

# Use and maintenance manual

EVERLASTING

REFRIGERATED CABINET  
REFRIGERATED TABLE


# RETARDER-PROOFER DOUGH-RETARDER



**Thank you for choosing this product.**

Please read the warnings contained in this manual carefully, as they provide important information regarding safe operation and maintenance.

Make sure to keep this manual for any future reference by the various operators.

In some parts of the manual, the  symbol appears, indicating an important warning that must be observed for safety purposes.

## CHAPTER 1 BOUNDARY CHARACTERISTICS OF OPERATION

Fremalievita and fermabiga refrigerated cabinets/refrigerated tables have been designed and produced to optimally work in environments with suitable air circulation and temperatures from +10°C to +40°C (CL5) or +10°C to +30°C (CL4) for glass-door models. In places with characteristics that are different from the requirements, the stated performance cannot be guaranteed.

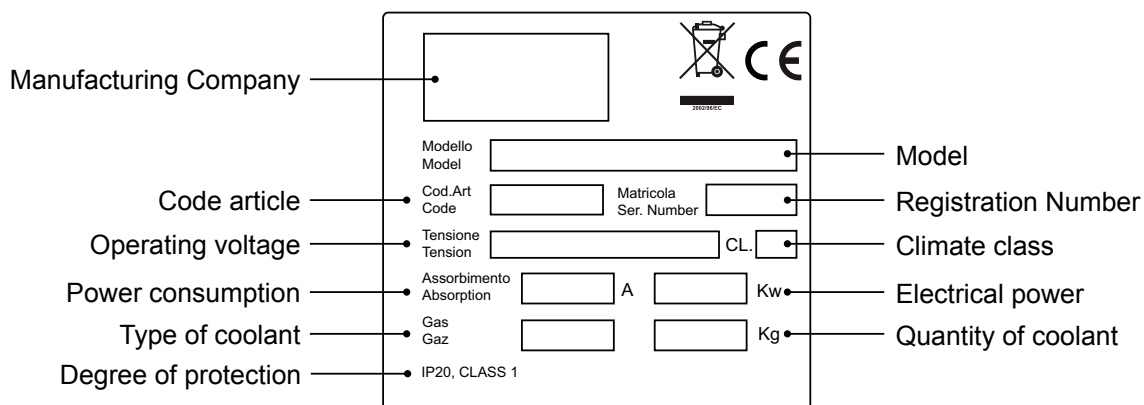
The supply voltage must be 230V +/- 10% 50Hz as standard, or as indicated on the EC label.


Fermalievita and fermabiga refrigerated cabinets / refrigerated tables are only to be used within the temperature limits set by the producer. Compare the model displayed on the EC label with the chart here below to identify the correct operation range:

Series	Temperature
<b>BAKING CAB FL</b>	-10° +40°C / 55÷95% U.R.
<b>BAKING CAB FB</b>	-10° +40°C
<b>BAKING TAB FL</b>	-5° +40°C / 55÷95% U.R.
<b>BAKING TAB FB</b>	-5° +40°C

The retarder-proofer/dough retarder refrigerated cabinet and refrigerated table complies with the European directives as described in detail in the Annex **“EC Declaration of Conformity”**.

The technical specifications of the refrigerated cabinet are listed on the CE label inside the motor compartment, on the body wall; the specifications of the refrigerated table are listed on the CE label on the external side of the motor compartment.



 **ATTENTION:** any request for intervention, technical support and spare part must refer to the **SERIAL NUMBER** on the CE label, on the manual cover or on the compressor motor. The producer declines any responsibility for any improper or not reasonably foreseen usage of the refrigerated cabinet / refrigerated table and for any operation carried out by neglecting the indications listed on the manual.

The main general safety standards are listed below:

- **Do not** use or place electrical devices inside the refrigerated compartments if they are not of the type recommended by the manufacturer
- **Do not** touch the the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table with damp or wet hands or feet
- **Do not** use the the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table barefoot
- **Do not** insert screwdrivers or other objects between the guards or moving parts
- **Do not** pull the power cord to unplug the the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table from the electricity network
- Fermalievita and fermabiga refrigerated cabinets / refrigerated tables are not intended to be used by persons (including children) with physical or mental problems, or lack of experience and knowledge, unless they are controlled or instructed in using the unit by a person responsible for their safety. Children must be supervised to ensure that they do not play with the appliance.
- before carrying out any cleaning or maintenance, disconnect the refrigerated cabinet from the mains power supply by turning off the main switch and pulling the plug
- in the event of failure and/or malfunction of the the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table, turn it off and to refrain from any attempt to repair or intervene directly. It is necessary to exclusively contact a qualified technician.

Fermalievita and fermabiga refrigerated cabinets / refrigerated tables are composed of a modular single body insulated with expanded polyurethane with 42 kg/m<sup>3</sup> density, internally covered in Stainless Steel AISI 304 and externally by different materials.

During design and production all necessary precautions have been taken to obtain a product complying with safety and hygiene requirements, such as: rounded interior corners, deep drawing with drain on the outside for the condensate liquids, no rough surfaces, fixed guards on moving or dangerous parts.

Products must be stored by respecting the load limits as listed on the chart, so as to ensure the effective air circulation inside the fermalievita or fermabiga refrigerated cabinet / refrigerated table

<b>Load limits expressed in Kg.</b>	
<b>Grille 400x600</b>	20
<b>Sheet Metal Baking Trays 800x600</b>	10
<b>Sheet Metal Baking Trays 400x600</b>	8



**The installation must be performed exclusively by a qualified technician**

**1.1 It is prohibited to remove the guards and safety devices**

It is absolutely forbidden to remove safety guards.

The manufacturer disclaims any liability for accidents due to failure to comply with this obligation.

**1.2 Information on emergency operations in the event of fire**

disconnect the fermalievita or fermabiga refrigerated cabinet / refrigerated table from the power source or cut off the power supply

- do not use water jets
- use dry chemical or CO<sub>2</sub> extinguishers

CHAPTER 2 CLEANING

Since food is stored in fermalievita or fermabiga refrigerated cabinets / refrigerated tables, it is necessary to frequently clean the appliance to ensure hygiene and health safety.

The cleaning of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table have already been carried out at the factory. It is suggested, however, to carry out an additional cleaning of the internal parts before use, making sure that the power cord is unplugged.

**2.1 Cleaning the interior and exterior cabinet**

For this purpose the following are indicated

- the cleaning products: water and mild, non-abrasive detergents. **DO NOT USE SOLVENTS AND THINNERS**
- cleaning methods: wash internally and externally either with lukewarm water and neutral soap or with cloth or sponge and suitable products; do not use water jets.
- disinfection: avoid substances that can alter the organoleptic characteristics of the food
- rinsing: cloth or sponge soaked in warm water. **DO NOT USE WATER JETS**
- frequency: weekly is recommended, the user can set different frequencies depending on the type of food being stored or processed.



**REMARK :** Clean frequently the door seals.

Some preserved products could release some enzymes that could damage the seals causing its quick deterioration.

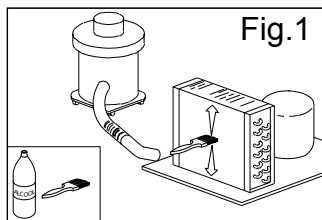
For the cleaning, use only specific products for this purposes, available also on request on our sales network.

**2.2 Cleaning the condenser**

The efficiency of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table is compromised by the clogging of the condenser, therefore it is necessary to clean it on a monthly basis. Before carrying out this operation, switch off the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table unplug the power cord and proceed as follows:

**Retarder-proofer/dough retarder refrigerated cabinet and refrigerated table** - open the front control panel by unscrewing the screws and making it rotate on the hinges located on the side.

**Retarder-proofer/dough retarder refrigerated cabinet and refrigerated table** - climb up on a safe ladder and go directly to the condenser placed on top of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table



With the aid of a jet of air or dry brush, eliminate, in a vertical movement (Fig. 1), the dust and lint deposited on the fins. In the case of greasy deposits, we recommend using a brush moistened with special cleaning agents. After completing the operation, restart the fermalievita or fermabiga refrigerated cabinet / refrigerated table. Evaporators installed above the appliances are cataphoresis-treated to reduce corrosion problems.



During this operation, use the following personal protective equipment: goggles, respiratory protection mask, chemically resistant gloves (gasoline-alcohol).

**CHAPTER 3 PERIODIC CHECKS TO BE CARRIED OUT**

**IMPORTANT:** The following are the points or units of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table that require periodic checks:

- **integrity and efficiency of door seals**
- **integrity of the grilles in contact with food**
- **integrity of the fixing hinges of the doors**
- **integrity of the power cord**

**3.1 PRECAUTIONS IN CASE OF LONG PERIODS OF INACTIVITY**

A long period of inactivity is defined as a stoppage of more than 15 days.

It is necessary to proceed as follows:

- switch off the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table and disconnect it from the power supply
- carry out a thorough cleaning of the interior cabinet, shelves, trays, guides and supports, paying special attention to critical points such as the joints and magnetic gaskets, as indicated in Chapter 2.
- leave the door partly open to prevent air stagnation and residual humidity

**CHAPTER 4 PREVENTIVE MAINTENANCE****4.1 Restarting after a long period of inactivity**

Restarting after long inactivity is an event that requires preventive maintenance.

It is necessary to perform a thorough cleaning as described in chapter 2.

**4.2 Control of the warning and control devices**

We recommend that you contact your dealer for a service or maintenance contract that includes:

- cleaning of the condenser
- verification of the coolant load
- verification of the full cycle operation
- electrical safety

**CHAPTER 5 EXTRAORDINARY MAINTENANCE AND REPAIR**

All maintenance activities that have not been described in previous chapters are considered "Extraordinary Maintenance." Extraordinary maintenance and repair are tasks reserved exclusively to the specialist personnel authorized by the manufacturer.

No liability is accepted for actions carried out by the user, by unauthorized personnel, or with the use of non-original replacement parts.

**CHAPTER 6 TROUBLESHOOTING**

In case of any malfunction or anomaly, check the chart here below before asking for technical assistance.

<b>TROUBLE DESCRIPTION</b>	<b>POSSIBLE CAUSES</b>	<b>HOW TO REPAIR IT</b>
<b>the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table do not turn on</b>	no power supply	check the plug, socket, fuses, line
	other	fuses, line
<b>the refrigeration unit does not start</b>	the set temperature has been reached	set new temperature
	defrosting in progress	wait until the end of cycle / turn power off and on again
	control panel failed	contact technical support
	other	contact technical support
<b>the refrigeration unit runs continuously but does not reach the set temperature</b>	location is too hot	aerate more
	condenser is dirty	clean the condenser
	insufficient coolant	contact technical support
	stop the condenser fan	contact technical support
	insufficient sealing of doors	check the seals / provision of goods
	evaporator completely frosted	manual defrosting
	other	contact technical support
<b>the refrigeration unit does not stop at the set temperature</b>	command panel failed	contact technical support
	Pr1 temperature sensor failed	contact technical support
<b>block of ice on the evaporator</b>	misuse	see chapter 1.
	defrost heater fault	contact technical support
	defrost probe Pr2 damaged	contact technical support
<b>accumulation of water or ice in the drip tray</b>	drain clogged	clean the pipette and the drain
	Cabinet/table are not levelled	check levelling

**CHAPTER 7 INSTRUCTIONS FOR REQUESTING ASSISTANCE**

For any technical problem and for intervention, **assistance and spare-part requests it is necessary to exclusively revert to one's dealer**, providing the code and the serial number indicated on the specification label attached to the appliance.

