

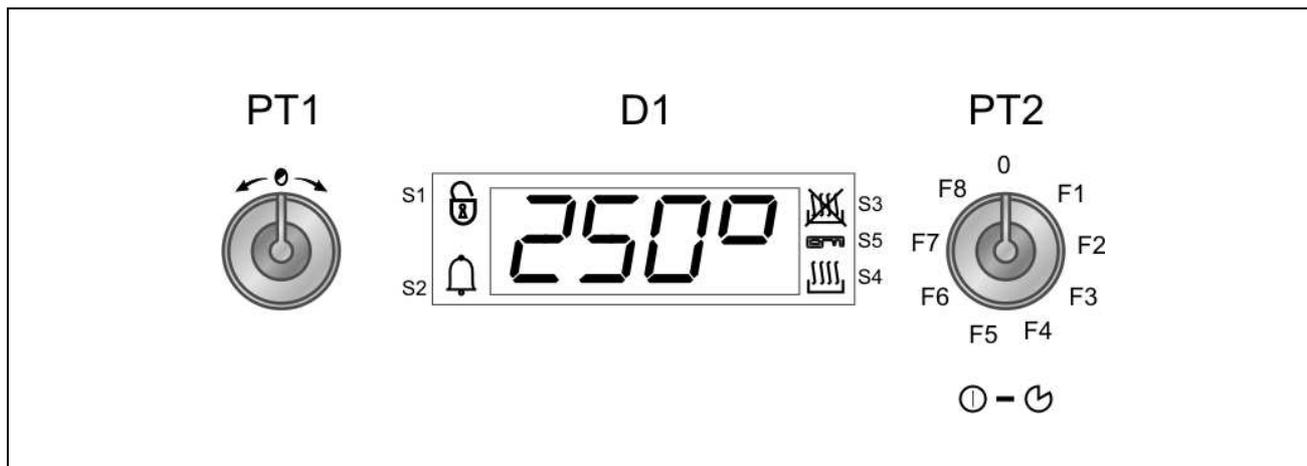
# Electronic control specifications

| REV. | MODIFICATION  | DATE    |
|------|---------------|---------|
| 00   | First version | 11/2012 |

## TABLE OF CONTENTS

|   |    |
|---|----|
| 1 SWITCHING THE OVEN LIGHT ON AND OFF .....         | 3  |
| 2 FUNCTIONS.....                                    | 4  |
| 2.1 Eco Pyrolysis and Pyrolysis setting .....       | 4  |
| 2.2 Managing the door lock.....                     | 4  |
| 2.3 defrosting and proving function .....           | 5  |
| 2.4 "Vapor Clean" operation.....                    | 5  |
| 3- SECONDARY MENU (child lock, showroom mode).....  | 6  |
| 4 OVEN SAFETY.....                                  | 7  |
| 5- MANAGING THE DUAL SPEED COOLING FAN MOTOR .....  | 8  |
| 6- MANAGING THE SINGLE SPEED COOLING FAN MOTOR..... | 9  |
| 7- TEST CYCLE.....                                  | 10 |
| 8- ERROR MANAGEMENT .....                           | 12 |
| 9- TROUBLESHOOTING.....                             | 14 |
| 9.1 Troubleshooting SERIES SF/SFP109... MODELS..... | 14 |
| 9.2 Troubleshooting SERIES SFP108...MODELS .....    | 18 |

## 1 SWITCHING THE OVEN LIGHT ON AND OFF



- **STAND-BY CONDITION:**
  - It must be possible to switch the oven light on and off by turning PT1 clockwise or anticlockwise, with immediate release (within one second).
- **ON CONDITION:**
  - **OVEN LIGHT ON configuration**
    - With the cooking started, light switched on during preheating or cooking. If PT1 is turned briefly, the light switches off/on.
    - The oven light is on when the door is open (on models with door microswitch).
  - **OVEN LIGHT OFF configuration**
    - In STAND-BY condition or when automatic cooking has been programmed (until the cooking starts). The light can be switched on by rotating PT1 quickly.
    - The pyrolysis function is active (on pyrolytic models only)
    - The Vapor Clean function is active (on models fitted with this function)
    - The door lock is active
    - No cooking functions active
    - Temperature at the probe > 470°C
    - Activating the appropriate control on the display (on models with this function)

## 2 FUNCTIONS

### 2.1 Eco Pyrolysis and Pyrolysis setting

When these functions are selected using PT2, display D1 will show the current time. To activate the function, press PT1, the symbol S4 will flash: 01:30 will appear on the display.

In the case of ECO Pyrolysis, the duration is fixed and cannot be modified. Pyrolysis will activate after 5 seconds.

In the case of standard Pyrolysis, the duration can be set between 1 hour 30 minutes and 3 hours by turning PT1. Pyrolysis will activate after 5 seconds. During the pyrolysis, the set temperature can be changed by pressing then turning PT1.

When the pyrolysis starts, the word “Pyro” appears on the display.

**It must not be possible to start other cooking functions even when pyrolysis is completed but the door lock is still activated.**

### FUNCTIONING OF THE TANGENTIAL COOLING MOTOR WITH ECO PYROLYSIS/PYROLYSIS:

When the eco pyrolysis/pyrolysis is selected, the tangential motor starts immediately to work at the maximum power. Once the cleaning cycle ends, the tangential motor works at the maximum power till the inner temperature decreases under 300°C. Then the tangential motor works at the lower power and it switches off once the inner temperature is under 150°C.

