07/2012

Mod: N22/PT2T-N

Production code: 393156

Diamond
catering equipment

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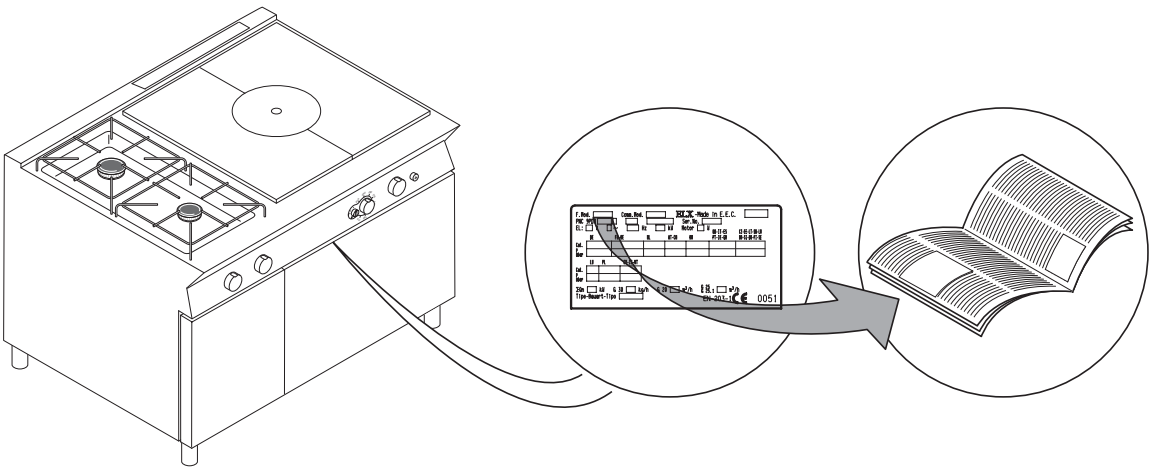
II. DATAPLATE and TECHNICAL DATA



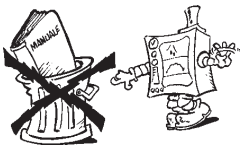
ATTENTION
This manual contains instructions relevant to various appliances. See the dataplate located under the control panel to identify the appliance (see fig. above).

TABLE A - Gas appliance technical data

MODELS / TECHNICAL DATA		+9STGH1000 800mm	+9STGH10G0 800mm	+9STGL3010 800mm	+9STGH30G0 1200mm
Connection ISO 7/1	Ø	1/2"	1/2"	1/2"	1/2"
Solid top min. heat output	kW	4	4	4	2.5
Solid top max. heat output	kW	10.5	10.5	10.5	5.5
Oven heat output	kW	-	8.5	8.5	8.5
Cooktop burners		-	-	2	2
Ø60 / Ø100 cooktop min. heat output	kW	-	-	1.45 / 2.2	1.45 / 2.2
Ø60 / Ø100 cooktop max. heat output	kW	-	-	6 / 10	6 / 10
Nominal heat output	kW	10.5	19	35	30
Type of construction		A1	A1	A1	A1

III. GENERAL INSTRUCTIONS

• Read the instruction manual carefully before using the appliance.



• Keep the instruction manual for future reference..

• RISK OF FIRE - Keep the area around the appliance free and clear of combustibles. Do not keep flammable materials in the vicinity of this appliance.

• Install the appliance in a well-ventilated place to avoid the creation of dangerous mixtures of unburnt gases in the same room.

• Air recirculation must take into account the air necessary for combustion 2 m^3/h/kW of gas power, as well as the well-being of persons working in the kitchen.

• Inadequate ventilation causes asphyxia. Do not obstruct the ventilation system in the place where this appliance is installed. Do not obstruct the vents or ducts of this or other appliances.

• Place emergency telephone numbers in a visible position.

- Installation, maintenance and conversion to another type of gas must only be carried out by qualified personnel authorised by the manufacturer. For assistance, contact an authorised service centre. Demand original replacements parts.

- This appliance is designed for cooking food. It is intended for industrial use. Any use different from that indicated is **improper**.

- This appliance is not intended for use by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless they are supervised or instructed in its use by a person responsible for their safety.

- Personnel using the appliance must be **trained**. Do not leave the appliance unattended when in use.

- Turn the appliance off in case of a fault or poor operation.

- Do not use products (even if diluted) containing chlorine (sodium hypochlorite, hydrochloric or muriatic acid, etc.) to clean the appliance or the floor under it. Do not use metal implements to clean steel parts (wire brushes or Scotch Brite type scouring pads).

