



# Dual Fuel Range US Service Manual (HAWK3 or MODULAR LED)

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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.

### 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.



## ***Special Tools & Materials***

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### **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



**Range Specifications**

**2.1.1 Weight**

Dual Fuel 30"      Dual Fuel 36"      Dual Fuel 48"

lbs /Kg =326/148    lbs /Kg =382/173    lbs /Kg =512/232

**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          |
| <b>DUAL FUEL RANGES<br/>30" 36"</b>                   | <b>16,9</b>                                   | <b>3,84</b> | <b>17,5</b>          | <b>3,54</b> |
| <b>DUAL FUEL RANGES<br/>48" (Griddle)</b>             | <b>31,3</b>                                   | <b>7,00</b> | <b>29,5</b>          | <b>6,00</b> |
| <b>DUAL FUEL RANGES<br/>48" (Griddle + Glow Wire)</b> | <b>34,7</b>                                   | <b>7,40</b> | <b>32,6</b>          | <b>6,40</b> |

**2.1.3 Gas Requirement**

|                         |     |
|-------------------------|-----|
| <b>NATURAL GAS</b>      | WC  |
| Supply Pressure         | 5"  |
| Min. Line Pressure      | 6"  |
| Max. Regulator Pressure | 14" |
| <b>LP GAS</b>           | WC  |
| Supply Pressure         | 10" |
| Min. Line Pressure      | 11" |
| Max. Regulator Pressure | 14" |

**2.1.4 Top Burner output ratings: btu/hr**

|             | NG (Natural)<br>Gas, 5" W.C.P        | LP (Propane)<br>Gas, 10" W.C.P.      |
|-------------|--------------------------------------|--------------------------------------|
| STD POWER   | 750 to 18000 Btu/h<br>(220 to 5300W) | 750 to 15000 Btu/h<br>(220 to 4400W) |
| EXTRA POWER | 750 to 20000 Btu/h<br>(220 to 5850W) |                                      |

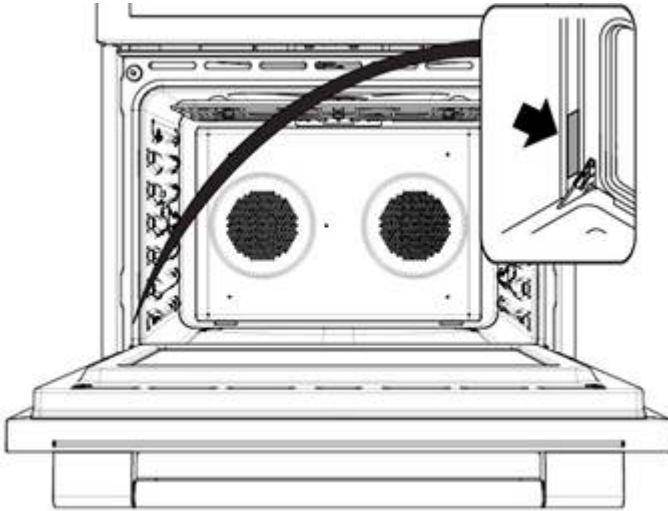
**2.1.5 Griddle Burner output ratings: btu/hr**

|           | NG (Natural)<br>Gas, 5" W.C.P         | LP (Propane)<br>Gas, 10" W.C.P.       |
|-----------|---------------------------------------|---------------------------------------|
| STD POWER | 2000 to 11500 Btu/h<br>(586 to 3370W) | 2000 to 11500 Btu/h<br>(586 to 3370W) |



### **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**

| <b>2.3.1 Heating Elements</b> | <b>Volts</b> | <b>Freq.</b> | <b>Watts</b>       | <b>Note</b> |
|-------------------------------|--------------|--------------|--------------------|-------------|
| 30" & 36" cavity              |              |              |                    |             |
| Broil                         | 240          | --           | 3500               |             |
| Bottom                        | 240          | --           | 3000               |             |
| Ring                          | 240          | --           | 1x 2500<br>2x 1300 |             |
| Additional                    | 208          | --           | 775                |             |
| 18" cavity                    |              |              |                    |             |
| Broil                         | 240          | --           | 2100               |             |
| Bottom                        | 240          | --           | 1250               |             |
| Ring                          | 240          | --           | 2500               |             |
| Additional                    | 208          | --           | 526                |             |

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

| <b>2.3.3 Electric and Gas Components</b> | <b>Volts</b> | <b>A</b> | <b>Watts</b> | <b>Note</b>     |
|--|--------------|----------|--------------|-----------------|
| 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 |
| Griddle Glow Wire Igniter                | 120          | 3.5      | 400          |                 |
|  |              |          |              |                 |





- **ELECTRONIC CONTROL.** The oven control consists of a main power board and a display board. An additional power board is derived from the main one removing the power supply parts. It has all the functions of the main one to drive the lower cavity in a double oven. The main power board provides the voltages to the other boards (GND, -5V and -24V for the relays to the lower power board only).
- The three boards share a I2C communication bus (Data and Clock).
- **COOKING MODE & TEMPERATURE SELECTORS.** All ovens have one selector for the cooking modes and one for the set temperature. The cooking mode selector has 4 positions for thermal cavities, 9 for multifunction ones.
- **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 never overtakes 3500W.
  - UPPER ELEMENT
  - LOWER ELEMENT
  - RING ELEMENT
  - UPPER EXTERNAL ADDITIONAL ELEMENT
- **CONVECTION FAN.** Convection fan. It works in all convection modes, in Fast Preheat and in Self-Clean. 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, and removes smoke from the cavity through the catalyser. There are several by-pass thermostats that 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 open. It's also possible to switch the lights on manually by pressing the light button.
- **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. The door micro switch is checked every time the latch starts to verify that the door is actually closed. If the door is open, the latch icon flashes until the door is closed. 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 48" range is provided with also a Griddle thermostatically controlled.



**Oven Model Configuration (HAWK3)**

**IMPORTANT:** The MANUAL TEST procedure can be activated only within 5 minutes after power on.



Refer to the above picture to identify the HAWK3 electronic control.

The control must be able to drive multifunction cavities, with one or two convection fans, and thermal cavities. Different oven models are possible as described in the following table.

| N°          | SIZE       | OVEN   | MAIN CAVITY                    |            |
|-------------|------------|--------|--------------------------------|------------|
| <b>n 03</b> | 30" or 36" | SINGLE | CONVECT 2 FANS                 | <b>80C</b> |
| <b>N 15</b> | 48"        | DOUBLE | CONVECT 1 FAN + CONVECT 2 FANS | <b>80C</b> |

The manual test procedure must be completed and confirmed as per the instructions in this section. If the control has never been configured before, the display shows **F11Err** at power up. Once a configuration has been accepted, the failure disappears.

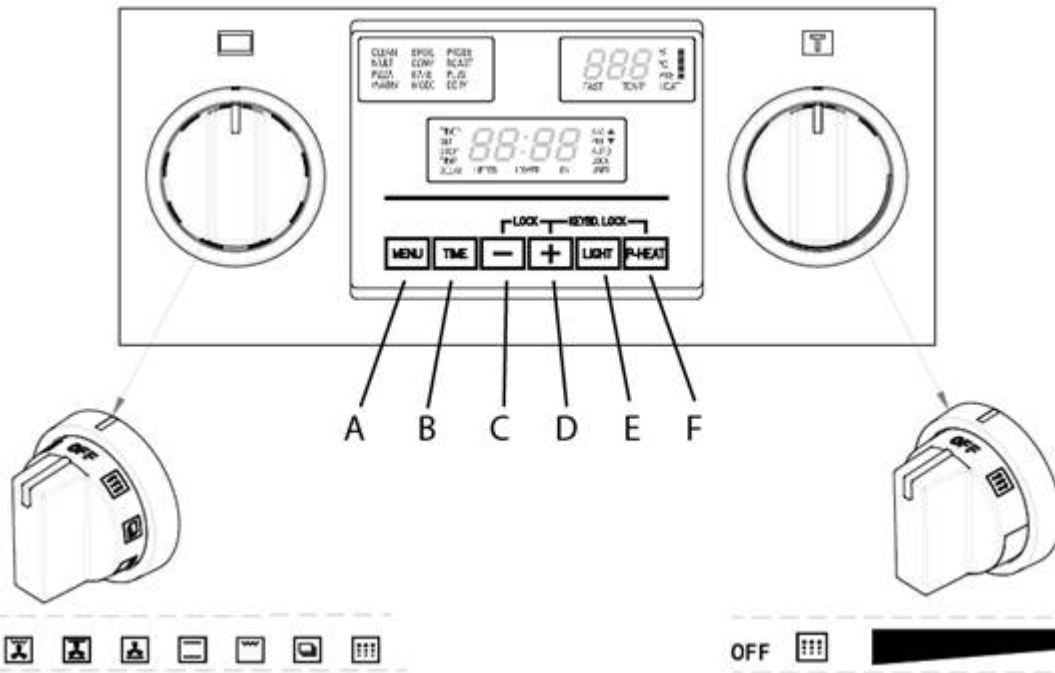
At every POWER-UP, the control runs a latch auto-test cycle. The lock icon flashes while the latch is moving.

- Hold **[A]** and **[F]** button at the same time, for about 3 seconds, and check that all the display elements and the buzzer turn on for about 5 seconds.
- Press **[+]** to enter test mode then press **[+]** to get into the next step. Press **[-]** to come back to the previous one.
- Check the display board SOFTWARE VERSION (d05).
- Check the main power board SOFTWARE VERSION (P18).
- Check whether the oven model has been correctly detected.

Otherwise:

- Hold **[A]** key, the oven model starts flashing on the display.
- Hold **[C]** / **[D]** keys in order to select the correct model n01 to n13 according to the table above.
- Hold **[A]** again to confirm.





(OTHERWISE CHECK WHETHER THE CONFIGURATION HAVE BEEN SET PROPERLY, AS DESCRIBED AT THE BEGINNING)



**Oven Model Configuration (MODULAR LED)**

**IMPORTANT:** The MANUAL TEST procedure can be activated only within 5 minutes after power on.



Refer to the above picture to identify the MODULAR LED electronic control.

The control must be able to drive multifunction cavities described in the following table.

| N°          | SIZE       | OVEN   | MAIN CAVITY                    |            |
|-------------|------------|--------|--------------------------------|------------|
| <b>n 03</b> | 30" or 36" | SINGLE | CONVECT 2 FANS                 | <b>80C</b> |
| <b>N 15</b> | 18" + 48"  | DOUBLE | CONVECT 1 FAN + CONVECT 2 FANS | <b>80C</b> |

The manual test procedure must be completed and confirmed as per the instructions in this section. If the control has never been configured before, the display shows **F11Err** at power up. Once a configuration has been accepted, the failure disappears.

- Hold **[A]** and **[F]** button at the same time, for about 3 seconds, and check that all the display elements and the buzzer turn on for about 5 seconds.
- Press **[+]** to enter test mode then press **[+]** to get into the next step. Press **[-]** to come back to the previous one.



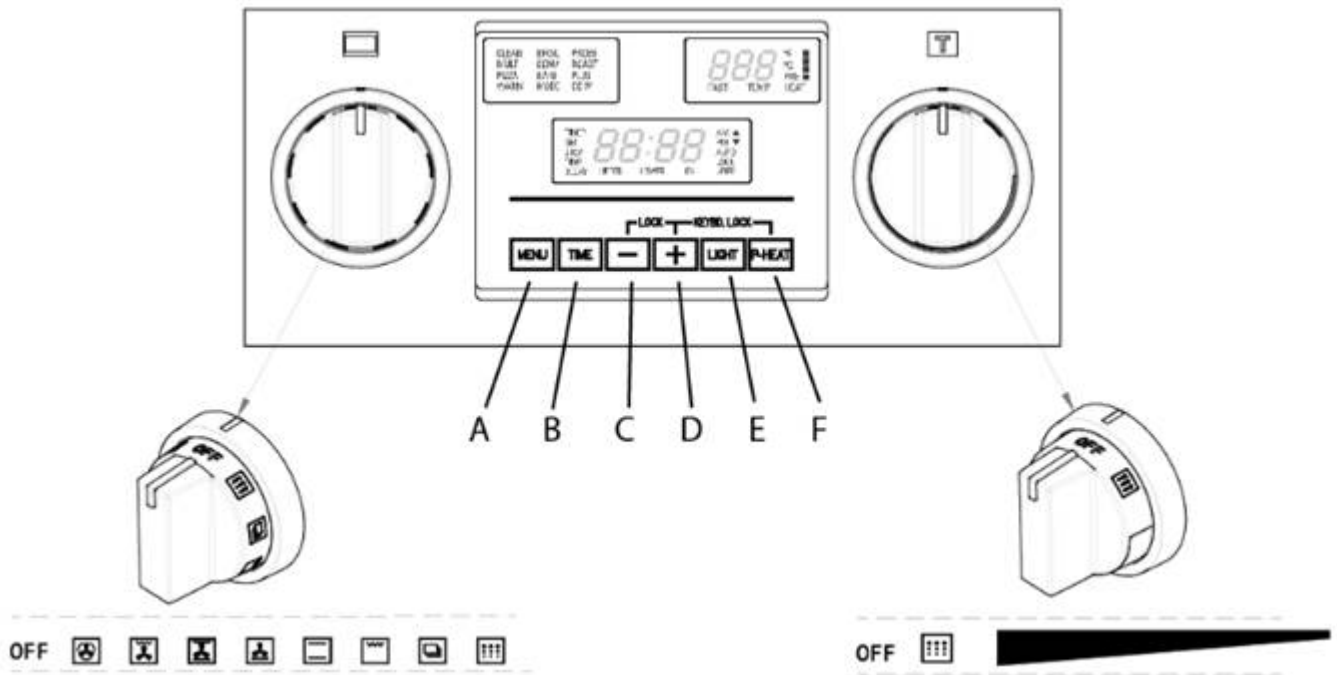
- Even if the oven model has been correctly detected it have to be confirmed.
- Hold **[A]** key, the oven model starts flashing on the display then confirm by pressing **[A]** key  
Otherwise:
- Hold **[C]** / **[D]** keys in order to select the correct model in according to the table above.
- Hold **[A]** again to confirm.

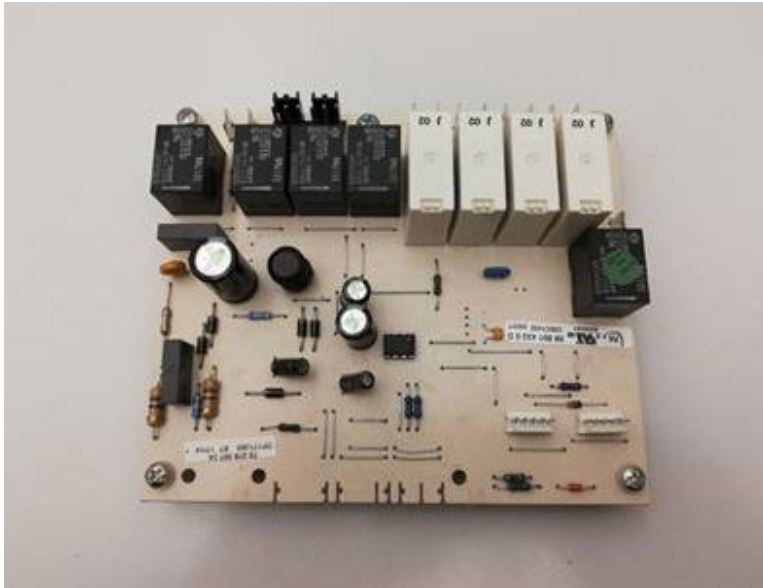
A reboot is performed and the control runs a latch auto-test cycle. The lock icon flashes while the latch is

moving.

As soon as the run is finished:

- Check the SW DISPLAY (\*\*\*) press [+]
- Check the SW KNOBS (\*\*\*) press [+]
- Check the SW POWER BOARD (\*\*\*) press [+] to start the Manual Test **2.6**

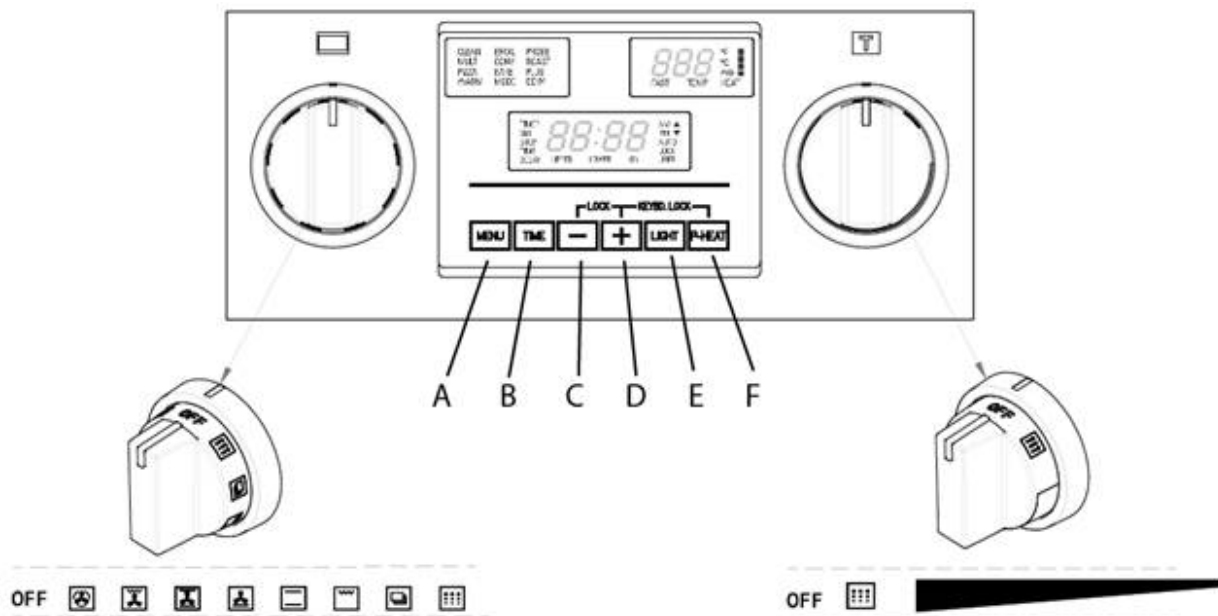




Refer to the above picture to identify the HAWK3 electronic control

**IMPORTANT:** The MANUAL TEST procedure can be activated only within 5 minutes after power on. The MANUAL TEST must be completed until the writing **TEST END** appears otherwise the oven model configuration will be lost.

To enter in the MANUAL TEST, follow the same procedure as the [Configuration section 2.5a](#)



### 2.6.1 How to verify the correct selection

At power-up, the control runs a latch auto-test; both lock symbols flash while the correspondent latches are moving. Wait for the auto-test end. When the control is powered for the first time the display shows:

## • **F11 Err**

- Ignore this message and hold [A] and [F] for about three seconds to start the test.
- All the display elements and the buzzer turn on for about 5 seconds then the control displays

## • **tEst ---**

- Always press [+] button to proceed to the following step.
- Verify the software versions of display (d05) and power (p18) boards.
- Verify that the oven model has been correctly detected by the control, otherwise check the configuration.



| N°          | SIZE       | OVEN   | MAIN CAVITY                    |            |
|-------------|------------|--------|--------------------------------|------------|
| <b>n 03</b> | 30" or 36" | SINGLE | CONVECT 2 FANS                 | <b>80C</b> |
| <b>n 15</b> | 48"        | DOUBLE | CONVECT 1 FAN + CONVECT 2 FANS | <b>80C</b> |

## • **Prob Off**

- The meat probe must be inserted when the message **Prob OFF** is displayed. If everything is fine, the probe temperature will be displayed instead of OFF. Important: if the temperature display remains "OFF" quitting the manual test, the meat probe option will not be enabled.



- Continue the test until **S00** step is displayed: the control now starts the steps to check all the oven outputs and inputs. The active triangle near the **tEst** writing indicates the cavity under test.



- Always press [+] button to proceed to the following steps.

## 2.6.2 How to check Large (double) and Single Oven hardware



- **S01:** oven lights.
- **S02:** cooling fan.
- **S03:** convection fan. (***ONLY FOR CONVECTION CAVITY***)
- **S04:** check that no heating elements are energized. The double line break relay must be open.
- **S05:** bottom element (3000W @240v 12,5) & (2253W @208v 10,8A)
- **S06:** top element (3500W @240v 14,6) & (2629W @208v 12,6)
- **S07:** ring element
  - For single fan (2500W @240v 10,4) & (1877W @208v 9,0)
  - For double fans (2x1300W=2600W @240v 10,9) & (1950W @208v 9,4)
  - Convection fans are also running. (***ONLY FOR CONVECTION CAVITY***).
- **S08:** additional element (1030W @240v 4,3A) & (775W @208v 3,7A)
- **S09:** cooking mode selector. The display automatically shows the off-position value:

### • **tEst C00**

- Turn the knob clockwise and check that the values correspond to the ones in the following table:

| Code       | ENGLISH          |            |
|------------|------------------|------------|
|            | Multifunction    | Thermal    |
| <b>C00</b> | Off              | Off        |
| <b>C01</b> | Convection bake  |            |
| <b>C02</b> | Convection broil |            |
| <b>C03</b> | Convection roast |            |
| <b>C04</b> | Fast preheat     |            |
| <b>C05</b> | Bake             | Bake       |
| <b>C06</b> | Broil            | Broil      |
| <b>C07</b> | Dehydrate        |            |
| <b>C08</b> | Self-clean       | Self-clean |

- Once back in the off position, the control shows automatically the step number again.
- **S10:** temperature selector. The display automatically shows:

### • **tEst dEF**

- (Default) in preset position.
- Turn the knob clockwise and verify that the temperature changes between 170°F and 550°F. Verify that in clean position the display shows:

### • **tEst cln**

- Once back in preset position, the control shows automatically the step number again.
- **S11:** press [A] to verify the temperature value actually measured by the electronics. Press it again to come back to the step number.



