

12/2012

Mod: WGX1-4/T

Production code: NGWT3-55



Diamond
catering equipment

1. INSTALLATION

Before installation and operation of the appliance, the following must be observed.

For EU und CH (Switzerland) applies:

The appliance must be connected and operated according to national regulations. This applies for installation, air circulation of the room and exhaustion of combustion products.

Only for CH (Switzerland) applies:

- SVGW-norms for gas G1 (2002): Installations for gas
- EKAS directories for liquid gas
- Prescriptions from instances of the cantons (for ex. fire police)

For DE (Germany) applies:

The appliance must be connected according existing installation regulations. It may only be operated in a room with sufficient air circulation to avoid formation of unhealthy combustion products.

The following regulations, technical rules and regulations are compulsory for installation and operation of the appliance:

- Building regulations of the countries
- Fire regulations of the countries
- Regulations working premises
- Building regulations fire technical requirements and air circulation
- DVGW - Instruction G 600 (TRGI), „Technical rules for gas installations“
- TRF „Technical rules liquid gas“
- DVGW – Instruction G 634 „Installation commercial kitchens, gas operating installations“
- Accident regulations VBG 21
- Accident regulations VBG 77
- Security rules kitchens ZH 1/37
- Directions „Air technical installation kitchens“ VDI 2052
- Regulations energy supply installations (GVU)

1.1 Directions

For the installation and adjustment of the appliances as well as for the changes of the gas types, an authorized technician must be called. Sealed parts by the producer or authorized agent may not be touched by the technician.

During operation the appliance must be supervised.

1.2 Place of Installation / Setting Appliance

The appliance must be placed on a stable solid platform. The platform must be flat and horizontal. When placed on a table, this must be of non-combustable material.

If the appliance on the wallside is connected with flexible tubes, then the appliance must be screwed to the platform.

This fixation is a must for the Table Models.

If the appliance is placed near temperature sensitive parts (f.i. furniture, electric cables in the wall) there has to be a distance of 100 mm to the rear wall and 200 mm to the side walls.

1.3 Gas connection

Before connecting the appliance, control if the gas type corresponds to the gas type of the place of installation.

If this is not the case an adjustment must be made before starting up the appliance.

If flexible tubes are used, these tubes must be in DIN 3384. (Depending of the countries, those which are allowed)

In the gas inlet there must be a gas stop cock, fixed in a suitable position.

Depending on national requirements, a thermo stop cock must be installed before the appliance.

After connection, all gas pipes must be checked with foam or leak sprays under pressure for identifying gas leaks.

2. Technical Data (valid only for DE / CH / AT)

The appliance is suitable for operation of earth- or liquid gas / Construction A1

Category II 2 ELL 3 B/P

	call pressure	allowed connection pressure Ranges
Earthgas	20,0 mbar	18,0 - 25,0 mbar
Liquid gas	50,0 mbar	42,5 - 57,5 mbar

Outside this range the appliance may not be operated.

2.1 Technical Data (valid for EU)

The appliance is suitable for operation of earth- or liquid gas / Construction A1

Category II 2 ELL 3 B/P

Countries	Category	connection pressure (mbar)	
		2. family Earthgas	3. family Liquid gas
AT	II2H3B/P	20	50
BE	II2E+3+	20/25	28-30/37
CH	II2H3B/P	20	50
DE	II2ELL3B/P	20	50
DK	II2H3B/P	20	28-30
ES	II2H3+	20	28-30/37
FI	II2H3B/P	20	28-30
FR	II2E+3+	20/25	28-30/37
GB	II2H3+	20	28-30/37
GR	II2H3+	20	28-30/37
IE	II2H3+	20	28-30/37
IT	II2H3+	20	28-30/37
LU	I2E	20	
NL	II2L3B/P	25	28-30
NO	I3B/P		28-30
PT	II2H3+	20	28-30/37
SE	II2H3B/P	20	28-30

