

# Service Manual

## For Built-in gas hob



### Warnings:

- This service manual is not available to the general users, but only applies to professional technicians with relevant qualifications. Any incorrect maintenance may result in other dangers!
- The power and gas supply must be cut off before maintenance!
- A new power cord which meets the relevant technical requirements must be used once possible hidden malfunctions are found with the current power cord (refer to this Manual)!
- Please read carefully all safety warnings in this Manual before maintenance!
- The product is prohibited from using until test is conducted as per relevant regulations after maintenance!
- This service manual applies to many models, so the specific operations please prevail in kind!

V3.0  
May, 2015

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## 1. Precaution

### 1.1. Safety Precaution

1. Do not modify this appliance. This appliance should be serviced by an authorized person.
2. All repairs should be done in accordance with the procedures described in this manual.
3. Before you begin, turn off the gas and electricity supply to the appliance. Remove remaining gas in product completely by igniting burner.
4. Be sure that all of built-in protective devices are replaced. Restore any missing protective shields.
5. Do not connect the gas and electricity supply before replacement complete.
6. Use replacement components that have the same ratings. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards
7. You must conduct a gas leakage test after receiving after-sales service in gas pipe and gas connector. Never touch any circuit wiring with your hand nor with uninsulated tool during operation.

### 1.2. Warning

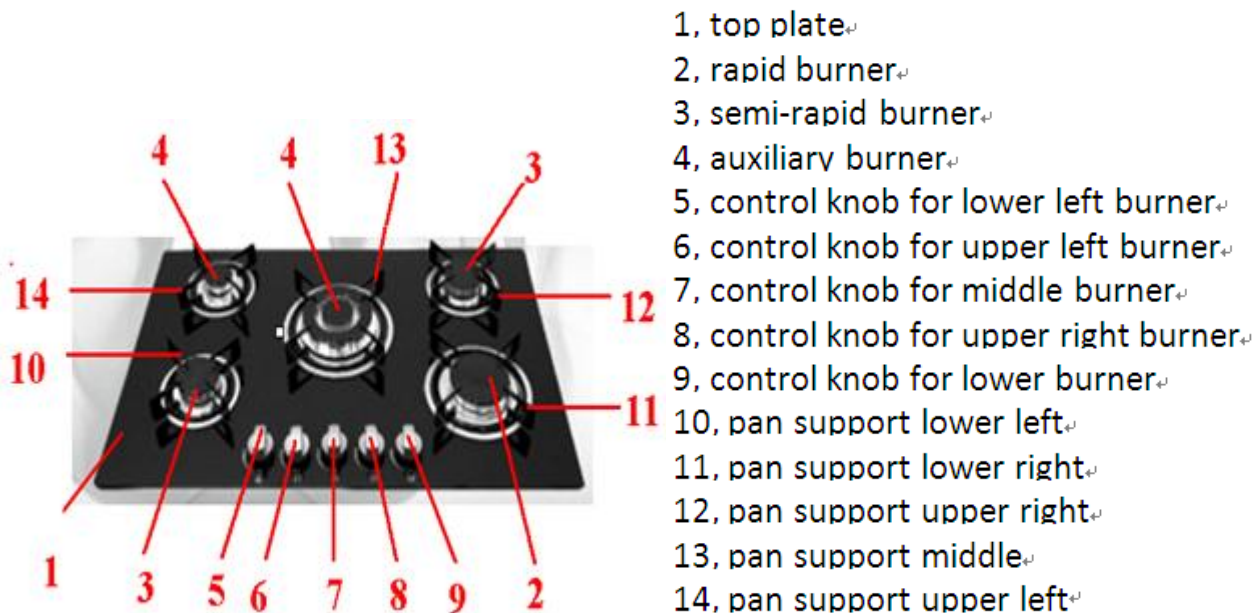


- 1. The power cord shall be replaced with the original power cord, specifications for an insulation power line which is no less than AWG8\*2 +AWG10\*1 and resists temperature of greater than 60°C.**
- 2. All apparatus within a radius of 50mm from this product must resist temperature of greater than 75 °C, otherwise, deformations are easily to be caused during the application process of this product.**
- 3. When the wrapping materials are removed, keep such materials like metal sheet, packing bag, foam and screws out of reach of children's reach to avoid potential dangers. For example, the children may suffocate as a result of swallowing tiny components or playing with packing bag.**

