

08/2012

Mod: RGH-50

Production code: NGETL5-50



Diamond
catering equipment

Dear customer,

Thank you for choosing our product as your trusted partner. We ensure you that we always give our best as we produce this appliance by using the finest materials. Gas Economic Table Low is excellent choice to cook. In order to obtain maximum benefits of this appliance, please read this manual instruction carefully. Please notice the warnings and safety instructions to keep your safety. DO NOT use this appliance except its utility.

If you have any question or difficulty in operating this appliance, please contact your dealer to acquire mechanic assistance.

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GENERAL INFORMATION

Please read this manual instruction carefully before operating this appliance.

Gas Economic Table Low is an excellent cooking appliance. This appliance is using gas. This appliance used for making stock in large quantity. It is very important to keep this instruction book together with the appliance for future consultation. If this appliance sold or transferred elsewhere, make sure this book goes with it. Therefore, the new user can read about its functions and other relevant information.

If you have any question about the appliance, please contact your nearest dealer.

SAFETY INSTRUCTIONS

Very important!: Before installing, place the appliance on solid, flat, stable and horizontal surface and connection availability.

Read this manual instruction carefully before using Gas Economic Table Low. This appliance is for food preparation only. Below are safety instructions that strictly conformed:

- Improper installation, maintenance, cleaning, or modification to the appliance could lead to severe injury or death and could damage the appliance.
- The mechanics must instruct staff regularly to avoid accident and damage of the appliance.
- Gas Economic Table Low may be used for skilled staff only.
- DO NOT place the appliance in a toxic area or have a risk of explosion.
- DO NOT place the appliance near flammable materials such gasoline, fat, clothes, liquid gas, paper, etc.
- DO NOT place the appliance in wet or humid room or condition such in rain or near water leaks, etc.
- DO NOT use the appliance for drying clothes, paper, or living animals.
- DO NOT use the appliance to heat non-food products.
- Put the appliance in a good ventilated room.
- Before cleaning or maintaining the appliance, detach the gas line and allow it to cool.
- DO NOT touch the area . This sign means VERY HOT. Beware of severe burning injury.
- DO NOT attempt to dismantle or repair the appliance. The authorized mechanics must do all jobs.



EXPLOSION RISK !

- **DO NOT cover the burners or drawers below or the air holes on the sidewalls with Aluminum or silver foil or similar materials. This may cause a wrong air circulation and gas combustion and lead to overheat.**



INJURY RISK !

- **DO NOT lean to Main Burner during ignition process. High flames from the range may cause severe burning injury.**

TECHNICAL DATA

Gas Economic Table Low is made of stainless steel. This appliance is used to make stock in large capacity. There is a gas burner and gas tap. The burner is atmospheric and supplied by a mixture of liquid gas and air or natural gas and air. The Main Burner ignition carried by Pilot Burner. The Main Burner equipped by Safety Thermocouple.

- Data Tables**

Table 1: Technical Specification

Technical Specification			
Model	NGETL 5-50 CE		
Overall Dimension (mm)	Width	Depth	Height
	500	500	450
Pipe Diameter	Drain (D)	Gas Inlet (G)	Water Inlet (S)
	-	¾" BSP	-
Nominal Heat Input	Natural Gas : 13 kW		
	LPG Gas : 11.5 kW		
Gas Connection Pressure	G 20 : 20 mbar		
	G 25 : 20 mbar		
	G 25 : 25 mbar		
	G 30 / G 31 : 28 – 30 / 37 mbar		
	G 30 / G 31 : 50 mbar		
Ignition	Manual		

