

OPEN TOP BURNER PLATE MODEL NO.: *680.011



INSTRUCTION MANUAL

Carefully read the instruction booklet before installing and using the appliance.

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CHAPTER I INTRODUCTION AND GENERAL CONSIDERATIONS

The appliance is covered by the guarantee for two years from the date of the invoice.

Any attempts to dismantle, modify or tamper with any part of the appliance makes the guarantee void. The improper use of this appliance, or attempting to dismantle or modify it, can cause accidents and therefore, the manufacturer declines any responsibility for any injury to persons or damage to things as a result of these improper and forbidden actions. Please contact your nearest authorised service centre or the manufacturer directly, for any anomalies.

The manufacturer is not responsible in the following cases:

- Improper use of the appliance by persons who haven't been suitably trained.
- Tampering and/or changing the technical and practical characteristics of the appliance.
- Any use that infringes the rules and regulations in force in the country the appliance is being used in.
- Incorrect, or the lack of envisaged routine maintenance.
- The use of non-original spare parts.
- Not following the instructions whether totally or partially.
- Not sending in the guarantee certificate.

The appliances are conform to the European directive for gas appliances 90/396/CEE and EN 203-1, EN 437 standards and the subsequent modifications. For this reason, the appliances have the regular CE mark issued by a Notified Body following certification tests and the regular surveillance of the product disciplined by the abovementioned directive.

Scrupulously follow these general warnings for the safe installation and use of the appliance:

Read this booklet carefully, paying particular attention to the instructions on safety during use and maintenance. The purpose of this manual is to inform the operators of the prescriptions and the fundamental criteria for guaranteeing their safety and keep the plate in an efficient working condition for a long time. This manual must be read by all the persons authorised to use the appliance before it is installed and put into service. If the appliance is transferred or sold, make sure that the booklet always goes with the appliance, so the new user has access to the information on using it and the relevant warnings. The booklet should be kept in a safe, dry place and be easy to reach for reference. If the booklet is lost or becomes illegible, please order a new copy directly from the manufacturer. If in doubt, consult the nearest service centre, or the manufacturer or reseller directly.

These instructions are only valid for the gas appliance described in the booklet relevant to category 112H3+. If the appliance is installed in a country European with a gas mains pressure that is different from that of the appliance (visible on the specifications plate), the booklet should be translated into the official language with the references (gas connections and local installation regulations) of that country.

This appliance has a specifications plate that shows the current gas rating, the country for which it is currently intended and a scheme showing all the countries where it can be sold after being adapted to the local gas distribution and in accordance with the national laws for gas appliances.

A second plate indicates the fundamental instructions in the main European languages (Fig. 2).

Put the appliance into service in accordance with the rules and regulations in force in the country where it is installed. The place where the appliance is installed and used should be well ventilated.

This gas appliance is designed for cooking foodstuffs by means of suitable pans. Do not use it for other purposes; any other use is considered improper use. It is intended for catering and professional use and must be used by trained personnel.

The installation and the extraordinary maintenance (changing components, fault finding, adapting the appliance to other gas ratings) are operations that can only be performed by technicians with specific professional requisites, authorised to do these jobs by the manufacturer. Use only original spare parts. The user and/or owner is responsible for cleaning the appliance on a daily basis and carrying out the routine maintenance thanks to which the appliance should have a long and trouble-free working life. The user should deactivate the appliance in the case of anomalies and contact an authorised service centre. Do not attempt to modify the structure of the appliances in order to improve the performance and tampering with the safety devices sealed components is strictly forbidden.