- Do not allow oil or grease to come into contact with plastic parts.

- Do not allow dirt, fat, food or other residuals to form deposits on the appliance.

- Do not clean the appliance with direct jets of water.

- The symbol L given on the product indicates that it should **not** be considered domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and the health of people. For further information regarding the recycling of this product, contact the product agent or local dealer, the after-sales service or the local body responsible for waste disposal.

Failure to observe the above can compromise the safety of the appliance. Failure to observe the above invalidates the warranty.

IV. THE ENVIRONMENT

1. PACKING

The packing materials are environmentally friendly and can be stored without risk or burned in an appropriate waste incineration plant.
Recyclable plastic components are marked with:

PE **Polyethylene:** outer wrapping, instruction booklet bag, gas nozzle bag.

PP **Polypropylene:** roof packing panels, straps.

PS **Polystyrene foam:** corner protectors.

2. USE

Our appliances offer high performance and efficiency. To reduce electricity, water or gas consumption, do not use the appliance empty or in conditions that compromise optimum efficiency (e.g. with doors or lids open, etc.); the appliance must be used in a well-ventilated place, to avoid the creation of dangerous mixtures of unburnt gases in the room.
When possible, preheat only before use.

3. CLEANING

In order to reduce the emission of pollutants into the environment, clean the appliance (externally and when necessary internally) with products that are more than 90% biodegradable (for further information refer to section V "CLEANING").

4. DISPOSAL

Do not disperse in the environment. Our appliances are manufactured using more than 90% (in weight) recyclable metals (stainless steel, iron, aluminium, galvanised sheet, copper, etc.).
Make the appliance unusable by removing the power cable and any compartment or cavity closing devices (when present) in order to avoid the risk of someone becoming trapped inside.

V. INSTALLATION

- Carefully read the installation and maintenance procedures given in this instruction manual before installing the appliance.
- Installation, maintenance and conversion to another type of gas must only be carried out by qualified personnel authorised by the manufacturer.
- Failure to observe the correct installation, conversion and modification procedures can result in damage to the appliance, danger to people, and invalidates the Manufacturer's warranty.

1. REFERENCE STANDARDS

- Install the appliance in accordance with the safety regulations and local laws of the country where used.
- **ITALY**: install the appliance in compliance with UNI-CIG 8723 safety standards, Law No. 46 of 5 March 1990 and Min. Decree 12-4-96.

2. UNPACKING

ATTENTION!
Immediately check for any damage caused during transport.

- The forwarder is responsible for the safety of the goods during transport and delivery.
- Inspect the packs before and after unloading.
- Make a complaint to the forwarder in case of visible or hidden damage, reporting any damage or shortages on the dispatch note upon delivery.
- The driver must sign the dispatch note: the forwarder can reject the claim if the dispatch note is not signed (the forwarder can provide the necessary form).

- Unpack, taking care not to damage the appliance. Wear protective gloves.
- Carefully remove the protective film from metal surfaces and clean any traces of glue with a suitable solvent.
- For hidden damage or shortages becoming apparent only after unpacking, request the forwarder for inspection of the goods within and not later than 15 days of delivery.
- Keep all the documentation contained in the packing.

3. POSITIONING

- Handle the appliance with care in order to avoid damage or danger to people. Use a pallet for handling and positioning.
- The installation diagram provided in this instruction manual gives the appliance overall dimensions and the position of connections (gas, electricity, water). Check that they are available and ready for making all the necessary connections.
- The appliance can be installed separately or combined with other appliances of the same range.
- The appliances are not suitable for recess-mounting. Leave at least 10 cm between the appliance and side or rear walls.
- Suitably insulate surfaces that are at distances less than that indicated.
- Maintain an adequate distance between the appliance and any combustible walls. Do not store or use flammable materials and liquids near the appliance.

- Leave an adequate space between the appliance and any side walls in order to enable subsequent servicing or maintenance operations.
- Check and if necessary level the appliance after positioning. Incorrect levelling can cause appliance malfunctioning.

3.1. JOINING APPLIANCES

- (Fig.1A) Undo the 4 fixing screws and remove the control panels of the appliances.
- (Fig.1B) Remove the fixing screw nearest the control panel, from each side to be joined.
- (Fig.1D) Bring the appliances together and level them by turning the feet until the tops match.
- (Fig.1C) Turn one of the two plates inside the appliances 180º.
- (Fig.1E) From inside the control panel of the same appliance, join them at the front side, screwing one M5x40 Hex Head screw (supplied) on the opposite insert.