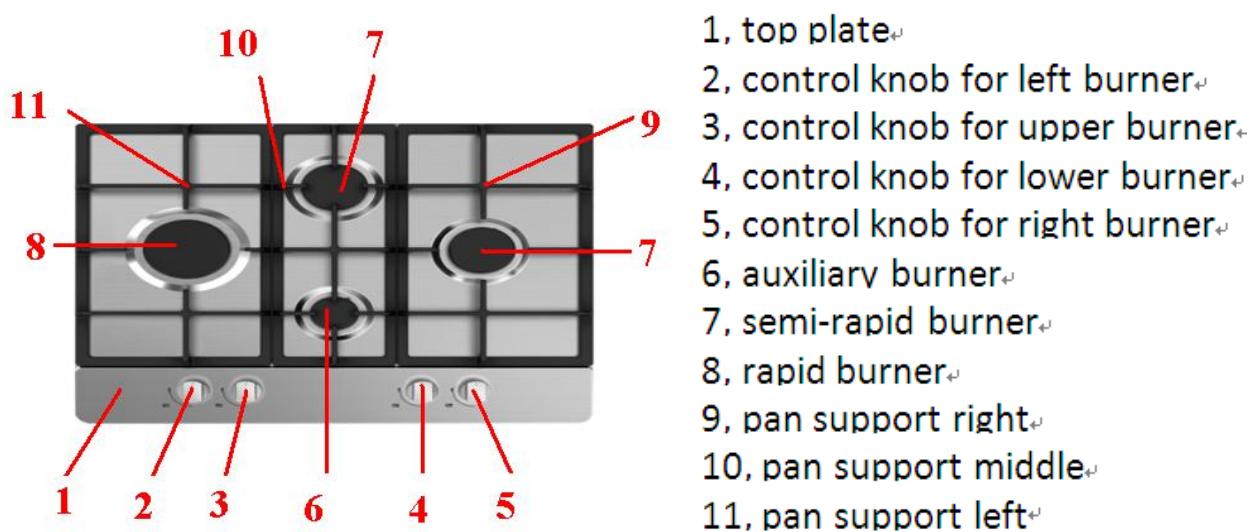
## 2. Description of the appliance

### 2.1. Features

Glass: 97I 72O G724/I ZZ



Stainless: 82I 62O G633/UZZ



## 2.2. Components and parts

### (1). Burner



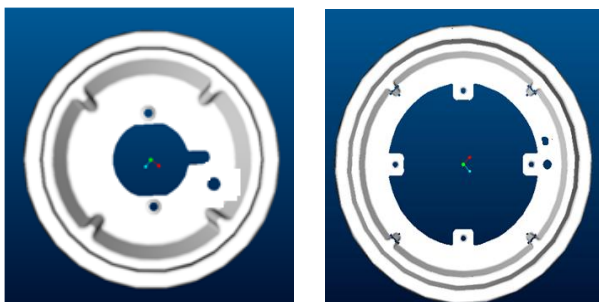
### (2) .Pan support



### (3). Knob

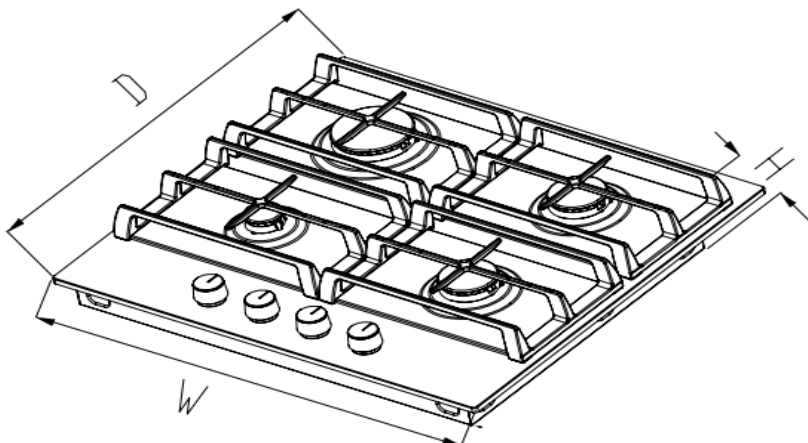


### (4) .Drip tray



### 3. Installation

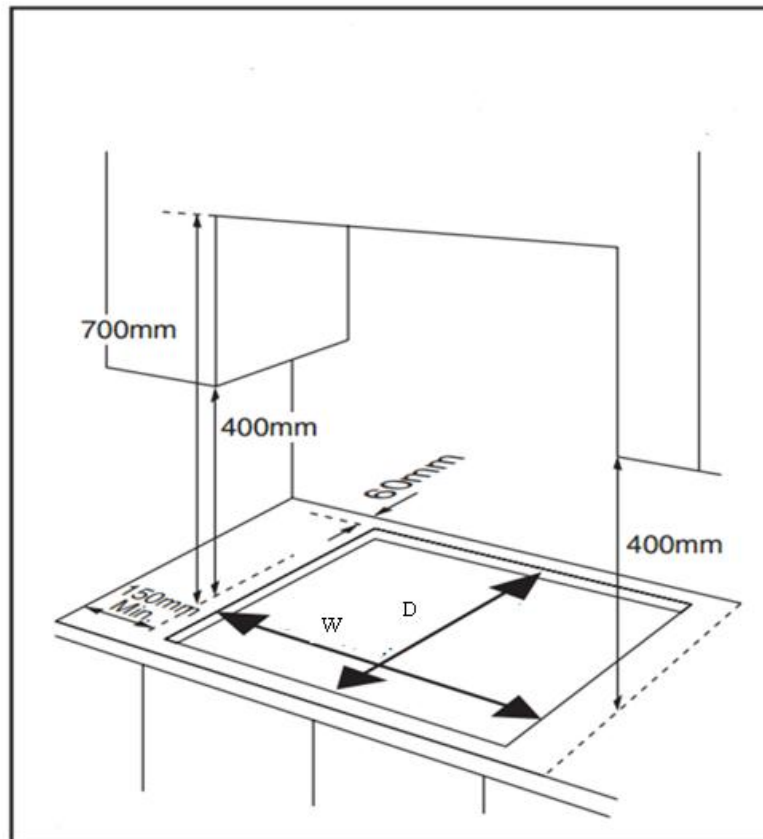
#### 3.1. Dimension



Model	W (mm)	H (mm)	D (mm)
60Gxxxxxxxx- xxx	600	110	510
70Gxxxxxxxx- xxx	705	110	510
75G50xxxxx- xxx	750	90	510
90Gxxxxxxxx- xxx	860	100	520