**Tabella 13: Gestione ECO**

|               | Step 1              |      | Step 2              |      | Step 3              |     | Step 4              |       | Step 5              |       |
|---------------|---------------------|------|---------------------|------|---------------------|-----|---------------------|-------|---------------------|-------|
| Tset [°C]     | ECO_s1_Tset         | 0    | ECO_s2_Tset         | 0    | ECO_s3_Tset         | 0   | ECO_s4_Tset         | 0     | ECO_s5_Tset         | 0     |
| AT [°C]       | ECO_s1_AT           | 0    | ECO_s2_AT           | 0    | ECO_s3_AT           | 0   | ECO_s4_AT           | 0     | ECO_s5_AT           | 0     |
| %ECORL2       | %ECO_s1_ratioECORL2 | 40   | %ECO_s2_ratioECORL2 | 30   | %ECO_s3_ratioECORL2 | 0   | %ECO_s4_ratioECORL2 | 30    | %ECO_s5_ratioECORL2 | 30    |
| %ECORL4       | %ECO_s1_ratioECORL4 | 60   | %ECO_s2_ratioECORL4 | 70   | %ECO_s3_ratioECORL4 | 0   | %ECO_s4_ratioECORL4 | 70    | %ECO_s5_ratioECORL4 | 70    |
| %ECORL3       | %ECO_s1_ratioECORL3 | 0    | %ECO_s2_ratioECORL3 | 0    | %ECO_s3_ratioECORL3 | 0   | %ECO_s4_ratioECORL3 | 0     | %ECO_s5_ratioECORL3 | 0     |
| %ECORL5       | %ECO_s1_ratioECORL5 | 0    | %ECO_s2_ratioECORL5 | 0    | %ECO_s3_ratioECORL5 | 0   | %ECO_s4_ratioECORL5 | 0     | %ECO_s5_ratioECORL5 | 0     |
| Twait [sec.]  | %ECO_s1_Twait       | 1200 | %ECO_s2_Twait       | 1200 | %ECO_s3_Twait       | 360 | %ECO_s4_Twait       | 18000 | %ECO_s5_Twait       | 18000 |
| MTV-INT (0,1) | %ECO_s1_MTV_INT     | 0    | %ECO_s2_MTV_INT     | 0    | %ECO_s3_MTV_INT     | 0   | %ECO_s4_MTV_INT     | 0     | %ECO_s5_MTV_INT     | 0     |
| MTV-RAF (0,1) | %ECO_s1_MTV_RAF     | 1    | %ECO_s2_MTV_RAF     | 1    | %ECO_s3_MTV_RAF     | 1   | %ECO_s4_MTV_RAF     | 1     | %ECO_s5_MTV_RAF     | 1     |

### 2.2 Managing the door lock

|                           |  |
|---------------------------|--|
| <b>ACTIVE condition</b>   | <p>If the T probe is &gt; 520°C European version<br/>           If the T probe is &gt; 520°C American version<br/>           When the door lock is engaged, the oven must behave as follows:</p> <ul style="list-style-type: none"> <li>•All the heating element relays are opened</li> <li>•Cooling fan motor ON (max. speed)</li> <li>•Rotisserie motor OFF</li> </ul> <p>If the set function is “PYROLYSIS”</p> |
| <b>INACTIVE condition</b> | <p>If the set function is not “PYROLYSIS” and the T probe is &lt; 520°C Europe, T probe &lt; 520°C America</p>   |

**2.3 defrosting and proving function**

- Defrosting: Setting Tcf 30°C, internal fan ON, Rg only active to maintain the Tset
- Proving: Setting Tcf 40°C, internal fan OFF, Rg only active to maintain the Tset
- Cooking function Setting Tcf >= 50°C: in this case, FAN ON, Rg/Rs active to maintain the Tset

**2.4 “Vapor Clean” operation**

Activate the “Vapor Clean” function as follows:

| No | PROCEDURE             | DISPLAY   |
|----|-----------------------|---|
| 1  | Turn PT2.             | “Vapor Clean” function selection<br>D1 displays the cooking time default value 18 minutes                                 |
| 2  | Press PT1             | Function active; S4 ON<br>D1 displays the countdown   |
| 3  | End of timer reached. | D1 displays the flashing text “StOP”<br>Buzzer ON: continuous pulses with no time limit. Press PT1 to silence the buzzer. |
| 4  | Turn PT2.             | Return to Stand-by or a cooking function  |

Selecting the Vapor Clean function, the oven activates in the same manner as in the static function (GRILL + BOTTOM), oven fan OFF, oven light OFF, Tangential fan at maximum speed.

Unlike the other functions, when temperature Tset is reached, there is no Beep to indicate the end of preheating.

With the Vapor Clean function, the temperature and time parameters are preset and cannot be configured.