Table 2: Gas Connection Pressure

COUNTRIES	CATEGORIES	CONNECTION PRESSURES (mbar)			
		G 20	G 25	G 30	G 31
LU-PL	I2E	20	-	-	-
IS-MT-HU	I3B/P	-	-	30	30
IT-PT-ES-IE-CH-GB-GR-CY-CZ-SK-SI-TR	I12H3+	20	-	28-30	37
FI-TR-SK-LV-LT-EE-DK-SE-SI-NO-RO-GR-CY-BG-HR	I12H3B/P	20	-	30	30
AT-CH-SK	I12H3B/P	20	-	50	50
NL	I12L3B/P	-	25	30	30
RO	I12L3B/P	-	20	30	30
FR-BE	I12E+3+	20	25	28-30	37
DE	I12ELL3B/P	20	20	50	50
RO	I12E3B/P	20	-	30	30

Table 3: Heat Load, Gas Connection Values, Combustion Requirement, and Exhaust Quantity
The small combustion load for Burner is 3,0 kW.

Type	Heat Load		Gas Connection Values		
	Natural Gas	Liquid Gas	Full Fire		
			Natural Gas E Natural Gas H (G20) HuB 0.42 m³/h	Natural Gas L Natural Gas LL (G25) HuB 0.49 m³/h	Liquid Gas (G30) HuB 0.31 kg/h
NGETL 5-50 CE	13 kW	11.5 kW	1,376 m³/h	1,600 m³/h	0,907 kg/h

Table 4: Nozzle Diameter

Gas Type	Gas Pressure (mbar)	Diameter (1/ 100mm)
G 30 / G 31	28 - 37	180
G 30 / G 31	50	160
G 20	20	305
G 25	25	315
G 25	20	330

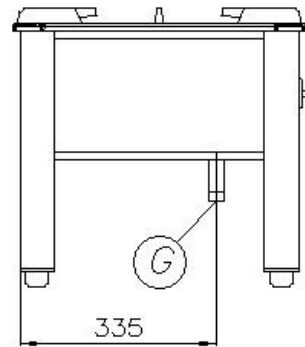
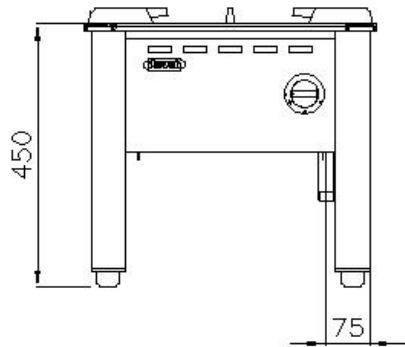
Table 5: Primary Air Adjustment

Primary Air Adjustment fixed by the factory. Below are the adjustments:

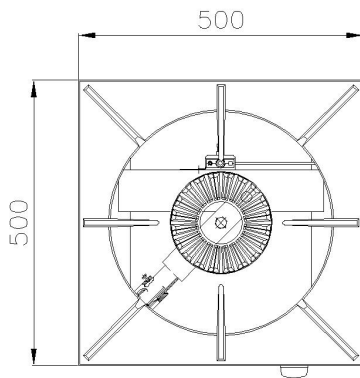
Gas Type	Gas Pressure (mbar)	Chamber Opening (mm)
G 30 / G 31	28 - 37	Open 12,0
G 30 / G 31	50	Open 12,0
G 20	20	Open 5,0
G 25	25	Open 5,0
G 25	20	Open 5,0

- **Overall Dimension**

NGETL 5-50 CE



Ⓒ Gas Connection R 3/4"



TECHNICAL DATA PLATES

Figure 1:

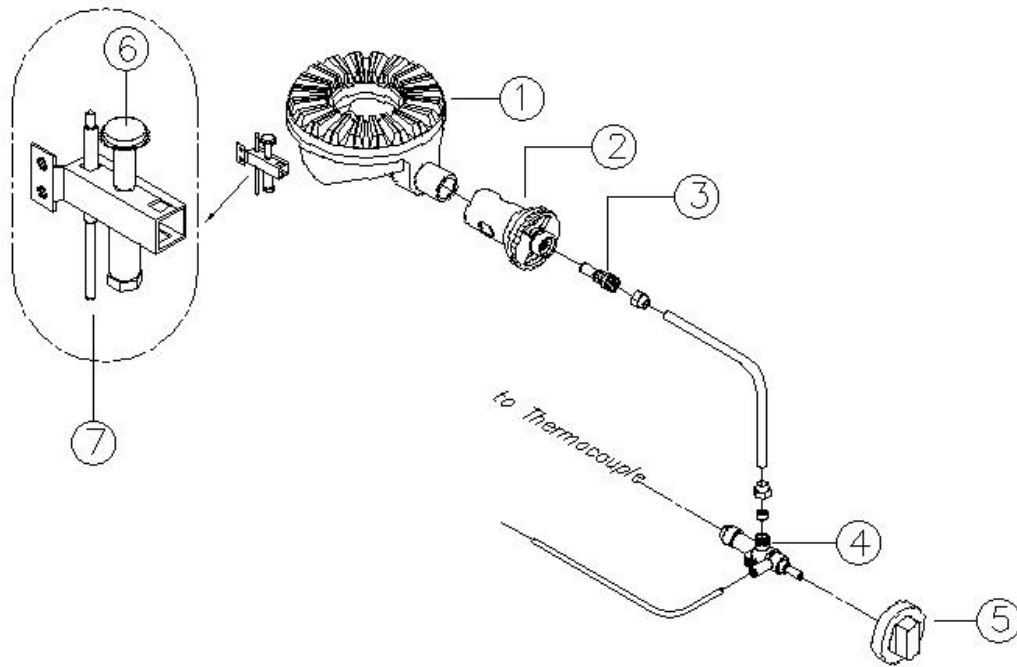
Technical plate reports the current gas setting, Gas Economic Table Low nominal data, gases table, categories, and pressures for other CE countries.

Fig. 1

REGULATED FOR:		G20	G25	G30	G31	
Model : NGETL 5-50 CE	LU-PL	I2E	20	/	/	mbar
TYPE : A1	IS-MT-HU	I3B/P	/	/	30	30 mbar
S/N : XXX	IT-PT-ES-IE-CH-GB	I12H3+	20	/	28-30	37 mbar
Σ Qn : 11.5 KW (LPG)	GR-CY-CZ-SK-SI-TR					
13 KW (Natural)	FI-TR-SK-LV-LT-EE-DK-SE	I12H3B/P	20	/	30	30 mbar
	SI-NO-RO-GR-CY-BG-HR					
Nayati	AT-CH-SK	I12H3B/P	20	/	50	50 mbar
PT NAYATI INDONESIA	NL	I12L3B/P	/	25	30	30 mbar
Jl. Raya Terboyo 19	RO	I12L3B/P	/	20	30	30 mbar
Semarang 501 12	FR-BE	I12E+3+	20	25	28-30	37 mbar
Indonesia	DE	I12ELL3B/P	20	20	50	50 mbar
 0051-11	RO	I12E3B/P	20	/	30	30 mbar
G20: 1.376 m³/h		G25: 1.600 m³/h		G30: 0.907 kg/h		