Note: Dimensions for reference only

## 3.2. Installation Dimension



**Cut out size:**

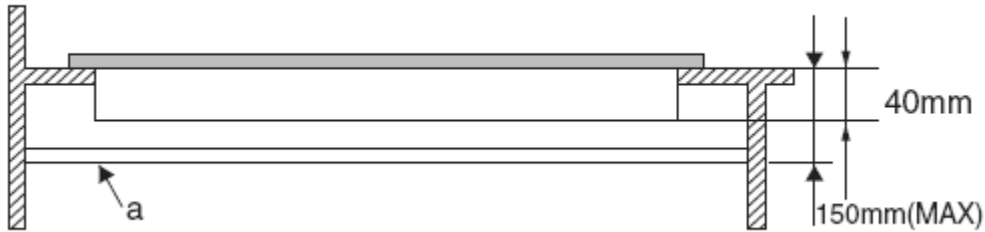
Model	W(mm)	D (mm)	T(mm)
60Gxxxx08x- xxx	553	473	30(min)
60Gxxxx4xx- xxx	553	473	30(min)
60Gxxxx006- xxx	580	490	30(min)
60Gxxxxxxx- xxx	560	490	30(min)
70Gxxxxxxx- xxx	560	490	30(min)
75G50xxxxx- xxx	730	490	30(min)
90Gxxxxxxx xxx	850	490	30(min)

**Note: Dimensions for reference only**



This appliance is to be built into a kitchen unit or worktop of right size, providing the following minimum distances are allowed;

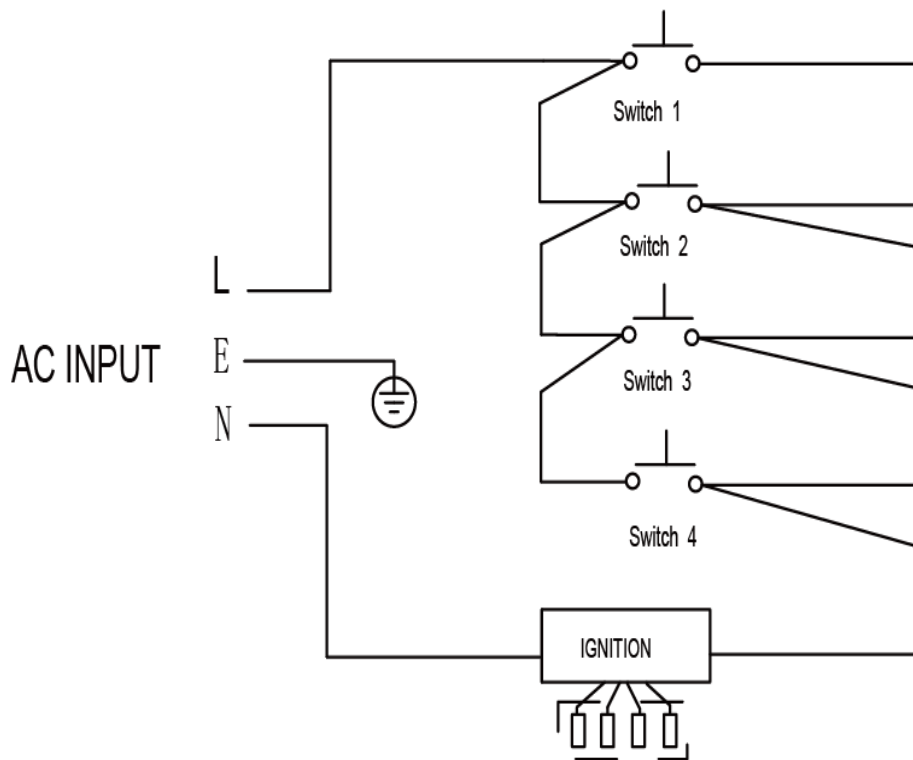
- The edge of the appliance must be a minimum distance of 55mm from a rear wall.
- A minimum distance of 150mm must be left between the side edges of the appliance and any adjacent cabinets or walls.
- The minimum distance combustible material can be fitted above the appliance in line with the edges of the appliance is 400mm.
- The minimum distance combustible material can be fitted directly above the appliance is 700mm.



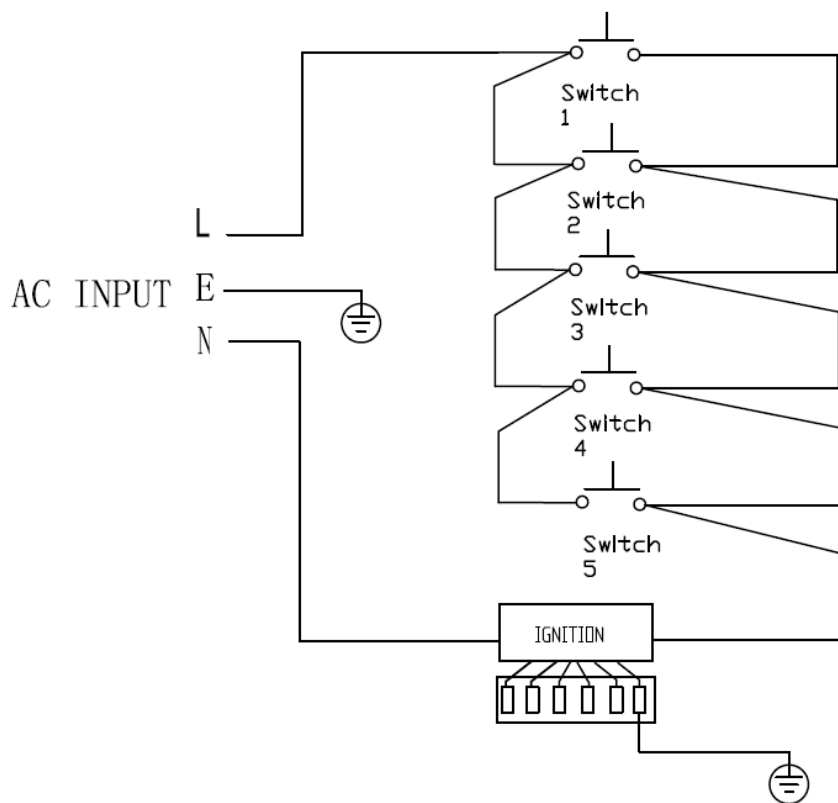
- This panel (a) must be positioned at a maximum distance of 150mm below the worktop.
- Gas pipe or connector shouldn't be bent or blocked by any other appliances
- You must conduct a gas leakage test after installation over gas connection and gas pipe.
  - An oven must have forced ventilation to install a hob above it.
  - Check the dimensions of the oven in the installation manual.
  - The cut out size must obey the indication.