### 3- SECONDARY MENU (child lock, showroom mode)

The secondary menu enables the user to:

- activate or deactivate the child lock
- activate or deactivate show room mode (which deactivates all the heating elements, allowing only the front control panel to operate)
- activate or deactivate the low power mode

|  |   |
|--|---|
|  <p><b>Temperature knob</b></p> | <p>With the appliance in the standby state, keep the temperature selection knob pressed for at least 5 seconds.</p> |
|  | <p>Rotate the temperature selection knob right or left to change the setting status (ON/OFF).</p>                   |
|  | <p>Press the temperature selection knob to move to the next setting.</p>  |

#### Child lock mode

|  |   |
|--|---|
|   | <p>When this mode is active, after one minute of operation without any intervention by the user, the controls are automatically locked and the following symbol is displayed .</p> |
|  <p><b>temperature knob</b></p>   | <p>To deactivate the child lock during cooking, keep the temperature selection knob pressed for 5 seconds. One minute after the last setting operation, the lock will re-activate.</p>  |
| <p>If any of the symbols on the touch zone are pressed or if the positions of the thermostat or function selection knobs are changed, the word BLOC will be displayed for two seconds.</p> |   |

**Showroom mode (for exhibitors only)**

|   |   |
|---|---|
|  | <p>When you activate this mode, the appliance deactivates all the heating elements while keeping the control panel active. To use the oven normally you need to set this mode to OFF.</p> |
|---|---|

Starting from the OFF condition, the Show Room function switches on as follows:

| N° | PROCEDURE  | DISPLAY   |
|----|--|---|
| 0  | Press PT1 for at least 5 seconds   | The word "OFF" appears on D1<br>The word "BLOC" appears on D2   |
| 1  | Press PT1  | The word "OFF" appears on D1<br>The word "SHOW" appears on D2   |
| 2  | Turn PT1 clockwise   | The T1 display shows "ON"   |
| 3  | Turn PT1 clockwise   | The D1 display shows "OFF"  |
| 4  | After setting the configuration as desired, in 10 seconds, or after pressing PT2 | The configuration is saved in the flash memory and will be presented again after a power outage on the oven, then the oven returns to the OFF condition |

For the multifunction model, activating the Show Room function is signalled in all the conditions by S8 ON.

In order to deactivate the Show Room configuration, repeat the same procedure again. When the show room configuration is activated, in "manual cooking" mode, the word "SHO" appears on the D2 display once a minute for 3 seconds.

**Low power mode**

|   |  |
|---|--|
|  | <p>When you activate this mode the appliance will limit the amount of power used.<br/>HI: normal power<br/>LO: low power</p> |
|---|--|

When low power mode is activated the preheating and cooking times may be longer.

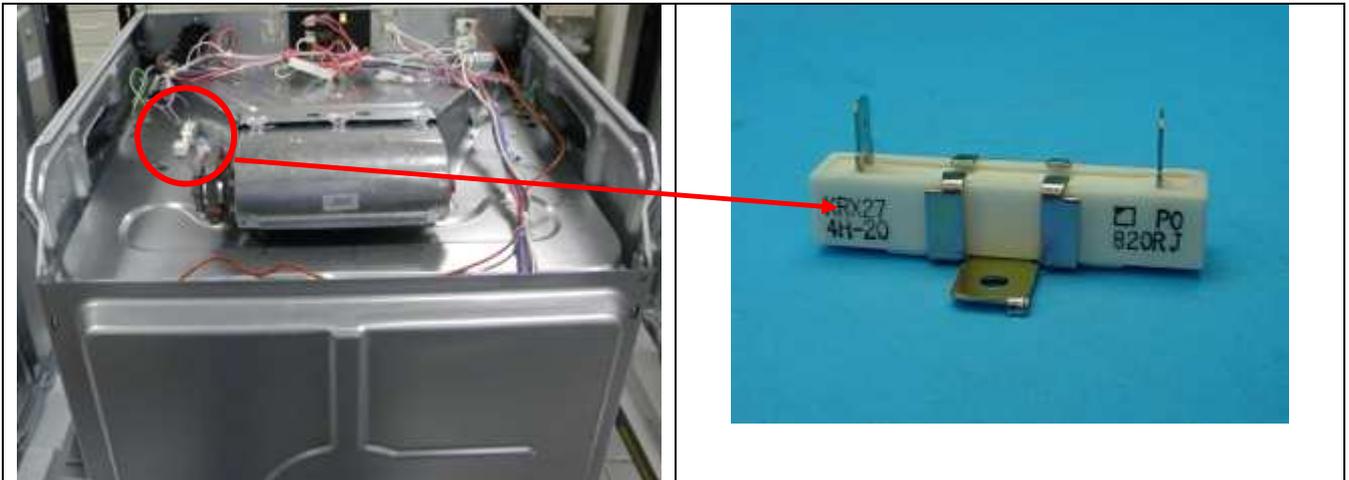
**4 OVEN SAFETY**

A continuous operation safety limit of 13 hours has been set for the oven. After this time, the oven is set to stand-by and all loads are OFF.

### 5- MANAGING THE DUAL SPEED COOLING FAN MOTOR

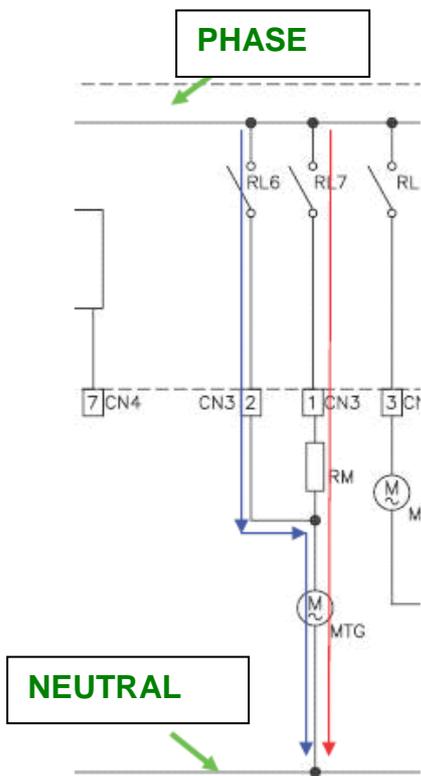
The tangential cooling fan functioning with double speed can be identified through the ceramic resistor presence ( 470ohm or 820ohm according to the models).