## (FOR SINGLE OVEN SKIP STEPS FROM S13 TO S23)

### 2.6.3 How to check small cavity (double)

- **S13**: oven lights
- **S14**: cooling fan
- **S15**: convection fan. (ONLY FOR CONVECTION CAVITY)
- **S16**: check that no heating elements are energized. The double line break relay must be open.
- **S17**: bottom element (1250W @240v 5,2A) & (939W @208v 4,5A)
- **S18**: top element (2100W @240v 8,7) & (1577W @208v 7,6)
- **S19**: ring element
  - For single fan (2500W @240v 10,4) & (1877W @208v 9,0)
  - Convection fans are also running. (ONLY FOR CONVECTION CAVITY).
- **S20**: additional element (700W @240v 2,9A) & (526W @208v 2,5A)
- **S21**: cooking mode selector. The display automatically shows the off-position value:

- **tEst C00**

- Turn the knob clockwise and check that the values correspond to the ones in the following table:

| Code       | ENGLISH          |            |
|------------|------------------|------------|
|            | Multifunction    | Thermal    |
| <b>C00</b> | Off              | Off        |
| <b>C01</b> | Convection bake  |            |
| <b>C02</b> | Convection broil |            |
| <b>C03</b> | Convection roast |            |
| <b>C04</b> | Fast preheat     |            |
| <b>C05</b> | Bake             | Bake       |
| <b>C06</b> | Broil            | Broil      |
| <b>C07</b> | Dehydrate        |            |
| <b>C08</b> | Self-clean       | Self-clean |

Once back in the off position, the control shows automatically the step number again.

- **S22**: temperature selector. The display automatically shows:

- **tEst dEF**

- (Default) in preset position.
- Turn the knob clockwise and verify that the temperature changes between 170°F and 550°F. Verify that in clean position the display shows:

- **tEst cln**

- Once back in preset position, the control shows automatically the step number again.
- **S23**: press [A] to verify the temperature value actually measured by the electronics. Press it again to come back to the step number.
- When the display shows the following message:

- ***tESt End***

Hold [A] and [F] to quit the manual test and come back to the standard working mode.

### ***2.6.4 Power supply 208v voltage selection***

Wait for the clock appears and display "12:00", then remember to verify if the power supply in the house is 240v or 208v. 240v is selected by default, in case of 208v the control must be properly configured:

Within five minutes from power up, hold [A] and [B] keys for 3 seconds to enter the user option menu. The display shows as follows:

### ***Sele deg***

Hold then [B] and [E] keys until the display becomes dark.

Hold [A] and [E] further, until the time display shows "Volt" and temperature module shows "240" blinking, waiting for an input.

### ***Volt 240***

Using [+] or [-] keys, the control toggles between 240V and 208V options. Hold "A" to confirm.

Hold [A] and [E] keys in order to quit the selection.

Hold [A] key for 3 seconds to quit the user option menu.

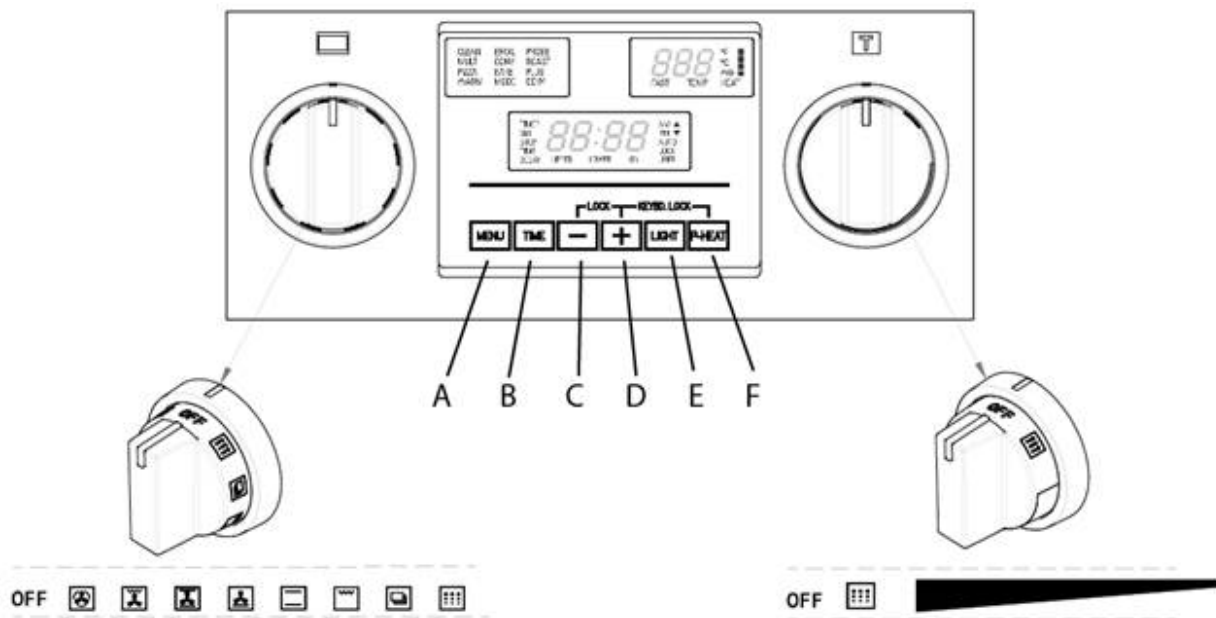
**The voltage setting is stored and kept even after a long power-off.**



Refer to the above picture to identify the MODULAR LED electronic control.

**IMPORTANT:** The MANUAL TEST procedure can be activated only within 5 minutes after power on. The MANUAL TEST must be completed until the writing **TEST END** appears otherwise the oven model configuration will be lost.

To enter in the MANUAL TEST, follow the same procedure as the [Configuration section 2.5b](#)



### 2.6.1 Manual TEST

After the Software versions have been showed press [+]

#### • Prob OFF

- The meat probe must be inserted when the message **Prob OFF** is displayed. If everything is fine, the probe temperature will be displayed instead of OFF.



- Continue the test until **S00** step is displayed: the control now starts the steps to check all the oven outputs and inputs. The active triangle near the **tEst** writing indicates the cavity under test.
- Always press [+] button to proceed to the following steps.

### 2.6.2 How to check Large (double) and Single Oven hardware

- **S01**: oven lights.
- **S02**: cooling fan.
- **S03**: convection fan. (ONLY FOR CONVECTION CAVITY)
- **S04**: check that no heating elements are energized. The double line break relay must be open.
- **S05**: bottom element (3000W @240v 12,5) & (2253W @208v 10,8A)

- **S06:** top element (3500W @240v 14,6) & (2629W @208v 12,6)
- **S07:** ring element  
 For single fan (2500W @240v 10,4) & (1877W @208v 9,0)  
 For double fans (2x1300W=2600W @240v 10,9) & (1950W @208v 9,4)  
 Convection fans are also running. **(ONLY FOR CONVECTION CAVITY).**
- **S08:** additional element (1030W @240v 4,3A) & (775W @208v 3,7A)
- **S09:** cooking mode selector. The display automatically shows the off-position value:

### • **tESt C00**

- Turn the knob clockwise and check that the values correspond to the ones in the following table:

| Code       | ENGLISH          |            |
|------------|------------------|------------|
|            | Multifunction    | Thermal    |
| <b>C00</b> | Off              | Off        |
| <b>C01</b> | Convection bake  |            |
| <b>C02</b> | Convection broil |            |
| <b>C03</b> | Convection roast |            |
| <b>C04</b> | Fast preheat     |            |
| <b>C05</b> | Bake             | Bake       |
| <b>C06</b> | Broil            | Broil      |
| <b>C07</b> | Dehydrate        |            |
| <b>C08</b> | Self-clean       | Self-clean |

- Once back in the off position, the control shows automatically the step number again.
- **S10:** temperature selector. The display automatically shows:

### • **tESt dEF**

- (Default) in pre-set position.
- Turn the knob to the minimum and press the "A" key, check the minimum value 170 ° F (75 ° C), then turn the knob clockwise and check that there is a continuous increasing up to the maximum value, press the " A ", check the maximum value 550 ° F (290 ° C).

### • **tESt cln**

- Once back in pre-set position, the control shows automatically the step number again.
- **S11:** press [A] to verify the temperature value actually measured by the electronics. Press it again to come back to the step number.

## **(FOR SINGLE OVEN SKIP STEPS FROM S13 TO S23)**

### **2.6.3 How to check small cavity (double)**

- **S13:** oven lights
- **S14:** cooling fan
- **S15:** convection fan. **(ONLY FOR CONVECTION CAVITY)**
- **S16:** check that no heating elements are energized. The double line break relay must be open.
- **S17:** bottom element (1250W @240v 5,2A) & (939W @208v 4,5A)

- **S18**: top element (2100W @240v 8,7) & (1577W @208v 7,6)
- **S19**: ring element  
For single fan (2500W @240v 10,4) & (1877W @208v 9,0)  
Convection fans are also running. **(ONLY FOR CONVECTION CAVITY).**
- **S20**: additional element (700W @240v 2,9A) & (526W @208v 2,5A)
- **S21**: cooking mode selector. The display automatically shows the OFF-position value:

### • **tESt C00**

- Turn the knob clockwise and check that the values correspond to the ones in the following table:

| Code       | ENGLISH          |            |
|------------|------------------|------------|
|            | Multifunction    | Thermal    |
| <b>C00</b> | Off              | Off        |
| <b>C01</b> | Convection bake  |            |
| <b>C02</b> | Convection broil |            |
| <b>C03</b> | Convection roast |            |
| <b>C04</b> | Fast preheat     |            |
| <b>C05</b> | Bake             | Bake       |
| <b>C06</b> | Broil            | Broil      |
| <b>C07</b> | Dehydrate        |            |
| <b>C08</b> | Self-clean       | Self-clean |

Once back in the off position, the control shows automatically the step number again.

- **S22**: temperature selector. The display automatically shows:

### • **tESt dEF**

- (Default) in pre-set position.
- Turn the knob to the minimum and press the "A" key, check the minimum value 170 ° F (75 ° C), then turn the knob clockwise and check that there is a continuous increasing up to the maximum value, press the " A ", check the maximum value 550 ° F (290 ° C).

### • **tESt cln**

- Once back in preset position, the control shows automatically the step number again.
- **S23**: press [A] to verify the temperature value actually measured by the electronics. Press it again to come back to the step number.

- When the display shows the following message:

### • **tESt End**

Hold [A] and [F] to quit the manual test and come back to the standard working mode.

## **2.6.4 Power supply 208v voltage selection**

Wait for the clock appears and display, then remember to verify if the power supply in the house is 240v or 208v. 240v is selected by default, in case of 208v the control must be properly configured:

Within five minutes from power up, hold [A] and [B] keys for 3 seconds to enter the user option menu. The display shows as follows:

### **Sele deg**

Hold then [B] and [E] keys until the display becomes dark.

Hold [A] and [E] further, until the time display shows "Volt" and temperature module shows "240" blinking, waiting for an input.

### **Volt 240**

Using [+] or [-] keys, the control toggles between 240V and 208V options. Hold "A" to confirm.

Hold [A] and [E] keys in order to quit the selection.

Hold [A] key for 3 seconds to quit the user option menu.

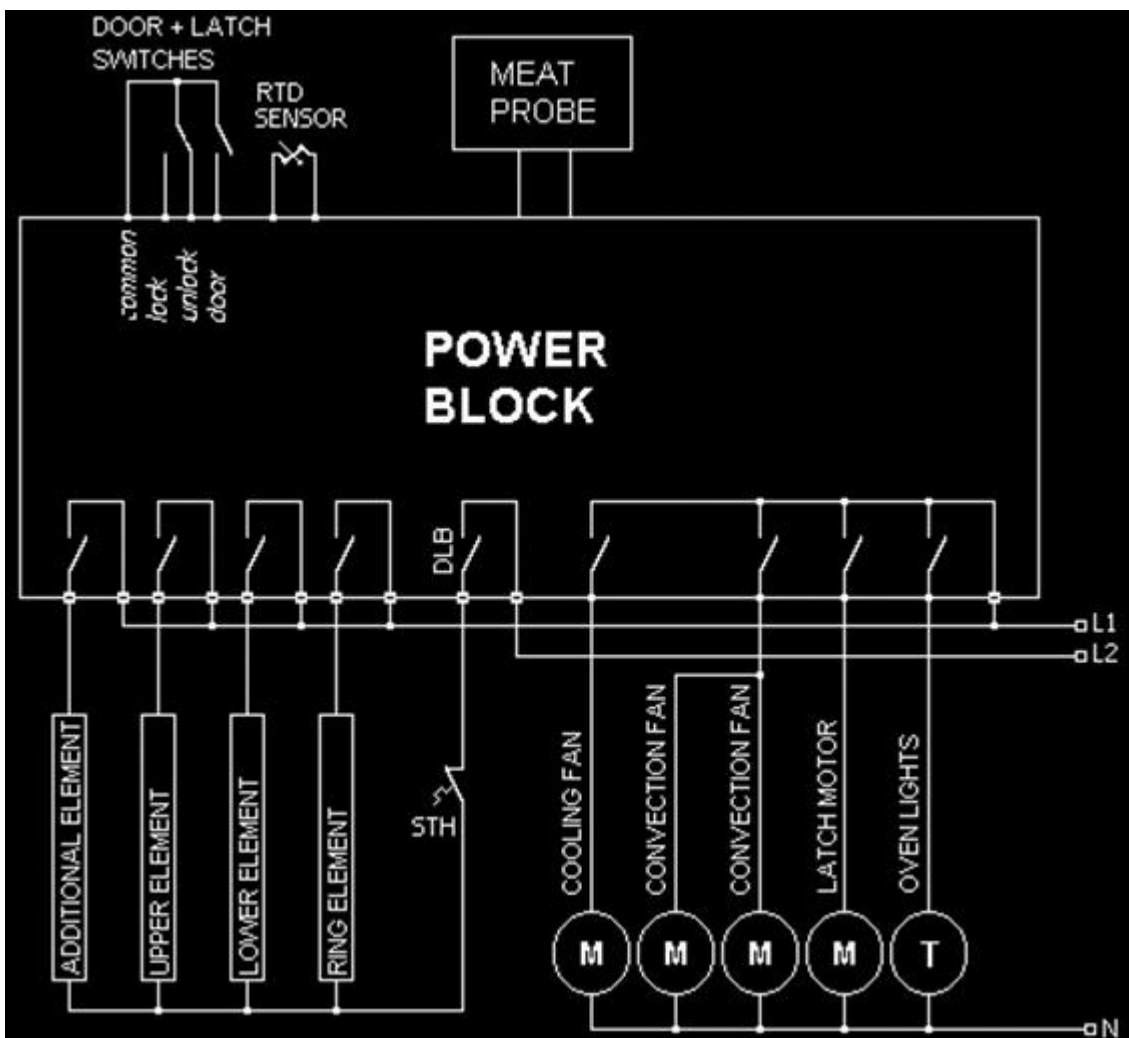
**The voltage setting is stored and kept even after a long power-off.**



## Description of Oven Electronic Control

A power module, described in the block diagram below, is able to manage one cavity. The main power board is also providing the secondary one and the display board with the power supply.



- An external safety thermostat, named STH, is placed in the appliance: it must always be connected in series with the heaters.
- A NTC temperature sensor is on the main power board: if an over temperature anomaly is detected during ordinary cooking, a fault must occur and the display must show an error code.
- These two devices must prevent all the oven parts to overtake the maximum allowed temperature (for the electronics the 105°C threshold), also in case of a cooling fan fault.
- Optionally, one external board can be provided to control the meat probe in the large cavity.







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 and the temperature knob in the preset position or in some cases the power ON is required. Of course, the cause of the failure must be first removed.

| <b>Faults</b>  | <b>HAWK3</b>  |             | <b>MODULAR LED</b>  |              |
|--|---|-------------|---|--------------|
|  |  |             |  |              |
| Upper or single oven RTD temperature sensor failure                | <b>F01</b>  | <b>Err</b>  | <b>F01</b>  | <b>Err</b>   |
| Lower oven RTD temperature sensor failure                          | <b>F02</b>  | <b>Err</b>  | <b>F02</b>  | <b>Err</b>   |
| Upper or single oven motorized latch or switches failure           | <b>F03</b>  | <b>Err</b>  | <b>F03</b>  | <b>Err</b>   |
| Lower oven motorized latch or switches failure                     | <b>F04</b>  | <b>Err</b>  | <b>F04</b>  | <b>Err</b>   |
| Upper or single oven runaway temperature condition 650°F           | <b>F05</b>  | <b>Err</b>  | <b>F05</b>  | <b>Err</b>   |
| Lower oven runaway temperature condition 650°F                     | <b>F06</b>  | <b>Err</b>  | <b>F06</b>  | <b>Err</b>   |
| Upper or single oven runaway temperature condition 950°F           | <b>F07</b>  | <b>Err</b>  | <b>F07</b>  | <b>Err</b>   |
| Lower oven runaway temperature condition 950°F                     | <b>F08</b>  | <b>Err</b>  | <b>F08</b>  | <b>Err</b>   |
| Short circuit on display board* or power board** microcontroller   | <b>F09</b>  | <b>Err*</b> | <b>F09</b>  | <b>Err**</b> |
| Short circuit on display board                                     | <b>F10</b>  | <b>Err</b>  |   |              |
| EEPROM data access failure on display board* or power board**      | <b>F11</b>  | <b>Err*</b> | <b>F11</b>  | <b>Err**</b> |
| Electronic control overheating                                     | <b>F12</b>  | <b>Err</b>  | <b>F12</b>  | <b>Err</b>   |
| Meat probe error   | <b>F13</b>  | <b>Err</b>  | <b>F13</b>  | <b>Err</b>   |
| Communication problem between the boards                           | <b>F14</b>  | <b>Err</b>  | <b>F14</b>  | <b>Err</b>   |
| Failure knobs (main cavity)  |   |             | <b>F15</b>  | <b>Err</b>   |
| Failure knobs (secondary cavity)                                   |   |             | <b>F16</b>  | <b>Err</b>   |
| ADC knobs  |   |             | <b>F17</b>  | <b>Err</b>   |
| Knobs communication failure  |   |             | <b>F18</b>  | <b>Err</b>   |
| Touch or Knob micro controller failure                             | <b>F19</b>  | <b>Err</b>  | <b>F19</b>  | <b>Err</b>   |
| RL4 Element issue - short condition or open detection (Broil HE)   |   |             | <b>F20</b>  | <b>Err</b>   |
| RL2 Element issue - short condition or open detection (Upper HE)   |   |             | <b>F21</b>  | <b>Err</b>   |
| RL3 Element issue - short condition or open detection (Ring HE)    |   |             | <b>F22</b>  | <b>Err</b>   |
| RL5 Element issue - short condition or open detection (Lower HE)   |   |             | <b>F23</b>  | <b>Err</b>   |
| RL1 Element issue - short condition or open detection (DBL braker) |   |             | <b>F25</b>  | <b>Err</b>   |

Whenever the fault doesn't affect the whole oven functionality, allow the user to work:

- In a double oven, the opposite cavity can be available even if the first one is not working.
- If the latch doesn't work, ordinary cooking activities may run if the door is fully unlocked.

Every fault must have a time-out to be declared, to prevent false alarms. When a fault occurs, if the control can detect the failure, an error number must be displayed, as shown in the table above, with cavity indication for double oven only.



### 2.9.1 **Child - safe locking system**

All of our ovens are built-in child-safe locking systems. The feature is automatically enabled any time the appliance is connected to the power, any time the switch is turned on and any time the oven is programmed to run a self-cleaning of the cavity.

The same feature it can be used on the manual mode in the household where a minor is present to prevent children from getting in touch with hot parts.

