



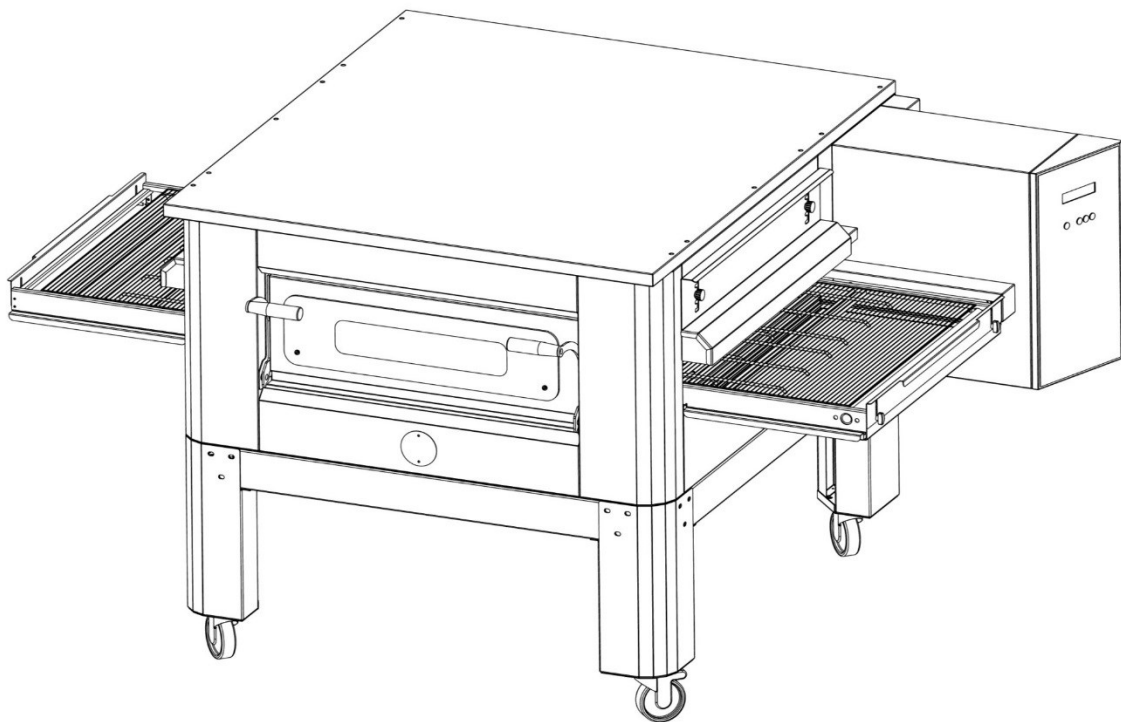
CATERING EQUIPMENT
INSTRUCTION MANUAL

FOR USE AND MAINTENANCE

TUNNEL CONVEYOR OVEN

7485.0150/7485.0155

7485.0160/7485.0165



ENGLISH

INDEX



1- RATING PLATE

1.1- Rating plate

p. **4**



2- GENERAL INFORMATION

2.1- The importance of the manual

p. **4**

2.2- Status of “turned off oven”

p. **4**

2.3- Warranty

p. **4**



3- TECHNICAL FEATURES

3.1- Technical data

p. **5**

3.2- Destination of use

p. **6**

3.3- Limits of use

p. **6**



4- INSTALLATION

4.1- Instructions for the User

p. **6**

4.2- Handling & positioning.

p. **7**

4.3- Stackable

p. **7**

4.4- Electric connection

p. **8**

4.5- Equipotential

p. **8**



5- USE AND FUNCTIONING

5.1- Command panel

p. **9**

5.2- Keypad keys / Led management

p. **10**

5.3- Control unit power

p. **10**

5.4- Preset

p. **11**

5.5- Functioning display management

p. **11**

5.6- Changing temperature and time parameters

p. **12**

5.7- Cool down

p. **12**

5.8- Probe error management

p. **13**

5.9- Scheduler functionality

p. **13**

5.10- Enter the technical menu to change parameters

p. **14**

5.11- Productivity

p. **16**



6- MAINTENANCE

6.1- Cleaning

p. **17**



7- DISPOSAL

7.1- General warnings

p. **17**

INDEX



8- SPARE PARTS

8.1– Spare parts ovens

p. **18**

8.2– Exploded view

p. **19**



9– ELETRIC EQUIPMENT

9.1– Wiring diagrams TUNNEL 7485.0150 & 7485.0155

p. **20**

9.2– Wiring diagrams TUNNEL 7485.0160 & 7485.0165

p. **21**



1—RATING PLATE

1.1— RATING PLATE

The rating plate consists of a gray label applied on the back of the oven. The plate bears in readable and indelible way the following data:

- Name of the manufacturer;
- Electric power (kW/A);
- Model ;
- "Made in Italy";
- Serial number;
- Electric voltage and frequency (Volt/Hz);
- Year of construction;
- Weight of the oven;



2—GENERAL INFORMATION

2.1- PAY ATTENTION

Before using the oven, it is compulsory to read and understand this manual in all its parts.

This manual must always be available for the "authorized operators" and has to be always kept close to the oven.

The manufacturer declines all liability for eventual damages to persons, animals, and things caused by the inobservance of the instructions contained into this manual.

This manual is an integral part of the oven and must be kept until its final disposal.

The "authorized operators" can carry out only the interventions for which they are specifically trained and competent.

2.2- STATUS OF "TURNED OFF OVEN"

Before carrying out any kind of maintenance and/or adjustment and/or intervention, it is compulsory to disconnect the power supply by disconnecting the power supply plug from the main socket and verify that the oven is effectively turned off and cooled down.

