

OCEAN®

OVEN

SERVICE MANUAL

Model

MS 4F I

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Las especificaciones están sujetas a cambios sin previo aviso

Pictures are only sketches which may be different from your equipment.
Les images sont seulement de croquis qui peuvent être différentes du design de votre équipement.
Las imágenes son sólo los bosquejos que pueden ser diferentes de su equipo.

Ovens Service Manual 60cm – 75cm - 90cm - 90X48cm (EU)

Last Update 09 Sep 2019

This document has been published to be used for service only.

The contents are subject to change without notice

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Note: When servicing the oven, 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 *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.

<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
Oven does not run No power supplies.	Main breaker or main fuses	Replace the fuses	--
	Short circuit	Find the short circuit and remove it. Check internal connections (short circuit, interruptions, etc.)	--
Oven does not run Power supply ok. Display OFF	Connections to the Electronic Timer	Check the connection or replace the Electronic Timer	7.19
The Display is ON but the oven doesn't heat.	The temperature limiting (tripped)	Check if the cooling fan system works properly and in case replace the safety thermostat	7.11
	Connections to the function switch	Check the connection or replace the Switch	7.18 7.18b
	The working thermostat	Check if the thermostat is properly connected and in case replace the working thermostat	7.13
	Relay on the Electronic timer	Check the connection or replace the Electronic Timer	7.19

Cooling Fan Problems

<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
Fan does not run No power supplies	Bad connection Selector broken.	Check the connectors and the harness. Replace switch selector	<u>7.17</u>
	Cooling Fan thermostat broken. (contact opened)	Replace the cooling fan thermostat	<u>7.11</u>
Fan does not run Power supply ok.	Blocked rotor	Replace fan	<u>7.2</u>
	Burned coil	Replace fan	<u>7.2</u>
Noisy fan	Lose attachment screws on cooling assembly	Check attachment screws on cooling assembly or replace fan	<u>7.2</u>

Convection Fan Problems

<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
Fan does not run No power supply	Bad connection Mode selector not switching	Check the connectors and the harness Replace switch selector	7.17
Fan does Not run Power supply ok.	Blocked rotor	Replace fan	7.4
	Burned coil	Replace fan	7.4
Noisy fan	Lose attachment screws on assembly	Check attachment screws Check nut on working fan for tightness or replace it	--

Oven Light Problems

<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
The Oven lights are always OFF. No power supply.	Bad connection Selector broken.	Check the connectors and the harness. Replace the switch selector	<u>7.17</u>
The Oven lights are always OFF. Power supply is ok.	Lamps are burned out.	Replace lamps.	See User manual
The Oven lights are always ON.	Bad connection Selector contact is broken or in short circuit.	Check the connectors and the harness. Replace the switch selector	<u>7.17</u>

<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
The timer display does not function	The power supply is not working.	Check and eventually replace the Electronic Timer.	7.19

Door Hinge Problems

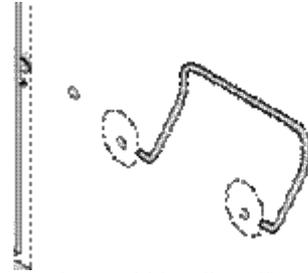
<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
The door does not close or there is not sealing between door and gasket	Hinges system is broken or damaged	Replace the units	<u>7.15</u>
			<u>7.15b</u>

Bad Cooking Performance

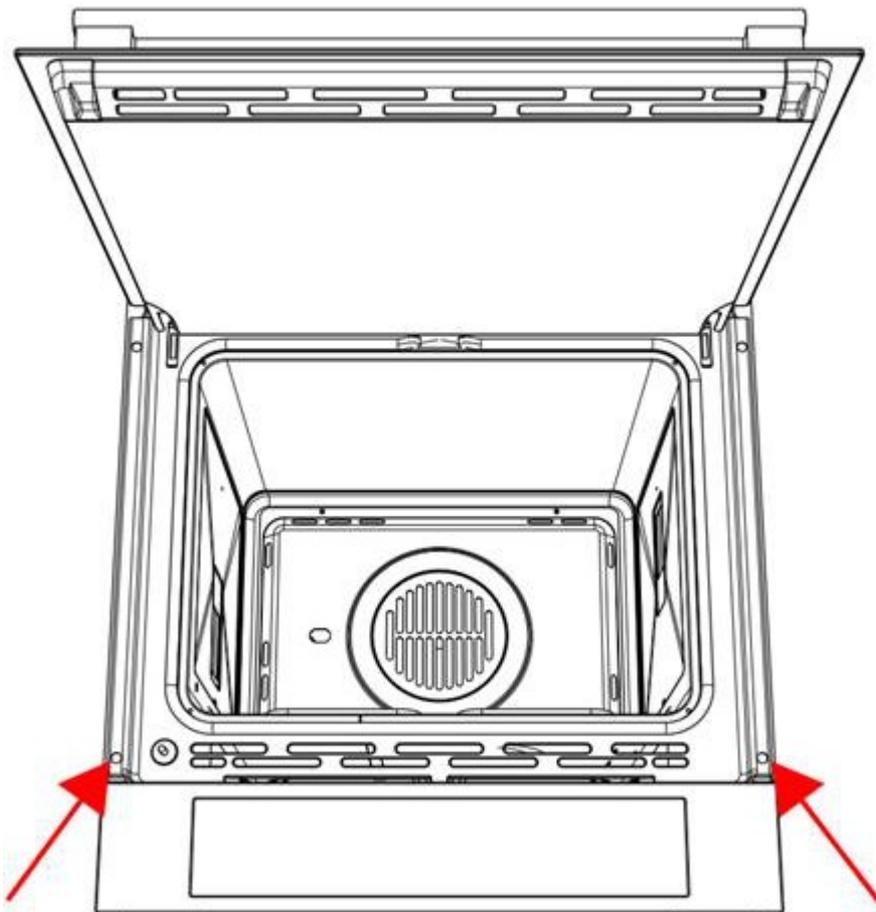
<i>Anomaly</i>	<i>Possible Cause</i>	<i>Corrective Action</i>	<i>section</i>
Bad performance	Heating elements not working	Check the connection of the heating elements	--
		If there is not power on the heating elements check relays on the electronic timer. If the electronic control relay not switching replace the units.	<u>7.19</u>
		Check the power on the heating elements and replace the elements if needed.	<u>7.5</u> <u>7.6</u> <u>7.7</u>
		Check the contacts of the switch selector and replace it if needed.	<u>7.17</u>
	Convection fan not working properly	See the convection fan problem	-
There is not sealing between door and gasket	The hinges system is damaged. Replace the units	<u>7.15</u>	



