Dual Fuel Range Service Manual OC-3100 (US)

Last Update 22 Nov 2019

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The contents are subject to change without notice

CONTENTS

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.

1.1.3 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.

1.1.4 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

Dual Fuel 30” **Dual Fuel 36”**

lbs /Kg =**285/129** lbs /Kg =**326/148**

2.1.2 Power rating

TECHNICAL DATA				
MODEL	Electrical Ratings and Maximum Connected Load			
	@ 240/120 Volts 60Hz		@ 208/120 Volts 60Hz	
	Amperes	kW	Amperes	kW
DUAL FUEL RANGES 30” 36”	**16,5**	**3,83**	**18,2**	**3,68**

2.1.3 Gas Requirement

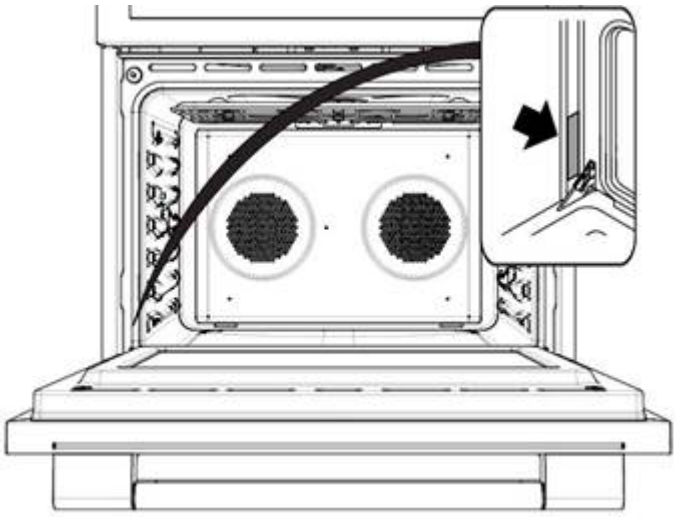
NATURAL GAS	WC
Supply Pressure	5"
Min. Line Pressure	6”
Max. Regulator Pressure	14"
LP GAS	WC
Supply Pressure	10"
Min. Line Pressure	11"
Max. Regulator Pressure	14"

2.1.4 Top Burner output ratings: btu/hr

	NG (Natural) Gas, 5” W.C.P	LP (Propane) Gas, 10” W.C.P.
DUAL BURNEL	750 to 18000 Btu/h (220 to 5300W)	750 to 15000 Btu/h (220 to 4400W)
SINGLE BURNER	2200 to 15000 Btu/h (645 to 4400W)	2200 to 12000 Btu/h (645 to 3510W)

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

2.3.1	Heating Elements	Volts	Freq.	Watts	Note
	30” & 36” cavity				
	Broil	240	--	3100	
	Bottom	240	--	1400+600	
	Ring	240	--	1x 2500 2x 1300	
	Additional	208	--	775	

2.3.2	Motors	Volts	Freq.	Watts	Note
	Convection Fan	120	60	45	
	Cooling Fan	120	60	45	
	Door Lock Motor	100/120	50/60	5	

2.3.3	Electric and Gas Components	Volts	A	Watts	Note
	Door Lock Motor Switch	250	16	--	
	Lamp	120	--	25	
	Door Lock Switch	250	16	--	
	Safety Thermostats	250	16	--	
	Cooling Fan Thermostat	250	16	--	
	Probe Temperature	5V	--	--	
	Gas Valve - Switches for ignition	250	0.1	--	
	Reigniter	120			60Hz or 50/60Hz

- **ELECTRONIC CONTROL.** The control consists of a main power located on display board.
- **COOKING MODE & TEMPERATURE SELECTORS.** The oven has one selector for the cooking modes and one for the set temperature.
- **TEMPERATURE SENSOR.** There is one Pt1000 sensor, fixed on the rear wall outside the cavity.
- **HEATING ELEMENTS.** Four heaters are available in multifunction ovens while the ring element is missing in the thermal ones. They are combined together in different ways, depending on the selected mode, but the maximum power of heating elements never overtakes 3000W.
- **UPPER ELEMENT** **3100+1032W (775 @208V) at 240V or 230V**
- **LOWER ELEMENT** **1400+600W at 240V or 230V**
- **RING ELEMENT** **2500W at 240V or 2x1300W at 240V**
- **CONVECTION FAN.** This fan is available in multifunction cavities; it works always at the same speed in all convection modes, self-clean and dehydrate.
- **COOLING FAN SYSTEM.** A cooling fan keeps the internal parts temperature within acceptable values, and removes smoke from the cavity through the catalyser. There is a 70°C by-pass thermostat that shorts this resistor when the temperature overtakes the threshold, switching the cooling fan into its full speed. This normally occurs during self-clean only.
- **OVEN LIGHTS.** Halogen 120V lamps. They turn on when a cooking mode starts or when the door is opened.
- **DOOR LATCH SYSTEM.** A motor actuates the latch mechanism to lock or unlock the door. The motor always rotates in the same direction, and it’s the mechanism that determines the locking or unlocking phases. They take about the same time to complete the half cycle. A changeover micro switch placed right on the motor shaft and actuated by a 180° cam provides the electronics with the latch position information.
- **GAS COOKTOP.** The cooktop is provided of 4 or 6 burners monitored by a reignition system.

The manual test procedure must be completed and confirmed as per the instructions in this section.

Keep the [MODE] knob to the 0 position **(see Figure 1)**.

1. Hold [TEMP & TIME] knob for about 5 seconds until all the display elements turn on.
2. Press [TEMP & TIME] and release the knob again, all the display elements turn OFF.
3. Press [TEMP & TIME] the display shows the **"Configuration Model"**
4. Rotate [TEMP & TIME] in order to select the correct model U 05 or U 06 according to the table and guidance below, press [TEMP & TIME] knob to confirm selection.
5. Press [TEMP & TIME] the display shows the **"Software Version"**

To determine the configuration for the electronic, match the cooking symbols from the table array below to those symbols on the oven fascia / display to ensure the intended modes are available to the user and the correct elements are energized for each mode.

Type	Number of Functions	Model		0	01	02	03	04	05	06	07	08
Convection	8	U 05		0								
		U 06		0								

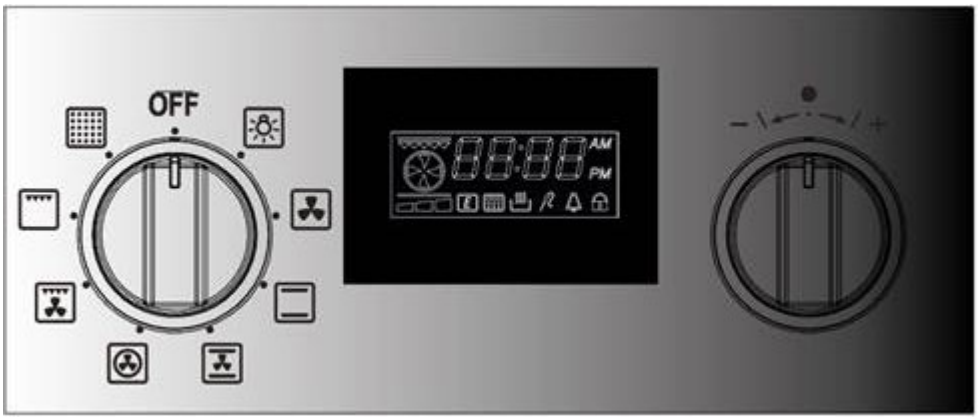


Figure 1

IMPORTANT: The MANUAL TEST procedure can be activated only after power on.

To enter in the MANUAL TEST, follow the same procedure as the ***Configuration section 2.5***

2.6.1 How to verify the correct selection

When the control is powered for the first time the display is blinking.

1. Hold [TEMP & TIME] knob for about 5 seconds until all the display elements turn on.
2. Press [TEMP & TIME] and release the knob again, all the display elements turn OFF.
3. Press [TEMP & TIME] the display shows the **"Configuration Model"**
4. Press [TEMP & TIME] the display shows the **"Software Version"**

2.6.2 How to check Single oven hardware

Turn the knob [MODE] to the  cooking mode.

- Press and release [TEMP & TIME] knob, the display automatically shows:

  "Ther"

  check that the heating elements are energized

- Press and release [TEMP & TIME] knob, the display automatically shows:

  "Au 1"

  check that all fans and lights are energized.

- Press and release [TEMP & TIME] knob twice, the display automatically shows:

“Au 2”

pass does not use.

- Press and release [TEMP & TIME] knob, the display automatically shows:

“ALLc”

check that the heating elements + fans and lights are energized.

- Press and release [TEMP & TIME] knob, the display automatically shows:

“ALLo”

check that the heating elements + fans and lights **are not energized**.

- Press and release [TEMP & TIME] knob, the display automatically shows the temperature value:

“000°”

- Press and release [TEMP & TIME] knob, the display automatically shows the real temperature value:

“ 25°” *(Example)*

In case of Failure.

E001= Probe temperature disconnected or circuit interrupted.

E002= Probe temperature in short circuit

- Press and release [TEMP & TIME] knob, the display shows the “P00”, insert the Meat Probe in its socket, the display automatically shows the real temperature value::

“ P25” *(Example)*

- Turn the knob [MODE] to the **0** position.

- Press and release [TEMP & TIME] knob the display automatically shows:

“Pr00”

Turn the knob [MODE] clockwise and check that the values correspond to the position of selector [Pr00 for 0, Pr01 for first, etc.....]

- Press and release [TEMP & TIME] knob the display automatically shows:

- **OFF**= (detection of latch door mechanism opened) **OK**
- **ON**= (detection latch door mechanism closed) **KO**

- Turn the knob [TEMP & TIME] anticlockwise until the buzzer emits 5 sounds, the display shows the time confirming the end of manual test.

- Press and release [TEMP & TIME] knob one time, the clock stops blinking.

Turn the knob [MODE] to the each position to verify all functions:

					LOWER 1400W 240V	GRILL 3100V 240V		UPPER AUX 1032W 240V		LOWER AUX 600W 240V	RING 2500W or 2600W 240V	TOT HEATING POWER (W)
		LIGHT	WORK FAN	COOL FAN	240V	240V	60V	180V	208V JUMPER	240V	240V	
0	0											0
	1	X										0
	2	X	X	X								0
	3	X		X	**1400**		**194**	**581**		**600**		2775
	4	X	X	X	**1400**		**194**	**581**		**600**		2775
	5 U06	X	X	X							**2500W or 2600**	2500W or 2600
	5 U05	X	X	X	**1400**							1400
	6	X	X	X		**3100**						3100
	7	X		X		**3100**						3100
	8 at 240V		X	X		**3100**				**600**		3700
	8 at 208V		X	X		**3100**			**1000**	**600**		3525

During the Self-Cleaning Cycle check latch mechanism.

The lock symbol ( ) on the display is:

ON When the door is fully locked

OFF When the door is fully unlocked

FLASHING When the latch mechanism is moving.

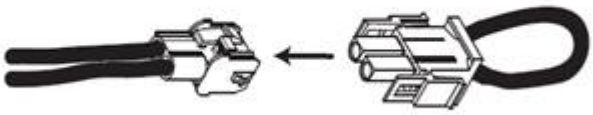
Turn the knob [MODE] to the **0** position, and when the lock door is completely unlocked is possible disconnect the oven.