2.3- WARRANTY

The manufacturer declares that all ovens are tested at manufacturer's premises. The warranty period is **12 (twelve) months from invoice date.**



ANY ALTERATION OF THE OVEN AND/OR ANY REPLACEMENT OF PARTS WITH NON ORIGINAL SPARE PARTS CAUSES THE DECAY OF THE WARRANTY AND RELEASE THE MANUFACTURER FROM ANY LIABILITY.



3—TECHNICAL FEATURES

3.1 TECHNICAL DATA

| | 7485.0150 | 7485.0155 | 7485.0160 | 7485.0165 | Unit of measurement |
|-------------------------------------|--------------------------|-------------------|-----------------|-------------------|---------------------|
| Weight without support | 101 | / | 251 | / | kg |
| Overall dimens without supp. | 1425 x 985 x 450 | 1860 x 1210 x 500 | 2070x1320 x 560 | 2250 x 1560 x 600 | cm |
| Support dimentions | 600 x 865 x 630 | 850x1040x 530 | 1100x1200 x 530 | 1200 x 1440 x 530 | cm |
| Conveyor width | 400 | 500 | 650 | 800 | mm |
| Conveyor length | 1050 | 1600 | 1850 | 2000 | mm |
| Chamber length | 540 | 750 | 1000 | 1100 | mm |
| Electrical power | Three phase | | | | -- |
| Voltage | 400 / 230 | | | | Vac |
| Frequency | 50 | | | | Hz |
| Current | 13,5 / 21,5 | 25 / 39 | 32 / 51 | 42 / 67 | A |
| Total electrical power | 7,8 | 14,2 | 18,4 | 24,4 | kW |
| Electrical connection | plugless 5 lead cable | | | | -- |
| Cable length | 2 | | | | m |
| Section of lead wires | 4 | | 6 | | mm ² |
| Cooking control | Electronic computerized | | | | -- |
| Max. temperature which can beset | | | | | |
| Top | 320 | | | | °C |
| Bottom | 320 | | | | °C |
| Error warnings | by display | | | | -- |
| Ambient conditions: | | | | | |
| Temperature | 0 – 40 | | | | °C |
| Maximun humidity | 95% without condentation | | | | -- |



3—TECHNICAL FEATURES

3.2- DESTINATION OF USE

The foreseen use for which this oven has been designed and produced is the following:



FORESEEN USE: PIZZA BAKING, GRATINATING OF GASTRONOMY PRODUCTS AND HEATING OF FOODSTUFF IN BAKING PANS.



THE OVEN CAN BE USED EXCLUSIVELY BY AN AUTHORIZED OPERATOR (USER)



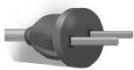
THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.



CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

3.3- LIMITS OF USE

This oven has been designed and manufactured exclusively for the destination of use described in **Par. 3.2**, therefore, any other type of use is strictly forbidden in order to assure, at any time, the safety of the authorized operators, as well as the efficiency of the oven itself.



4—INSTALLATION

4.1- INSTRUCTIONS FOR THE USER

The place where the oven is installed must have the following environmental characteristics:

- To be dry, temperature and relative humidity of the room must not be over data stated in tab 3.1;
- Water sources at safe distance;
- Adequate ventilation and lighting corresponding to hygiene and security rules following the existing laws.



THE OVEN MUST NOT BE INSTALLED IN PROXIMITY OF THE INFLAMMABLE MATERIALS (WOODS, PLASTIC, COMBUSTIBLE, GAS ETC.) AVOID THE CONTACT OF INFLAMMABLE OBJECTS WITH THE HOT SURFACES OF THE OVEN. ALWAYS ASSURE THE SAFETY FIREPROOF CONDITIONS. MAINTAIN A FREE SPACE AROUND THE OVEN OF AT LEAST 30 CM

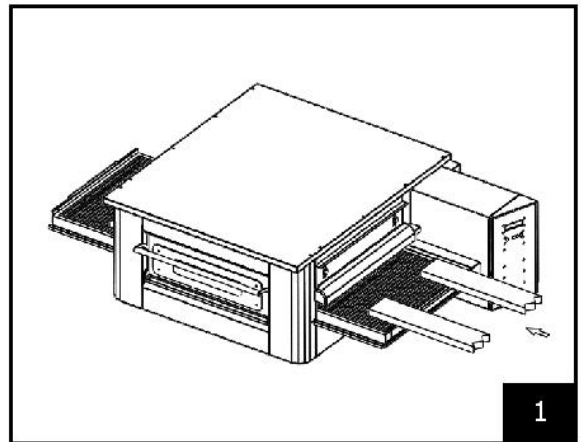
Check that the electrical set-up corresponds with the numbers of the technical sheet **Par. 3.1**, and on the small plate at the back of the oven. The characteristics of the electric socket must be compatible with the plug installed on the cable.