1. Disconnect the power supply cord
2. Open the oven door
3. Remove the screws shown in the picture.
4. Pull out the oven.
5. Remove the oven by using the lateral handles.



Lateral Handles (if present)



Cooling fan motor substitution

1. Disconnect the power supply cord and remove the Oven from the cabinet.

2. **A 60cm**

C 75 & 90cm

Remove the upper cover.

Disconnect the terminals on the fan.

Remove the **eight screws** of ventilation duct the fan and lift up the upper section being careful not to remove the frontal gasket if present.

Then pull out the lower section and remove the damaged Motor by its two screws **A** (placed at the bottom of the fan).

B. Remove the **small** upper cover

Disconnect the terminals on the fan.

Remove the four screws of ventilation fan motor

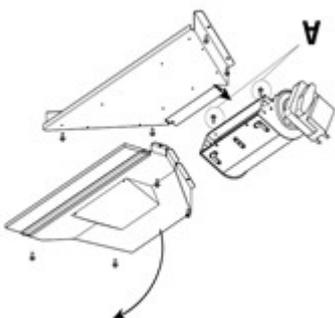
3. Replace the motor by reversing the previous steps

4. The connections must not be loose.

5. Reinstall the Oven into the cabinet.

6. Reconnect the power supply cord after the Oven is installed.

7. Run the Oven and check all functions.



A- 60cm



B- 90 x
48



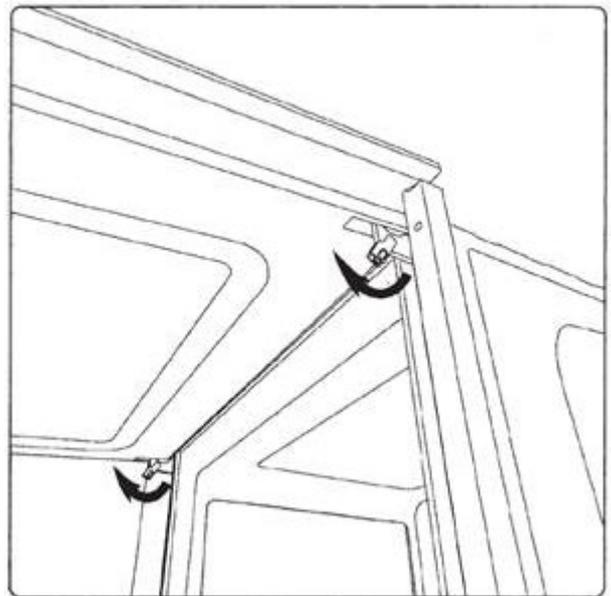
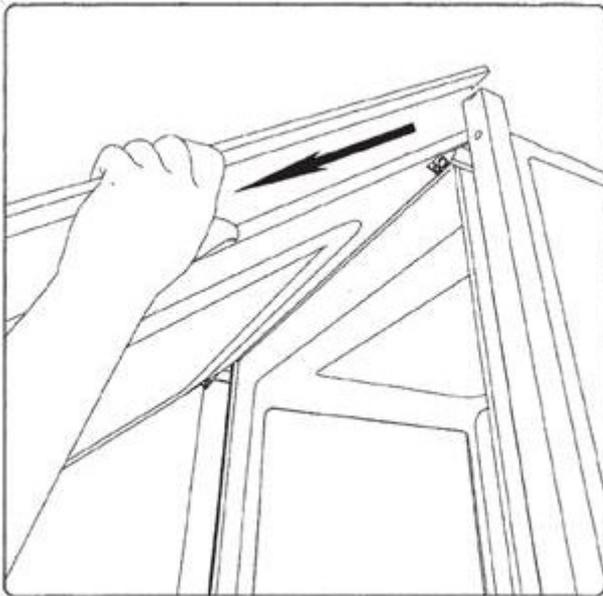
C- 75cm – 90x60cm

