

# Full Gas Range Service Manual (Thermostatic Valve)

Last Update 03 Oct 2022

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**Note:** When servicing the RANGE, health and safety issues must be considered at all times. Specific safety issues are listed below with their appropriate icon. These are illustrated throughout the service information to remind service people of the health and safety issues

### 1.1.1 Electrical Safety



WARNING! TO AVOID ELECTRIC SHOCK! Do not attempt to service this oven without suitable training and qualifications.

Ensure the main power has been disconnected before servicing any part of the oven. If the power is required to be on for electrical fault finding, then **extreme** care should be taken not to make contact with electrical components other than with testing probes. Ensure the oven is turned off when removing any electrical component or connection.

#### 1.1.2 Electrostatic Discharge



### An anti-static strap is to be used as electrical static discharge (ESD) protection when servicing

electronic components.



### Good Working Practices

Ensure the work areas are kept tidy and free of hazards while servicing the oven. On completion of the servicing, ensure the oven and work areas are left clean and tidy.



### Insulation Test

Megger test to check insulation.



### 1.1.5 Sheet Metal Edges

When working around cut sheet metal edges use appropriate gloves or protection to eliminate the chance of receiving a laceration.

### 1.1.6 Gas safety

before servicing any part of the RANGE, shut –off the gas supply by closing the manual shut-off valve. When checking gas functionality, ensure the correct pressure and adjustment for the gas used. Carefully, never reuse old connector or gasket. leakage must be checked with a non corrosive leak detection fluid.

**IMPORTANT:** All connections must be wrench-tightened. Do not make connections to the gas regulator too tight. Making the connection too tight may crack the regulator and cause a gas leak. Do not allow the regulator to turn on the pipe when tightening fittings.





### 1.2.1 Tools

- 7.5V Power Screw/Nut Driver Recommended
- 3" socket extension bar
- Socket SET
- Flexible shaft socket extension
- #1 and #2 Short Phillips Screw driver
- Digital power meter (Voltage Current)
- Static strap
- Nipper
- Pliers
- Wrenches set

### 1.2.2 Materials

- Gas leak detector
- Insulating Tape
- Pipe gas seal
- Pipe gas gasket

### 2.1.1 Weight

Full GAS 30"	Full	GAS	36"
--------------	------	-----	-----

11	/1 /	070405	
IDS	/Kg	=2/6/125	

lbs /Kg =322/146

### 2.1.2 Power rating

TECHNICAL DATA					
	Electrical Ratings and Maximum Connected Load				
MODEL	@ 120 Volts 60Hz				
	Amperes	W			
ALL	1,7	200			

### 2.1.3 Gas Requirement

NATURAL GAS	WC
Supply Pressure	5" (12.5 mb)
Min Line Pressure	6" (15 mb)
Max Regulator Pressure	14" (34.9 mb) .5 psi (3.5 kPa)
LP GAS	WC
Supply Pressure	10" (25 mb)
Min Line Pressure	11" (27.4 mb)
Max Regulator Pressure	14" (34.9 mb) .5 psi (3.5 kPa)

2.1.4	Cooktop Burners output ratings: btu/hr						
		NG (Natural) Gas, 5" W.C.P	LP (Propane) Gas, 10" W.C.P.				
ALL COC BURNER	OKTOP DUAL 2S 30" & 36"	750 to 18000 or 20000 Btu/h (280 to 5300W or 5860W)	750 to 15000 Btu/h (280 to 4400W)				

2.1.5	<b>Oven Burners</b>	output ratings: btu/hr		
		NG (Natural) Gas, 5" W.C.P	LP (Propane) Gas, 10" W.C.P.	
MODE	EL 30"			
BROIL		14000 Btu/h (4100W)	13000 Btu/h (3800W)	
OVEN		18000 Btu/h (5300W)	16000 Btu/h (4700W)	
MODE	EL 36"			
BROIL		18000 Btu/h (5300W)	17000 Btu/h (5000W)	
OVEN		21500 Btu/h (6300W)	21500 Btu/h (6300W)	

### 2.2.1 Location

The product serial number plate is located on the left side profile trim.



### 2.2.2 Model & Serial Number

The numbers printed on the plate contains the following information:

- Model
- Serial Number
- Electrical ratings

# **Components Specifications**

2.3.1	Motors	Volts	Freq.	Watts	Note
	Convection Fan	120	60	45	
	Cooling Fan	120	60	29	

B Electric and Gas Components	Volts	A	Watts	Note
Gas Control System	120			60Hz
Lamp	120		25	
Door Lock Switch	250	16		
Safety Thermostats	250	16		
Cooling Fan Thermostat	250	16		
Gas Valve - Switches for ignition	250	0.1		
Cooktop Reigniter	120			60Hz or 50/60Hz
Oven Igniter	120/240			50/60Hz



- OVEN GAS. The oven is provided of 2 burners:
  - Grill burner
  - Oven (Bake) burner adjusted by a thermostat.
- **OVEN GAS CONTROL**. The oven GAS control consists in an electronic device designed for the automatic ignition of gas burners equipped with a thermoelectric safety device.
- **CONVECTION FAN.** It makes the heat distribution uniform, inside the cavity. According to the oven model, each cavity can be provided with 0, 1 or 2 fans.
- **COOLING FAN SYSTEM.** A cooling fan keeps the internal parts temperature within acceptable values. There are several by-pass thermostats that when the temperature overtakes the threshold, switching the cooling fan on.
- **OVEN LIGHTS.** Halogen 120V lamps. They turn on when a cooking mode starts or when the door is open. It's also possible to switch the lights on manually by the selector.
- **GAS COOKTOP.** The cooktop is provided of 4 or 6 burners monitored by a reignition system.