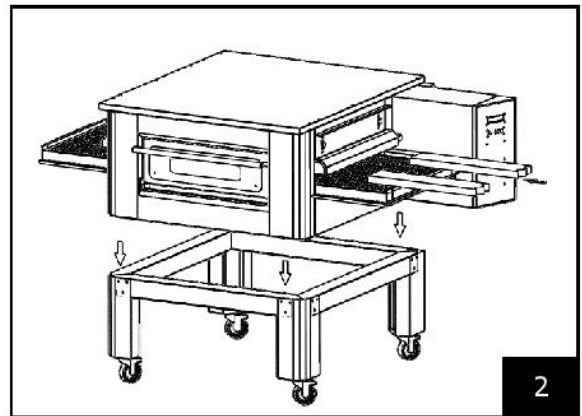
4—INSTALLATION

4.2— HANDLING AND POSITIONING

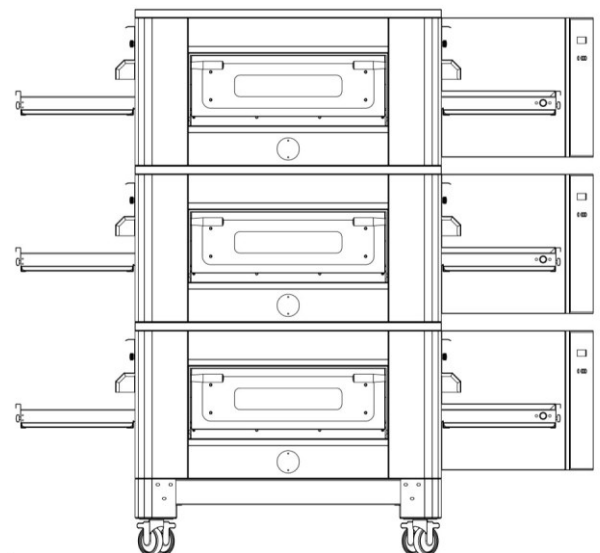
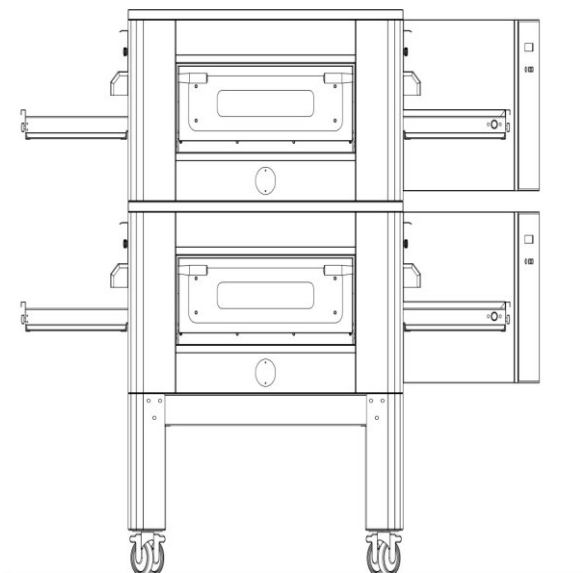
Use a forklift or a trans pallet with suitable capacity lift the small hoods up.
Wrap the forks with smooth material and insert them in the cooking chamber (Fig.1).



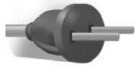
Place the oven on the stand lean on the edges (Fig.2).



4.3— STACKABLE



OVENS STACKABLE UP TO 3 DECKS



4—INSTALLATION

4.4- ELECTRIC CONNECTION



THE CONNECTION TO THE MAIN POWER SUPPLY MUST BE EXCLUSIVELY CARRIED OUT BY AN AUTHORIZED TECHNICIAN (ELECTRICIAN) ABLE TO SATISFY THE TECHNICAL AND PROFESSIONAL REQUIREMENTS STATED BY THE REGULATIONS IN FORCE IN THE COUNTRY OF USE. THIS TECHNICIAN MUST ISSUE A DECLARATION OF CONFORMITY FOR THE INSTALLATION CARRIED OUT.



THE MAIN LINE SHOULD BE EQUIPPED WITH SAFETY DEVICES BY A DIFFERENTIAL SWITCH / CIRCUIT BRAKER, CO-ORDINATED WITH THE GENERAL EARTH INSTALLATION, IN CONFORMITY WITH THE LOCAL AND NATIONAL LAWS

To connect the machine to the electric network it is necessary to proceed as follows:

- 1) connect to the wires to the terminals L1—L2—L3—N — \perp with unsheathed cable with ferule tab 3.1.
- 2) put together the other end of the cable and a plug, which is normalized and polarized (the distinction between phase and neutral must be unequivocal).



ONCE THE ELECTRIC CONNECTION HAS BEEN PERFORMED, THE AUTHORIZED TECHNICIAN (ELECTRICIAN) MUST ISSUE A DECLARATION CERTIFYING THE MEASUREMENT OF THE CONTINUITY OF THE EQUIPOTENTIAL PROTECTION CIRCUIT.



THE APPLIANCE IS TO BE SUPPLIED THROUGH A RESIDUAL CURRENT DEVICE (RCD) HAVING A RATED RESIDUAL OPERATING CURRENT NOT EXCEEDING 30 MA

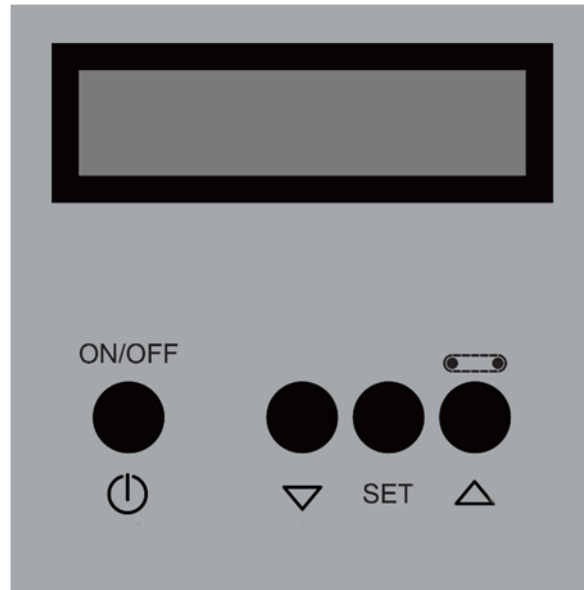
4.5- EQUIPOTENTIAL

The equipment must be connected with an equipotential system. The connection terminal is located near the terminal box. The bonding wire must have a minimal section of 10 mm².