Removing the oven door

The oven door can be removed quickly and easily. To do so, proceed as follows:

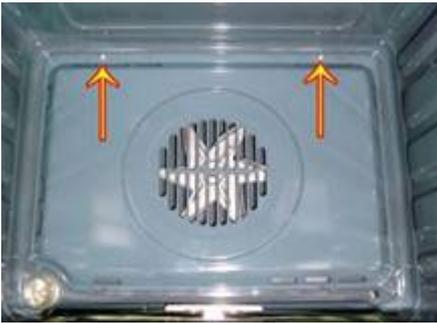
- - Open the door fully.
- - Lift the two levers shown in fig.
- - Close the door as far as the first stop (caused by the raised levers).
- Lift the door upwards and outwards to remove it from its mountings.

To replace fit the door, fit the hinges in their mountings and lower the two levers.

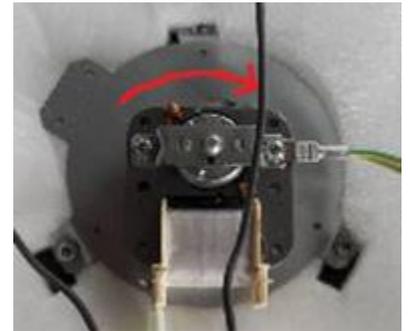


Convection fan motor substitution

1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the rear cover.
3. Remove the fan cover from the cavity (two screws, see pic.).
4. Remove the fan blade pulling it or removing the 10mm fixing nut, depends on model.
5. Disconnect the terminals on the fan in the rear side.
6. Remove the motor rotating it clockwise or on some other models removing the three fixing screws (see pic.) on the motor holder and remove it.
7. Mount the new fan motor on the holder then mount the fan blade into the cavity.
8. Reassemble the fan cover into the cavity.
9. Connect the terminals on the motor.
10. The connections must not be loose.
11. Reassemble the rear cover and reinstall the Oven into the cabinet.
12. Reconnect the power supply cord after the Oven is installed.
13. Run the Oven and check all functions.



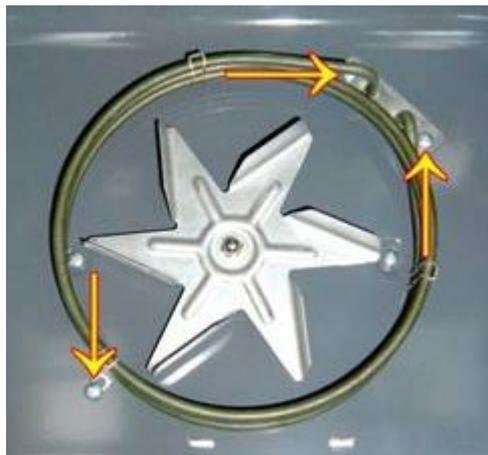
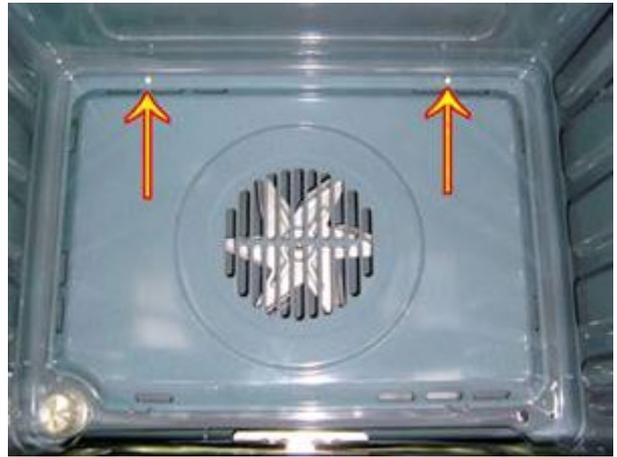
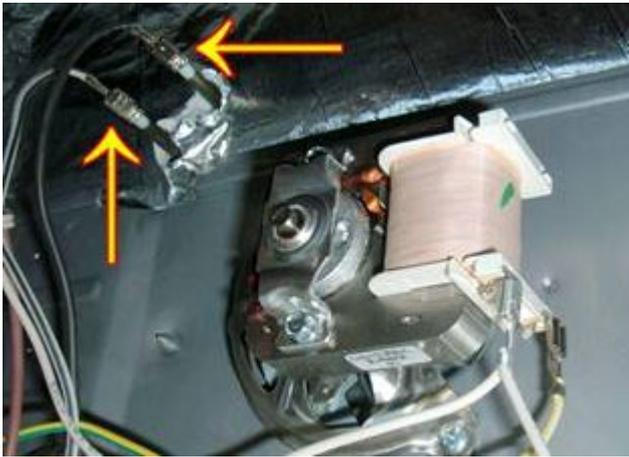
A