*n.b: refer to related spare part catalogues to identify the models equipped with the ceramic resistor.*



#### POSITION OF THE CERAMIC RESISTOR

#### CERAMIC RESISTOR FUNCTIONING:



Maximum speed > **BLUE** line > the relay R6 closes, the tangential motor is directly connected between phase and neutral and it's supplied with a supply voltage (230V)

Minimum speed > **RED** line > the relay R7 closes, the tangential motor works together with the ceramic resistor. The resistor controls the motor in order to supply a lower voltage instead of 230V. This reduces the motor speed.

| Version       | Phase              | Activation      | Deactivation   | Operation     |
|---------------|--------------------|-----------------|----------------|---------------|
| Multifunction | Cooking duration   | Immediate       |                | Maximum speed |
|               | End of cooking     | If Tcf > 150°C  |                | Half speed    |
|               |                    |                 | If Tcf > 150°C | Off           |
| Pyrolytic     | Pyrolysis duration | Immediate       |                | Maximum speed |
|               | End of pyrolysis   | If Tcf > 280°C  |                | Half speed    |
|               |                    |                 | If Tcf > 150°C | Off           |
|               | Cooking duration   | Immediate       |                | Half speed    |
|               |                    | If Tcf > 280°C  |                | Maximum speed |
|               | End of cooking     | If Tcf > 150° C |                | Half speed    |
|               |                    | If Tcf > 150°C  | Off            |               |

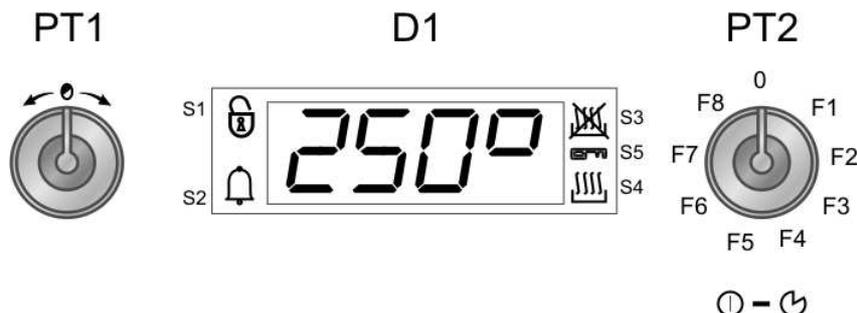
## 6- MANAGING THE SINGLE SPEED COOLING FAN MOTO

| Version       | Phase                                | Activation     | Deactivation   |
|---------------|--------------------------------------|----------------|----------------|
| Multifunction | During cooking and at end of cooking | If Tcf > 150°C |                |
|               |                                      |                | If Tcf > 150°C |
| Pyrolytic     | Pyrolysis duration                   | Immediate      |                |
|               | End of pyrolysis                     |                | If Tcf > 150°C |
|               | Cooking duration                     | Immediate      |                |
|               | End of cooking                       |                | If Tcf > 150°C |

## 7- TEST CYCLE

→ **PROCEDURE FOR APPLIANCES WITH VERSION 1 ELECTRONICS, i.e. produced up to 27/09/2009 (for more information on the modification, refer to the relative spare parts catalogue)**

Activation procedure:



- Switch on the oven with PT2 at the first position on the left of the "0": "00:00" appears flashing.
- Hold down PT1 for at least 5 seconds to enter testing:
- All segments of D1 ON and all L1 and L2 **ON** symbols (where provided) On.
- Rotate PT2 to position 0. Press PT1: COLL appears on D1.
- Turn PT2 clockwise. For each selected function, D1 displays the corresponding test procedure step. For each step, the various devices are activated as shown in the table below:

|   | P1                    | P2                          | P3                    | P4                                       | P5                    | P6                    | P7                    | P8                         |
|---|-----------------------|-----------------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|----------------------------|
| MTG max:<br><b>2 CN3 (RL6)</b>                | ON                    |                             |                       |  |                       |                       |                       |                            |
| MTG min:<br><b>1 CN3 (RL7)</b>                |                       | ON                          |                       |  |                       |                       |                       |                            |
| Oven light 4 <b>CN3-5</b><br><b>CN3 (RL1)</b> | ON                    | ON with<br>door open        |                       |  |                       |                       |                       |                            |
| Fan:<br><b>3 CN3 (RL8)</b>                    |                       | ON<br>OFF with<br>door open |                       |  |                       |                       |                       |                            |
| Rotisserie:<br><b>8 CN4 (TR2)</b>             |                       | ON                          |                       |  |                       |                       |                       |                            |
| Door lock:<br><b>3 CN4 (RL10)</b>             | ON                    | ON                          | ON                    | ON                                       | ON                    | ON                    | ON                    | ON                         |
| Indicator light S1                            | ON if DL<br>activated | ON if DL<br>activated       | ON if DL<br>activated | ON if DL<br>activated                    | ON if DL<br>activated | ON if DL<br>activated | ON if DL<br>activated | ON if DL<br>activated      |
| Buzzer  |                       |                             |                       | ON with<br>door open<br>or without<br>µP |                       |                       |                       | ON if MC1<br>and MC2<br>ON |
| R Grill element:<br><b>3 CN1 (RL2)</b>        |                       |                             | ON                    |  |                       |                       |                       |                            |
| Bottom element:<br><b>6 CN1 (RL4)</b>         |                       |                             |                       | ON                                       |                       |                       |                       |                            |
| Circular element:<br><b>5 CN1 (RL3)</b>       |                       |                             |                       |  | ON                    |                       |                       |                            |
| Roof element:<br><b>4 CN1 (RL5)</b>           |                       |                             |                       |  |                       | ON                    |                       |                            |
| Magnetron / aux:<br><b>CN9 (RL9)</b>          |                       |                             |                       |  |                       |                       | ON                    |                            |