## 4. Electric Diagram

### a. Four burners model



### b. Five burners model



## 5. Reassembly and Disassembly

### 5.1. Safety precautions



#### WARNING

Turn off power for safety and appliance protection.

Close middle valve to prevent gas leakage

Keep away from inflammable materials around appliance.

Before work, put on gloves.







#### CAUTION

Cool off the appliance for a while right after using appliance for your safety because you can get burners by high temperature from the appliances.

### 5.2. Tools

Most of the tools that you might need are shown below. Some are optional.

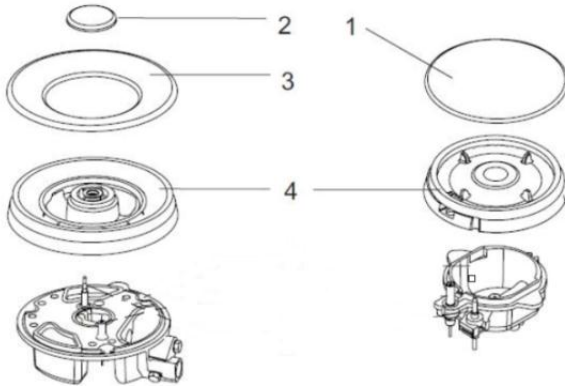
Item	How to use	Pictures
Screw driver	Use for assembly and disassembly of all screws	
Tubing Wrench	Use for assembly and disassembly of tubing to the burner cup	
7mm Vox Driver	Use for assembly and disassembly of injector nozzles.	
7mm spanner	Use for assembly and disassembly of injector nozzles. (Triple burner)	

## 5.3 Disassembly

### 5.3.1. Disassemble the Top Plate

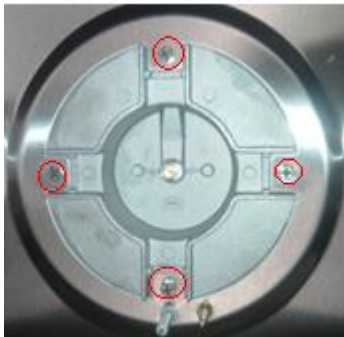
#### Step 1: Remove parts on the Top Plate

- a. Remove parts on the top plate: Burner lids, Flame spreaders, Control handles
- b. When disassembling, keep parts safe, do not drop them to the appliance.



#### Step 2: Disassemble of Screws on the Top Plate

- a. Remove the screws of the burner
- b. In some versions, remove screws on the side of bottom plate.
- c. Be careful in order not to damage screw heads when disassembling.
- d. Be careful not to damage the top plate.



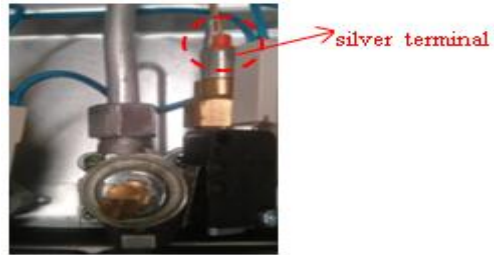
#### Step 3: Detachment of the Top Plate

- a. Separate the top plate. (In case of stainless steel model, take off the sponge.)
- b. During assembly, be careful in order not to give physical impact on parts such as ignition devices, flame supervision devices..



### 5.3.2. Disassemble the Thermocouple

- Step 1: Unscrew the nut out.
- Step 2: Pull the silver terminal of Thermocouple
- Step 3: When reassembling, replace parts correctly

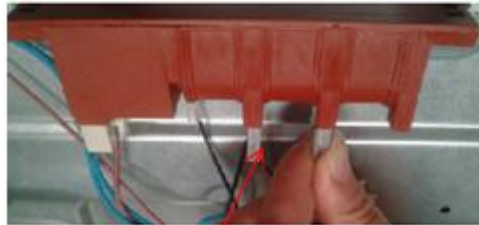


### 5.3.3. Disassemble of the Ignition Pin

- Step 1: Pull the washer and take off ignition pin
- Step 2: Pull the housing of Ignition pin out of the igniter.
- Step 3: When reassembling, replace parts correctly.



snap spring



ignition

### 5.3.4. Disassemble of the Microswitch Harness

- Step 1: Before you disassemble the harness, take off the plastic e – ring.
- Step 2: When you take off the micro switch harness , please be careful not to break the hook.
- Step 3: When you reassemble the harness, replace it correctly.
- Step 4: Detach the wire from the power cord assembly harness.
- Step 5: Hold housing of the wire by hand and pull it out of the igniter



e - ring



Hook

### 5.3.5. Disassemble of the Gas Pipe

- Step 1: Unscrew the nuts out. at both ends of the pipes
- Step 2: Pull the pipes



