



Microwave Oven Service Manual (MODULAR) US/CND

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The contents are subject to change without notice.*

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- A. Do not operate or allow the oven to be operated with the door open.
- B. Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary; (1) interlock operation, (2) proper door closing, (3) seal and sealing surfaces (arcing, wear, and other damage), (4) damage to or loosening of hinges and latches, (5) evidence of dropping or abuse.
- C. Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
- D. Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
- E. A microwave leakage check to verify compliance with the Federal Performance Standard should be performed on each oven prior to release to the owner.

CAUTION :

This device is to be Serviced Only by properly qualified Service Personnel. Consult the Service Manual for proper Service procedures to assure continued compliance with the Federal performance standard for Microwave Ovens and for precautions to be taken to avoid possible exposure to excessive Microwave Energy.

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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.

Unlike other appliances, the microwave oven is high-voltage and high-current equipment.

Though it is free from danger in ordinary use, extreme care should be taken during repair.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet. For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discharging.

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.

1.1.3 **Insulation Test**



Megger test to check insulation.

1.1.4 **Sheet Metal Edges**



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

1.1.5 **Microwave emissions**



Precautions to be observed before and during servicing to avoid possible exposure to excessive microwave energy. On every service call a check for microwave energy emission must be made. It requires that the power density of the microwave radiation emitted by a microwave oven shall not exceed five (5) milliwatts per square centimeter at any point 5 centimeters (about 2 inches) or more from the external surface of the oven.

21 CFR 1030.10, Performance Standard for Microwave Ovens.

CAUTION MICROWAVE RADIATION

PERSONNEL SHOULD NOT BE EXPOSED TO THE MICROWAVE ENERGY WHICH MAY RADIATE FROM THE MAGNETRON OR OTHER MICROWAVE GENERATING DEVICE IF IT IS IMPROPERLY USED OR CONNECTED. ALL INPUT AND OUTPUT MICROWAVE CONNECTIONS, WAVEGUIDES, FLANGES, AND GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED.

**Measurement of energy emission****CAUTION**

For microwave energy emission on every service call. A check for microwave energy emission must be made according to the following manner.

**1.2.1 Measurement of energy emission**

Measurement must be made with the microwave oven operating at its maximum output and containing a load of 275±15 milliliters of tap water initially at 20°±5° Celsius (68±9°F) placed within the cavity at the center.

NOTE: The water container must be a 600-milliliter beaker and made of an electrically none conductive material such as glass or plastic. The cook tray must be in place when measuring emission.

A properly operating door and seal assembly will normally register emission no greater than 5 mW/cm² to allow for measurement uncertainty with the cooking shelf or tray in place.

1.2.2 All repairs must be performed in such a manner that microwave energy emission is minimal.

Follow the instructions supplied with the detector being used and perform an R.F. emission test around the door front, and all edges and vent of the outer case. The cabinet (wrapper) must be in place and the oven fully assembled. When performing an emission survey, with the meter on FAST RESPONSE, the movement of the detector probe shall not exceed one (1) inch per second.

In the area emitting the highest reading, switch the meter to SLOW RESPONSE and take a reading for minimum of three (3) seconds. We recommended the pattern outline shown below when the door surface is surveyed.

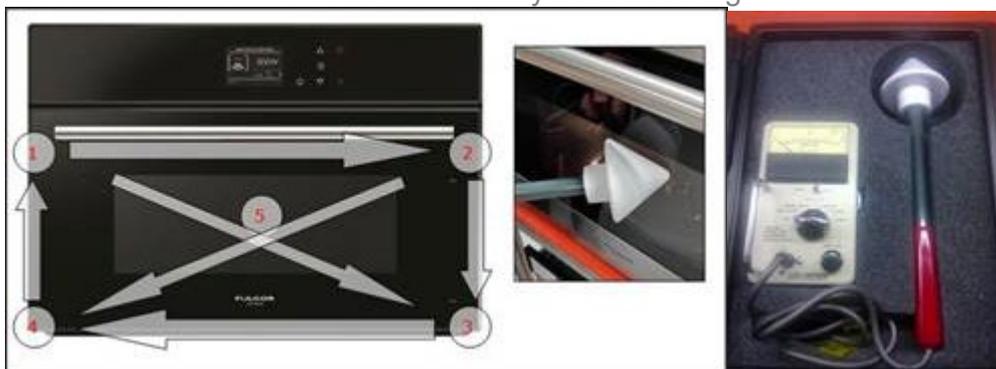
NOTE: Periodically check to be sure that the probe tip is not worn or dirty.

The following U.S. standard applies to microwave ovens: 21 CFR 1030.10, Performance Standard for Microwave Ovens.

It requires that the power density of the microwave radiation emitted by a microwave oven shall not exceed five (5) milliwatts per square centimeter at any point 5 centimeters (about 2 inches) or more from the external surface of the oven.

All microwave ovens exceeding the emission level of 4 mW/cm² must be reported to Dept. of Service for microwave ovens and the manufacturer immediately. The owner should be told not to use the microwave oven until it has been repaired completely. If a microwave oven is found to operate with the door open, report to Dept. of Service, the manufacturer and CDRH* immediately. Also tell the owner not to use the oven.

*CDRH: Center for Device and Radiological Health. The interlock monitor switch acts as the final safety switch protecting the customer from microwave radiation. If the interlock monitor switch operates properly and the door interlock switch fails, the fuse will blow. If this happens, all interlock switches must be replaced. The contacts of the interlock switches may be welded together.





1.3.1 Tools

- 7.5V Power Screw / Nut Driver Recommended
- 3" socket extension bar
- 7mm socket
- 10 mm socket
- 12mm socket
- Flexible shaft socket extension
- #1 and #2 Short Phillips Screw driver
- Diagonal pliers
- Long nose pliers
- Flat blade screwdriver
- Vinyl insulation tape
- Polishing cloth

1.3.2 Necessary Measuring Instruments

- TESTER (VOLTS-DC, AC., Ohmmeter)
- Microwave survey meter
- - Holaday HI-1500
- HI-1501
- - Narda 8100
- 8200
- Inch scale
- •600 cc non-conductive material beaker (glass or plastic),
- inside diameter: approx. 8.5 cm (3-1/2 in.)
- Cylindrical and made of borosilicate glass vessel.
max. thickness: 3 mm outside diameter: approx. 190mm
height: approx. 90mm
- Glass thermometer: 100°C or 212°F (1 deg scale)

**Microwave oven Specifications****2.1.2 Power rating****TECHNICAL DATA**

MICROWAVE OVENS	Electrical Ratings and Maximum Connected Load							
	@ 120/240 Volts 60Hz				@ 120/208 Volts 60Hz			
	Total Watts	Microwave Watts	Heating Elements Watts	MHz	Total Watts	Microwave Watts	Heating Elements Watts	MHz
	3400	900	1500	2450	2700	900	1500	2450



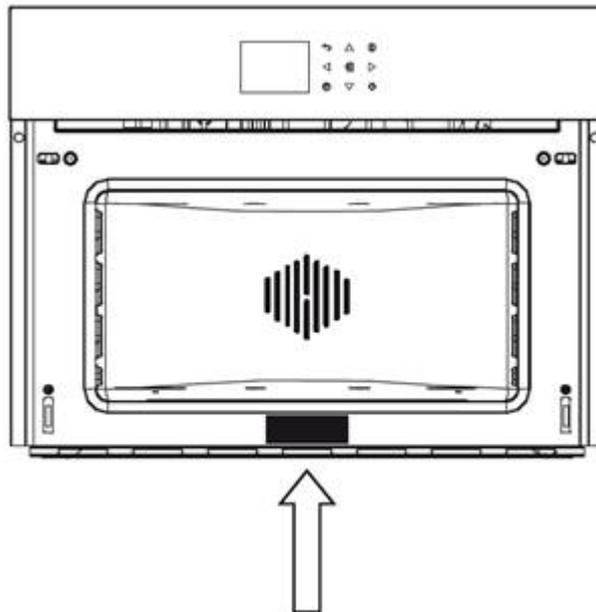
2.2.1 Location

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

2.2.2 Model & Serial Number

The numbers printed on the plate contains the following information:

- Model
- Serial Number
- Electrical ratings



**Components Specifications**

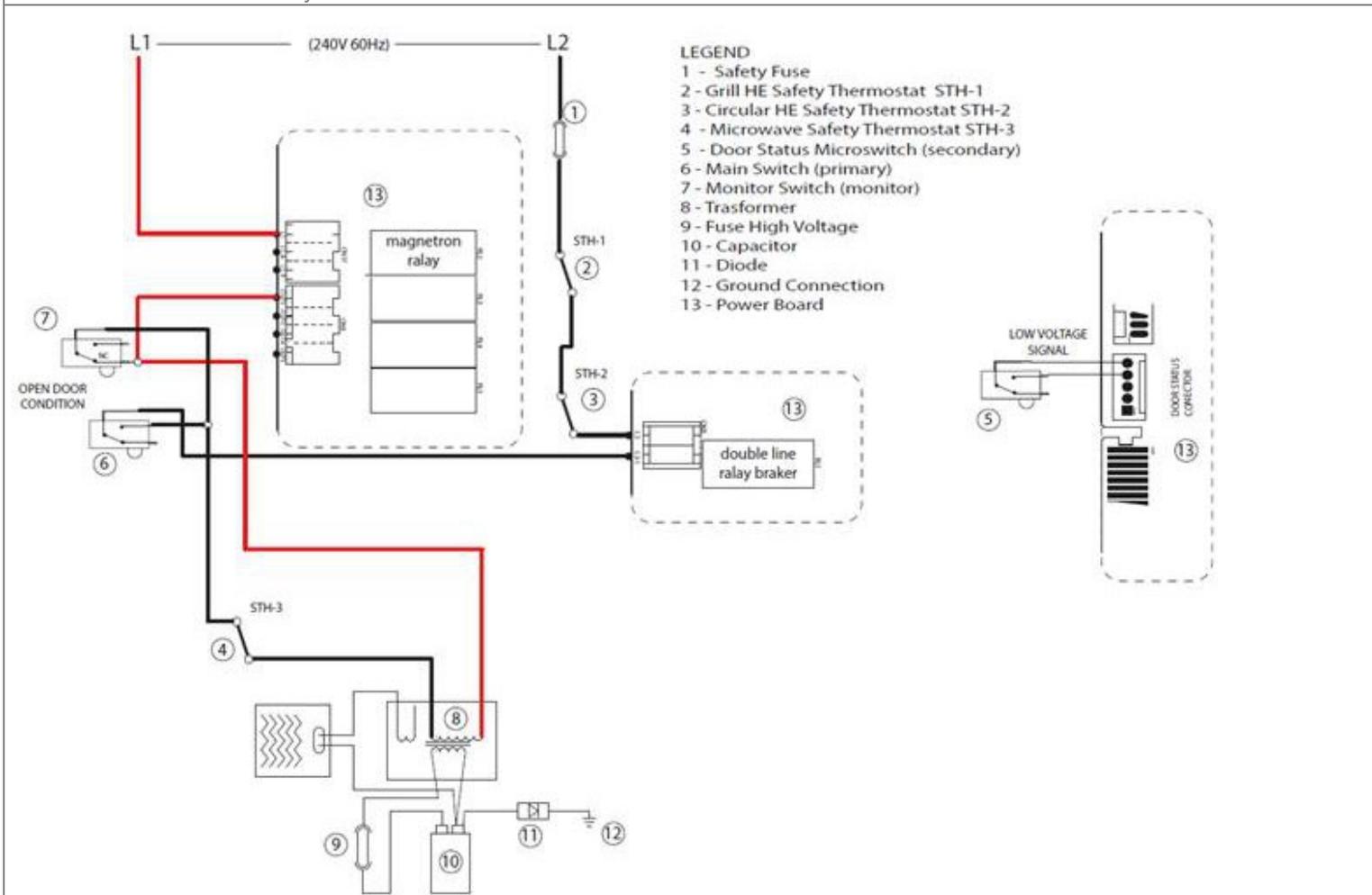
2.3.1	Heating Elements	Volts	Freq.	Watts	Note
	Grill	240	--	1500	
	Ring (if present)	240	--	1500	