Type	Heat load		Gas connection values Full fire			Combustion requirements	Exhaust quantity
	Earthgas	Liquid gas	Earthgas E Earthgas H (G 20) HuB 0,42 m³/h	Earthgas L Earthgas LL (G 25) HuB 0,49 m³/h	Liquid gas (G 30) HuB 0,31 kg/h		
NGWT 3 - 55	15 kW	13 kW	1,59 m³/h	1,85 m³/h	1,02 kg/h	16 m³/h	18 m³/h
NGWT 7 - 55	30 kW	26 kW	3,17 m³/h	3,69 m³/h	2,05 kg/h	32 m³/h	36 m³/h

The small combustion load of the Combi Wok burner is 4,5 kW.

This results in the following **flow values**:

Earthgas H, E (G20)	0,48 m ³ /h
Earthgas L, LL (G25)	0,55 m ³ /h
Liquid gas (G30)	0,35 kg/h

The appliance is operated in full combustion with fixed nozzles without adjustment.

The Wok burner has no small combustion adjustment.

It operates gradual from off (out) to in (in).

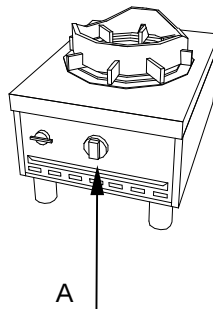
For the Combi Wok burner and the pilot flame the small combustion quantity is regulated for liquid gas with fixed nozzles. For earthgas the nozzles are adjusted.

3. Instruction of Users

The user must be instructed how to operate the appliance. The instruction for use must be kept to the user. The user must be told that after construction changes in the room, which affects the combustion supply, the operation control must be carried out.

4. Operation

4.1 Operation elements



A= Gas cock with handle

4.2 Start up Wok burner

- Before operation the main gas cock on the appliance must be opened.
- Then press the knob of the safety tap "A" in and keep the knob pressed in.
- With ignition pistol start up pilot flame. After pilot flame burns knob "A" to remain pressed in for 15 - 20 seconds. If after releasing knob "A" the pilot flame goes out, you have to repeat the ignition process.
- Now turn gas valve handle "B" anti clockwise to position "ON", the Wok burner will ignite.

**Attention! Do not lean over main burner during ignition process.
The high flame could lead to burns.**

4.3 Closing of burner

If the burner is only temporary to be cut, the gas cock with handle must be placed clockwise into position, so that the appliance remains operable.

For longer periods of interruption, the gas cock with handle must be placed into position - O -. The main gas armature is to be closed.

5. Important Notice

The appliance is for commercial use and should be operated by qualified staff. During operation the appliance must be attended.

It is necessary to have the appliance checked at regular intervals. The time of checking depends on the use.

The checking must take place at least once a year.

It is not allowed to use pots with flat bottoms on the Wok burner ring.

During full combustion without Wok pots on it, the flame extends over the Wok ring. During full combustion with Wok pots on it, the flame extends to the side. In both cases burns to the staff are possible when careless.

In case of problems, the appliance must be cut off. The main gas cock must be closed and the service engineer is to be called.

An eventual change of the gas type may only be carried out by the producer or its service agent.

5.1 ATTENTION – EXPLOSION RISK !!!!

It is strictly **forbidden** to cover the burners or drawers below or the air holes on the side walls, with Alu or silver foil or similar materials.

This causes a wrong air circulation and gas combustion and **overheats** extremely the entire appliance and the function of the burners will be affected.

6. Cleaning (see Photo below)

Before cleaning all armatures must be placed in position -O-. The main gas cock is to be closed. The cleaning should be carried out after each use of the appliance. Food and Fat rests are to be removed.

Clean with warm water, if required some detergent, non aggressive cleaner.

For cleaning do not use steel wool or scraper, since corrosion could occur also on stainless steel.