COMPONENT LIST

- **Burner Components**



NO.	P / N		QTY
1.	GS.4030	Burner Head NS 9000	1
	GS.4023	Burner NS 9001	1
	GS.4232	Burner Plug 3/8 x 1/4	1
2.	GS.4357	Air Chamber Mixing Jumbo Burner	1
	GS.4358	Air Chamber Plate Jumbo Burner	1
	GS. 2825	Air Chamber Bush 1 ½"	1
	GS. 2826	Air Chamber Pipe 1"	1
	GS.2851	Fixing Bush 1 ¼"	1
3a.	GS.283D	Nozzle Jumbo Burner D-1.80 mm f/ G 30 / G 31 (28-30 mbar)	1
3b.	GS.282E	Nozzle Jumbo Burner D-1.80 mm D – 1,60 mm f/ G 30 / G 31 (50 mbar)	1
3c.	GS.283E	Nozzle Jumbo Burner D-1.80 mm D – 3,05 mm f/ G 20 (20 mbar)	1
3d.	GS.283F	Nozzle Jumbo Burner D-1.80 mm D – 3,15 mm f/ G 25 (25 mbar)	1
3f.	GS.283G	Nozzle Jumbo Burner D-1.80 mm D – 3,30 mm f/ G 25 (20 mbar)	1
4.	GS.387B	Gas Valve w/ Clamp Pipe ¾" (Mod. 21 S)	3
5.	PD.4052 EA	Gas Knob dia. 8mm (250C) – ArKn08 w/ dot marking	4
	PD.4055IL	Ring label api model 1 - ArKn	3
6.	GS.3851	Bunsen Pilot 3F / 3H (3020006)	2
7.	GS.3890	Thermocouple 9 x 1 1000 mm (P/N: 0200015)	2

INSTALLATION (for the installer)

Very important!: Before installing, place the appliance on solid, flat, stable and horizontal surface and connection availability.

The following instructions are intended for authorized and qualified installer. Before doing installation, adjustment, and maintenance operations, the installer must follow local and legal regulations. Cut the electrical power before doing any installation.

1. This appliance is using gas. Gas services should be installed according to:
 - a. Local and international standards
 - b. Local recommendation, such as building standards and recommendation concern with combustion
 - c. Directions and regulations from the gas and power supply companies
 - d. Regulation concern with prevention accident measures
2. Remove all packaging material and protective coatings.
3. Ensure gas supply is sufficient to operate this appliance.
4. Install the appliance by using Qualified Gas Filter.
5. Before testing, put the appliance in a good ventilated room and keep all flammable material away.
6. Take a leakage test by using soapy water solution. Spread the soapy solution on joints and pipe fitting. A leakage will be indicated by bubbles comes from the joints or pipefitting. Another way is by looking at the gas counter. If there is no movement on the gas counter, it means no gas leakage.
7. Before cleaning or maintaining the appliance, please isolate gas supply to the safe place.
8. Install the appliance by following Safe International Gas Standards.

9. If the appliance has not preset to the gas availability, you must convert it into another gas type.

Authorized personnel must do this by referring to the technical data (primary air regulation and nozzle table), changing the main burner and pilot burner nozzles. Once this has been done, a new rating data plate should be affixed to the new data by referring to the new gas type.

Warning !

NEVER USE FREE FLAME TO FIND GAS LEAKS!

- **Position and Fixing**

Authorized personnel must do the installation. Install the appliance according to National Safety Standard about gas-heated standard. Place the appliance in good ventilated room with permanent ventilation ducts to guarantee sufficient exchange of air and keep the work place healthy. If the Gas Economic Table Low not connected to a flue, it is recommended to install it under efficient hood, which could evacuate burned gases and cooking steams. Make sure that any object around or under Gas Economic Table Low does not obstruct air volume required for combustion. Put away any flammable materials near Gas Economic Table Low. When the appliance is freestanding, keep a distance at least 20 cm from side, and 10 cm from rear walls. Especially when the appliance close to wall and does not protected with fire-resistant materials made. Install the appliance separately or side by side with other appliance according to recommended range. Put Gas Economic Table Low on solid, flat, and horizontal floor. Adjust the height of the four feet by using brackets. Before turn the appliance ON, remove the protective film. Remove any adhesive with appropriate solvent. Eliminate all packaging material according to national laws.