2.3.2	Motors	Volts	Freq.	Watts	Note
	Convection Fan	120	50/60	16	CL H
	Cooling Fan	120	50/60	40	CL H
	Rotating Plate	120	50	4	5rpm

2.3.3	Electric Components	Volts	A	Watts	Note
	Door Lock Motor Switch	250	16	--	
	Lamp	120	--	25	
	Safety Thermostats	250	16	--	T 210
	Capacitor H.V.	2100VAC	16	--	0,91 μ f \pm 3% T85
	Transformer H.V.	220V			60 Hz CL 220
	PT1000 Probe Temperature	5V	--	--	
	Magnetron	1000W			2450MHz
	Filter RLC	250			50/60 Hz 16A/40°C
	Fuse	5,0kV	0.8A / 1A		
	Diode	12kV	500mA		



- **ELECTRONIC CONTROL.** The control consists of a main power board and Full Touch Keyboard.
- **COOKING MODE & TEMPERATURE SELECTION.** The Microwave oven is full touch control for the set cooking modes and set temperature.
- **TEMPERATURE SENSOR.** There is one PT1000 sensor, fixed on the top of the internal cavity.
- **MAGNETRON.** A magnetron is placed on the top of appliance, it emits the necessary microwaves to cook food.
- **HEATING ELEMENTS.** Several heaters are available in multifunction ovens. They are combined together in different ways, depending on the selected mode, but the maximum power never overtakes 3200W.
 - GRILL ELEMENT 1500W at 240V.
 - RING ELEMENT 1500W at 240V.
- **CONVECTION FAN.** This fan is available in multifunction cavities; it works always at the same speed in all convection modes, dehydrate.
- **COOLING FAN SYSTEM.** A cooling fan keeps the internal parts temperature within acceptable values.
- **OVEN LIGHTS.** Halogen 120V lamp. They turn on when a cooking mode starts.
- **DOOR MICRO SWITCH SYSTEM.** The door Micro switches are safety devices. Their internal contact allows to the Microwave to start only when the door is closed.





A manual test procedure has been defined to run the end of assembly line test or checking functions after service operation. All the inputs and outputs of the system must be checked. The oven functionality must be complete after the test.

The MANUAL TEST must be completed until the writing TEST END appears otherwise the oven model configuration will be lost.

When the electronic is not configured (new), the Manual test starts automatically at the first power-up.

SW versions are displayed:

- FW MASTER: "MP**" (for power boards - main power)
- FW SLAVE: "MP**" (for power boards - lower power board if present)
- FW DISPLAY: "MD**" (for display board)
- N KEYBOARDS: 1 to 4
- FW KEYBOARDS: "MT**" (for touch key boards)
- FW DISPLAY FLASH: "MF**" (for **customization** display board)

The display shows the "SERVICE TEST" message and the buzzer must beep for 5 seconds. Holding UPP Key the display shows the PRODUCT TYPE: ("Eg. OM**, OM**,). Select the correspondent Oven Model and press start twice to confirm. The control performs an auto reboot and SW versions are showed again.

Oven
Model

OM05									
------	---	---	---	---	--	---	---	---	---

NOTE: (after 5 minutes from power up this special service menu will no longer available, the procedure must be performed to have enable it again). (THIS PROCEDURE MUST BE PERFORMED BY SERVICE TECHNICIAN ONLY)



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

NOTE:

- After 5 minutes from power up this special service menu will no longer available, the procedure must be performed to have enable it again.
- If the during the procedure, the OM (oven model) is not selected within 60 sec, the error code F01900 could be showed.

a) To enter in the MANUAL TEST to configure the Oven Model in case of board replace follow the same procedure as the **Configuration section 2.5**

b) In case the Oven Model is already configured is possible to perform the Manual Test as verification through the following procedure: At power-up when the LOGO or WELCOME MESSAGE appears press simultaneously:

the ◀ and ▲ (unlighted) keys for 5 seconds for model with 1 or 4 Key boards

the ▲ and ▼ (unlighted) keys for 5 seconds for model with 2 Key boards

a beep sounds and the SYSTEM menu is showed automatically> Select Manual Test and press START.

(THIS PROCEDURE MUST BE PERFORMED BY SERVICE TECHNICIAN ONLY)

SW versions are displayed:

- FW MASTER: "MP**" (for power boards - main power)
- FW SLAVE: "MP**" (for power boards - lower power board if present)
- FW DISPLAY: "MD**" (for display board)
- N KEYBOARDS: 1 to 4
- FW KEYBOARDS: "MT**" (for touch key boards)
- FW DISPLAY FLASH: "MF**" (for **customization** display board)

Note:

Now the control is waiting for an operator input. Always press the INC key to continue with the next step. Pressing DEC key must allow to go back to former steps.

The display top box indicates the SERVICE TEST:

- All RED key's led switch ON
- All WHITE key's led switch ON
- The display switches ON showing a white background
- Automatic detection of all keys function, for each key board a couple of keys have to be pressed checking the correct description on the display.
- Meat probe. "MEAT PROBE DISCONNECTED" If the option is not provided move to the next step, otherwise insert the probe and the display have to show "MEAT PROBE CONNECTED" in conjunction with the internal temperature value.
- **S00: DIELECTRIC TEST** - The main relay or relays in case of double oven have to be closed and all heating elements relays opened. (I this step the dielectric test has to be performed ONLT BY THE MANUFACTURER).

In the bottom box is showed the Cavity under test: SGL or UPP/DBL in addition to the OM** configured

- **S01:** OVEN LIGHTS - relay closed
- **S02:** CONVECTION FAN - relay closed
- **S03:** COOLING FAN - relay closed

Every heating element must turn on independently just to allow an external DEVICE to measure the WATTEGE or AMPERAGE.

- **S04:** DOUBLE LINE BREAK RELAY - The first heating element relay (lower HE) must be actuated without the DLB relay. It's a 0W power test to check that the DLB relay is not shorted. (verify the amperage).
- **S05:** BOTTOM ELEMENT - none
- **S06:** BROIL ELEMENT - The heating element relay must be actuated together with DLB relay (verify the amperage).
- **S07:** RING ELEMENT - The heating element relay must be actuated together with DLB relay + convection fan (verify the amperage).
- **S08:** MAGNETRON - The heating element relay must be actuated together with DLB relay (verify the amperage).
- **S09:** The display has to show the temperature value actually measured by the electronics into the cavity and the temperature of NTC ambient on power board.

end test: confirm the finalizing the configuration in case of unfinalized new board.

ATTENTION: at the end of Manual Test the power up must not be performed. In case a factory reset is needed.

Factory Reset

At power-up press [SET] key than press simultaneously the DOWN and UP (unlighted) keys for 5 sec. A message will be showed, press "START" to confirm.

**2.7.1 Interlock Mechanism**

The door lock mechanism is a device which has been specially designed to eliminate completely microwave activity when the door is opened during cooking and thus to prevent the danger resulting from the microwave leakage.

2.7.2 Safety Thermostats

This appliance is built with three bi-metal mechanical thermostats. The thermostats are mounted in contact with the metal sheet.

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

In the event that the temperature is rising over the limits, 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 still powered.

The reset is automatic when the cooling fan was replaced or the cooling fan problem was solved and the temperature is in the right functioning parameters.



BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

-
If the fault involves safety requirements or the correct oven functionality, any activity is stopped until the fault is removed.

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.
- In a single or double oven, should be possible to cook if all the components used in that cooking mode are fully functional even if some other components not used are damaged
(eg. If the Upper heating element damaged should be possible, select the Ring Convection Bake)

If the latch doesn't work, ordinary cooking activities may run if the door is fully unlocked.

ERROR CODE POWER: F x yy zz

x = Device ID: 1 per UP master; 2 per UP slave

- 0** for **DISPLAY BOARD**
- 1** for **MASTER POWER UNIT**
- 2** for **SLAVE POWER UNIT**
- 019** for **KEY BOARD ALL**
- 119** for **KEY BOARD 1**
- 219** for **KEY BOARD 2**
- 319** for **KEY BOARD 3**
- 419** for **KEY BOARD 4**

y = **FAMILY CODE**

z = **SUB FAMILY CODE**

**** Ex: NTCMAIN Failure on Slave Board -> F 2 01 05**

If the control can detect the failure an error number must be displayed. If the other available cooking mode is activated a small warning symbol is showed as remember advising.

Under service menu there is a page "LOG EVENT" where will be recorded the last 10 error codes occurred (ERROR CODE + DATE).

Before to reset a fault error list, perform a complete test to check all the functionality. If the cause has not been removed, the fault occurs again.

To reset the error list, follow the following steps below:

At powered when the LOGO or WELCOME MESSAGE is showed press simultaneously:

the ◀ and ▲ (unlighted) keys for 5 seconds for model with 1 or 4 Key boards

the ▲ and ▼ (unlighted) keys for 5 seconds for model with 2 Key boards

until you hear a sound signal, the SPECIAL SYSTEM menu is automatically displayed, select "CLEAR LOG" and press START twice to confirm the delete error list.

(after 5 minutes from power up this special menu will no longer available).

