_o$  = Wobbe-index;  
 $H_o$  = gross calorific value;  
 $d$  = gas density

Gas suppliers have to indicate the annual average  $W_o$  to avoid incorrect adjustments in case of temporary differences. The regulation must be carried out to the minimum power only and with the burner running.



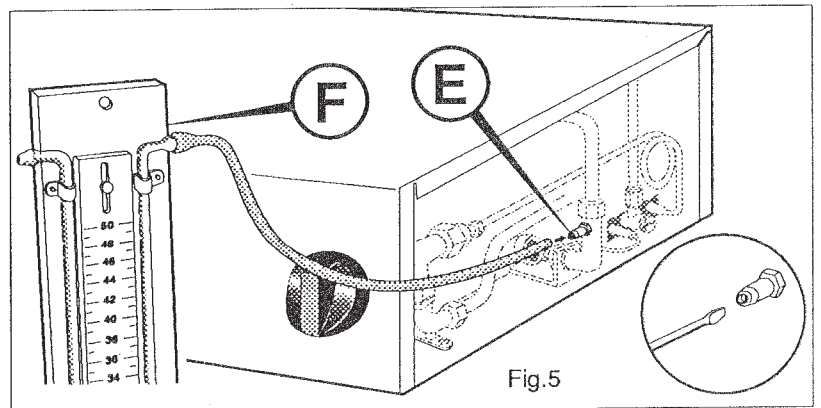
### Regulating procedure

Before any operation, turn off the gas supply valve.

Loosen fixing screws A (fig. 4) and remove right hand side panel B;

Unscrew the inner screw of pressure test point E (fig. 5) and connect to this outlet a water gauge F or similar instrument.

Turn on the gas supply and light the burner as per instructions at page 5. Set the burner to the minimum power position and remove the knob; at this point, the minimum regulating screw (G, fig. 6) can be reached through the control panel hole.



Using a screwdriver, adjust screw G until the correct pressure reading is shown on the water gauge (see pressure value on TABLE IV, in correspondance with the Wobbe-index of the gas).

Once the adjustment is completed, disconnect the water gauge and tighten the inner screw of pressure test point E.

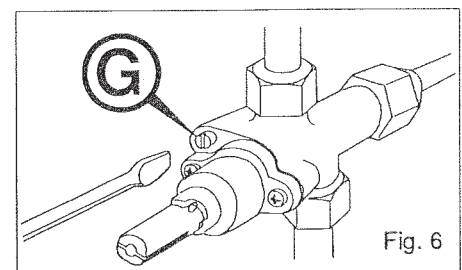


TABLE IV: pressure at the injector referred to the Wobbe-index

BURNER POWER	Natural gas (1 kPa)			
	Wobbe-index MJ/m <sup>3</sup>	pressure at the injector kPa	Wobbe-index MJ/m <sup>3</sup>	pressure at the injector kPa
minimum: 11.5 MJ by-pass = dia. 90 $\frac{mm}{100}$	47.7	0.233	52.2	0.194
	48.6	0.224	53.1	0.188
	49.5	0.216	54.0	0.182
	50.4	0.208	54.9	0.176
	51.3	0.201	55.8	0.170

## USING DIFFERENT TYPES OF GAS (L.P.G.)

The appliance is factory-tested to operate with natural gas as indicated on the data plate. When using L.P. gas, it is necessary to change the injector and to regulate both the pilot flame and the adjusting screw of the minimum, in accordance with the following instructions.

**Caution: This appliance must be fitted with a Maxitrol RV48 (AGA approval #3088) gas regulator supplied with the appliance.**

**Do not use any other gas regulator. Ensure regulator is fitted with respect to the gas flow marked on the housing of the regulator.**

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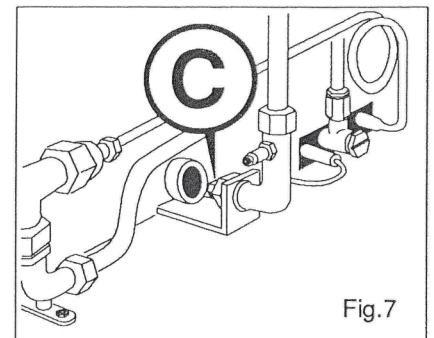
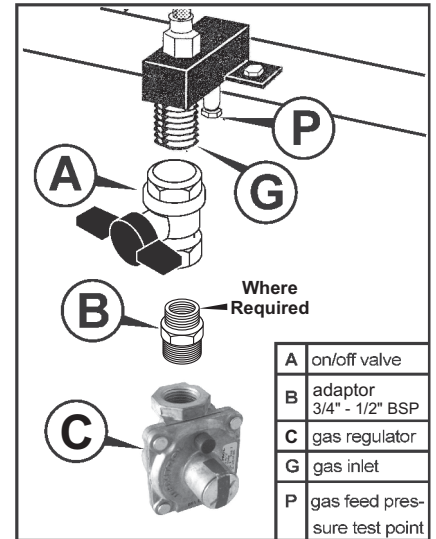
### INJECTOR CHANGE

Before any operation, turn off the gas supply valve.