### 5.3.6. Disassemble of the Bottom Cup

- Step 1: Remove all screws on the bottom cup
- Step 2: Detach the bottom cup from the base box burner



### 5.3.7. Disassemble of the Power Cord Assembly

- Step 1 . Detach the wire from the Microswitch Harness.
- Step 2 . Hold housing of the wire by hand and pull it out of the igniter.
- Step 3. For power cord grounding, you must use grounding screw attached with washer.
- Step 4 . Remove 2 screws and detach the power cord ass'y set



**Microswitch  
Harness**



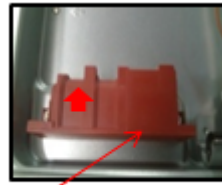
**Igniter**



**Power cord ass'y**

### 5.3.8. Disassemble of the igniter

- Step1. Remove 2 screws
- Step2. Detach the igniter from the base box burner.

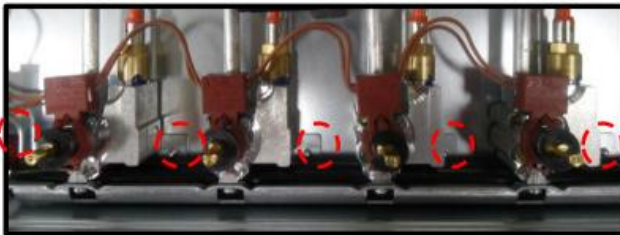


Igniter

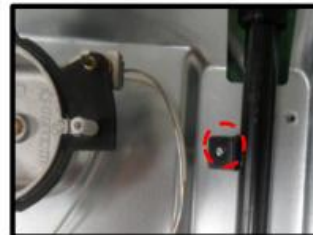
### 5.3.9. Disassemble of the Valve & Manifold Pipe Assembly

- Step 1. Remove 5 screws
- Step 2. Remove the screw to take off pipe assy.
- Step 3. Remove 2 screws and detach the valve from the manifold pipe assembly
- Step 4. You must check the gasket when you disassemble or assemble.
- Step 5. If you have faulty one, replace it with new one.
- Step 6. Conduct a leakage test after reassembling.

(a)



(b)

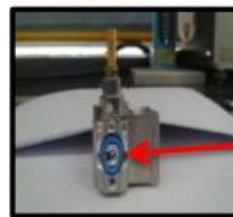


(c)



screws

(d)



gasket



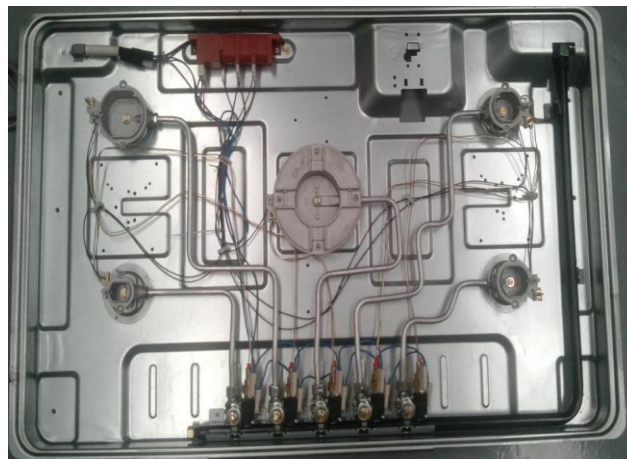
### 5.3.10. Disasmble of the Gas Connection

- Step 1. When you disassemble/assemble gas connection, use 2 spanners. One for fixing gas connection elbow, the other for tightening gas hose.
- Step 2. Tighten enough to prevent gas leakage.
- Step 3. Once you're done, conduct leakage test



### 5.3.11. Disassemble of the bottom plate

- Step 1. Separate casing on sink.
- Step 2. Detach the appliance as checking the status of the gas connection and the power cord assembly set.





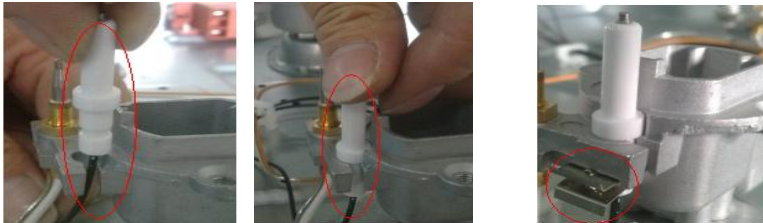
## 5.4. Reassembly

### 5.4.1. Reassemble of the Ignition Pin

Step 1. Pull the line of the ignition pin in to the hole on bottom cup along the gap on bottom cup

Step 2. Push ignition pin to adjust the position

Step 3. ~~Klemm~~ ignition pin with snap spring to ~~fox~~ the ignition pin.



### 5.4.2. Reassemble of the Thermocouple

Step 1. Insert thermocouple into the the relevant hole of the bottom cup from bottom to top.

Step 2. Adjust position of the thermocouple in the hole of the bottom cup.

Step 3. screw up the nut to fix the thermocouple.