- Activate PT1 in sequence as follows: Rotation left, push, rotation right (repeat cycle twice). The display shows the activations of the knob, numbering them from 1 to 6.
- Return PT2 to position 0: End of test: board switches to OFF state, the time flashes on D1.

**→ PROCEDURE FOR APPLIANCES WITH VERSION 2 ELECTRONICS, produced as from 28/09/2009 (for more information on the modification, refer to the relative spare parts catalogue)**

Repeat points a, b, c, d of the preceding paragraph.

e. Turn PT2 clockwise. For each selected function, D1 displays the corresponding test procedure step. For each step, the various devices are activated as shown in the table below:

|                                       | P1                 | P2                             | P3                 | P4                                   | P5                 | P6                 | P7                 | P8                 |
|---------------------------------------|--------------------|--------------------------------|--------------------|--------------------------------------|--------------------|--------------------|--------------------|--------------------|
| MTG max:<br><b>1 CN2 (RL3)</b>        | ON                 | ON in the case of single speed |                    |                                      |                    |                    |                    |                    |
| MTG min:<br><b>5 CN1 (RL5)</b>        |                    | ON in the case of dual speed   |                    |                                      |                    |                    |                    |                    |
| Oven light 2<br><b>CN2 (RL1)</b>      | ON                 | ON with door open              |                    |                                      |                    |                    |                    |                    |
| Fan:<br><b>6 CN1 (RL6)</b>            |                    | ON<br>OFF with door open       |                    |                                      |                    |                    |                    |                    |
| Rotisserie:<br><b>3 CN2 (TR2)</b>     |                    | ON                             |                    |                                      |                    |                    |                    |                    |
| Door lock:<br><b>4 CN2 (RL7)</b>      | ON                 | ON                             | ON                 | ON                                   | ON                 | ON                 | ON                 | ON                 |
| Indicator light<br>S1                 | ON if DL activated | ON if DL activated             | ON if DL activated | ON if DL activated                   | ON if DL activated | ON if DL activated | ON if DL activated | ON if DL activated |
| Buzzer                                |                    |                                |                    | ON with door open or without $\mu$ P |                    |                    |                    |                    |
| R Grill:<br><b>4 CN1 (RL4)</b>        |                    |                                | ON                 |                                      |                    |                    |                    |                    |
| Bottom element:<br><b>3 CN1 (RL2)</b> |                    |                                |                    | ON                                   |                    |                    |                    |                    |

- Activate PT1 in sequence as follows: Rotation left, push, rotation right (repeat cycle twice). The display shows the activations of the knob, numbering them from 1 to 6.
- Return PT2 to position 0: End of test: board switches to OFF state, the time flashes on D1.

In the case where the tangential motor does not have a dual speed, when the 2<sup>nd</sup> function is selected, the tangential motor runs at maximum speed.

During the test, the electronic circuit board also checks the temperature sensor connection. In the case of an open circuit or short circuit, "Err1" appears on D1 and the test is interrupted. If, however, the result of the test is positive, nothing appears on the display and the testing procedure continues.

## **8- ERROR MANAGEMENT**

Some error conditions for devices in the oven are managed by the software and shown on display D1 as follows:

### **Err1: Defective sensor (open or short-circuited)**

This is detected by the software when the signal at the A/D converter, then recalculated based on the voltage/temperature conversion table, continuously indicates an internal oven compartment temperature beyond the range  $-40^{\circ}\text{C} < T_{cf} < 600^{\circ}\text{C}$  for at least 15 seconds.

In this case, the program in progress stops immediately, all loads open, the cooling motor continues to operate and the alarm is displayed on the user interface in the manner prescribed for each user interface. The program continues to check the sensor input and, if the error condition is no longer present for at least 5 continuous seconds, the error is reset. The interrupted cooking process is not restarted, however. To reset the error switch the oven to the OFF condition. The cooling motor continues to operate for 1h after the OFF condition setting.

### **Err2: overtemperature error**

Activated in the following cases: If, during a normal cooking program (pyrolysis is excluded from this check), the TSonda exceeds  $520^{\circ}\text{C}$ ; the software performs the following operations:

- The door lock is closed
- All the relays are opened
- Relay/Triac cooling motor fan ON
- Rotisserie triac OFF
- Buzzer sounds intermittently with a frequency of 1Hz.

To reset the error switch the oven to the OFF condition.

### **Err3: Error probe incorrectly positioned**

The software detects bad positioning of the temperature sensor. As an open sensor or short circuit error is managed directly as an error condition, the following algorithm ensures that a badly positioned (but operating) sensor, which would consequently prevent a correct reading of the internal temperature, cannot cause safety problems for the user.