Pay attention that main burner and pilot flame are not dirty. If required burner must be cleaned with non aggressive detergents. The appliance may only be operated again when fully dry.

If the appliance is not used for longer periods, all steel parts should be treated with an oil drenched cloth, leaving a protective film against corrosion.

⇒ **Attention! Don't clean the range with high pressure water.**

The range will have **more long use life** and smooth work, if you have **regular clean** every day.



7. Service

The appliance requires a regular service. We recommend a service contract.

Service and repairs may only be carried out by the producer or service agent with qualified staff.

For Service and repairs **only original parts** should be used.

During Service, security arrangements of the appliance, function of burners and operation of burning operation is to be checked. It is to control that no lift off or back stroke of the burners in hot condition occurs. All gas pipes and parts must be controlled for closeness. Slits of the burners and nozzles in the primary air segment must be free of foreign debris.

The gas armatures must be checked for easy of operation. In case of heavy movements, requires the exchange of these parts. Application of grease, in exceptional cases may only be done by the service engineer. Sealed parts of the producer may not be touched by the service engineer. If apart from the listed works other repairs should be required, same should be done.

Only proper handling of the appliance, regular service by service technicians, guarantees problemfree function of the appliance with operation security.

This is also in view of legal regulations for technical equipment as well as accident regulations.

8. Behavior in disturbances

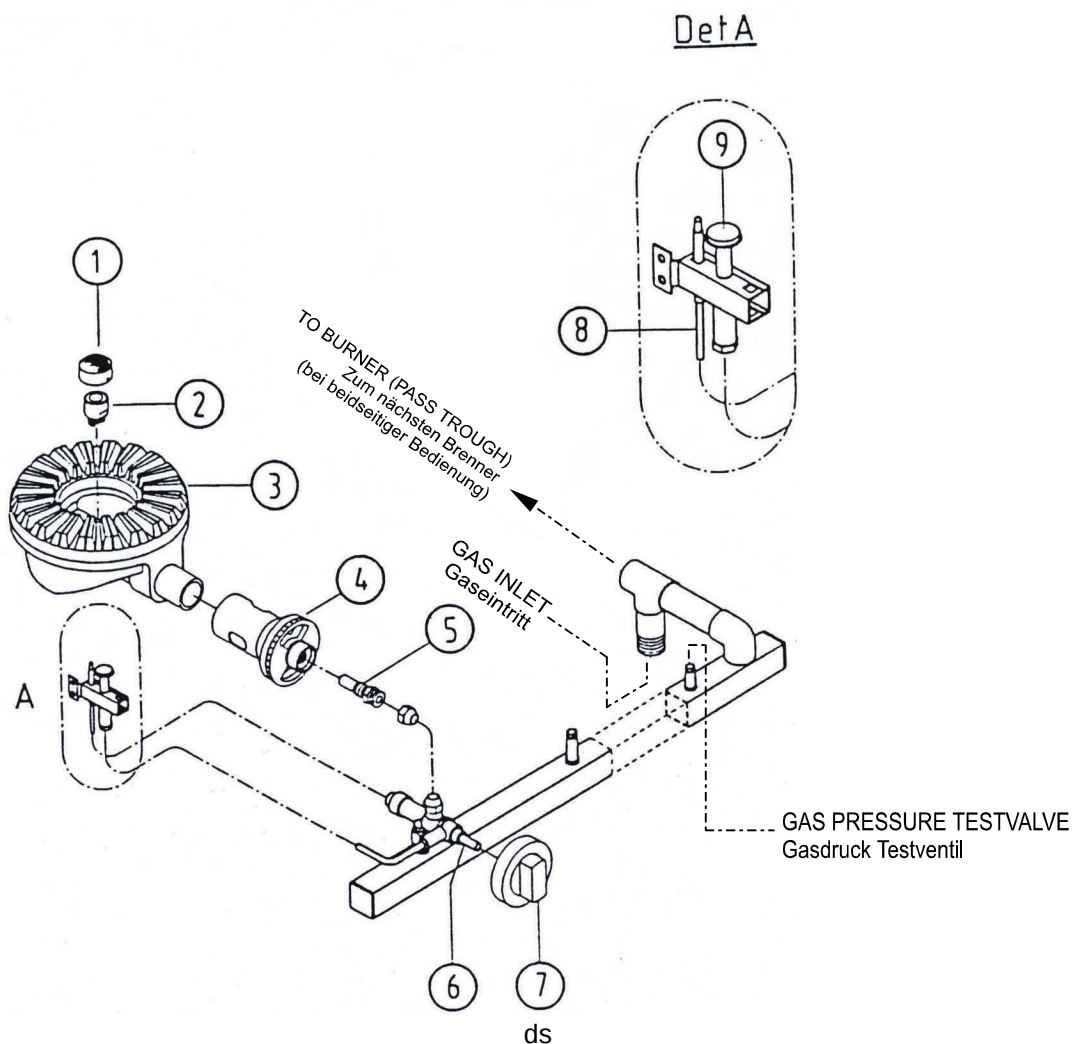
Disturbances can occur due to mistakes in the gas supply, dirtiness of functioning parts, wrong handling or failing ignition, regulators, function of control parts.