B

Ring element substitution

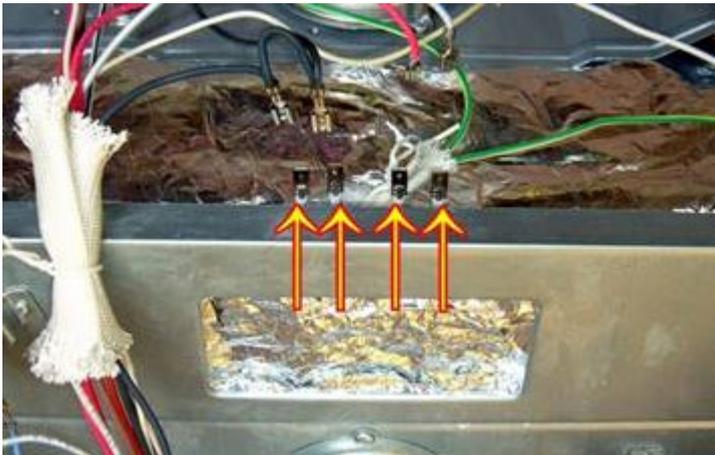
1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the rear cover.
3. Disconnect the terminals of heating element (see pic.).
4. Remove the fan cover from the cavity (two screws, see pic.).
5. Remove the ring element by removing the three screws (see pic.).
6. Replace the ring element.
7. Reassemble the fan cover.
8. Connect the terminals.
9. The connections must not be loose.
10. Reassemble the rear cover and reinstall the Oven into the cabinet.
11. Reconnect the power supply cord after the Oven is installed.
12. Run the Oven and check all functions.



Upper element substitution



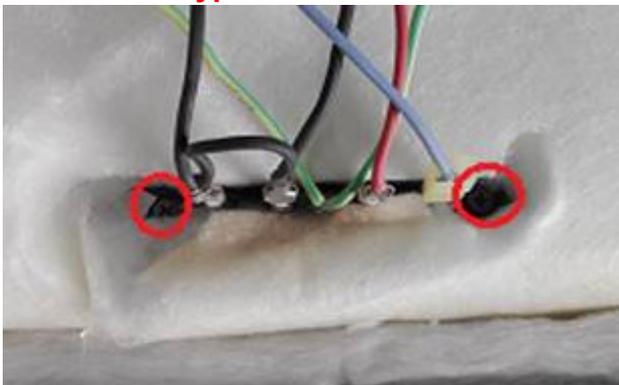
1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the rear and upper covers.
3. Disconnect the terminals of heating element.
4. **Type A** Remove the upper element by removing two screws on the bracket, (the screws can be reached through the upper opening shown in figure; bend the insulating fiber, in some case it is necessary to cut it as shown in the pic.).
Type B Remove first the two fixing screws in the back and then the other two into the oven cavity.
5. Extract the bad heater pulling it out from the cavity, then place the new one and secure it with the screws on the back side of the oven.
6. Connect the terminals. Pay attention to the sequence of wirings and ground connections. Unbend the insulation.
7. The connections must not be loose.
8. Reinstall the Oven into the cabinet.
9. Reconnect the power supply cord after the Oven is installed.
10. Run the Oven and check all functions.



Type A forno da 60



Type A forno da 60



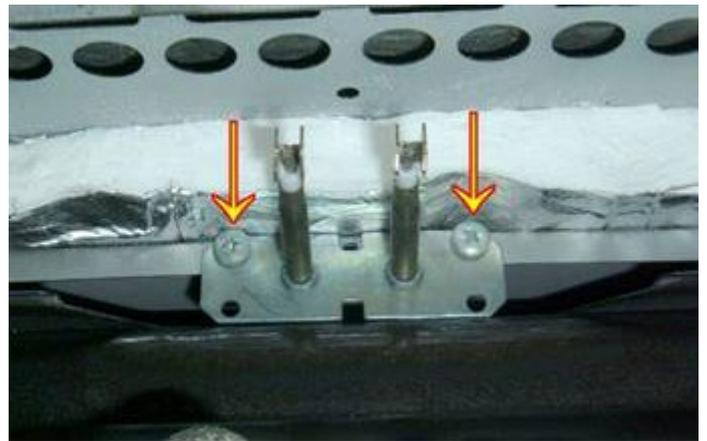
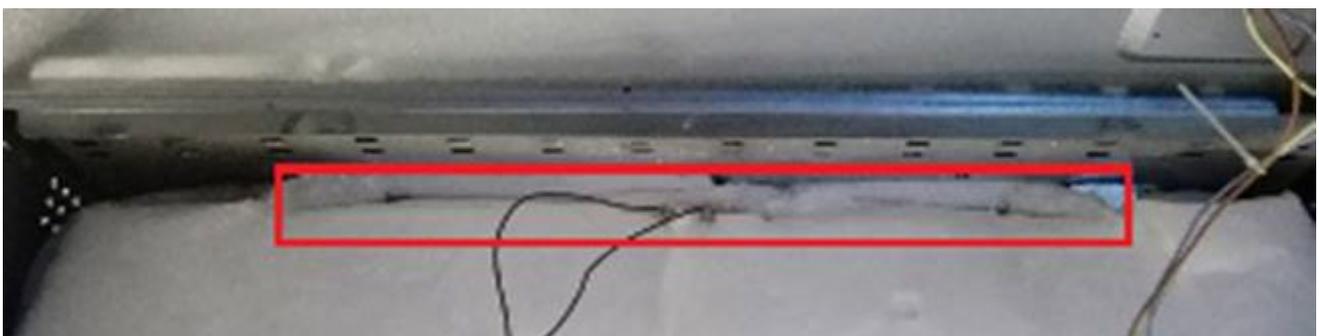
Type B forno da 75/90