2.6.3 *Power Supply 208v Voltage Selection*

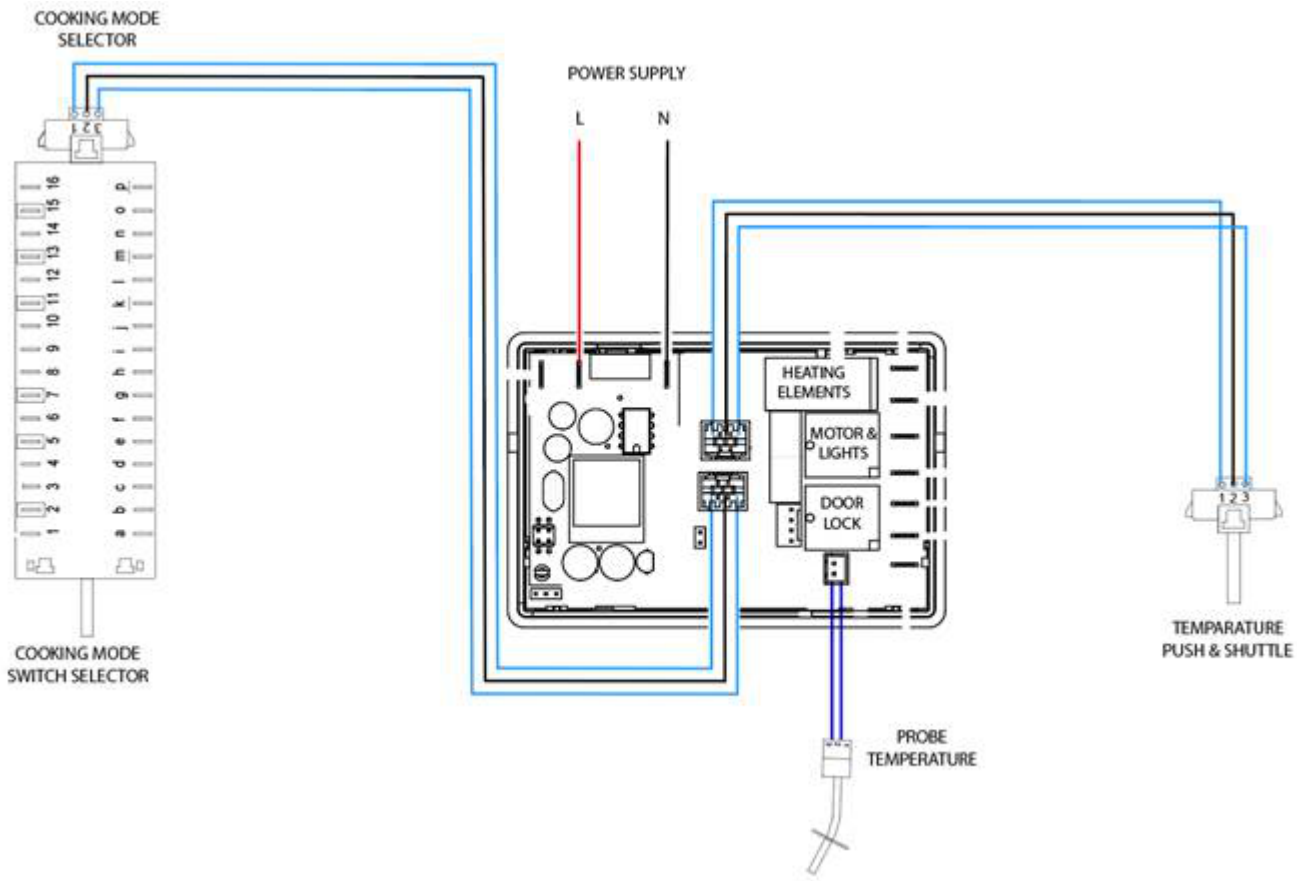
This option is provided for areas where standard 240V service is not available. This option must be accessed with the oven connected to power source, and using the following sequence:

1. Befor installing the range remove the rear upper cover.

2. Connect the 208V Jumper provided into the female connector as showed below.



3. Reassemble the rear upper cover, than connect the product to the power supply and check all functions.



- The drawing on the previous page explains how the electronic boards work. Each relay function is described and the connector of sensor is also shown.

The control is continuously checking the status of the system. If an abnormal condition is detected for more than 2/3 minutes, a failure occurs:
- The heaters and the other loads are disabled.
- The display shows a “E” letter followed by a numeric code that depends on the kind of failure.
- The control emits an acoustic warning signal.

To reset a failure declaration, first remove the cause of the failure then turn the selector to (ZERO) OFF.

If the fault involves safety requirements or the correct oven functionality, any activity must be stopped until the fault is removed. Every alarm condition can be reset manually by turning the cooking mode knob in the OFF position. Of course, the cause of the failure must be first removed.

ERROR	DESCRIPTION	ACTION
E001	Temperature sensor broken.	Both relays HE and AUX OPEN
E002	Temperature sensor shorted.	Both relays HE and AUX OPEN
E008	Latch time-out overflow (if within 2 minutes it has not completed the lock or unlock)	Both relays HE and AUX OPEN
E010	No Temperature Regulation is detected if the electronic control expects a decrease of temperature and instead it increases. (max 3/4 minutes to detect the malfunction)	Both relays HE and AUX OPEN
E040	Meat Probe sensor shorted.	Both relays HE and AUX OPEN

2.9.1 Child - safe locking system

All of our ovens are built-in child-safe locking systems. The future is automatically enabled any time the appliance is programmed to run a self-cleaning of the cavity.

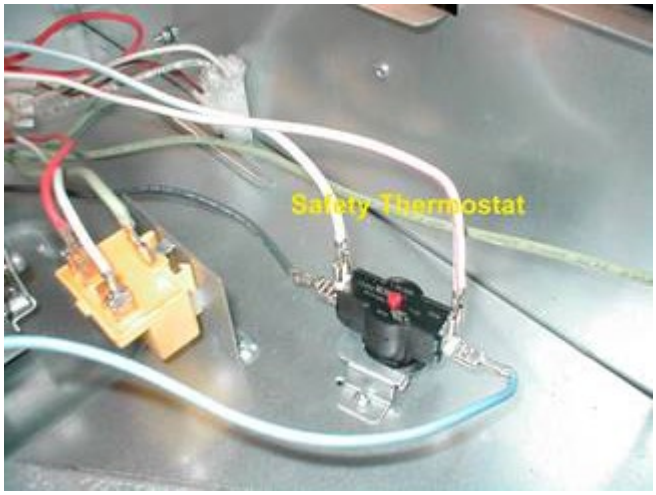
2.9.2 Over heating sensor

All of our ovens are built with a over heating sensor system:

- Three bi-metal mechanical safety thermostats.
- An electronic "***PTC***" or "positive temperature coefficients" probe mounted on the inside of the cavity who is responsible of the inside cavity reading of the temperature. (the "***PTC***" varies with the resistance – tabulated at chapter…)

2.9.3 Thermostat

All of our ovens are built with three bi-metal mechanical thermostats. The thermostats are mounted in contact with the metal sheet on top of the cavity as shown in the following pictures.



2.9.4 Double Speed Thermostat

The double speed thermostat is acting in conjunction with the by-pass resistor and is connected in parallel with it.
In the regular cooking mode when the read temperature at the surface of the metal sheet in under *158 °F* (*70 °C*) the power is flowing trough the resistor and it feeding the cooling fan with a voltage *AC 93V* .
If the temperature of *158 °F* (*70 °C*) is depassed, the thermostat is closing the circuit and the resistor is by-passed and now we can read at the poles of the cooling fan motor the full voltage of installed *AC 120V* and the ***RPM*** of the cooling fan will almost double.
The reset is automatic when the temperature at the surface of the metal sheet decreases under the *158 °F* and the cooling fan is reducing the ***RPM*** at the manufacturer factory set-up.
RPM – rotation per minute

2.9.5 Oven Safety Thermostats

The function of the safety thermostats is to protect the of the oven from over heating in the event of a malfunction of the cooling or failure of temperature regulation.
Self Cleaning safety thermostat: In the self cleaning 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 heating elements will be cut off from the power.
All of the electronics will be cut off.
The reset is manual when the cooling fan was replaced or the oven problem was solved and the

temperature is in the right functioning parameters the red button on the top of case of thermostat must be pressed to reset it (see picture on the previous page).

Cooking safety thermostat:
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 heating elements will be cut off from the power.
The reset is automatic, when the the temperature is in the right functioning parameters

2.10.1

RANGE 30”

Total nominal input rating			NATURAL G (A)		66000	Btu/hr
Total nominal input rating			L PROPANE (E)		54000	Btu/hr
BURNERS configuration:					NATURAL	LPG
				SUPPLY	6"	11"
				MANIFOLD	5"	10"
	Gas	INPUT RATE Btu/hr	ORIFICE SIZE (1/100) mm	BY-PASS ORIFICE SIZE		
Double crowns	NG SIMMER	750	72	Adj.(*)		
	NG MAIN FLAME	18000	180	Adj.(*)		
Double crowns	LP SIMMER	750	50	30 1/100mm		
	LP MAIN FLAME	15000	105	58 1/100mm		
Rapid Single Burner	NG FLAME	15000	180	Adj.(*)		
Rapid Single Burner	LP FLAME	12000	105	48 1/100mm		

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

2.10.2

RANGE 36”

Total nominal input rating			NATURAL G (A)		99000	Btu/hr
Total nominal input rating			L PROPANE (E)		81000	Btu/hr
BURNERS configuration:					NATURAL	LPG
				SUPPLY	6"	11"
				MANIFOLD	5"	10"
	Gas	INPUT RATE Btu/hr	ORIFICE SIZE (1/100) mm	BY-PASS ORIFICE SIZE		
Double crowns	NG SIMMER	750	72	Adj.(*)		
	NG MAIN FLAME	18000	180	Adj.(*)		
Double crowns	LP SIMMER	750	50	30 1/100mm		
	LP MAIN FLAME	15000	105	58 1/100mm		
Rapid Single Burner	NG FLAME	15000	180	Adj.(*)		
Rapid Single Burner	LP FLAME	12000	105	48 1/100mm		

(*): 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.

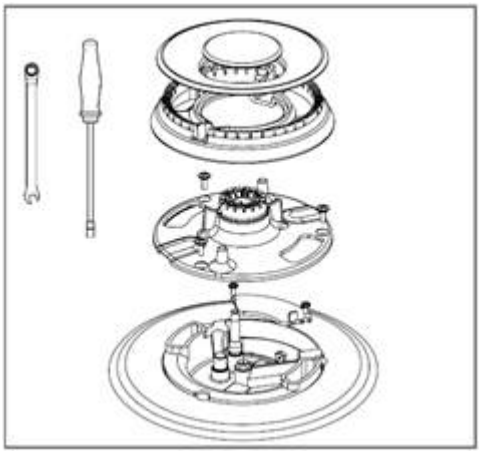
Gas line supplying
If the line pressure supplying the appliance pressure regulator exceeds 14 inches W.C.(any gas), an external regulator must be installed in the gas line ahead of the appliance regulator to reduce the pressure to no more than 14 inches W.C. failure to do this can result in malfunction 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 ½ 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.**

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.



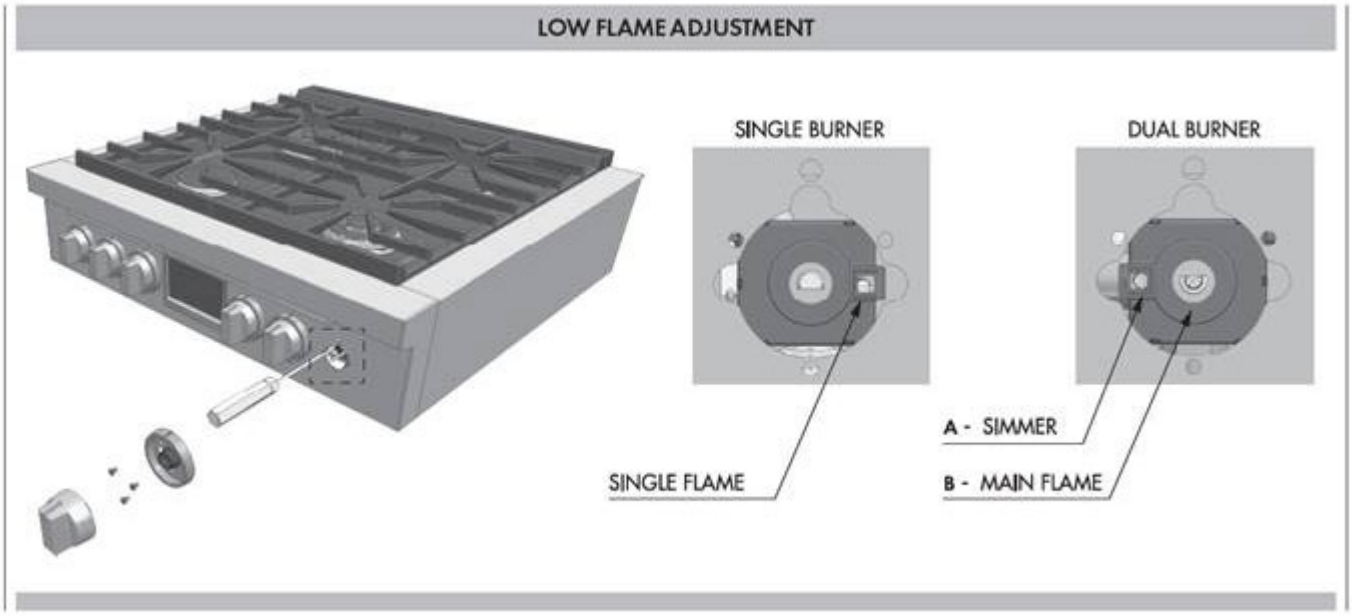
Pressure test method:

- 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.

2.13.1 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 Burners with one or two flame rings:
1. Light burner and set control knob for low flame.
2. Remove control knob from valve stem.
3. Remove knob seat from control panel.
4. Insert a slender, thin-blade screwdriver into the recess behind the control knob (A, B or C) and engage blade with slot in adjusting screw.
5. Turn adjusting screw to set flame size:
• clockwise to reduce
• counterclockwise to increase
6. Replace control knob when adjustment is completed.