If the gas supply is ok., all functioning parts clean, wrong handling excluded, you have to call a service engineer.

In case of disturbances the gas armature (main gas cock) must be closed.

Repairs may only be carried out by qualified service engineers under consideration of ruling regulations for operation and installation.

Spareparts list for "DUAL" China / Euro Gas burners



No	Description	P/N°	Quantity
1	Burner head NS 9001	GS.2025	1
2	Burner ventury NS 9001	GS.4237	1
3	Burnerset NS 9001	GS.8020 S	1
4	Chambre de mélange l'air	GS.8000 S	1
5	Injector / nozzle for burner	GS.282 ..	1
6	Safety gas cock	GS.3875	1
7	ABS Knob for gas valve	GS.3602	1
8	Thermocouple	GS.3890	1
9	Pilot burner	GS.3851	1

PROBLEM SOLUTIONS

ATTENTION – DANGER OF EXPLOSIONS !!!!

It is absolutely **prohibited** to use alu foil or similar to cover the burner, the pilot unit and the side walls over the drawer. **Advice it will be damaged the range!**

The above cause a wrong combustion and bad gasfire, it **over heat extremly** the unit and a bad function of the burners will happened.

N°	PROBLEM	CAUSE	REMEDY
1	Pilot flame does not ignite	- Gas pipe pilot flame not closed - Pilot flame clogged - Pilot flame head clogged - Pilot flame nozzle clogged	- Has the main gas pipe any gas? - Dismantle and clean (evt. exchange) - clean with steel brush (evt. dismantle and clean) - Pilot flame nozzle (C) replace
2	Burner flame is yellow	- Air regulation on nut required - Burner is dirty	- Air regulation opening on nut must be minimum 15 mm - Take out, take apart, clean
3	Burner does not burnt	- Gas cock is damaged	- control evt. exchange
4	Pilot flame burns, but after let loose the security armature, the flame does not stay	- Thermocouple dirty - Thermocouple does not produce voltage in millivolt - Thermocouple is loose - Thermocouple magnet on gas cock defective	- clean with fine steel brush - take apart and exchange - again screw into position - take apart and exchange

9. Gas conversion

The gas conversion may only be carried out by a qualified service engineer authorized by the producer.

9.1 Technical data (valid only for DE / CH / AT)

The appliance is for operation of earth- or liquid gas / Construction A1

Category II 2 ELL 3 B/P

	Call pressure	Allowed connection pressure ranges
Earthgas	20,0 mbar	18,0 - 25,0 mbar
Liquid gas	50,0 mbar	42,5 - 57,5 mbar

Beyond these pressure ranges the appliance may not be operated!