### 2.9.2 **Over heating sensor**

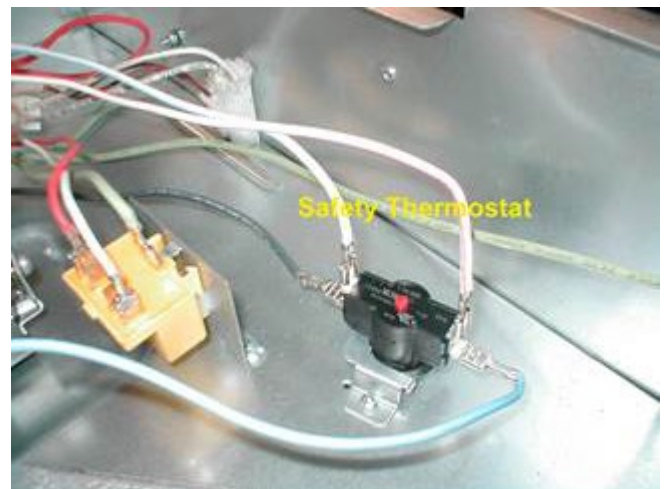
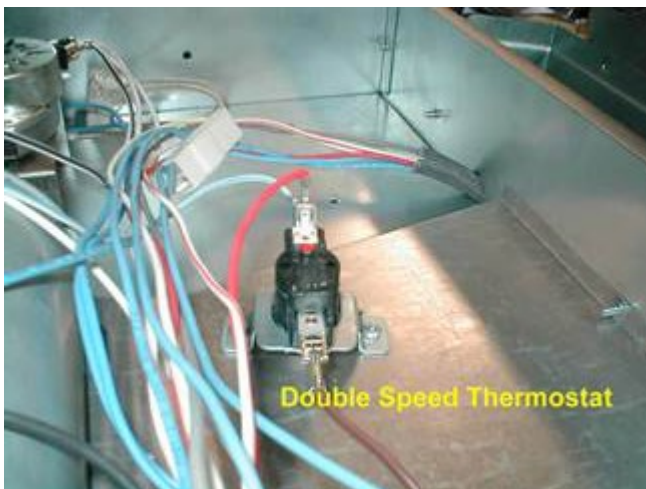
All of our ovens are built with a over heating sensor system:

- we have two bi-metal mechanical thermostats for each cavity .
- an electronic sensor “**NTC**” or “negative temperature coefficients” mounted on the main power board (see chapter 2.7 for more information). The role of the “**NTC**” is to protect the electronic boards of an eventually over-heating. (the “**NTC**” varies with the values of voltage, only **DC**, values tabulated at 2.7)

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 two bi-metal mechanical thermostats for each cavity. The thermostats are mounted in contact with the metal sheet on top of each cavity as shown in the above 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 is under 158 °F (70 °C) the power is flowing through the resistor and it feeding the cooling fan with a voltage AC 93V .

If the temperature of 158 °F (70 °C) is surpassed, 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 Thermostat**

The function of the safety thermostat is to protect the oven from over heating 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 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).

### **2.9.6 Cooktop cooling fan Thermostat**

Some range models are provided with an additional cooling thermostat 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.



**2.10.1**

| <b>RANGE 30" (STD version)</b>    |        |               |                      |                         |                      |               |
|-----------------------------------|--------|---------------|----------------------|-------------------------|----------------------|---------------|
| <b>Total nominal input rating</b> |        |               | <b>NATURAL G (A)</b> |                         | <b>72000</b>         | <b>Btu/hr</b> |
| <b>Total nominal input rating</b> |        |               | <b>L PROPANE (E)</b> |                         | <b>60000</b>         | <b>Btu/hr</b> |
| BURNERS configuration:            |        |               |                      |                         | <b>NATURAL</b>       | <b>LPG</b>    |
|                                   |        |               | SUPPLY               |                         | <b>7"</b>            | <b>11"</b>    |
|                                   |        |               | MANIFOLD             |                         | <b>5"</b>            | <b>10"</b>    |
|                                   | Pos    | Gas           | INPUT RATE Btu/hr    | ORIFICE SIZE (1/100) mm | BY-PASS ORIFICE SIZE |               |
| Double crowns                     | 1 to 4 | NG SIMMER     | 750                  | 72                      | Adj.(*)              |               |
|                                   |        | NG MAIN FLAME | 18000                | 180                     | Adj.(*)              |               |
| Double crowns                     | 1 to 4 | LP SIMMER     | 750                  | 50                      | 30 1/100mm           |               |
|                                   |        | LP MAIN FLAME | 15000                | 105                     | 58 1/100mm           |               |

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

| <b>RANGE 30" (PWR version)</b>    |        |               |                      |                         |                      |               |
|-----------------------------------|--------|---------------|----------------------|-------------------------|----------------------|---------------|
| <b>Total nominal input rating</b> |        |               | <b>NATURAL G (A)</b> |                         | <b>74000</b>         | <b>Btu/hr</b> |
| <b>Total nominal input rating</b> |        |               | <b>L PROPANE (E)</b> |                         | <b>60000</b>         | <b>Btu/hr</b> |
| BURNERS configuration:            |        |               |                      |                         | <b>NATURAL</b>       | <b>LPG</b>    |
|                                   |        |               | SUPPLY               |                         | <b>7"</b>            | <b>11"</b>    |
|                                   |        |               | MANIFOLD             |                         | <b>5"</b>            | <b>10"</b>    |
|                                   | Pos    | Gas           | INPUT RATE Btu/hr    | ORIFICE SIZE (1/100) mm | BY-PASS ORIFICE SIZE |               |
| Double crowns                     | 1 to 4 | NG SIMMER     | 750                  | 72                      | Adj.(*)              |               |
|                                   | 1 to 3 | NG MAIN FLAME | 18000                | 180                     | Adj.(*)              |               |
|                                   | 4      | NG MAIN FLAME | 20000                | 192                     | Adj.(*)              |               |
| Double crowns                     | 1 to 4 | LP SIMMER     | 750                  | 50                      | 30 1/100mm           |               |
|                                   |        | LP MAIN FLAME | 15000                | 105                     | 58 1/100mm           |               |

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

2.10.2

| <b>RANGE 36" (STD version)</b>    |        |               |                      |                            |                         |               |
|-----------------------------------|--------|---------------|----------------------|----------------------------|-------------------------|---------------|
| <b>Total nominal input rating</b> |        |               | <b>NATURAL G (A)</b> |                            | <b>108000</b>           | <b>Btu/hr</b> |
| <b>Total nominal input rating</b> |        |               | <b>L PROPANE (E)</b> |                            | <b>90000</b>            | <b>Btu/hr</b> |
| BURNERS configuration:            |        |               |                      |                            | <b>NATURAL</b>          | <b>LPG</b>    |
|                                   |        |               | SUPPLY               |                            | <b>7"</b>               | <b>11"</b>    |
|                                   |        |               | MANIFOLD             |                            | <b>5"</b>               | <b>10"</b>    |
|                                   | Pos    | Gas           | INPUT RATE<br>Btu/hr | ORIFICE SIZE<br>(1/100) mm | BY-PASS ORIFICE<br>SIZE |               |
| Double crowns                     | 1 to 6 | NG SIMMER     | 750                  | 72                         | Adj.(*)                 |               |
|                                   |        | NG MAIN FLAME | 18000                | 180                        | Adj.(*)                 |               |
| Double crowns                     | 1 to 6 | LP SIMMER     | 750                  | 50                         | 30 1/100mm              |               |
|                                   |        | LP MAIN FLAME | 15000                | 105                        | 58 1/100mm              |               |

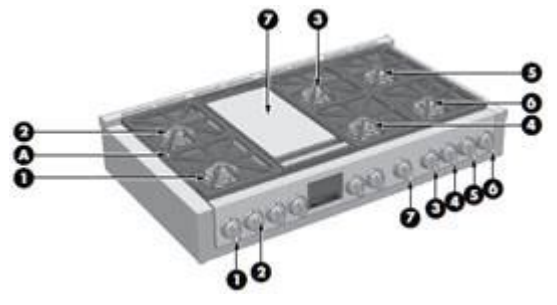
(\*): Adjusted in factory - When converted to LP - by-pass are screwed tight

| <b>RANGE 36" (PWR version)</b>    |        |               |                      |                            |                         |               |
|-----------------------------------|--------|---------------|----------------------|----------------------------|-------------------------|---------------|
| <b>Total nominal input rating</b> |        |               | <b>NATURAL G (A)</b> |                            | <b>112000</b>           | <b>Btu/hr</b> |
| <b>Total nominal input rating</b> |        |               | <b>L PROPANE (E)</b> |                            | <b>90000</b>            | <b>Btu/hr</b> |
| BURNERS configuration:            |        |               |                      |                            | <b>NATURAL</b>          | <b>LPG</b>    |
|                                   |        |               | SUPPLY               |                            | <b>7"</b>               | <b>11"</b>    |
|                                   |        |               | MANIFOLD             |                            | <b>5"</b>               | <b>10"</b>    |
|                                   | Pos    | Gas           | INPUT RATE<br>Btu/hr | ORIFICE SIZE<br>(1/100) mm | BY-PASS ORIFICE<br>SIZE |               |
| Double crowns                     | 1 to 6 | NG SIMMER     | 750                  | 72                         | Adj.(*)                 |               |
|                                   | 2 to 5 | NG MAIN FLAME | 18000                | 180                        | Adj.(*)                 |               |
|                                   | 1 & 6  | NG MAIN FLAME | 20000                | 192                        | Adj.(*)                 |               |
| Double crowns                     | 1 to 6 | LP SIMMER     | 750                  | 50                         | 30 1/100mm              |               |
|                                   |        | LP MAIN FLAME | 15000                | 105                        | 58 1/100mm              |               |

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

2.10.3

| <b>RANGE 48" (PWR version)</b>    |        |               |                      |                            |                      |
|-----------------------------------|--------|---------------|----------------------|----------------------------|----------------------|
| <b>Total nominal input rating</b> |        |               | <b>NATURAL G (A)</b> | <b>123500</b>              | <b>Btu/hr</b>        |
| <b>Total nominal input rating</b> |        |               | <b>L PROPANE (E)</b> | <b>101500</b>              | <b>Btu/hr</b>        |
| <b>BURNERS configuration:</b>     |        |               |                      | <b>NATURAL</b>             | <b>LPG</b>           |
|                                   |        |               | <b>SUPPLY</b>        | <b>7"</b>                  | <b>11"</b>           |
|                                   |        |               | <b>MANIFOLD</b>      | <b>5"</b>                  | <b>10"</b>           |
|                                   | Pos    | Gas           | INPUT RATE<br>Btu/hr | ORIFICE SIZE<br>(1/100) mm | BY-PASS ORIFICE SIZE |
| Double crowns                     | 1 to 6 | NG SIMMER     | 750                  | 72                         | Adj.(*)              |
|                                   | 2 to 5 | NG MAIN FLAME | 18000                | 180                        | Adj.(*)              |
|                                   | 1 & 6  | NG MAIN FLAME | 20000                | 192                        | Adj.(*)              |
| Griddle                           | 7      |               | 11500                | 155                        | Adj.(*)              |
| Double crowns                     | 1 to 6 | LP SIMMER     | 750                  | 50                         | 30 1/100mm           |
|                                   |        | LP MAIN FLAME | 15000                | 105                        | 58 1/100mm           |
| Griddle                           | 7      |               | 11500                | 94                         | 42 1/100mm           |



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

**Type of gas**

BEFORE CONNECTING THE APPLIANCE 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).

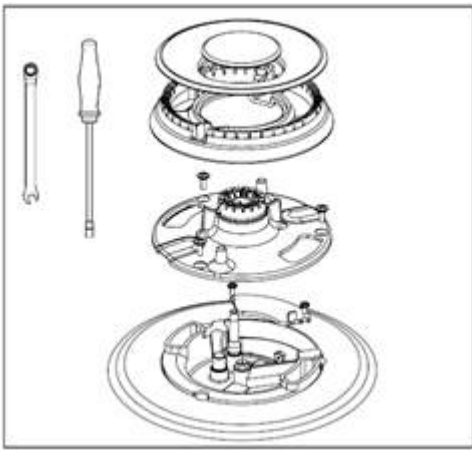
This appliances, as well as its individual shut-off valve, must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of ½ PSIG(3,5kPa).when checking appliances regulator function, make certain pressure of natural gas supply is between 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  $\frac{1}{2}$  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

### 2.13.1 Minimum setting or turn down

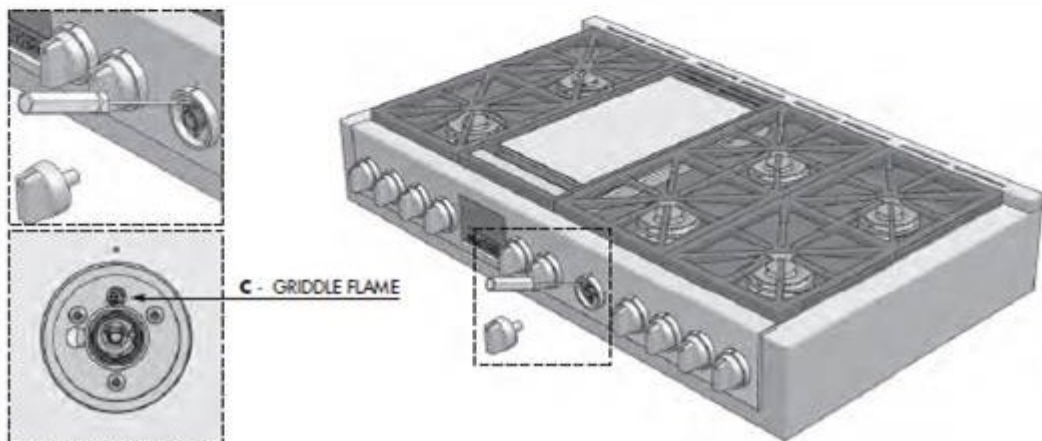
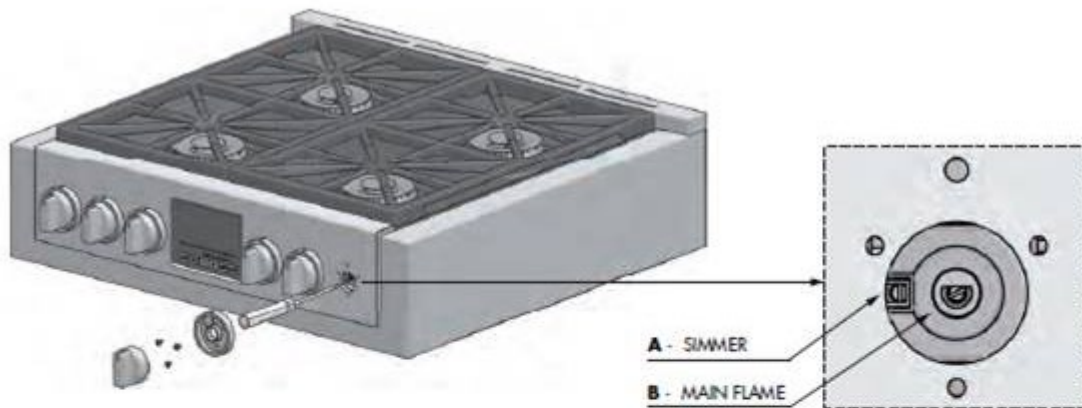
This appliance is shipped from the factory with low and medium flame settings adjusted.

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 Cooktop and Griddle Burners:

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

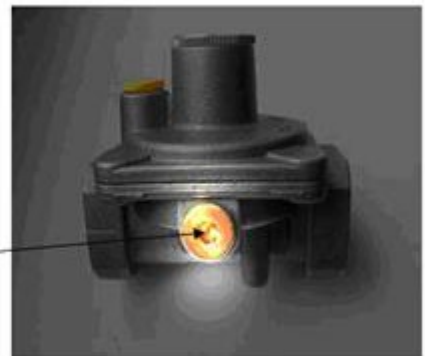
This appliance is designed for use with NG gas or LP gas. The gas pressure regulator is supplied with this appliance,  
It must be installed in the gas way ahead of manifold entrance. It is pre-set for use with the gas supplied with the appliance. For use with different gas the pressure regulator must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

For the Pressure regulator conversion following the below instructions:

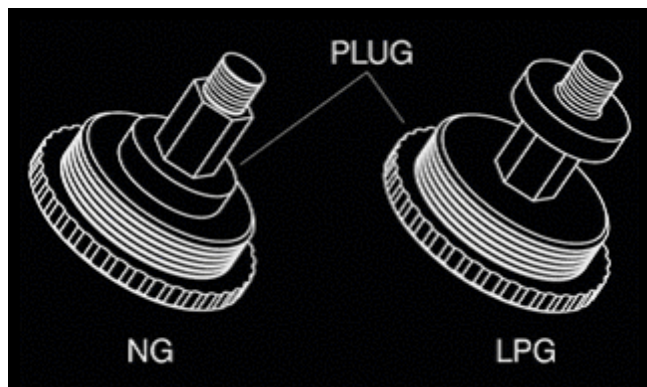
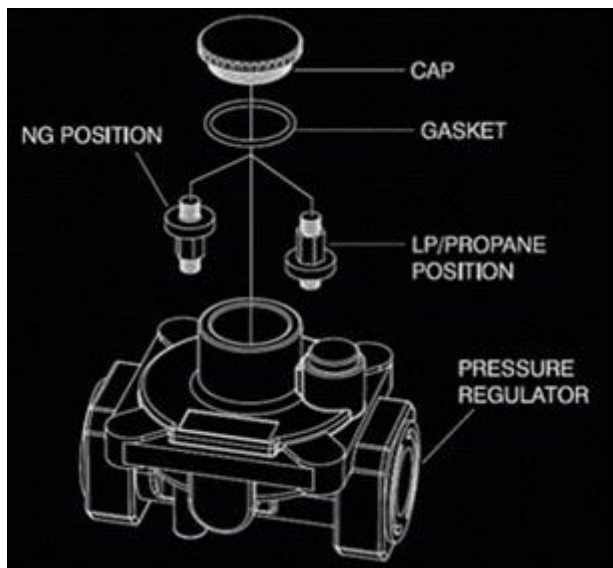
- Unscrew the regulator cap  
Unscrew the plastic conversion plug from the cap turn over and screw back (wide section away from cap for LP and against cap for NG) see figures below
- Replace the regulator the cap
- Test gas pressure (test point provision on side of regulator). When converting the regulator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



Plug set for LP gas



test gas pressure Point



**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 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" (7mm)

nut driver counter clockwise.

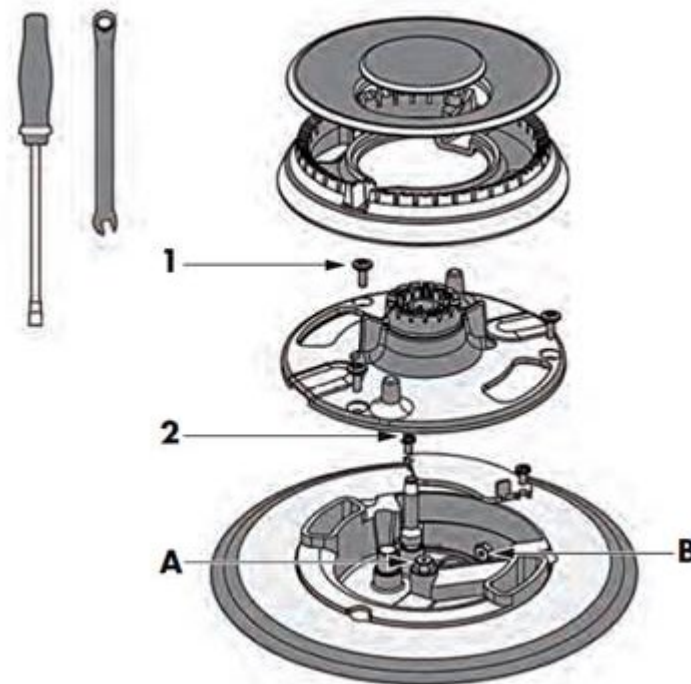
6. Loosen injector (B) by turning 9-32" (7mm) box wrench counter clockwise.

7. Install the injectors supplied with this appliances 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 on paragraph 3.2.6).