The appliances and its individual gas shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in excess of ½ psi (3,5kPa). When checking appliance regulator function, make certain pressure of natural gas supply is between 6 and 14 inches of water column or, if converted for LP gas between 11 and 14 inches. The pressure test should be performed by means of the injector thread zone.





Pressure test method:

- Remove grate and burner cap
- Remove aluminium gas spreader
- Temporarily remove the injectors
- Connect the pressure Test instrument into injector holder thread zone(M6x0,75)
- check if the cooktop has the correct pressure
- Fix the injector removed for test and replace the parts in right position.



### Replacement of burner orifice & low setting

### 2.6.1 Minimum setting or turn down

This appliance is shipped from the factory with low and medium flame settings adjusted. If further adjustment is necessary, proceed as follows: To adjust for minimum setting, if needed, you will need a 7/64" (2.5mm) x 1 3/4" (45mm) diameter screwdriver.

#### Adjustment for Cooktop Burners:

- 1. Light burner and set control knob for low flame.
- 2. Remove control knob from valve stem.
- 3. Insert a slender, thin-blade screwdriver into the recess at centre of valve stem and engage blade with slot in adjusting screw.
- 4. Turn center stem adjusting screw to set flame size:
- clockwise to reduce
- counterclockwise to increase
  - 5. Replace control knob when adjustment is completed.

#### Adjustment for Lower Oven Burner:

- 1. Light burner and set control knob for low flame.
- 2. Remove control knob from valve stem. Conversion from natural gas to liquid gas
- 3. insert the screwdriver in the hole in the front wall of the instrument panel and turn regulation screw A clockwise for conversion from liquid gas to natural gas
- 4. Light the oven with thermostat set to 250 °C for at least 10-15 minutes.

Then, turn the thermostat to the minimum position and turn the bypass screw A counterclockwise until you see a reduced by stable flame.

NOTE: Check that the flame does not go out when the door of the oven is opened and closed repeatedly.

- If the flame goes out, slight increase the minimum regulation setting.
  - 5. Replace control knob when adjustment is completed.



### 2.6.2 Conversion to different gas type

This appliance is designed for use with NG gas or LP gas. The gas pressure regulator is supplied with this appliance,

It must be installed in the gas way ahead of manifold entrance. It is pre-set for use with the gas supplied with the appliance. For use with different gas the pressure regulator must be converted.

For the Pressure regulator conversion following the below instructions:

- Unscrew the regulator cap Unscrew the plastic conversion plug from the cap turn over and screw back (wide section away from cap for LP and against cap for NG) see figures below
- Replace the regulator the cap
- Test gas pressure (test point provision on side of regulator). When converting the regulator for different settings, the function of the regulator must be checked at a pressure at least 1"WC (249Pa) above the specified manifold pressure.





PRESSURE REGULATOR

### 2.6.3 Replace injectors on (two rings flame burner)

If this appliance should be converted for use with gas **LP (propane or butane)** or **NG (natural gas)**. Each of the following modification must be performed:

- 1. Remove the grates and burner cups.
- 2. Remove aluminum gas spreader.
- 3. Remove the three screws of simmer gas spreader (1).
- 4. Remove the two screws of injector cover (2).
- 5. Loosen injector (A) by turning 9-32" nut driver counter clockwise.
- 6. Loosen injector (B) by turning 9-32" box wrench counter clockwise.
- 7. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see table below).
- 8. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs).
- 9. Replace all parts following the reverse order.





### 2.6.3b Replace injectors on (one ring flame or burners)

If this appliance should be converted for use with gas **LP (propane or butane)** or **NG (natural gas)**. Each of the following modification must be performed:

- 1. Remove the grates and burner cups.
- 2. Remove aluminum gas spreader.
- 3. Loosen injector by turning 9-32" (7 mm) nut driver counter clockwise.
- 4. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see table below).
- 5. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs).
- 6. Replace all parts following the reverse order.





### 2.6.4 Replace injector on (oven lower burner)

If this appliance should be converted for use with gas **LP (propane or butane)** or **NG (natural gas)**. Each of the following modification must be performed:

- 1. Remove the burner cover plate.
- 2. Disconnect both heat sensor and the ignition spark plug.
- 3. Remove the screw securing the oven burner and withdraw the burner from the support.
- 4. Remove the nozzle by turning 9-32" nut driver counter clockwise.
- 5. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see figure of the paragraph "Injectors position").
- 6. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs).
- 7. Replace all parts following the reverse order.









### 2.6.5 Replace injector on (oven grill burner)

If this appliance should be converted for use with gas **LP (propane or butane)** or **NG (natural gas)**. Each of the following modification must be performed:

- 1. Remove the door as described in the paragraph "Door removal"
- 2. Remove the screws securing the grill burner and withdraw the burner from the support.
- 3. Remove the nozzle by turning 9-32" nut driver counter clockwise.
- 4. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see figure of the paragraph "Injectors position").
- 5. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs)
- 6. Replace all parts following the reverse order paying attention to the correct placement of the burner.