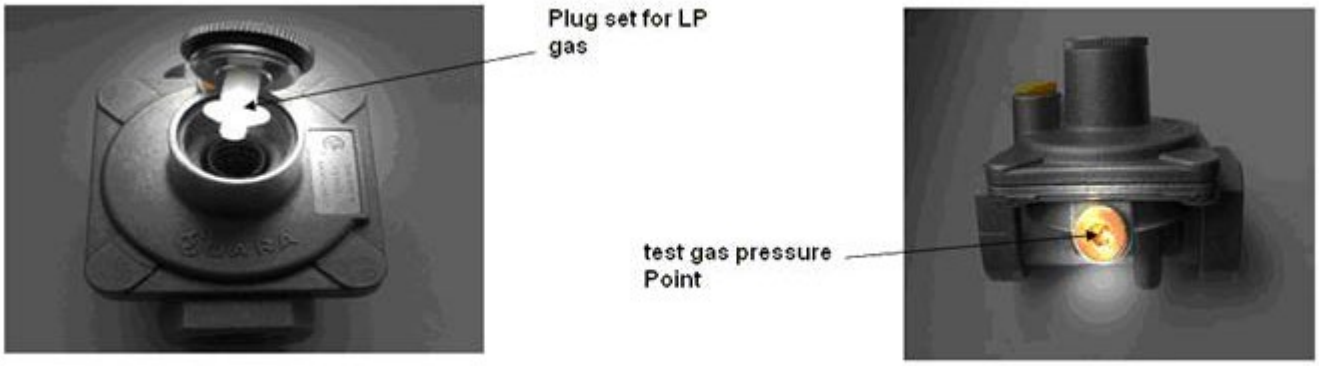
2.13.2 Conversion to different gas type

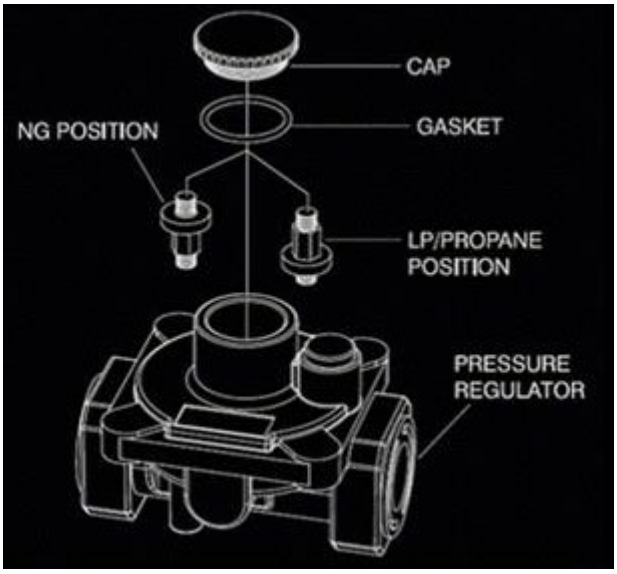
This appliance is designed for use with NG gas or LP gas. The gas pressure regulator is supplied with this appliance,
It must be installed in the gas way ahead of manifold entrance. It is pre-set for use with the gas supplied with the appliance. For use with different gas the pressure regulator must be converted.

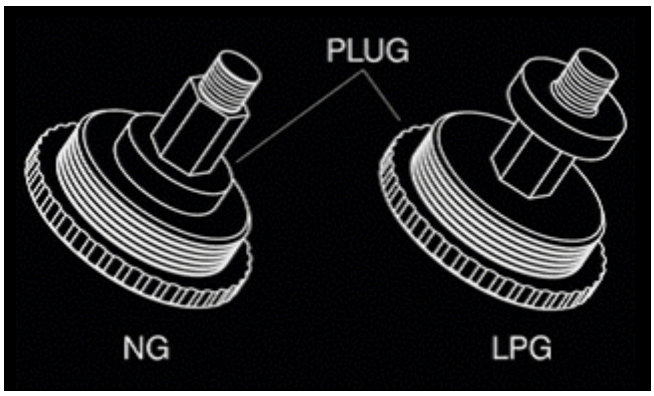
For the Pressure regulator conversion following the below instructions:

- 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.







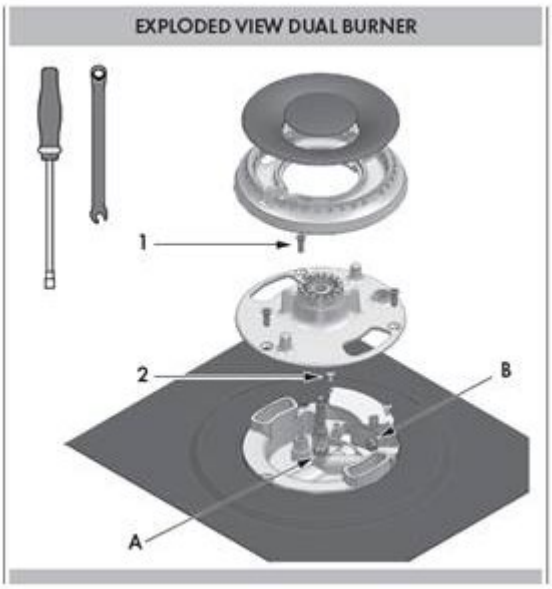
NOTE: Before replace the regulator cap Check the position of plug suitable for the gas converted.

2.13.3 Substitution of Injector on (two rings flame burners)

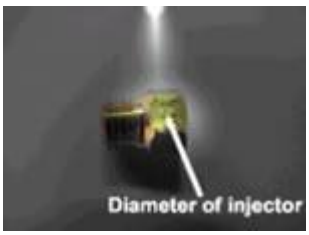
If this appliance should be converted for use with gas **LP (propane or butane)** or **NG (natural gas)**. Each of the following modification must be performed:

Replace injectors on (two rings flame burner)

1. Remove the grates and burner caps.
2. Remove aluminium gas spreader.
3. Remove the three screws from the simmer gas spreader (1).
4. Remove the two screws of the injector cover (2).
5. Remove injector (A) by using a 9-32” (7mm) nut driver counter clockwise.
6. Remove injector (B) by using a 9-32” (7mm) box wrench counter clockwise.
7. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small numbers stamped on the side, this number corresponds with the orifice diameter and its correct burner location (refer to illustrations in the section: “Injectors Position”).



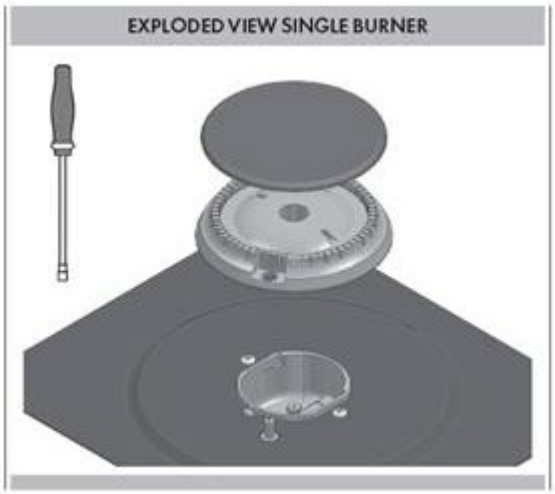
8. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs).
9. Replace all parts following the reverse order.
10. Save the injectors removed from the appliances for future use.

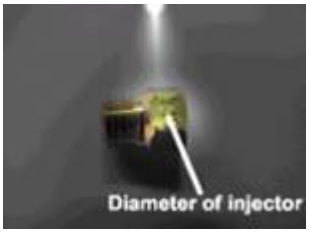


2.13.4 Replace injector on (one ring flame burners)

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:

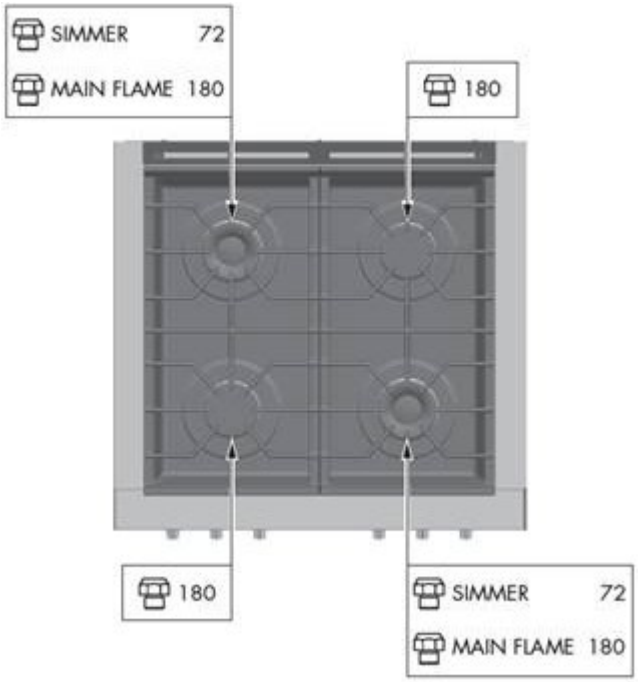
Replace injectors on (griddle burner)
1. Remove the grates and burner cups.
2. Remove aluminum gas spreader.
3. Loosen injector by turning 9-32” (7 mm) nut driver counter clockwise.
4. Install the injectors supplied with this appliance in the appropriate burner. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see figure on page 16).
5. Turn clockwise to tighten (tighten to a torque of 15 to 20 inch-lbs).
6. Replace all parts following the reverse order.
7. Save the orifices removed from the appliance for future use.



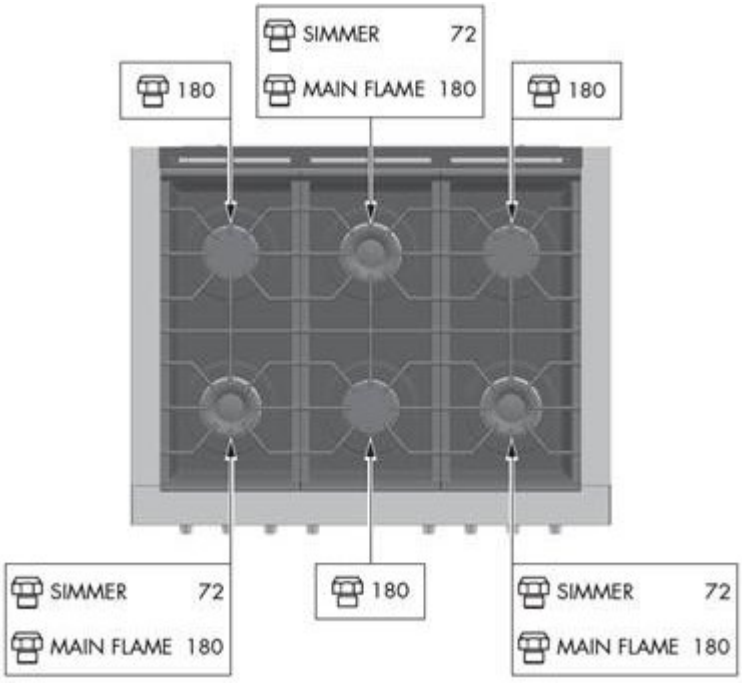


2.13.5 Injectors position NG

NG 30”



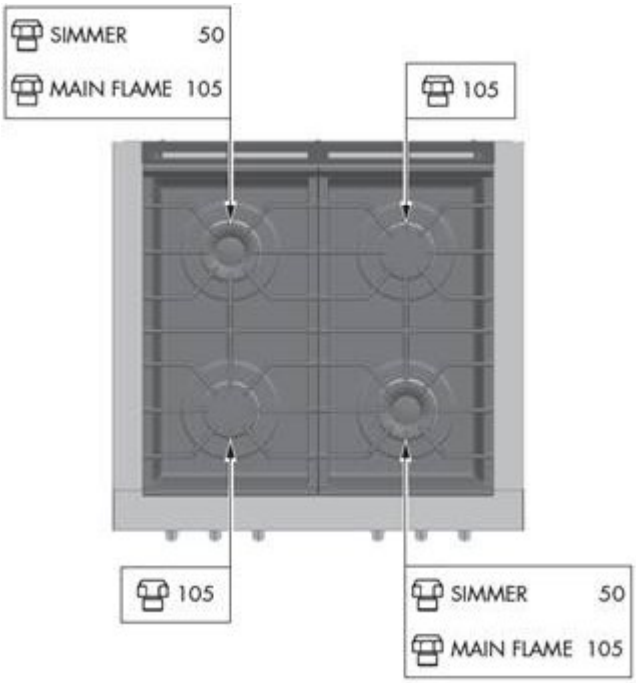
NG 36”



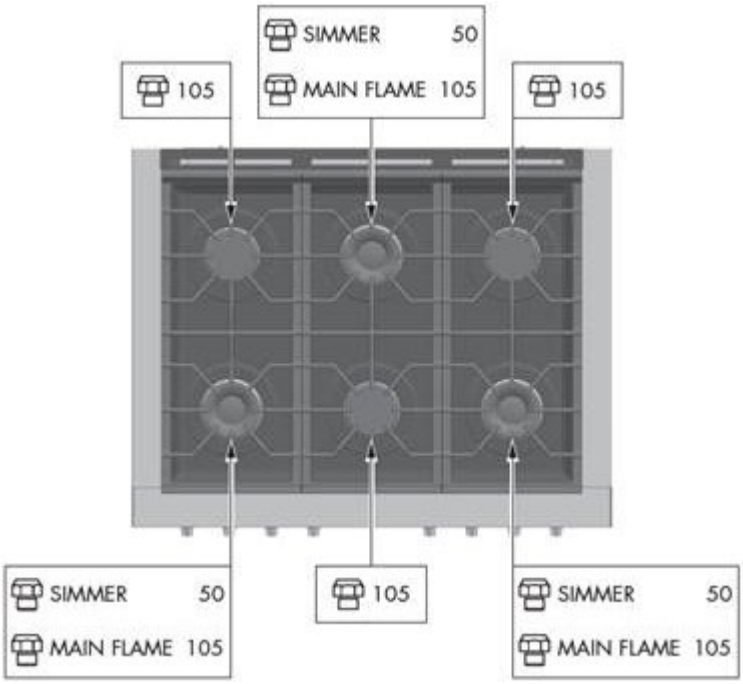
Injectors position LP

2.13.6

LP 30”



LP 36”



TO Reset assembly FAILURES, REMOVE THE CAUSE AND SWITCH THE SELECTORS IN "OFF" AND "Preset assembly" POSITIONS RESPECTIVELY.