The management conditions of the error are as follows:

- In Position 0: Test inactive, the alarm does not sound and if the circuit board is in an alarm state, the condition will remain in place for 10 minutes.
- In Cooking Position - Test active for 20 minutes.
  - If the SET POINT is reached within 20 minutes → the test will end with a positive result
  - If  $80^{\circ}\text{C}$  is exceeded within 20 minutes → the test will end with a positive result
  - If neither of the two previous conditions occurs within 20 minutes → Alarm (frequency 1 Hz) → all relays OFF; the display will show "ERR3"
  - If the selector is set to OFF → the buzzer will be switched off but the alarm will remain active until the 10<sup>th</sup> minute afterwards
  - If the selector is set to "0" during the Test → End of Test
  - If the door is opened, the remaining test time will increase by the time for which it was open, up to a maximum of 10 minutes
  - If the TIMER is OFF, the test time will remain frozen until cooking starts (as in the case of Delayed Cooking)
  - If the timer interrupts cooking, the remaining test time will increase by the interruption time, up to a maximum of 10 minutes
  - If the user moves from one program to another, the test will continue; if it was terminated, it will not restart
  - Position the function selector to "0" to restart the test

This error is not managed in the presence of a door lock activation thermostat

**Err4: Door lock microswitch activation error**

Pyrolysis: when the door lock is activated, if the door lock microswitch is not activated within 90 seconds (mechanical problem or the door is slightly distanced from the front so that the door microswitch is activated, but the door lock microswitch is not), pyrolysis is interrupted and the buzzer sounds (1Hz). The display shows the alarm as prescribed by the user interface. The alarm is reset by putting the oven into stand-by condition or by switching the function selector to 0

Regardless of the cause of activation of the door lock (pyrolysis, alarm or breaking of the door lock), if the lock microswitch is activated, the electronic circuit board will be as follows:

- Selector position on Pyrolysis → all OK
- Selector position on STOP → all OK
- Selector position on a different setting → alarm condition and Buzzer sounding The alarm is reset by putting the oven into stand-by condition

**Err5: Circular heating element error**

This error is only detected during the appliance test procedure.

The error is detected if the circular heater element is active when the relative function is not selected (standard operating test abnormality). The RL8 oven fan must be activated.

The error does not appear on the display.

**Err6: Internal fan motor error**

This error is only detected during the appliance test procedure.

This error is detected if, when a function is selected, internal fan motor (if required for the function) is disconnected or not working.

In this case, the program in progress stops immediately, all loads open and the alarm is displayed on the user interface in the manner prescribed for each user interface, the buzzer is activated (1Hz). The alarm is reset by putting the oven into stand-by condition or by switching the function selector to 0

**Err8: Tangential motor error**

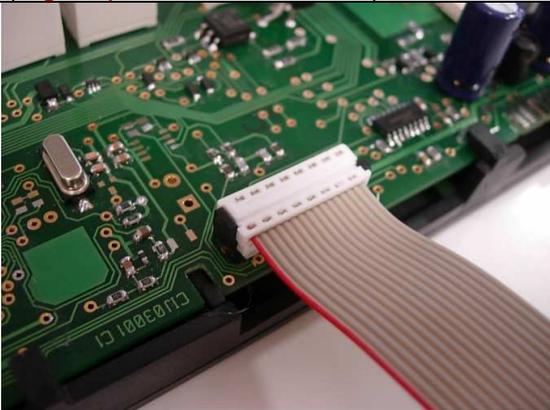
This error is only detected during the appliance test procedure.

This error is detected if, when a function is selected, the tangential motor is disconnected or not working.

In this case, the program in progress stops immediately, all loads open and the alarm is displayed on the user interface in the manner prescribed for each user interface, the buzzer is activated (1Hz). The alarm is reset by putting the oven into stand-by condition or by switching the function selector to 0

## 9- TROUBLESHOOTING

### 9.1 Troubleshooting SERIES SF/SFP109 MODELS

| n. | Fault   | Reason   | Action   |
|----|---|--|--|
| 1  | A segment of the display does not light up, a function led does not light up        | Faulty welding<br>LED faulty                         | Replace the display board only   |
| 2  | After the oven is switched on, the display flashes and the oven cannot be used      | Potentiometer connecting wire not fixed correctly    | Check that the wire is fixed properly, if necessary replace it   |
|    |   | Power board flat cable not fixed correctly           | Check that the wire is fixed properly, if necessary replace it   |
|    |   | Potentiometer faulty                                 | To carry out an initial check, disconnect and reverse the two potentiometers (these are the same). If the result is negative, replace the potentiometer. |
| 3  | A knob does not light up correctly  | Knob light board connecting wire not fixed correctly | Check that the wire is fixed properly, if necessary replace it   |
|    |   | Board faulty or individual led defective             | Replace the entire knob light unit (2 boards + wire).  |
| 4  | The display does not light up   | Flat cable not connected correctly                   |  |
|    |  |  | Check the flat cable connection, if necessary replace it, checking the polarity  |
|    |   |  | Make sure that the connector is connected properly   |

|   |                                     |  |  |
|---|-------------------------------------|--|--|
| 4 | The display does not light up       | Card-edge power connector of the power board is not fixed correctly                                      | Check the flat cable connection, if necessary replace it, checking the polarity  |
|   |                                     | Power supply wires are not correctly fixed to the card-edge connector                                    | Use a tester the check for the presence of 220V mains voltage on poles CN4-1 and CN4-2. If there is no voltage check the wiring                      |
| 5 | The internal oven fan does not work | The motor is jammed or does not work   | Check the motor and replace if necessary<br>Use a separate 220V connection to the motor and check it's operation                                     |
|   |                                     | The power supply relay to the motor has tripped  | Replace the power board  |
|   |                                     | Power supply wires are not correctly fixed to the connectors or the circuit board relays are not working | Carry out a cooking operation using the internal fan and check the continuity on poles CN1-1 and CN4-3. If there is no continuity, replace the board |