### 2.6.6 Injectors position NG (2 Dual Flame + 2 Rapid Burners)

NG 30"





### 2.6.7 Injectors position LP (2 Dual Flame + 2 Rapid Burners) LP 30"

### 2.6.8 Injectors position NG (All Dual Flame Burners)

NG 30"



### 2.6.9 Injectors position LP (All Dual Flame Burners) LP 30"



LP 36"





#### 2.7.1 Oven Safety Thermostat

The function of the safety thermostat is to protect the of the appliance from overheating in the event of a malfunction of the cooling fan.

Description: In the regular cooking mode when the read temperature at the surface of the metal sheet is under limit the power is energizing the electronics and the heating elements as well.

In the event that the temperature is rising over the limit, the thermostat will switch mechanically from off position to on position and all of the oven burners will be cut off from the gas supply.

#### 2.7.2 Cooling fan Thermostat

All Full gas ranges are provided with one or more cooling thermostats to protect the whole appliance from overheating in the event all burners are set at the maximum power or for a long period. Description: In the event that the temperature is rising over the limit, the thermostat will switch mechanically from1 open to close position and the cooling fan will be switch ON.

NATURAL

LPG

11" 10"

### 2.8.1 RANGE 30" (2 Dual Flame + 2 Rapid Burners)

SUPPLY 6"						
<b>BURNERS</b> cor	nfiguration				MANIFOLD 5"	
	Pos	Gas	INPUT RATE Btu/hr	ORIFICE SIZE (1/100) mm	BY-PASS ORIFICE SIZE	
Single crown	1	NG RAPID	12000 or 15000	163 or 180	Adj.(*)	
Double crowns	2	NG SIMMER	750	72	Adj.(*)	
Double crowits	2	NG MAIN FLAME	18000	180	Adj.(*)	
Single crown	3	NG RAPID	12000 or 15000	163 or 180	Adj.(*)	
Double growne	4	NG SIMMER	750	72	Adj.(*)	
Double crowns		NG MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)	
		BROIL	14000	175	Adj.(*)	
OVEN BOILINEIRS		OVEN	18000	210	Adj.(*)	
Single crown	1	LP RAPID	12000 or 15000	94 or 105	48 1/100mm	
Double groups	•	LP SIMMER	750	50	30 1/100mm	
Double crowns	2	LP MAIN FLAME	18000	105	58 1/100mm	
Single crown	3	LP RAPID	12000 or 15000	94 or 105	48 1/100mm	
Double groups	4	LP SIMMER	750	50	30 1/100mm	
Double crowns	4	LP MAIN FLAME	18000	105	58 1/100mm	
		BROIL	13000	110	NA	
OVEN BURNERS		OVEN	16000	125	60 1/100mm	

(\*): Adjusted in factory - When converted to LP - by-pass are screwed tight



### 2.8.2 RANGE 36" (2 Dual Flame + 2 Rapid Burners)

	NATURAL	LPG
SUPPLY	6"	11"
MANIFOLD	5"	10"

### **BURNERS** configuration:

	Pos	Gas	INPUT RATE Btu/hr	SIZE (1/100) mm	BY-PASS ORIFICE SIZE
Double crowns	1	NG SIMMER	750	72	Adj.(*)
		NG MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)
Single crown	2	NG RAPID	12000 or 15000	163 or 180	Adj.(*)
Double crowns	2	NG SIMMER	750	72	Adj.(*)
	J	NG MAIN FLAME	18000	180	Adj.(*)
Single crown	4	NG RAPID	12000 or 15000	163 or 180	Adj.(*)
Single crown	5	NG RAPID	12000 or 15000	163 or 180	Adj.(*)
Double crowns	6	NG SIMMER	750	72	Adj.(*)
		NG MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)
OVEN BURNERS	BROIL		18000	200	Adj.(*)
OVENDORMERO		OVEN	21500	230	Adj.(*)
Double crowns	1	LP SIMMER	750	50	30 1/100mm
Double crowing		LP MAIN FLAME	15000	105	58 1/100mm
Single crown	2	LP RAPID	12000 or 15000	94 or 105	48 1/100mm
Double crowns	2	LP SIMMER	750	50	30 1/100mm
Double crowits	5	LP MAIN FLAME	15000	105	58 1/100mm
Single crown	4	LP RAPID	12000 or 15000	94 or 105	48 1/100mm
Single crown	5	LP RAPID	12000 or 15000	94 or 105	48 1/100mm
Double crowns	6	LP SIMMER	750	50	30 1/100mm
Double crowits	U	LP MAIN FLAME	15000	105	58 1/100mm
		BROIL	17000	120	NA
		OVEN	21500	140	60 1/100mm