### 5.4.3. Reassemble of the Gas Pipe

Step 1. Insert the head of the gas pipe into installation parts of the bottom cup or the valve

Step 2. Screw up the nut of the joint with spanner

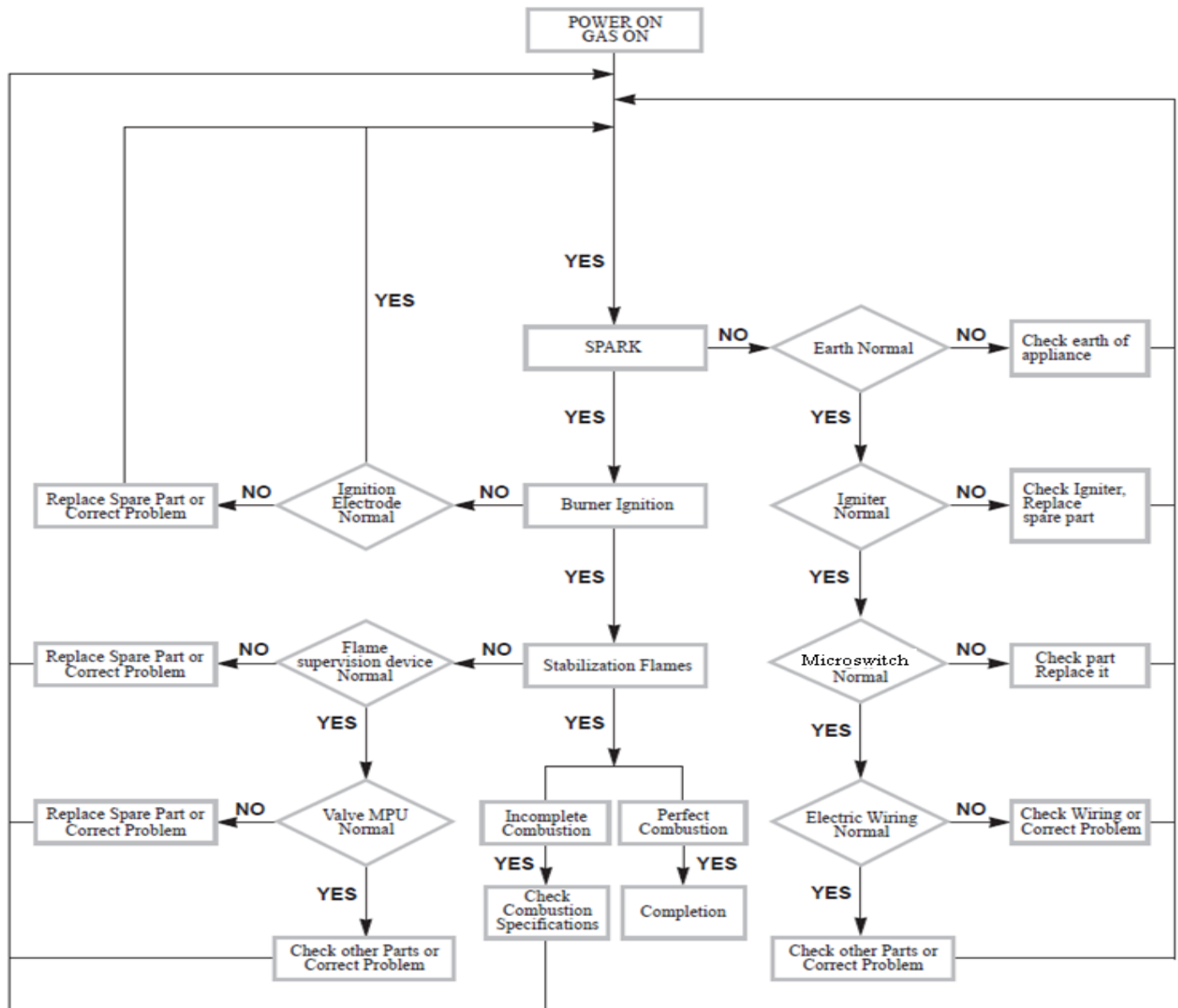


### 5.4.4. Check Point after assembly

- At completion of the appliance repair, assemble after removing tools inside of the appliance.
- You must conduct a leakage test after repairing.(refer to the leakage test on 5.3)**
- If ignition does not work, repeat ignition several times so that you can remove remaining air in the gas connection
- Check combustion status by conducting aging

## 6. Troubleshooting

### 6.1. Troubleshooting



## 6.2. Problems and Corrective Measures

Problem	Symptom	Probable cause	Solution
Ignition	Not ignited	The ignition Electrode is badly assembled	Assemble the Ignition Electrode correctly
		No Spark	Assemble the micro switch correctly
			Put a plug into the outlet
			Check the power code and the Ignition Electrode are connected with igniter correctly
		The Ignition Electrode is peeled off	Insulate the Ignition Electrode with a rubber tube or tap
		The middle valve is closed	Open the middle valve completely
		The igniter is faulty	Replace igniter by a new one after checking above solutions
		Remaining air in the gas connection	Repeat ignition several times
	Badly ignited	Nozzle hole is clogged	Clean the nozzle
		The Ignition Electrode is wet	Dry the Ignition Electrode carefully
		The burner lid is badly assembled	Assemble the lid correctly
		The Ignition Electrode is contaminated with alien substance	Wipe such alien substance with dried clothing
		The Ignition Electrode Body is broken	Replace the Ignition Electrode by a new one
		The burners are wet	Dry the burner lids carefully
		The hole in the flame spreader are clogged	Clean the flame spreader
Ignition Incomplete combustion	Fire off as soon as you release the control knob	The flame supervision device is badly assembled	Connect the flame supervision device with the valve correctly
			Connect the flame supervision device with the burner correctly
	Flames go out	There are draughts near the appliance	Avoid any severe draughts in the room
	Fire off while using	The flame supervision device is contaminated with alien substance	Clean or replace the flame supervise device
		Gas is not supplied	Check if the gas cylinder is empty
		The valve MPU is faulty	Replace the valve by a new one
		The sealing rings have come out of correct place	Assemble the sealing ring correctly