(THIS PROCEDURE MUST BE PERFORMED ONLY BY SERVICE TECHNICIAN)

MASTER POWER UNIT	SLAVE POWER UNIT (IF PRESENT)	ERROR DESCRIPTION	POSSIBLE CAUSE	CORRECTIVE ACTION
F1	F2			
F10000	F20000	RESET CONDITION RESET DETECTED	Probe disconnected PT1000 Hardware Problem	Connect PT1000 Replace Power Board

F10101	F20101	ADCSENSOR FAILURE PT1000 FAILURE	Probe broken	Replace probe PT1000
F10107	F20107	ADCSENSOR FAILURE NTCAMB UNCHANGED FAILURE	Probe broken	Replace Power Board
F10111	F20111	ADCSENSOR FAILURE NTCBOIL FAILURE	Probe broken	Replace Boiler Probe
F10113	F20113	ADCSENSOR FAILURE MULTIPLEXER FAILURE	Power Board damaged	Replace Power Board
F10115	F20115	ADCSENSOR FAILURE VREF FAILURE	Power Board damaged	Replace Power Board

F10301	F20301	DOORLOCKMECHANISM FAILURE CONNECTION FAILURE	Micro switch problem (wrong signal). Micro Switch wrong connection or cam problem	Check connection. Check Micro Switches position and their functionality.
F10305	F20305	DOORLOCKMECHANISM FAILURE TIMEOUT FAILURE	Relay problem (open). Wiring harnesses problem. Mechanism problem.	Check connection and relay functionality. Check that there is no interference on the locking mechanism.
F10307	F20307	DOORLOCKMECHANISM FAILURE MOVEMENT ISSUE	Relay problem (short circuit) Wiring harnesses problem.	Check connection and relay functionality.
F10309	F20309	DOORLOCKMECHANISM FAILURE SYNCRONISM FAILURE	Wiring harnesses problem.	Check proper connection.

F10501	F20501	OVEN RUNAWAY FAILURE LOW RUNAWAY THRESHOLD	Cavity overtemperature during cooking 698°F (370°C). Probe broken.	Replace probe or Replace Power Board
F10505	F20505	OVEN RUNAWAY FAILURE HIGH RUNAWAY THRESHOLD	Cavity overtemperature during Self-Cleaning 1022°F (500°C). Probe broken.	Replace probe or Replace Power Board

F10901	F20901	BOARD SYSTEM FAILURE CLOCK SYSTEM FAILURE	Power Board damaged	Replace Power Board
F10902	F20902	BOARD SYSTEM FAILURE CPU SYSTEM ISSUE		
F10903	F20903	BOARD SYSTEM FAILURE STACK OVERFLOW FAILURE		
F10905	F20905	BOARD SYSTEM FAILURE INTERRUPT HANDLER FAILURE		
F10907	F20907	BOARD SYSTEM FAILURE SYSTEM CLOCK FAILURE		
F10909	F20909	BOARD SYSTEM FAILURE SYS FLAG CONSISTENCY FAILURE		
F10911	F20911	BOARD SYSTEM FAILURE BOARD SELECTION FAILURE		
F10913	F20913	BOARD SYSTEM FAILURE ZEROCROSS FAILURE		

			Power Board damaged	Replace Power Board
F11103	F21103	INTERNAL MEMORY FAILURE CRC RAMPARAM FAILURE		
F11105	F21105	INTERNAL MEMORY FAILURE CRC EXTFLASHFAILURE		
F11107	F21107	INTERNAL MEMORY FAILURE CRC FLOW ERROR		
F11109	F21109	INTERNAL MEMORY FAILURE RAM CONSISTENCY FAILURE		
F11111	F21111	INTERNAL MEMORY FAILURE RAM TEST FAILURE		
F11114	F21114	INTERNAL MEMORY FAILURE TASK FLOW ERROR		
F11115	F21115	INTERNAL MEMORY FAILURE SYSTICK CONSISTENCY FAILURE		

F11205	F21205	BOARD OVERHEATING HIGH OVERHEATING THRESHOLD	Power board overtemperature 221°F (>105°C).	Problem on cooling fan system.

F11401	F21401	COMMUNICATION FAILURE BOARD UC COMM ISSUE	Power Board damaged	Replace Power Board
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F11405	F21405	COMMUNICATION FAILURE MASTERSLAVE COMM ISSUE	Communication problem between power boards Power Board damaged.	Check connection. Replace Power Boards
F11409	F21409	COMMUNICATION FAILURE KEYBOARD COMM ISSUE	Communication problem between boards. Power Board, Keys Boards or Display Board damaged.	Check connection. Replace Power or Keys Board or Display Board.

F12001	F22001	RL4 ELEMENT ISSUE SHORT CONDITION DET (GRILL HATING ELEMENT)	Wiring harnesses connection problem. Relay short circuit.	Check connection. Replace Power Boards.
F12005	F22005	RL4 ELEMENT ISSUE OPEN CONDITION DET (GRILL HATING ELEMENT)	Wiring harnesses connection problem. Relays opened. Heating element damaged.	Check connection. Replace Power Boards. Replace the Heating Element

F12101	F22101	RL2 ELEMENT ISSUE SHORT CONDITION DET (MAGNETRON)	Wiring harnesses connection problem. Relay short circuit.	Check connection. Replace Power Boards.
F12105	F22105	RL2 ELEMENT ISSUE OPEN CONDITION DET (MAGNETRON)	Wiring harnesses connection problem. Relays opened. Transformer or fuse damaged	Check connection. Replace Power Boards. Replace transformer or fuse

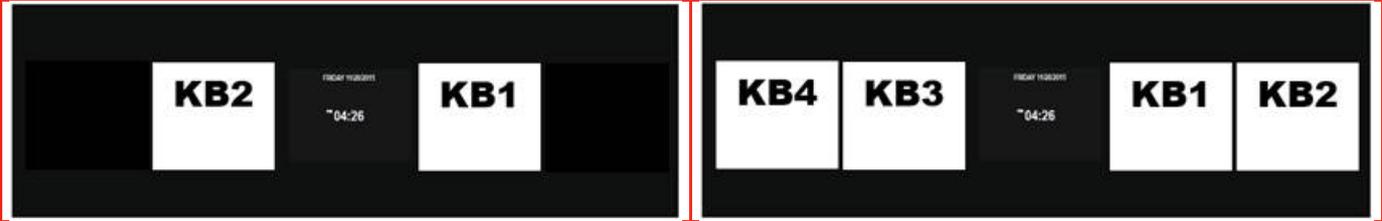
F12201	F22201	RL3 ELEMENT ISSUE SHORT CONDITION DET (RING HATING ELEMENT)	Wiring harnesses connection problem. Relay short circuit.	Check connection. Replace Power Boards.
F12205	F22205	RL3 ELEMENT ISSUE OPEN CONDITION DET (RING HATING ELEMENT)	Wiring harnesses connection problem. Relays opened. Heating element damaged.	Check connection. Replace Power Boards. Replace the Heating Element

F12301	F22301	NA		
F12305	F22305	NA		

F12501	F22501	MAIN SWITCH ISSUE SHORT CONDITION DET	Wiring harnesses connection problem. Relay short circuit.	Check connection. Replace Power Boards.
F12505	F22505	MAIN SWITCH ISSUE OPEN CONDITION DET	Wiring harnesses connection problem. Relays opened. Heating element damaged.	Check connection. Replace Power Boards. Replace the Heating Element

ERROR DESCRIPTION	CORRECTIVE ACTION	KEYBOARD 1	KEYBOARD 2	KEYBOARD 3	KEYBOARD 4	ALL
		1	2	3	4	0
CPU FAULT	Check connection or replace the Key Board	11907	21907	31907	41907	
CLOCK FAULT		11906	21906	31906	41906	
MEMORY FAULT		11905	21905	31905	41905	
UART FAULT		11904	21904	31904	41904	
CAPSENS FAULT		11903	21903	31903	41903	
GUARD SENSOR		11902	21902	31902	41902	
CAPS NO CHANGE		11901	21901	31901	41901	
KEYBOARD DISCONNECTED	Check connection.	11900	21900	31900	41900	01900

KEYBOARDS IDENTIFICATION



ERROR DESCRIPTION	CORRECTIVE ACTION	Display
COMMUNICATION ERROR	Replace Display Boards.	F01401
FLASH WRITING ERROR		F00914
FLSH READUNG ERROR		F00915

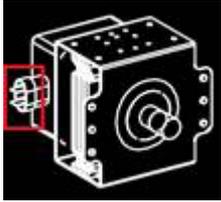


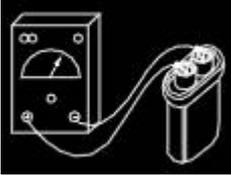
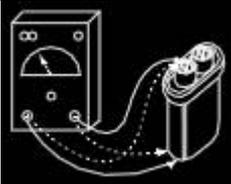
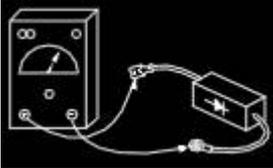
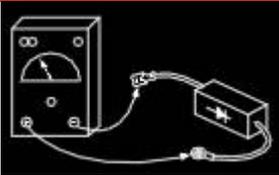
Microwave oven doesn't work

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discarding.

Anomaly	Possible Cause	Corrective Action	section
Oven does not run No power supply	Inserting many plugs into one outlet and using them at the same time (blown fuse or breaker)	Avoid using other electrical appliances when you use the microwave oven. Replace the fuses	--
	Short circuit	Find the short circuit and remove it. Check internal connections (short circuit, interruptions, etc..)	--
	Microwave oven plug is not inserted tightly.	Insert microwave oven plug securely.	--
Oven does not run Power supply ok.	Door switches damaged	Check for continuity of the switch with an Ohm-meter	--
	Connections to the Electronic Control	Replace the Power Board	7.18
		Check the safety fuse continuity by ohm – meter	--
	Magetron is damaged 	1. Measure the resistance. (Ohm-meter scale: Rx1) • Filament terminal (Wire leads are removed) Normal: Less than 1 ohm 2. Measure the resistance. (Ohm-meter scale: Rx1000) • Filament to chassis (Wire leads are removed) Normal readings: Infinite	7.8
	HV Fuse is interrupted	Check continuity of fuse by ohm – meter	7.19
High voltage Transformer is damaged	Measure the resistance (Wire leads removed): With an ohm-meter on R x1 scale. a. Primary winding; b. Secondary winding;	Normal readings: a. Approx. 2 ohm. b. Approx. 170 ohms.	