5- USE AND FUNCTIONING

5.1- COMMAND PANEL



Oven switch on - off key



Parameters value decrease key

SET

Programming access key



Parameters value increase key

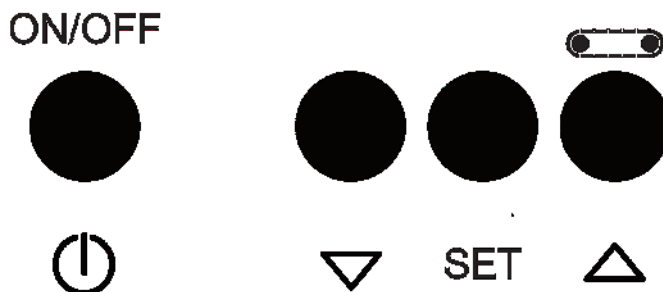



5- USE AND FUNCTIONING


5.2- KEYPAD KEYS/LED MANAGEMENT


The board includes connection to a 4 functions keypad.


The functions the 4 keys should have are indicated in the figure below :



Key  → Logical switch on/off of the control unit (passage from OFF status to functioning mode).

Key  → Decrease function used during the values settings.

Key  → Access parameter changes (baking time and temperature) and the relevant ENTER (confirm) button for passage to the next parameter.

Key  → Increase function during value settings. This key is used to activate the oven net functioning (on first pressing the motor activates, press again to stop it). During movement of the net the display shows an indicator in the bottom right hand corner indicating net movement.

5.3- CONTROL UNIT POWER

When the control unit is switched on, the FW version appears and then the machine positions on the status on which it was previously switched off (therefore it could be in active net status and with thermoregulation ON). Any OFF status is signalled by a situation as shown in this image:



The second line only shows if the "AUTOSTART" mode is active and if a valid activation time is present.

EXITING OFF STATUS

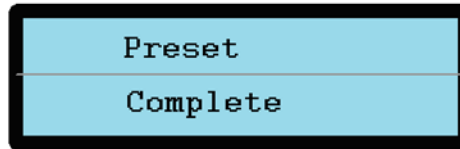
To exit the OFF status you need to press the ON/OFF key for 3 seconds.



5- USE AND FUNCTIONING

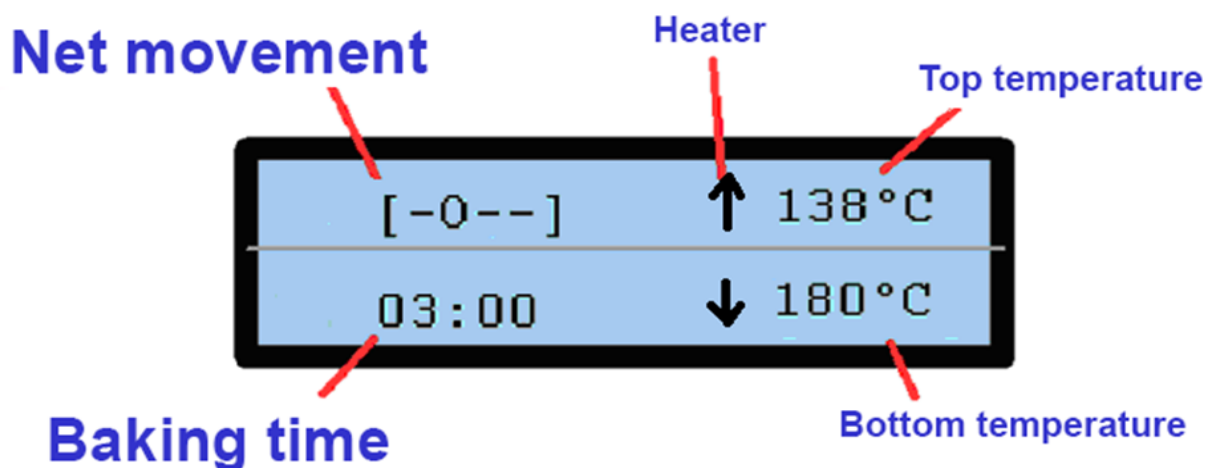
5.4- PRESET


The board is reset by pressing, during switch on, all 4 buttons. Preset is confirmed by signaling it on the display with: "Preset Complete".



At this point the board must be switched off and switched back on again.
NB: preset is also possible from the technical menu (see relevant chapter).

5.5- FUNCTIONING DISPLAY MANAGEMENT



- Set point temperature: it is the temperature the system aims for using the pilot of a heating resistor. The temperature is kept monitored by a probe PT1000.
NB: the set point display of the temperature ends after 3 seconds from its setting. To view it you need to press the  key. Also in this case the display stays on for 3 seconds.
- Baking time: it is the time in which a food product stays inside the oven from the moment in which it is rested on the net at the start of the tunnel up to its exit.
- "↑" indicates the actual switch on of the heating resistor
- Temperature read by probe Net movement indicator



5- USE AND FUNCTIONING

5.6- CHANGING TEMPERATURE AND TIME PARAMETERS

On pressing the ^{SET} key, the relevant symbol for net movement and the baking time are NO longer visible; instead, the two SET POINT temperatures are displayed for the Top and Bottom probe. The temperature of the top probe flashes and using the increase and decrease keys you can change the values from a minimum of 1 degree to a maximum of 320°C.

On pressing the ^{SET} key, the set point value is set of the "Top" probe and the change of set point parameter is activated on the "Bottom" probe.

On pressing ^{SET} the key, the set point value is set of the "Bottom" probe and the change of "Baking time" parameter is activated.