Type B forno da 75/90

Lower element substitution

1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the rear cover.
3. Pull the tubular insulators and disconnect the terminals of heating element (see pic. A).
4. Lift the insulation in order to have access to the fixing screw.
5. Remove the screws (if present) near the external terminals (see pic. B).
6. Pull out the heating element and replace it, pay attention to the positioning of the element.
7. Fix the screws, place correctly the fiber insulation (see pic. C), connect the terminals and push the tubular insulators, the insulating bushes of the heating element must not be visible.
8. The connections must not be loose.
9. Reassemble the rear cover.
10. Reinstall the Oven into the cabinet.
11. Reconnect the power supply cord after the Oven is installed.
12. Run the Oven and check all functions.

**A****B****C**

Door Gasket substitution



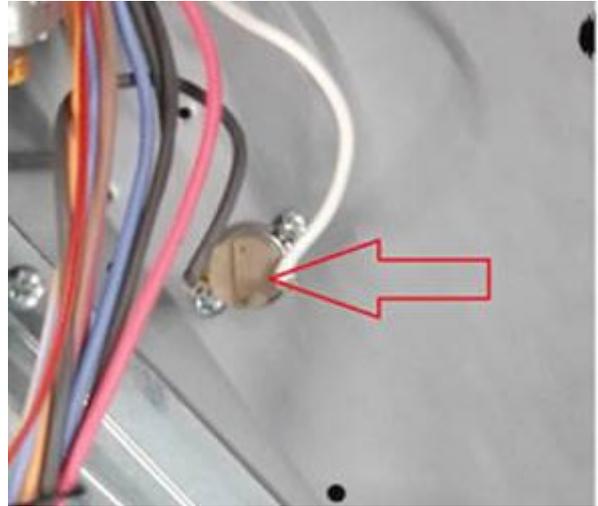
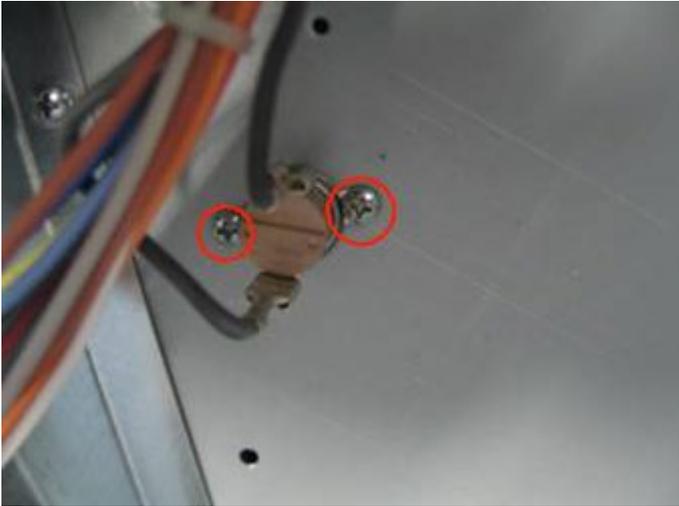
1. Remove the door (see [section 7.3](#)) and pull out the gasket by hands.
2. Replace with a new one by reversing the previous steps.



Cooking safety or Cooling Fan thermostats substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper or rear covers.
3. Unscrew the thermostat (see the picture) referring to the electric diagram to identify the thermostat to be replaced.
4. Replace with a new thermostat by reversing the previous steps.
5. The connections must not be loose.
6. Reinstall the Oven into the cabinet.
7. Reconnect the power supply cord after the Oven is installed.
8. Run the Oven and check all functions.



Spit Motor substitution (if present)



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the rear cover.
4. Disconnect the wires and remove the two fixing screws on order to remove it.
5. The connections must not be loose.
6. Reinstall the Oven into the cabinet.
7. Reconnect the power supply cord after the Oven is installed.
8. Run the Oven and check all functions.



Mechanical or Electronic Thermostats substitution

1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper and the rear covers.
3. Removing the knobs and the keys (if present) from control panel.
4. REMOVE the Control Panel:
 - A. Unscrewing the 2 highlighted screws to remove the stainless-steel cover.
 - B. Unscrewing the 2 highlighted screws to remove the stainless-steel cover.
5. Disassemble the cavity probe by its two clamps.
6. Remove the thermostat body by its two fixing screws.
7. Replace with a new oven thermostat by reversing the previous steps.