Code	Error	Description	Possible Cause	Corrective Action	section
E001	Temperature sensor broken	The control reads out of range values.	Temperature sensor shorted or broken.	Replace the sensor	7.14
			Bad connections	Check the connectors and the harness	--
			Bad control board	Replace the control board	7.19
E002	Temperature sensor shorted.	The control reads out of range values.	Temperature sensor shorted or broken.	Replace the sensor	7.14
			Bad connections	Check the connectors and the harness	--
			Bad control board	Replace the control board	7.19
E008	Latch mechanism	The control can't perform any locking or unlocking cycle within the maximum allowed time.	Latch mechanism problem.		--
			Latch motor problem	Replace the motor	7.8
			Door micro switch breaks during self-clean when the door is locked	Replace the door micro switch	7.10
			Bad connections	Check the motor connections and the micro switches connections	--
			Defective control board	Replace the control board	7.19
E010	Over temperature or no regulation detected while cooking.	Runaway temperature condition during cooking.	One or more relays are stuck, driving heating elements. Check the contact of relay	Replace the control board	7.19
E040	Meat probe error Note:The meat probe option is not available in standard series.	Meat Probe sensor shorted.	Bad connections or probe short circuit	Check the harness near the probe connection or replace the probe	7.25
			Defective meat probe circuit	Replace the control board	7.19

WHEN A FAILURE OCCURS, THE DISPLAY SHOWS THE WRITING *Exxx Err,* WHEREAS xxx IS ONE OF THE ERROR CODES LISTED IN THE TABLE.
TO RESET THE FAILURE, FIRST THE CAUSE MUST BE REMOVED. THE COOKING MODE AND THE TEMPERATURE SELECTORS MUST BE TURNED INTO "OFF" AND "PRESET" POSITIONS RESPECTIVELY.

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.	Connections to the Electronic Control	Replace Electronic Control	7.19

Anomaly	Possible Cause	Corrective Action	section
Fan does not run No power supply	Power board relay not switching	Replace Control board	7.19
	78Ω resistor broken	Replace 78Ω resistor	7.21
Fan does not run Power supply ok.	Blocked rotor	Replace fan	7.2
	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 with the Switch in OFF position	The cooling fan thermostat is always switched.	Replace the thermostat.	7.13

4.4
Convection Fan Problems

Anomaly	Possible Cause	Corrective Action	section
Fan does not run. No power supply.	Bad connection Mode selector not switching	Check the connectors and the harness Replace switch selector	7.17
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	--

Anomaly	Possible Cause	Corrective Action	section
Door lock control does not run No power supply.	Control board relay not switching.	Replace Control board.	7.19
	Door micro switch or door latch micro switch not switching.	Replace micro switch.	7.10
Door lock control does not run Power supply ok.	Locked rotor.	Replace motor.	7.8
	Burned coil.	Replace motor.	7.8
Noisy.	Defective mounting of door lever mechanics.	Check lever mechanism of door lock. Lubricate all working parts with silicon grease	--
The control doesn't unlock the door after self-cleaning and the lock symbol on the display is steadily on.	The Oven temperature is still beyond the safety unlock value.	Wait for the temperature to drop below the threshold.	--
		Check all the connections between the sensor and the power board.	--
		Check the temperature sensor. If is damaged, replace it.	7.14
		Check the control board. If is damaged, replace it.	7.19
The control doesn't unlock the door after self-cleaning and the lock symbol on the display is always flashing.	The door micro switch is broken and the control thinks that the door is open.	Check and replace the new micro switch	7.10
	Door lever mechanism locked	Check lever mechanism of door latch. Lubricate all working parts with silicon grease	--

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
	Bad connection Selector broken.	Check the connectors and the harness. Replace the switch selector	7.17
The Oven lights are always OFF. Power supply is ok.	Lamps are burned out.	Replace lamps.	See user Manual
The Oven lights are always ON.	Bad connection Selector contact is broken or in short circuit.	Check the connectors and the harness. Replace the switch selector	7.17

Anomaly	Possible Cause	Corrective Action	section
Every cooking mode accepts only the preset temperature.	The control cannot read the temperature selector.	Check the connections between the selectors and the Electronic Control.	--
		Check and eventually replace the temperature selector itself.	7.18
		Check and eventually replace the Electronic Control.	7.19
The control doesn't accept any cooking mode.	The control cannot read the cooking mode selector.	Check the connections between the selectors and the Electronic Control	--
		Check the function encoder assemble on switch selector and eventually replace the switch selector itself.	7.17
		Check and eventually replace the Electronic Control.	7.19
Any or some cooking mode performed	The contacts of selector do not switch.	Check the connections between the selectors and the Electronic Control.	
		Check and eventually replace the selector itself.	7.17
		Check and eventually replace the Electronic Control.	7.19

Anomaly	Possible Cause	Corrective Action	section
The display is always dark, the latch at power up doesn't work	The power supply is not working.	Check and eventually replace the Electronic Control.	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	7.16

Anomaly	Possible Cause	Corrective Action	section
Bad performance	Heating elements not working	Check the connection of the heating elements	--
		If there in not power on the heating elements check relays on the Control Board. If the electronic control relay not switching replace the units.	7.19
		Check the power on the heating elements and replace the elements if needed	7.5 7.6 7.7
		Check the contacts of the switch selector and replace it if needed.	7.17
	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

Anomaly	Possible Cause	Corrective Action	section
Meat Probe seems to be not present or doesn't work	Bad connection or short circuit	Check the harness near the probe connection	7.25
	Meat probe internal wires are broken	Replace the meat probe	--

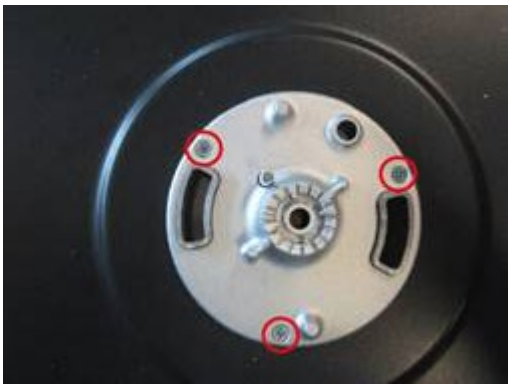
- Check the electricity supply.
- Check spark gap is not too wide (burners sitting correctly).
- Check if electrodes/burners are clean (use rubbing alcohol and an old toothbrush).
- Check continuity from the box to the electrode and from the burner or ground point to the ground connection on the box.
- 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 cap 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)

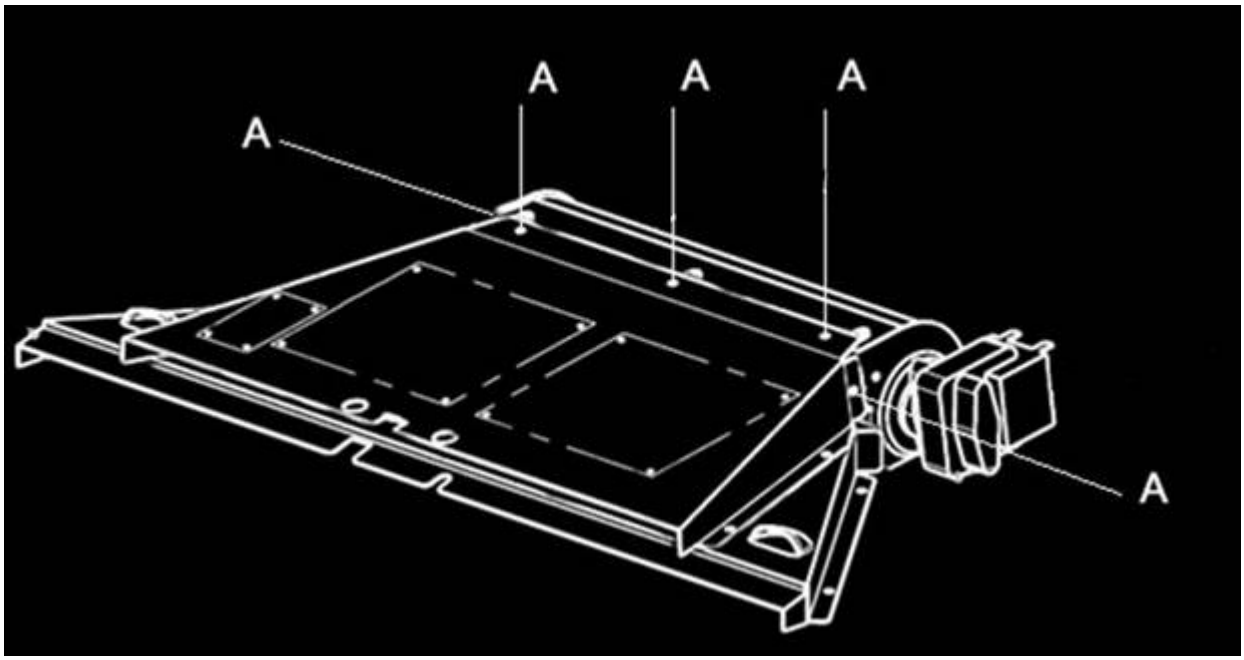
Remove the grates, burner caps, aluminium spreader
Remove the screws holding each burner. (To prevent damaging the screw head use a No. 1 Philips screwdriver.)
Lift off top panel in vertical way.
Remove the lateral screws to lift up the internal separator sheet. Note: The edge can be sharp.
To replace, reverse the procedure.



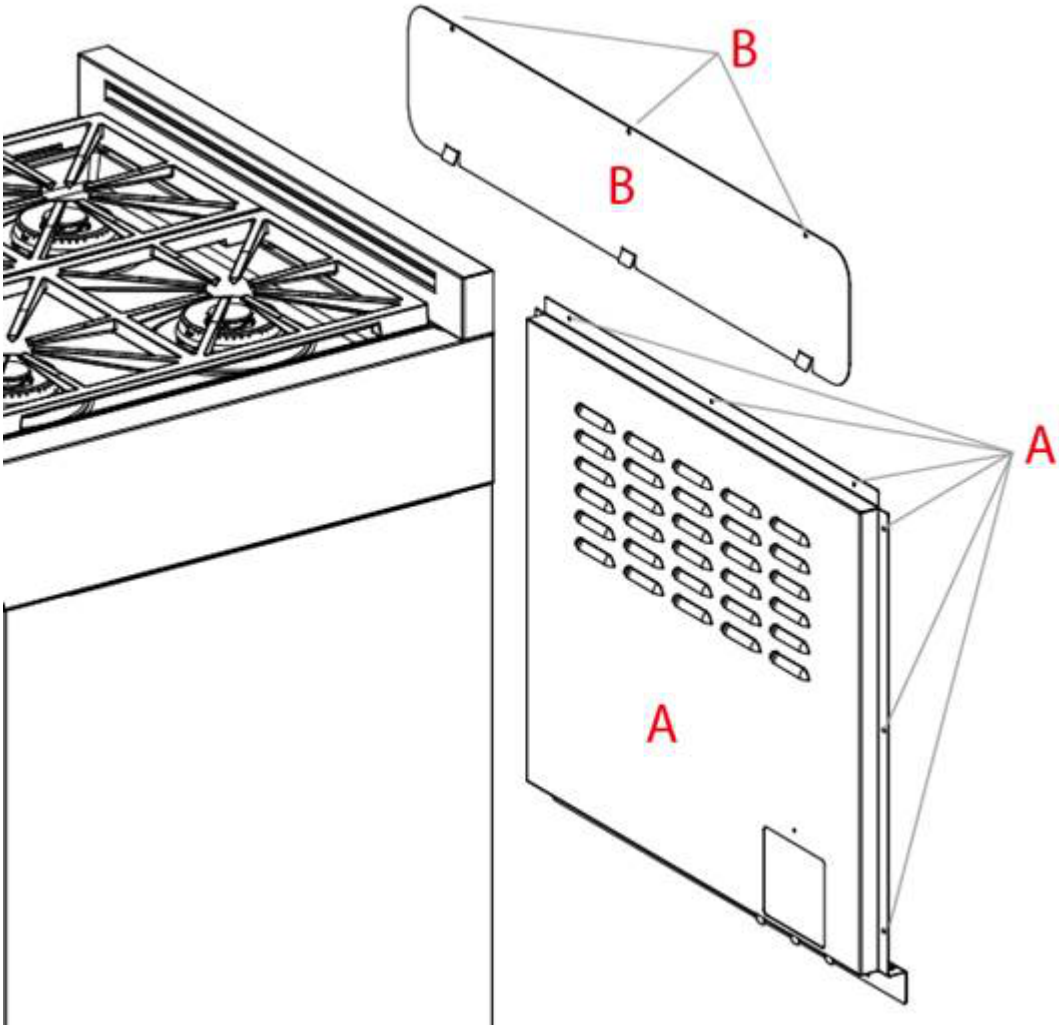
Burner

Separator Sheet

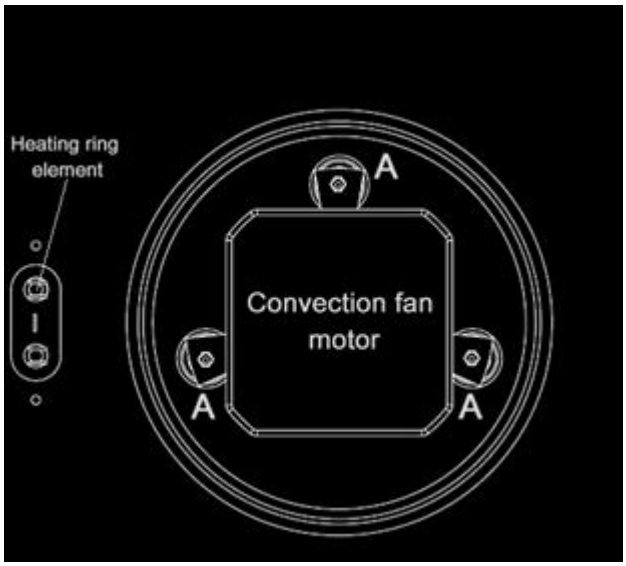
1. Disconnect the power supply cord and remove the Top panel (Section 7.1).
2. Remove the five screws **A** (two lateral & three on the top).
3. Disconnect the terminals on the fan and remove the fan damaged.
4. Replace the cooling fan motor.
5. Connect the terminals and fix the motor by its screws.
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.