(ACOPA•	// N° 705BP154	2004	REGOLATO	:				$\overline{1}$
S.R.L.	<u>\$\$ 0705</u>		G20	G25	G25.1	G30	G31	J J
MOD ;FRG11	IT-ES-GB-PT-IE-GR-CH	II2H3+	20	020	020.1	28-30	37	mbar
TYP : A1	DE	II2ELL3B/P	20	20	_	50	50	mbar
S/N :XXXX / XX	LU	I2E	20					mbar
Qn :10 kW	AT-CH	II2H3B/P	20			50	50	mbar
	DK-SE-FI-CZ	,	20			30	30	mbar
$G20 = 1.06 \text{ m}^{3}/\text{h}$	BE-FR	II2E+3+	20	25		28-30	37	mbar
	NL	II2L3B/P	/	25		30	30	mbar
	NO NO	I3B/P	\	/	/	30	30	mbar
G30 = 0.79 kg/h	HU	II2HS3B/P	25		25	30	30	mbar
G25,1 = 1.23 m ³ /h	П ПО	II2HS3B/P	25		25	50	50	mbar

The appliance must be connected according to the standards in force and must be installed only in well aired premises.

It is recommended to follow the use and servicing instructions of the appliance before operating it.

Figure 2 Warnings plate

Figure 1 Specifications plate

CHAPTER II INSTALLATION INSTRUCTIONS AND EXTRAORDINARY MAINTENANCE

2.1 The place of installation

The installer must respect the current national regulations for gas installations. All of the extraordinary maintenance operations (changing the gas rating or replacing components) must be done by specialised personnel, authorised by the manufacturer. Install the appliances in accordance with the national safety standards BSI regarding gas heated appliances. .

The appliance must be installed in a well-ventilated place that has permanent ventilation ducts to guarantee a sufficient exchange of carburant air and to keep the work area healthy; for the minimum sections of the ventilation ducts, please consult the above standards, paying particular attention if there are other gas appliances installed in the same room .

This appliance is classified as type A, construction; this means that no direct connection is envisaged (by chimney or junction) to the flue or to devices for discharging the by products of combustion outside the place where the appliance is installed; for these appliances, the carburant air can be supplied and the by-products of combustion can be discharged in the same room. For this reason, the appliances should be installed under efficient air extraction hoods that can remove the burnt gases and fumes produced when cooking food, preventing the formation of substances that are bad for the health of the operators.

Make sure that the volume of air required for combustion isn't obstructed in any way by objects around or under the appliance.

Position the appliance on a perfectly level table and fix it solidly to the workbench with the two brackets (Fig. 3). We recommend always keeping the appliance a distance of at least 5 cm from the side and rear walls and, if this is not possible, protecting the walls with refractory sheets or fire-resistant materials.

Before turning the appliance on, remove the protective film covering the appliances exterior walls.

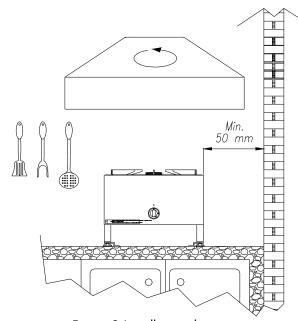


Figure 3 Installation diagram

2.2 Connecting the appliance to the gas mains

Before you connect the appliance to the. gas mains, check that the fixed part of the gas system IS conform to the prescriptions established in the above standards. In particular, check that the sections of the pipes guarantee a supply of gas that is sufficient for all of the gas appliances installed in the room avoiding excessive pressure drops. The pipes must be made of steel (With junctions made using white cast iron, or galvanised steel fittings, or autogenously welded joints) or copper pipes (with mechanical joints and couplings without seals or mastics or brazed joints).

Check that the gas bottle (if present) is positioned correctly and protected and that the visible pipes can easily be inspected; if pipes have been Installed In chases (in floors and walls), make sure that this work has been done to a professional standard with reference points that make it possible to find the pipes.

Before installing the appliance make sure that It IS set for the gas used. if this is not the case, consult the paragraph "Adapting the appliance to other gases" or contact the technical service of the manufacturer. The appliance must be connected using rigid fittings or flexible steel pipes that shouldn't put any stress on It. These must be as short as possible and in any case no longer than 1 m.