(\*): Adjusted in factory - When converted to LP - by-pass are screwed tight



### 2.8.3 RANGE 30" (All Dual Burners)

SUPPLY						
<b>BURNERS</b> c	onfigura	ation:			MANIFOLD	
	Pos	Gas	INPUT RATE Btu/hr	ORIFICE SIZE (1/100) mm	BY-PASS ORIFICE SIZE	
	1	NG SIMMER	750	72	Adj.(*)	
	I	NG MAIN FLAME	18000	180	Adj.(*)	
	2	NG SIMMER	750	72	Adj.(*)	
	2	NG MAIN FLAME	18000	180	Adj.(*)	
Double crowits	2	NG(A) SIMMER	750	72	Adj.(*)	
	3	NG(A) MAIN FLAME	18000	180	Adj.(*)	
	Α	NG SIMMER	750	72	Adj.(*)	
	4	NG MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)	
OVEN	BROIL		14000	175	Adj.(*)	
BURNERS		OVEN	18000	210	Adj.(*)	
	1	LP SIMMER	750	50	30 1/100mm	
		LP MAIN FLAME	15000	105	58 1/100mm	
	2	LP SIMMER	750	50	30 1/100mm	
	2	LP MAIN FLAME	15000	105	58 1/100mm	
Double crowits	2	LP SIMMER	750	50	30 1/100mm	
	3	LP MAIN FLAME	15000	105	58 1/100mm	
	4	LP SIMMER	750	50	30 1/100mm	
	4	LP(E) MAIN FLAME	15000	105	58 1/100mm	
OVEN		BROIL	13000	110	NA	
BURNERS		OVEN	16000	125	60 1/100mm	

(\*): Adjusted in factory - When converted to LP - by-pass are screwed tight



LPG

11" 10"

NATURAL

### 2.8.4 RANGE 36" (All Dual Burners)

	NATURAL	LPG
SUPPLY	6"	11"
ANIFOLD	5"	10"

BURNERS configuration: MANIFOLD				
Pos	Gas	INPUT RATE Btu/hr	ORIFICE SIZE (1/100) mm	BY-PASS ORIFICE SIZE
1	NG SIMMER	750	72	Adj.(*)
1	NG MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)
2	NG SIMMER	750	72	Adj.(*)
2	NG MAIN FLAME	18000	180	Adj.(*)
3	NG SIMMER	750	72	Adj.(*)
5	NG MAIN FLAME	18000	180	Adj.(*)
Λ	NG SIMMER	750	72	Adj.(*)
	NG MAIN FLAME	18000	180	Adj.(*)
5	NG SIMMER	750	72	Adj.(*)
5	NG MAIN FLAME	18000	180	Adj.(*)
6	NG SIMMER	750	72	Adj.(*)
Ŭ	NG(A) MAIN FLAME	18000 or 20000	180 or 192	Adj.(*)
	BROIL	18000	200	Adj.(*)
	OVEN	21500	230	Adj.(*)
1	LP SIMMER	750	50	30 1/100mm
	LP MAIN FLAME	15000	105	58 1/100mm
2	LP SIMMER	750	50	30 1/100mm
-	LP MAIN FLAME	15000	105	58 1/100mm
3	LP SIMMER	750	50	30 1/100mm
Ŭ	LP MAIN FLAME	15000	105	58 1/100mm
4	LP SIMMER	750	50	30 1/100mm
5	LP MAIN FLAME	15000	105	58 1/100mm
	LP SIMMER	750	50	30 1/100mm
	LP MAIN FLAME	15000	105	58 1/100mm
6	LP SIMMER	750	50	30 1/100mm
Ŭ	LP(E) MAIN FLAME	15000	105	58 1/100mm
	BROIL	17000	120	NA
	OVEN	21500	140	60 1/100mm
	onfigura Pos 1 2 3 4 5 6 1 2 3 4 5 6 - - - - - - - - - - - - -	onfiguration:PosGas1NG SIMMER1NG SIMMER2NG SIMMER3NG SIMMER3NG SIMMER4NG SIMMER5NG MAIN FLAME6NG SIMMER8NG SIMMER6NG SIMMER9NG SIMMER1LP SIMMER2LP SIMMER2LP SIMMER3LP SIMMER4LP SIMMER5LP MAIN FLAME6LP SIMMER1LP SIMMER2LP SIMMER1LP SIMMER3LP SIMMER4LP SIMMER5LP MAIN FLAME6LP SIMMER10LP SIMMER11SIMMER12SIMMER13LP SIMMER14LP SIMMER15LP MAIN FLAME16LP SIMMER17LP SIMMER18LP GUL0VEN	Pos Gas INPUT RATE Btu/hr   1 NG SIMMER 750   1 NG MAIN FLAME 18000 or 20000   2 NG SIMMER 750   NG MAIN FLAME 18000 18000   3 NG SIMMER 750   NG MAIN FLAME 18000 18000   3 NG SIMMER 750   NG MAIN FLAME 18000 18000   4 NG SIMMER 750   NG MAIN FLAME 18000 18000   5 NG MAIN FLAME 18000   6 NG SIMMER 750   NG MAIN FLAME 18000 or 20000   6 NG SIMMER 750   NG ANIN FLAME 18000 or 20000   0 NG SIMMER 750   1 UP SIMMER 750   1 LP SIMMER 750	Pos Gas INPUT RATE Btu/hr ORIFICE SIZE (1/100) mm   1 NG SIMMER 750 72   NG MAIN FLAME 18000 or 20000 180 or 192   2 NG SIMMER 750 72   NG MAIN FLAME 18000 180 180   3 NG SIMMER 750 72   NG MAIN FLAME 18000 180 180   3 NG SIMMER 750 72   NG MAIN FLAME 18000 180 180   4 NG SIMMER 750 72   NG MAIN FLAME 18000 180 180   5 NG SIMMER 750 72   NG MAIN FLAME 18000 180 180   6 NG SIMMER 750 72   NG MAIN FLAME 18000 or 2000 180 or 192   8 NG SIMMER 750 72   10 NG SIMMER 750 50   1 LP SIMMER 750 50   1 LP SIMMER

(\*): Adjusted in factory - When converted to LP - by-pass are screwed tight





#### Type of gas

BEFORE CONNECTING THE APLLIANCE TO THE GAS LINE SUPPLY, ENSURE THAT THE GAS SETTING IS APPROPRIATE.