ATTENTION: Before mounting the capillary ensure that it has no kinks.
8. Reinstall the Oven into the cabinet.
9. Reconnect the power supply cord after the Oven is installed.
10. Run the Oven and check all functions

A - Glass



B - Stainless-Steel

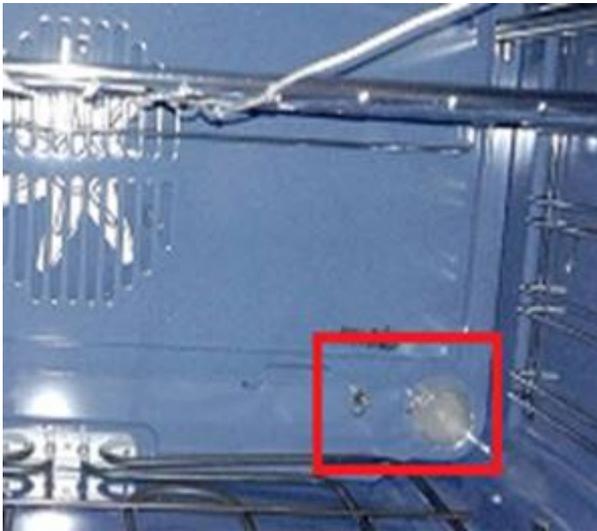


Probe Temperature substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper and the rear cover or lateral cover, depends where the probe is placed.
3. To remove the probe, shift the insulation fiber and remove the fixing screw (pic.3.)
4. Replace with a new oven probe by reversing the previous steps.
5. Reinstall the Oven into the cabinet.
6. Reconnect the power supply cord after the Oven is installed.
7. Run the Oven and check all functions.

Rear



Pic.1

Lateral



Pic.2



Pic. 3

Door external glass and hinges substitution (PANORAMIC DOOR)



1. Remove the door from the oven [section 7.3](#).
2. Place the door keeping the external glass on the top, see fig.1 or 2.
3. remove the highlighted screws and lift the glass from the bottom of the door.
4. Remove also the handle by its screws.
5. To remove the hinges, unscrew the screws marked with the rim and remove the rubber pads marked with the arrow in fig.4
6. Replace the handle and hinges on the new aesthetic glass.
7. Assemble the glass and door keeping door in the middle of the glass.

Replace the Oven door following the [section 7.3](#).



fig.1

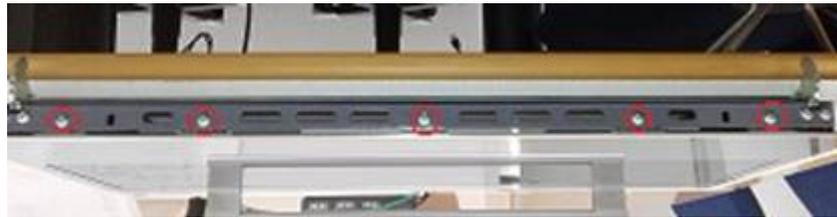


fig.2



fig.4

**Door external glass and hinges substitution
(REMOVABLE PANORAMIC DOOR)**



1. Remove the door from the oven [section 7.3](#).
2. Place the door on a soft cloth to avoid scratches.
3. **Press in the same time the two plastic buttons and remove the profile (fig.1)**
4. Remove also the handle by its screws.
5. To remove the hinges, unscrewing the screws showed and remove it in the direction of the arrow.
6. Replace the handle and hinges on the new aesthetic glass.
7. Assemble the glass and door keeping door in the middle of the glass.

Replace the Oven door following the [section 7.3](#)

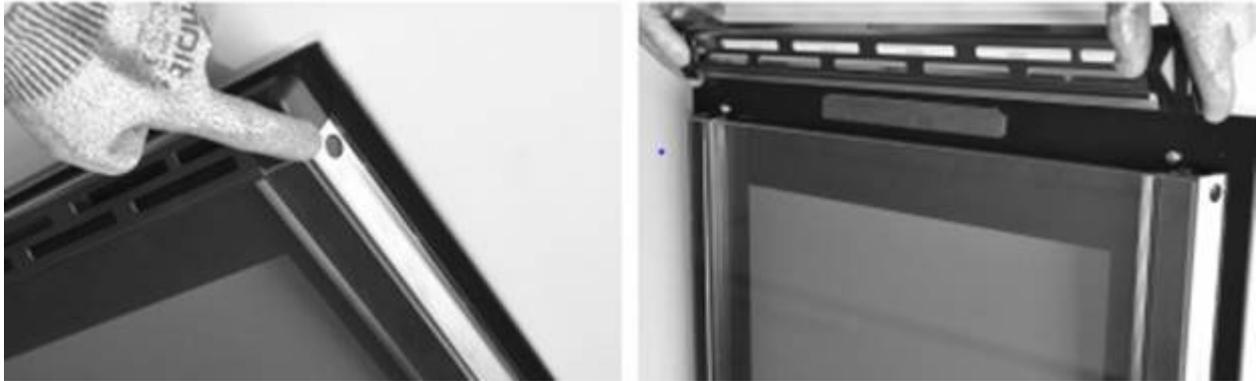


Fig.1



Fig.3

Door Lock Switch substitution (if present)



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover to reach the switch.
3. Disconnect the terminals from the switch (fig.3).
4. Pull the switch, and remove also its holder (fig. 4).
5. Replace with a new switch by reversing the previous steps.
6. **PAY ATTENTION TO THE WIRING SEQUENCE (see the wiring diagram)**
7. The connections must not be loose.
8. Reinstall the Oven into the cabinet.
9. Reconnect the power supply cord after the Oven is installed.
10. Run all the Oven functions.