- **Gas Supply Connection**

- Before installing and connecting Gas Economic Table Low to gas supply, carefully control the fixed part of gas system, which conformed to National Building Regulation.
- Verify gas pipes sections to guarantee sufficient supply for all gas heated appliances. Install it in similar condition to avoid excessive pressure drops.
- The pipes must be made of steel (with junctions made using white cast iron, or galvanized steel fittings, or autogenously welded joints) or copper pipes (with mechanical joints and couplings without seals or mastics or brazed joints).
- Control the gas bottle (if any) placed correctly and protected in dry area.
- Check whether the gas pipes can easily inspected. If the pipes installed in floor and wall, make sure that this work done according to professional standard with reference points that make it possible to find the pipes.
- Before installing Gas Economic Table Low, makes sure that it is set for the gas and pressure (see Technical Data Plates). Consult the paragraph “Gas Conversion”.
- Connect Gas Economic Table Low to gas supply using solid fittings or flexible steel pipes with suitable sections related to nominal power and length.
- Check whether the flexible pipes does not pass or near hot surfaces, put under stress and traction, contact with sharp edges, or other things that could damage the pipe.
- Install quick ON – OFF valve between the gas mains and each single appliance where easy to reach.
- After install Gas Economic Table Low safely, take a pressure test the whole gas circuit by using leak finder spray or non-corrosive foams.

- **Checking Gas Pressure and Nominal Heat Input (Fig. 2)**

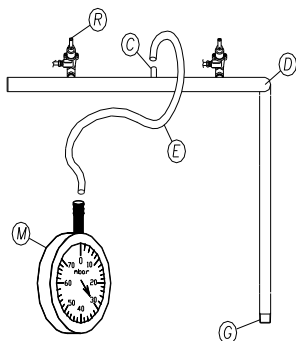
At the first installation, specialized technician must control Gas Economic Table Low nominal heat input, maintenance, and gas conversion. DO NOT improve Gas Economic Table Low performance and increase nominal heat affirmed by the manufacturer. Control heat input by using gas counter and chronometer. Measure the exact amount of gas flow per unit of time which consumed by the appliance at maximum power. Compare the measurement to the consumption data on Data Technical Table 8, $\pm 5\%$ tolerance is allowed. When you are measuring top deviations, carefully check the diameters and the quality of installed injectors and gas main pressure. If you want to measure the main pressure while Gas Economic Table Low is ON and using a pressure gauge for liquids (for example U manometer, with minimum resolution 0.1 mbar), please follow direction below:

1. Connect the flexible pipe "E" of the Manometer "M" to the inlet pressure point "C" after unscrewing its cap.
2. Measure the connection pressure: if the reading is not within the values given in the following table, the appliance cannot work properly. The gas company must be informed to find out the supply pressure problems. If necessary, install a pressure regulator.
3. Once the connection pressure has been measured, disconnect flexible pipe "E", retighten the screw cap of the inlet pressure point "C". Restore the components inversely.

Table 8:

Gas Type	Inlet pressure (mbar)		
	Normal	Minimal	Maximal
Natural gas G 20	20	18	25
Natural gas G 25	20	18	25
Liquid gas G 30/ G 31	30	28	37
Liquid gas G 30/ G 31	50	42.5	57.5

Fig. 2



C	=	Inlet pressure point
D	=	Gas pipe
E	=	Flexible pipe
G	=	Inlet gas connection
M	=	Manometer
R	=	Gas tap

• Gas Conversion

- Only professional and qualified mechanic can do this job.
- By looking at Table 4, 5, 6, and 7 replace Main Injector, Pilot Injector, and adjust correctly Primary Air Setting for each Main Burner.
- Correctly adjust By-pass screw for the working at minimum rates of Main Burner.
- Spare injectors are available with the appliance.
- Make sure the diameter printed on each injector in 1/100 of a millimeter.
- Convert the appliance after turn the gas OFF and in UP position and let Gas Economic Table Low cool.

• Adjusting Small Combustion (Fig. 3)

The small combustion must be adjusted into 3,0 kW. To adjust the small combustion, follow direction below:

- a. Operate burner in small combustion.
- b. Turn OFF the security control knob handle.
- c. Adjust small combustion nozzle (9) for 3 kW (according to the table). Turn clockwise to reduce warmth load, turn anticlockwise to increase warmth load. Adjust the warmth load according to volume method.
- d. Ignites properly.