Remove the right hand side panel as per instructions given at page 3.

Using a n. 12 socket spanner, unscrew injector **C** (fig. 7) and change it with the injector suitable for the type of gas to be used.

Injector Is marked with a diameter in hundredth of millimeter, as indicated on TABLE II, page 1.

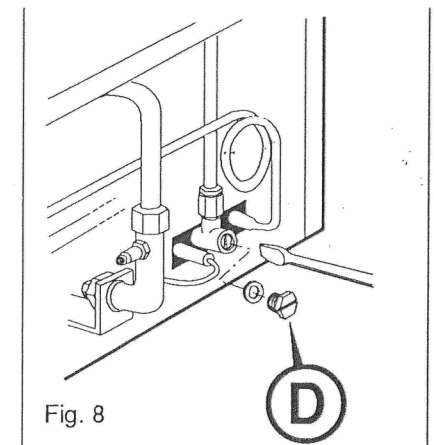


### REGULATING THE BURNER PILOT FLAME

To regulate the pilot flame, act as follows:

- loosen screw plug **D** (fig. 8);
- turn on the gas supply valve and light the pilot flame as indicated in the instructions at page 5;
- with a screwdriver, tighten fully clockwise the inner screw until it stops;
- wait for some minutes and check that pilot flame is stable;
- replace screw plug **D** taking care not to damage its seal ring.

**CAUTION:** the inner regulating screw of the pilot flame must be tightened clockwise for **L.P.G. only**; in case of natural gas operation, it must be unscrewed until a stable flame is achieved.

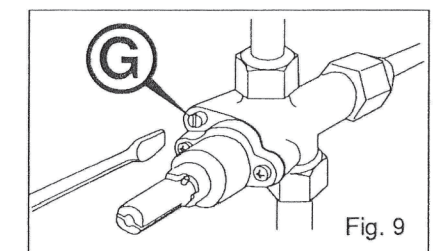


### REGULATING THE MINIMUM FOR L.P.G.

Turn on the gas supply and light the burner as per instructions at page 5. Set the burner to the minimum power position and remove the knob; at this point, the minimum regulating screw (**G**, fig. 9) can be reached through the control panel hole.

Using a screwdriver, tighten clockwise adjusting screw **G** until it stops; check that minimum flame is stable, then replace the knob and turn off the burner.

**CAUTION:** the minimum regulating screw must be tightened clockwise for **L.P.G. only**; in case of natural gas operation, it must be adjusted as per instructions given at page 3.



### RECOGNISING ABNORMAL OPERATION

Any of the following are considered to be abnormal operation and may require servicing:

- Yellow tipping of the burner flame.
- Burners extinguished by cupboard doors.
- Burners not igniting properly.
- Gas valves, which are difficult to turn.
- Burners failing to remain alight.

In case the appliance fails to operate correctly, contact the authorised service provider in your area.

### SERVICE AND REPLACEMENT PARTS

Please contact: Angelo Po Catering Equipment - Unit 24 / 43-51 College Street, Gladesville NSW 2111 Aust.

Service Contact: 1800 264 356. Sales Contact: 02 9879 7255. E-mail: enquires@angelopo.com.au

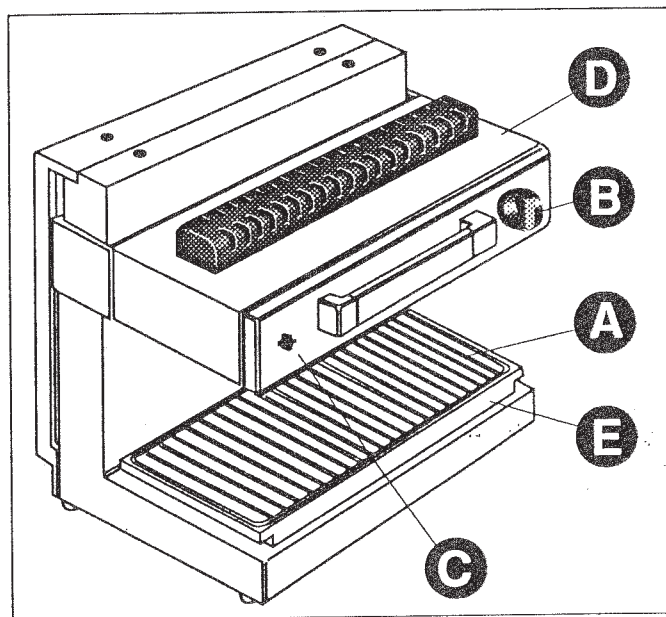
# INSTRUCTIONS FOR THE USER

## SAFETY DEVICE

The appliance is fitted with a flame failure device assisted by thermocouple and incorporate a pilot flame and a piezoelectric ignition.