3.2. FLOOR FIXING

To avoid accidental tipping of built-in half-module appliances installed separately, fix them to the floor carefully following the instructions enclosed with the corresponding accessory (F206136).

3.3 INSTALLATION ON BRIDGE, CANTILEVER FRAME OR CEMENT PLINTH

Carefully follow the instructions enclosed with the corresponding accessory. Follow the instructions enclosed with the optional product chosen.

3.4 SEALING GAPS BETWEEN APPLIANCES

Follow the instructions enclosed with the optional sealing paste pack.

4. FUME EXHAUST

4.1 TYPE “A1” APPLIANCES

Position type “A1” appliances under an extraction hood to ensure removal of fumes and steam produced by cooking.

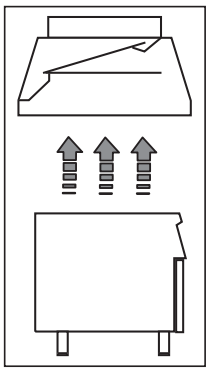
4.2 TYPE “B” APPLIANCES

(in conformity with the definition given in the Installation Technical Regulations DIN-DVGW G634: 1998)
Whenever the appliance dataplate specifies only type Axx, such appliances are not designed for being directly connected to a flue or fume exhaust pipe run to the outside. However, the same appliance can be installed under an extractor hood or similar forced extraction system for fumes.

4.2.1 CONNECTION FLUE

- Remove the grille from the fume exhaust.
- Install the connection flue, following the instructions supplied with the accessory (optional).

4.2.2 INSTALLATION UNDER AN EXTRACTOR HOOD



- Place the appliance under the extractor hood (fig. opposite).
- Raise the fume exhaust pipe without altering the section.
- Do not install dampers.
- The correct height of the exhaust pipe and the relative distance from the extraction hood must comply with current standards.
- The end of the exhaust pipe must be at least 1.8 m from the support surface of the appliance.

Note! The system must ensure that: a) the fume exhaust is not obstructed; b) the length of the exhaust pipe does not exceed 3 m. Use the adapter for connecting fume ducts of different diameters.

5. CONNECTIONS

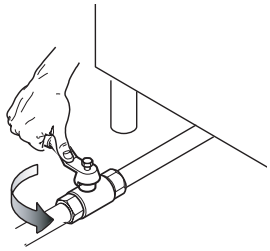
• Any installation work or maintenance to the supply system (gas, electricity, water) must only be carried out by the utility company or an authorised installation technician.
- Refer to the appliance dataplate for the product code.
- See the installation diagram for the type and position of appliance connections.

5.1. GAS APPLIANCES

IMPORTANT! This appliance is arranged and tested to operate with G20 gas 20mbar; to convert it to another type of gas, follow the instructions in par. 5.1.6. of this section

5.1.1. BEFORE CONNECTING

- Make sure the appliance is arranged for the type of gas to be used. Otherwise, carefully follow the instructions given in the section: "Gas appliance conversion / adjustment".
- Fit a rapid gas shutoff cock/valve ahead of each appliance. Install the cock/valve in an easily accessed place.



- Clean the pipes to remove any dust, dirt or foreign matter which could block the supply.
- The gas supply line must ensure the gas flow necessary for full operation of all the appliances connected to the system. A supply line with insufficient flow will affect correct operation of the appliances connected to it.
- **Attention!** Incorrect levelling of the appliance can affect combustion and cause malfunctioning.

5.1.2. CONNECTION

- See the installation diagram for the position of the gas connection on the bottom of the appliance.
- Remove the plastic protection (if present) from the gas union before connecting.
- After installation, use soapy water to check connections for leaks.

5.1.3. SUPPLY PRESSURE CHECK (all versions)

Make sure the appliance is suitable for the type of gas available, according to that given on the dataplate (otherwise, follow the instructions given in the section. "Conversion to another type of gas"). The supply pressure must be measured with the appliance operating, using a pressure gauge (min. 0.1 mbar).

- Remove the control panel.
- Remove retaining screw "N" from the pressure point and connect the manometer "O" (fig. 2A and 2B).
- Compare the value read on the pressure gauge with that given in Table B (see handbook Appendix)
- If the pressure gauge gives a reading outside the range of values in Table B, do not switch the appliance on. Consult the gas company.