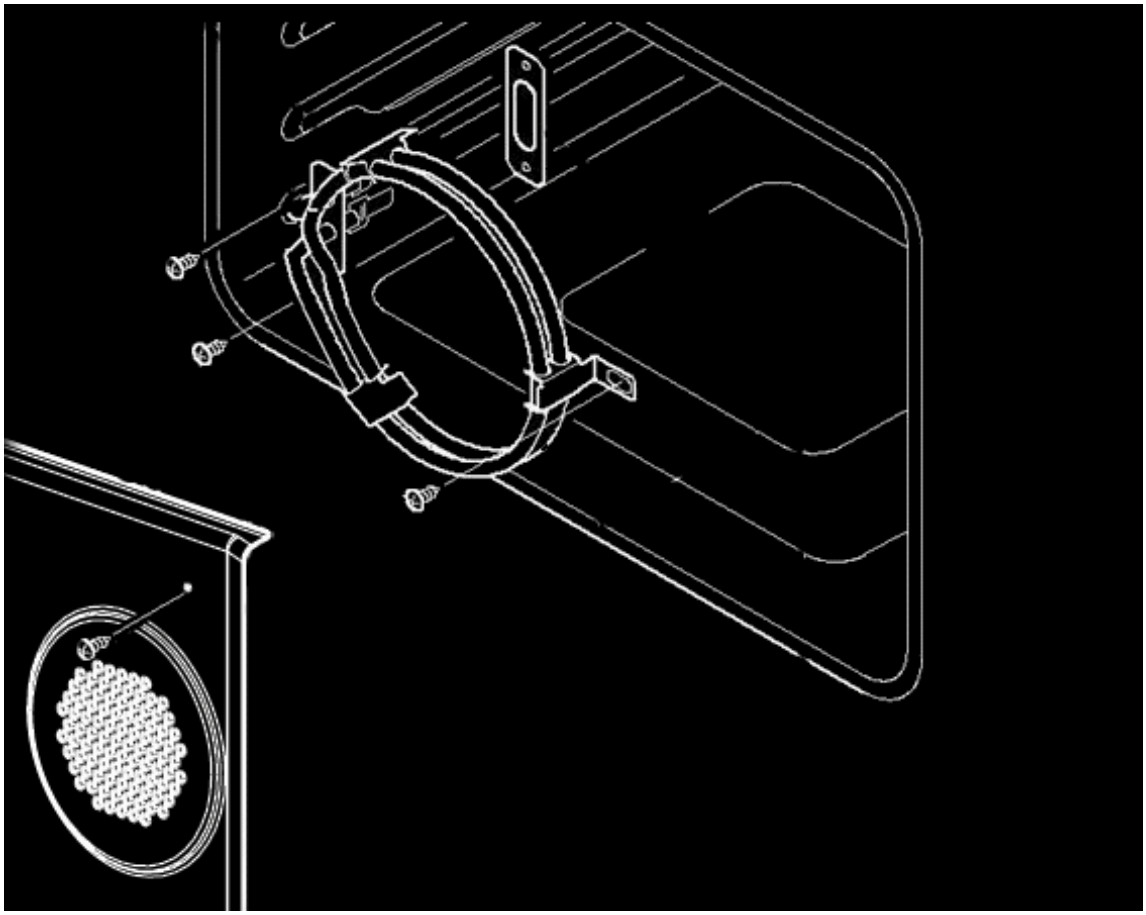
1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. To Remove the rear lower cover A disassemble its twelve back screws **A**.
3. To Remove the rear upper cover B disassemble its three back screws **B**.



1. Disconnect the power supply cord and gas connection han 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 or three on single fan.
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. Connect the terminals (the connections must not be loose).
11. Reconnect the power supply cord and check all functions.

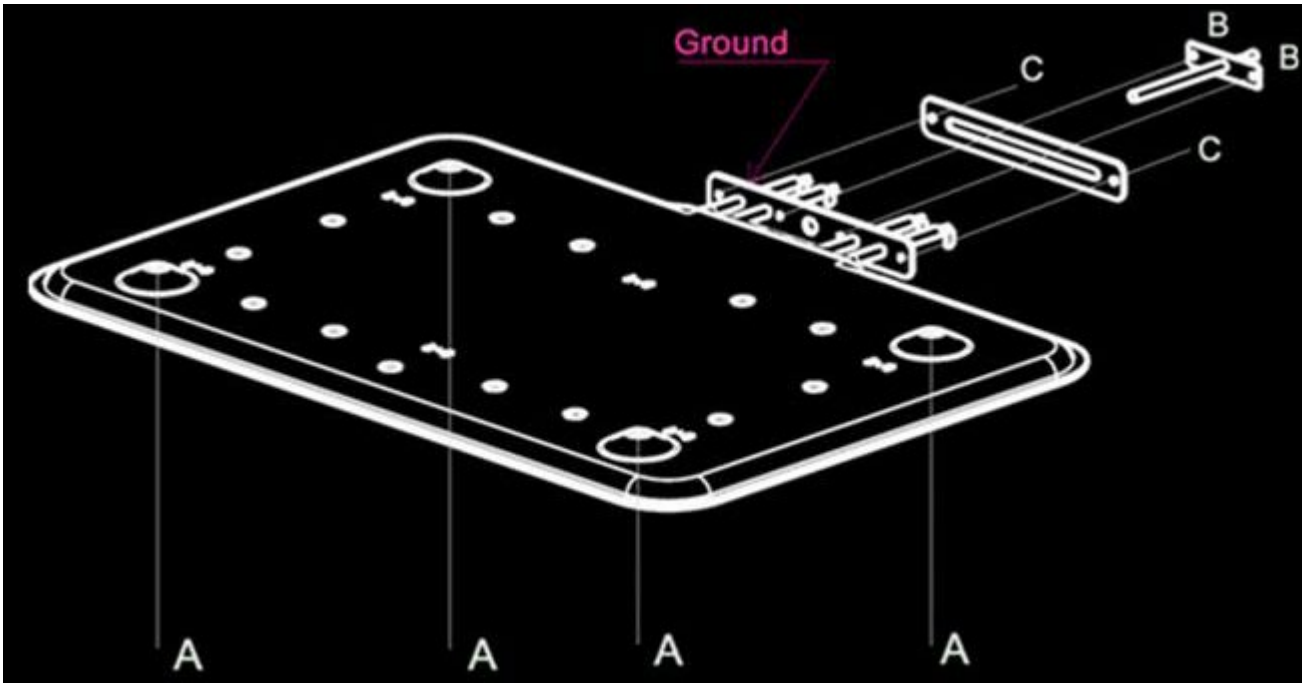


1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the rear lower cover (Section 7.3).
3. Disassemble the baffle by removing the five screws in the cavity for double fans or three on the single fan.
4. Disconnect the terminals of heating element and remove the ring element by removing the three screws.
5. Mount the new ring element with the new fiber gasket between the base of the element and the back side of the Oven.
6. Mount the baffle.
7. Connect the terminals (the connections must not be loose).
8. Reconnect the power supply cord and check all functions.

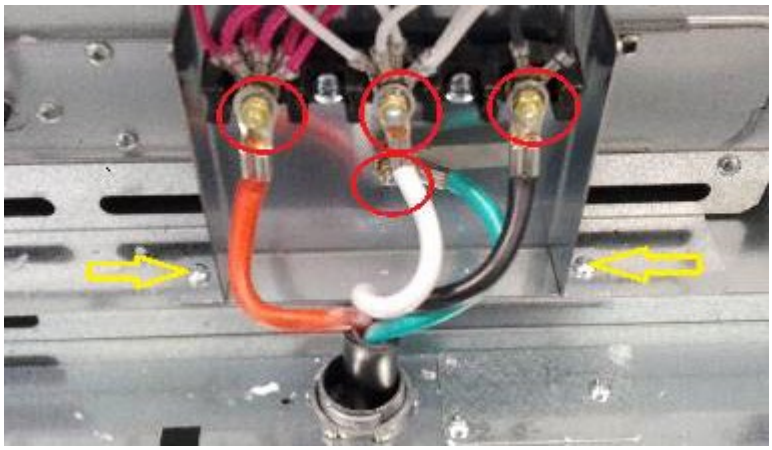


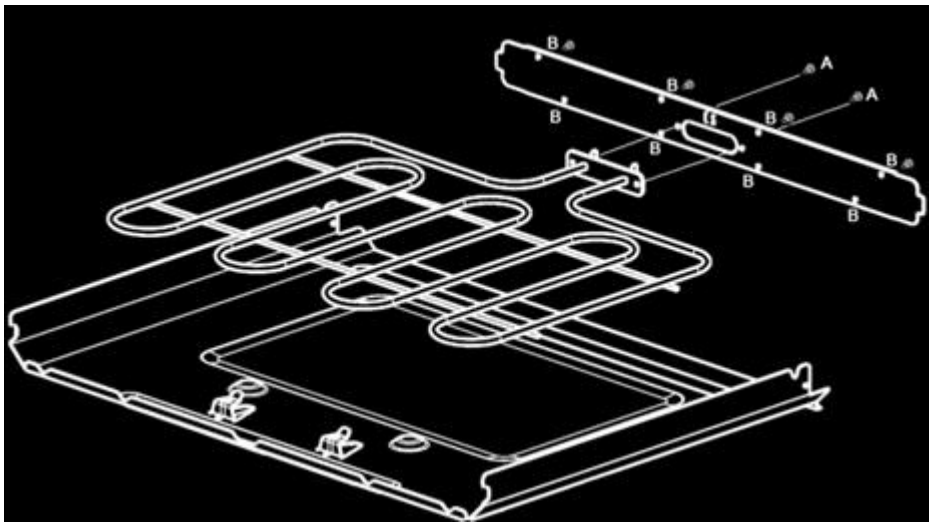
1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the rear lower cover (Section 7.3).
3. Disconnect the terminals of heating element.
4. Remove the probe unscrewing its two screws **B**.
5. Remove the two screws **C** near the external terminals, **one of which is used for ground**.
6. Remove the upper element by removing four screws **A** on the brackets on top in the cavity.
7. Mount the new upper element with a new fiber gasket between the base of the element and the back side of the Oven.
8. Connect the terminals. Pay attention to the sequence of wiring on the element (the connections must not be loose).

Reconnect the power supply cord and check all functions.



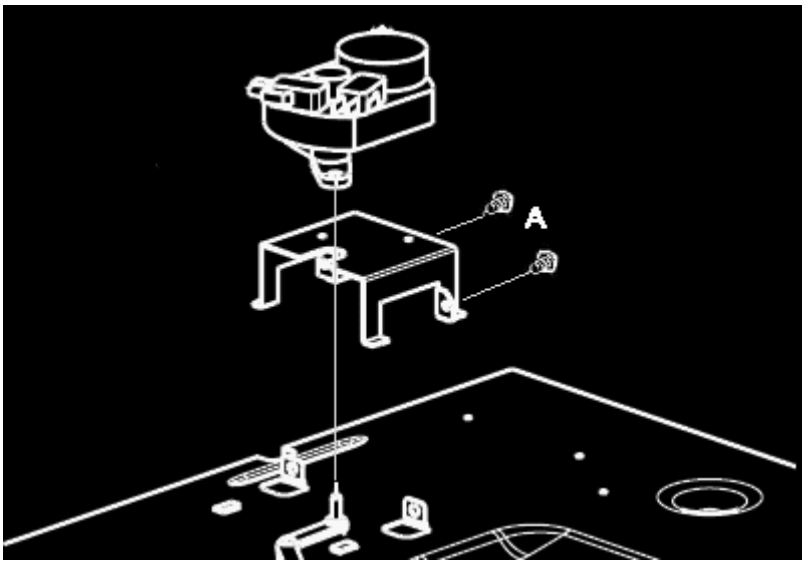
1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the lower rear cover (Section 7.3).
3. Disconnect the terminals of heating element.
4. Remove the terminal block support by its two screws and also the power cord to access to the lower HE.
5. Remove the eight screws **B** on the brackets and the other two screws **A** near the external terminals.
6. Remove the brackets.
7. Pull out the lower element.
8. Replace the new element by reversing the previous steps.
9. Pay attention to the positioning of the element.
10. Connect the terminals (the connections must not be loose).
11. Reconnect the power supply cord and check all functions.