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.**

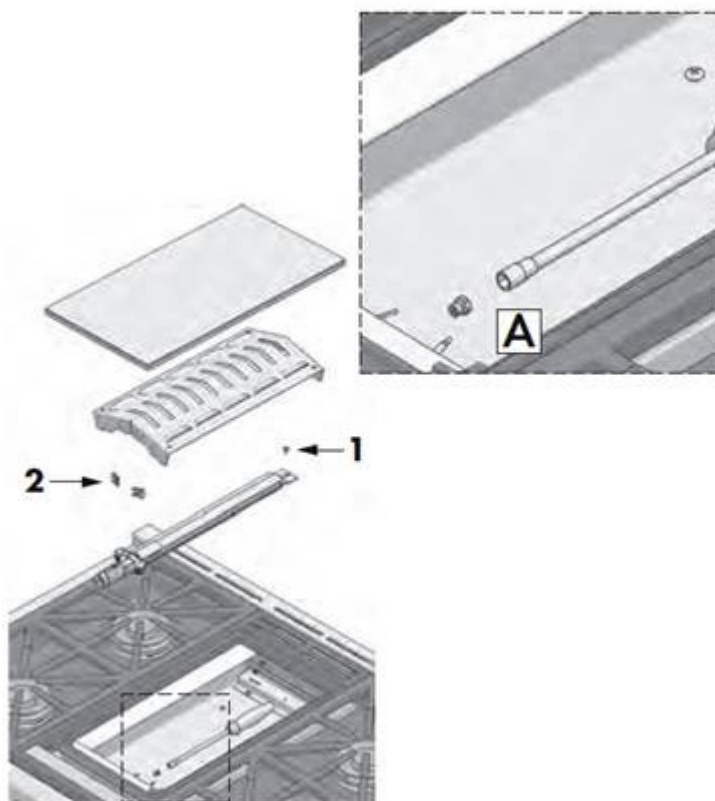


### 2.13.4 Substitution of Injector on (griddle burner)

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:

#### Replace injectors on (griddle burner)

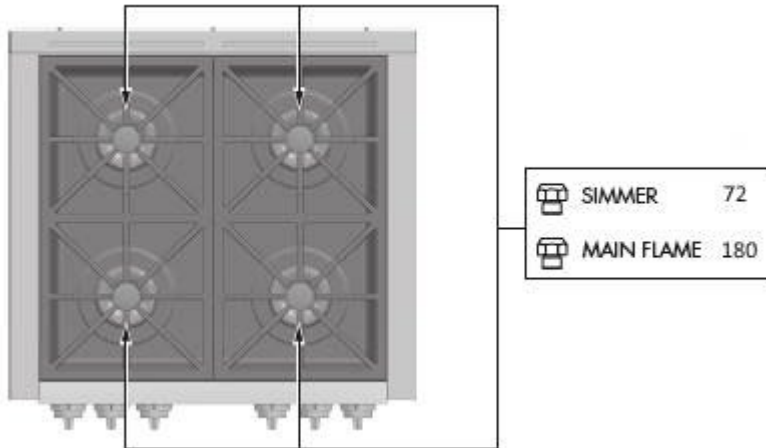
1. Remove the griddle plate.
2. Remove burner cover
3. Remove the springs (2) from thermocouple and ignitor to shift the burner.
4. Remove injector (A) by using a 9-3 (7mm) nut driver counter clockwise.
7. Install the injectors supplied with this appliance. The injectors have small number stamped on the side, this number codes the orifice diameter and its correct burner location (see table on paragraph 3.2.6).
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**



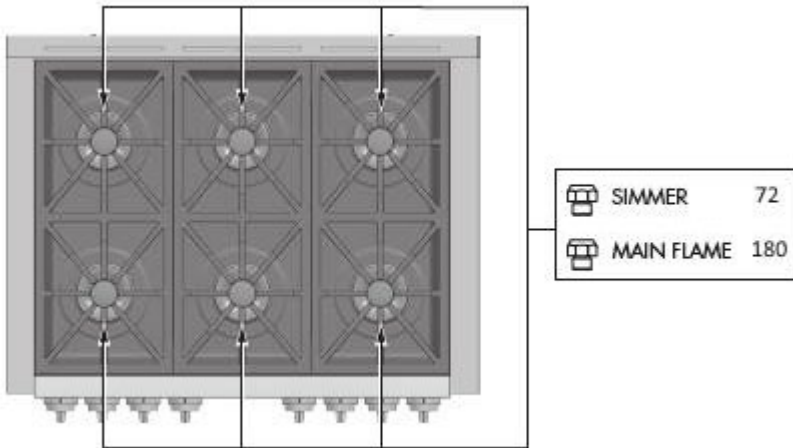
appliances for future use.



**2.13.5**  
**Injectors position NG (STD version)**  
**NG 30"**

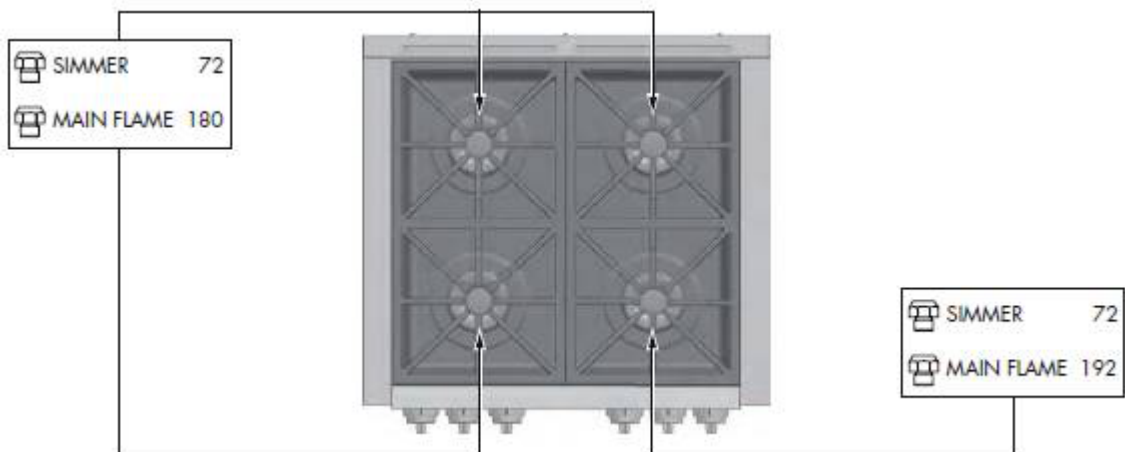


**NG 36"**

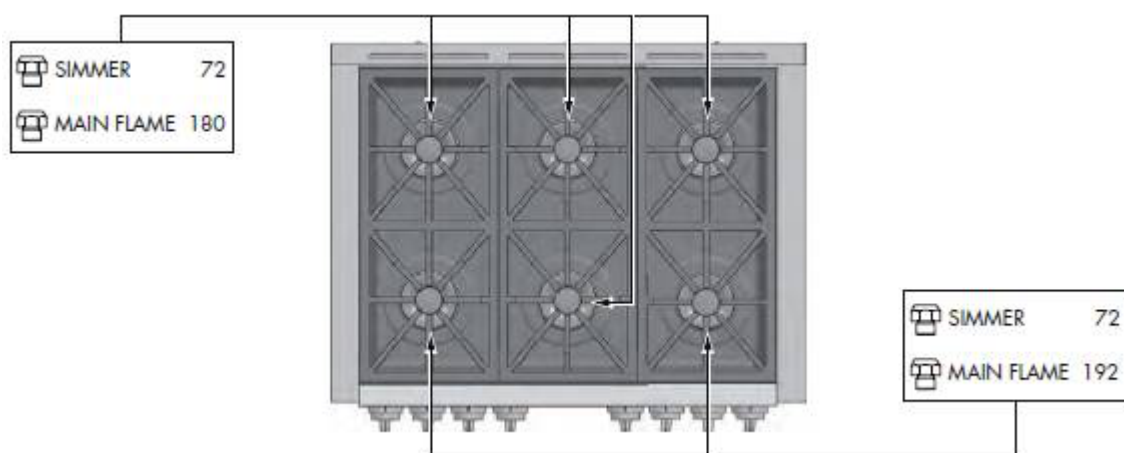


**Injectors position NG (PWR version)**

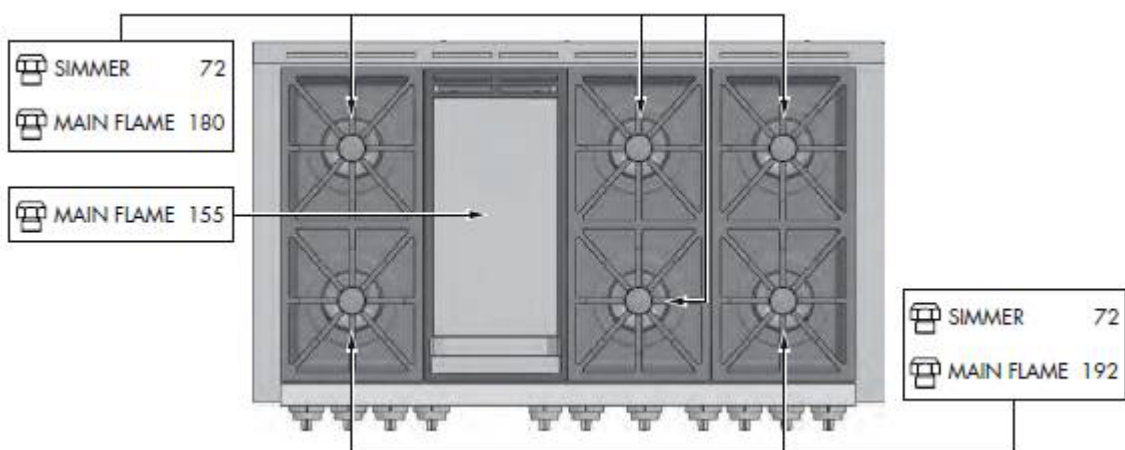
**NG 30"**



**NG 36"**



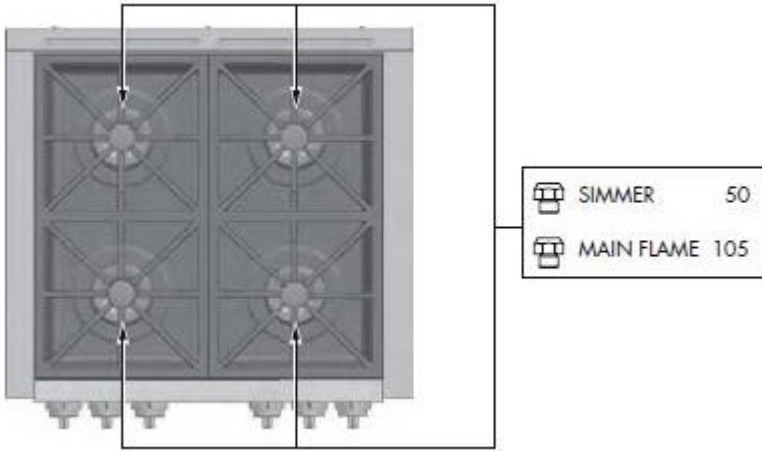
**NG 48"**



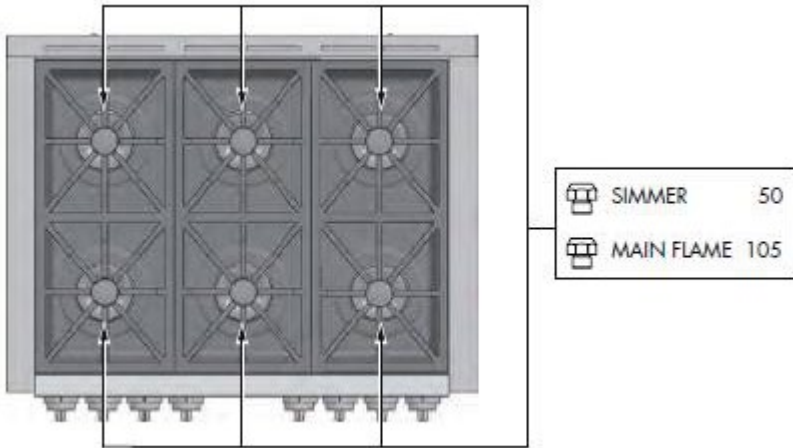
**Injectors position LP (all versions)**

**2.13.6**

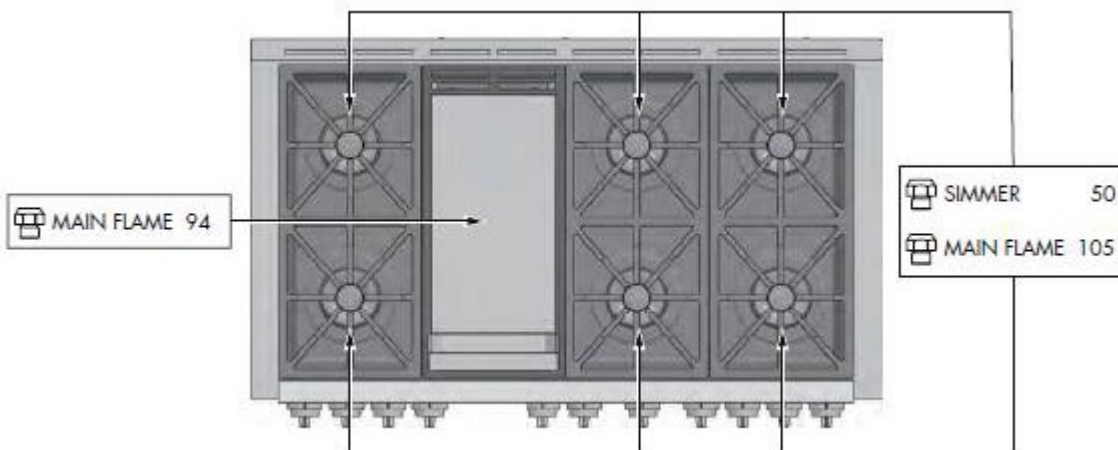
**LP 30"**



**LP 36"**



**LP 48"**





## Oven Error Message

TO Reset assembly FAILURES, REMOVE THE CAUSE AND SWITCH THE SELECTORS IN “OFF” AND “Preset assembly” POSITIONS RESPECTIVELY. IN SOME CASES, THE POWER ON IS REQUIRED.

| Code                           | Error  | Description   | Possible Cause   | Corrective Action  | section              |
|--------------------------------|--|---|--|--|----------------------|
| <b>F01</b><br><i>Main</i>      | Temperature sensor                                 | The control reads out of range values.  | Temperature sensor shorted or broken.  | Replace the sensor   | <a href="#">7.14</a> |
| <b>F02</b><br><i>Secondary</i> |  |   | Bad connections  | Check the connectors and the harness                           | --                   |
|                                |  |   | Bad power board  | Replace the power board  | <a href="#">7.17</a> |
| <b>F03</b><br><i>Main</i>      | Latch mechanism                                    | The control can't perform any locking or unlocking cycle within the maximum allowed time. | Latch mechanism problem.   |  | --                   |
| <b>F04</b><br><i>Secondary</i> |  |   | Latch motor problem  | Replace the motor  | <a href="#">7.8</a>  |
|                                |  |   | Door micro switch breaks during self-clean when the door is locked                 | Replace the door micro switch                                  | <a href="#">7.10</a> |
|                                |  |   | Bad connections  | Check the motor connections and the micro switches connections | --                   |
|                                |  |   | Defective power board  | Replace the power board  | <a href="#">7.17</a> |
| <b>F05</b><br><i>Main</i>      | Over temperature detected while cooking (t>650°f)  | Runaway temperature condition during cooking.   | One or more relays are stuck, driving heating elements. Check the contact of relay | Replace the power board  | <a href="#">7.17</a> |
| <b>F06</b><br><i>Secondary</i> |  |   |  |  |                      |
| <b>F07</b><br><i>Main</i>      | Over temperature detected in self-clean (t>950°f)  | Runaway temperature condition during self-clean.  | One or more relays are stuck, driving heating elements. Check the contact of relay | Replace the power board  | <a href="#">7.17</a> |
| <b>F08</b><br><i>Secondary</i> |  |   |  |  |                      |
| <b>F09</b><br><i>Hawk3</i>     | Possible short circuit on display board micro pins | Hardware failure.   | Humidity may have created condensation on the circuits.                            | Remove power and dry the board.                                | --                   |
|                                |  |   | Short circuit on display board.  | Replace the display board.                                     | <a href="#">7.19</a> |
|                                | Possible short circuit on power                    | Hardware failure.   | Humidity may have created  | Remove power and dry the board.                                |                      |



|                                |  |                                     |   |  |  |
|--------------------------------|--|-------------------------------------|---|--|--|
| <b>F09<br/>Modular<br/>LED</b> | board micro pins   |                                     | condensation on the circuits.   |  | --   |
|                                |  |                                     | Short circuit on power board.   | Replace the power board.   | <a href="#"><u>7.17</u></a>  |
| <b>F10</b>                     | Possible short circuit on display board circuits   | Hardware failure.                   | Humidity may have created condensation on the circuits.   | Remove power and dry the board.  | --   |
|                                |  |                                     | Short circuit on display board connectors.  | Check connectors and eventually clean or replace the board to board cables.              | --   |
|                                |  |                                     | Short circuit on display board.   | Replace the display board.   | <a href="#"><u>7.19</u></a>  |
| <b>F11<br/>Hawk3</b>           | Display board eeprom data  | Memory empty                        | First power up or new board installed.  | Configure the oven model.<br>(resistor configuration + manual test)                      | <a href="#"><u>2.5a</u></a><br><a href="#"><u>2.5b</u></a><br><a href="#"><u>2.6a</u></a><br><a href="#"><u>2.6b</u></a> |
|                                |  |                                     | Memory cannot be accessed   | Bad memory or circuit on board.  | Replace power board  |
|                                |  | Bad cable connection                |   | Check and eventually replace cable.  | --   |
|                                |  | Defective circuit on display board. |   | Replace display board  | <a href="#"><u>7.19</u></a>  |
| <b>F11<br/>Modular<br/>Led</b> | Power board eeprom data  | Memory cannot be accessed           | Bad memory or circuit on board.   | Replace power board  | <a href="#"><u>7.17</u></a>  |
| <b>F12</b>                     | Electronic boards over temperature (t>95°C) in cooking modes.  | Overheating of the internal parts.  | Cooling fan broken  | Replace the cooling fan  | <a href="#"><u>7.2</u></a>   |
|                                |  |                                     | Bad connections between cooling fan and electronics.  | Check connections  | --   |
|                                |  |                                     | Air flow through the cooling channel is not sufficient.   | Check proper installation. The slot between the control panel and the door must be free. | --   |
|                                |  |                                     | Defective cooling fan relay on main power board   | Replace the main power board.  | <a href="#"><u>7.17</u></a>  |
|                                |  |                                     | Faulty ntc sensor on main power board   | Replace the main power board.  | <a href="#"><u>7.17</u></a>  |
|                                | Electronic boards over temperature in a double oven, (t>105°C) to stop only the lower one when the upper is running in self-clean. | Overheating of the internal parts.  | The control has detected too much heat and prevents the user from using both cavities together. | Wait for the oven cools down   |  |

|            |  |  |   |  |                             |
|------------|--|--|---|--|-----------------------------|
| <b>F13</b> | Meat probe error<br>Note: The meat probe option is not available in standard series. | The control can't perform any cooking through meat probe | Bad connections or short circuit  | Check the harness near the probe connection  | <a href="#"><u>7.25</u></a> |
|            |  |  | Defective meat probe board  | Replace the board  | <a href="#"><u>7.24</u></a> |
| <b>F14</b> | Communication problem among the electronic boards                                    | Problem on the i2c communication bus.                    | Bad connections   | Check and eventually replace one of the board to board cables.   | --                          |
| <b>F15</b> | Failure knobs (main cavity)  | Encoder Selector Open circuit                            | Error code occurs if cooking mode knob position was left between OFF and SELF-CLEAN or between DEFAULT / PRESET and SELF-CLEAN on the temperature selector knob | Rotate all the oven knobs in OFF position then remove power (either unplug or turn off breaker) and turn it back on again after a few seconds. | --                          |
|            |  |  | Connection cable disconnected.  | Check cable connection between the display board and knob encoder.   | --                          |
|            |  |  | Encoder Damaged   | Replace the Encoder selector   | <a href="#"><u>7.18</u></a> |
| <b>F16</b> | Failure knobs (secondary cavity)   | Encoder Selector Open circuit                            | Error code occurs if cooking mode knob position was left between OFF and SELF-CLEAN or between DEFAULT / PRESET and SELF-CLEAN on the temperature selector knob | Rotate all the oven knobs in OFF position then remove power (either unplug or turn off breaker) and turn it back on again after a few seconds. | --                          |
|            |  |  | Connection cable disconnected.  | Check cable connection between the display board and knob encoder.   | --                          |
|            |  |  | Encoder Damaged   | Replace the Encoder selector   | <a href="#"><u>7.18</u></a> |
| <b>F17</b> | ADC knobs sensor failure   |  | Display board damaged   | Replace the Display Board  | <a href="#"><u>7.19</u></a> |
| <b>F18</b> | Knobs communication failure  |  | Display board damaged   | Check connection or replace the Display Board  | <a href="#"><u>7.19</u></a> |
| <b>F19</b> | Knob micro controller failure  |  | Display board damaged   | Replace the Display Board  | <a href="#"><u>7.19</u></a> |
| <b>F20</b> | RL4 Element issue  | short condition or open circuit detection (Broil HE)     | Power Board Relay damaged   | Replace power board  | <a href="#"><u>7.17</u></a> |
|            |  |  | Heating Element   | Replace The heating Element  | <a href="#"><u>7.6</u></a>  |

|            |                   |  |                           |                               |                    |
|------------|-------------------|--|---------------------------|-------------------------------|--------------------|
|            |                   |  | Safety thermostat damaged | Replace the safety thermostat | <b><u>7.13</u></b> |
| <b>F21</b> | RL2 Element issue | short condition or open circuit detection (Upper HE)   | Power Board Relay damaged | Replace power board           | <b><u>7.17</u></b> |
|            |                   |  | Heating Element           | Replace the heating Element   | <b><u>7.6</u></b>  |
|            |                   |  | Safety thermostat damaged | Replace the safety thermostat | <b><u>7.13</u></b> |
| <b>F22</b> | RL3 Element issue | short condition or open circuit detection (Ring HE)    | Power Board Relay damaged | Replace power board           | <b><u>7.17</u></b> |
|            |                   |  | Heating Element           | Replace the heating Element   | <b><u>7.5</u></b>  |
|            |                   |  | Safety thermostat damaged | Replace the safety thermostat | <b><u>7.13</u></b> |
| <b>F23</b> | RL5 Element issue | short condition or open circuit detection (Lower HE)   | Power Board Relay damaged | Replace power board           | <b><u>7.17</u></b> |
|            |                   |  | Heating Element           | Replace the heating Element   | <b><u>7.7</u></b>  |
|            |                   |  | Safety thermostat damaged | Replace the safety thermostat | <b><u>7.13</u></b> |
| <b>F25</b> | RL1 Element issue | short condition or open circuit detection (DBL braker) | Power Board Relay damaged | Replace power board           | <b><u>7.17</u></b> |
|            |                   |  | Heating Element           | Replace the heating Element   | <b><u>7.5</u></b>  |
|            |                   |  |                           |                               | <b><u>7.6</u></b>  |
|            |                   |  |                           |                               | <b><u>7.7</u></b>  |
|            |                   |  | Safety thermostat damaged | Replace the safety thermostat | <b><u>7.13</u></b> |

WHEN A FAILURE OCCURS, THE DISPLAY SHOWS THE WRITING **FXx Err**, WHEREAS xx 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.