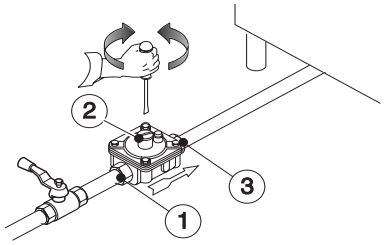
5.1.4 GAS PRESSURE REGULATOR

If the gas pressure is higher than that specified or is difficult to regulate (not stable), install a gas pressure regulator (accessory code 927225) in an easily accessed position ahead of the appliance.

The pressure regulator should preferably be fitted horizontally, to ensure the right outlet pressure:

- "**1**" connection side gas from mains.
- "**2**" pressure regulator;
- "**3**" connection side gas towards the appliance;

The arrow on the regulator (⇨) indicates the gas flow direction.



NOTE! These models are designed and certified for use with natural or propane gas. For natural gas, the pressure regulator on the header is set to 8" w.c. (20mbar).

5.1.5. PRIMARY AIR CHECK

The primary air is correctly adjusted when the flame does not "float" with the burner cold and there is no flareback with the burner hot.

• Undo screw "A" and position aerator "E" at distance "H" given in Table B; retighten screw "A" and seal with paint (fig. 3A, 3E oven).

5.1.6. CONVERSION TO ANOTHER TYPE OF GAS

Table B "technical data/gas nozzles" gives the type of nozzles to be used when replacing those fitted by the manufacturer (the number is stamped on the nozzle body).

At the end of the procedure, carry out the following checklist:

Check	Ok
• burner nozzle/s replacement	
• correct adjustment of primary air supply to burner/s	
• pilot nozzle/s replacement	
• minimum flame screw/s replacement	
• correct adjustment pilot/s if necessary	
• correct adjustment of supply pressure (see technical data/gas nozzles table)	
• apply sticker (supplied) with data of new gas type used	

5.1.6.1 SOLID TOP and COOKTOP MAIN BURNER NOZZLE REPLACEMENT (simple service version)

- Unscrew nozzle “C” and replace it with one suitable for the type of gas (Table B, fig.3A, 3C) according to that given in the following table.
- The nozzle diameter is given in hundredths of mm on the nozzle body.
- Retighten nozzle “C”.

5.1.6.2 COOKTOP PILOT BURNER NOZZLE REPLACEMENT (simple service version)

- Undo screw coupling “H” and replace nozzle “G” with one suitable for the type of gas (Table B, fig.3D).
- The nozzle identification number is given on nozzle body.
- Retighten screw coupling “H”.

5.1.6.3 MINIMUM FLAME SCREW REPLACEMENT SOLID TOP and COOKTOP (simple service version)

- Unscrew minimum flame screw “M” from the cock and replace it with one suitable for the type of gas (screw down fully) (Table B, fig.2A).

5.1.6.4 MAIN BURNER NOZZLE REPLACEMENT (oven)

- Remove the oven floor.
- Unscrew nozzle “C” (Table B, fig. 3E).
- Remove the nozzle and aerator.
- Replace nozzle “C” with one suitable for the type of gas, according to that given in the following table.
- The nozzle diameter is given in hundredths of mm on the nozzle body.
- Insert nozzle “C” into aerator “E”, then fit the two assembled components in their position, screwing down the nozzle.

5.1.6.5 OVEN and SOLID TOP PILOT BURNER NOZZLE REPLACEMENT

- Undo screw coupling “L” and replace nozzle “I” with one suitable for the type of gas (Table B, fig.3B).
- The nozzle diameter is given in hundredths of mm on the nozzle body.
- Retighten coupling “L”.

6. BEFORE COMPLETING INSTALLATION OPERATIONS

Use soapy water to check all gas connections for leaks. DO NOT use a naked flame to check for gas leaks. Light all the burners separately and also together, to check correct operation of the gas valves, rings and lighting. For each burner, adjust the flame regulator to the lowest setting, individually and together; after completing the operations, the installer must instruct the user on the correct method of use. If the appliance does not work properly after carrying out all the checks, contact the local after-sales service centre.