Make sure that the connecting pipe doesn't pass near hot zones, that it isn't put under stress and traction and doesn't come into contact with sharp objects, edges or other things that could damage the pipe. Install a quick on/off valve between the gas mains and each single appliance, in a place where it is easy to reach and turn. After you have installed the appliance, carry out a pressure test on the whole gas circuit, using leak finder sprays or other non-corrosive foams (don't use naked flames to look for leaks).

2.3 Checking the gas mains pressure and the nominal heat input

The mains pressure is measured, with the appliance on, using a pressure gauge (for example a manometer). Connect manometer **E** to the pressure outlet on gas fitting **G** after having removed the screw cap (Fig. 4) and measure the pressure; if this is not between the min. and max. values indicated in the following table 1, the appliance cannot be put into service. The gas company must be informed.

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TYPE OF GAS	PRESSURE mbar		
TIPL OF GAS	Nom.	Min.	Max.
Liquid Gas LPG G30/G31	28/37	20/25	35/45
Methane gas G20	20	17	25

Before measuring the nominal heat input, check that the right injector for the type of gas supplied by the mains is installed and that the pressure is within the limits in the previous table. You control the heat input using a counter and a chronometer. You have to measure the exact gas flow per unit of time, that is consumed when the appliance is working at maximum power. This measurement should be compared to the consumption data in technical table 4.

A tolerance of \pm 5 % is allowed for this capacity.

If you are measuring top deviations, you should carefully check the diameter and the quality of the injector (for the absence of burs for example) and the pressure of the gas mains

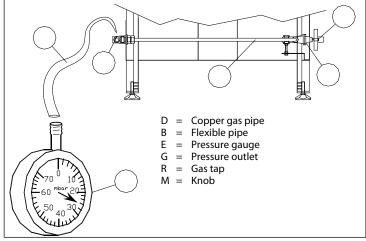


Figure 4. Measuring the pressure

2.4 Adapting the appliance to other gases

The components for adapting the appliance to other gases are supplied with the same.



The appliance should only be adapted by a professionally qualified technician. Only adapt the appliance after you have turned the gas off with the on/off valve upstream and let the appliance cool.

To adapt the appliance to another type of gas, replace the main injector, replace the by-pass screw of the gas tap, regulate the clamp of the primary air and regulate the power to minimum with the by-pass screw of the tap.

a) Replacing of the main injector and adjusting the primary air.

Carry out the following operations in series on the burner referring to table 2 and Fig. 5:

- Remove the pan supporting grid, the brass flame spreading, the body burner cover and the basin.
- Loosen clamp fixing screw **V**, pull clamp **B** inwards, unscrew and replace injector **U** with the injector for the new type of gas installed.
- Regulate the primary airflow positioning clamp B at the right distance H for the new type of gas installed.

b) Adjusting the minimum power

Carry out the following operations in series for the gas tap referring to table 2 and Fig. 6:

• Remove the knob and use a flat-bladed screwdriver to reach the by-pass screw **BP** of the tap through the hole. Insert the screw of the correct diameter and adjust it for the type of gas according to these instructions:

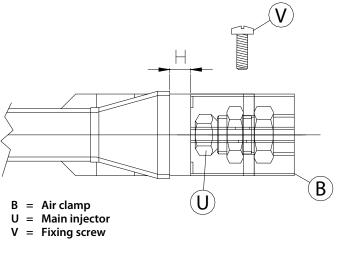
<u>FOR G20 GAS:</u> adjust the screw of the by-pass nozzle until you find the correct minimum adjustment. Once you have found the minimum, with the burner on, check that passing from the maximum to the minimum position doesn't suffocate the flame or cause blowbacks of the main burner. FOR G30/G31 GAS: always screw the by-pass screw fully down.



After adapting remember to:

- Apply an indelible sticker on the data plate with the data of the new installation.
- Fix the new seals on the regulated parts (injector, air clamp and bypass screw of the tap).
- Perform a pressure test of the gas circuit and check for leaks.