		<p>Measure the resistance (Wire leads removed): (Ohm-meter scale: Rx10000)</p> <p>a. Primary winding to ground; b. Filament winding to ground;</p>	<p>Normal readings: a. Infinite ohms. b. Infinite ohms.</p>	<u>7.12</u>
High Voltage capacitor damaged	 <p>Measure the resistance: Terminal to terminal (Wire leads removed) (Ohm-meter scale: Rx1000)</p>		<p>Normal reading: Momentarily indicates several ohms, and then gradually returns to infinite ohms.</p> <p>Abnormal reading: Indicates continuity or infinite ohms from the beginning.</p>	<u>7.13</u>
	 <p>Measure the resistance: Terminal to case (Wire leads removed) (Ohm-meter scale: Rx1000)</p>		<p>Normal readings: Infinite.</p> <p>Abnormal reading: Indicates continuity.</p>	
High Voltage diode damaged	<p>NOTE: Some inexpensive meters may indicate infinite resistance in both direction.</p>	 <p>Measure the continuity (Wire leads removed): Forward (Ohm-meter scale: Rx10000)</p>	<p>Normal readings: continuity.</p> <p>Abnormal reading: Infinite.</p>	<u>7.16</u>
		 <p>Measure the continuity (Wire leads removed): Reverse (Ohm-meter scale: Rx10000)</p>	<p>Normal readings: Infinite.</p> <p>Abnormal reading: continuity.</p>	
Safety Thermostat damaged		<p>Check for continuity of the thermostat's contact with an Ohm-meter (Wire leads removed)</p>		<u>7.11</u>

**Cooling Fan Problems**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discharging.

Anomaly	Possible Cause	Corrective Action	section
Fan does not run No power supply	Bad connection Relay on power Board.	Check the connectors and the harness. Replace the Control Board	<u>7.18</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>
The cooling fan is always on	The control is measuring a high temperature inside the cavity	Check all the connections between the sensor and Control Board.	--
		Check the probe temperature sensor connection.	--

**Convection Fan Problems**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discharging.

Anomaly	Possible Cause	Corrective Action	section
Fan does not run No power supply	Bad connection Relay of convection fan not switching	Check the connectors and the harness Replace the Control Board.	<u>7.18</u>
Fan does Not run Power supply ok.	Blocked rotor	Replace fan	<u>7.4</u>
	Burned coil	Replace fan	<u>7.4</u>
Noisy fan	Lose attachment screws on cooling assembly	Check attachment screws Check nut on working fan for tightness or replace it.	<u>7.4</u>

**Oven Light Problems**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discharging.

Anomaly	Possible Cause	Corrective Action	section
The Oven lights are always OFF. No power supply.	Bad connection The light not switching	Check the connectors and the harness Replace the Power Board	<u>7.18</u>
The Oven lights are always OFF. Power supply is ok.	Lamps are burned out.	Replace lamp bulb.	<u>7.25</u>
The Oven lights are always ON.	Bad connection Relay contact is broken or in short circuit.	Check the connectors and the harness Replace the Power Board	<u>7.18</u>
	Door micro switch (If present) is shorted	Replace the Micro Switch	<u>7.9</u>



NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discarding.

Anomaly	Possible Cause	Corrective Action	section
The display is always dark.	The power supply is not working.	Check the connection and eventually replace the Display Board.	<u>7.26</u>

**Door Hinge Problems**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discarding.

Anomaly	Possible Cause	Corrective Action	section
The door does not close or there is not sealing between door and gasket	Hinges system is broken or damaged	Replace the units	7.15
	The door gasket is broken or damaged	Replace the units	7.10

**Bad Cooking Performance**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discharging.

Anomaly	Possible Cause	Corrective Action	section
Bad performance	Heating elements not working	Check the connection of the heating elements	--
		If there is not power on the heating elements check relays. If the electronic control relay not switching replace the units.	7.18
		If there is not power on the heating elements check safety thermostat. If the thermostat not switching replace the units	7.11
		Check the power on the heating elements and replace the elements if needed.	7.5 7.6
	Convection fan not working properly	See the convection fan problem	4.4
Uneven cooking	There is not sealing between door and gasket	The hinges system or the door gasket are damaged. Replace the units	7.15 7.10
	Inconsistent intensity of microwave by their characteristics.		--

**Key Boards Problems**

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.

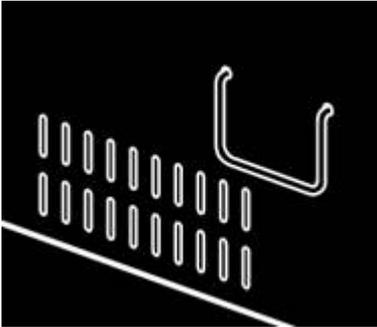
BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.

For about 60 seconds after the oven stops, an electric charge remains in the high voltage capacitor. When replacing or checking, you must wait to permit the capacitor discarding.

Anomaly	Possible Cause	Corrective Action	section
The touch key does not work.	The key board is not in contact with the glass.	Check the position of the board.	--
	Bad connection	Check the connection and eventually replace the Key Board.	7.26



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



Lateral Handles (if present)

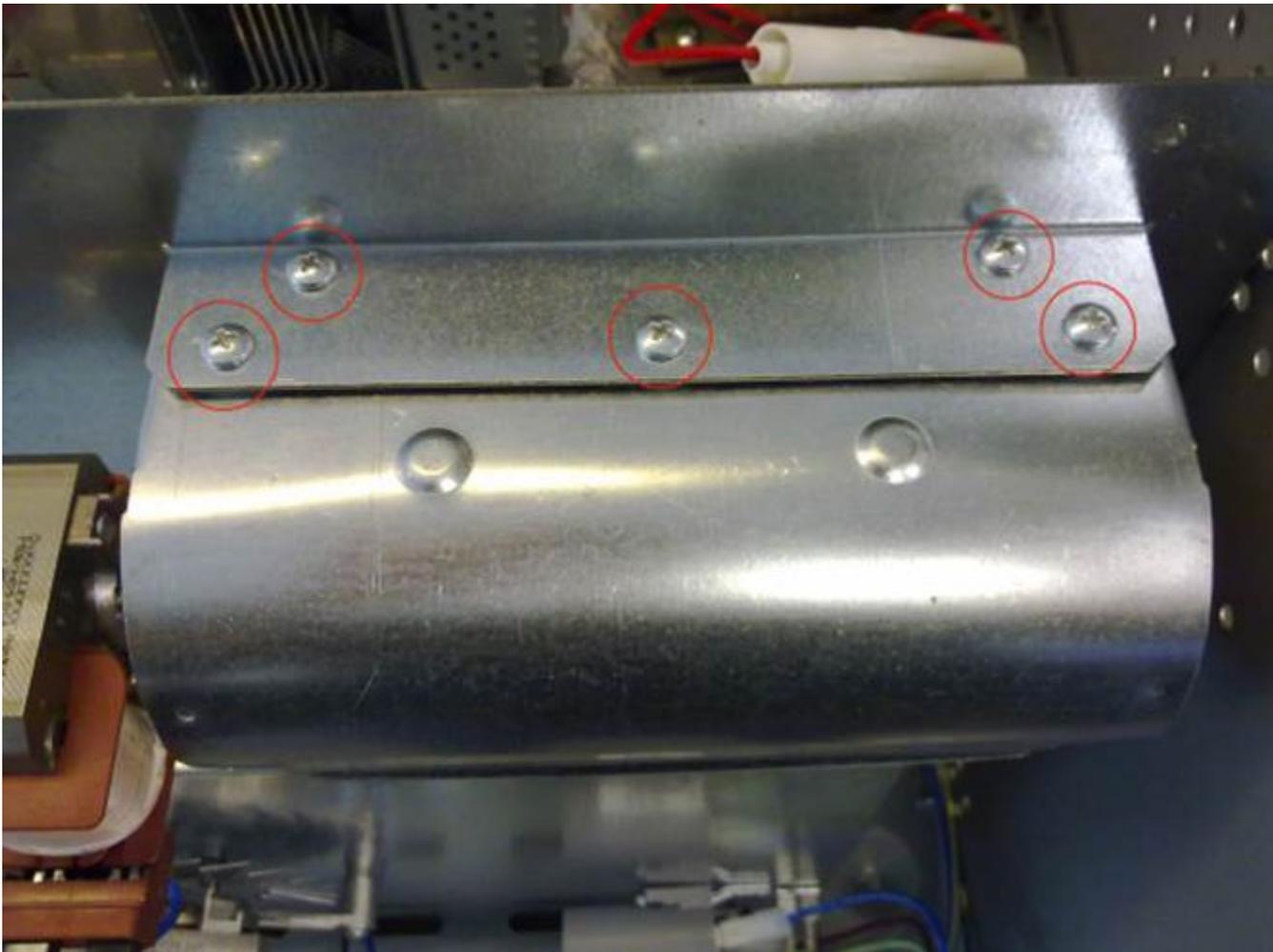




Cooling fan motor substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Disconnect the terminals on the fan.
4. Remove the five screws on the fan and remove the fan.
5. Replace the new one with the screws and connect the terminals.
6. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).



**To Remove Door**

1. Open the door completely.
2. Lift up the hinge bracket (1) from the arms (2) .
3. Hold the door firmly on both sides using both hands and close the door, then remove it .
4. Hold firmly; the door is heavy.
5. Place the door in a convenient location.

To Replace Door

1. Insert the upper arms (2) of both hinges into the slots. The recesses (3) must hook on the lips (4).
2. Move the hinge brackets (1) back down into position.
3. Close and open the door slowly to assure that it is correctly and securely in place.





Convection fan motor substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper, rear and lateral covers.
3. Disassemble the brackets by removing their three screws each (fig.1).
4. Remove the back support by removing the last two screws on the top (fig.1).
5. Remove the fan blade by using a 10mm socket (fig.2), then remove the fan damaged by its three external screws (fig.1).
6. Disconnect the terminals on the fan in the rear side.
7. Mount the new fan motor with the screws and then mount also the fan blade.
8. Replace the back support.
9. Connect the terminals.
10. The connections must not be loose.
11. 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 and microwave emission (section 1.2).