IN SOME CASES, THE POWER ON IS REQUIRED.



| <b>Anomaly</b>                        | <b>Possible Cause</b>                     | <b>Corrective Action</b>             | <b>section</b>     |
|---------------------------------------|---|--------------------------------------|--------------------|
| Oven does not run<br>No power supply  | Main breaker or main fuses                | Replace the fuses                    |                    |
|                                       | Short circuit                             | Find the short circuit and remove it |                    |
| Oven does not run<br>Power supply ok. | Connections to Display or the Power board | Replace power board                  | <b><u>7.17</u></b> |

**Cooling Fan Problems**

| <b>Anomaly</b>                       | <b>Possible Cause</b>   | <b>Corrective Action</b>   | <b>section</b>       |
|--------------------------------------|---|--|----------------------|
| Fan does not run<br>No power supply  | Power board relay not switching                               | Replace Power board  | <a href="#">7.17</a> |
| Fan does not run<br>Power supply ok. | Blocked rotor   | Replace fan  | <a href="#">7.2</a>  |
|                                      | Burned coil   | Replace fan  | <a href="#">7.2</a>  |
| Noisy fan                            | Lose attachment screws on cooling assembly                    | Check attachment screws on cooling assembly or replace fan                         | <a href="#">7.2</a>  |
| The cooling fan is always on         | The control is measuring a high temperature inside the cavity | Turn the cooking mode selector in a cooking mode position, F01 (F02) should occur. | --                   |
|                                      |   | Check all the connections between the sensor and the power board                   | --                   |
|                                      |   | Check the temperature sensor   | --                   |
|                                      |   | Check the power board  | --                   |

**Convection Fan Problems**

| <b>Anomaly</b>                       | <b>Possible Cause</b>                      | <b>Corrective Action</b>  | <b>section</b>              |
|--------------------------------------|--|---|-----------------------------|
| Fan does not run<br>No power supply  | Power board relay not switching            | Replace Power board   | <a href="#"><b>7.17</b></a> |
| Fan does Not run<br>Power supply ok. | Blocked rotor                              | Replace fan   | <a href="#"><b>7.4</b></a>  |
|                                      | Burned coil                                | Replace fan   | <a href="#"><b>7.4</b></a>  |
| Noisy fan                            | Lose attachment screws on cooling assembly | Check attachment screws<br>Check nut on working fan for tightness or replace it | --                          |



| <b>Anomaly</b>   | <b>Possible Cause</b>   | <b>Corrective Action</b>  | <b>section</b>       |
|--|---|---|----------------------|
| Door lock control does not run<br>No power supply.   | Power board relay not switching.  | Replace Power board.  | <a href="#">7.17</a> |
|  | Door micro switch or door latch micro switch not switching.                   | Replace micro switch.   | <a href="#">7.10</a> |
| Door lock control does not run<br>Power supply ok.   | Locked rotor.   | Replace motor.  | <a href="#">7.8</a>  |
|  | Burned coil.  | Replace motor.  | <a href="#">7.8</a>  |
| Noisy.   | Defective mounting of door lever mechanics.                                   | Check lever mechanism of door lock.<br>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.                                   | --                   |
|  |   | Turn the cooking mode selector in a cooking mode position, F01 (F02) should occur.      | --                   |
|  |   | Check all the connections between the sensor and the power board.                       | --                   |
|  |   | Check the temperature sensor.<br>If is damaged, replace it.                             | <a href="#">7.14</a> |
|  |   | Check the power board.<br>If is damaged, replace it.                                    | <a href="#">7.17</a> |
|  | The Oven had been locked by means of the child lock procedure.                | Use the same procedure to unlock the door.  | <a href="#">3.3</a>  |
| 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  | <a href="#">7.10</a> |
|  | Door lever mechanism locked   | Check lever mechanism of door latch.<br>Lubricate all working parts with silicon grease | --                   |

**Oven Light Problems**

| <b>Anomaly</b>   | <b>Possible Cause</b>                    | <b>Corrective Action</b>   | <b>section</b>              |
|--|--|--|-----------------------------|
| The Oven lights are always OFF.<br>No power supply.    | Check door micro switch.                 | Replace door micro switch.   | <a href="#"><b>7.10</b></a> |
|  | Power board relay not switching.         | Replace Power board.   | <a href="#"><b>7.17</b></a> |
| The Oven lights are always OFF.<br>Power supply is ok. | Lamps are burned out.                    | Replace lamps.   | <a href="#"><b>3.11</b></a> |
| The Oven lights are always ON.                         | Check the door micro switch.             | Replace door micro switch or connection between the door switch and the power board. | <a href="#"><b>7.10</b></a> |
|  | Power board relay has a shorted circuit. | Replace Power board.   | <a href="#"><b>7.17</b></a> |





| <b>Anomaly</b>   | <b>Possible Cause</b>                              | <b>Corrective Action</b>   | <b>section</b>              |
|--|--|--|-----------------------------|
| Every cooking mode accepts only the preset temperature and clean will not start. | The control cannot read the temperature selector.  | Check the connections between the selectors and the display board. | --                          |
|  |  | Check and eventually replace the selector itself.                  | <a href="#"><b>7.18</b></a> |
|  |  | Check and eventually replace the power board.                      | <a href="#"><b>7.17</b></a> |
| The control doesn't accept any cooking mode or clean selection.                  | The control cannot read the cooking mode selector. | Check the connections between the selectors and the display board. | --                          |
|  |  | Check and eventually replace the selector itself.                  | <a href="#"><b>7.18</b></a> |
|  |  | Check and eventually replace the power board.                      | <a href="#"><b>7.17</b></a> |



| <b>Anomaly</b>   | <b>Possible Cause</b>   | <b>Corrective Action</b>   | <b>section</b>       |
|--|---|--|----------------------|
| The display is always dark, the latch at power up works correctly.   | The power supply to the display board is missing.                             | Verify if the voltage (-5GND) is correct on the display board.   | --                   |
|  |   | Check the connections between the power and the display board.   | --                   |
|  |   | Verify if the voltage (-5GND) is correct on the main power board.  | --                   |
| The display is always dark, the latch at power up doesn't work   | The power supply is not working.  | Verify if the voltage (-5GND) is correct on the main power board.  | --                   |
|  |   | Check and eventually replace the main power board.   | <a href="#">7.17</a> |
| During the manual test it's not possible to check the software version of one board: The displays shows "d" or "p" without any number. | The board has never been programmed.  | If the display shows 2p" check the connections between the boards, then try to replace the bad power connection. | --                   |
|  | The display cannot read the power board software due to a connection problem. | if the display shows "d" replace the display board.  | <a href="#">7.19</a> |

**Door Hinge Problems**

| <b>Anomaly</b>  | <b>Possible Cause</b>                              | <b>Corrective Action</b> | <b>section</b>              |
|---|--|--------------------------|-----------------------------|
| The door does not close or there is not sealing between door and gasket | Hinges system is broken or damaged                 | Replace the units        | <a href="#"><b>7.15</b></a> |
|   | The hinges support in the box is broken or damaged | Replace the units        | <a href="#"><b>7.16</b></a> |

**Bad Cooking Performance**

| <b>Anomaly</b>  | <b>Possible Cause</b>                        | <b>Corrective Action</b>   | <b>section</b>  |
|-----------------|--|--|---|
| Bad performance | Heating elements not working                 | Check the connection of the heating elements   | --  |
|                 |  | If there is not power on the heating elements check relays on the power boards.<br>If the power board relay not switching replace the units. | <a href="#">7.17</a>  |
|                 |  | Check the power on the heating elements and replace the elements if needed   | <a href="#">7.5</a><br><a href="#">7.6</a><br><a href="#">7.7</a> |
|                 | Convection fan not working properly          | See the convection fan problem   | <a href="#">4.4</a>   |
|                 | There is not sealing between door and gasket | The hinges system or the hinges support in the box are damaged.<br>Replace the units   | <a href="#">7.15</a><br><a href="#">7.16</a>                      |

**Meat probe problem**

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

***Gas doesn't light - No spark***

---

- 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.



## ***Sparking Continuously After Ignition***

---

- 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.



***Flame goes out on low setting***

---

- 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)





## ***Flame is distorted or large and yellow***

---

- 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)



**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.)

Remove the Griddle screws **B** if present.

Lift off top panel in vertical way.

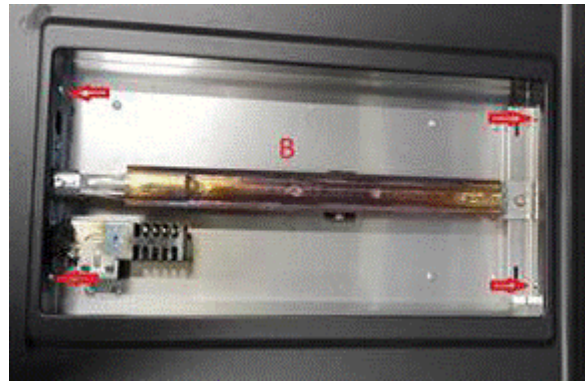
Remove the lateral screws to lift up the internal separator sheet **C**.

Note: **The edge can be sharp.**

To replace, reverse the procedure.



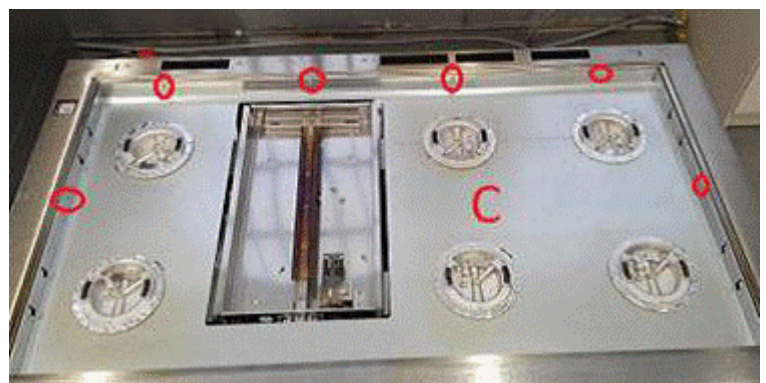
Burner



Griddle Burner



Separator Sheet



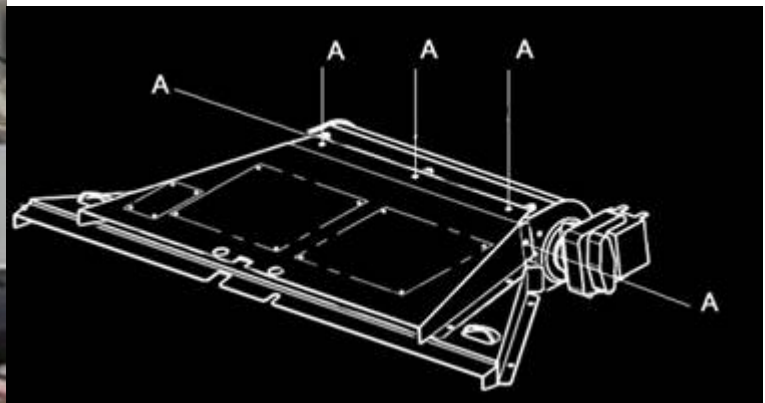
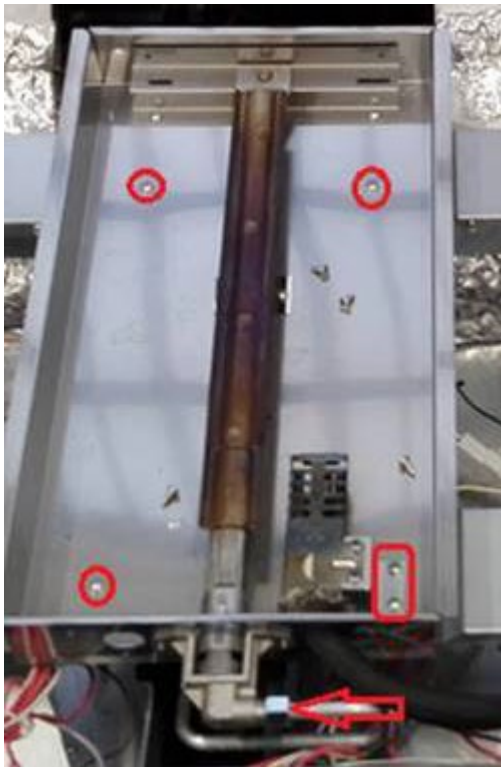
Separator Sheet double Oven



## Cooling fan motor substitution

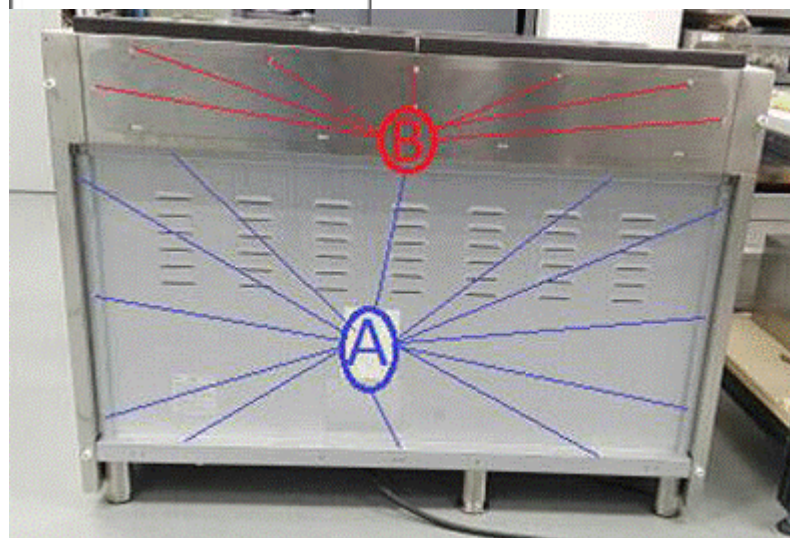
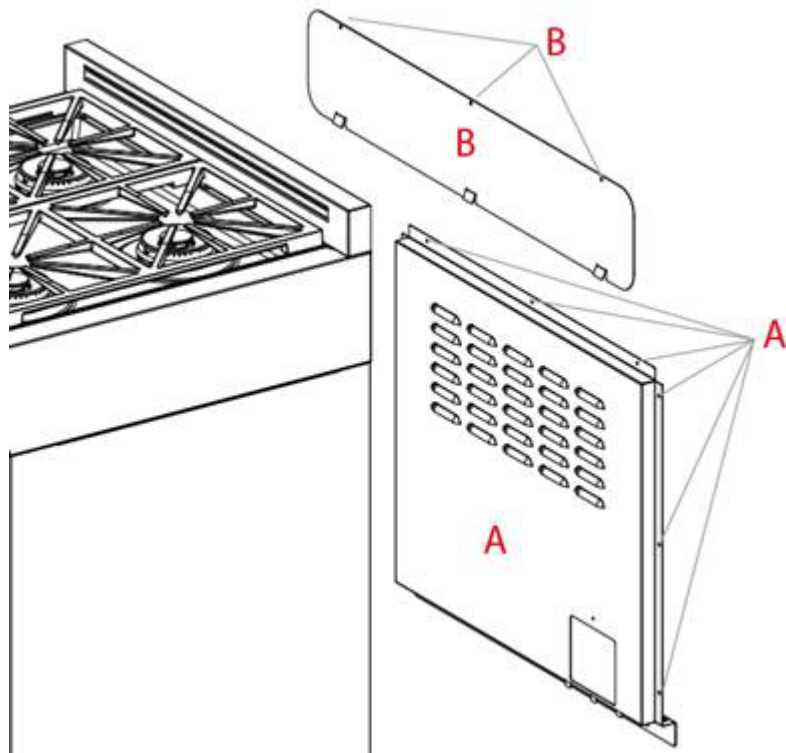


1. Disconnect the power supply cord and remove the Top panel ([Section 7.1](#)).
2. In case of 18" oven remove the basin of griddle removing the showed screws and also the gas tube.
3. Remove the five screws **A** (two lateral & three on the top).
4. Disconnect the terminals on the fan and remove the fan damaged.
5. Replace the cooling fan motor.
6. Connect the terminals and fix the motor by its screws.
7. The connections must not be loose.
8. Reinstall the Top panel.
9. 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**.

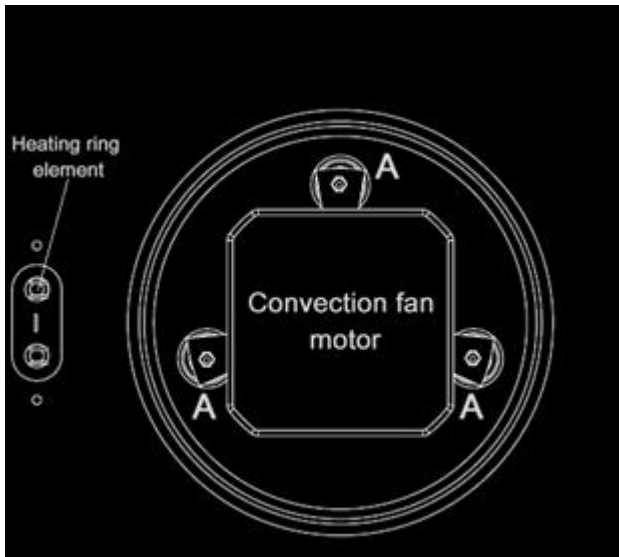




## Convection fan motor substitution

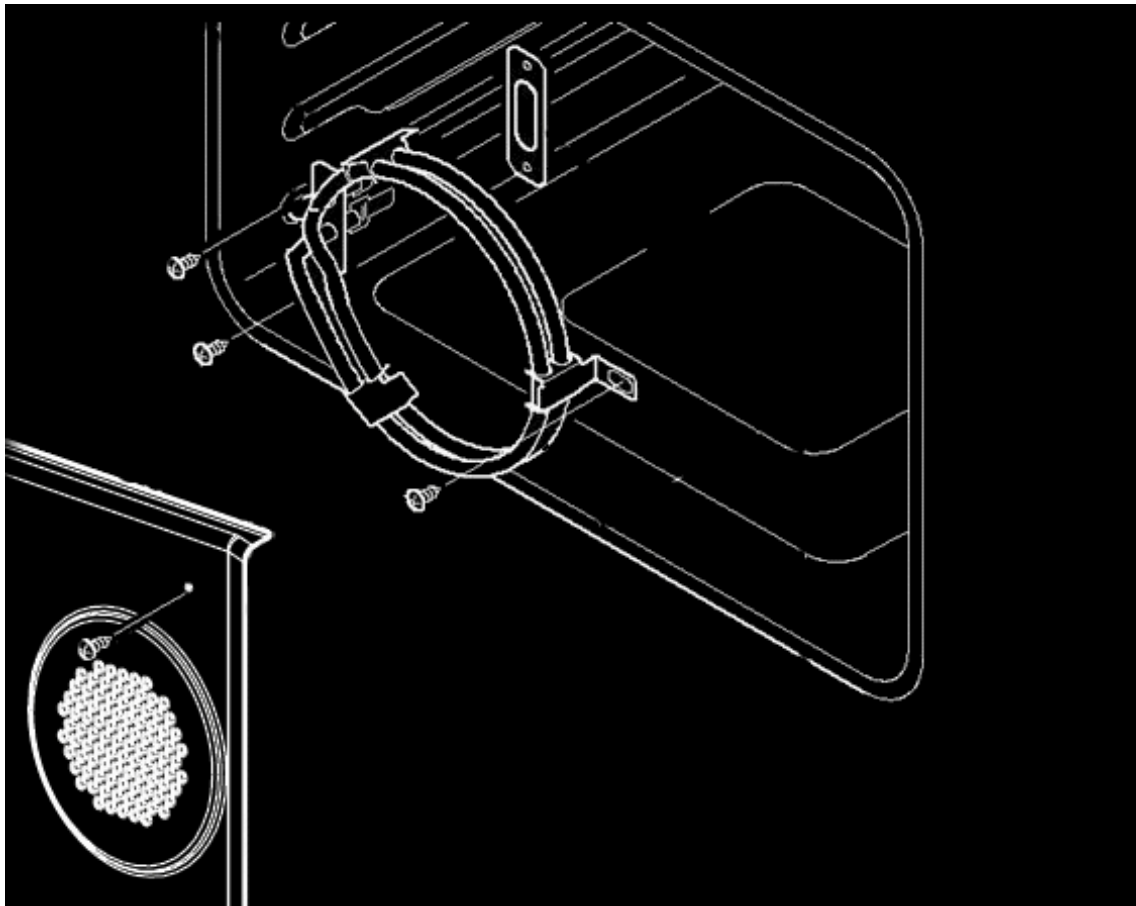


1. Disconnect the power supply cord and gas connection and remove the Range from its location.
2. Remove the rear lower cover ([Section 7.3](#)).
3. Disassemble the baffle by removing the five screws in the cavity for double fans or three on single fan.
4. Remove the fan blade by using a 10mm socket.
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. Replace the baffle.
7. Connect the terminals (the connections must not be loose).
8. Reconnect the power supply cord and check all functions.