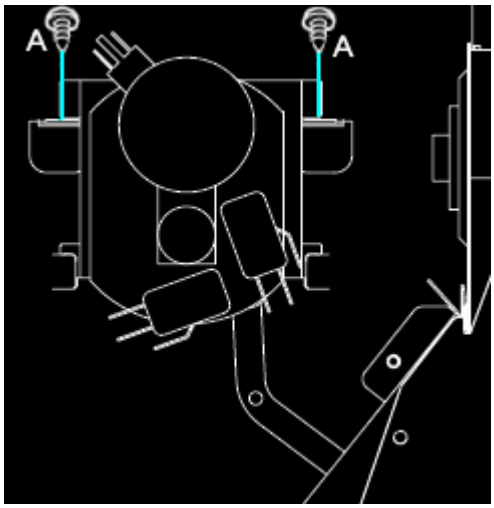




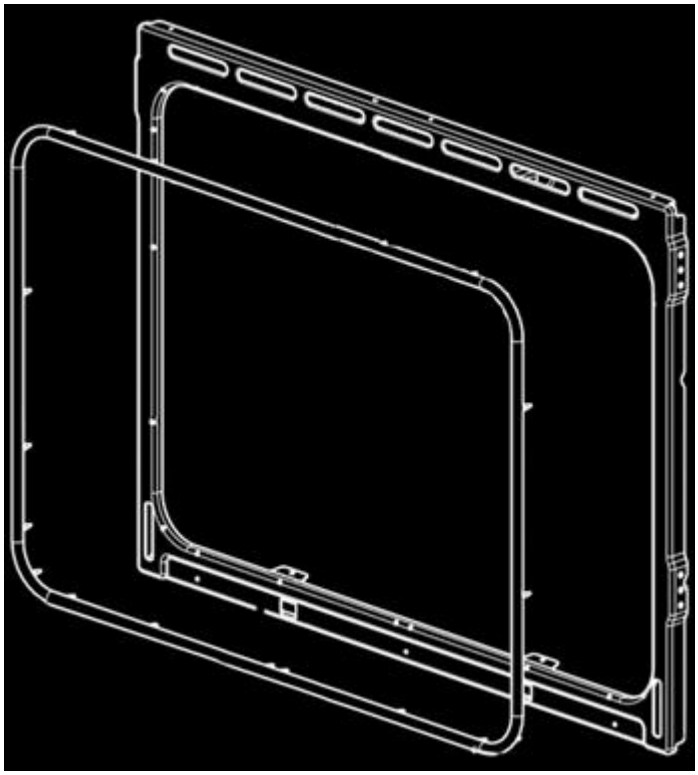
1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Disconnect the cables. Pay attention to the sequence of wiring of the motor (micro switch).
4. Remove the screws **A** and lift back the motor to remove it.
5. Disassemble the motor by removing the screws under its support and remove it.
6. Replace the new motor assembly by reversing the previous steps.
7. Pay attention to the positioning when inserting the door lever mechanism into the eccentric of the motor.
8. Connect the terminals (the connections must not be loose).

Reconnect the power supply cord and check all functions.

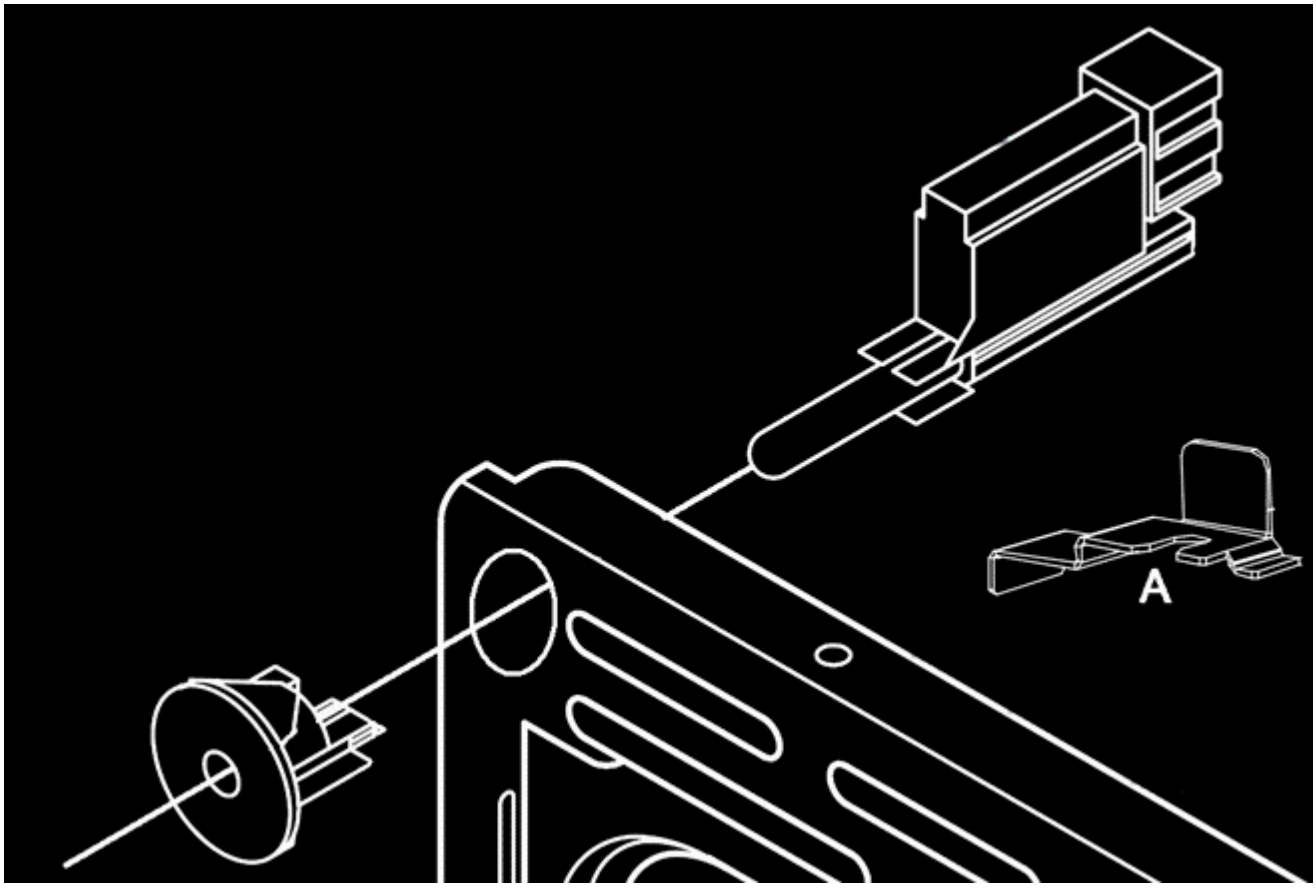




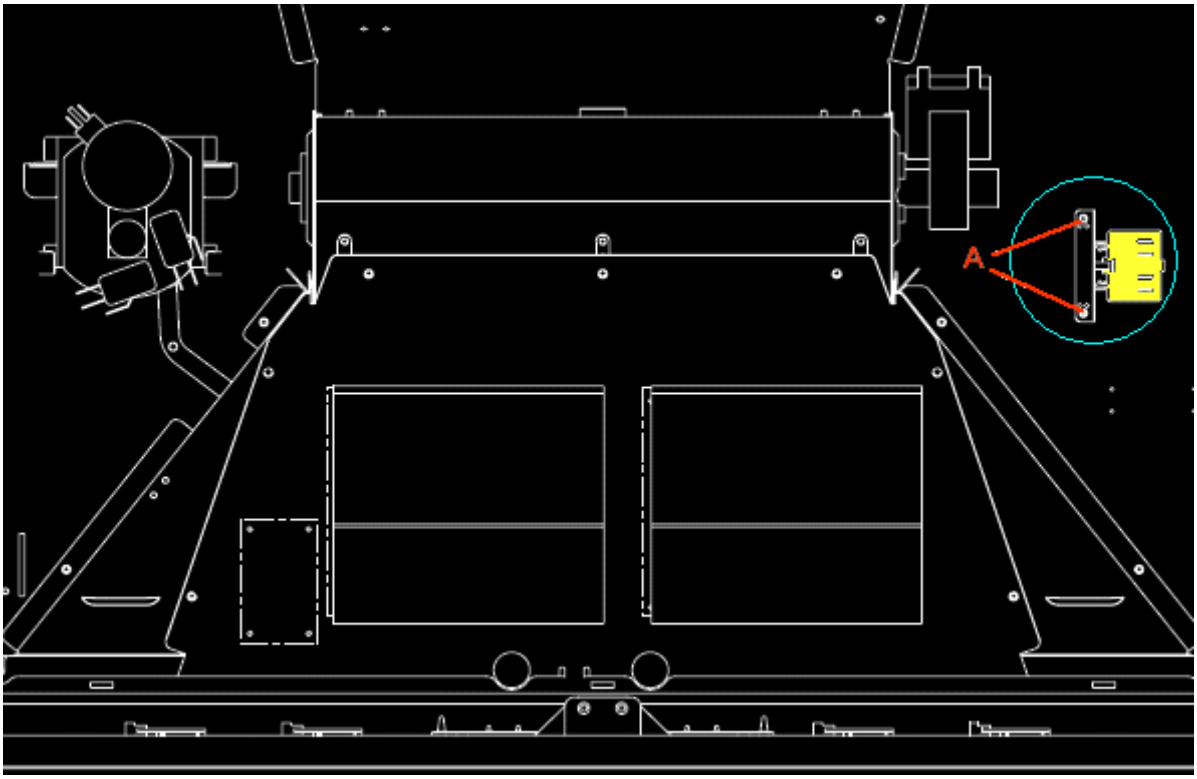
1. Open door and pull out the gasket by hands.
2. Replace with a new one by reversing the previous steps.



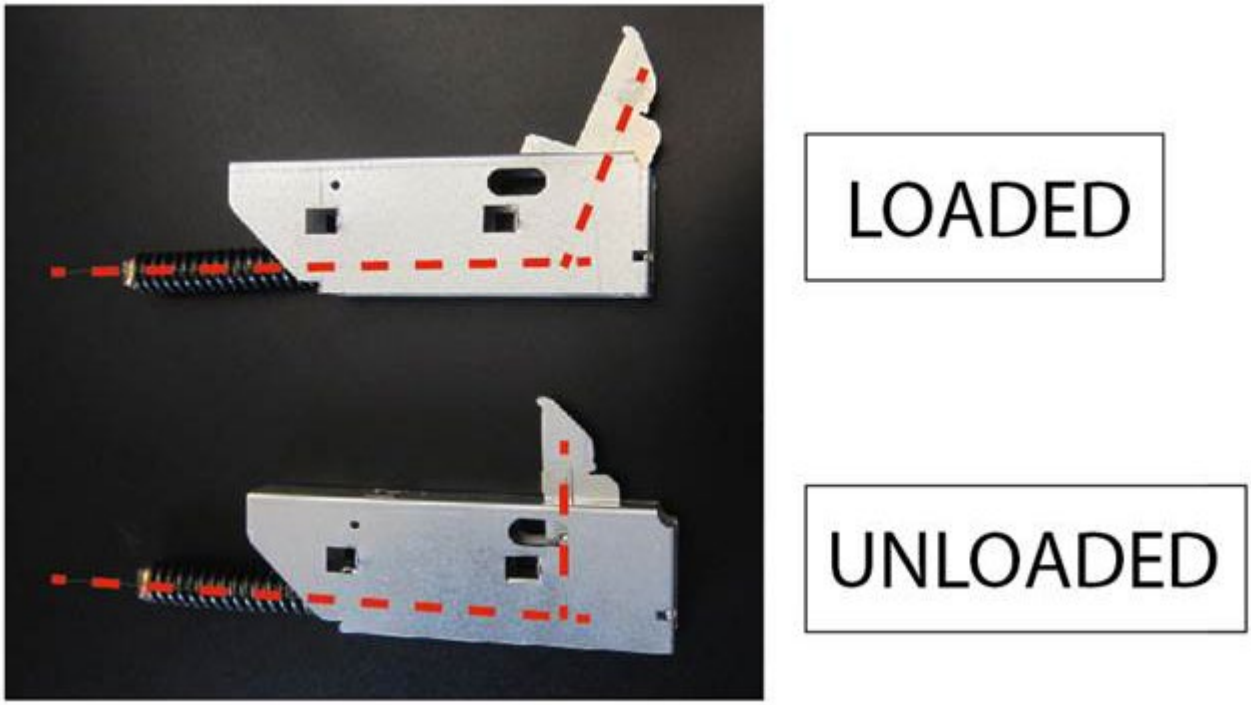
1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Disconnect the terminals from the switch.
4. Unscrew the bracket A.
5. Pull out the switch from the holder.
6. Replace with a new switch by reversing the previous steps.
7. **PAY ATTENTION TO THE WIRING SEQUENCE N°1 – N°4**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



1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Disconnect the terminals from filter.
4. Remove the filter damaged by unscrew two screws **A** and dismount it from its bracket.
5. Replace a new one
6. Pay attention to the wiring sequence (the connections must not be loose).
7. Reconnect the power supply cord and check all functions.