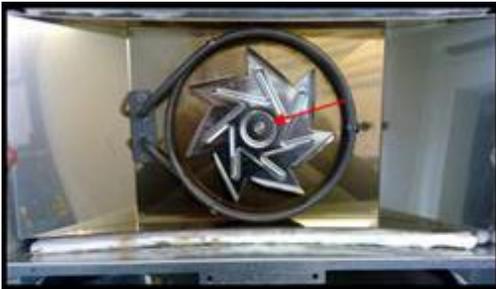


Figure 2

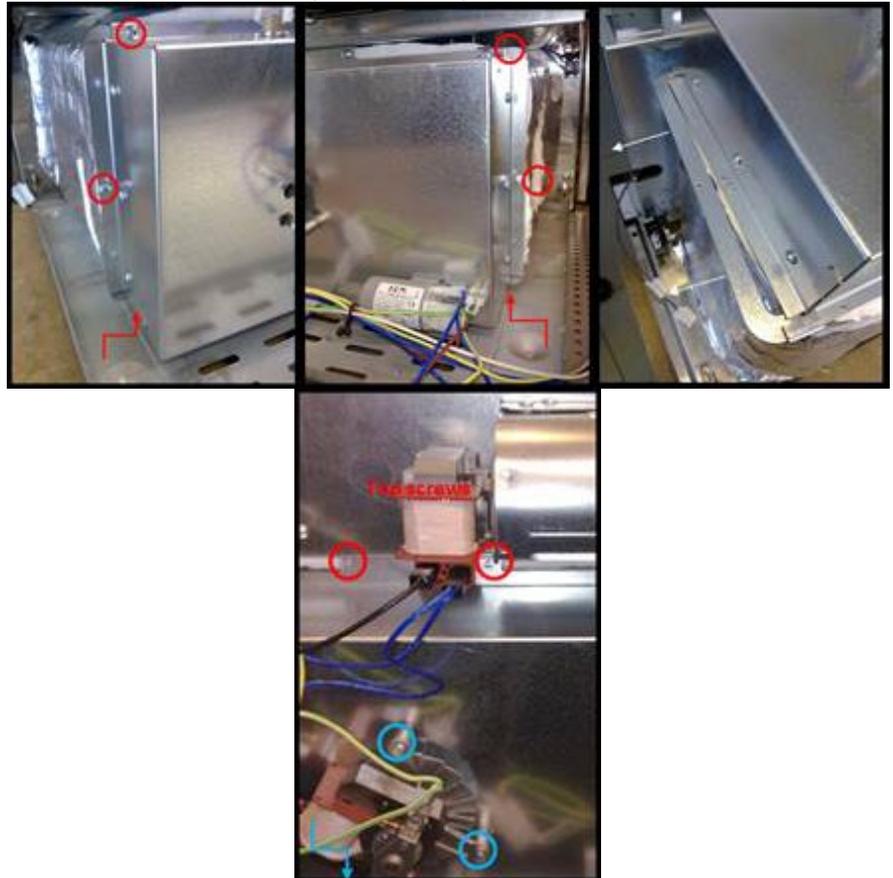


Figure 1



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper, rear and lateral covers.
3. Disassemble the brackets by removing their three screws each (fig.1).
4. Remove the back support by removing the last two screws on the top (fig.1).
5. Remove ring element damaged by its screws (fig.2).
6. Disconnect the terminals on the heating element in the rear side.
7. Mount the new ring heating element with the screws.
8. Replace the back support.
9. Connect the terminals.
10. The connections must not be loose.
11. 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 and microwave emission ([section 1.2](#)).

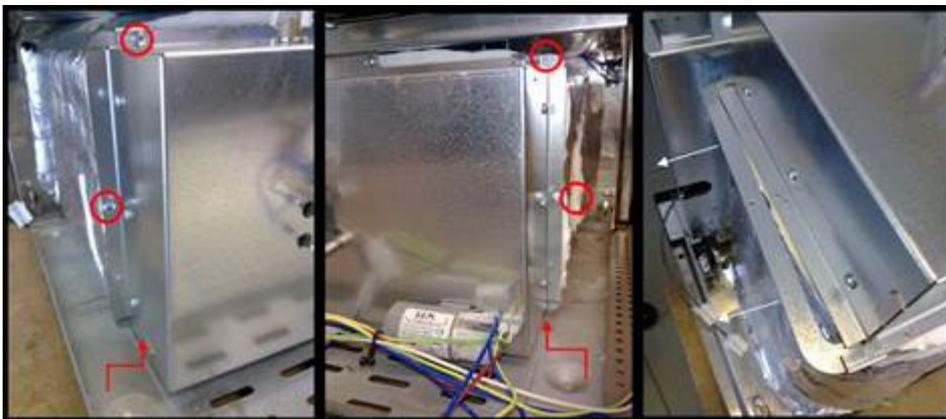


Figure 1

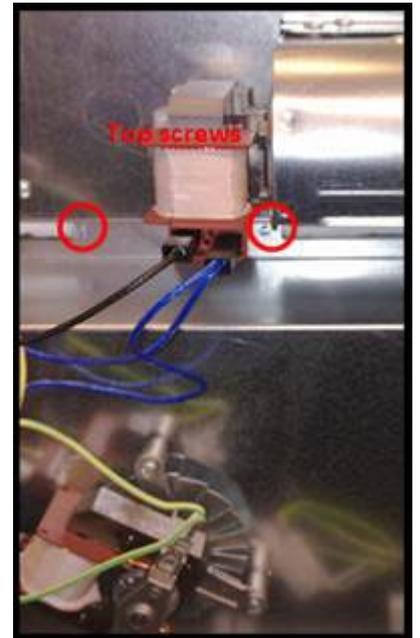


Figure 2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal component cover (fig 1) by its six screws.
4. Remove the probe from its location using a clamp make rounded the border to extract it. (fig.2).
5. Disconnect the terminals.
6. Unscrew the nuts (fig.2).
7. Then open the door to access to the heating element on the top of the cavity and unscrew the central screw (fig.3) to remove the element damaged.
8. Replace the new one by reversing the previous steps
9. Connect the terminals and insert the temperature probe, crushing the entrance to make oval it to prevent the escape.
10. The connections must not be loose.
11. 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 and microwave emission ([section 1.2](#)).

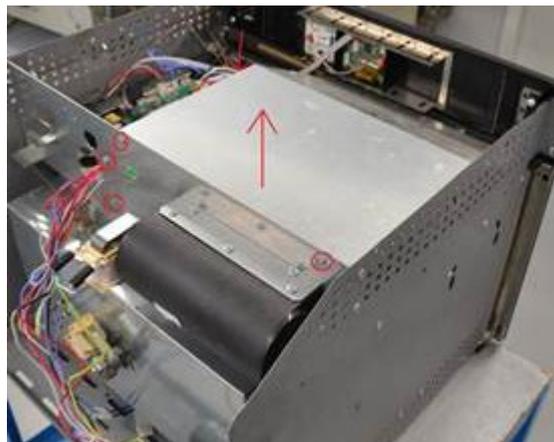


Figure 1



Figure 2



Figure 3



Rotating Dish Motor Substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
 2. Open the door and remove the plastic insert (fig1).
 1. Put the oven with the door on a horizontal surface with a soft cloth to prevent scratching of the aesthetics.
 3. Remove the upper, rear and lateral covers to access to dish motor.
 4. Disconnect the terminals.
 5. Remove the two screws to remove the motor damaged (fig.2).
 6. Replace the new one by reversing the previous steps.
 7. Connect the terminals.
 8. The connections must not be loose.
 9. Reinstall the Oven into the cabinet.
 10. Reconnect the power supply cord after the Oven is installed.
- Run the Oven and check all functions and microwave emission ([section 1.2](#)).



1

Figure



Figure 2



Magnetron Substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal component cover (fig 1) by its six screws.
4. Remove the cooling channel (fig 2) by its two screws.
5. Disconnect from electrical supply magnetron
6. Remove the thermal cutout located on the top of Magnetron. (fig.3).
7. Now remove the Magnetron from oven structure unscrewing the four screws of its support. (fig.3).

Replace the new one by reversing the previous steps.

NOTE: When remove the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.
ATTENTION! not touch the magnetron antenna it can be damage.



8. Connect the electrical connector and reassemble the thermal cutout.
 9. The connections must not be loose.
 10. Reinstall the Oven into the cabinet.
 11. Reconnect the power supply cord after the Oven is installed.
- Run the Oven and check all functions and microwave emission ([section 1.2](#)).

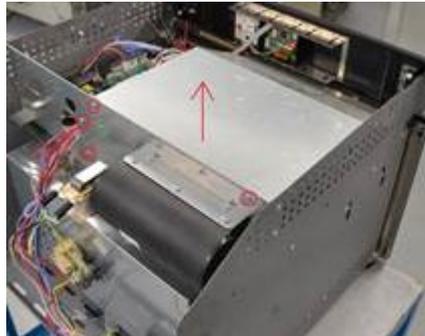


Figure 1

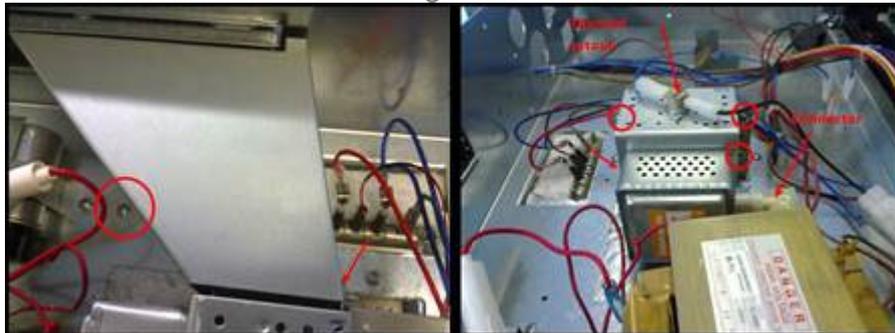


Figure 2

Figure 3



Lock door switch substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper, rear and lateral cover.
3. Disconnect the terminals of micro switch.
4. Remove the plastic support performing the two movements as showed in the figure.
5. Replace the new one by reversing the previous steps.
6. Connect the terminals.
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 and microwave emission ([section 1.2](#)).





Door Gasket substitution



1. Open door and pull out the gasket by hands unhooking it by its 4 hooks on the corners.
2. **THE GASKET IS MADE FOR THIS MODEL OF MICROWAVE OVEN AND IT MUST BE FITTED PROPERLY.**
3. Replace with a new one by reversing the previous steps.
4. Run the Oven and check all functions and microwave emission ([section 1.2](#)).