THE TYPE OF GAS ADJUSTED AND SHIPPED FROM THE FACTORY IS INDICATED ON THE RATING PLATE LOCATED ON THE BACK OF APPLIANCE.

#### Gas line supplying

If the line pressure supplying the appliance pressure regulator exceeds 14 inches W.C (any gas), an external regulator must be installed in the gas line ahead of the appliance regulator to reduce the pressure to no more than 14 inches W.C. failure to do this can result in malfunction and damage to the appliance.

#### Gas requirement:

The appliances and its individual gas shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system by closing its individual manual shut off valve. During any pressure testing of the gas supply piping at test pressures are equal to or less than ½ psi (3,5kPa). All supply piping, except as noted should use common National Pipe thread (N.T.P.) for all pipe connections use an approved pipe joint compound resistant to the action of LP.

#### **Pressure testing:**

The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  PSIG (3,5 kPa).

This appliances, as well as its individual shut-off valve, must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of ½ PSIG(3,5kPa).when checking appliances regulator function, make certain pressure of natural gas supply is between 6 and 14 inches of water column or, if converted for LP gas, between 11 and 14 inches W.C.

#### Important:

**Never reuse old connector when installing this Range.** To reduce the likelihood of gas leaks, apply Teflon tape or a thread compound approved for use LP or NG to all threaded connections. Apply a non-corrosive leak detection fluid to all joints and fittings in the gas connection between the supply line shut-off valve and the range inlet. Check for leaks! Bubbles appearing around fittings and connectors will indicate a leak. If a leak appears, turn off supply line gas shut-off valve. Tighten connections, turn on the supply line gas shut-off valve and reset for leaks. **NEVER USE A NAKED FLAME WHEN CHECKING FOR GAS LEAKS**.



Anomaly	Possible Cause	Corrective Action	section
Oven does not run No power supply.	Main breaker or main fuses	Replace the fuses	
	Short circuit	Find the short circuit and remove it	
Oven does not run Power supply ok.	Spark generator out of position	Check the igniter position	<u>7.29</u>
	Thermostat micro switch	Replace thermostat	7.18
	Oven control gas	Replace control gas	7.24
	Spark generator damaged	Replace Spark generator	<u>7.25</u>
	Spark Plug damaged	Replace Spark Plug	<u>7.8</u>



Anomaly	Possible Cause	Corrective Action	section
The oven flame goes out	Thermocouple out of position	Check the thermocouple position	<u>7.29</u>
	The burner thermocouple damaged	Replace the thermocouple	<u>7.5</u>
	The minimum setting is too low	Increase the flame	2.6



Anomaly	Possible Cause	Corrective Action	section
Fan does not run No power supply	Oven or Cooktop Cooling fan thermostat damage.	Replace thermostat	<u>7.13</u>
Fan does not run Power supply ok.	Blocked rotor	Replace fan	<u>7.2</u>
	Burned coil	Replace fan	7.2
Noisy fan	Lose attachment screws on cooling assembly	Check attachment screws on cooling assembly or replace fan	7.2
The cooling fan is always on even if I cold	One of cooling fan thermostat is in short circuit.	Replace thermostat	<u>7.13</u>



Anomaly	Possible Cause	Corrective Action	section
Fan does not run with oven ON No power supply	Switch selector does not switch	Replace the selector	7.17
	The resistor in series to the fan is interrupted,	Replace the resistor	<u>7.13</u>
	Thermostat micro switch	Replace thermostat	<u>7.18</u>
	Door Micro Switch	Replace Micro Switch	7.10
Fan does Not run Power supply ok.	Blocked rotor	Replace fan	7.4
	Burned coil	Replace fan	7.4
Noisy fan	Lose attachment screws on cooling assembly	Check attachment screws Check nut on working fan for tightness or replace it	7.4



Anomaly	Possible Cause	Corrective Action	section
The Oven lights are always OFF. No power supply.	Check door micro switch.	Replace door micro switch.	7.10
	Switch selector does not switch	Replace the selector	7.17
The Oven lights are always OFF. Power supply is ok.	Lamps are burned out.	Replace bulb	See user manual
	Lampholder damaged	Replace Lampholder	7.22
The Oven lights are always ON.	Check the door micro switch.	Replace door micro switch or connection between the door switch and switch selector.	7.10
	The contact of switch selector is shorted circuit.	Replace the selector	7.17



Anomaly	Possible Cause	Corrective Action	section
The display is always dark.	Main breaker or main fuses	Replace the fuses	
	The display is Damaged	Replace Display Board	7.19



Anomaly	Possible Cause	Corrective Action	section
The door does not close or there is not sealing between door and gasket	Hinges system is broken or damaged	Replace the units	7.15
	The hinges support in the box is broken or damaged	Replace the units	<u>7.16</u>



Anomaly	Possible Cause	Corrective Action	section
Bad performance	Oven Burners do not work properly	Replace thermostat	7.13
	Convection fan not working properly	See the convection fan problem	4.4
	There is not sealing between door and gasket.	The hinges system or the hinges support in the box are damaged. Replace the units	7.15 7.16



- Check the electricity supply.
- Check spark gap is not too wide (burners sitting correctly).
- Check if electrodes/burners are clean (use rubbing alcohol and an old toothbrush).
- Check continuity from the box to the electrode and from the burner or ground point to the ground connection on the box.
- Check the high tension leads are not coiled, as this may result in a loss of voltage to the electrode. (Use correct length leads and locate in correct position.)
- Check for damage to the wire insulation and that the leads are not against parts that will heat up during operation.
- Check the burner components including the burner cap are sitting correctly.
- Check the high tensions leads have not been coiled, as this may result in a loss of voltage and a spark of insufficient energy to ignite the gas.