**CHAPTER 8 SAFETY AND ACCIDENT PREVENTION**

Fermalievita and fermabiga refrigerated cabinets / refrigerated tables have been designed with the necessary precautions to guarantee users' safety and health.

The following are the measures taken to protect against mechanical risks:

- **stability:** fermalievita and fermabiga refrigerated cabinets / refrigerated tables have been designed and produced so that, in expected operation conditions, their stability allows usage without overturning, fall or sudden movement, even with extracted wire shelves.

- **surfaces, edges, corners:** the accessible parts of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table are, within the limits allowed by their functions, free of sharp angles and sharp edges, as well as rough surfaces likely to cause injury

- **moving parts:** were designed, constructed and arranged to avoid risks. Certain parts are equipped with fixed guards so as to prevent risks of contact which may result in injury

The following are the measures taken to protect against other risks:

- **electricity:** Fermalievita and fermabiga refrigerated cabinets / refrigerated tables have been designed, built and equipped so as to prevent risks from electricity, in accordance with the specific legislation in force
- **noise:** Fermalievita and fermabiga refrigerated cabinets / refrigerated tables have been designed and built in such a way that risks resulting from the emission of airborne noise are reduced to the minimum level

**8.1 safety devices adopted (Fig. 2) :**

- Do not remove the labels applied at the inner edge of the engine compartment, showing the technical specifications (1) and the instructions for grounding (2)
  - Do not remove the label applied on the evaporator guard and near the electrical wiring inside the engine compartment, which warns the user to turn off the power supply before working on the unit (3)
  - Do not remove the labels applied inside the engine compartment, indicating grounding (4)
  - Do not remove the label applied on the power cord, indicating the type of power supply (5)
- The manufacturer declines any responsibility for the safety of the the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table if this were to happen.

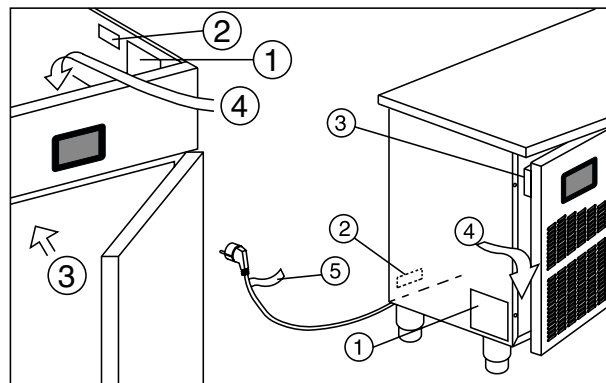


Fig.2

**8.2 Indications for optimal operation**

- do not obstruct the motor-compartment air intakes (place cabinets at minimum 50 cm from ceiling)
- do not insert foods or liquids that are still hot
- place the foodstuffs on the appropriate shelves or containers. Do not place them directly on the bottom, or leaning against the walls, doors or fixed guards
- close the doors carefully
- always keep the defrost water drain hole clear of obstructions
- limit, to the extent possible, the frequency and duration of door opening. Each opening causes a change in the internal temperature
- perform periodically current maintenance (see chapter 3)

In case of interruption or failure of the power supply circuit, prevent the opening of the doors in order to maintain a uniform temperature inside the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table.

If the problem persists longer than a few hours it is recommended to move the material stored products in a suitable place.

**USEFUL SUGGESTIONS**

Before starting a RETARDER-PROOFING cycle it is advisable to pre-cool the empty cell at -5 ° C, thus allowing more effective action of the Cooling action during the introduction of the product. For cycles longer than 48 H increase yeast of 0.5% speeding as possible the loading phase of the product.

Do not bake the product once it has been taken out from the retarder proofer, leave at least 10 minutes at room temperature in order to avoid an excess of moisture in the surface that could cause defects in the crust formation during cooking.

The formation of bubbles on bread does not imply a system malfunction. The cause of this is mainly due to bakery problems, such as too soft or too cold dough, flour type and quality, too much humidity during leavening, too hot oven, too much steam during baking, etc.

Avoid too high temperatures along with too short times during LEAVENING and PROVING, thermal shock should cause problems to gluten and yeast damaging the quality of the finished product.

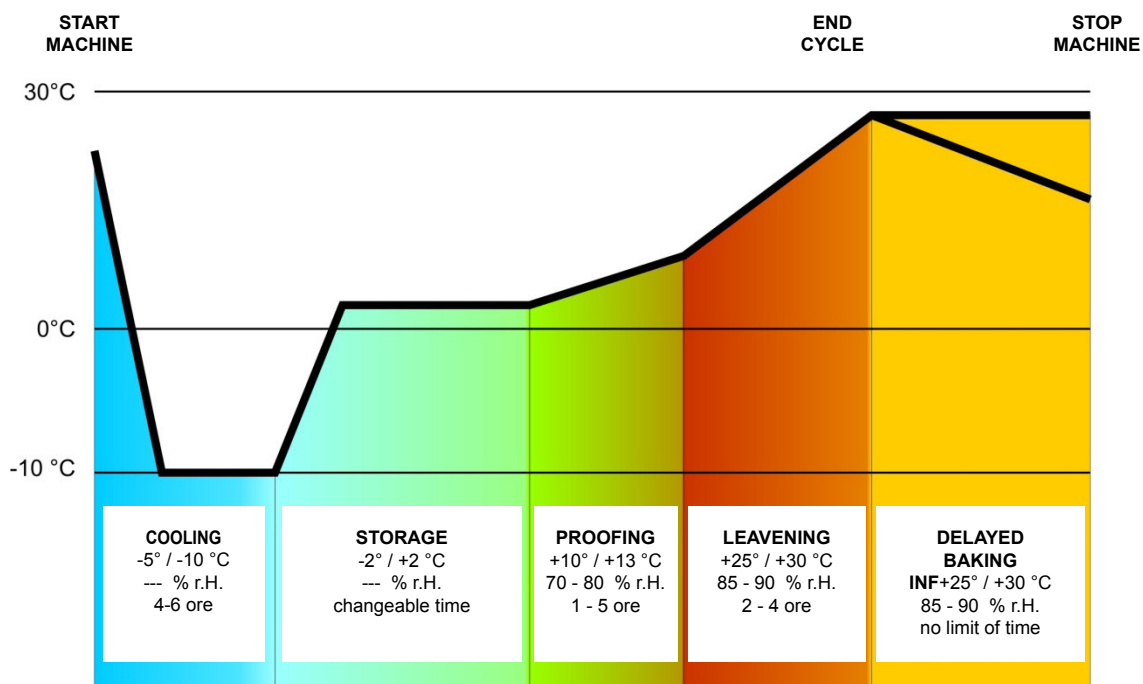
In case of productions needing storage times above 72 hours it is advisable to freeze the products with a shock freezer (see our catalogues). Such appliances are designed to freeze raw bread at temperatures of -20°C to the core in the shortest time possible, thus preserving its original features until proofing, leavening and baking will be carried out.

Even the storage phase must take place in a special cold room who keeps constantly t -20 ° C.

**PRELIMINARY NOTES**

The control panels provides complete control for retarder-proofer cabinets or tables for pastry and bakery by managing the current automatic retarder-proofer cycle.

Example:





**AUTOMATIC CYCLE**

An automatic retarder-proofer cycle is composed of 5 different phases with different temperatures, relative humidities and durations. All these phases are automatically carried out one after the other, and precisely:

**1. COOLING Phase**

The block phase is the first phase of the automatic cycle.

▶ Temperature adjustment : ACTIVE AND ADJUSTABLE

It quickly cools the dough to stop the leavening process by inhibiting the natural process of fermentation by means of temperature.

▶ Duration (Hours/Minutes): ADJUSTABLE

▶ Fan speed : AUTOMATIC

**2. PRESERVATION Phase**

The preservation phase is the second phase of the automatic cycle.

▶ Temperature adjustment: ACTIVE AND ADJUSTABLE

▶ Duration : (Hours-Minutes): AUTOMATIC

▶ Fan speed : AUTOMATIC

The duration of this phase is automatically calculated by the controller on the basis of the duration of the cooling , the proofing and the leavening processes as well as the day and the time the end of the dough leavening process is required to stop.

**3. PROOFING Phase**

The proofing phase is the third phase of the automatic cycle.

▶ Temperature adjustment : ACTIVE AND ADJUSTABLE

▶ Humidity Adjustment : ACTIVE AND ADJUSTABLE

▶ Duration (Hours-Minutes): ADJUSTABLE

▶ Fan speed : AUTOMATIC

**4. LEAVENING Phase**

The leavening phase is the fourth phase of the automatic cycle.

▶ Temperature adjustment : ACTIVE AND ADJUSTABLE

▶ Humidity adjustment : ACTIVE AND ADJUSTABLE

▶ Duration (Hours-Minutes): ADJUSTABLE

▶ Fan speed : AUTOMATIC

**5. DELAYED BAKING Phase**

The delayed baking phase is the fifth phase of the automatic cycle.

The delayed baking phase may be either enabled or disabled both during the cycle setting and also during a processing cycle by the final user.

▶ Temperature adjustment :ACTIVE AND ADJUSTABLE

▶ Humidity adjustment : ACTIVE AND ADJUSTABLE

▶ Fan speed : AUTOMATIC

▶ Duration (Hours-Minutes): The duration of this phase is virtually infinite , that is : it only stops when you interrupt the cycle by pressing the stop button for 3 seconds.

**MANUAL CYCLES**

**MANUAL COOLING PROCESS** : (equivalent to storage but with infinite duration)

**HEATING MANUAL PROCESS** : (equivalent to a never-ending leavening process)

Besides the automatic and manual cycles management, the controller also provides you to control other functions such as :

- Cell pre-cooling management system

- “Delayed baking” activation/deactivation management system

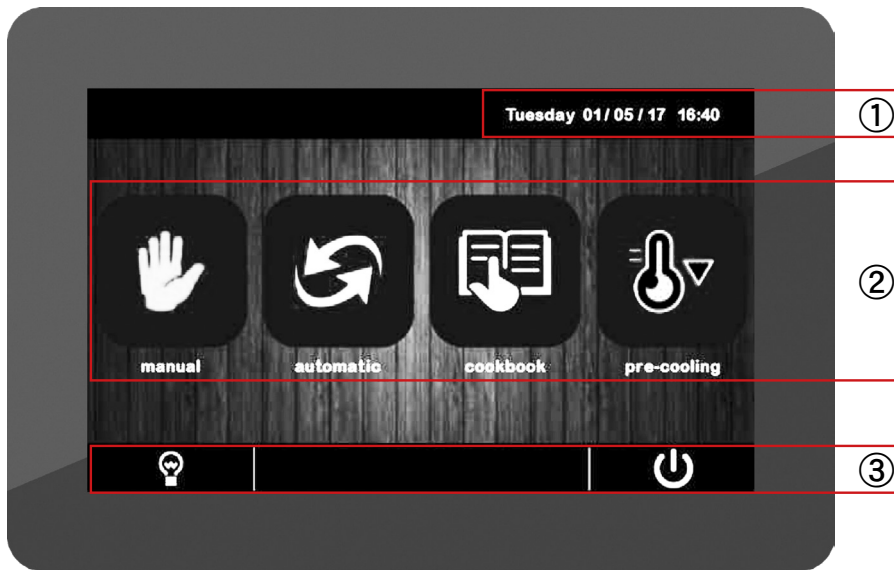
- 100 User’s Programmes management

- WiFi connection for remote management (optional)

CHAPTER 9 CONTROLS

**Control panel description:**

The control panel is a digital thermoregulator with 5-inch TFT touch-screen graphic display.