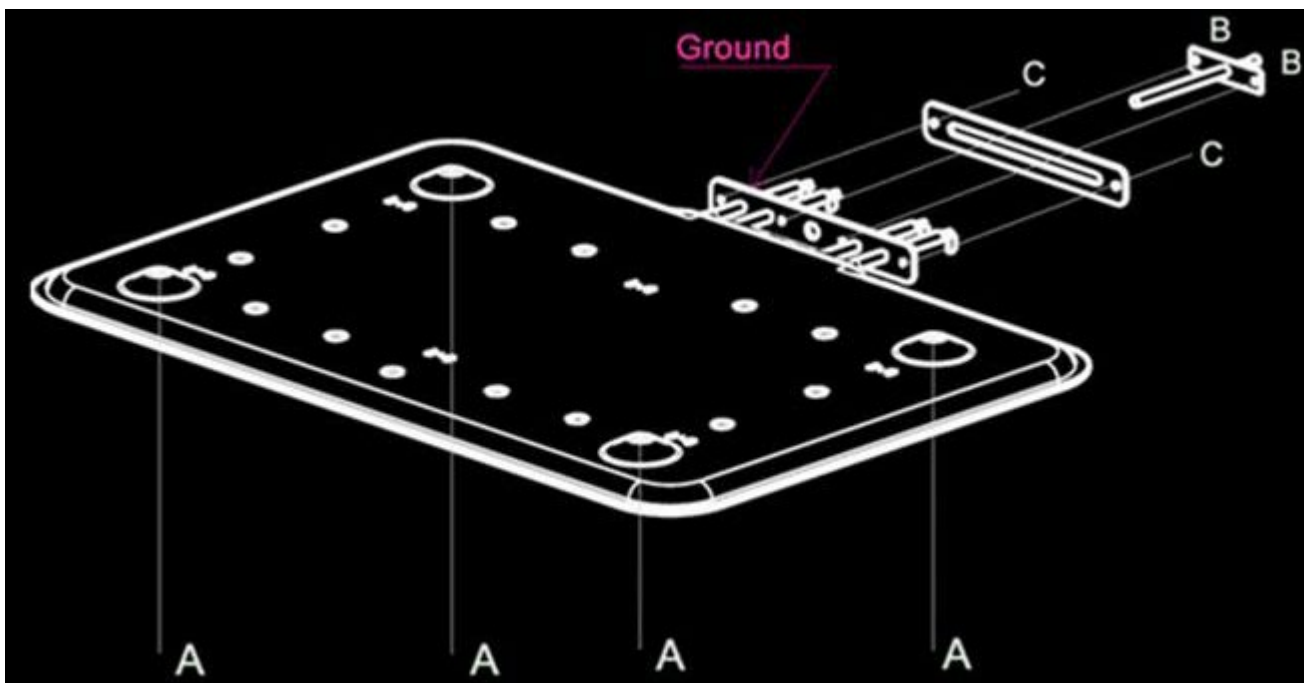


## Upper element substitution



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. 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.

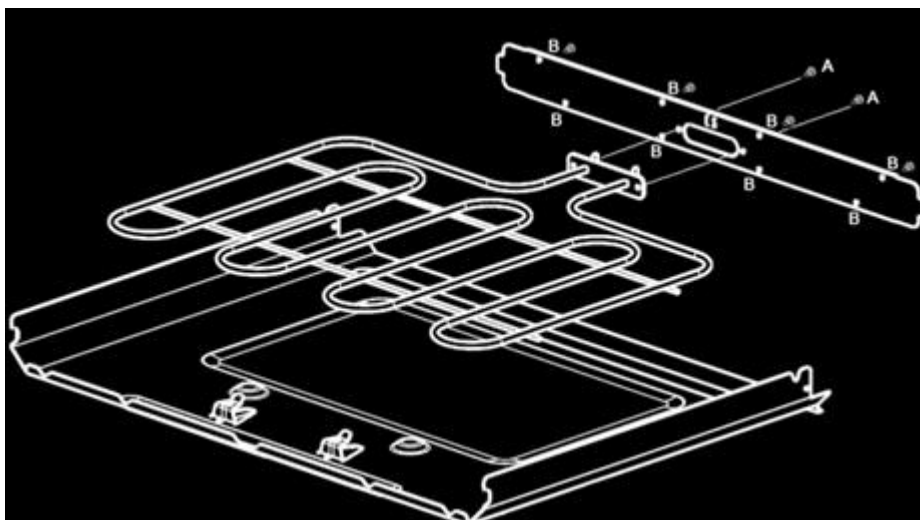
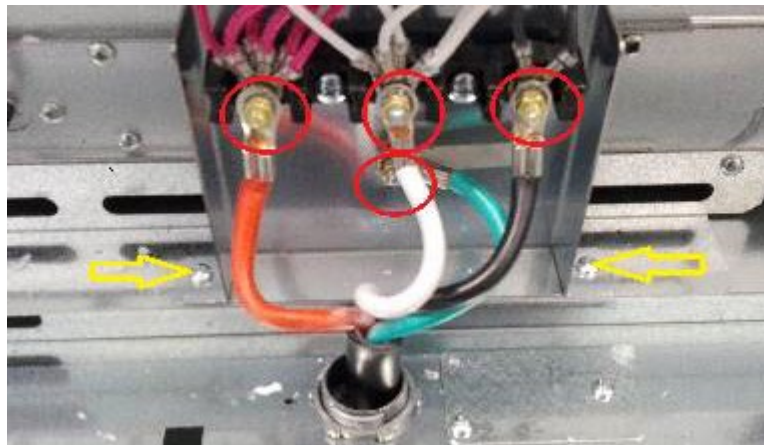




**Lower element substitution**



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.





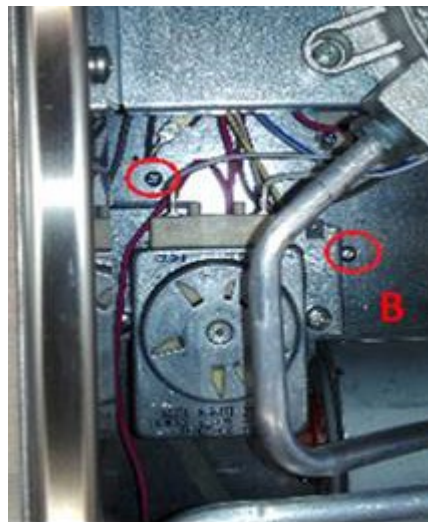
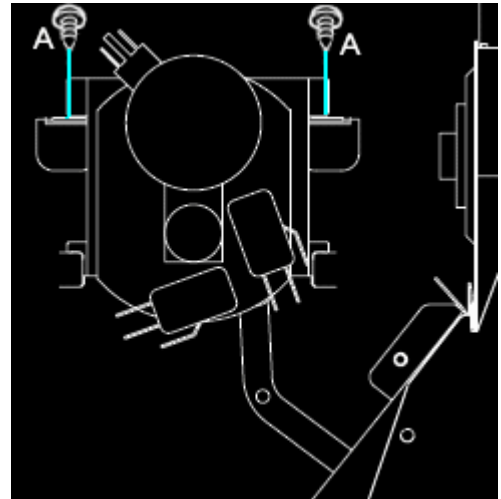
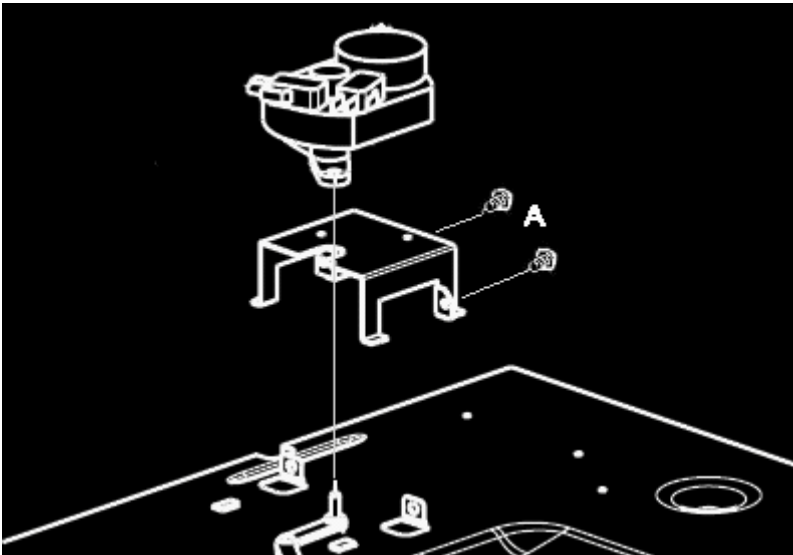


**Lock door motor substitution**



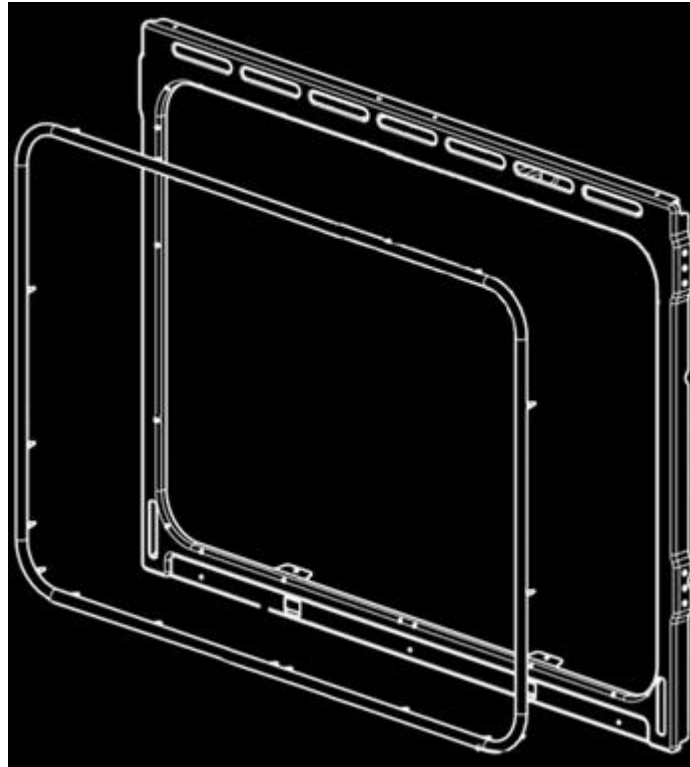
1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Disconnect the cables. Pay attention to the sequence of wiring of the motor (micro switch).
4. Remove the screws **A** and lift back the motor to remove it.
5. On small oven of 48" remove the two screws **B** and lift up it.
6. Disassemble the motor by removing the screws under its support and remove it.
7. Replace the new motor assembly by reversing the previous steps.
8. Pay attention to the positioning when inserting the door lever mechanism into the eccentric of the motor.
9. 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.

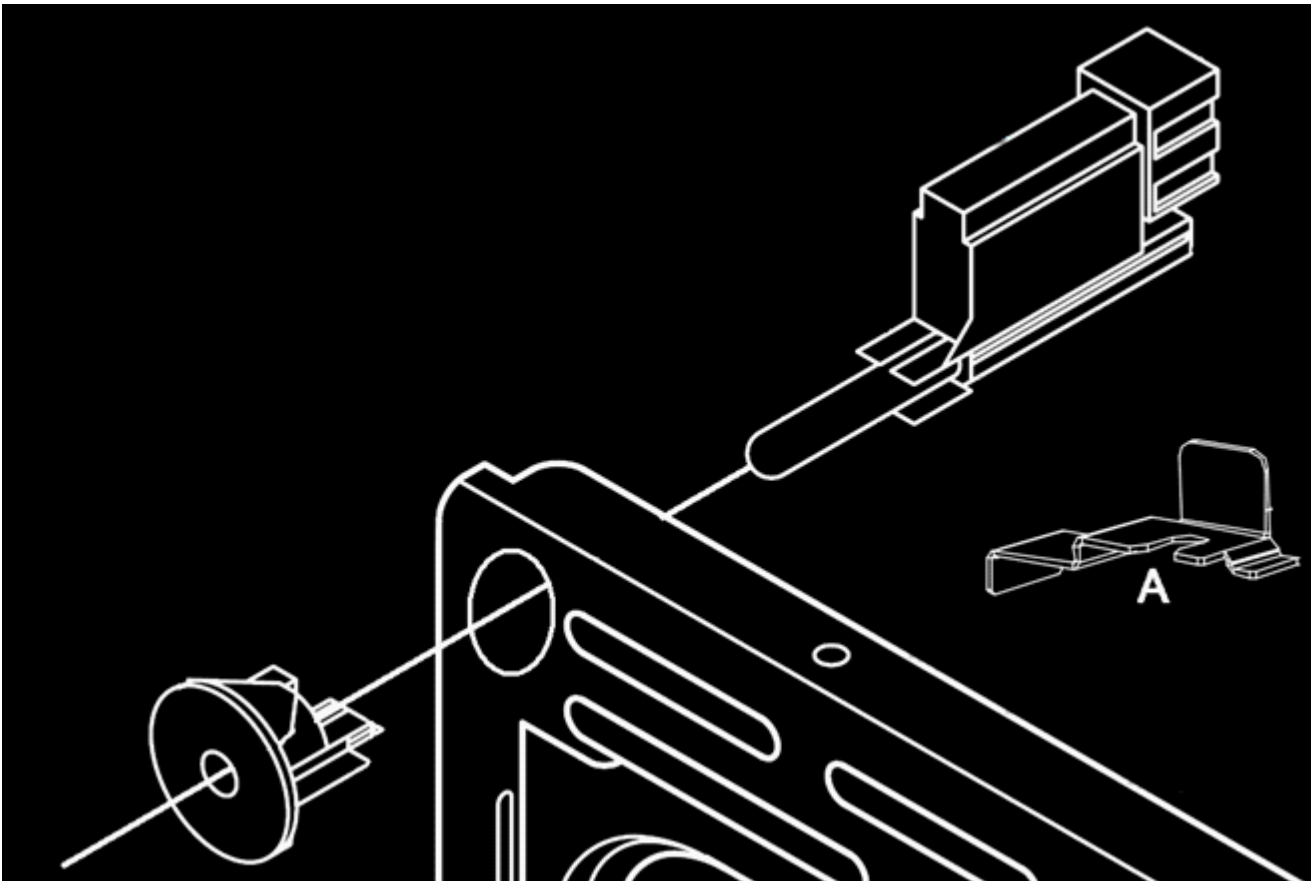




**Door Lock Switch substitution**



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.

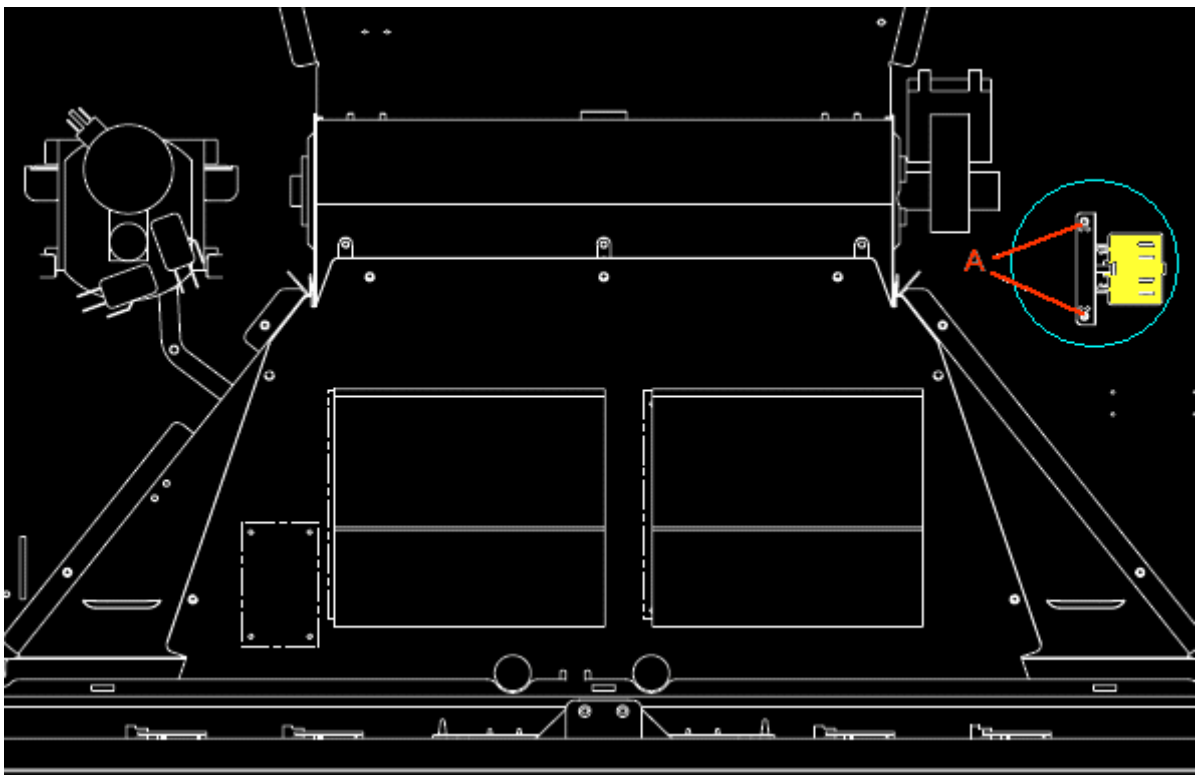




## Oven Filter substitution

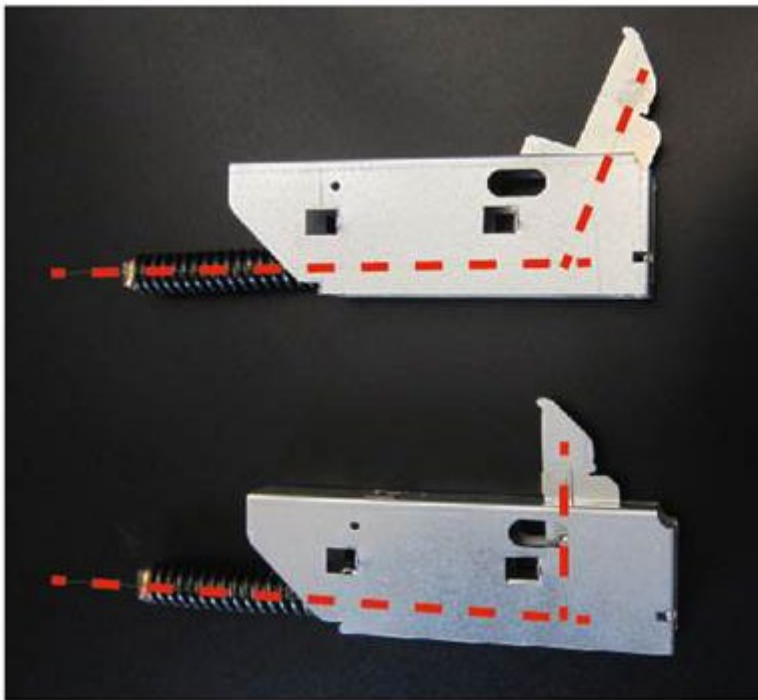


1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Disconnect the terminals from filter.
4. Remove the filter damaged by unscrew two screws **A** and dismount it from its bracket.
5. Replace a new one
6. Pay attention to the wiring sequence (the connections must not be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



LOADED

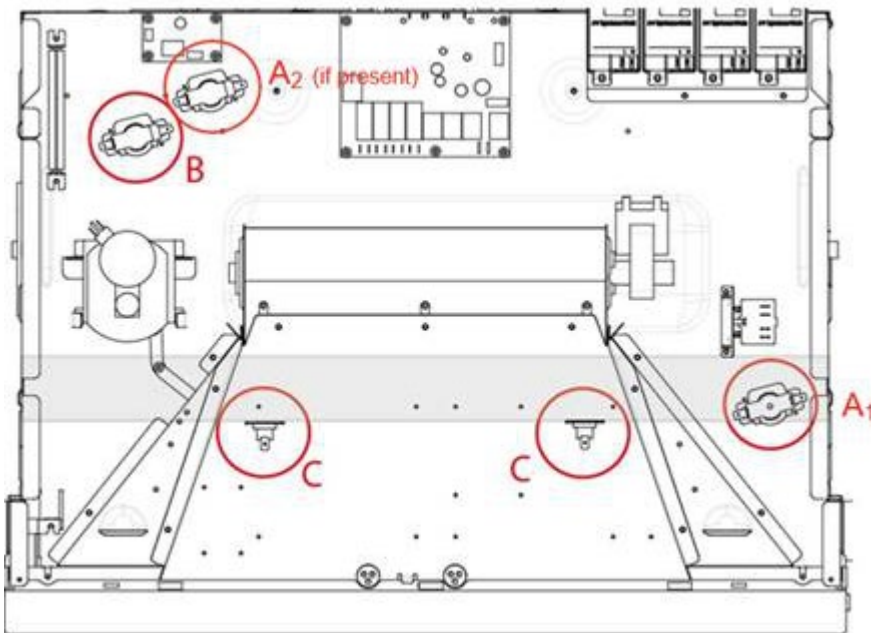
UNLOADED



## Safety thermostats substitution



1. Disconnect the power supply.
2. Remove the top panel ([Section 7.1](#)).
3. Unscrew the thermostat's holder:
  - A. Safety thermostats (**A<sub>1</sub> Piro – A<sub>2</sub> Cooking**).
  - B. Double speed cooling fan thermostat.
  - C. Cooling fan thermostats ON burners support (if present)
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.