|   |   |  |   |
|---|---|--|---|
| 6 | The tangential fan does not work or half speed does not work properly | The motor is jammed or does not work   | Check the motor and replace if necessary<br>Use a separate 220V connection to the motor and check it's operation  |
|   |   | Power supply wires are not correctly fixed to the connectors or the circuit board relays are not working | Carry out a cooking operation and check the continuity on poles <ul style="list-style-type: none"> <li>• CN1-1 and CN3-1, half speed</li> <li>• CN1-1 and CN3-2, maximum speed</li> </ul> If there is no continuity, a relay is faulty or there is another fault on the board -> replace it |

|    |   |  |   |
|----|---|--|---|
| 7  | The oven does not emit any audible signals              | Buzzer is not working                                  | Replace the power board   |
| 8  | The oven switches off and, after cooling down, restarts | The board thermal relay has tripped due to overheating | Check that the oven has been assembled correctly (fibreglass and walls)   |
| 9  | The oven light does not switch on                       | Bulb blown   | Replace the light   |
|    |   | Incorrect connection or light relay defective          | Check connection and replace power board if necessary   |
| 10 | The display shows Err1                                  | Probe not connected to power board                     | Check that the connector is inserted correctly in its housing   |
|    |   | Faulty probe   | Check the resistance, if negative replace the probe, making sure that it is positioned correctly in its housing |

| TABLE OF RESISTANCE VALUES FOR PT1000 |         |    |         |     |         |     |         |     |         |     |         |     |         |
|---------------------------------------|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|
| °C                                    | Ohm     | °C | Ohm     | °C  | Ohm     | °C  | Ohm     | °C  | Ohm     | °C  | Ohm     | °C  | Ohm     |
| 20                                    | 1076,2  | 50 | 1190,5  | 80  | 1304,8  | 110 | 1419,1  | 140 | 1533,4  | 170 | 1647,7  | 200 | 1762    |
| 21                                    | 1080,01 | 51 | 1194,31 | 81  | 1308,61 | 111 | 1422,91 | 141 | 1537,21 | 171 | 1651,51 | 201 | 1765,81 |
| 22                                    | 1083,82 | 52 | 1198,12 | 82  | 1312,42 | 112 | 1426,72 | 142 | 1541,02 | 172 | 1655,32 | 202 | 1769,62 |
| 23                                    | 1087,63 | 53 | 1201,93 | 83  | 1316,23 | 113 | 1430,53 | 143 | 1544,83 | 173 | 1659,13 | 203 | 1773,43 |
| 24                                    | 1091,44 | 54 | 1205,74 | 84  | 1320,04 | 114 | 1434,34 | 144 | 1548,64 | 174 | 1662,94 | 204 | 1777,24 |
| 25                                    | 1095,25 | 55 | 1209,55 | 85  | 1323,85 | 115 | 1438,15 | 145 | 1552,45 | 175 | 1666,75 | 205 | 1781,05 |
| 26                                    | 1099,06 | 56 | 1213,36 | 86  | 1327,66 | 116 | 1441,96 | 146 | 1556,26 | 176 | 1670,56 | 206 | 1784,86 |
| 27                                    | 1102,87 | 57 | 1217,17 | 87  | 1331,47 | 117 | 1445,77 | 147 | 1560,07 | 177 | 1674,37 | 207 | 1788,67 |
| 28                                    | 1106,68 | 58 | 1220,98 | 88  | 1335,28 | 118 | 1449,58 | 148 | 1563,88 | 178 | 1678,18 | 208 | 1792,48 |
| 29                                    | 1110,49 | 59 | 1224,79 | 89  | 1339,09 | 119 | 1453,39 | 149 | 1567,69 | 179 | 1681,99 | 209 | 1796,29 |
| 30                                    | 1114,3  | 60 | 1228,6  | 90  | 1342,9  | 120 | 1457,2  | 150 | 1571,5  | 180 | 1685,8  | 210 | 1800,1  |
| 31                                    | 1118,11 | 61 | 1232,41 | 91  | 1346,71 | 121 | 1461,01 | 151 | 1575,31 | 181 | 1689,61 | 211 | 1803,91 |
| 32                                    | 1121,92 | 62 | 1236,22 | 92  | 1350,52 | 122 | 1464,82 | 152 | 1579,12 | 182 | 1693,42 | 212 | 1807,72 |
| 33                                    | 1125,73 | 63 | 1240,03 | 93  | 1354,33 | 123 | 1468,63 | 153 | 1582,93 | 183 | 1697,23 | 213 | 1811,53 |
| 34                                    | 1129,54 | 64 | 1243,84 | 94  | 1358,14 | 124 | 1472,44 | 154 | 1586,74 | 184 | 1701,04 | 214 | 1815,34 |
| 35                                    | 1133,35 | 65 | 1247,65 | 95  | 1361,95 | 125 | 1476,25 | 155 | 1590,55 | 185 | 1704,85 | 215 | 1819,15 |
| 36                                    | 1137,16 | 66 | 1251,46 | 96  | 1365,76 | 126 | 1480,06 | 156 | 1594,36 | 186 | 1708,66 | 216 | 1822,96 |
| 37                                    | 1140,97 | 67 | 1255,27 | 97  | 1369,57 | 127 | 1483,87 | 157 | 1598,17 | 187 | 1712,47 | 217 | 1826,77 |
| 38                                    | 1144,78 | 68 | 1259,08 | 98  | 1373,38 | 128 | 1487,68 | 158 | 1601,98 | 188 | 1716,28 | 218 | 1830,58 |
| 39                                    | 1148,59 | 69 | 1262,89 | 99  | 1377,19 | 129 | 1491,49 | 159 | 1605,79 | 189 | 1720,09 | 219 | 1834,39 |
| 40                                    | 1152,4  | 70 | 1266,7  | 100 | 1381    | 130 | 1495,3  | 160 | 1609,6  | 190 | 1723,9  | 220 | 1838,2  |
| 41                                    | 1156,21 | 71 | 1270,51 | 101 | 1384,81 | 131 | 1499,11 | 161 | 1613,41 | 191 | 1727,71 | 221 | 1842,01 |
| 42                                    | 1160,02 | 72 | 1274,32 | 102 | 1388,62 | 132 | 1502,92 | 162 | 1617,22 | 192 | 1731,52 | 222 | 1845,82 |
| 43                                    | 1163,83 | 73 | 1278,13 | 103 | 1392,43 | 133 | 1506,73 | 163 | 1621,03 | 193 | 1735,33 | 223 | 1849,63 |
| 44                                    | 1167,64 | 74 | 1281,94 | 104 | 1396,24 | 134 | 1510,54 | 164 | 1624,84 | 194 | 1739,14 | 224 | 1853,44 |
| 45                                    | 1171,45 | 75 | 1285,75 | 105 | 1400,05 | 135 | 1514,35 | 165 | 1628,65 | 195 | 1742,95 | 225 | 1857,25 |
| 46                                    | 1175,26 | 76 | 1289,56 | 106 | 1403,86 | 136 | 1518,16 | 166 | 1632,46 | 196 | 1746,76 | 226 | 1861,06 |
| 47                                    | 1179,07 | 77 | 1293,37 | 107 | 1407,67 | 137 | 1521,97 | 167 | 1636,27 | 197 | 1750,57 | 227 | 1864,87 |
| 48                                    | 1182,88 | 78 | 1297,18 | 108 | 1411,48 | 138 | 1525,78 | 168 | 1640,08 | 198 | 1754,38 | 228 | 1868,68 |
| 49                                    | 1186,69 | 79 | 1300,99 | 109 | 1415,29 | 139 | 1529,59 | 169 | 1643,89 | 199 | 1758,19 | 229 | 1872,49 |