**HOME screen**

- ① Date and time
- ② Enabled functions
- ③ Light key and ON/OFF key

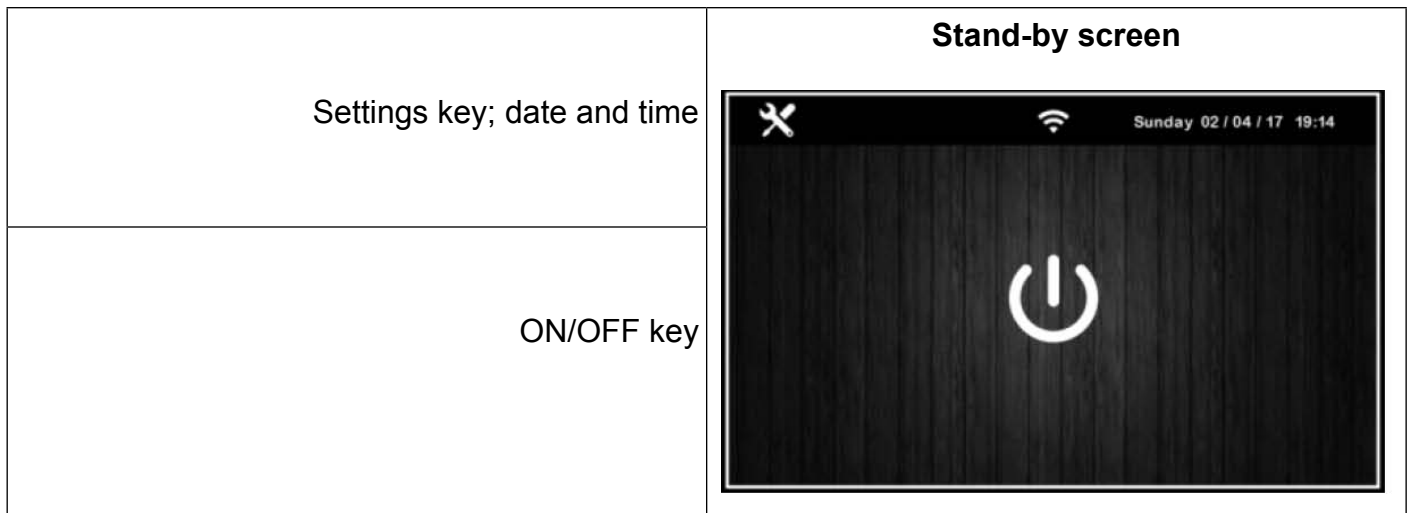
Home screen is the “starting point” of user interface navigation.




The HOME screen displays the date and time ①, the enabled functions ②, the LIGHT key (glass-door models) and the ON/OFF key ③.


**9.2 INSTRUCTIONS FOR USE**

**9.2.1 Start-up**

Before starting up the fermalievita or fermabiga refrigerated cabinet / refrigerated table, make sure that the electrical connections have been carried out as indicated on chapter 14. Connect the fermalievita or fermabiga refrigerated cabinet / refrigerated table to the power source: the display will turn on completely after 10 seconds; then, it will be on STAND-BY.





 **Power on / off:** To turn on the fermalievita or fermabiga refrigerated cabinet / refrigerated table, push the central key  from the On/stand-by screen; to turn off the device, push the key  on the lower area of the Home screen.

Push the settings key  on the On/stand-by screen to access the menu:


- DATE/TIME SETTING
- SERVICE
- MANUAL DEFROSTING
- INPUT/OUTPUT STATUS
- LANGUAGES.


### 9.2.2 Current date and time setting

Push the settings key  from the Stand-by menu; push DATE AND TIME setting; touch on the data to be modified and confirm with  .

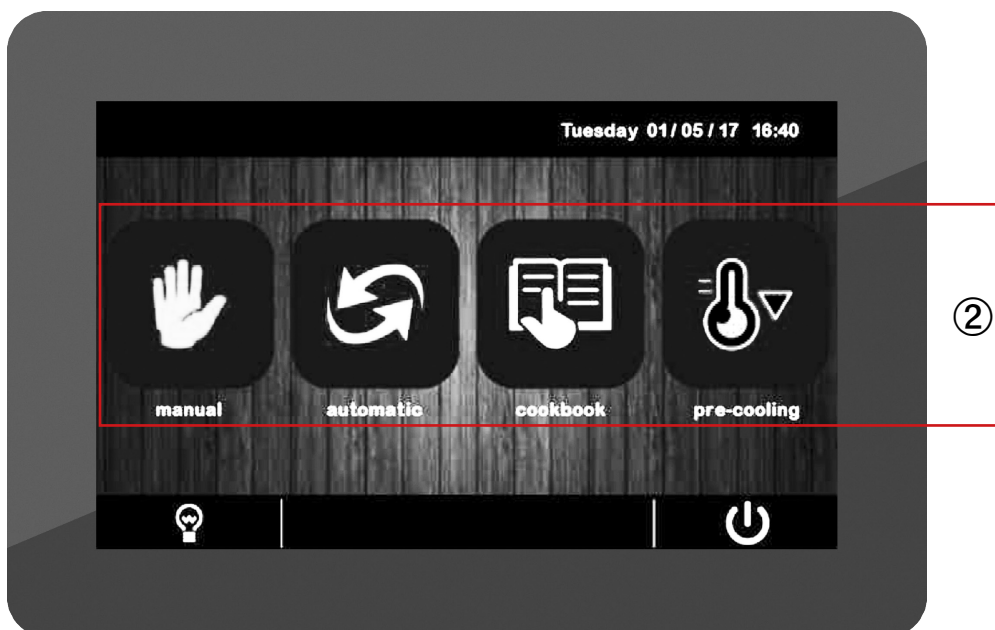
**Note:** If the duration of the power source interruption has been long enough to cause a clock error (RTC alarm), it will be necessary to reset the current date and time.

### 9.2.3 Language setting

Push the settings key  from the Stand-by menu; push LANGUAGES and select the desired language.



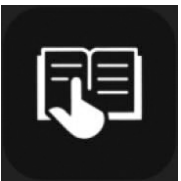
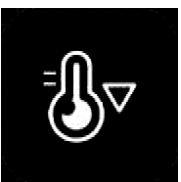
To exit the procedure, and in general to return to the previous level of navigation, press the BACK button .

HOME screen



The 4 “interactive” keys ② allow access to the following functions:

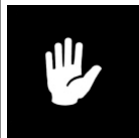
**MANUAL | AUTOMATIC | RECIPES | PRE-COOLING**

	<p><b>MANUAL</b></p> <p>selection, setting and execution of a manual cooling or heating cycle</p>
	<p><b>AUTOMATIC</b></p> <p>selection, setting and execution of a complete automatic retarder proofer cycle</p>
	<p><b>RECIPES</b></p> <p>selection and/or modification of the memorized automatic retarder proofer cycles</p>
	<p><b>PRE-COOLING</b></p> <p>Setting and execution of a pre-cooling cycle of the fermalievita or fermabiga refrigerated cabinet / refrigerated table</p>

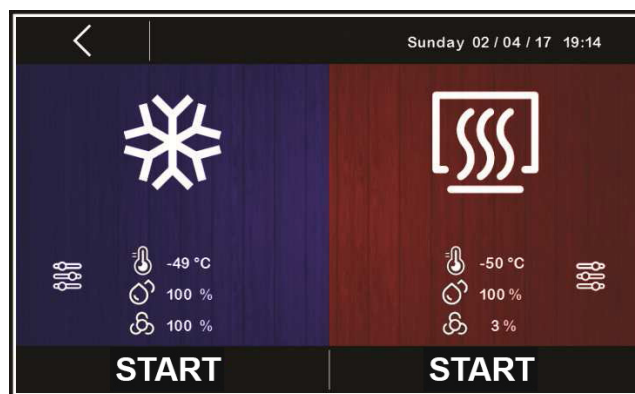
**10.1 Setting and execution of a manual COOLING OR HEATING cycle:**

From this menu it is possible to select every aspect and to execute a manual cooling or heating / leavening cycle, i.e. a cycle that is manually started and stopped by the user by means of the ON/OFF key.

**10.2 Setting and execution of a manual cycle:**

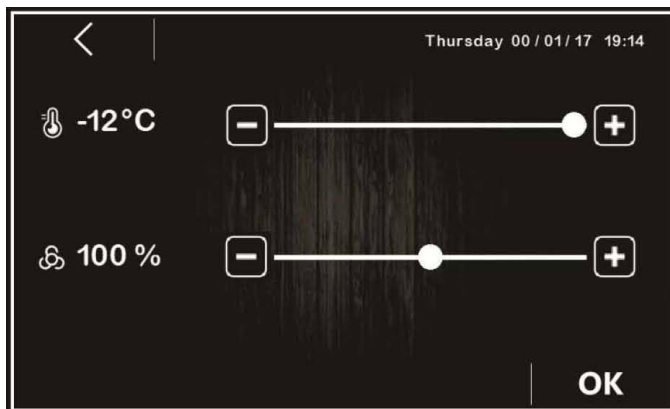


Push the MANUAL key



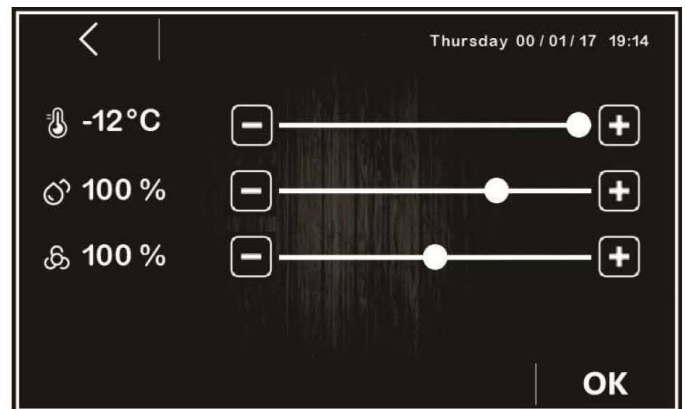
Before starting the desired cycle, it is possible to access the setpoint modification functions by pushing inside the coloured area (BLUE for REFRIGERATION or RED for HEATING).

**Refrigeration setpoint**



Only TEMPERATURE is adjustable

**Heating Setpoint**

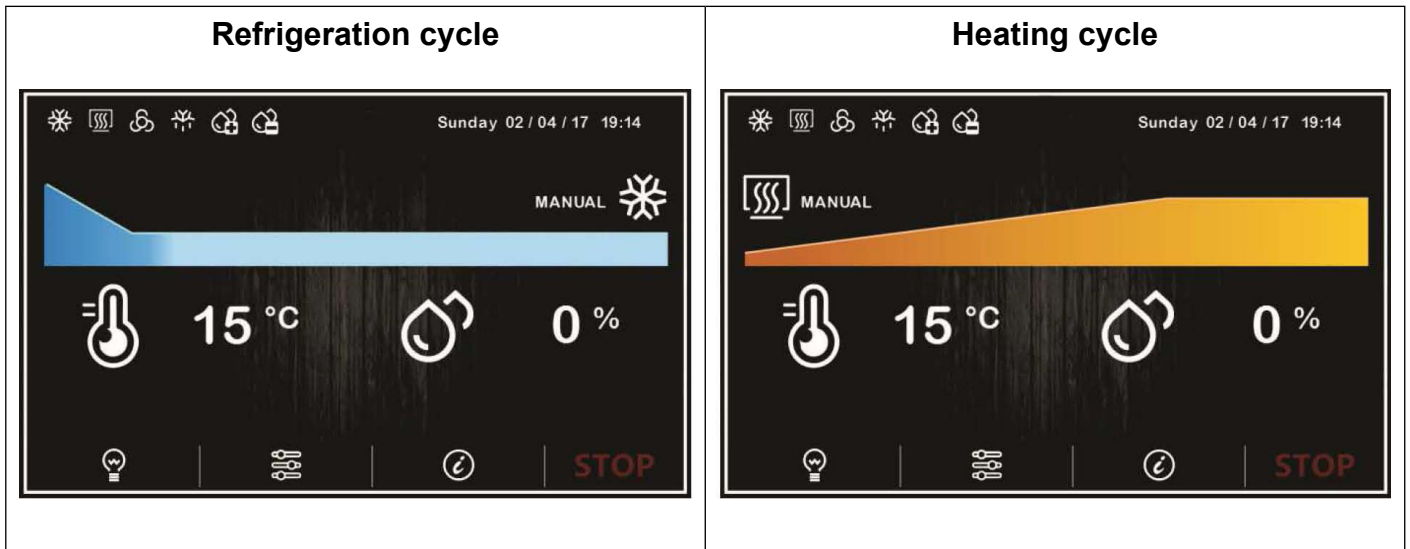


Both TEMPERATURE and HUMIDITY are adjustable


Modify the set values with + or – keys; then, push OK to confirm the modification. The fan speed regulation function is deactivated, thus not visible.