- e. To change small combustion nozzle (9) for Liquid gas / LPG Gas, turn slightly against the stroke.

Fig. 3

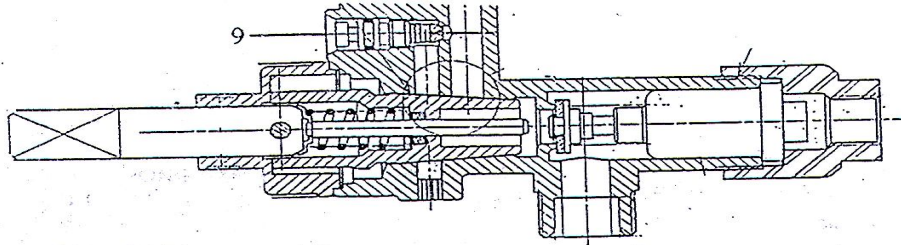


Table 9:

Gas Type	Gas Pressure (mbar)	Diameter (1/100 mm)
G 30 / G 31	28 - 37	95*
G 30 / G 31	50	85
G 20	20	Adjusted
G 25	25	Adjusted
G 25	20	Adjusted

*** or adjusted**

- **Adjusting Pilot flame (Fig. 4 and 5)**

Adjust the Pilot flame by following direction below:

- Remove screw cover (10) and washer (11).
- Adjust nozzle (C) according to the table to make Main Burner ignite properly. Turn the nozzle clockwise to reduce gas flow. Turn anticlockwise to increase gas flow.
- When operated with Liquid gas, turn nozzle (C) clockwise toward stroke. After adjusting washer (11) and tightening cover screw (10).

Fig. 4

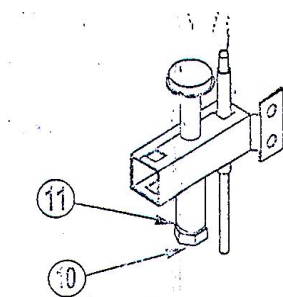


Fig. 5

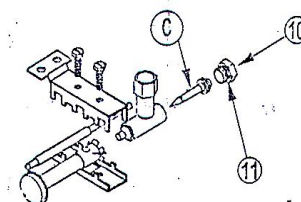


Table 10:

Gas Type	Gas Pressure (mbar)	Diameter (1/100 mm)
G 30	28 - 30	20
G 30	50	20
G 20	20	Adjusted
G 25	25	Adjusted
G 25	20	Adjusted
G 31	30 - 37	20
G 31	50	20

- **Adjusting Primary Air (Fig. 6 and 7)**

The Primary Air is fixed and sealed by the factory according to the destined country and the gas type. The adjustment is attached on the packing and the type shield. If there is any conversion, the Primary gas adjustment must follow the data table below:

Table 11:

Gas Type	Gas Pressure (mbar)	Primary Air Opening (B) (mm)
G 30	28 - 30	Open 12,0
G 30	50	Open 12,0
G 20	20	Open 5,0
G 25	25	Open 5,0
G 25	20	Open 5,0
G 31	30 – 37	Open 12,0
G 31	50	Open 12,0

Fig. 6

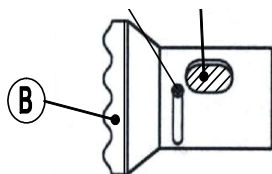
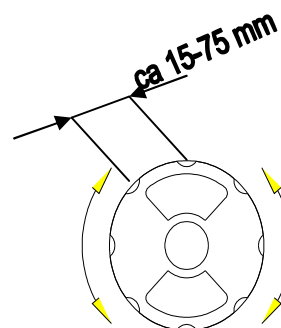


Fig. 7



WARNING! After doing conversion please remember to:

- **Attach an indelible sticker on technical data plate with the new installation data.**
- **Fix the new seals on the regulated parts (Primary Air Bush, Injector, and By-pass screw).**
- **Take pressure test of gas circuit and check for leaks.**
- **Properly control Gas Economic Table Low work according to these instructions.**
Please check main burners' cross-lighting, stability, and flame factor.