9.2 Technical data (valid for EU)

The appliance is for operation of earth- or liquid gas / Construction A1

Category II 2 ELL 3 B/P

Country of destination	Category	Pressure ranges (mbar)	
		2. family Earthgas	3. family Liquid gas
AT	II2H3B/P	20	50
BE	II2E+3+	20/25	28-30/37
CH	II2H3B/P	20	50
DE	II2ELL3B/P	20	50
DK	II2H3B/P	20	28-30
ES	II2H3+	20	28-30/37
FI	II2H3B/P	20	28-30
FR	II2E+3+	20/25	28-30/37
GB	II2H3+	20	28-30/37
GR	II2H3+	20	28-30/37
IE	II2H3+	20	28-30/37
IT	II2H3+	20	28-30/37
LU	I2E	20	
NL	II2L3B/P	25	28-30
NO	I3B/P		28-30
PT	II2H3+	20	28-30/37
SE	II2H3B/P	20	28-30

Type	Heat load		Gas connection values			Full fire	Combustion requirements	Exhaust quantity
	Earthgas	Liquid gas	Earthgas E Earthgas H (G 20) HuB 0,42 m³/h	Earthgas L Earthgas LL (G 25) HuB 0,49 m³/h	Liquid gas (G 30) HuB 0,31 kg/h			
NGWT 3 - 55	15 kW	13 kW	1,59 m³/h	1,85 m³/h	1,02 kg/h		16 m³/h	18 m³/h
NGWT 7 - 55	30 kW	26 kW	3,17 m³/h	3,69 m³/h	2,05 kg/h		32 m³/h	36 m³/h

The small combustion adjustment for the Combi Wok burner is 4,5 kW.

This result in the following **flow values**:

Earthgas H, E (G20)	0,42 m ³ /h
Earthgas L, LL (G25)	0,49 m ³ /h
Liquid gas (G30)	0,31 kg/h

9.3 Nozzle data table

Gas type		Pressure mbar	Combi-Wokburner full comb. small comb. Ø (mm) Ø (mm)		Pilot flame Ø (mm)r	Countries
Earthgas H, E	G20	20	3,20	adjustable	adjustable	AT / CH / DE / DK / ES / FI / GB / GR / IE / IT / LU / PT / SE
Earthgas H, E	G25	20/25	3,20	adjustable	adjustable	BE / FR
Earthgas LL	G25	20	3,50	adjustable	adjustable	DE
Earthgas L	G25	25	3,20	adjustable	adjustable	NL
Liquid gas B/P	G30	50	1,70	1,00	0,20	AT / CH / DE
Liquid gas B/P	G30	28-30	1,95	1,15	0,20	DK / FI / NL / NO / SE
Liquid gas B/P	G30	28-30/37	1,95	1,15	0,20	BE / ES / FR / GB / GR / IE / IT / PT

The appliance is operated in full combustion with fixed nozzles without prior adjustment.

For the main burner and pilot flame, small combustion for liquid gas is obtained with fixed nozzle, for earth gas the nozzle has to be regulated.