The desired cycle is started by pushing the corresponding **START** area. To interrupt the cycle, keep the **STOP** key pushed for 3 seconds.

**NB:** Fan speed is automatic and not adjustable for both selections.










**Note:** manual cycle does not include duration settings; it can only be ended manually by pushing the **STOP** key.

It is possible to modify the operation values during a manual cycle by pushing the  key. The new values will only be stored for the current cycle.








### 10.3 Visualization of the icons on the display

During the execution of a cycle (be it manual or automatic), the statuses of the fermalievita or fermabiga refrigerated cabinet / refrigerated table are visualized by means of icons on the upper part of the screen.

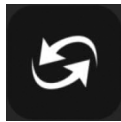
When on, their meaning is as follows:

	working compressor
	activated heating
	fans working
	defrosting in progress
	humidification in progress
	dehumidification in progress
	alarm in progress

During the execution of a cycle (be it manual or automatic), the following keys will be visualized on the lower part of the screen.

	turns the light on and off (glass-door models)
	manual controls (for setpoint modification and manual defrosting activation)
	visualization of input/output statuses and alarms
	navigation back key
	navigation forward key
	navigation up key
	navigation down key

 **10.4 Execution and setting of an AUTOMATIC cycle:**

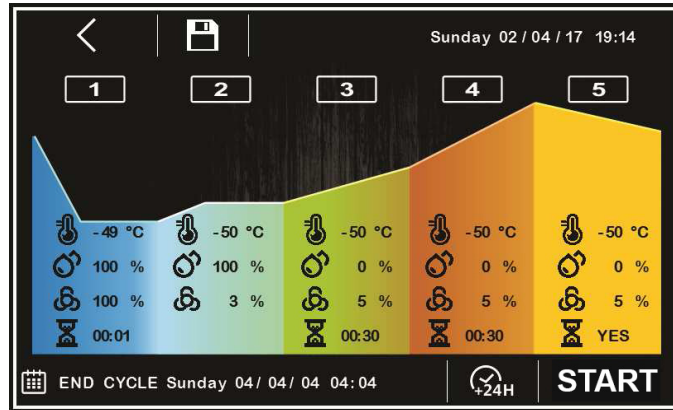


Push automatic cycle

From this area it is possible to access the following screen, where the phases composing a RETARDER PROOFER cycle are visualized:

- 1- BLOCK
- 2- STORAGE
- 3- PROOFING
- 4- LEAVENING
- 5- BAKING DELAY

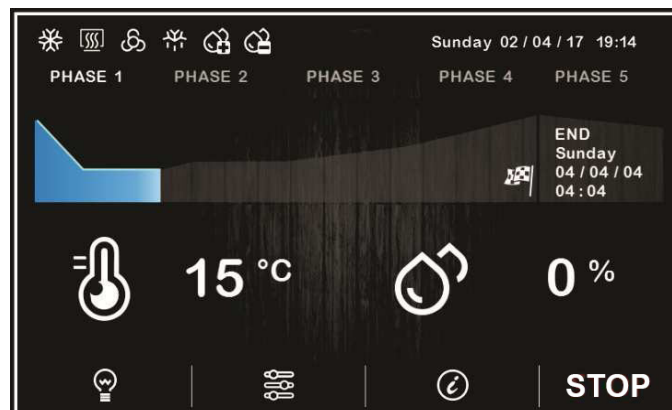
Automatic cycle phase setting screen.



Cycle end selection key | 24h cycle end increase key | Start key


The automatic cycle starts by pushing the **START** key and ends automatically, at the end of phase 4 and according to the set cycle end time, with a sound signal. Storage time of phase 2 is automatically set by the system by adding the times of the respective phases in consideration of the end cycle time.

Automatic cycle operation screen



Manual interruption can be carried out in any phase by keeping the **STOP** key pushed for 4 seconds.

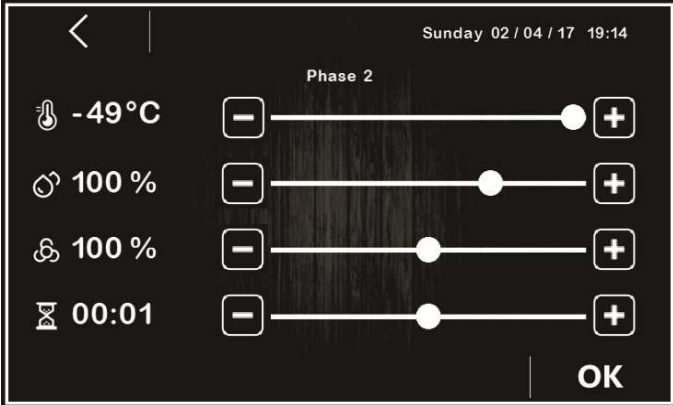
**Note:** phase 5 (baking delay) is optional and does not involve duration settings: if activated, it can only be ended manually by pushing the **STOP** key.

It is possible to modify the operation values during an automatic cycle by pushing the  key. The new values will only be stored for the current cycle and will not be saved in the Recipes menu.





**10.4.1 Modification of an automatic cycle**

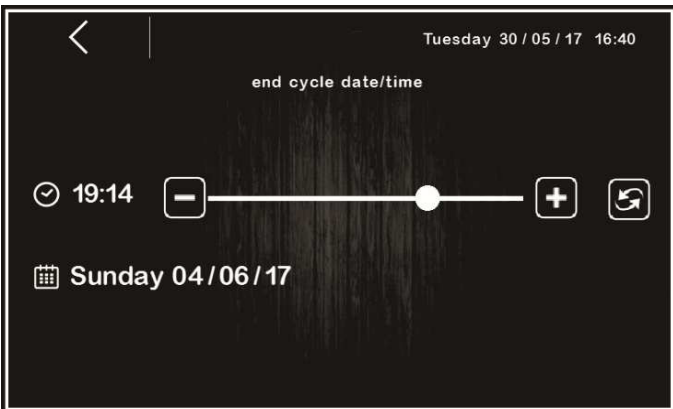
Before starting a cycle, it is possible to access setpoint setting menu for each retarding-proofing phase by pushing either on the corresponding coloured area or on the numbers corresponding to the phase to be modified.

<p><b>SPhase value modification screen.</b></p> 	<ul style="list-style-type: none"> <li>▶ Temperature setpoint modification</li> <li>▶ Humidity setpoint modification</li> <li>▶ Fan speed modification (non-active)</li> <li>▶ Phase duration modification.</li> </ul>
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Once the implemented modifications are confirmed by pushing on **OK**, they will be saved automatically as pre-set settings of the automatic cycle in progress simply by executing the cycle (i.e. by pushing the **START** area).

The CYCLE END icon  is visualized bottom left with indication of the cycle end time set by the user, while date and weekday are automatically calculated by the controller according to the sum of the set times of each phase (from phase 1 to phase 4).

Push on the CYCLE END area to access the end cycle time modification and, only after confirming it with the  key, it will be possible to modify the cycle end date, which can only be postponed with respect to the first date available as calculated by the controller.

	<p><b>Cycle end date and time modification.</b></p>
---	---

**10.4.2 Memorization of an automatic cycle (RECIPE – PROGRAMS)**

Push on the  icon top left to “save as” the set cycles before their execution; scroll the recipe collection pages with the recipe list and select the desired position to save the recipe, giving it a new name or overwriting an existing recipe; confirm by pushing on the **OK** key to finish the operation.



Recipe-programs memorization screen

 10.5 RECIPES-PROGRAMS



Push the Recipes-Stored Programs key.

From this area it is possible to access MY RECIPES SCREEN, listing the retarder proofer automatic cycles saved by the user, as per procedure explained on the previous paragraph. Up to 100 positions are available to save recipes.



Program recipes screen

Push on the recipe name to access the automatic cycle start page, from which the cycle can be executed or the various phases can be accessed to modify their setting and create a new recipe. This new recipe can be overwritten on an existing recipe or can be saved with a different name (see previous paragraph).

**Note:** the position with dashes is empty, thus cannot be activated; pushing on the corresponding area will have no effect.

**Stored Retarder Proofer Programs (Recipes)**

As an example, 3 programs are stored: Bread 100 gr, Bread 300 gr, Bread 500 gr.

<b>P01 - Bread 100 gr.</b>					
	<b>PHASE 1</b>	<b>PHASE 2</b>	<b>PHASE 3</b>	<b>PHASE 4</b>	<b>PHASE 5</b>
	COOLING	STORAGE	PROOFING	LEAVENING	DELAYED BAKING
Temperature	-5	2	16	28	22
Humidity	NOT ACTIVATED	NOT ACTIVATED	80%	80%	75%
Time	03:30 (hh:mm)	AUTOMATIC	03:00 (hh:mm)	2:00 (hh:mm)	INFINITE
Fan speed	100%	100%	100%	100%	100%

<b>P02 - Bread 300 gr.</b>					
	<b>PHASE 1</b>	<b>PHASE 2</b>	<b>PHASE 3</b>	<b>PHASE 4</b>	<b>PHASE 5</b>
	COOLING	STORAGE	PROOFING	LEAVENING	DELAYED BAKING
Temperature	-5	0	16	28	22
Humidity	NOT ACTIVATED	NOT ACTIVATED	80%	80%	75%
Time	04:00 (hh:mm)	AUTOMATIC	03:30 (hh:mm)	02:30 (hh:mm)	INFINITE
Fan speed	100%	100%	100%	100%	100%

<b>P03 - Bread 500 gr.</b>					
	<b>PHASE 1</b>	<b>PHASE 2</b>	<b>PHASE 3</b>	<b>PHASE 4</b>	<b>PHASE 5</b>
	COOLING	STORAGE	PROOFING	LEAVENING	DELAYED BAKING
Temperature	-6	-2	16	28	22
Humidity	NOT ACTIVATED	NOT ACTIVATED	80%	80%	75%
Time	04:30 (hh:mm)	AUTOMATIC	04:00 (hh:mm)	03:00 (hh:mm)	INFINITE
Fan speed	100%	100%	100%	100%	100%


The remaining 97 positions, out of 100 available, can be customized by the user.

 **10.6 PRE-COOLING:**



Push the pre-cooling key.

From this area it is possible to activate a pre-cooling of the fermalievita or fermabiga refrigerated cabinet / refrigerated table while waiting to select an automatic cycle.