Safety thermostats substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Unscrew and disconnect the thermostat damaged. (fig.2).
5. Replace the new one by reversing the previous steps.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

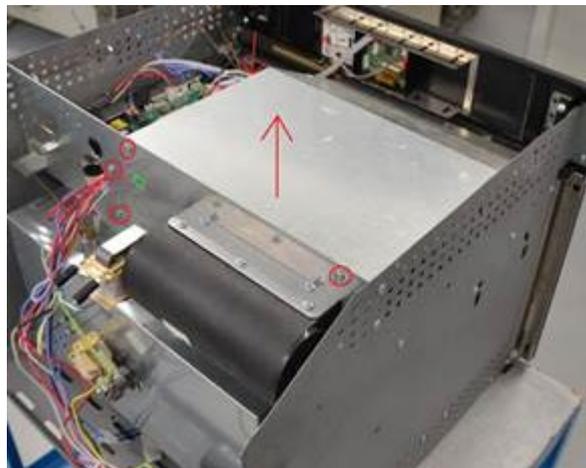


Figure1

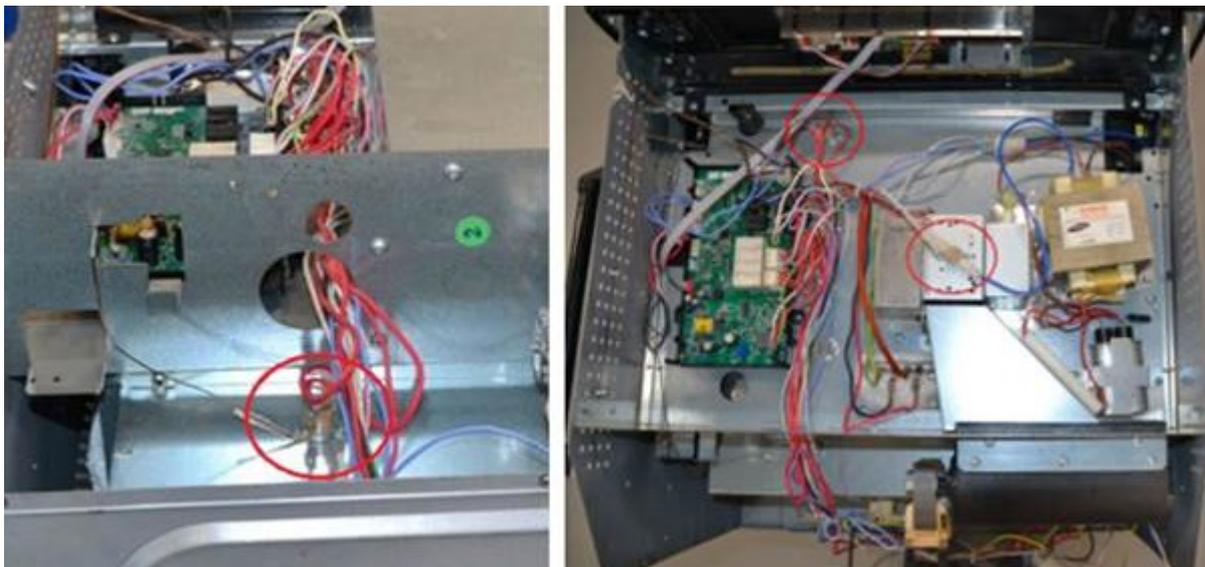


Figure 2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Disconnect the cable of transformer damaged and unscrew it by 4 base screws. (fig.2).
5. Replace the new one by reversing the previous steps.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

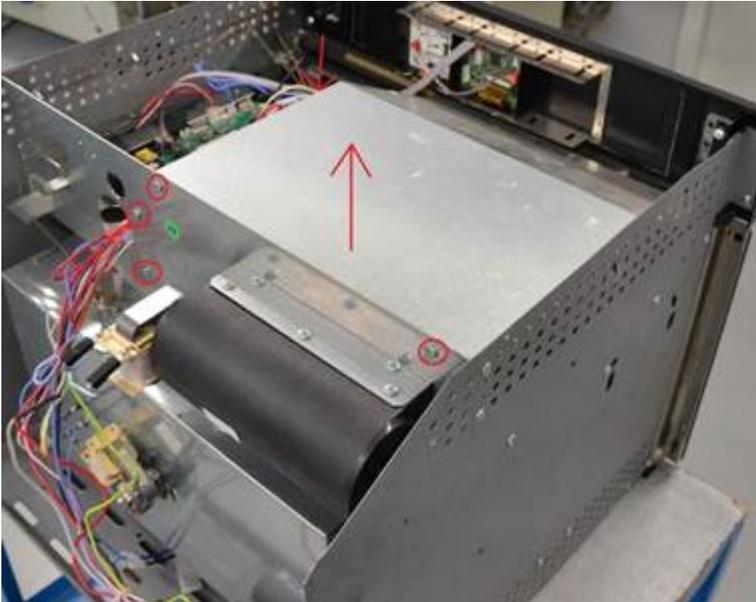


Figure1



Figure 2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Disconnect the cable of condenser damaged and unscrew it by 2 base screws. (fig.2).
5. Replace the new one by reversing the previous steps.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

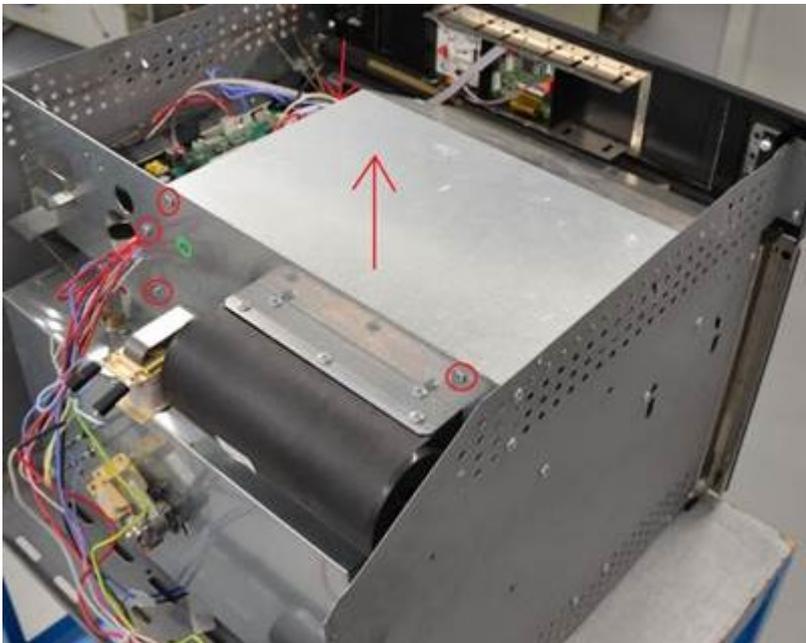


Figure1

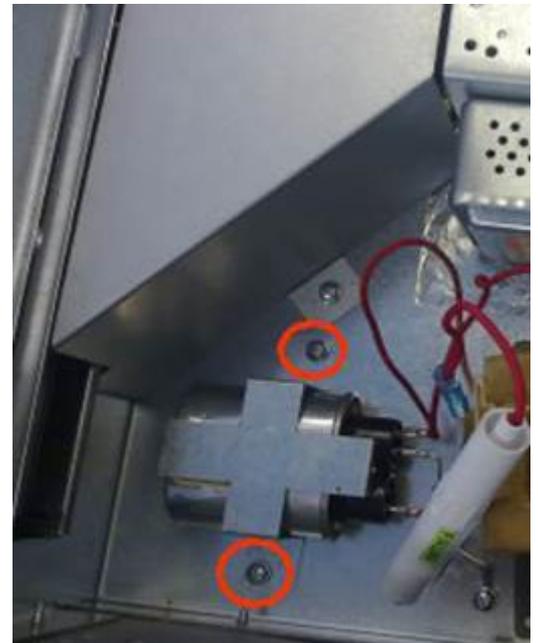


Figure 2



Probe Temperature substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Remove the probe from its location using a clamp make rounded the border to extract it (fig.2).
5. Disconnect the terminals (fig.3).
6. Replace the new one by reversing the previous steps
7. Connect the terminals and insert the temperature probe, crushing the entrance to make oval it to prevent the escape.
8. The connections must not be loose.
9. Reinstall the Oven into the cabinet.
10. Reconnect the power supply cord after the Oven is installed.
11. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

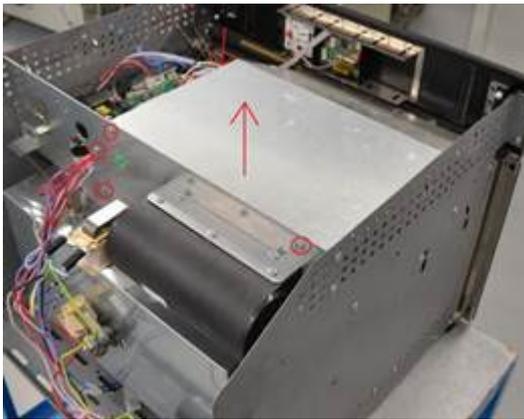


Figure1

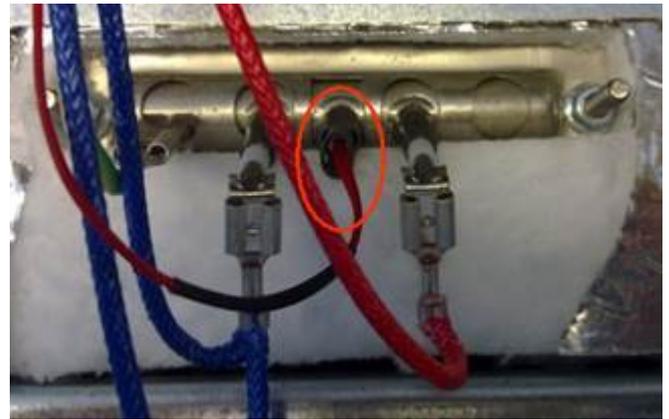


Figure 2

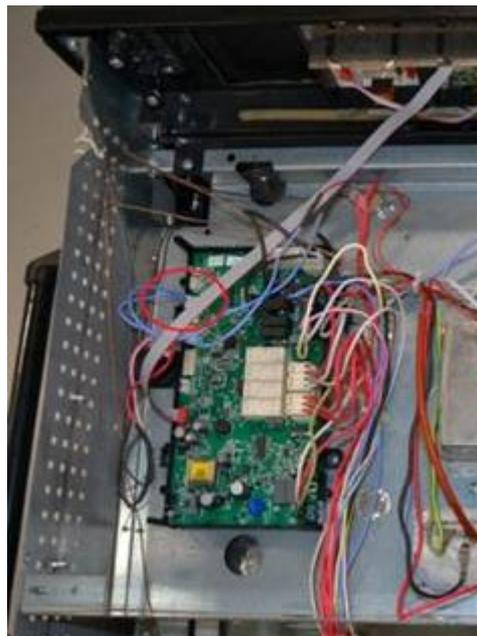


Figure 3



Door hinges substitution



1. Remove the Oven door following the [section 7.3](#).
2. Put the door on a flat surface with a soft cloth to prevent scratching of the aesthetics.
3. Unscrew the door external glass **A**.

Before to remove the hinges the hinge arm must be placed in the correct position following the steps (1 to 4) below.

4. Remove the hinges unscrewing its screws **B**.
5. To replace the hinges, reverse the previous steps.
6. To replace the aesthetic glass be sure that the door are in the right position keeping the glass centered.
7. Replace the Oven door following the [section 7.3](#).