REPLACING MAIN COMPONENTS

Before replacing any components, please:

- Turn OFF the appliance
- Cool the appliance
- Close the ON / OFF gas valve at UP position

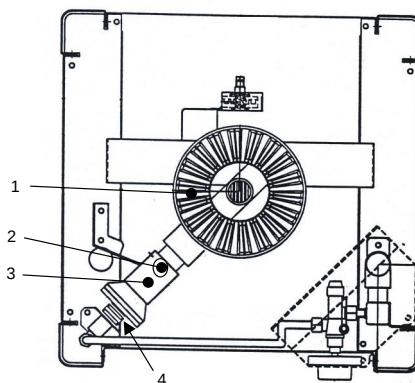
Access the components after open the frontal panel and remove the cooking grid.

USE GENUINE SPARE PARTS ONLY!

• Changing Nozzle Burner (Fig. 8)

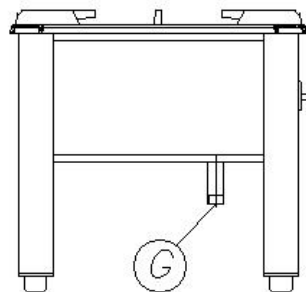
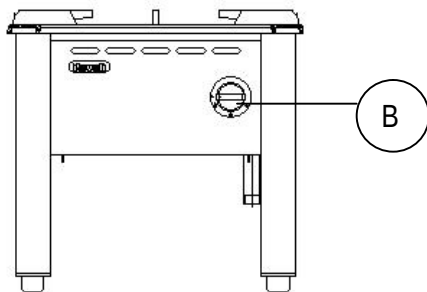
- Lift the Burner (1) for about 10 mm.
- Pull the Burner from the mixing chamber (3).
- Remove it with fixing screw (2) form the mixing chamber (This screw is reachable from below).
- Remove the complete mixing chamber (3) by turning anticlockwise from the nozzle.
- Turn the pressure ring (4) from the nozzle. DO NOT LOSE THE PRESSURE RING !
- Remove the nozzle from the nozzle carrier and replace the nozzle with the new one according to the destined country and gas type.
- Fix the nozzle by using non-hardening sealing tape.
- Place the burner back. Notice the Primary Air adjustment.

Fig. 8

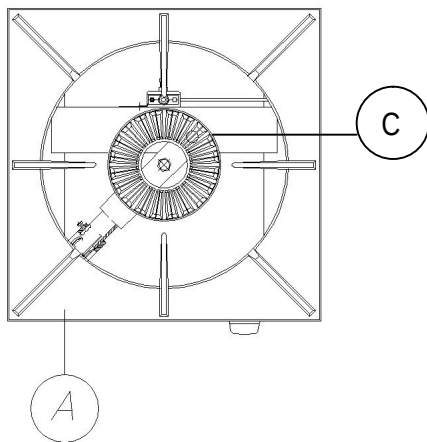


CONTROL PANEL DESCRIPTION

- NGETL 5-50 CE



(G) Gas Connection R 3/4"



A : Grill Plate

B : Gas Cock

To open and close gas supply to Burner

C : Burner

USE INSTRUCTIONS (for user)

- **Warning**

This appliance is a gas cooker for professional use. It shall be used by authorized people only. Before starting, please make sure that the appliance is in good condition and put it in a good ventilated room. Below are several preliminaries warning that strictly conformed:

1. If there is a persistent breakdown, please contact authorized mechanic.
2. User is only responsible for daily routine cleaning for maintenance.
3. Qualified mechanics must do all operations related to installation and maintenance according to Regulation in force.
4. Use Gas Economic Table Low only to COOK FOOD: MAKING STOCK. DO NOT use Gas Economic Table Low for other purposes. Any other uses may be considered as improper and dangerous use. Please control the appliance when operating.
5. Before operating Gas Economic Table Low for the first time, carefully clean the appliance to remove industrial oil/ lubricant.
6. After using Gas Economic Table Low, close the gas valve in UP position.