Push pre-cooling area to access the screen allowing to adjust temperature setpoint and start the function by pushing the  key.




Setpoint adjustment screen

When the function is active, the corresponding area will turn blue and the detected internal temperature of the refrigerated cabinet / refrigerated table will be displayed.

After reaching the set temperature, an acoustic signal will be issued. The pre-cooling function has an endless duration, i.e. it ends when a manual or automatic cycle is started or when it is interrupted by pushing the **STOP** key.

## 10.8 ALARMS

Alarms are signalled by a long buzzer sound and visualized by the icon  on the upper part of the display, while the alarm type is indicated on the lower part of the display. Touch on any part of the screen to silence the buzzer. To eliminate the icon, push on it and access the alarm list page, where the active alarms are indicated by ON on the side.

The following chart lists the possibly occurring alarms:

ALARM	DESCRIPTION	CAUSE	SOLUTION
<b>RTC</b>	Internal clock alarm	Settings were lost	Set the clock
<b>HIGH EVAP. TEMP.</b>	High evaporator temperature	Evaporator temperature has exceeded the maximum set value	-Control internal fan operation -Service
<b>HIGH CHAMBER TEMP.</b>	High evaporator temperature	Evaporator temperature has exceeded the maximum set value	-Control internal fan operation -Service
<b>OPEN DOOR</b>	Open door alarm	Door has remained open for a longer time than set.	-Close the door -Check microswitch operation
<b>POWER FAILURE</b>	Power failure alarm	Power interruption alarm	Check electrical connections
<b>CHAMBER PROBE</b>	Chamber probe damage alarm	Chamber probe is damaged	Replace probe
<b>EVAPORATOR PROBE</b>	Evaporator probe damage alarm	Evaporator probe is damaged	Replace probe
<b>HUMIDITY PROBE</b>	Humidity probe damage alarm	Humidity probe is damaged	Replace probe

<b>INCOMP. POWER BASE</b>	User interface-control module compatibility error	Interface-control module compatibility problems	Service
<b>LACK OF COMMUNICATION</b>	User interface-control module communication error	Interface- control module communication problems	Service

### CHAPTER 11 NOISE LEVEL

The noise threshold of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table is lower than 70 dB (A).

### CHAPTER 12 MATERIALS AND FLUID USED

The materials in contact or which may come into contact with foodstuffs comply with the relevant directives.

The retarder-proofer/dough retarder refrigerated cabinet and refrigerated table have been designed and built in such a way that these materials can be cleaned before each use.

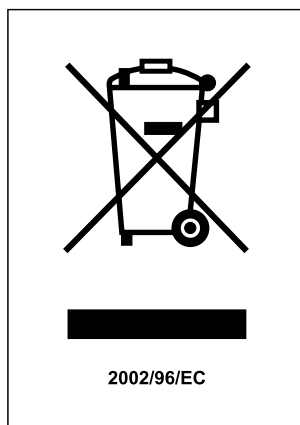
The refrigerant fluids used R452A conform with the new EU regulation 517/2014 F-Gas R452A is a fluorinated gas, it has a GWP potential of 21410



The symbol  indicates that this product must not be treated as household waste.

To prevent potential negative consequences for the environment and human health, make sure that this product is properly disposed of and recycled.

For more information regarding the disposal and recycling of this product, please contact your Distributor, after sale Service, or waste treatment Service.



### CHAPTER 13 TRANSPORT AND HANDLING



Transport and handling of fermalievita or fermabiga refrigerated cabinet / refrigerated table must be exclusively carried out by keeping it upright, as per indications on the package.

**The manufacturer disclaims any liability for problems resulting from transport performed under conditions other than those specified above.**

Accessories supplied with the fermalievita or fermabiga refrigerated cabinet / refrigerated table (slideways, wire-shelves, containers, trays, remote condensing unit with pipes) are packed separately and placed inside the device.

Fermalievita or fermabiga refrigerated cabinets / refrigerated tables are fixed on a wooden base and packed with polyethylene, cardboard, wooden crate (optional) or wooden box (optional).

Regarding the disposal of the packaging it is necessary to refer to current regulations in your country.



The movement of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table shall be performed using a fork lift or pallet trucks equipped with suitable forks (length of at least 2/3 of the unit).

The limits of stackability and the centre of gravity are indicated on the label of the package.

### 13.1 Positioning operations

Since the incorrect positioning of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table can cause damage to the same, jeopardizing its proper functioning and cause risks to the personnel, the installer must comply with the following general rules:

- place the fermalievita or fermabiga refrigerated cabinet / refrigerated table by keeping a minimum distance of 3 cm from any wall; keep cabinets at a minimum distance of 50 cm from ceiling
- the environment must be sufficiently ventilated
- position the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table away from heat sources
- avoid exposure to direct sunlight
- remove the polyethylene, cardboard or wood packaging



Polyethylene is dangerous for children

- remove any accessories with external connections

Removing the wooden base (fig. 4) : tilt the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table sideways and unscrew the two self-tapping screws (cabinet solely) , lift the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table and remove the base.

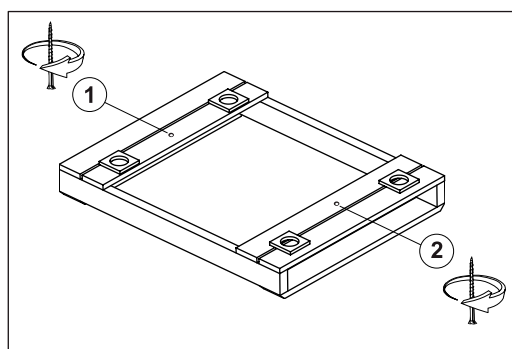


Fig.4



use protective gloves when handling the wooden packaging and the wooden base.

The presence of splinters may cause damage to your hands

- remove the PVC film applied as a protection to the outer surfaces of the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table
- position the retarder-proofer/dough retarder refrigerated cabinet and refrigerated table using a level with possible adjustment of the feet of the metal base (Fig. 5 )

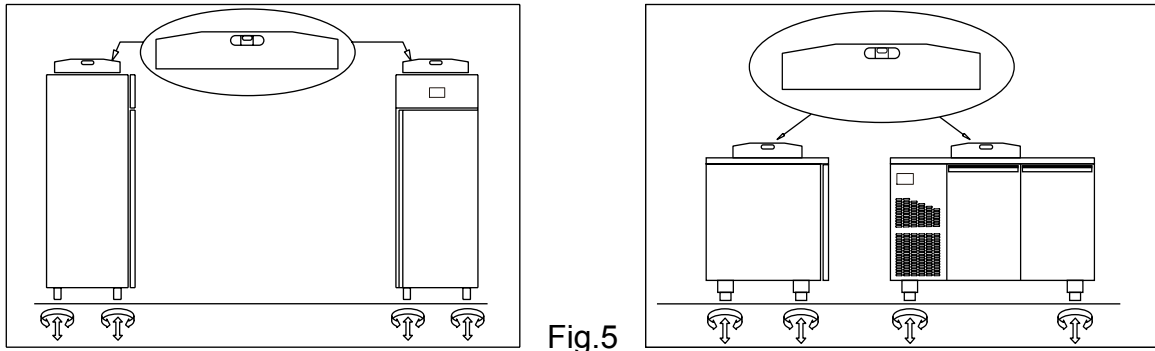


Fig.5

- position the grille holding guide rails in the holes of the racks ( Fig. 6 )

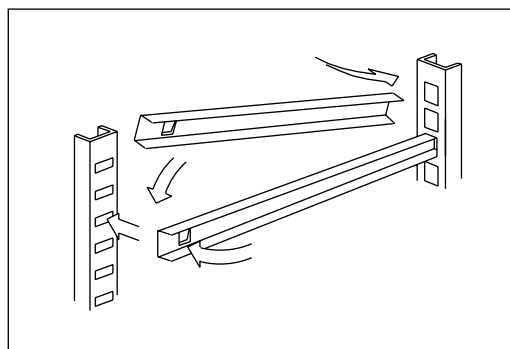


Fig.6

- insert the grilles for food in the special guides
- insert the condensate water drain pan into the special guide rails already fixed under the retarder-proofer/dough retarder table REM.

### 13.2 Retarder-proofer/dough retarder refrigerated cabinet and refrigerated table REM ( Fig. 7 )

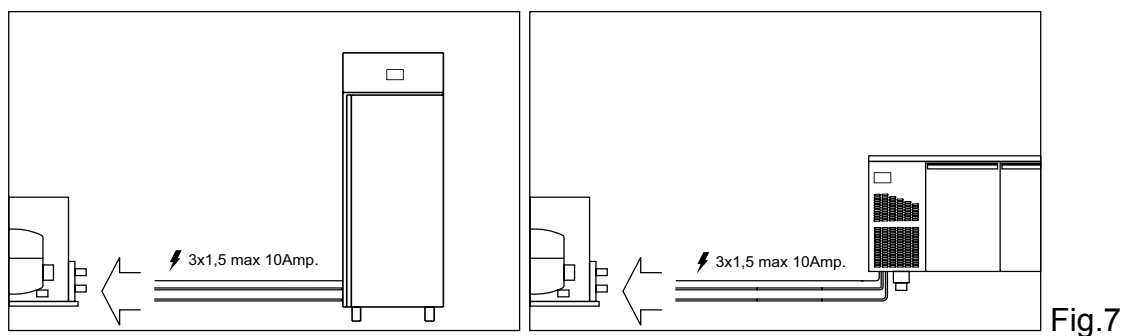


Fig.7

- place the REM fermalievita or fermabiga refrigerated cabinet / refrigerated table as shown above (Picture 5)
- arrange the two pipes coming out of the REM fermalievita or fermabiga refrigerated cabinet / refrigerated table ( $\varnothing$  as per technical specifications of the appliance) to connect them to the respective pipes
- connect the condensing unit pipes to the fermalievita or fermabiga refrigerated cabinet / refrigerated table pipes - create a vacuum and then carry out the loading of the coolant
- carry out the electrical connection of the fermalievita or fermabiga refrigerated cabinet / refrigerated table (Picture 7)
- perform a functional test to verify the correct gas charge.

CHAPTER 14 ELECTRICAL WIRING AND CONNECTIONS

The electrical system and connection must be carried out by qualified personnel. Before installation, measure the impedance of the network, the impedance value for the connection to the network must not exceed 0.075 ohm.

For safety reasons you must follow these guidelines:

- check that the sizing of the electrical system is suitable to the absorbed power of the fermalievita or fermabiga refrigerated cabinet / refrigerated table, and that it is equipped with a differential switch (circuit breaker)
- in case the socket is incompatible with the plug of the fermalievita or fermabiga refrigerated cabinet / refrigerated table, replace the plug with a suitable type, provided it is norm-compliant.
- do not insert adapters and/or reductions (Fig. 8)

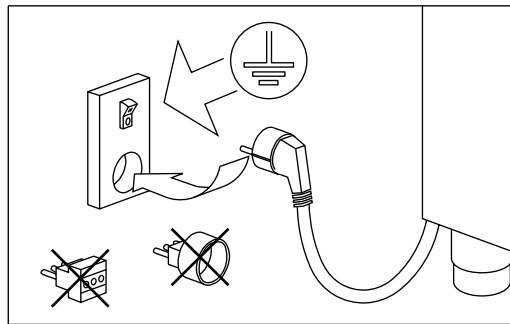


Fig.8



The power cord has the connection type “Y” and it can be replaced exclusively by the manufacturer or authorized technical service



It is essential to correctly connect the fermalievita or fermabiga refrigerated cabinet / refrigerated table to an effective grounding system, as per provisions of the law in force.