| n. | Fault                              | Reason  | Action   |
|----|------------------------------------|---|--|
| 11 | The display shows Err4             | The door lock does not close properly             | Check that the door catch is not jammed  |
|    |                                    |   | Check that the door catch engages the door correctly   |
|    |                                    |   | Check that the door lock and relative microswitch are connected properly to the wiring and to the power board. |
|    |                                    |   | Check that the door lock activation thermostat is correctly positioned and fixed                               |
| 12 | The rotisserie motor does not work | Motor connection error                            | Check that the motor is correctly wired to the power board   |
|    |                                    | Motor is jammed                                   | Check that the motor works with a separate power connection and replace if necessary                           |
|    |                                    | Motor control triac burned out or defective       | Replace the power board  |
| 13 | The oven does not heat up          | Showroom configuration activated                  | Configure the oven for normal operation (see instruction book)   |
|    |                                    | Safety thermostat set wrongly or badly positioned | Check that the safety thermostat is calibrated correctly and properly positioned                               |
|    |                                    | Faston connector not connected properly           | Make sure that the wiring is connected properly  |
|    |                                    | Heating element relay faulty                      | Replace the power board  |

**9.2 Troubleshooting SERIES SFP108 MODELS**

For troubleshooting n° 1, 2, 4, 7, 8, 9, 10, 11, 12, 13, refer to that indicated previously.

| n. | Fault                                 | Reason   | Action  |
|----|---------------------------------------|--|---|
| 3  | The display does not light up         | Power supply wires are not correctly fixed to the card-edge connector                                    | Use a tester the check for the presence of 220V mains voltage on the poles shown in the figure. If there is no voltage check the wiring                 |
| 5  | The internal oven fan does not work   | Power supply wires are not correctly fixed to the connectors or the circuit board relays are not working | Carry out a cooking operation using the internal fan and check the continuity on poles CN1-1 and CN2-4.<br>If there is no continuity, replace the board |
| 6  | The tangential oven fan does not work | The motor is jammed or does not work   | Check the motor using a separate 220V supply and replace if necessary   |
|    |                                       | Power supply wires are not correctly fixed to the connectors or the circuit board relays are not working | Carry out a cooking operation and check the continuity on poles CN1-1 and CN2-1. If there is no continuity, replace the board                           |
| 9  | The oven light does not switch on     | Bulb blown   | Replace the light   |
|    |                                       | Incorrect connection or light relay defective  | Check connection and replace power board if necessary   |
| 12 | The rotisserie motor does not work    | Motor connection error   | Check that the motor is correctly wired to the power board  |
|    |                                       | Motor is jammed  | Check that the motor works with a separate power connection and replace if necessary  |
|    |                                       | Motor control triac burned out or defective  | Replace the board   |