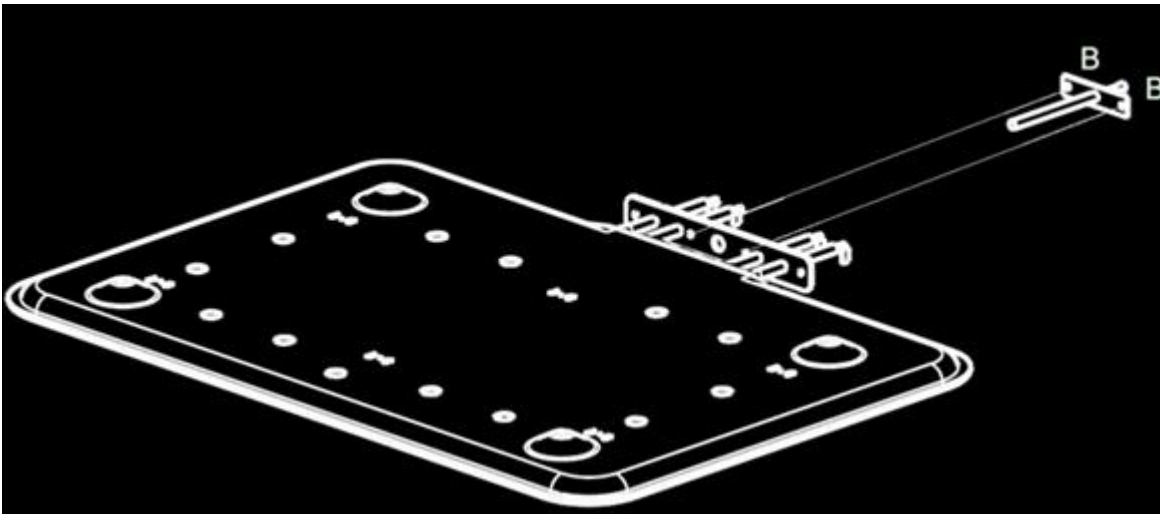


***Probe Temperature substitution***

---



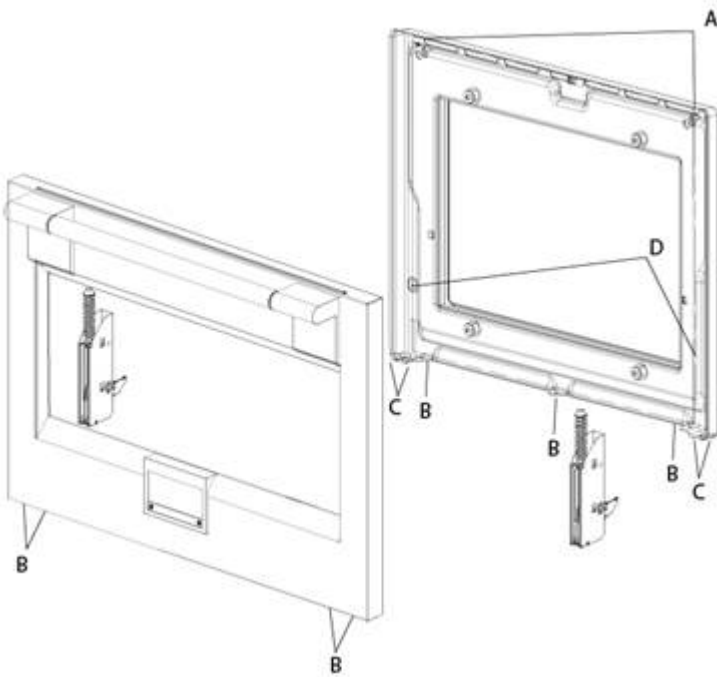
1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the lower rear cover ([Section 7.3](#)).
3. To replace the probe, disconnect it and remove the attachment screws **B**.
4. Reinstall the Oven into the cabinet.
5. Reconnect the power supply and check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







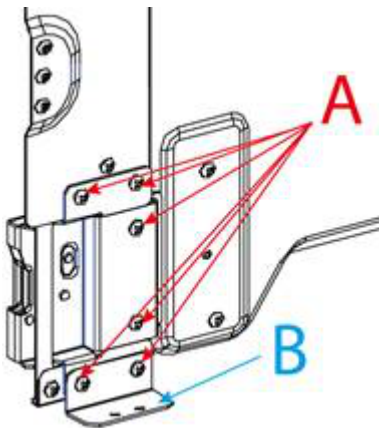
## Door hinges box substitution



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)

**NOTE: to access the internal hinges area on 48" range (see fig.1) unscrew the 3 screws, then pressing sideways pull towards you the central profile removing it.**

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.

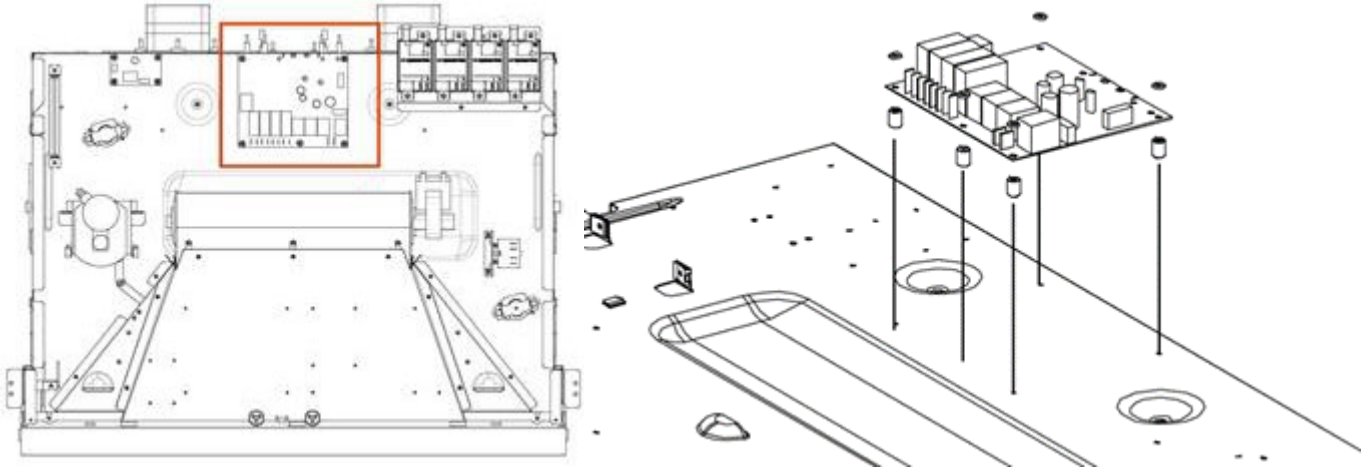




1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the screws connecting the power board before disconnecting the cables.
4. Replace the new power board using the spacers (if present).
5. Connect the cable following the electric diagram.
6. **PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION.**
7. The connections must not be loose.
8. Reconnect the power supply cord and check all functions.
9. **Check the Oven by MANUAL TEST following the procedure shown on section 2.5 and 2.6.**

**Note:**

The power board could be different, the below figure shows Hawk3 model as example.

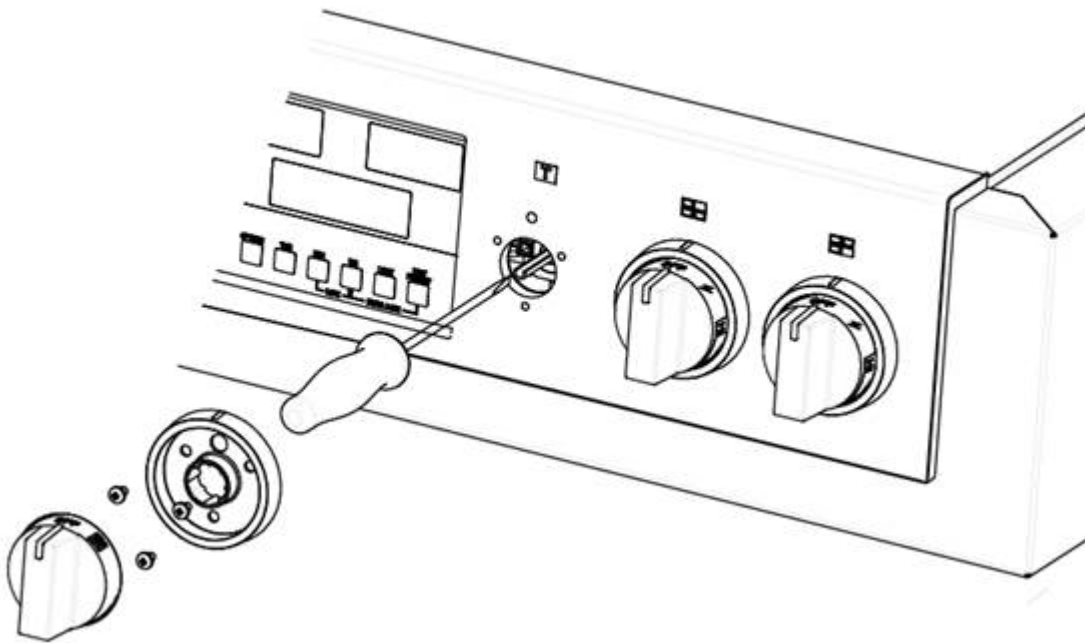




## ***Temperature or Function Selector substitution***

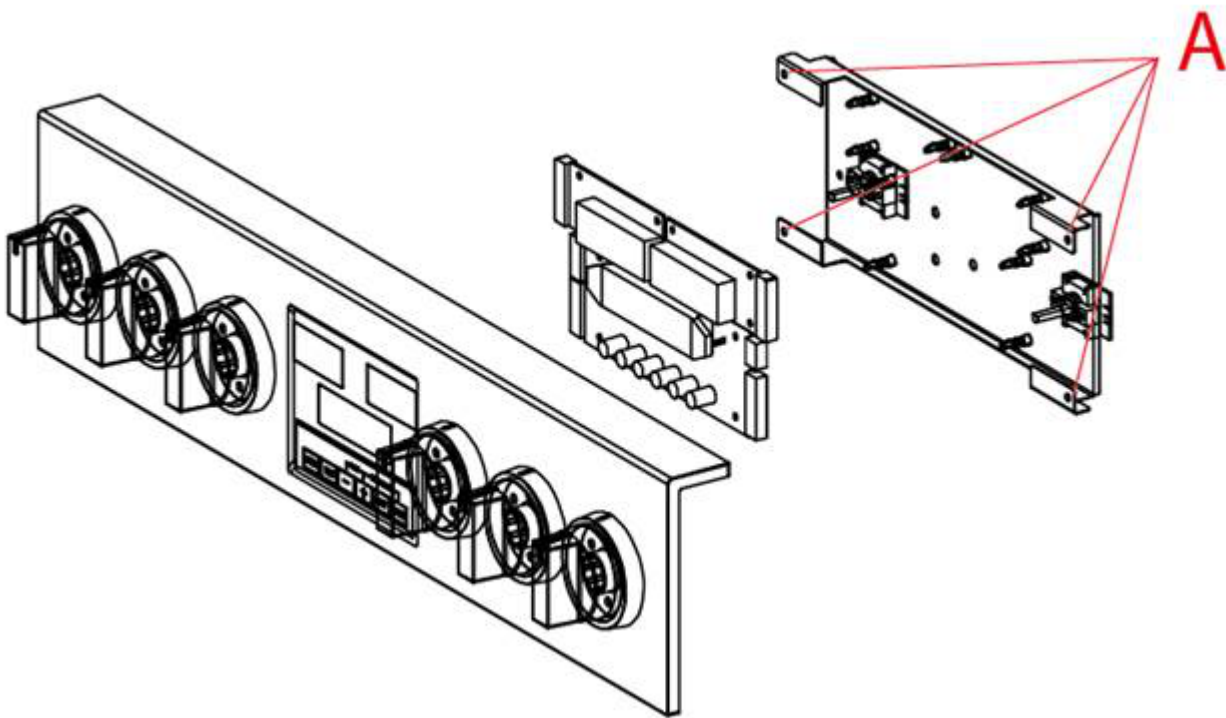


1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the knobs.
4. Disconnect the bad selector and remove it by the screws.
5. Replace the new selector by reversing the previous steps
6. Reconnect the power supply cord and check all functions



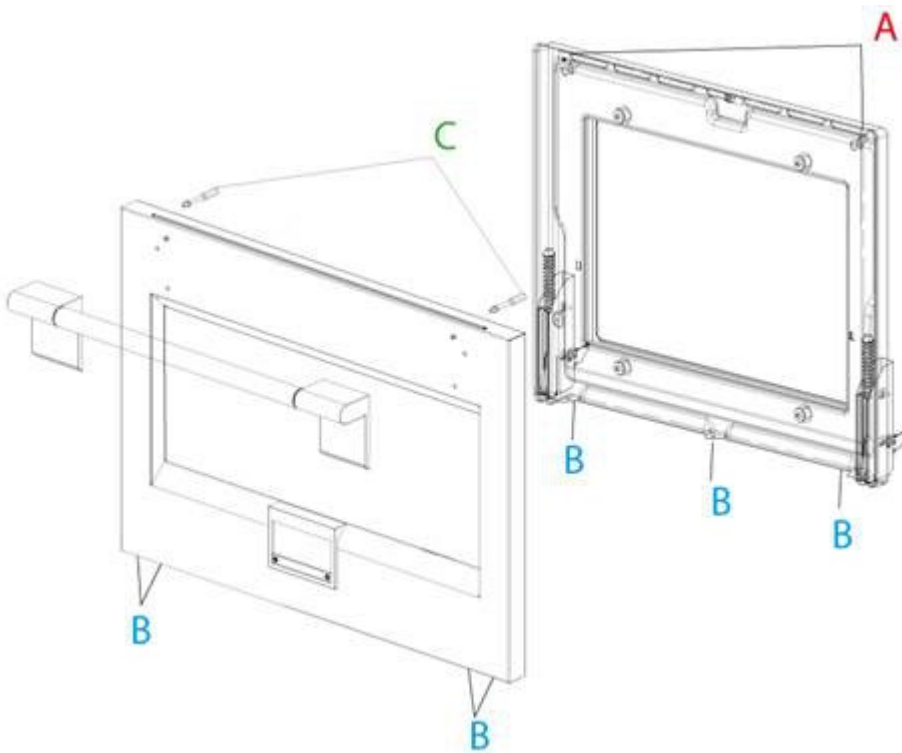


1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the displays support by its 4 screws **A**.
4. Disconnect the bad display board and remove it by the nylon spacers.
5. Replace the new display board by reversing the previous steps.
6. Reinstall the RANGE.
7. Reconnect the power supply cord.
8. **Check the Oven by MANUAL TEST following the procedure shown on section 2.5 and 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).



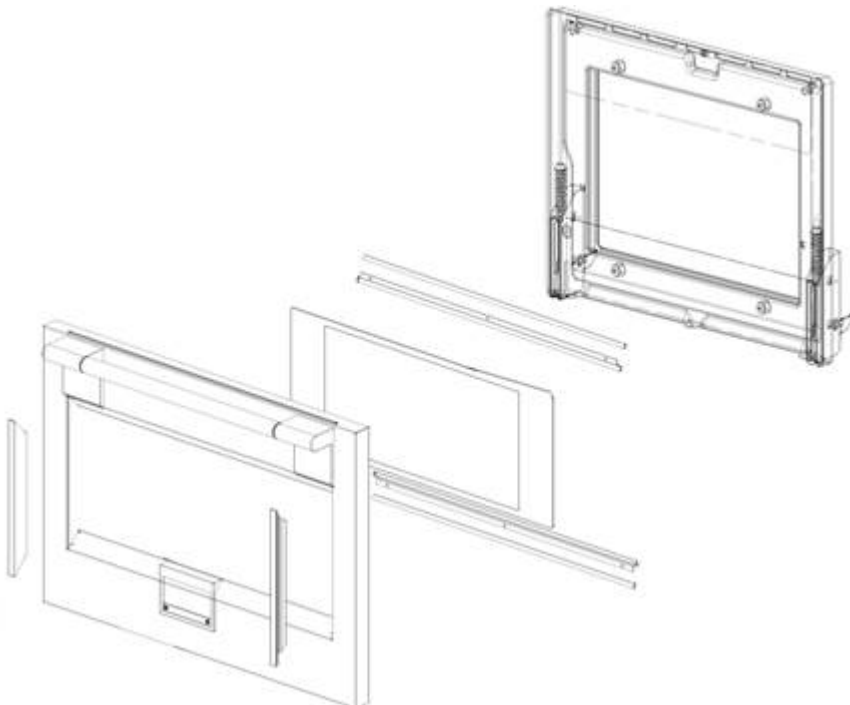


***Door external glass disassembling***



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 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.**

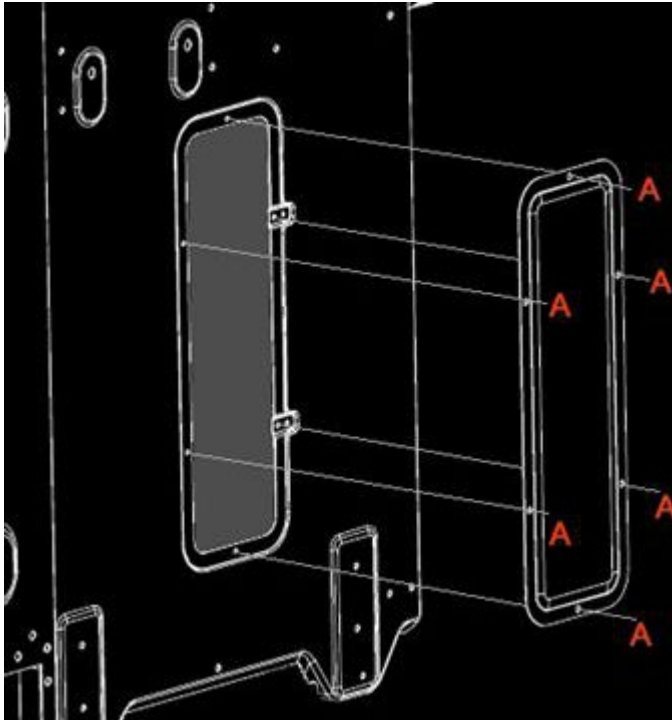
Replace the Oven door following the (see User manual).





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 '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.