Problem	Symptom	Probable cause	Solution
Incomplete combustion	Noise made when combusted and ignited	The burner lid is badly assembled	Assemble the burner lid correctly
	Yellow Flame	The holes in the flame spreader are clogged	Clean the flame spreader
		Different gas is used	Check the gas used
	Unstable Flame	The burner lid is badly assembled	Assemble the burner lid correctly
		Different injector is used	Use the injector corresponding to the gas
		Gas supply is poor	Check you have enough gas
	Lifting	The burner lid is badly assembled	Assemble the burner lid correctly
		The gas pressure is too high	Adjust it to the normal pressure
	Back burn	The gas pressure is too low	Adjust it to the normal pressure
		Different gas is used	Check the gas used
Gas leakage	Gas smell	A gas tap has been left on	Check to see if any gas taps are on
		There may be a leak between the coupling and the gas bottle	Make sure that the connection is airtight
		A Tube is reassembled without O-ring	Be careful not to damage or loss of O-ring
		The valve is connected badly with Main gas tube	Assemble correctly
		Any gas connection part(tube, Main gas tube ,etc)are broken	Replace the broken part by a new one

**Note!**

- 1 Check the ground wire before the fault is detected;
- 2 Enough attention must be given to high voltage circuit.

## 6.3. Maintenance and test

### Air leakage test

Tool: Air leakage device, soapy water

1. Professional repair procedures

- a) Connect product to the air leakage device and set the test pressure at 15kPa;
  - b) The plug valve shall be kept closed and the gas pipelines may be tested its leakage through air leakage device;
  - c) All plug valves shall be kept open, block the injectors at the burner, the flame-out protection valve shall be kept open and the gas pipelines may be tested their leakage through air leakage device.
- The maximum leakage must be controlled below 0.5mL/min as required in the test.



2. Simple procedures:

- a) Connect the product to the gas source being used;
- b) Smear soapy water at each joint of the product gas pipelines, the plug valve is kept closed, check visually each joint for air bubbles;
- c) Smear soapy water at each joint of product gas pipelines, all plug valves shall be kept open, block the injectors at the burner, the flame-out protection device valve shall be kept open and check visually for any air bubbles.

No air bubbles shall be detected at each joint as required in the test.

**Note:** Any component of the product gas pipelines shall not be disassembled or replaced only if the air leakage is proved in conformity with relevant requirements.

## 7. Gas Conversion

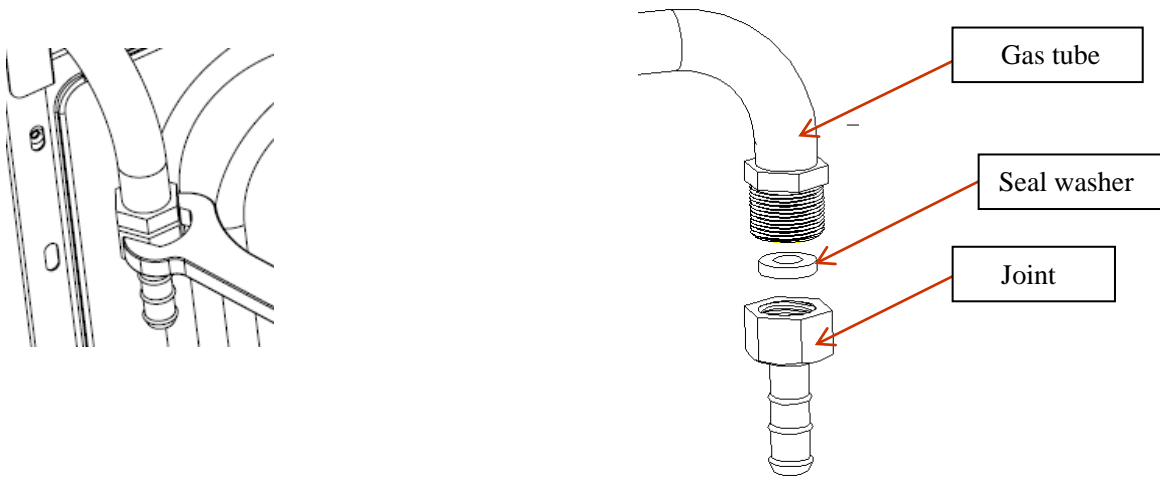
All work must be carried out by a qualified technician,  
Before you begin, turn off the gas and electricity supply to the appliance.

### 7.1. Replacement of gas-type fitting

Tool: Open-end wrench

Steps for operation:

- Disassemble with a wrench the gas-type fittings from main gas tube.
- Lock tightly a replaceable gas-type fitting onto the main gas tube.