	Type o	of gas	
TABLE 2	G20 at 20 mbar	G30/G31 at 28/37 mbar	
Main injector diameter (1/100 mm)	235	160	
By-pass screw diameter (1/100 mm)	Adjustable	60	
Distance H of the primary air (mm)	5	Clamp open	





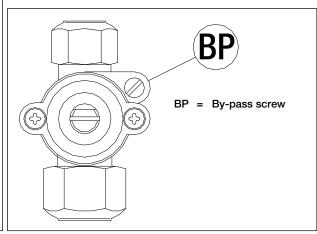


Figure 6. Gas tap

2.5 Replacing the main components

After a fault, you may have to replace a component. All the components can be reached after you have removed the pan supporting grid, the brass flame spreading, the body burner cover and the basin.

a) Gas tap.

- Loosen the gas connections to the tap and in other words the capillary pipe of the thermocouple, the gas pipe to the main burner and the gas supply pipe.
- Unscrew the two screws of the flange fixing the tap to the frame and disconnect the gas connections.
- Replace the gas tap and reconnect all the gas connections proceeding in the reverse order.

b) Safety thermocouple.

- Unscrew the gas connection of the thermocouple to the tap.
- Open the bracket fixing the thermocouple bulb after having removed the screw.
- Replace the safety thermocouple and reconnect all the connections in the reverse order.
- c) Main burner.
- Remove the bracket fixing the thermocouple from the burner body after having removed the two screws.
- Unscrew the four screws fixing the manifold of the burner to the frame of the grill.
- Unscrew the injector and the fixing nut.
- Pull the main burner out and replace it.
- Reconnect all the connections proceeding in the reverse order.

2.6 Fault finding

Fault	Possible cause		
The burner won't light.	Insufficient gas pressure.Injector or burner blocked.Gas tap faulty.		
The burner flame won't stay lit.	The thermocouple is faulty or out of place, so it isn't heated sufficiently by the flame.		
The main burner won't hold the minimum.	The by-pass screw of the tap isn't the correct diameter or is needs adjusting.		

CHAPTER III INSTRUCTIONS



- This appliance has been designed for professional use and should only be used by qualified personnel.
- The user is allowed to use and clean it only.
- All of the operations regarding installation and extraordinary maintenance (replacing components and various repairs) must be carried out by qualified technicians. We recommend drawing up an annual maintenance contract.

3.1 Preliminary warnings before putting into service

Before turning the appliance on, please respect the following precautions and warnings.

- Check that the appliance is solidly fixed to the table and that the gas pipe is safely installed. Make sure that nothing obstructs the airflow to the appliance and that the systems for extracting the fumes produced during cooking are efficient, as is the general ventilation system in the room. Move any combustibles away from the appliance (plastic cutlery, paper, bottles containing flammable liquids).
- Use heat-resistant gloves to lift hot pans.
- Keep an eye on the appliance when it is on and remember to close the gas tap upstream when you have finished using it.
- The burner has a safety thermocouple cutting off the gas if the flames blows out accidentally.

3.2 Turning the appliance on and off

- a) Turning the appliance on
- Open the gas tap installed upstream.
- Light the burner by pressing and turning the gas knob anticlockwise from the off position (●) to the MAX position (high flame). At the same time, with your other hand, approach a flame of a match near the burner until the flame lights. Hold the knob for roughly 10 seconds so the flame heats the thermocouple and prevents this from cutting off the gas and then release the knob checking that the flame of the burner stays lit and stable. If it doesn't, repeat the operation.
- If necessary regulate the power to minimum (low flame). See Fig. 8.

b) Turning the appliance off.

- To turn the burner off, turn the gas knob clockwise from the set position to the off position (•).
- At the end of work, remember to close the gas tap upstream.



Warning I If it becomes hard to turn the gas taps, these will need lubricating. Please contact a specialised plumber.