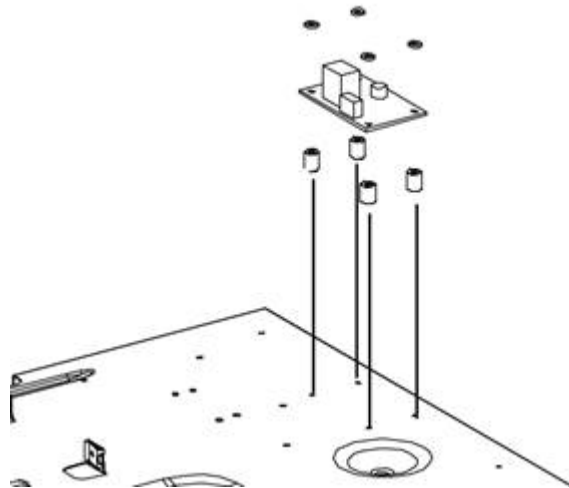
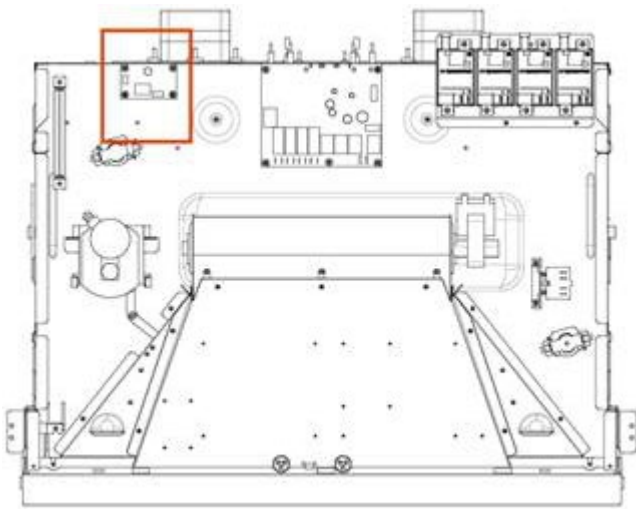




***Meat probe board substitution***



1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the screws connecting the meat probe board before disconnecting the cables.
4. Replace the new power board using the spacers.
5. Connect the cable following the electric diagram.
- 6. PAY ATTENTION TO CONNECT THE CABLES IN THE RIGHT POSITION.**
7. 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 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



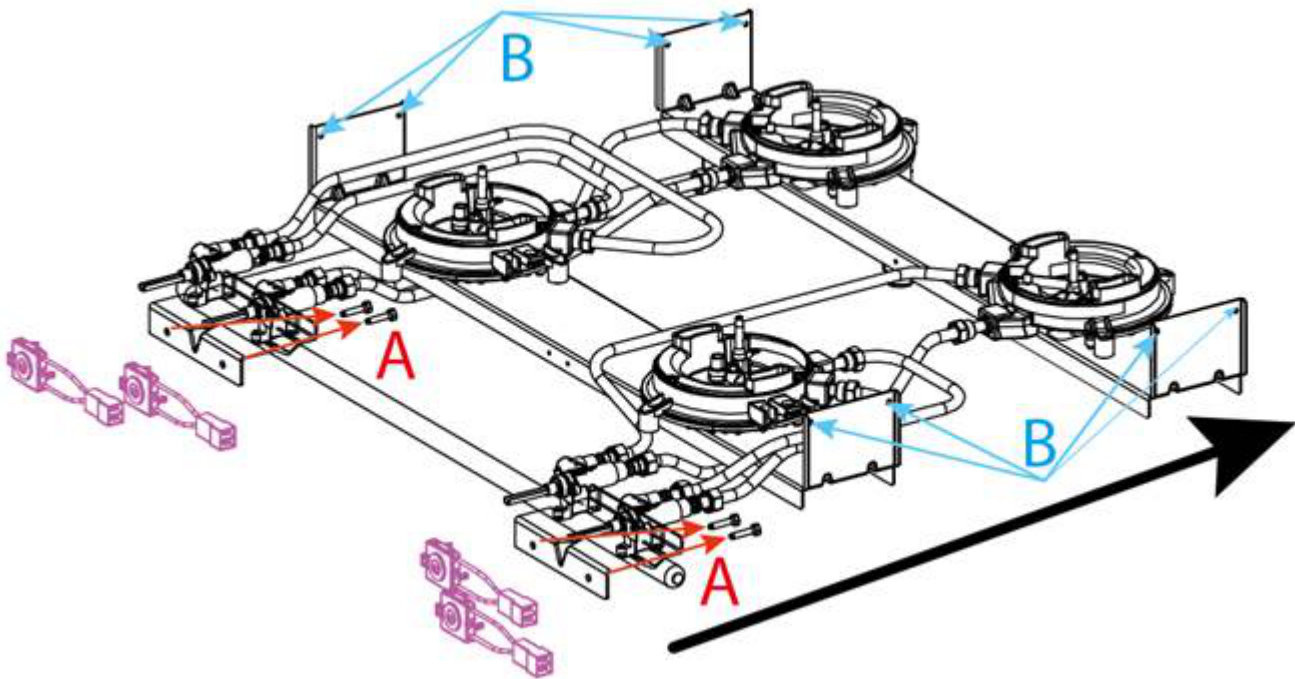
fig 3



**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



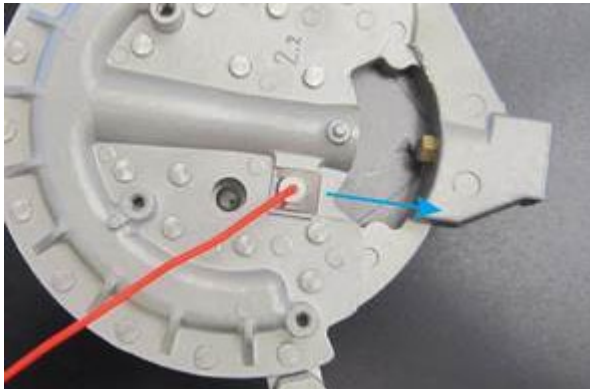


## Replacement & servicing of electronic ignition



### 7.27.1 To replace a spark plug

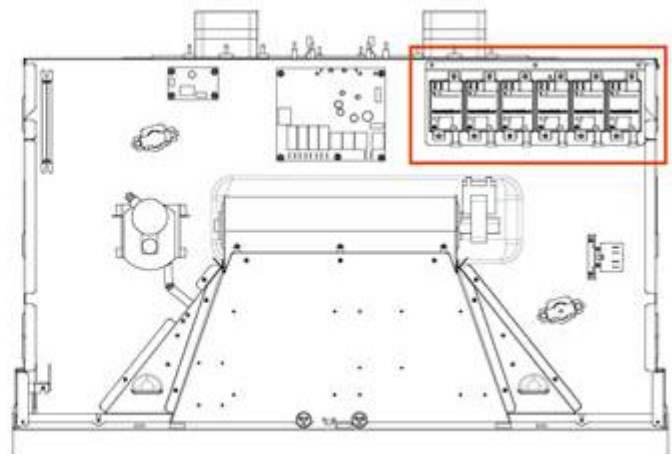
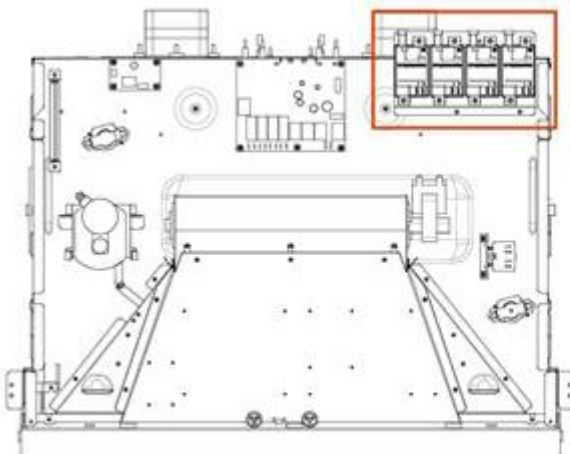
- Disconnect the power supply cord.
- Remove the top panel ([Section 7.1](#)).
- Unlatch the spark plug spring.
- Replace it.
- Reassemble in reverse order.



### 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.



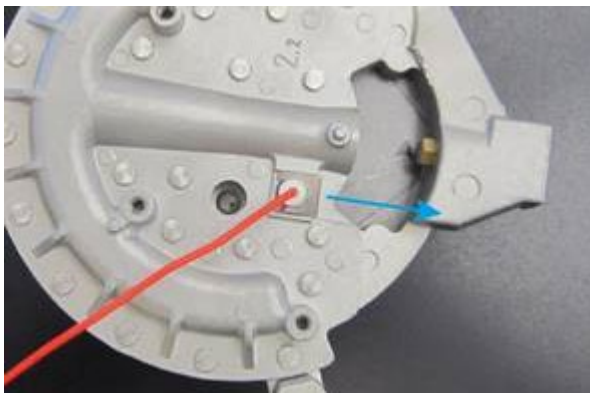


**Replacement & servicing of electronic ignition  
(small cavity on 48" ranges)**



**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 back panel ([Section 7.3](#)).
- 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.

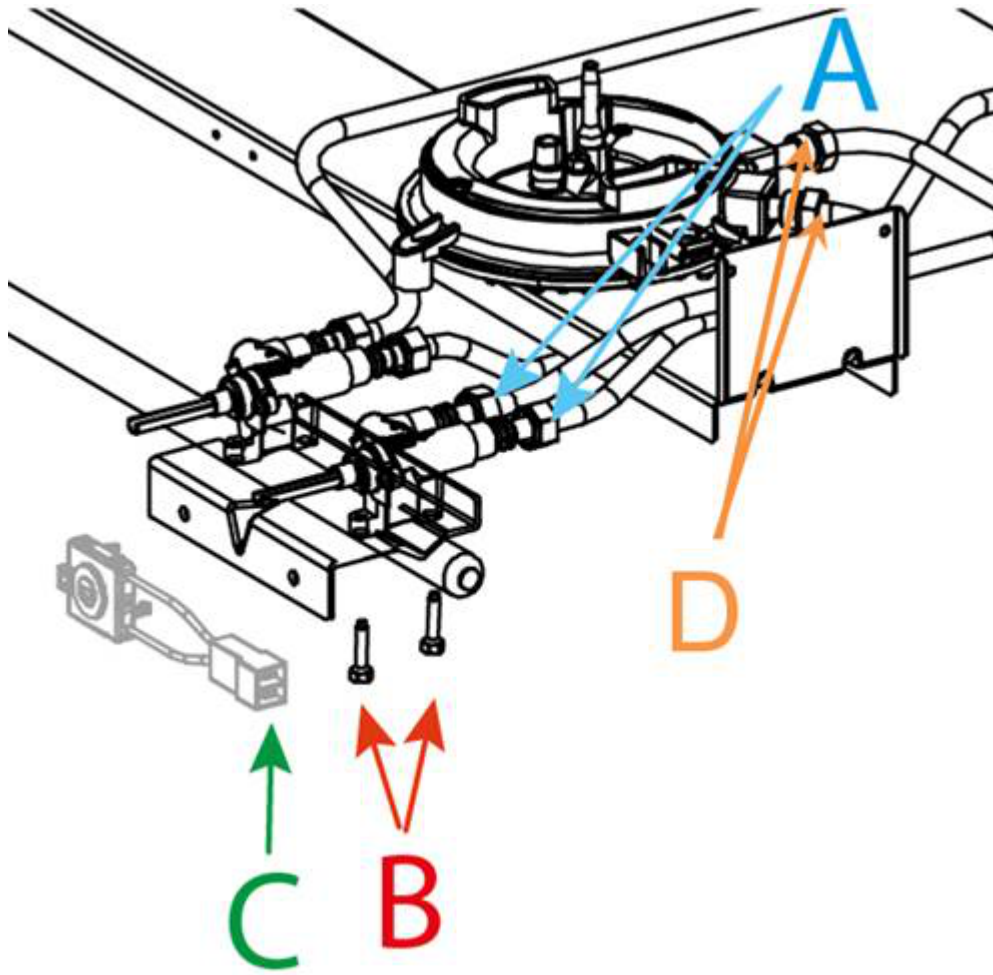
## Burner

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.
15. .

Gas valve identification ([see section 2.10](#))





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 NUT **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 thermocouple WIRE from the valve Fig. **A**.
7. Remove the thermostat BULB switch **C** from the valve Fig. **B**.
8. Replace the gas valve on the manifold tube.
9. Reassemble in the reverse order.
10. 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.
11. Reinstall the RANGE.
12. Reconnect the power supply cord and check all functions.

Gas valve identification ([see section 2.10](#))

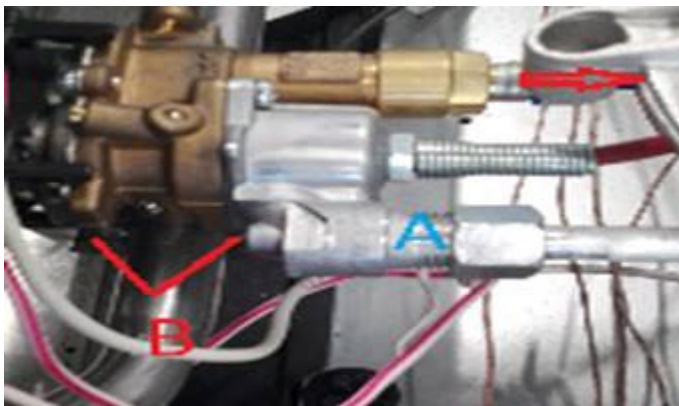


Fig. A

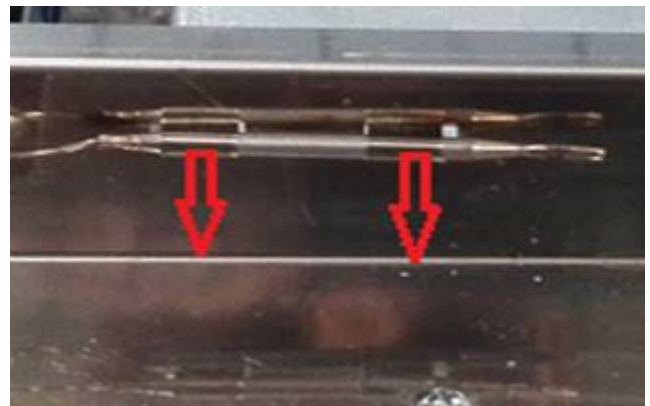


Fig. B



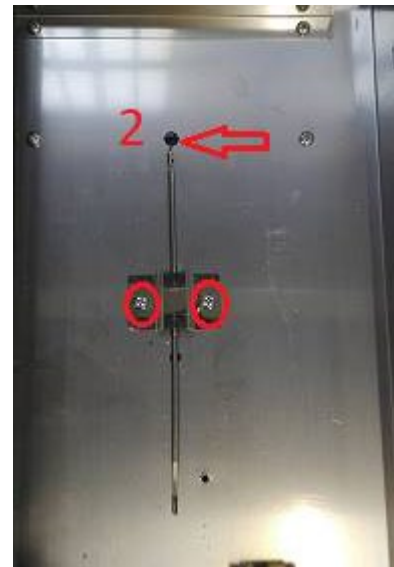
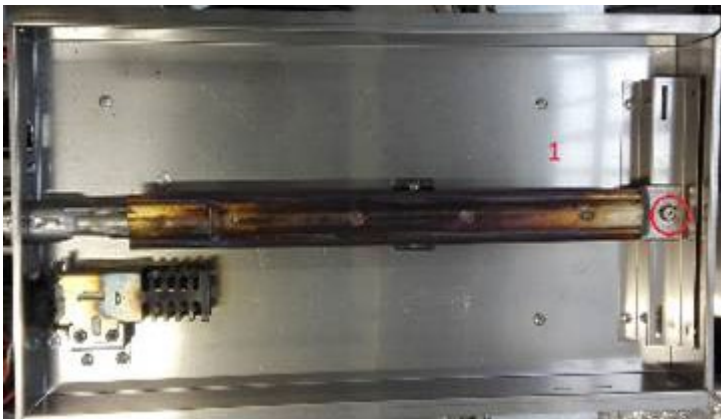


**Griddle thermostat substitution (Glow Wire version)**



1. Disconnect the gas and electricity supplies
2. Remove the top panel ([Section 7.1](#)).
3. Unscrew the screw that fixes the burner [fig.1](#)
4. Unscrew the 2 screws holding the bulb and remove it through the hole [fig.2](#)
5. Extract the knob and unscrew the 3 screws of the ring [fig.3](#)
6. Unscrew the 2 screws holding the thermostat and replace it.
7. Reassemble in the reverse order.

Reconnect the power supply cord and check all functions.





## Griddle Thermocouple and Spark Plug Substitution



1. Disconnect the power supply cord and gas connection than remove the Range from its location.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the back panel ([Section 7.3](#)).
4. Remove the spring of thermocouple or spark plug damaged. **A or B** Fig. A.
5. Disconnect the wire from spark generator or T zero gas control Fig. B.
6. In case of thermocouple replacing remove its connector from valve Fig. C.
7. Remove the thermostat BULB switch **C** from the valve Fig. B.
8. Replace the gas valve on the manifold tube.
9. Reassemble in the reverse order.
10. Reinstall the RANGE.
11. Reconnect the power supply cord and check all functions.

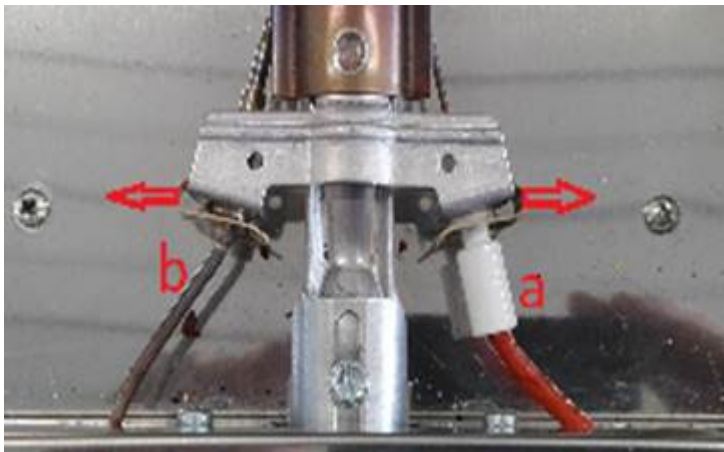


Fig. A

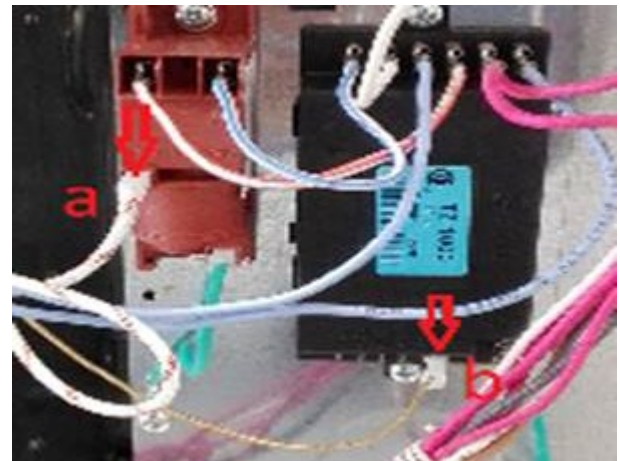


Fig. B

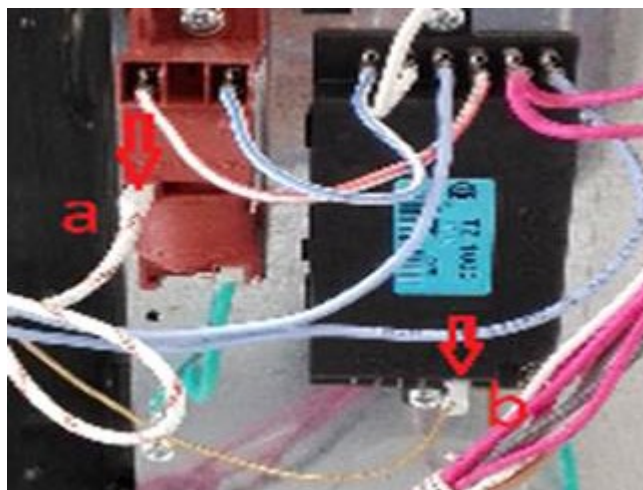


Fig.C



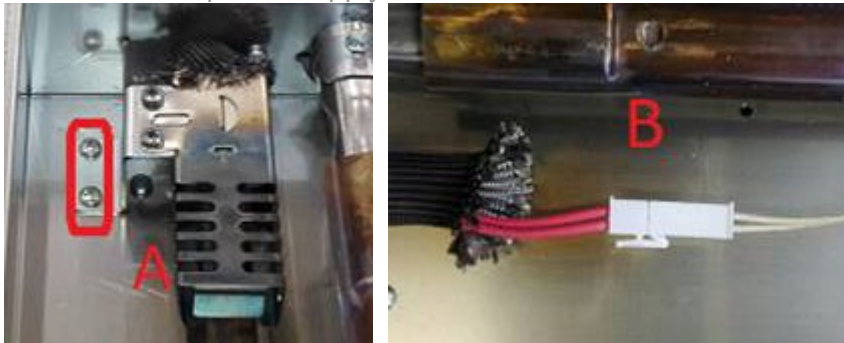
## Griddle Glow Wire Ignition or Valve substitution



### GRIDDLE

1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the Glow Wire unscrewing its screws (fig. **A**)
4. Extract the connection cable of the Glow wire until the connection comes out (fig. **B**).  
**NOTE: During reassembly remember to insert the connector well into its sock.**
5. Replace the new one reassembling in the reverse order.
6. Reinstall the RANGE.

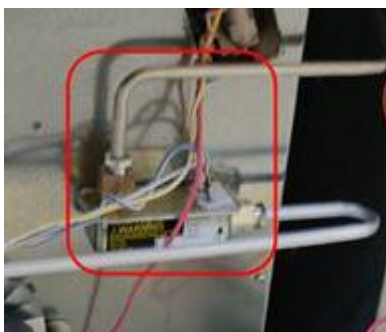
Reconnect the power supply cord and check all functions.



**NOTE: RTR measure should be from 40 to 400 Ohms (at 75°F / 24°C)**

### VALVE

1. Disconnect the power supply cord.
2. Remove the top panel ([Section 7.1](#)).
3. Remove the rear cover ([Section 7.3](#)).
4. Disconnect the wiring.
5. Unscrew the gas inlet and outlet nuts from the valve.
6. Unscrew the valve fixing screw and replace it.
7. Reinstall the RANGE, reconnect the power supply cord and check all functions.



**NOTE: at 120V the valve opens at 2.9Amps.  
The nominal current should be 3.2Amps.**



1. Disconnect the power supply cord.

2. Unscrew the screw, lift slightly and remove in the direction of the arrow.

Reconnect the power supply cord and check all functions.