In particular, the change takes place according to the following resolution:

- From 2 min to 6 minutes → 5 seconds resolution
- From 6 min to 10 minutes → 15 seconds resolution
- From 10 min to 20 minutes → 30 seconds resolution
- From 20 min to 30 minutes → 1 minute resolution

Pressing the ^{SET} again, you exit the parameters, going to the functioning display.

NB: changing the two parameters can independently take place both with the net active and in stoppage mode.

5.7- COOL DOWN

At the time of switch off, two events can occur by pressing the  key for 3 seconds.

If the temperature of the oven is under that set, switch off is instantaneous.

If one of the two oven temperatures (TOP or BOTTOM) is over that set on switch off, the control unit goes to COOL DOWN status.

During this phase the net is active and all the increase and decrease keys are active to allow you to vary its speed.

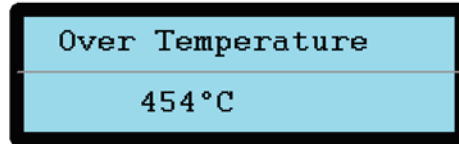
Heating is (obviously) deactivated and this phase continues until the temperature goes below the set point temperature for cool down (NON-modifiable preset value: **140°C**).



5- USE AND FUNCTIONING

5.8- PROBE ERROR MANAGEMENT OVER TEMPERATURE

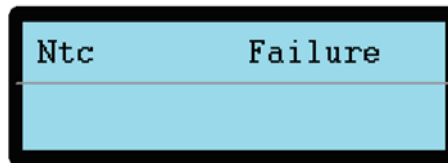
On reaching the over temperature value set in the technical menu, the display indicates the following:



In the second row, the temperature read value is displayed.
The Over Temperature value is NOT settable and is set to 490°C .

PROBE IN OPEN CIRCUIT o SHORT CIRCUIT



If the probe was in "Open" or "Short circuit" status, an error signal is shown on the display.





Once the fault is fixed, to exit the error signal, you need to press the OFF status.

5.9- SCHEDULER FUNCTIONALITY

From the OFF status, press  to access the menu in question.

In this menu: (-)  regulation  decrease, (+) increase, (Enter) select/confirm
The items that appear are as follows:

1. Clock  regulation  SET
2. Autostart SET
 - 2.1 Sunday
 - 2.2 Monday
 - 2.3 Tuesday
 - 2.4 Wednesday
 - 2.5 Thursday
 - 2.6 Friday
 - 2.7 Saturday
- 3 Exit



5- USE AND FUNCTIONING

1. To change the current time or minutes, day of the week.
2. To change autostart enabling.
- 2.1 2.7(Visible if Autostart is enabled) To change the advance switch on time for the day selected.

The range of minutes varies from 00..59 , while the hours range varies from 00,..,23,--. Where -- also inhibits the minutes field and disables the autostart for the day selected.

3. Return in OFF.

>OFF status: Display <

HOUR, in OFF status, the display on the first line shows

```

0          10      15
|O|F|F| | | | |D|D|D| |H|H|:|M|M|

```

DDD: Current day of the week . HH:

Current time

MM: Minutes of the current hour

HOUR, in OFF status, the display on the second line shows if autostart is enabled and if there is a valid next switch on during the week

```

0          10      15
|S|t|a|r|t|:| |d|d|d| |h|h|:|m|m|

```

ddd: Autostart day of the week

hh: Autostart hour mm: Autostart

minutes of the hour

>ON status: Autostart functioning <

It was set that after a start due to autostart, the temperatures of the TOP and BOTTOM set point are set to that of COOLDOWN and the net is moving at 03:00.

5.10– ENTER THE TECHNICAL MENU TO CHANGE PARAMETERS

To enter the technical menu, you need to start with the board off and press the and keys during switch on.

At this point, enter the technical parameters programming menu.



SET



5- USE AND FUNCTIONING

To go from one parameter to another, use the "increase" and "decrease" keys. Settable parameters:

Language
Preset
Exit

To change one of the parameters, press ENTER and then use the increase/decrease keys. To exit the technical menu, move up to EXIT and press ENTER.

Description of parameters.

Language

You can change the user interface language, options available ENGLISH, ITALIAN, GERMAN, SPANISH and FRENCH.

Preset

Pressing the enter key for 4 seconds on this parameter, you preset the board and the following writing is indicated:



EXIT: exit technical menu



5- USE AND FUNCTIONING

5.11- PRODUCTIVITY

Cooking time and coking temperature are extremely variables. They depend on several variables and they can not be stated by the manufactures of the oven. Here after some suggestions for user's reference only.

| 7485.0150 | | | |
|------------------|----|----------------------------------|------|
| Pizza Diameter | | Productivity: average per hour * | |
| 25 | cm | 30 | pz/h |
| 32 | cm | 15 | pz/h |
| 40 | cm | 13 | pz/h |

* valves indicative only

| 7485.0155 | | | |
|------------------|----|----------------------------------|------|
| Pizza Diameter | | Productivity: average per hour * | |
| 25 | cm | 90 | pz/h |
| 32 | cm | 30 | pz/h |
| 40 | cm | 26 | pz/h |
| 45 | cm | 12 | pz/h |

* valves indicative only

| 7485.0160 | | | |
|------------------|----|----------------------------------|------|
| Pizza Diameter | | Productivity: average per hour * | |
| 25 | cm | 165 | pz/h |
| 32 | cm | 75 | pz/h |
| 40 | cm | 39 | pz/h |
| 45 | cm | 24 | pz/h |

* valves indicative only

| 7485.0165 | | | |
|------------------|----|----------------------------------|------|
| Pizza Diameter | | Productivity: average per hour * | |
| 25 | cm | 180 | pz/h |
| 32 | cm | 105 | pz/h |
| 40 | cm | 52 | pz/h |
| 45 | cm | 36 | pz/h |

* valves indicative only



6– MAINTENANCE



BEFORE PERFORMING ANY TYPE OF MAINTENANCE INTERVENTION, IT IS COMPULSORY TO DISCONNECT THE PLUG OF THE OVEN FROM THE POWER SUPPLY OUTLET.