3.3 Cleaning and routine maintenance

The appliance must be cleaned regularly to guarantee the best performance and trouble free use. In the case of an anomaly, please don't try to solve the problem on your own, contact the nearest service centre who will help you solve the problem. Don't attempt to dismantle anything; all extraordinary maintenance must only be carried out by specialised personnel. To clean, proceed as follows, observing the warnings:

- Before cleaning the appliance, check that the gas tap upstream and the burner are off. Let the appliance cool down.
- Proceed by cleaning the steel parts in warm soapy water, rinse thoroughly and dry well.
 Don't use detergents containing chlorine (bleach, hydrochloric acid, etc.) and never clean the steel parts with abrasive sponges, brushes or scrapers which could make them rust.
- Remove the grid supporting the pan and clean it carefully, removing any deposits with a brush.
- The burner must be cleaned with great care using soap and water or non-abrasive detergents.

 Check that the flame holes of the burner aren't obstructed and if they are remove the deposits carefully.
- Don't leave foodstuffs (especially acid foodstuffs such as salt, vinegar, lemon...) on the stainless steel parts because this will damage them.
- Never wash the appliance with direct high-pressure water jets.
- If the appliance isn't used for long periods of time, vigorously pass a cloth dampened with liquid petrolatum over all of the steel parts in order to leave a protective film of oil; furthermore, air the room where the appliance is installed periodically.
- Don't use corrosive substances (muriatic acid for example) to clean the appliance supporting surface.

CHAPTER IV SPECIFICATIONS, DIAGRAMS AND PARTS LIST

Table 4. Technical data

4. Technical dala	ED/	211	
Model	FRG11		
Overall dimensions	605 x 605 x 493 mm		
Number of burners		1	
Nominal heat input	10	kW	
Minimum heat input	1,6	kW	
Gas fitting	ISO 7/1 R 1/2"		
Category	II2H3+		
Type of construction:	A ₁		
Nominal gas pressure	G20 20 mbar	G30/G31 28/37 mbar	
Gas consumption at MAX rate (calculated with the net heat value H _i at 15°and 1013 mbar)	G20 1,058 m³/h	G30 0,789 kg/h	
Gas consumption at MIN rate (calculated with the net heat value H _i at 15° and 1013 mbar)	G20 0,169 m³/h	G30 0,126 kg/h	

Table 5. Part list

Component	Manufacturer	Model/code
Main burner	FLAM GAS	08796551020
Thermocouple	SIT	08753500200
Gas tap	PEL PINTOSSI	20S

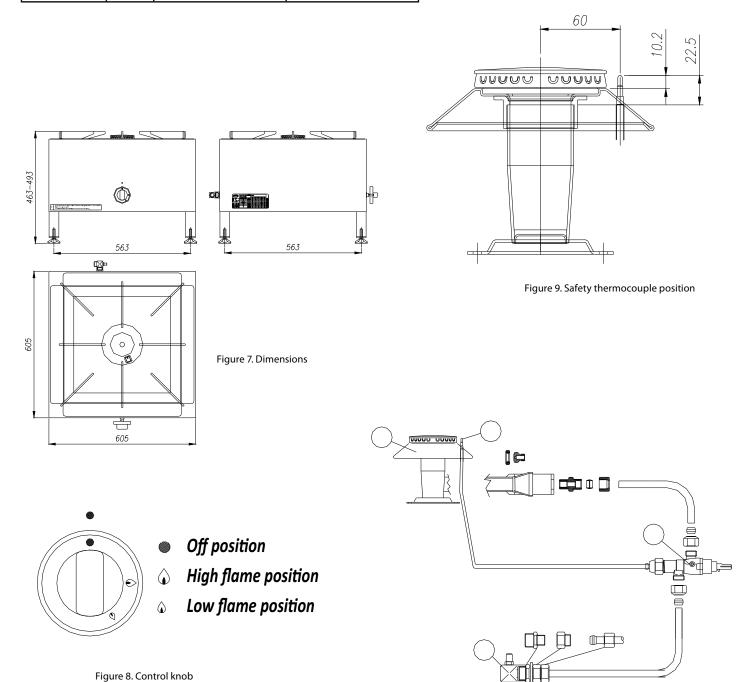


Figure 10. Circuit of gas

A = Inlet gas connection

B = Burner

R = Gas tap

T = Safety thermocouple