1



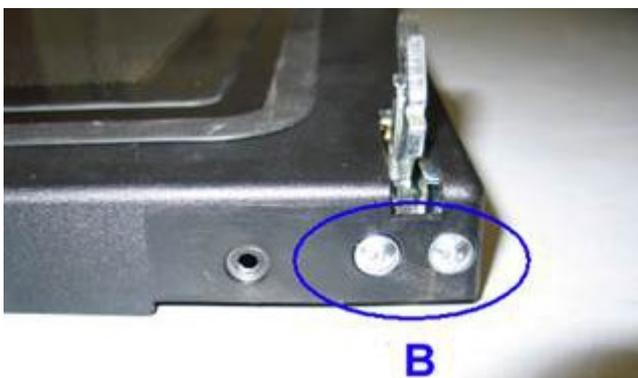
2



3



4



B



A



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Disconnect the cable of diode damaged and unscrew it by its base screw. (fig.2)
5. Replace the new one by reversing the previous steps.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

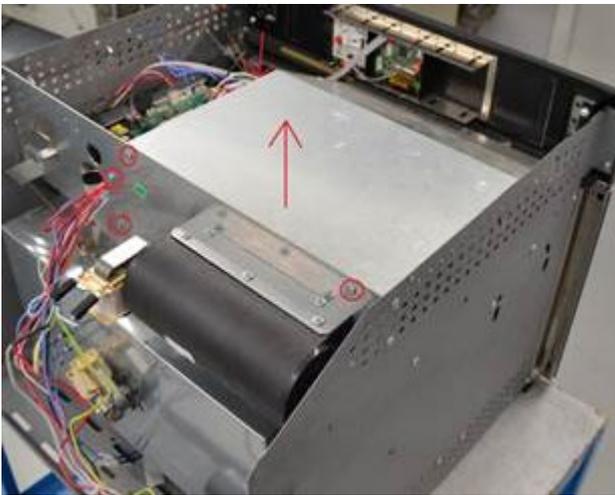


Figure1

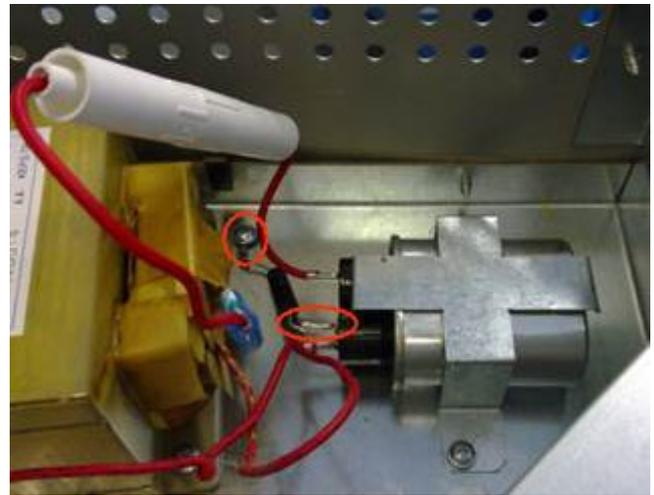
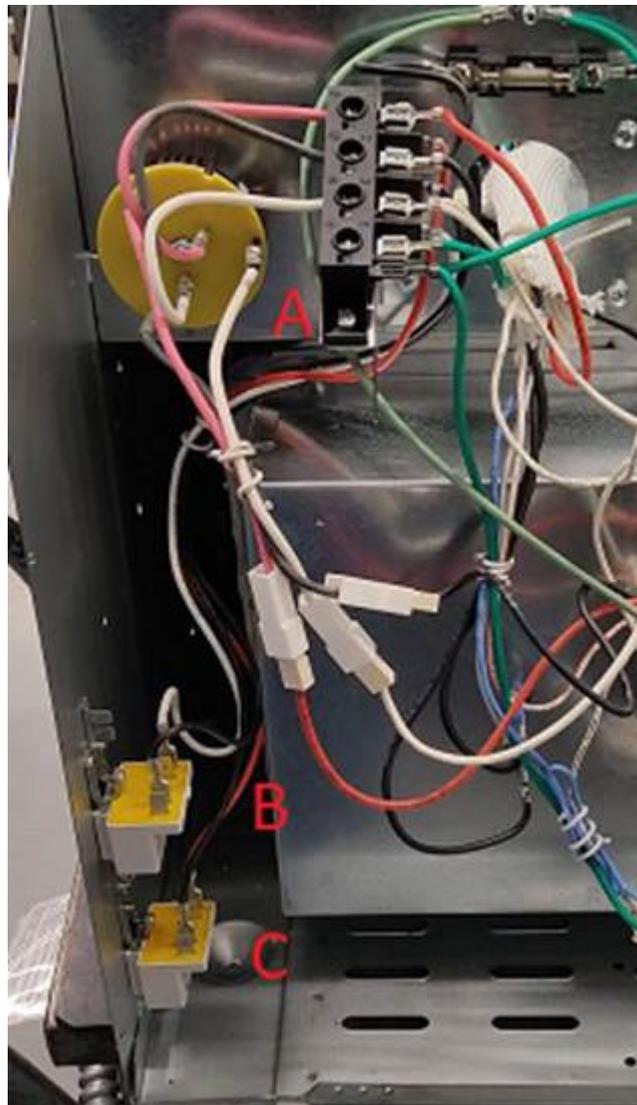


Figure 2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the rear cover.
3. Disconnect the cable from filter damaged (**A - B - C**) and unscrew it by its base screws.
4. Replace the new one by reversing the previous steps.
5. NOTE: for correct connection see the schematic label on filter.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).





Electronic Control board substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Disconnect the bad Control Board and remove it by its four screws. (fig.1)
4. Replace the new one by reversing the previous steps.
5. Connect the terminals. 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 and microwave emission ([section 1.2](#)).



Fig.1



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the internal components cover (fig 1) by its six screws.
4. Open the fuse holder and remove the fuse damaged from the metal clamps (fig.2)
5. Replace the new one by reversing the previous steps.
6. Connect the terminals. The connections must not be loose.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

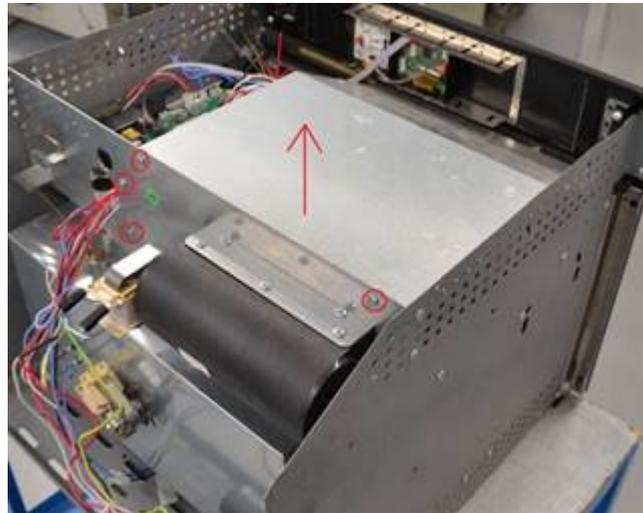


Figure1

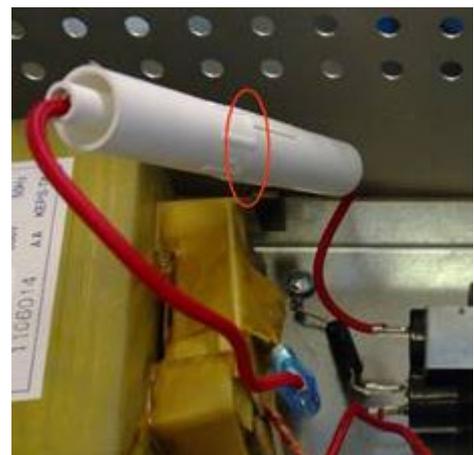


Figure 2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper and rear covers.
3. Replace the new one by reversing the previous steps.
4. Connect the terminals.
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 and microwave emission ([section 1.2](#)).





Door external glass substitution



1. Remove the door from the oven [section 7.3](#).
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 ([fig.1](#)).
4. Remove also the handle by its two screws to mount it on the new glass ([fig.2](#)).
5. Replace the handle on the new aesthetic glass with its [support](#).
6. Assemble the glass and door keeping door in the middle of the glass.

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



Figure 1

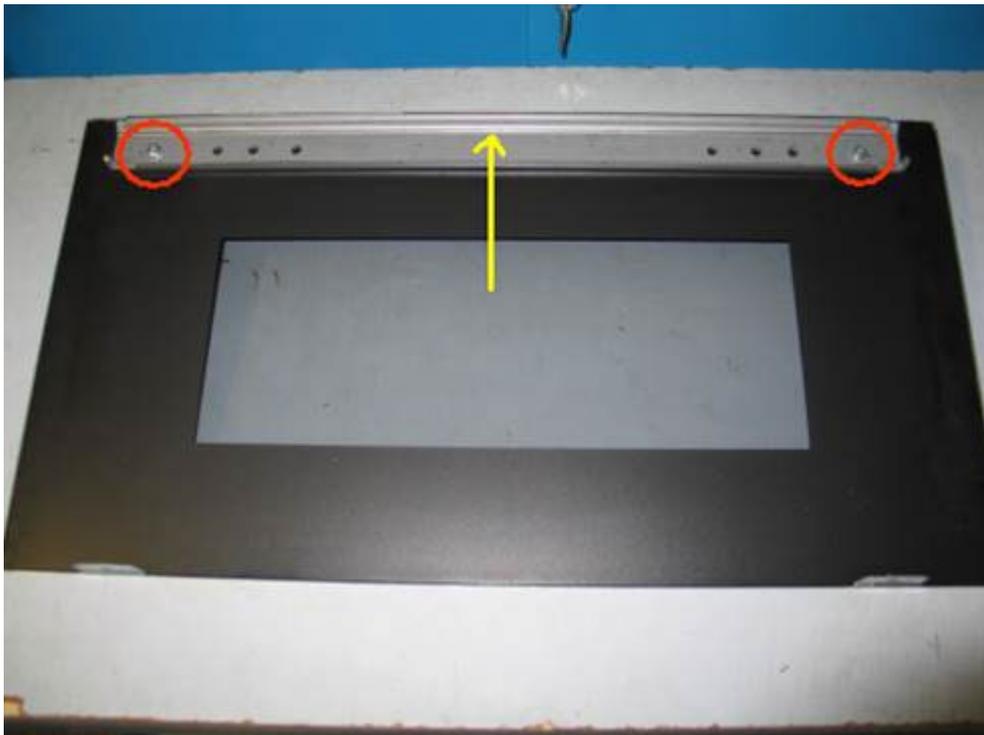


Figure 2



Door middle glass substitution



1. Remove the door from the oven [section 7.3](#).
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 ([fig.1](#)).
4. Remove also the four brackets on the corner to replace the glass ([fig.2](#)).

When it is changed a middle glass you must be sure that the face whit (THERMO REFLECTIVE) printed it is towards the cavity ([fig.3](#)).