**14.1 Connection to the water supply (retarder-proofer solely)**

All fermalievita refrigerated cabinets / refrigerated tables need to be connected to the water system to perform humidity control and management. The connection to water supply must be made according to the manufacturer’s instructions and by professionally qualified personnel. The position of the 3/4” fitting for the connection to the water mains is visible on the product’s technical sheet.

Appliances must be provided with non-distilled, non-demineralized tap water.

The operating pressure should be between 0.1 and 0.5 MPA. Between the water network and the load connection of the equipment 3/4” should be installed a tap to interrupt the passage of water in case of need. In the case the water is hard it is advisable to install a water softener, the presence of solids such as sand can be eliminated by installing a mechanical filter to be inspected and cleaned periodically.



**CHAPTER 15 INSTALLATION OPERATIONS**

It is important, in order to prevent errors and accidents, to perform a series of checks before starting up the the retarder-proofer/dough retarder table and cabinet in order to identify any damage incurred during transport, handling and connection.

Checks to be performed:

- check the integrity of the power cord (it must not have suffered abrasions or cuts)
- check the solidity of the legs, door hinges, shelf supports
- check the integrity of the internal and external parts (pipes, heating elements, fans, electrical components, etc.) and their fixing
- check that the seals of the doors and drawers have not been damaged (cuts or abrasions) and close with an airtight seal
- check the integrity of the pipes and fittings (REM)

**CHAPTER 16 REINSTALLATION**

It is necessary to comply with the following procedure:

- disconnect the power cord from the power outlet
- the handling should be carried out as described in chapter 13
- for a new placement and connection, please refer to par. 13.1
- for the REM models proceed to the possible recovery of the coolant gas in accordance with the regulations in force in your country




# **ATTENTION!**

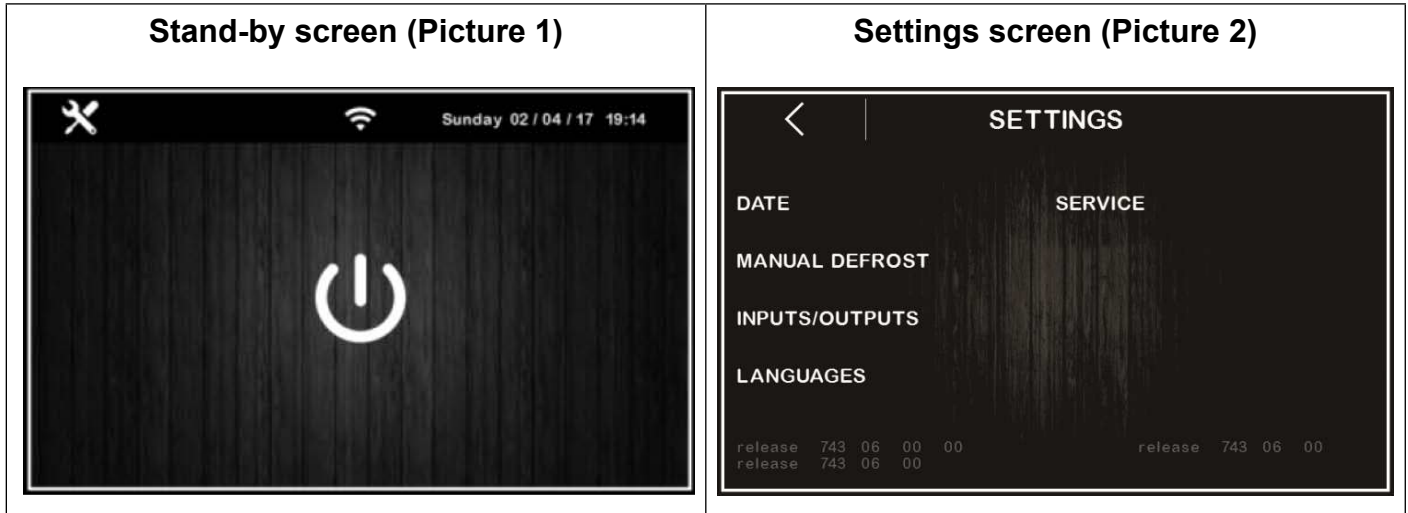
**INSTRUCTIONS RESERVED SOLELY TO TECHNICAL  
PERSONNELL**

Users are advised that any work performed by non-technical staff or unauthorized personnel will produce the voiding of the warranty rules.

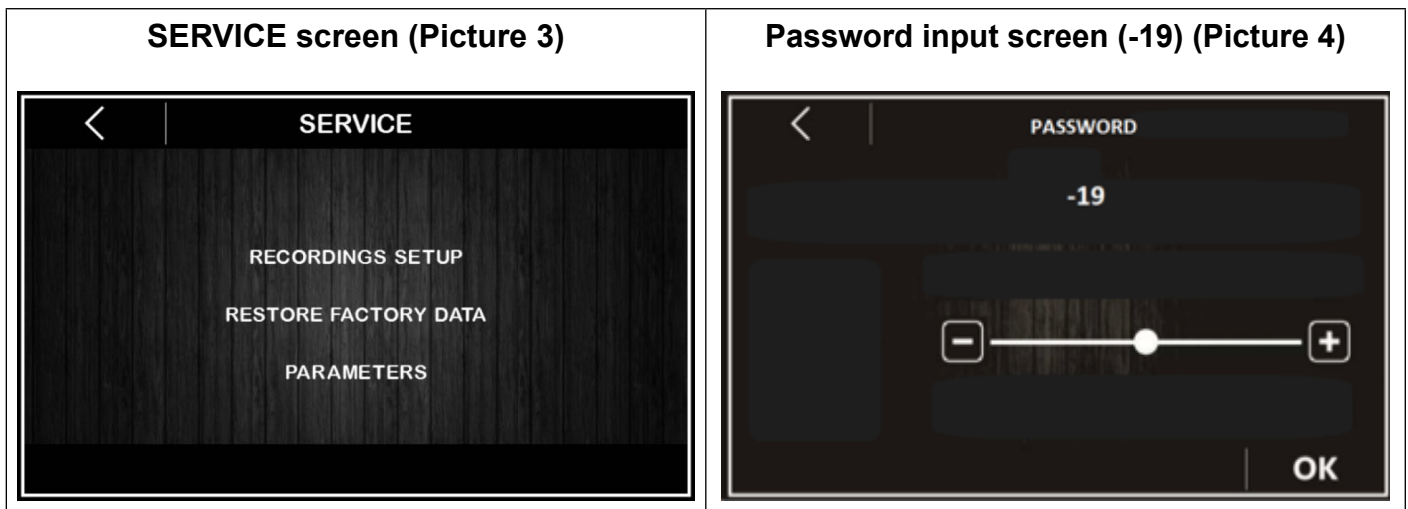
## PARAMETER VISUALIZATION AND ADJUSTMENT

Push the Settings  key top left on the On/stand-by screen (Picture 1)

DATE/TIME SETTING-SERVICE-MANUALDEFROSTING-INPUT/OUTPUT STATUS-LANGUAGES will be visualized (Picture 2)

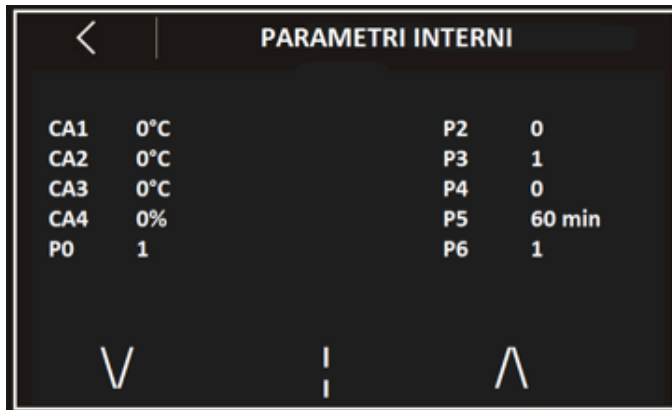


Enter the SERVICE menu from the On/stand-by screen; then, enter the PARAMETER menu:

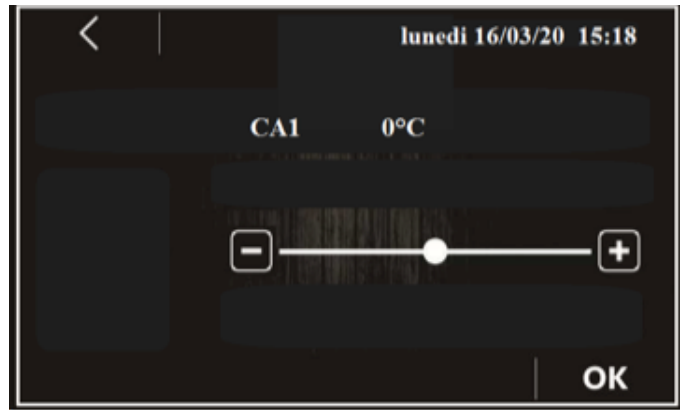


Type in password -19 to visualize the set-up parameter list.

Parameter screen (Picture 5)



Parameter adjustment screen (Picture 6)



To adjust INTERNAL PARAMETERS (Picture 5), select the parameter and adjust the value using the cursor (Picture 6)

Push the **OK** key to confirm.

Use the UP **^** and DOWN **v** keys to scroll all parameters and key **<** to exit the programming and return to the previous menu.

## FERMALIEVITA AND FERMABIGA CABINET AND TABLE PARAMETERS

**NB** only the highlighted parameters can be modified by maintenance service. The other parameters can be modified only after reference/authorization by our technical department.

Par.	Min	Max	Unità	FLievita	FBiga	Analog Inputs
CA1	-25	25	°C	0	0	chamber probe offset
CA2	-25	25	°C	0	0	evaporator probe offset
CA3	-25	25	°C	0	0	condenser probe offset
CA4	-25	25	%r.H.	0	0	humidity probe offset
P0	0	1	----	1	1	probe type 0 = PTC 1 = NTC
P2	0	1	----	0	0	temperature unit of measurement 0 = °C 1 = °F
P3	0	1	----	1	1	evaporator probe activation 0 = deactivated 1 = activated
P4	0	1	----	0	0	condenser probe activation 0 = deactivated 1 = activated
P5	0	60	min	60	60	duration of a power failure, after which a cycle is interrupted
P6	----	----	----	1	1	classified
P7	0	P8	%r.H.	5	5	humidity transducer lower calibration limit (corresponding to 4mA)
P8	P7	100	%r.H.	100	100	humidity transducer upper calibration limit (corresponding to 20mA)
Par.	Min	Max	Unità	Default	Default	Cold regulator
rC0	1	15	°C	2	2	rC3, rC4, rC5 parameter differential
rC1	-99	rC2	°C	-10	-10	minimum settable setpoint for block, storage and manual refrigeration phases
rC2	rC2	99	°C	20	20	maximum settable setpoint for block, storage and manual refrigeration phases
rC3	0	10	°C	1	1	cold neutral zone value for block, storage and manual refrigeration phases
rC4	0	10	°C	1	1	cold neutral zone value for proofing, leavening and manual heating phases
rC5	0	10	°C	1	1	cold neutral zone value for baking delay phase
rC6	-99	99	°C	-5	-5	pre-cooling setpoint
						Note for parameters from rC7 to rC10: the controller does not automatically adapt the set percentages. Make sure the percentages and the corresponding pitch number are coherently set
rC7	1	3	----	1	1	number of adjustment pitches in storage phase
rC8	1	100	%	100	100	1° storage step increment percentage (in relation to 100% total)
rC9	1	100	%	50	50	2° storage step increment percentage (in relation to 100% total)
rC10	1	100	%	100	100	3° storage step increment percentage (in relation to 100% total)
Par.	Min	Max	Unità	Default	Default	Heat regulator
rH0	1	15	°C	2	2	rH3, rH4, rH5 parameter differential
rH1	-99	rH2	°C	0	0	minimum settable setpoint for proofing, leavening, baking delay and manual heating phases
rH2	rH2	99	°C	40	40	maximum settable setpoint for proofing, leavening, baking delay and manual heating phases
rH3	0	10	°C	1	1	hot neutral zone value for block, storage and manual refrigeration phases
rH4	0	10	°C	1	1	hot neutral zone value for proofing, leavening and manual heating phases
rH5	0	10	°C	1	1	hot neutral zone value for baking delay phase
rH6	1	600	s	60	60	cycle time for the activation of heaters in case of heat demand (see also rH7)
rH7	1	600	s	60	60	heater activation time within rH6 cycle time
						Note for parameters from rr0 to rL10: the controller does not automatically adapt the set percentages. Make sure the percentages and the corresponding pitch number are coherently set
rr0	1	10	----	1	1	number of adjustment pitches in proofing
rr1	1	100	%	100	100	1° proofing step increment percentage (in relation to 100% total)
rr2	1	100	%	50	50	2° proofing step increment percentage (in relation to 100% total)
rr3	1	100	%	75	75	3° proofing step increment percentage (in relation to 100% total)
rr4	1	100	%	100	100	4° proofing step increment percentage (in relation to 100% total)
rr5	1	100	%	----	----	5° proofing step increment percentage (in relation to 100% total)
rr6	1	100	%	----	----	6° proofing step increment percentage (in relation to 100% total)
rr7	1	100	%	----	----	7° proofing step increment percentage (in relation to 100% total)
rr8	1	100	%	----	----	8° proofing step increment percentage (in relation to 100% total)