VI. INSTRUCTIONS FOR THE USER

1. SOLID TOP USE

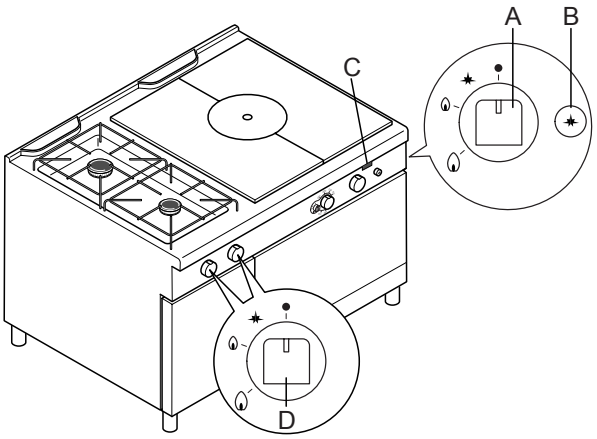
General precautions

- The appliance is intended for industrial use by trained personnel.
- Avoid using the appliance empty for long periods or in conditions that compromise optimal efficiency. Also, if possible, preheat the appliance immediately before use.
- This appliance is designed for cooking food in containers (pots, pans).

Turning on the solid top

The cock control knob “A” has 4 positions:

- ● “Off”
- ✷ “Pilot ignition”
- “Max. flame”
- “Min. flame”

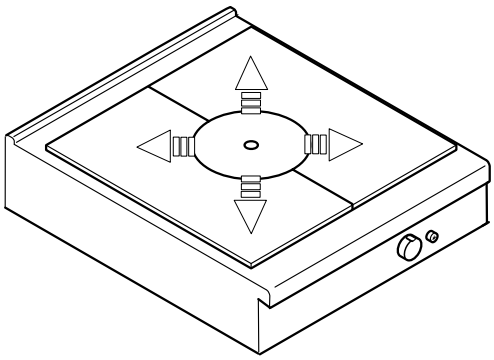


- Open the main gas cock located ahead of the appliance.
- Turn knob “A” from “off” to “pilot ignition”.
- Press down knob “A” and at the same time press the igniter button “B” two or three times to cause a spark which will light the pilot flame. Lighting is checked through sight hole “C”.
- On releasing the knob the flame must stay alight; if it does not, repeat the operation.
  In case of emergency, the pilot burner can be lit manually by bringing a flame to it and keeping knob “A” pressed in the “pilot ignition” position.
- To light the main burner, turn the knob from “pilot ignition” to “max. flame”.
- For the minimum flame, turn the knob from “max. flame” to “min. flame”.

Turning off the solid top

- Turn knob “A” from “max. flame” or “min. flame” to “pilot ignition”.
- To shut off the pilot, press the knob partially and turn it to “off”.
- Then close the gas supply cock located ahead of the appliance.

NOTE:
During use, the hottest part of the hot-plate (in cast iron) is in the middle.



2. COOKTOP USE

Turning on the cooktop

Cock control knob “D” has 4 positions:

- ● “Off”
- ✷ “Pilot ignition”
- “Max. flame”
- “Min. flame”

- Press down knob “D” and turn it to “pilot ignition”.
  Press the knob down and bring a flame to the pilot to light it (fig. 5).
  Hold the knob down for about 20 seconds; when released, the pilot flame must stay alight. If it does not, repeat the operation.
- To light the main burner, turn the knob from “pilot ignition” to “max. flame”.
- For the minimum flame, turn the knob from “max. flame” to “min. flame”.

Turning off the cooktop

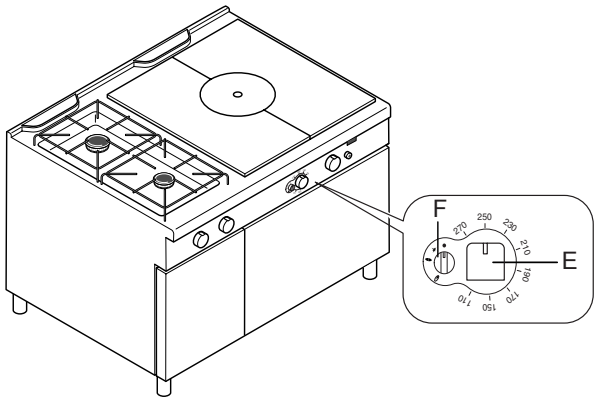
- Turn knob “D” from “max. flame” or “min. flame” to “pilot ignition”.
- To shut off the pilot, press the knob partially and turn it to “off”.