- **Turn ON / OFF Burner**

- **Turn Burner ON**

- a. Open the main gas valve.
- b. Press the safety knob tap "A" and keep the knob pressed in.
- c. Ignite the Pilot flame by using igniter gun.
- d. After Pilot flame ignite, keep press knob "A" for 15 – 20 seconds.
- e. Release the knob "A". Check whether the Pilot flame remains ignite. If it fails, repeat the above steps (a, b, c, d, and e).
- f. Turn the gas valve handle "A" anticlockwise to desired position.

- **Turn Burner OFF**

- a. To extinguish the flame temporary, turn the gas valve clockwise.
- b. To extinguish all flames, turn the gas valve to "O" position. The Main gas valve must be closed.

ROUTINE CLEANING and MAINTENANCE

Clean the appliance to keep the functionality and durability. In the case of any failures, do not attempt to solve the problem but call your dealer immediately to ask for help. Do not attempt to dismantle the appliance, specialized mechanics must do all job.

For routine cleaning process, please follow procedure below and notice the warning:

1. Make sure the gas valve on UP position, the appliance is closed, and the entire burners are OFF (●).
2. Let the appliance cool.
3. Clean the steel part daily with warm soapy water, rinse and dry thoroughly. Please make sure that the cleaning product does not contain Chlorine (bleach, hydrochloric acid, etc), using steel wool, brushes, or scrappers that could leave ferrous particles. These materials could oxidize and causes rust on the appliance.
4. Clean the burners with mild detergent or using soap and water.
5. Check the burners whether the holes are clogged. If necessary, use steel wool pad to remove deposits without damaging any parts of pilot unit.
6. DO NOT leave acid food such as vinegar, salt, lemon, etc on the stainless steel parts because it can ruin them.
7. NEVER wash the appliance with direct high-pressure jet water.
8. If the cooker will not used for a long time, briskly rub the steel part slightly with a damp cloth and Vaseline oil. After that, wrap with protective film and put the appliance in a good ventilated room.

ATTENTION!

! If you find the lighting and control devices are difficult to use, please contact the manufacturer immediately, which will provide you necessary assistance or call a dealer.

! Please check the appliance periodically. Contact your dealer that will supply assistance to repair and set interval.

! Authorized and qualified personnel must do all service.

TROUBLE SHOOTING

NO.	PROBLEM	CAUSE	CORRECTIVE ACTION
1.	Pilot flame does not ignite	- Gas pipe to Pilot not closed	- Check and repair
		- Pilot clogged	- Check and clean
		- Pilot head clogged	- Check and clean with fine steel brush
		- Pilot nozzle clogged	- Check and replace
2.	Burner flame yellow	- Requiring air regulation nut	- Open air regulation nut for 15 mm
		- Burner dirty	- Check and clean with brush
3.	Burner does not ignite	- Gas valve damaged	- Check and replace
4.	Pilot flame does not keep lighting	- Thermocouple dirty	- Check and clean with fine steel brush
		- Thermocouple does not produce voltage (mV)	- Check and repair
		- Thermocouple slacked	- Check and repair
		- Thermocouple magnet damaged	- Check and replace

WARRANTY

We give 12 months guarantee with certain conditions. We will decline any claims of accidents caused by improper use, disobey rules, and/ or disobey warnings. Below are cases, which invalidate the guarantee:

1. Improper use by untrained person(s)
2. Disobey local regulation(s) related to installation and safety standards
3. Not doing routine maintenance
4. Replace certain parts with non-genuine spare part
5. Do not follow the manual instruction properly

If you have any doubts or questions related to our product, please call your nearest dealer.