- Check if the polarity of the electrical supply is correct to the ignition box (incorrect polarity will cause a problem.)
- Check if electrodes are clean (use rubbing alcohol and an old toothbrush).
- Check if the cooktop is correctly grounded (lack of grounding will cause a problem).
- Check if the cooktop and regulator are set up for the correct gas type and pressure.
- Check if the correct injectors are used for each burner.
- Check if the burner components including the burner cap are sitting correctly.
- Check if the flame touches the electrodes. If the flame doesn't correctly touch the electrodes will cause the problem.



- Check if the cooktop and regulator are set up for the correct gas type and pressure
- Check if the burners low setting is correct.
- Check if the gas spreaders are positioned correctly on injectors support
- Check if the pin of the cap is positioned correctly on gas spreader
- Check if the ignition micro switch contact is whet (use hair dryer to let it dry)



- Check if the cooktop and regulator are set up for the correct gas type and pressure
- Check if the burners low setting is correct.
- Check if the gas spreaders are positioned correctly on injectors support
- Check if the pin of the caps are positioned correctly on gas spreader
- Check if the gas spreader ports are clogged (to clean the ports use tooth brush or straightened paper clip)



## Removal of product top panel





Remove the grates, burner caps, aluminium spreader

Remove the screws holding each burner **A**. (To prevent damaging the screw head use a No. 1 Philips screwdriver.)

Lift off top panel in vertical way.

Remove the lateral screws to lift up the internal separator sheet **B**. Note: The edge can be sharp. To replace, reverse the procedure.



Burner



Separator Sheet

# Cooling fan motor substitution

7.2

# 4 📭 🕺 🗑

- 1. Disconnect the power supply cord and remove the Top panel (Section 7.1).
- 2. Remove the five screws **A** (two lateral & three on the top).
- 3. Disconnect the terminals on the fan and remove the fan damaged.
- 4. Replace the cooling fan motor.
- 5. Connect the terminals and fix the motor by its screws.
- 6. The connections must not be loose.
- 7. Reinstall the Top panel.
- 8. Reconnect the power supply cord, run the Range and check all functions.





### Rear covers Removal

# 4 🔄 🔊 🗑

- 1. Disconnect the power supply cord and gas connection than remove the Range from its location.
- 2. To Remove the rear lower cover A disassemble its twelve back screws A.
- 3. To Remove the rear upper cover **B** disassemble its three back screws **B**.



## Convection fan motor substitution



- 1. Disconnect the power supply cord and gas connection than remove the Range from its location.
- 2. Remove the rear lower cover (Section 7.3).
- 3. Disassemble the baffle by removing the five screws in the cavity for double fans.
- 4. Remove the fan blade by using a 10mm socket.
- 5. Disconnect the terminals on the fan in the rear side.
- 6. Remove the three nuts **A** on the motor holder by using a 7mm socket and remove it.
- 7. Mount the new fan motor on the holder and attach it with the nuts.
- 8. Fix the fan blade.
- 9. Replace the baffle.
- $10. \ \mbox{Connect}$  the terminals (the connections must not be loose).
- 11. Reconnect the power supply cord and check all functions.



### **Oven Thermocouple substitution**



- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1) and also the rear covers (Section 7.3).
- 3. Remove the left side cover (<u>see Section 7.23</u>) and the lampholder cover to have access to the oven bake thermocouple.
- 4. Disconnect the thermocouples **A** from oven thermostat.
- 5. Disconnect the ground connection **B**.
- 6. Remove the safety thermostat C.
- 7. Remove the thermocouples **D** from the burners.
- $8. \ \mbox{Replace the new one reassembling in the reverse order}.$
- 9. Reinstall the RANGE.

Reconnect the power supply cord and check all functions.















# Grill Burner disassembling



- 1. Disconnect the power supply cord.
- 2. Remove the door following the User Manual instruction.
- 3. Disconnect the thermocouple and spark plug **B.**
- 4. Remove the four screws **A** from burner brackets on top in the cavity and withdraw the burner from the support.







### 7.7 Oven Burner disassembling



- 1. Disconnect the power supply cord .
- 2. Remove the door following the User Manual instruction.
- 3. Remove the burner cover plate **A**.
- 4. Disconnect the thermocouple and spark plug **B**.

Remove the screw securing the oven burner and withdraw the burner from the support.





# **Oven Burner Spark Plug Substitution**



- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1) and also the rear covers (Section 7.3).
- 3. Remove the left side cover (<u>see Section 7.23</u>) and the lampholder cover to have access to the oven bake spark plug wire.
- 4. Disconnect the spark plug wires from the generator.
- 5. Remove the spark plug **A** from the burners.
- 6. Replace the new one reassembling in the reverse order.
- 7. Reinstall the RANGE.