5. Assemble the glass and door keeping door in the middle of the glass.
6. Replace the Oven door following the ([section 7.3](#)).
7. Run the Oven and check all functions and microwave emission ([section 1.2](#)).



Figure 1



Figure 2



Figure 3



Door internal labyrinth glass substitution



1. Remove the door from the oven [section 7.3](#).
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 ([fig.1](#)).
4. Remove also the four brackets on the corner to remove the middle glass.

When it is changed or removed an middle glass you must be sure that the face whit (THERMO REFLECTIVE) printed it is towards the cavity ([fig.2](#)).

5. To remove the labyrinth, unscrew the six screws from its frame ([fig.3](#)).
 6. Assemble the new one by previous reverse steps
 7. Assemble the external glass and door keeping door in the middle of the glass.
 8. Replace the Oven door following the ([section 7.3](#)).
- Run the Oven and check all functions and microwave emission ([section 1.2](#)).



Figure 1



Figure 2



Figure 3



Door internal labyrinth glass gasket substitution



1. Remove the door from the oven [section 7.3](#).
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 ([fig.1](#)).
4. Remove also the four brackets on the corner to remove the middle glass.

When it is changed or removed a middle glass you must be sure that the face whit (THERMO REFLECTIVE) printed it is towards the cavity ([fig.2](#)).

5. To remove the labyrinth, unscrew the six screws from its frame, and dismount the gasket damaged by hand. ([fig.3](#)).
6. Assemble the new one by previous reverse steps.
7. Assemble the external glass and door keeping door in the middle of the glass
8. Replace the Oven door following the ([section 7.3](#)).

Run the Oven and check all functions and microwave emission ([section 1.2](#)).



Figure 1



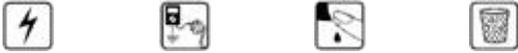
Figure 2



Figure 3



Glass Control panel substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover.
3. Remove the Key and Display boards without disassembling the cable. ([section 7.26](#))
4. Substitute the glass damaged by removal of the four screws on metal brackets.
All glass ([fig.1](#))
Professional ([fig.2](#))
5. Replace the new one by reversing the previous steps.
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.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

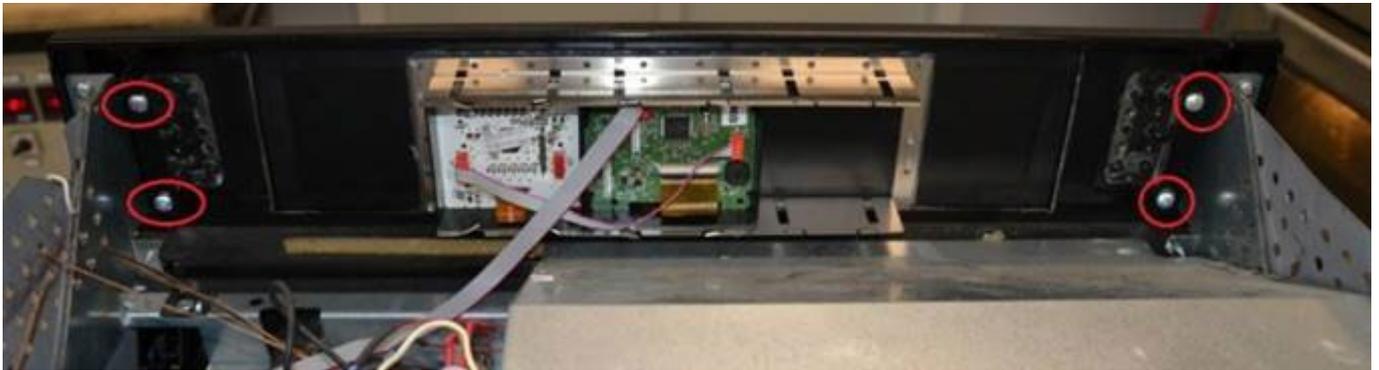


Fig.1

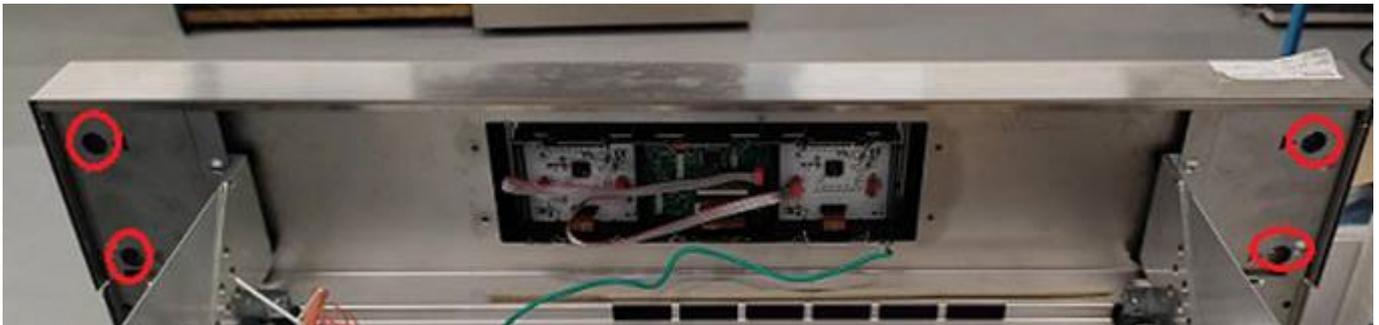


Fig.2



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper, rear and lateral cover.
3. Open the glass lens to access to bulb as showed **(fig. 1)**.
4. Replace the new one by reversing the previous steps.
5. The insulation around the lamp must be properly located, it must not cover the lamp cavity holes.
6. NOTE: The lens it must be in contact with cavity holes.
7. Reinstall the Oven into the cabinet.
8. Reconnect the power supply cord after the Oven is installed.
9. Run the Oven and check all functions and microwave emission ([section 1.2](#)).

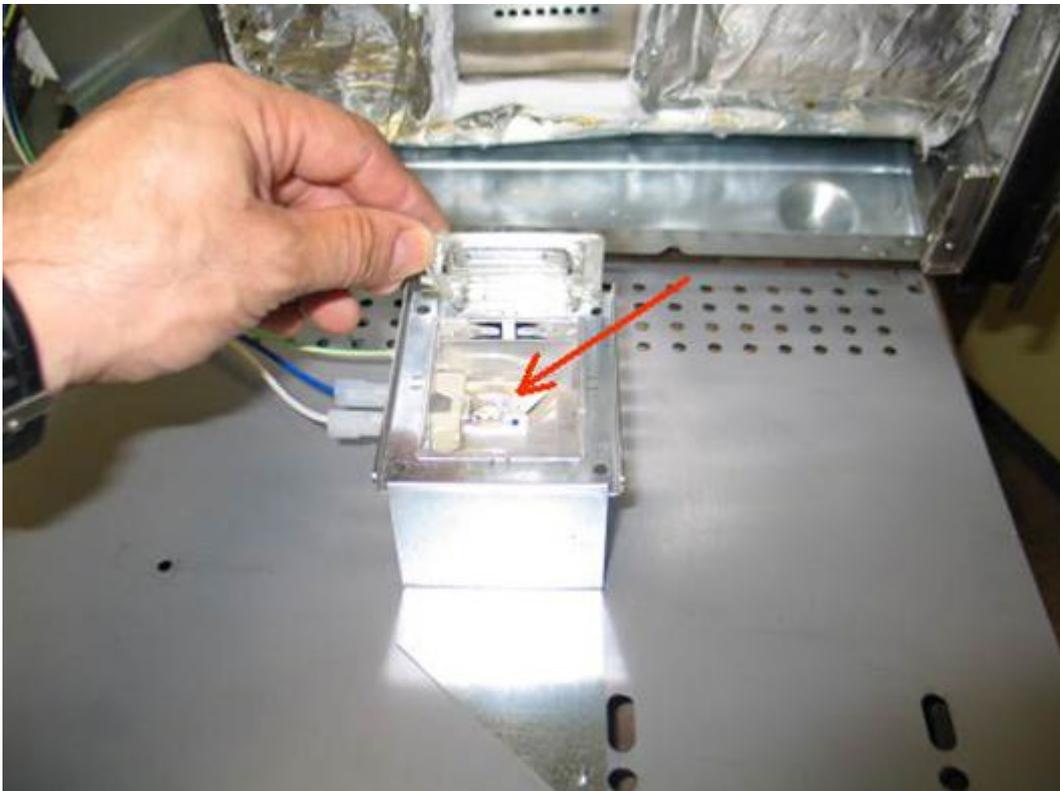


Figure 1



Display and Key Board substitution



1. Disconnect the power supply cord and remove the Oven from the cabinet.
2. Remove the upper cover and back board cover if present (fig.1).
3. Remove the Key or Display damaged board disassembling the cable.
4. Disassemble the glass by removal of the four screws on metal brackets. (fig.2)
5. Put the panel on a flat surface with a soft cloth to prevent scratching of the aesthetics.
6. Remove the damaged board bending its metal flap brackets.
7. Replace the new one by reversing the previous steps.
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 and microwave emission ([section 1.2](#)).



Fig.1

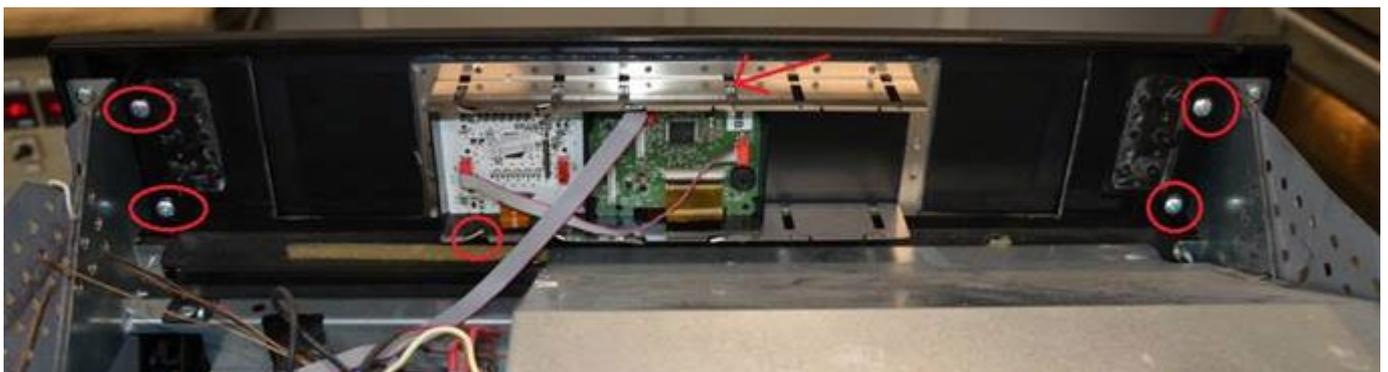


Fig.2