9.4 Nozzle change Wok burner

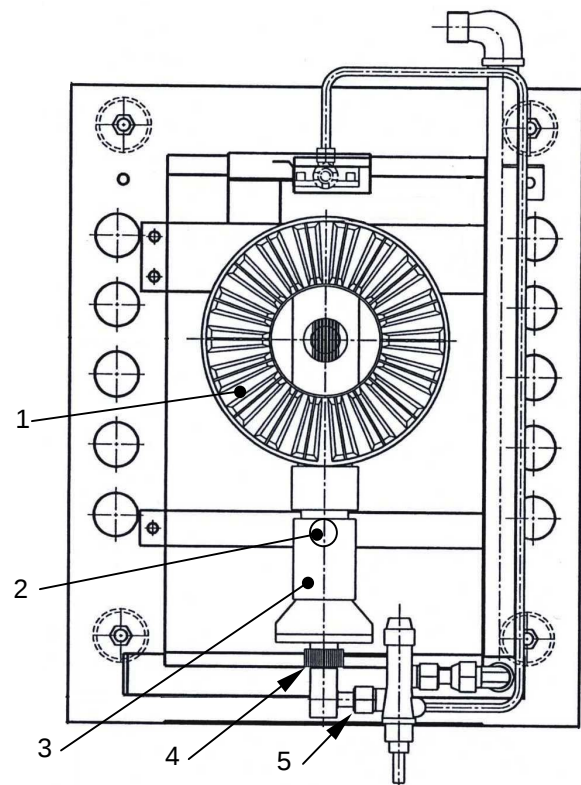
Lift burner (1) abt. 10 mm and pull away from the mixing chamber (3). Remove fixing screw (2) of the mixing chamber (this screw can be reached from below).

Remove then the complete mixing chamber (3) by turning same anti-clockwise from the nozzle. Turn the pressure ring (4) from the nozzle. Pay attention that the built in pressure ring is not lost.

Remove then the screws (5) and take out the complete nozzle unit.

Remove the nozzle from the nozzle carrier and replace a new nozzle according the nozzle table for use in the country of operation and gas type required.

The nozzle must be fixed with a non-hardening sealing tape. Then replace the burner by following instructions in the opposite direction. Pay attention also to "primary air adjustment".

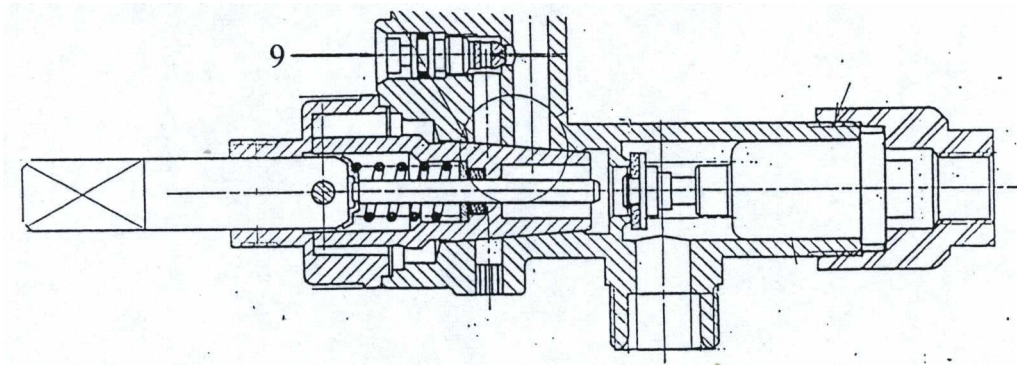


10.

For the Combi Wok burner (soup burner) the small combustion adjustment must be regulated to 4,5 kW for earthgas.

The nozzle bore in the small combustion nozzle is 50 mbar and 30 mbar.

To regulate for earthgas proceed as follows:



Operate burner in small combustion.

Turn off handle of the security control knob.

With a small screw driver adjust small combustion nozzle (9) that 4 kW are obtained.

(Turn **Clockwise reduces** warmth load, turn **anti clockwise increases** warmth load).

The adjustment of the warmth load can be done according volume method, see flow chart.

The adjustment of the warmth load must be such that the burner in hot or cold, ignites properly.

For changing to liquid gas the small combustion nozzle (9) turn slightly against the stroke.