Fig. 3

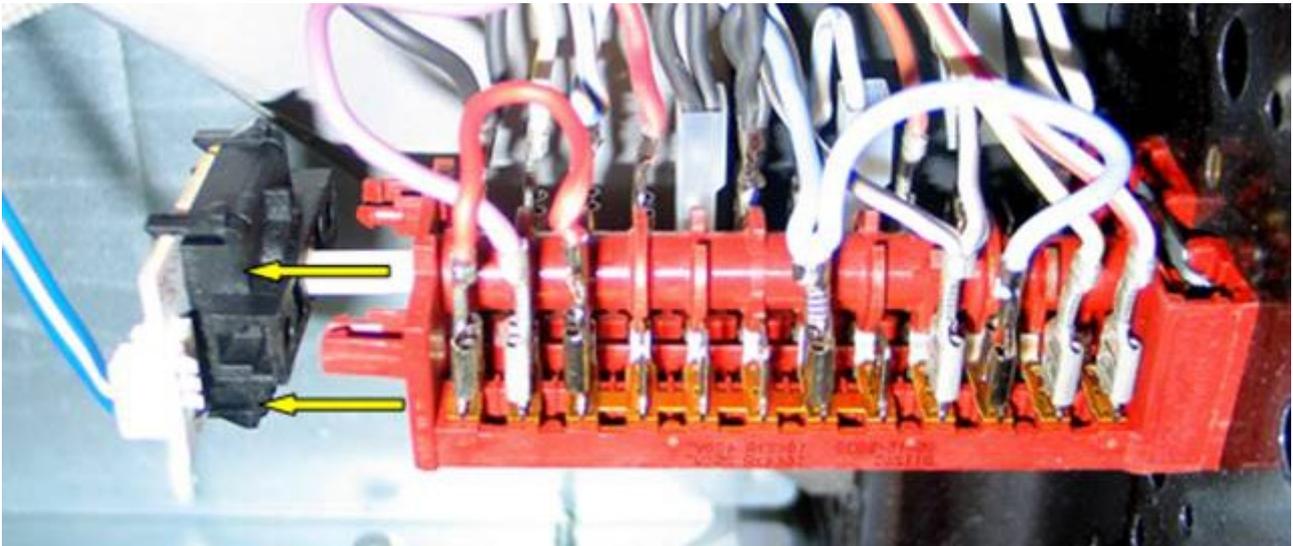


Fig. 4

Selectors of functions substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper covers.
3. Remove selector from the switch.
4. Replace the new one by reversing the previous steps.
5. Reinstall the Oven into the cabinet.
6. Reconnect the power supply cord after the Oven is installed.
7. Run the Oven and check all functions.



Switch of functions substitution (60cm – 75cm – 90cm)



- Disconnect the power supply cord and remove the Oven from the cabinet.
- Remove the upper covers.

1. Remove selector from the switch.

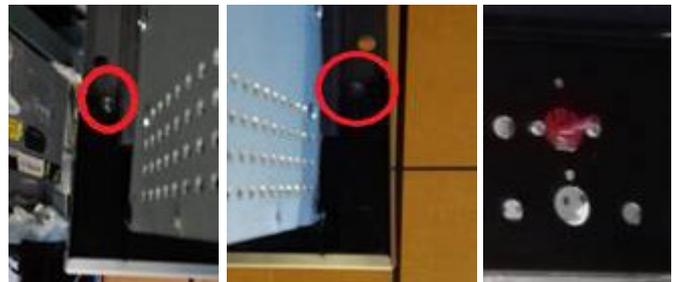


2. Remove the knobs and the keys (if present) from control panel.
3. REMOVE the Control Panel:
 - A. Unscrewing the 2 highlighted screws to remove the stainless-steel cover.
 - B. Unscrewing the 2 highlighted screws to remove the stainless-steel cover.

A - Glass



B - Stainless-Steel



4. Remove the SWITCH body by its two fixing screws.
5. Replace with a new oven by reversing the previous steps.
6. **DURING MOUNTING, THE WIRES OR CONNECTORS MUST BE CONNECTED IN THE CORRECT POSITION.**
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.

Run the Oven and check all functions.

Switch of functions substitution (90x48cm)



- Disconnect the power supply cord and remove the Oven from the cabinet.
- Remove the upper covers.

1. Remove selector from the switch.



2. REMOVE also the Control Panel if the two screws of switch are not accessible by removing the knob (Fig.A).
3. A. Remove the knobs and the keys (if present) from control panel.
B. Unscrew the 4 highlighted screws to remove the frontal panel.