6.1– CLEANING

Cleaning must be carried out daily in compliance with hygienic and sanitary rules in force.

Cleaning of chamber:

Disconnect the oven from the main power by switching off the main switch;

Remove the drawers below the belt;

Remove the casing coupling network from its housing and release it by moving it upwards;

Rotate manually the belt until the pivot shaft drop network finds himself at the engraving of the coupling network;

Lift the small hoods up;

Lift the belt both sides and slide it from control side;

Open the side door and remove the panels with hides paying attention to the hot surface;

Clean the metal surfaces with a sponge steeped in water or non-abrasive – corrosive detergents then rinse the surfaces with a damp sponge.

External clearing of the oven: (surfaces in stainless steel, inspection glass and control panel): this operation has to be performed with cold oven.



IT IS RECOMMENDED TO USE PROPER GLOVES AND SUITABLE CLOTHING TO AVOID BURNINGS.



IT IS FORBIDDEN TO USE THROWS OR DRIPS OF WATER, ABRASIVE OR CORROSIVE SUBSTANCES, AND ANYTHING ELSE THAT CAN DAMAGE THE COMPONENTS, COMPROMISE THE SAFETY, AND BE DANGEROUS FROM AN HYGIENIC POINT OF VIEW.

For any intervention of supplementary maintenance, repairing and/or replacement refer exclusively to the authorized dealer where the oven has been purchased and/or to an authorized technician satisfying the technical and professional requirements stated by the regulations in force.



7– DISPOSAL

7.1- GENERAL WARNINGS

When dismantling the oven, compulsorily observe the provisions of the regulations in force. Differentiate the parts making up the oven according to different types of construction materials (plastic, copper, iron, etc.).