rr9	1	100	%	----	----	9° proofing step increment percentage (in relation to 100% total)
rr10	1	100	%	----	----	10° proofing step increment percentage (in relation to 100% total)
rL0	1	10	----	1	1	number of heater adjustment pitches in leavening phase
rL1	1	100	%	100	100	1° leavening step increment percentage (in relation to 100% total)
rL2	1	100	%	50	50	2° leavening step increment percentage (in relation to 100% total)
rL3	1	100	%	75	75	3° leavening step increment percentage (in relation to 100% total)
rL4	1	100	%	100	100	4° leavening step increment percentage (in relation to 100% total)
rL5	1	100	%	----	----	5° leavening step increment percentage (in relation to 100% total)
rL6	1	100	%	----	----	6° leavening step increment percentage (in relation to 100% total)
rL7	1	100	%	----	----	7° leavening step increment percentage (in relation to 100% total)
rL8	1	100	%	----	----	8° leavening step increment percentage (in relation to 100% total)
rL9	1	100	%	----	----	9° leavening step increment percentage (in relation to 100% total)
rL10	1	100	%	----	----	10° leavening step increment percentage (in relation to 100% total)
Par.	Min.	Max.	Unità	Default	Default	Humidity regulator
rU0	0	1	----	0	1	humidity management mode: 0 = with humidity probe 1 = without humidity probe, by time cycles according to the set percentage
rU1	-99	99	°C	7	7	minimum chamber temperature for humidification control inhibition
rU2	1	600	s	60	60	cycle time for humidifier activation (only for rU0 = 1, see also rU3)
rU3	1	600	s	60	60	humidifier activation time within rU2 cycle time to generate 100% humidity in the chamber (only for rU0 = 1, see also rU2)
rU4	0	2	----	2	2	humidification/dehumidification control activation during block, storage and manual refrigeration phases 0 = not managed but displayed 1 = managed and displayed 2 = not managed and not displayed
rU5	1	100	%r.H.	5	5	dehumidification differential
rU6	0	100	%r.H.	5	5	dehumidification neutral zone value
rU7	0	255	s	10	10	duration of dehumidification attempt with pump-down electrovalve
rU8	1	100	%r.H.	5	5	humidification differential
rU9	0	100	%r.H.	5	5	humidification neutral zone value
rU10	0	50	%r.H.	1	1	humidification proportional band value (only for E12=0)
rU11	0	255	s	60	60	cycle time for humidification proportional adjustment (only for E12=0)
rU12	0	1	----	1	1	time base for humidification proportional regulation cycle time (only for E12=0): 0 = seconds 1 = minutes
rU13	0	100	%	100	100	maximum settable humidity setpoint
rU14	-99	99	°C	5	5	minimum chamber temperature for dehumidification control inhibition
rU15	0	300	s	60	60	humidifier pause time (only if E12=2)
rU16	0	60	s	3	3	humidifier activation time (only if E12=2)
Par.	Min	Max	Unità	Default	Default	Compressor protection
C0	0	240	min	0	0	compressor starting delay since appliance activation
C1	0	240	min	0	0	delay between two compressor activations
C2	0	240	min	5	5	turned-off compressor minimum duration
C3	0	240	s	0	0	turned-on compressor minimum duration
C4	0	240	min	0	0	turned-on compressor forcing time at the beginning of proofing, leavening and baking delay phases
C6	0	199	°C	60	60	condensation temperature above which the overheated condenser alarm is activated
C7	0	199	°C	65	65	condensation temperature above which the arrested compressor alarm is activated
C8	0	15	min	1	1	arrested compressor alarm delay
Par.	Min	Max	Unità	Default	Default	Defrosting
d0	0	99	h	6	6	automatic defrosting interval 0 = defrosting at intervals will never be activated
d1	0	1	----	0	0	defrosting type 0 = electric (during defrosting, compressor will be turned off, defrosting output will be activated and evaporator fan will be turned off) 1 = by hot gas (during defrosting, compressor will be turned on, defrosting output will be activated and evaporator fan will be turned off)
d2	-99	99	°C	8	8	defrosting end threshold (evaporator temperature); see also parameter d3
d3	0	99	min	30	30	if parameter P3 is set to 0, defrosting duration if parameter P3 is set to 1, maximum defrosting duration; see also parameter d2 0 = defrosting will never be activated
d5	0	99	min	0	0	defrosting delay since storage/manual refrigeration start 0 = defrosting will be activated after the time set by parameter d0 will elapse
d7	0	15	min	2	2	dripping time (during dripping, compressor and evaporator will remain turned off and defrosting output will be deactivated)

d15	0	99	min	0	0	minimum consecutive turned-on compressor duration to start hot gas defrosting with interval deadline (only if parameter d1 is set to 1)
<b>Par.</b>	<b>Min</b>	<b>Max</b>	<b>Unità</b>	<b>Default</b>	<b>Default</b>	<b>Temperature alarms</b>
A1	0	99	°C	50	50	evaporator temperature above which evaporator high temperature alarm is activated; see also parameter A2
A2	-1	240	min	1	1	high evaporator temperature alarm delay 1 = yes -1 = alarm not enabled
<b>A3</b>	<b>0</b>	<b>99</b>	<b>°C</b>	<b>50</b>	<b>50</b>	<b>chamber temperature above which high chamber temperature alarm is activated; see also parameter A4</b>
A4	-1	240	min	1	1	high chamber temperature alarm delay 1 = yes -1 = alarm not enabled
<b>Par.</b>	<b>Min</b>	<b>Max</b>	<b>Unità</b>	<b>Default</b>	<b>Default</b>	<b>Evaporator and condenser fan</b>
F0	0	1	----	1	1	evaporator fan activity during block phase 0 = parallel operation with compressor 1 = continuous operation
F1	0	1	----	0	0	evaporator fan activity during storage, refrigeration, precooling phases 0 = parallel operation with compressor 1 = continuous
F2	0	1	----	1	1	evaporator fan activity during proofing phase 0 = parallel operation with main utilities 1 = continuous operation
F3	0	1	----	1	1	evaporator fan activity during leavening phase 2 = parallel operation with main utilities 0 = continuous operation
F4	0	1	----	0	0	evaporator fan activity during baking delay phase 3 = parallel operation with main utilities 0 = continuous operation
F5	0	1	----	1	1	evaporator fan activity during heating phase 0 = parallel operation with main utilities 1 = continuous operation
F10	0	100	%	100	100	fan speed during pre-cooling
F11	0	100	%	70	70	fan speed during dehumidification
F12	0	15	min	1	1	fan stop after dripping
F13	0	250	s	0	0	evaporator fan turning-off delay since main utilities turned off
F14	1	600	s	0	0	evaporator fan cycle time: if set to 0, cyclical turning-on of fan will be deactivated
F15	1	600	s	0	0	evaporator fan turning-on time within F14 cycle time
F16	0	99	°C	40	40	condenser temperature above which condenser fan is turned on even with turned-off compressor
F17	0	240	s	5	5	condenser fan turning-off delay since compressor turning off (valid only with deactivated condenser probe)
F18	0	240	s	5	5	evaporator fan turning-off delay since closing of the door, i.e. since deactivation of microswitch input
F19	0	100	%	40	40	minimum settable evaporator fan speed
F20	0	100	%	100	100	maximum settable evaporator fan speed
F21	0	100	%	100	100	evaporator fan initial peak speed
F22	1	10	s	10	10	initial peak time since turning on of evaporator fan
F23	0	100	%	0	0	evaporator fan min. speed adjustment value
F24	0	100	%	100	100	evaporator fan Max. speed adjustment value
F25	-50	99	°C	99	99	evaporator temperature below which evaporator fan is activated for block, storage and manual refrigeration phases
<b>Par.</b>	<b>Min</b>	<b>Max</b>	<b>Unità</b>	<b>Default</b>	<b>Default</b>	<b>Digital inputs</b>
i0	0	2	----	1	1	effect caused by door opening, i.e. by activation of microswitch input 0 = no effect 1 = compressor, evaporator fan and heaters will be turned off, chamber light will be turned on 2 = evaporator fan and heaters will be turned off, chamber light will be turned on
i1	0	1	----	1	1	microswitch input contact type 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i2	-1	120	min	-1	-1	open door alarm warning delay -1 = alarm will not be signalled
i3	0	1	----	1	1	effect caused by high pressure input activation 0 = no effect 1 = compressor and evaporator fan will be turned off and condenser fan will be turned on
i4	0	1	----	0	0	high pressure input contact type 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i5	-1	240	s	5	5	high pressure alarm warning delay -1 = alarm will not be signalled
i6	0	3	----	1	1	effect caused by low pressure input activation 0 = no effect 1 = ALARM compressor and evaporator fan will be turned off 2 = PUMP-DOWN AND ALARM MANAGEMENT when compressor turns off, digital input will turn off compressor output, as pump-down phase is finished. During refrigerating unit activation, digital input will turn off compressor and evaporator fan 3 = COMPRESSOR THERMAL ALARM compressor will be turned off
i7	0	1	----	0	0	low pressure input contact type 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i8	-1	240	s	10	10	low pressure alarm warning delay -1 = alarm will not be signalled
i9	0	240	s	40	40	low pressure switch re-arm time when compressor is turned on (only if i6 = 2)