Reconnect the power supply cord and check all functions.







## Door Gasket substitution



- 1. Open door and pull out the gasket by hands.
- 2. Replace with a new one by reversing the previous steps.



**Door Lock Switch substitution** 



- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1).
- 3. Disconnect the terminals from the switch.
- 4. Unscrew the bracket A.
- 5. Pull out the switch from the holder.
- 6. Replace with a new switch by reversing the previous steps.
- 7. PAY ATTENTION TO THE WIRING SEQUENCE N°1 N°4
- 8. The connections must not be loose.
- 9. Reconnect the power supply cord and check all functions.







 Before mounting the hinges ensure that the code is correct and then proceed with the loading of the hinge spring. There are two possible positions – LOADED and UNLOADED – as indicated above. The hinge must be assembled <u>LOADED</u>.





**UNLOADED** 

Safety thermostats and fan resistor substitution



- 1. Disconnect the power supply.
- 2. Remove the top panel (Section 7.1).
- 3. Unscrew the thermostat's holder:
  - A. Safety thermostat.
  - B. Fan fault safety thermostat.
  - C. Cooling fan thermostats ON burners support (if present)
  - D. Fan Resistor
- 4. Replace with a new thermostat by reversing the previous steps.
- 5. The connections must not be loose.
- 6. Reconnect the power supply cord after and check all functions.







- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1).
- 3. Remove the switch selector knob.
- 4. Disassemble the switch from the bracket by its two screws.
- 5. Remove the lamp support by its 4 screws **A**.
- 6. Disconnect the bad signal lamp and remove it.
- 7. Replace the new one by reversing the previous steps.
- 8. Reinstall the RANGE.
- 9. Reconnect the power supply cord and check all the functions.



# ?

- 1. Remove the door following the (see user manual).
- 2. Put the door on a flat surface with a soft cloth to prevent scratching of the aesthetics.
- 3. Remove the door external glass by the screws **A** and **B**.
- 4. Remove the hinges unscrewing the screws  $\mathbf{C}$  and  $\mathbf{D}$ .
- 5. To replace the hinges, reverse the previous steps.
- 6. To replace the aesthetic glass be sure that the door is in the right position keeping the glass centered.
- 7. Replace the Oven door following the instructions (see user manual).

The new hinges must be preload before assemble (see section 7.12)





# Door hinges box substitution

# 

- 1. Disconnect the power supply cord and gas connection than remove the Range from its location.
- 2. Remove the door following the User Manual instruction and also the base board.
- 3. Remove the side cover (see Section 7.23)
- 4. Unscrew the screws **A** and remove also the bracket **B** to change support.
- 5. Disassembling the hinges box from lateral panel.
- 6. To replace the new hinge box, reverse the previous steps.
- 7. Replace the Oven door.
- 8. Reinstall the Oven into the cabinet.
- 9. Reconnect the power supply cord and check all functions.



### Switch Selector substitution



- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1).
- 3. Remove the switch selector knob.
- 4. Disassemble the switch from the bracket by its twoscrews..
- 5. Disconnect the bad switch and remove it.
- 6. Replace the new one by reversing the previous steps. **PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION**
- 7. Reinstall the RANGE.
- 8. Reconnect the power supply cord and check all the functions.



**Oven Thermostat substitution** 

# 4 🔄 🔊 🗑

- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1) and also the rear upper cover (Section 7.3).
- 3. Remove the knobs.
- 4. Disconnect the internal cavity bulb  $\ensuremath{\textbf{A}}$
- 5. Remove the 2 NUTS **B** and disconnect the aluminium tubes from the valve outlets.
- 6. Remove the screws **C** holding the valve to the manifold.
- 7. Disconnect the micro switches and thermocouples **D** from the valve.
- 8. Replace the gas thermostat on the manifold tube.
- 9. Reassemble in the reverse order.
- 10. Leak test all gas connections. (NOTE: to check the leak the appliances have to be powered)
  - 1-check leakage from gas valve connection to the manifold.
  - 2-check leakage from gas valve to the aluminium tubes:
    - block each injector orifice in turn
    - open the correspondent valve and check leakage beyond the valve.
    - we recommend appropriate leak detection spray NEVER USE A NAKED FLAME WHEN CHECKING FOR GAS LEAKS.
- 11. Reinstall the RANGE.

Reconnect the power supply cord and check all functions.









- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1).
- 3. Remove the switch selector knob.
- 4. Disassemble the switch from the bracket by its two screws.
- 5. Remove the displays support by its 4 screws A.
- 6. Disconnect the bad display and remove it.
- 7. Replace the new display by reversing the previous steps. **PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION**
- 8. Reinstall the RANGE.
- 9. Reconnect the power supply cord and check all the functions.



Door aesthetic disassembling

# 

- 1. Remove the door from the oven (see User manual).
- 2. Put the door on a flat surface with a soft cloth to prevent scratching of the aesthetics.
- 3. Remove the external glass from the door unscrewing two screws on the corner **A** and three screws on the bottom **B**.
- 4. Remove also the handle by its two screws  $\mathbf{C}$ .
- 5. Replace the handle on the new aesthetic glass with its support and spacers.
- 6. Assemble the glass and door keeping door in the middle of the glass and making attention at correct position of rubber bumpers.
- 7. Replace the Oven door following the (see User manual).