## STARTING

- push down knob **B** and turn it counterclockwise to pilot flame position (★);
- keep the knob pressed and light the pilot flame by turning some times piezoelectric ignition knob **C**; verify that the pilot flame is on by watching underneath heat casing **D**;
- keep knob **B** pressed for some seconds in order to energize the flame failure device;
- release the knob and catch that pilot flame stays on; in negative case, repeat this operation keeping the knob pressed a little longer;
- to light the burner, turn the knob counterclockwise to maximum power position (△);
- when the heat radiation reaches the full power, place the foodstuff on grid **A** and adjust heat casing **D** to the desired height; then, according to the requirement, it is possible to set the burner at the minimum power by turning the knob to position △ (MIN.).



## EXTINCTION

Turn knob **B** to pilot flame position ★; the burner switches off while the pilot flame stays on for further burner lightings. To switch off the pilot flame, push down the knob and turn it to position ● (OFF).

## MAINTENANCE AND CLEANING

### MAINTENANCE

Although the appliance requires little maintenance, it is recommended that the unit is serviced by qualified engineers at least twice a year.

**Gas valve greasing:** this operation must be effected approximately every six months, depending upon the use of the unit.

### CLEANING

Before any operation, let the unit cool down completely and close the gas isolator valve.

Although the unit is protected against water jets, never point water jets directly towards the appliance for cleaning purposes, especially when using pressurized spray guns.

Clean spillage tray **E**, grid **A** and all the stainless steel parts by using warm water and normal detergents which do not contain abrasive or chlorine based substances.

### TROUBLES

In case of failure close the gas isolator valve and call immediately after-sale-service or qualified engineer.

### INACTIVITY

If the appliance does not work for a long time, close the gas isolator valve, clean thoroughly the whole unit and cover.



## USEFUL HINTS ON STAINLESS STEEL MAINTENANCE

Stainless steel is so called because it is not affected by oxidation; this is due to a thin molecular layer of oxide on the surface which protects against further oxidation.

There are, however, substances which can modify or destroy this layer, giving rise to corrosion; besides preventing the protective film of oxide from reforming, these substances corrode the stainless steel itself and can cause irreparable damage.

It is therefore necessary to prevent this by choosing correct cleaning products and by complying with the following simple recommendations: never forget that when using these appliances, the first and fundamental rule is to guarantee that the treated products are both non-toxic and hygienic.

Before using any detergent to clean either the stainless steel or the immediate and surrounding floor area, always ask your supplier for the most suitable product which does not cause corrosion on the steel itself; the onset of rust is most commonly caused by the usage of unsuitable cleaning materials (strongly acid chlorate based detergents) or on inadequate maintenance.

Our appliances are made of two types of stainless steel:

- AISI 304 stainless steel (type 18-10) for exterior panelling, upper tops, tanks, cooking vessels, sinks, etc.
- AISI 430 stainless steel for some internal parts.

Comply with the following instructions when cleaning and servicing parts in stainless steel.

### ORDINARY DAILY MAINTENANCE

Carefully and frequently clean the surfaces using a damp cloth; use soap and water or normal detergents, so long as these do not contain abrasives or chlorine based substances such as sodium hypochlorite (bleach), hydrochloric acid or other such solutions. These products quickly and irreparably corrode stainless steel. When cleaning floors underneath or near the appliances, never use the above mentioned products as vapours or splashes could subject the steel to similar destructive effects.

Only ever rub in the direction of the satining, then thoroughly rinse with clean water and carefully dry. Never use jets of water as these could cause infiltration to internal parts.

**Spots of baked on food:** wash spots of baked on food with hot water before they have time to harden. If the residuals have already hardened, use soap and water or detergents without chlorate, using a wooden spatula or fine stainless steel wool if necessary; thoroughly rinse and dry.

**Scoring:** scratches on the surfaces must be smoothed with very fine stainless steel wool, or synthetic fibrous abrasive pads, by rubbing in the direction of the satining; rinse well and dry. Never use wire wool on stainless steel surfaces since very small iron deposits could remain there and create the formation of rust by contamination.

**Burns:** to eliminate burns or scorch marks from the steel, use soft stainless steel wool or abrasive latex soap, carefully rub in the direction of the grain of satin finish and take care to prevent the surface from becoming scratched; thoroughly rinse and dry.

### PRECAUTIONS DURING USE

**Sauces and condiments:** all stainless steel vessels used to hold acid ingredients (vinegar, salt, lemon juice, tomato, etc.) must be thoroughly cleaned.

Do not allow any salt deposits to remain in pans or containers after use.

### PROTECTING THE STAINLESS STEEL

When not in daily use, stainless steel is best treated with a thin film of oil, vaseline or similar oil based product.

## IDENTIFICATION OF CONSTRUCTOR AND APPLIANCE

The nameplate shown here is fitted directly to the appliance. It contains references and all essential information for operating safety.

- 1) Gas data
  - 1a) Gas type and supply pressure
  - 1b) Test point pressure
  - 1c) Nominal gas consumption
- 2) Model
- 3) Personalitation
- 4) Manufacture's data
- 5) Serial number
- 6) Test gas indicator frame
- 7) Application
- 8) Country