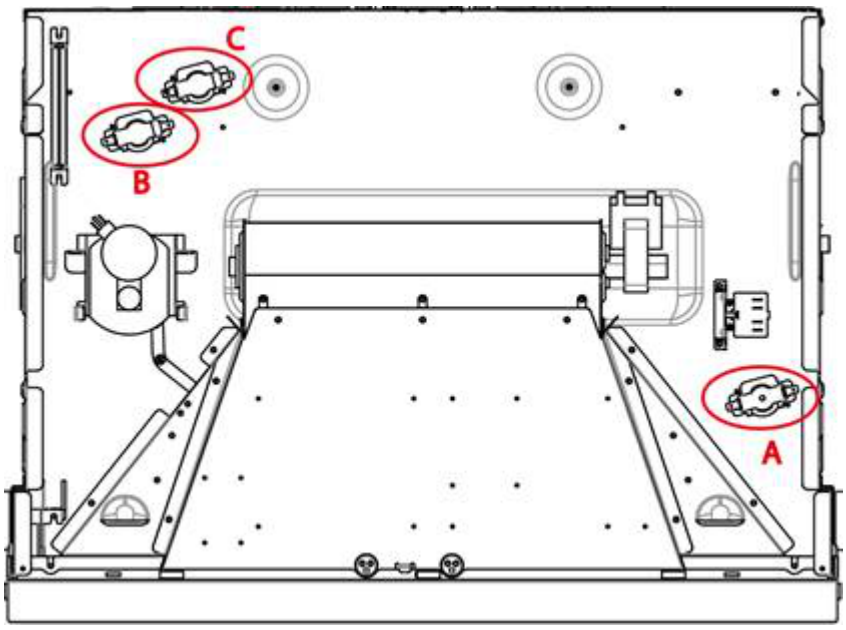
1. Before mounting the hinges ensure that the code is correct and then proceed with the loading of the hinge spring. There are two possible positions – LOADED and UNLOADED – as indicated above. The hinge must be assembled LOADED.



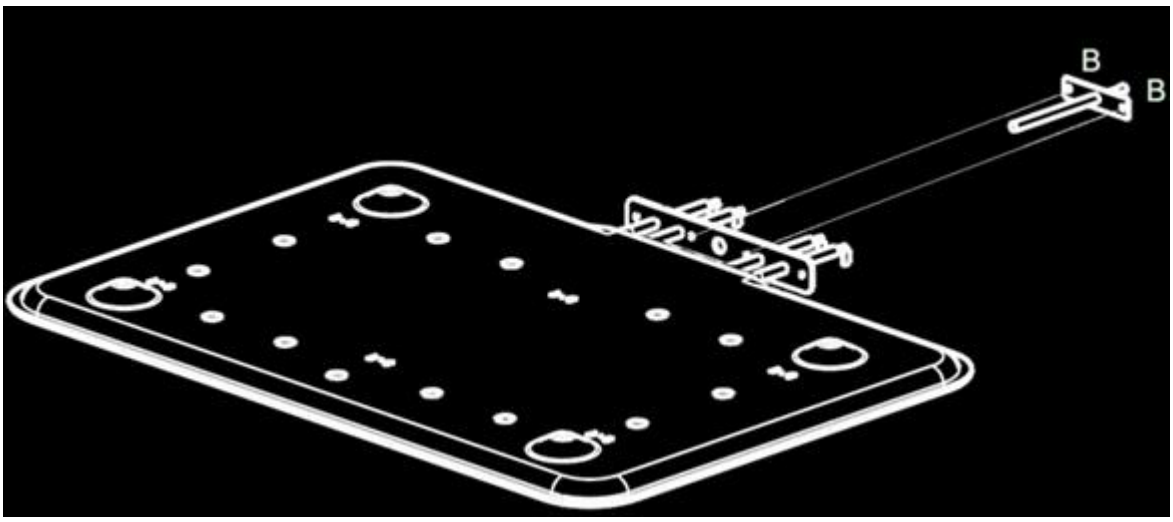
1. Disconnect the power supply.
2. Remove the top panel (Section 7.1).
3. Unscrew the thermostat's holder:

   A. Safety thermostat (manual reset).
   B. Double speed cooling fan thermostat (on 30") or cooking / lock door thermostat (on 36")
   C. Double speed cooling fan thermostat (on 36") or cooking / lock door thermostat (on 30")

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.

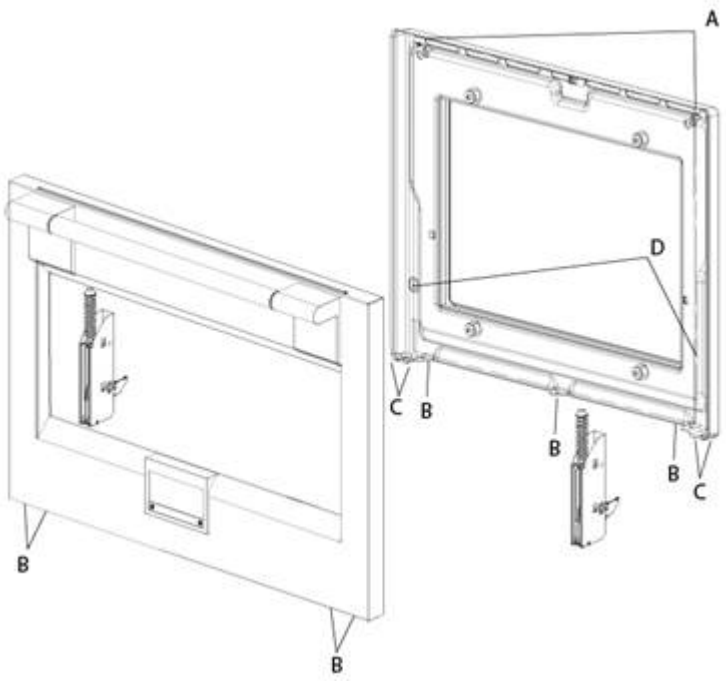


1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the lower rear cover (Section 7.3).
3. To replace the probe, disconnect it and remove the attachment screws **B**.
4. Reinstall the Oven into the cabinet.
5. Reconnect the power supply and check all functions.

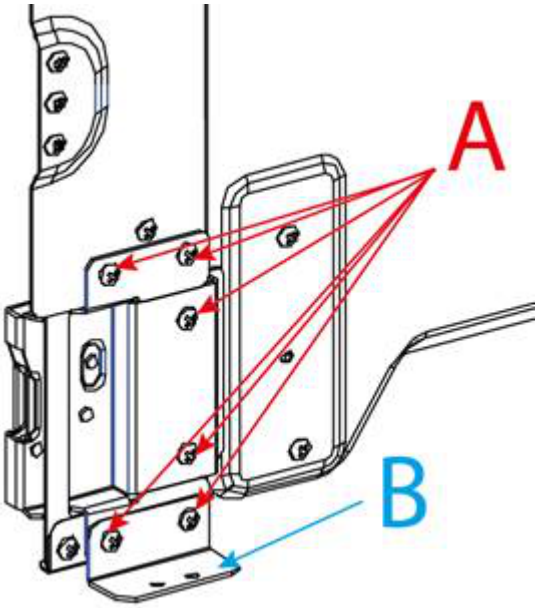


1. Remove the door following the (see user manual).
2. Put the door on a flat surface with a soft cloth to prevent scratching of the aesthetics.
3. Remove the door external glass by the screws **A** and **B**.
4. Remove the hinges unscrewing the screws **C** and **D**.
5. To replace the hinges, reverse 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)

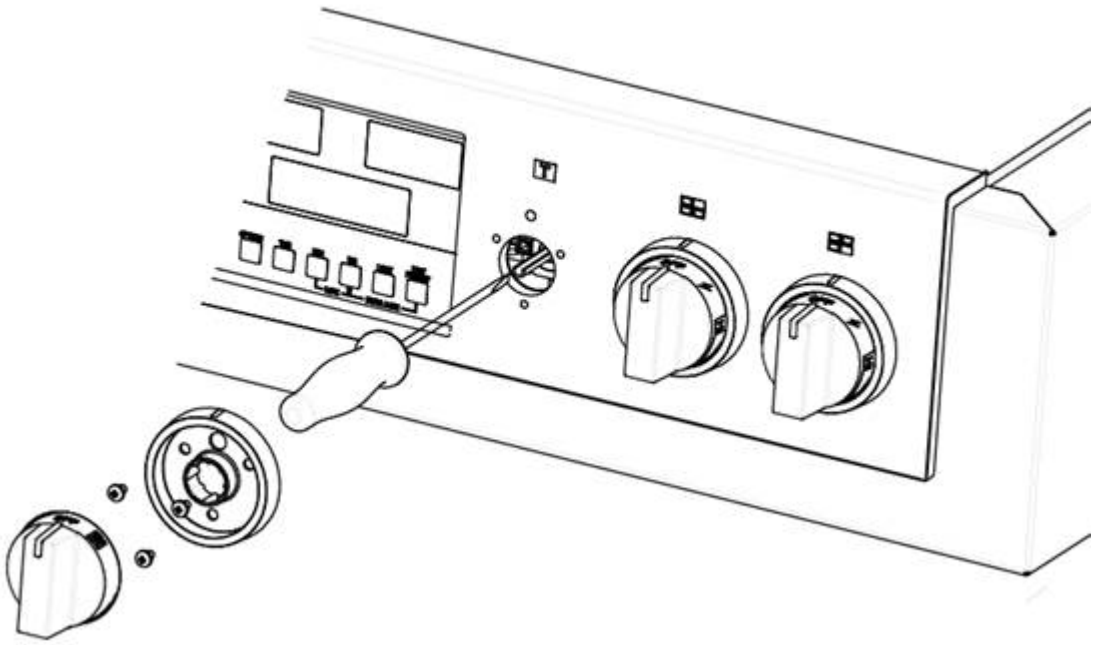


1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the door following the User Manual instruction and also the base board.
3. Remove the side cover (see Section 7.23)
4. Unscrew the screws **A** and remove also the bracket **B** to change support.
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.



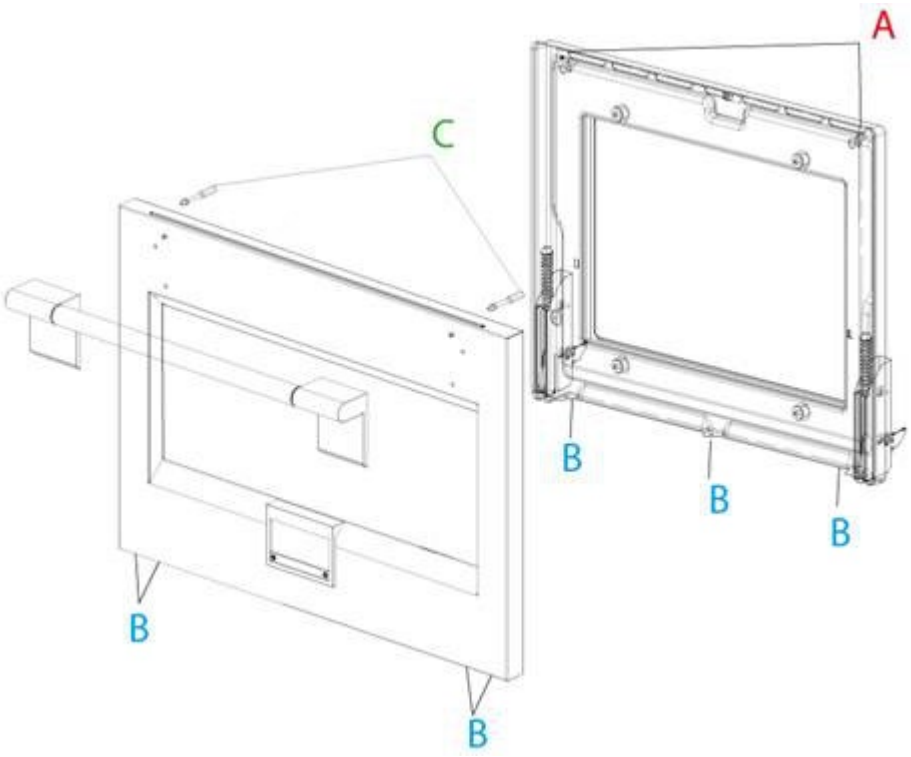
1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Remove the knob and its ring support.
4. Remove the bad switch unscrewing the two screws.
5. Disconnect the cables from the switch.
6. Connect the cable following the electric diagram.
7. **PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION.**
8. The connections must not be loose.
9. Reassemble the new selector by reversing the previous steps
10. 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 knobs.
4. Disconnect the bad selector and remove it by the screws.
5. Replace the new selector by reversing the previous steps
6. Reconnect the power supply cord and check all functions