3. OVEN USE

Switching on

The thermostatic valve control knob has the following positions:

- ● "Off"
- ✶ "Pilot ignition"
- "Pilot"
- "Burner"



- Lightly press knob "F" and turn it a few degrees anticlockwise to release it.
- Press down fully and turn it to "pilot ignition"; a click will indicate sparking.
- Keep knob "F" pressed and turn it to "pilot", holding it in that position for about 15-20 seconds to allow the gas to reach the pilot burner (pilot ignition) and the thermocouple to heat.
- With the pilot lit, turn knob "F" to "burner" to light the burner.
- At this point, knob "E" can be used to select the required temperature.

3.1. INTERLOCK

The oven gas valve has an interlock device which prevents immediate re-lighting (for about 40 seconds) of the oven in the event it is accidentally turned off. This ensures the escape of any gas accumulated inside the oven, and better safety.

Switching off

- To turn off the main burner, turn knob "E" to "off".
- To shut off the pilot burner, turn knob "F"

VII. CLEANING

IMPORTANT!

Disconnect the appliance from the power supply before carrying out any cleaning.

1. EXTERNAL PARTS

SATIN-FINISH STEEL SURFACES (daily)

- Clean all steel surfaces: dirt is easily removed when it has just formed.
- Remove grime, fat and other cooking residuals from steel surfaces when cool using soapy water, with or without detergent, and a cloth or sponge. Dry the surfaces thoroughly after cleaning.
- Incase of encrusted grime, fat or food residuals, go over with a cloth or sponge, wiping with the grain of the satin finish and rinsing often: rubbing in a circular motion combined with the particles of dirt on the cloth/sponge could spoil the steel's satin finish.
- Metal objects can spoil or damage the steel: damaged surfaces become dirty more easily and are more subject to corrosion.
- Restore the satin finish if necessary.

SURFACES BLACKENED BY HEAT (when necessary)

Exposure to high temperatures can cause the formation of dark marks. These do not constitute damage and can be removed by following the instructions given in the previous section.

2. OTHER SURFACES

SURFACES IN SOFT IRON OR CAST IRON (daily)

Remove dirt using a damp cloth or, in case of encrustations, the accessories (optional or supplied) specified in the list. After cleaning, switch the appliance on to dry the surface quickly, then protect the surface with a light film of cooking oil.

3. IDLE PERIODS

If the appliance is not going to be used for some time, take the following precautions:

- Close the cocks or main switches ahead of the appliances.
- Go over all the stainless steel surfaces vigorously with a rag moistened with paraffin oil in order to create a protective film.
- Periodically air the premises.
- Have the appliance checked before using it again.
- To prevent too rapid evaporation of accumulated moisture with consequent breakage of elements, switch electric appliances on at minimum heat for at least 45 minutes before reuse.

4. INTERNAL PARTS (every 6 months)

IMPORTANT! Operations to be carried out only by specialised technicians.

- Check the internal parts.
- Remove any deposits of dirt inside the appliance.
- Check and clean the discharge system.

NOTE ! In particular ambient conditions (e.g. **intensive** use of the appliance, salty environment, etc.) the above-mentioned cleaning should be more frequent.

VIII. MAINTENANCE

1. MAINTENANCE

All components requiring maintenance are accessible from the front of the appliance, after removing the control panel and front panel. Disconnect the power supply before opening the appliance

1.1 BRIEF TROUBLESHOOTING GUIDE

Even with normal use, malfunctions can occur.

- *The pilot burner of open burners does not light*
  Possible causes:
- Insufficient pressure in gas pipes.
- Blocked nozzle.
- Faulty gas cock.

- *The solid top or oven pilot burner does not light*
  Possible causes:
- Igniter not properly fixed or connected
- The ignition or the igniter cable are damaged.
- Insufficient pressure in gas pipes
- Blocked nozzle
- Faulty gas valve/cock

- *The pilot burner goes out when the igniter knob is released*
  Possible causes:
- The pilot burner is not heating the thermocouple sufficiently.
- Faulty thermocouple.
- The gas cock and/or gas valve knob is not being pressed enough.
- Lack of gas pressure at cock and/or valve.
- Faulty gas cock or gas valve.

- *The pilot burner is still lit but the main burner does not light*
  Possible causes:
- Loss of pressure in gas pipe.
- Blocked nozzle or faulty gas cock or valve.
- Burner with gas outlet holes clogged.

- *The oven temperature cannot be adjusted.*
  Possible causes:
- Faulty thermostat bulb.
- Faulty gas valve.

1.2 MAINTENANCE SCHEDULE

- It is advisable to have the appliance inspected by an authorised person at least every 12 months. For this purpose, it is advisable to stipulate a servicing contract.