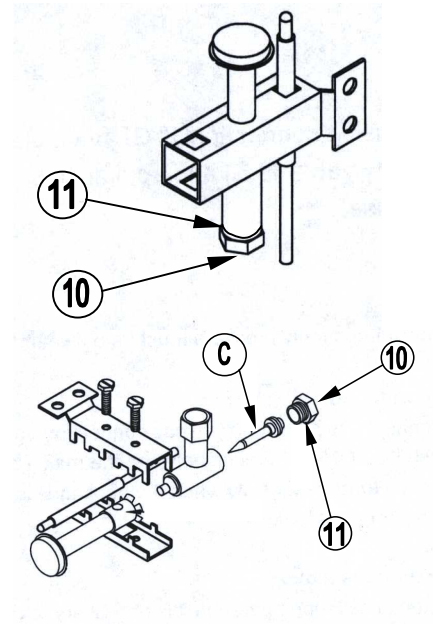
11. Pilot flame adjustment

The Pilot flame must be regulated for earthgas. This is done as follows:

Pilot flame ignite covering screw (10) with washer (11). Remove with small screw driver, nozzle (C) adjust that main burner ignites well. Turn **Uclockwise reduce** gas flow, **anti clockwise increases** gas quantity.

When operated with liquid gas, nozzle (C) turn clockwise towards stroke.

After regulating washer (11) and covering screw (10) fix gas tight.

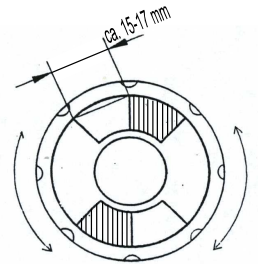
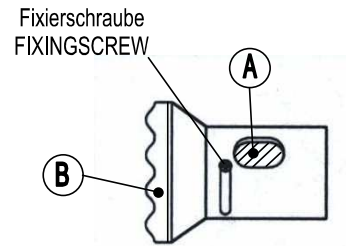


12. Primary air adjustment

The primary air is fixed and sealed by the producer according to the country of use and the gas type required. The adjustment is mentioned on the packing and the type shield.

If a gas change must be undertaken, the primary gas adjustment must follow the table below:

Gas type		Pressure mbar	Primary air opening	
			in the nut mother (B)	on the injector (A)
Earthgas H, E	G20	20	fully open	closed
Earthgas L, LL	G25	20/25	17 mm open	closed
Liquid gas	G30	50	15 mm open	closed
Liquid gas	G30	28 - 30/37	fully opened	fully open



If required only minor adjustment may be undertaken.

After fixing the primary adjustment, the nut mother and the fixing screw on the injector must be sealed with lacquer.

13. Tests

After a conversion the following requirements must be fulfilled:

- Nozzle diameter and pressure must be identical to the indication of the producer
- The tightness of all gas pipes and parts must be secure
- Ignition, through ignition, over ignition must be guaranteed for full combustion and small combustion operation
- The flame may not lift off nor beat back to the nozzles
- All burners, ignition and control arrangements must be checked for dirt, secureness and function
- The closing time of the thermo electric ignition control **may not exceed 60 seconds**

14. Sticker

After a conversion of a gas type has been carried out a new sticker must be placed on the appliance which shows clearly the new gas type and gas pressure.

PROBLEM SOLUTIONS

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N°	PROBLEM	CAUSE	REMEDY
1	Pilot flame does not ignite	- Gas pipe pilot flame not closed - Pilot flame clogged - Pilot flame head clogged - Pilot flame nozzle clogged	- Has the main gas pipe any gas? - Dismantle and clean (evt. exchange) - clean with steel brush (evt. dismantle and clean) - Pilot flame nozzle (C) replace
2	Burner flame is yellow	- Air regulation on nut required - Burner is dirty	- Air regulation opening on nut must be minimum 15 mm - Take out, take apart, clean
3	Burner does not burnt	- Gas cock is damaged	- control evt. exchange
4	Pilot flame burns, but after let loose the security armature, the flame does not stay	- Thermocouple dirty - Thermocouple does not produce voltage in millivolt - Thermocouple is loose - Thermocouple magnet on gas cock defective	- clean with fine steel brush - take apart and exchange - again screw into position - take apart and exchange