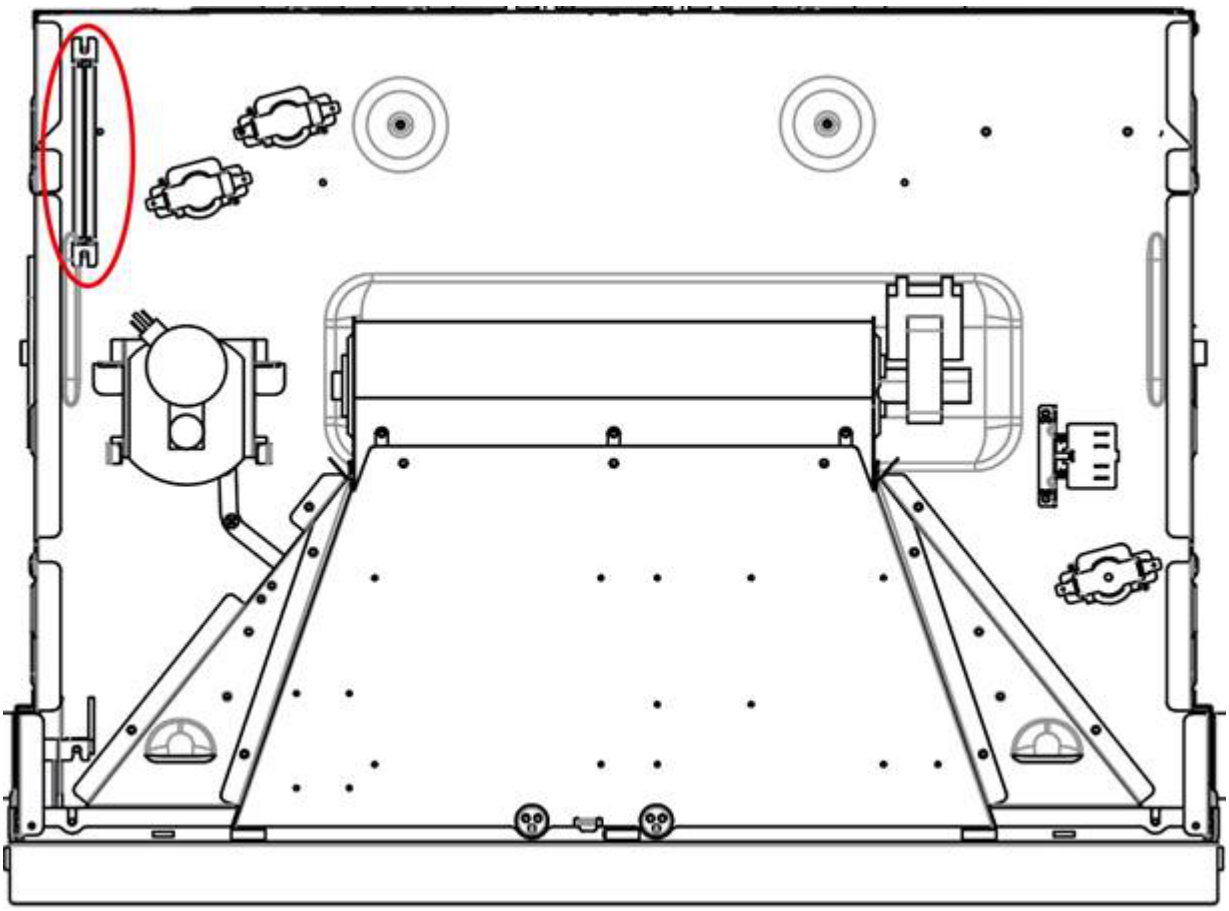


1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Remove the temperature encoder and selector switch. (Section 7.17) and (Section 7.18)
4. Disconnect the cable from the board.
5. Unscrew the eight screws showed in order to remove the control support.
6. Remove the control by its lateral plastic brackets and replace it with a new one.
7. Replace the new display board by reversing the previous steps.
8. Connect the cable following the electric diagram.
9. **PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION.**
10. Reinstall the RANGE.
11. Reconnect the power supply cord.
12. **Check the Oven by MANUAL TEST following the procedure shown on (section 2.6).**

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 **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).

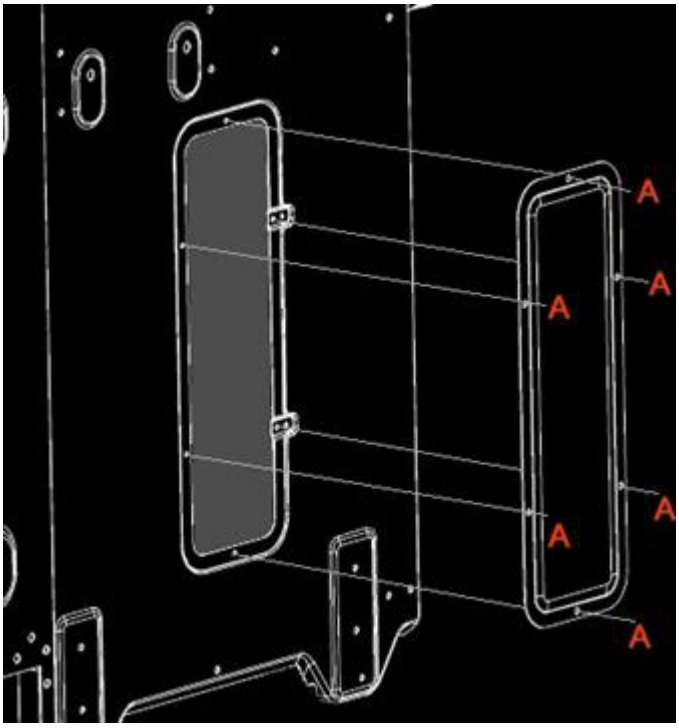


1. Disconnect the power supply.
2. Remove the top panel (Section 7.1).
3. Unscrew the resistor's holder:
4. Replace with a new resistor by reversing the previous steps.
5. The connections must not be loose.
6. Reconnect the power supply cord after and check all functions.



1. Disconnect the power supply cord 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 'fast-on' 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.



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.

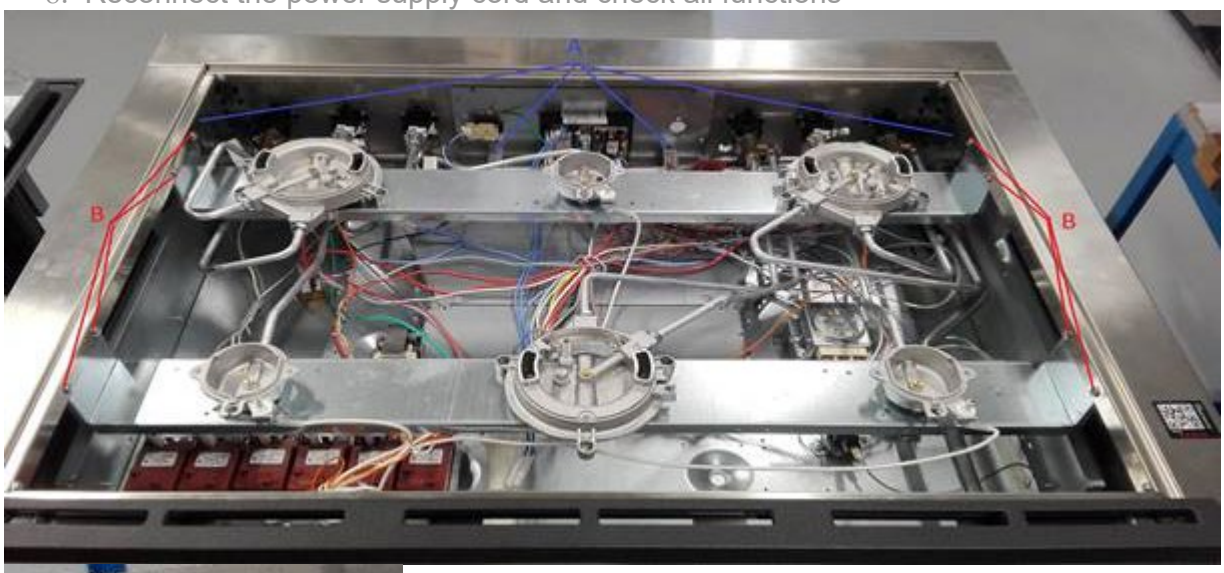
1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the door following the User Manual instruction and also the base board.
3. Remove the side cover (see Section 7.23)
4. Remove the MEAT PROBE cover by its three screws (fig1).
5. Check the connection cable.
6. **IT IS VERY IMPORTANT THAT ALL THE WIRES OR TERMINALS MUST NOT BE IN CONTACT WITH THE ALUMINUM INSULATION FOIL. (Fig2)**
7. **THE PROBE JACK INSERTED MUST BE IN CONTACT WITH BOTH METAL BLADES OF FEMALE PLUG. (Fig3)**
8. The connections must not be loose.
9. Reconnect the power supply cord and check all functions.

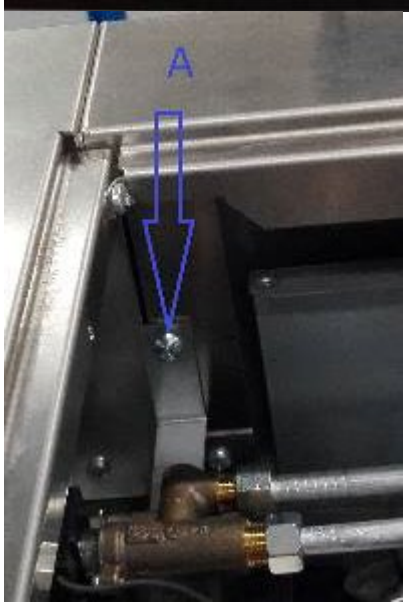

fig. 1

fig 2


fig 3

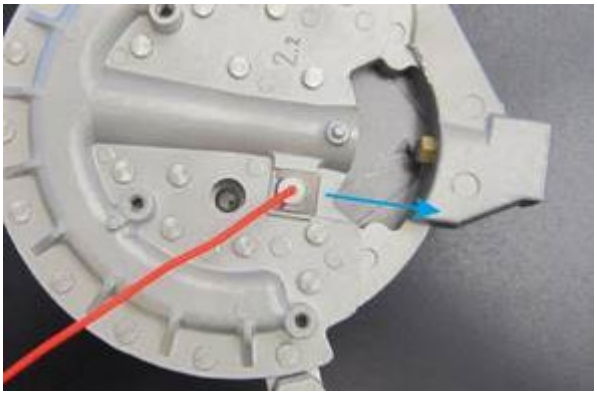
1. Disconnect the power supply cord.
2. Remove the top panel (Section 7.1).
3. Remove all the knobs.
4. Remove the 4 screws **A** and the 8 screws **B**.
5. **(PAY ATTENTION TO THIS OPERATION)** Slide back **CAREFULLY** the whole burners assembly until there is enough front space to lift out the switch 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





7.27.1 To replace a spark plug

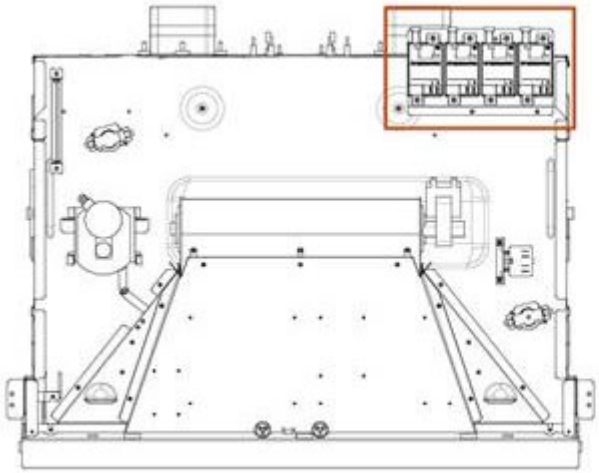
- Disconnect the power supply cord.
- Remove the top panel (Section 7.1).
- Unlatch the spark plug spring.
- Replace it.
- Reassemble in reverse order.

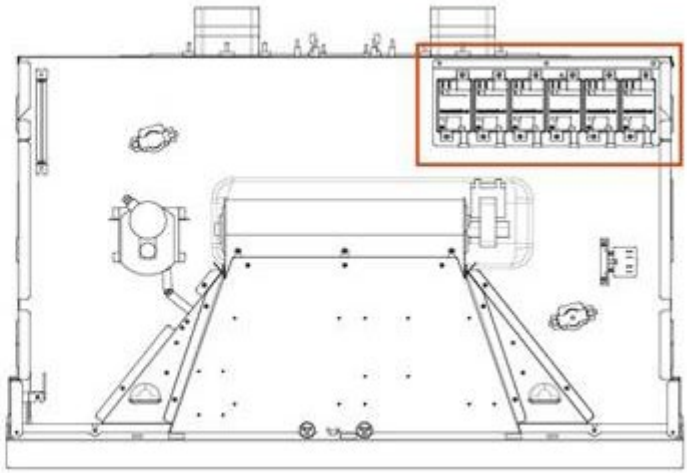


7.27.2 To replace ignition box

- 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).
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 on the manifold tube.
8. Reassemble in the reverse order.
9. 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.
10. Reinstall the RANGE.
11. Reconnect the power supply cord and check all functions.

Gas valve identification (see section 2.10)