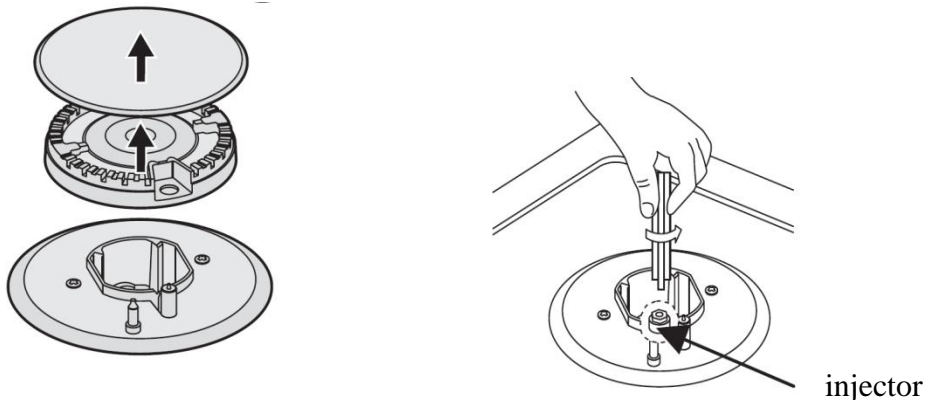


### 7.2. Replacement of the injector of the burners

Tool: 7mm box spanner

Steps for operation:

- Remove the pan support, burner lid and flame spreader.
  - Unscrew the injector with a 7 mm box spanner and replace it with the stipulated injector for new gas supply.(see the following table)
  - Carefully reassemble all the components.
- After injectors are replaced ,it is advisable to tighten the injector in place. strongly.



## Comparison list for injector replacement

Nominal heat input and rates see below at 15°C at 1013mbar

COUNTRY	TYPE OF GAS	BURNER	Triple-Crown (SABAF 3.6kW)		Triple-Crown (SBT 3.3kW)		Rapid (3.0kW)		Semi-rapid (1.75kW)		Auxiliary (1.0kW)	
		POSITION	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
GB, IT, FR, HU, BE, LT, NL, PT, ES, CZ, SK, RU, KZ, UKR	G30 BUTANE 29 mbar	Injector make (1/100mm)	96		93		85		65		50	
		Nominal heat input (kW) (Hs)	3.60	2.10	3.30	2.10	3.00	1.00	1.75	0.65	1.00	0.41
		Nominal flow rates (g/h)	253	147	232	147	211	70	120	45	71	29
GB, IT, FR, HU, BE, LT, NL, PT, ES, CZ, SK	G31 PROPANE 37 mbar	Injector make (1/100mm)	96		93		85		65		50	
		Nominal heat input (kW) (Hs)	3.60	2.10	3.30	2.10	3.00	1.00	1.75	0.65	1.00	0.41
		Nominal flow rates (g/h)	240	140	221	140	199	66	118	44	68	27
DE, NL	G30 BUTANE 50 mbar	Injector make (1/100mm)	76		76		75		58		43	
		Nominal heat input (kW) (Hs)	3.60	2.10	3.30	2.10	3.00	1.00	1.75	0.65	1.00	0.41
		Nominal flow rates (g/h)	253	147	232	147	211	70	120	45	71	29
GB, IT, FR, HU, BE, LT, NL, PT, ES, CZ, SK, DE, PL, NL	G20 NATURAL 20 mbar	Injector make (1/100mm)	130		128		130		97		72	
		Nominal heat input (kW) (Hs)	3.60	2.10	3.30	2.10	3.00	1.00	1.75	0.65	1.00	0.41
		Nominal flow rates (g/h)	342	199	313	199	271	90	166	62	91	39
NL	G25 NATURAL 25 mbar	Injector make (1/100mm)	140		140		122		95		70	
		Nominal heat input (kW) (Hs)	3.60	2.10	3.30	2.10	3.00	1.00	1.75	0.65	1.00	0.41
		Nominal flow rates (g/h)	398	232	366	232	332	110	193	72	110	45

注:

GB: United Kingdom  
 IT : Italy  
 FR: France  
 HU: Hungary  
 BE: Belgium  
 LT : Lithuania  
 NL : Netherlands  
 UKR: Ukraine  
 TR: Turkish

PT: Portugal  
 ES: Spain  
 CZ: Czech Republic  
 SK: Slovakia  
 DE: Germany  
 PL: Poland  
 RU: Russian  
 KZ: Kazakhstan



## 8. Appendix

### Technical & quality requirements for Built-in gas hob

- a) Use of natural gas burner when the burner works 10 minutes in rated power, turn it to little fire and keep 60 seconds, reduce the gas pressure to 1400pa, the fire shouldn't extinct.
- b) Neither flame off nor back burning should appear when the flame is in the fire hole of burner.
- c) There should be no cracks and graze in the glass components and china components, besides the fringe of them.
- d) In Rated gas\rated gas pressure, ignite the burner, test the time from ignition to burner working stably, it should not be more than 5 seconds.
- e) In Rated gas\rated gas pressure, after the burner working for 15 minutes, turn off the plug valve, then test the time during turning off plug valve and flame-out protection device shutting down, it should be less than 90 seconds.
- f) Every burner should be test ignition , fuse transferring time\ flame stabilization, ignition\ fuse transferring time should be less than 5 seconds. Flame-out will be allowed in 5 seconds after ignition, but flame should be stable in 1 minute.
- g) If it may cause security problems after corrosion, electric current and other mental parts should be corrosion resistance under the normal conditions of use. Live parts and heat insulator should be prevented to contact with each other unless the heat insulator is corrosion resistance , non-hygroscopic and flame-retardant.
- h) The shaft of Knob, handle ,control stick and other similar parts should be electrically neutral unless the shaft is out of the reach when the other parts are taken down.
- i) The clamp device of ground terminal should be tight enough to avoid accidental loosening. The wire length from power cord block terminal or cord fixing device to block terminal should be appropriate .If the flexible cord slips off from the cord block terminal, current carrying conductor should tighten firstly compared with earth conductor.
- j) Phenomenon that may reflect cooking appliance performance should not appear of the pan support in normal use.
- k) Gas tightness should be accord with standard request after the gas connection was disassembled five times.