- 1. Remove the door from the oven (see user manual).
- 2. Put the door on a flat surface with a soft cloth to prevent scratching of the aesthetics.
- 3. Remove the external aesthetic from the door (see Section 7.20).
- 4. Refer to Exploded View to see the spare parts available.
- 5. All components are fixed by few screws.
- 6. When it is changed an internal glass, you must be sure that the face whit CA (CAVITY) printed it is towards the cavity.

Replace the Oven door following the (see User manual).





- 1. Disconnect the power supply cord and gas connection than remove the Range from its location.
- 2. Remove the door following the User Manual instruction and also the base board.
- 1. Remove the top panel (Section 7.1).
- 2. Remove the side cover (see Section 7.23).
- 3. Remove the lampholder cover panels situated on the side of the oven and unscrew the relative ground wire **A**
- 4. Remove the lampholder removing its screw and extract the defective lampholder from the oven cavity. Cut the defective lampholder wires just above the lampholder body. Mount the new lampholder in the oven cavity and fix with the relative fixing screw.
- 5. Twist together the new lampholder wires to the old defective lamp holder wires then 'run' them through the relative protective sleeve. Once the new lampholder wires come through the other end of the protective sleeve untwist the wires and dispose of the old wiring as follows.
- 6. Using a sharp tipped screwdriver carefully unlock the old wiring 'faston' type connector spade terminal. Once the old wires are released you can through them away. Retain the old lampholder connector for the new lampholder as this will be recovered for further use (see next point).

Take the new lampholder and insert the wires into the recovered connector. This is done by pushing each 'faston' wiring spade terminal into the connector until it 'clicks' in place. Ensure that both new lampholder wires are firmly in place before reassembling the lamp connector. Ensure that the male and female parts of the connector are firmly locked together.





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  - 1. Disconnect the power supply cord and gas connection than remove the Range from its location.
  - 2. Remove the door following the User Manual instruction and also the base board.
  - 3. Remove the rear lower cover (Section 7.3)
  - 4. Remove the screws showed, three in the back and one in the front.
  - 5. Slide laterally the side cover.







- Disconnect the power supply cord.
- Remove the top panel (Section 7.1).
- Disconnect and remove the screws from the gas system.
- Replace it.
- Reassemble in reverse order.
- Reinstall the RANGE, reconnect the power supply cord and check all functions.







- Disconnect the power supply cord.
- Remove the top panel (Section 7.1).
- Disconnect and remove the screws from the ignition.
- Replace it.
- Reassemble in reverse order.
- Reinstall the RANGE, reconnect the power supply cord and check all functions.



# Valves Mircoswitch substitution



- 1. Disconnect the power supply cord.
- 2. Remove the top panel (Section 7.1).
- 3. Remove all the knobs.
- 4. Remove the 4 screws **A** and the 8 screws **B**.
- 5. **(PAY ATTENTION TO THIS OPERATION)** Slide back **CAREFULLY** the whole burners assembly until there is enough front space to lift out the switch damage.
- 6. Replace the new SWITCH by reversing the previous steps.
- 7. Reinstall the RANGE.
- 8. Reconnect the power supply cord and check all functions





### Replacement & servicing of electronic cooktop ignition

7.27.1 To replace a spark plug

- Disconnect the power supply cord and gas connection.
- Remove the top panel (Section 7.1).
- Unlatch the spark plug spring.
- Replace it.
- Reassemble in reverse order.



### 7.27.2 To replace ignition box

- Disconnect the power supply cord.
- Remove the top panel (Section 7.1).
- Remove the two screws for each ignition.
- Replace it.
- Reassemble in reverse order.

Electrode wires **must** be plugged into correct terminals.







- 1. Disconnect the gas and electricity supplies
- 2. Remove the top panel (Section 7.1).

### Valve

- 3. Remove all the knob of valve damaged.
- 4. Remove the 2 NUTS **A** and disconnect the aluminium tubes from the valve outlets.
- 5. Remove the screws **B** holding the valve to the manifold.
- 6. Lift off the micro switch **C** from the valve.
- 7. Replace the gas valve.

NOTE: The screws that fix the valves to the gas manifold must be closed with a tightening torque of 2 Nm.

The pipe nuts are fixed with a tightening torque of **9** Nm for the pipe on the gas valve.

### Burner

- 8. Remove the 2 NUTS **D** and disconnect the aluminium tubes from the valve outlets.
- 9. Remove the screws holding the burner from the top and disconnect the spark plug.
- 10. Replace the gas burner.

NOTE: The screws that fix the gas burner pipe must be closed with a tightening torque of 13 Nm.

- 11. Reassemble in the reverse order.
- 12. Leak test all gas connections before refitting the micro switch assembly.
  - 1-check leakage from gas valve connection to the manifold.
  - 2-check leakage from gas valve to the aluminium tubes:
    - block each injector orifice in turn.
    - open the correspondent valve and check leakage beyond the valve.
    - we recommend appropriate leak detection spray NEVER USE A NAKED FLAME WHEN CHECKING FOR GAS LEAKS.
- 13. Reinstall the RANGE.
- 14. Reconnect the power supply cord and check all functions.



Gas valve identification (see section 2.10)





- 1. Verify the correct ignition of the burners.
- 2. The ignitor must be properly positioned so the spark arcs to the edge of the curved shield below the burner.



The thermocouple must be properly positioned in proximity to the flame to prevent burner from extinguishing