8—SPARE PARTS

8.1—SPARE PARTS OVENS

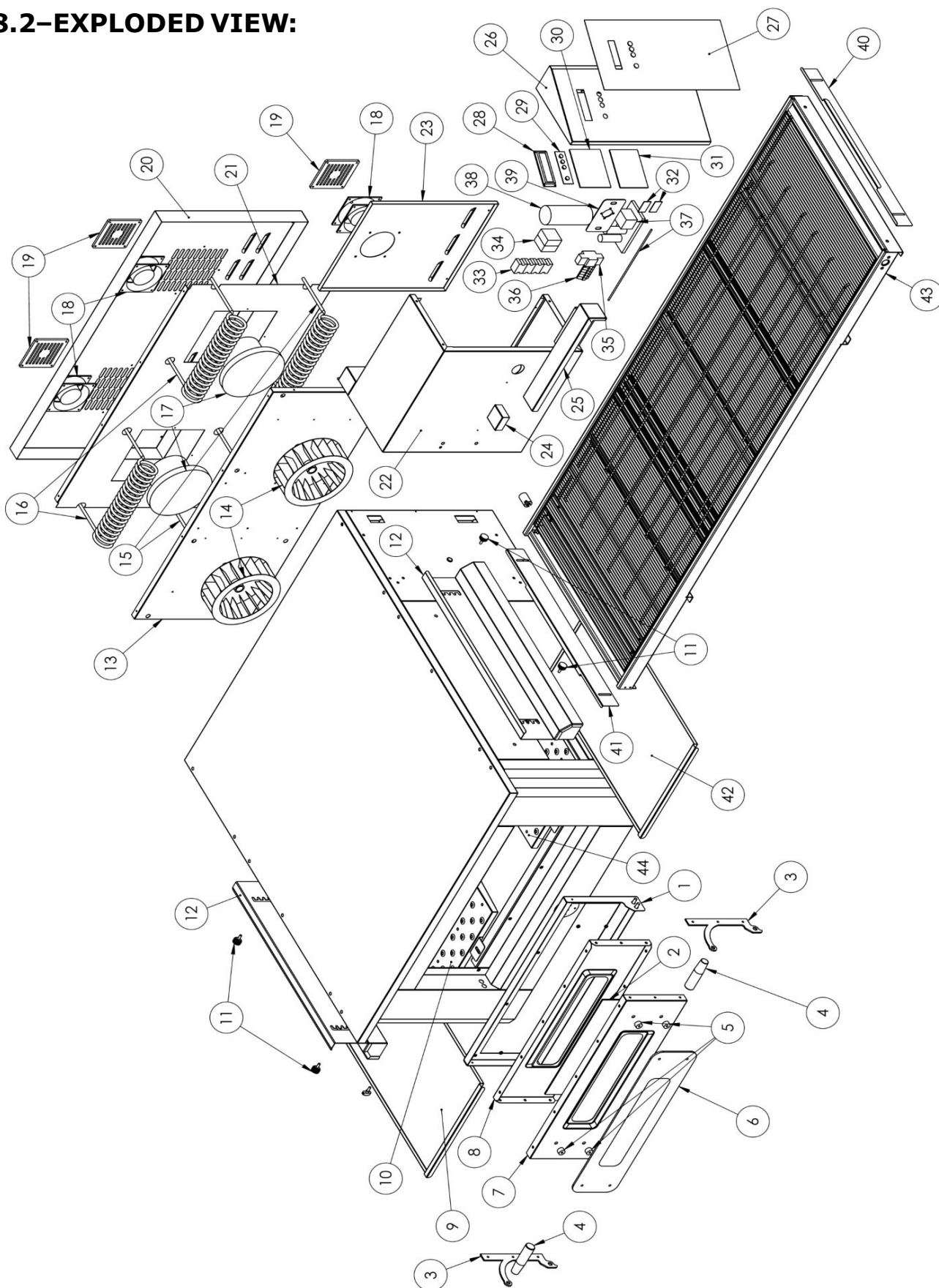
Components list

| | DESCRIPTION | 7485.0150 | 7485.0155 | 7485.0160 | 7485.0165 |
|----|------------------------|--------------------|--------------------|-----------------|-----------------|
| 6 | Tempered glass | 5V010032 | 5V010031 | 5V010031 | 5V010033 |
| 11 | Hood adjustment knob | 5P100052 | 5P100052 | 5P100052 | 5P100052 |
| 15 | Lower heating element | 5R050482 | 5R050491 | 5R050490 | 5R050493 |
| 16 | Upper heating element | 5R050483 | 5R050481 | 5R050480 | 5R050493 |
| 18 | Heatsink fan | 5V050001 | 5V050001 | 5V050001 | 5V050001 |
| 19 | Heatsink fan coverage | 5P100300 | 5P100300 | 5P100300 | 5P100300 |
| 27 | Control panel label | 5E200710 | 5E200705 | 5E200700 | 5E200715 |
| 28 | Display | 5I100120 | 5I100120 | 5I100120 | 5I100120 |
| 29 | Keypad | 5P010300 | 5P010300 | 5P010300 | 5P010300 |
| 30 | Cooking machine card | 5S010068 | 5S010068 | 5S010068 | 5S010068 |
| 31 | Switching power supply | 5A010100 | 5A010100 | 5A010100 | 5A010100 |
| 32 | Interface card | 5S010058 | 5S010058 | 5S010058 | 5S010058 |
| 33 | Solid state relay | 5R020120 | 5R020121 | 5R020122 | 5R020123 |
| 34 | Relè 24V-240V | 5R020101 | 5R020101 | 5R020101 | 5R020101 |
| 35 | Circuit brakers board | 5T010331 | 5T010331 | 5T010331 | 5T010331 |
| 36 | Terminals | 5M100113/14 /15 | 5M100113/14 /15 | 5M100113/14 /15 | 5M100113/14 /15 |
| 37 | Security thermostat | 5T010016 | 5T010016 | 5T010016 | 5T010016 |
| 38 | Motor reduction | 5M010100 | 5M010100 | 5M010100 | 5M010100 |



8—SPARE PARTS

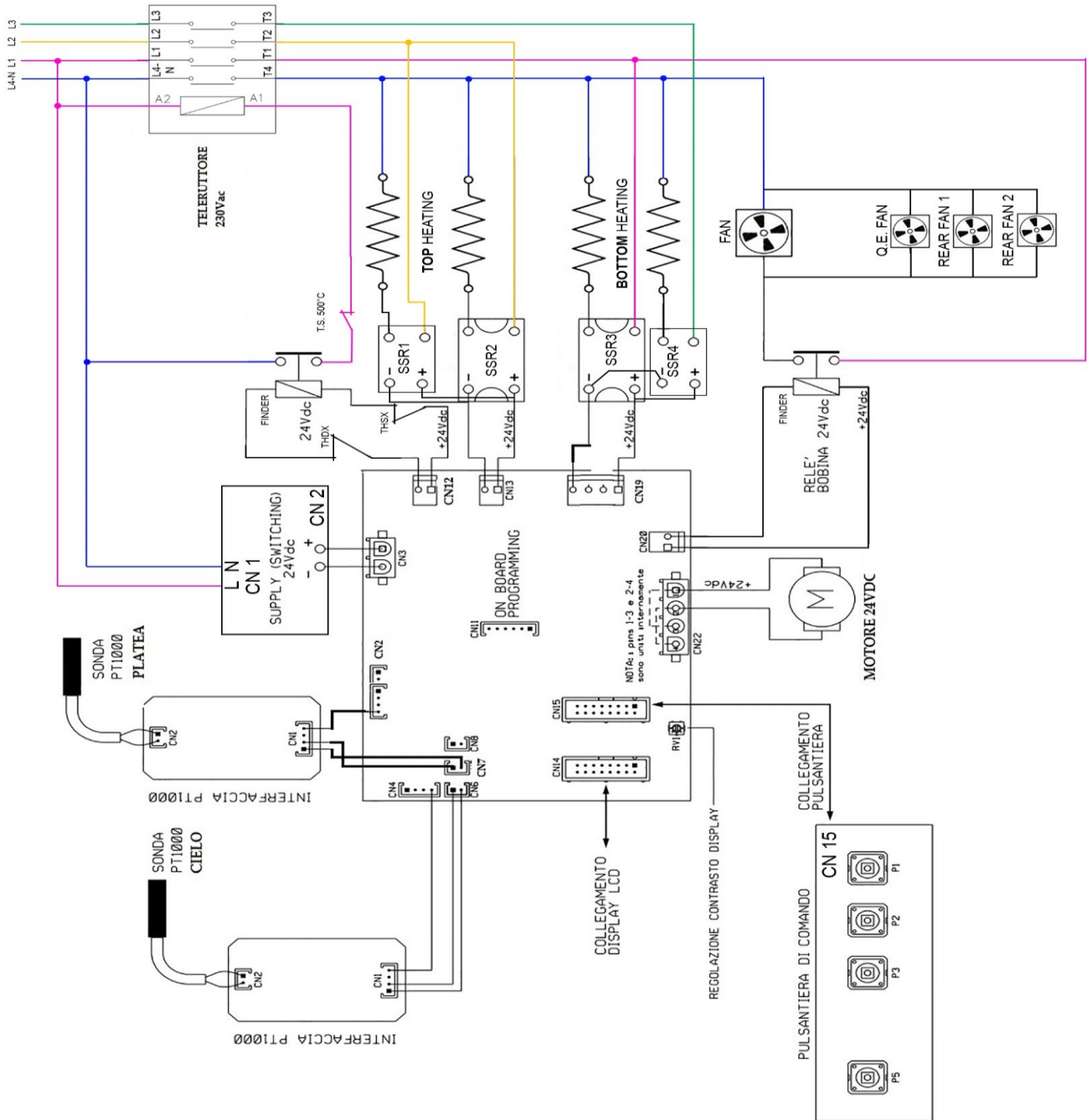
8.2—EXPLODED VIEW:





9-ELECTRIC EQUIPMENT

9.1- WIRING DIAGRAMS TUNNEL 7485.0150 & 7485.0155

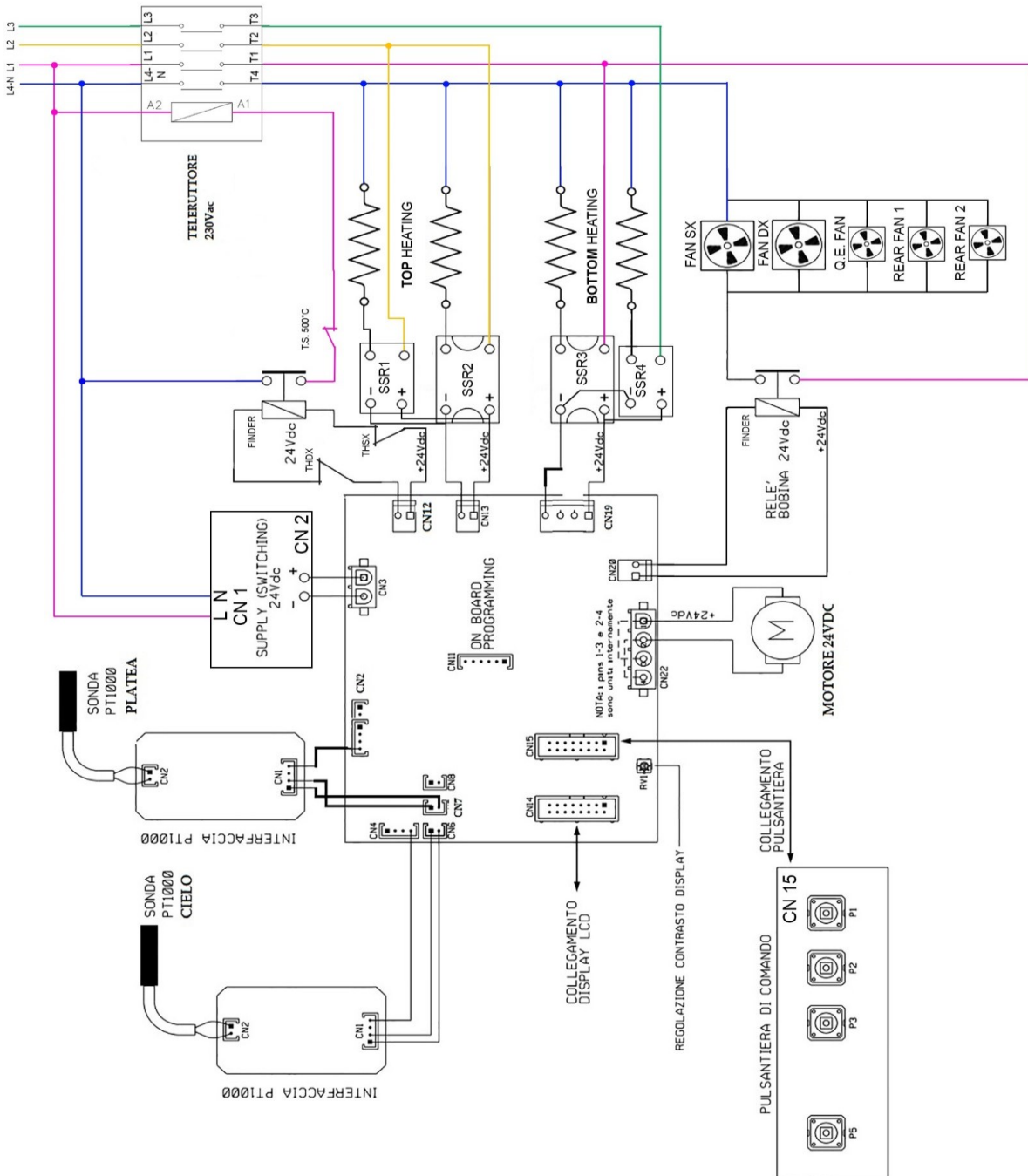


| | HEATING ELEMENTS | |
|------------------|------------------|------------------|
| | TOP | BOTTOM |
| 7485.0150 | N°2 1500W | N°2 2200W |
| 7485.0155 | N°2 2800W | N°2 4100W |



9-ELECTRIC EQUIPMENT

9.2- WIRING DIAGRAMS TUNNEL 7485.0160 & 7485.0165



| | HEATING ELEMENTS | |
|------------------|------------------|------------------|
| | TOP | BOTTOM |
| 7485.0160 | N°2 3600W | N°2 5400W |
| 7485.0165 | N°2 6000W | N°2 6000W |