A. Screws of switch



B - Stainless-Steel



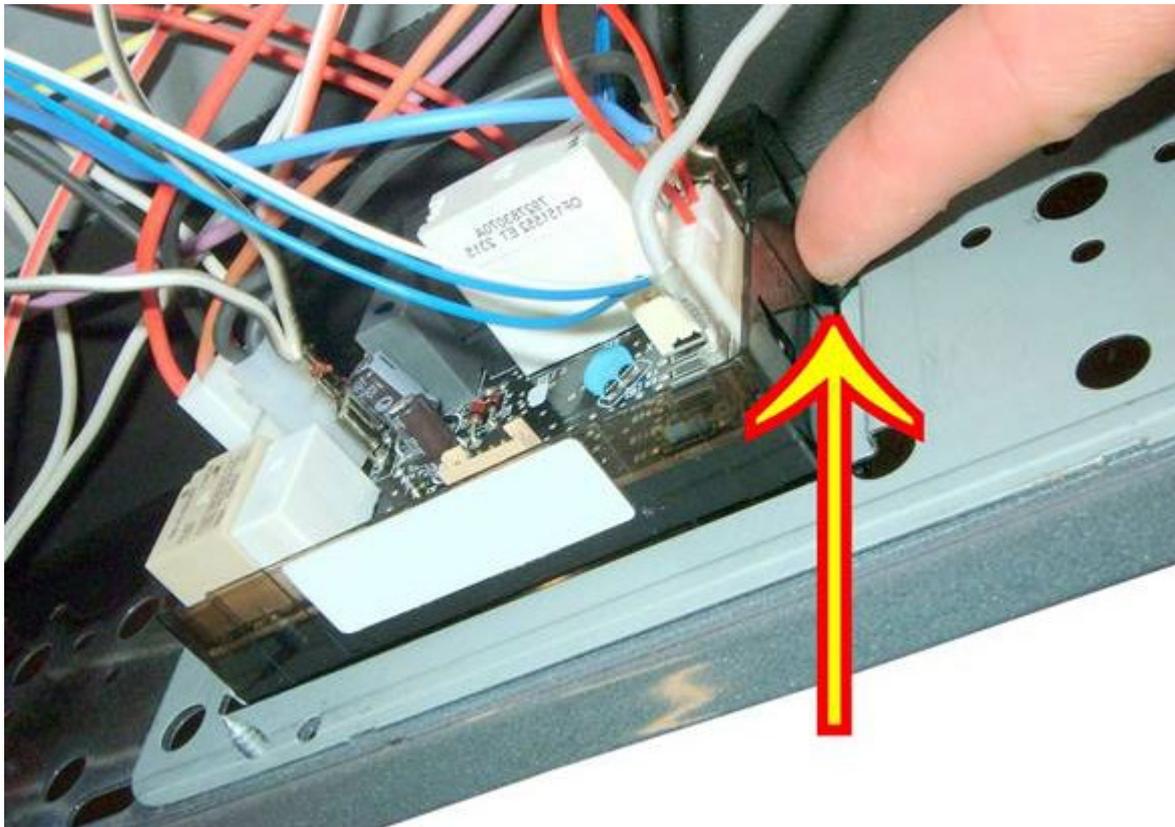
4. Remove the SWITCH body by its two fixing screws.
5. Replace with a new oven by reversing the previous steps.
6. **DURING MOUNTING, THE WIRES OR CONNECTORS MUST BE CONNECTED IN THE CORRECT POSITION.**
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.

Run the Oven and check all functions.

Electronic Timer substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the knobs and the control panel (see section [7.18](#) or [7.18b](#)).
4. Disconnect the bad electronic timer and remove it by its plastic brackets.
5. Replace with a new oven by reversing the previous steps
6. Reinstall the Oven into the cabinet.
7. Reconnect the power supply cord after the Oven is installed.



Terminal block substitution

1. Disconnect the power supply cord and remove the Oven from the cabinet
2. Open the cover of terminal box and remove the two fixing screws (Fig. 1).
3. Remove the rear cover from the oven (Fig.2).
4. Disconnect the wiring of the terminal block and unlock it by pressing the 3 latches, then extract it. (Fig.3)
Replace the power cord if it is damaged.
5. Insert the new terminal block into the rear cover and secure it by the two screws on the outside, then close the cover.
6. Connect the wiring of the terminal block, pay attention to the position of the cables, **see the wiring diagram!**
7. All the connections must not be loose
8. Reassemble the rear cover.
9. Reinstall the Oven into the cabinet.
10. Reconnect the power supply cord after installing.

Run the Oven and check all functions.



Fig1

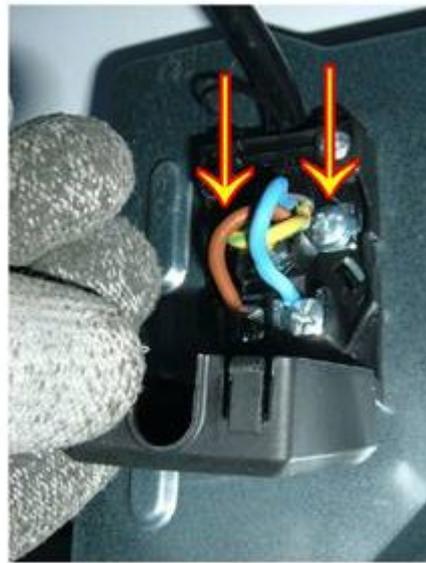


Fig2

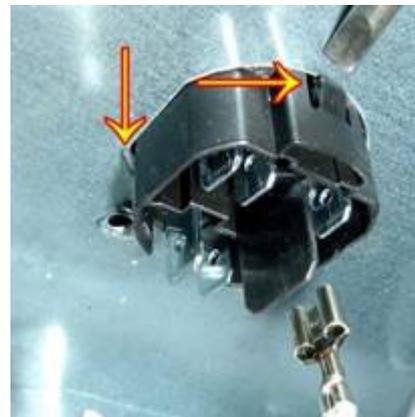


Fig3

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