i10	0	1	----	0	0	thermal protection input contact type 0 = normally open (active input with closed contact)
i11	-1	240	s	5	5	thermal protection alarm warning delay -1 = alarm will not be signalled
Par.	Min.	Max.	Unità	Default	Default	Digital outputs
u1	0	1	----	1	1	utility managed by K8 output 0 = pump-down valve (in this case, parameter u2 will assume meaning) 1 = evaporator fan (in this case, output will replicate the status of PWM output dedicated to evaporator fan in ON/OFF mode)
u2	0	240	s	10	10	if i6 = 0 or 1: compressor deactivation delay since pump-down valve has been turned off (pump-down in turning-off, only for u1 = 0) if i6 = 2 pump-down maximum duration while compressor is turned off without activation of low pressure output resulting in compressor turning-off and pump-down alarm signal if i6 = 0 no alarm is signalled
u3	0	1	----	1	1	utility managed by K4 output 0= dehumidifier/extraction fan (in this case, parameters rU5 and rU6 will assume meaning) 1 = condenser fan (in this case, parameters F16 and F17 will assume meaning) 2 with u3 = 1 dehumidification will be automatically managed by refrigerating unit activation
PA1	-99	999	----	428	428	EVconnect / EPoCA 1st level password
PA2	-99	999	----	824	824	EVconnect / EPoCA 2st level password
bLE	0	99	----	1	1	Serial port configuration for connectivity 0 = free 1 = forced for EVconnect or for EPoCA 2-99 = EPoCA local network address
Par.	Min	Max	Unità	Default	Default	Serial communication (RS-485 type serial port with MODBUS communication protocol)
L1	1	240	min	5	5	Internal data sampling time
LA	1	247	----	247	247	device address
Lb	0	3	----	2	2	baud rate 0 = 2.400 baud 1 = 4.800 baud 2 = 9.600 baud 3 = 19.200 baud
LP	0	2	----	2	2	parity 0 = none 1 = odd 2 = even
Par.	Min	Max	Unità	Default	Default	Other
E8	0	240	min	0	0	idleness time for screen saver activation 0 = not enabled
E9	0	1	----	0	0	EVCO splash-screen visualization at power-on 0 = neutral screen 1 = EVCO splash
E11	0	120	s	10	10	buzzer sound duration at cycle end and when pre-cooling setpoint is reached
E12	0	2	----	0	0	type of managed humidifier 0 = humidifier with steamer 1 = serial-control humidifier (EASYSYSTEM) 2 = instant generation humidifier
E13	0	240	min	10	10	"completed cycle" screen visualisation duration 0 = not enabled
E14	----	----	----	----	----	classified
E15	0	1	----	0	0	recipe modification/ memorization lock activation 1= active lock



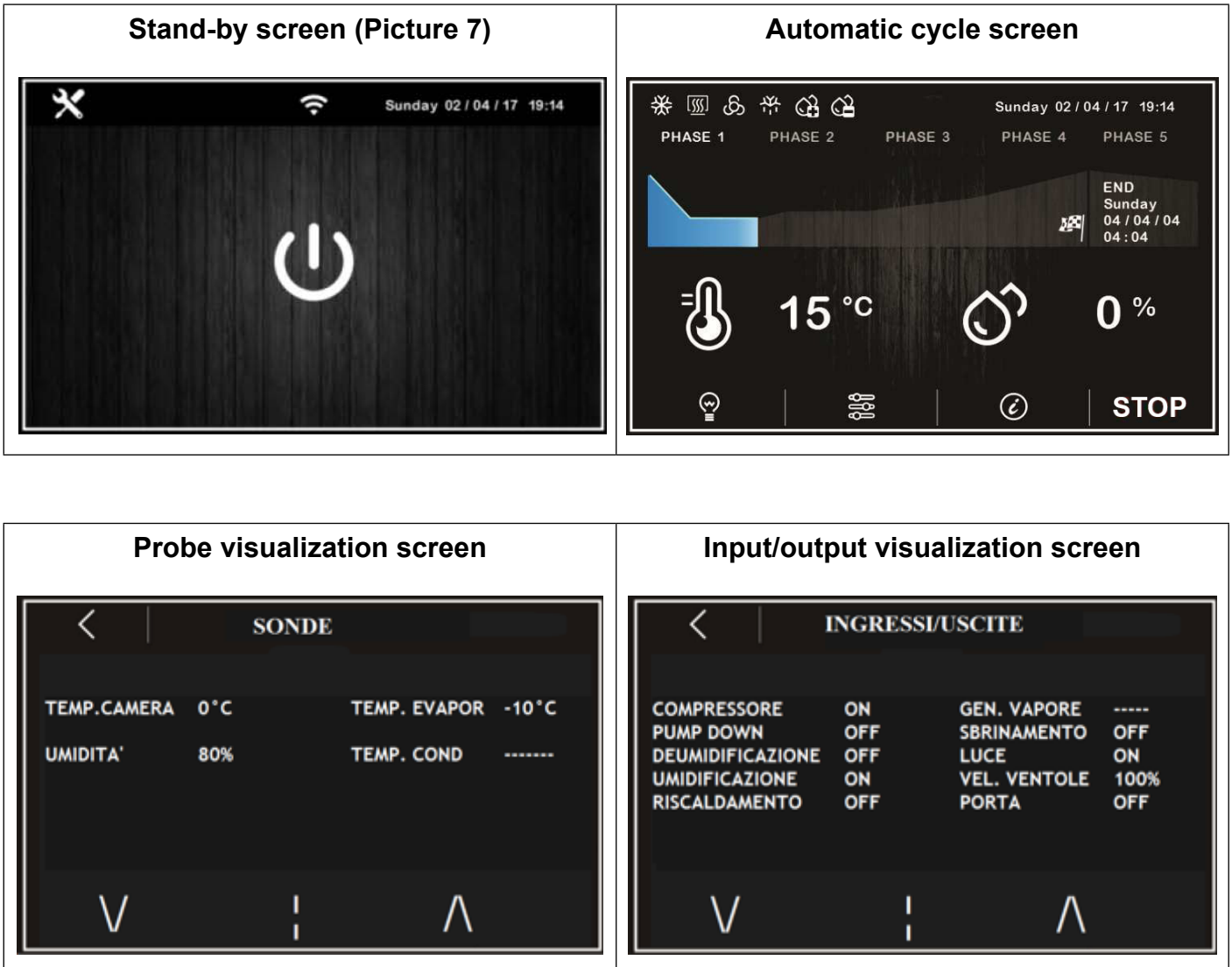
## INTERNAL VALUE VISUALIZATION

On this page it is possible to visualize internal statuses and values.

Internal statuses and values are temperature and humidity values as detected by probes, as well as the status of all active relays on the electronic board.

Select the settings key  on the On/stand-by screen (Picture 1) or the  key on any manual or automatic cycle to enter INPUT /OUTPUT STATUS menu.

Push INPUT/OUTPUT STATUS (Picture 7)



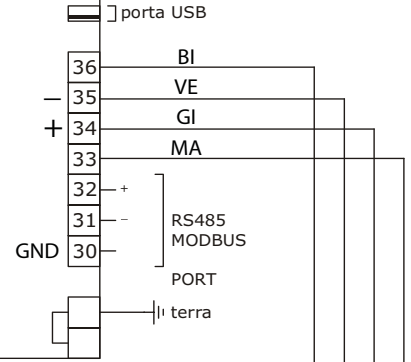
It is possible to visualize the operational thermal and hygrometric values and which components are currently working. These values cannot be modified.

### Remote management and remote control (Optional)

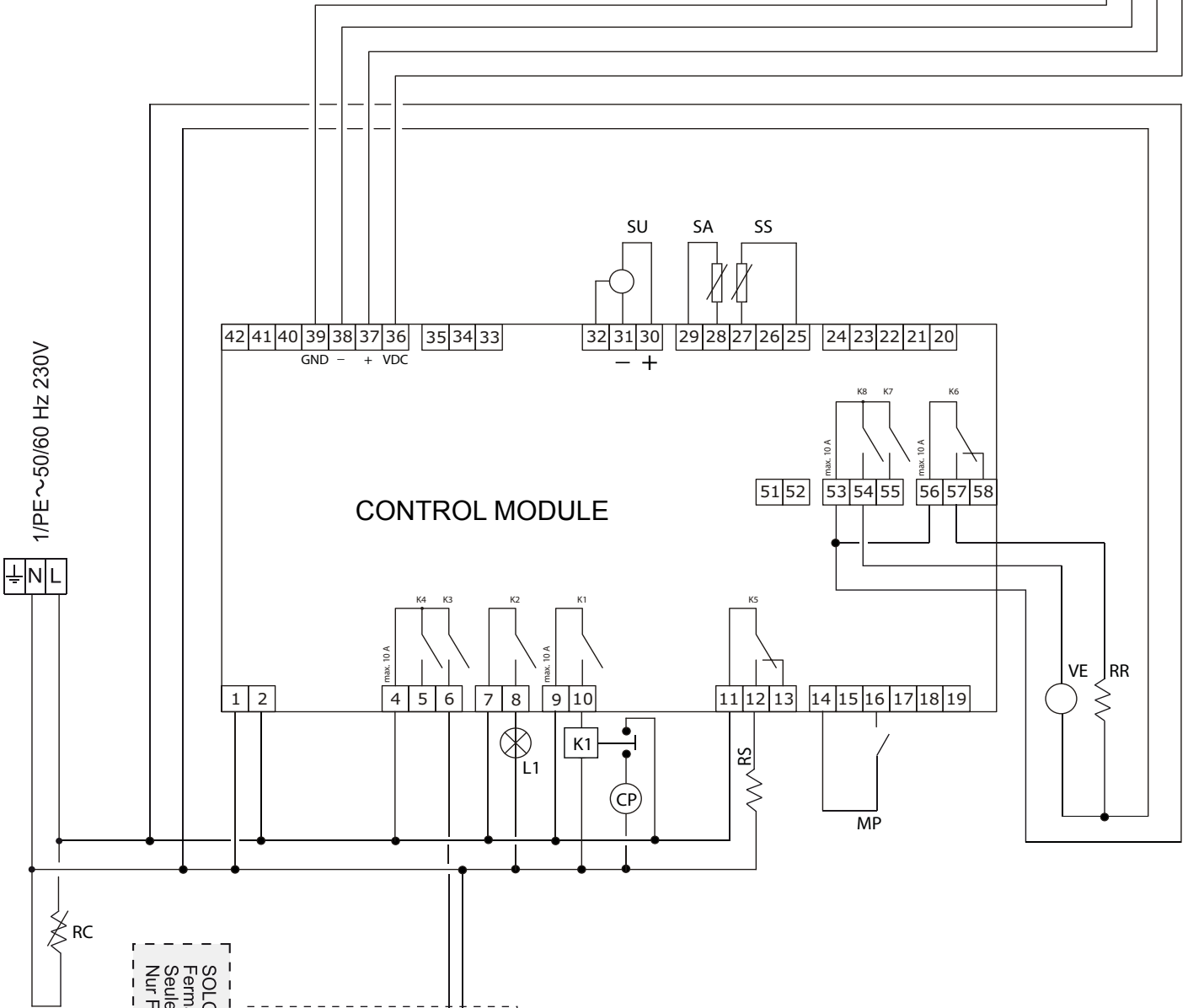
A Modbus port for connection to EVlink module to use EVconnect, EPoCA or BMS apps is available on the thermoregulator (see remote management and remote control manual)



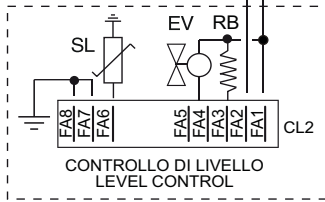
# KEYBOARD USER INTERFACE



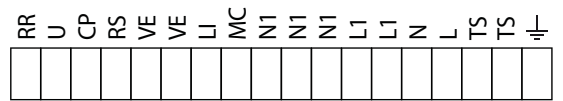
# CONTROL MODULE



SOLO MODELLI FERMALIEVITA  
Fermalievita models only  
Seulement modèles Fermalievita  
Nur FERMALIEVITA Modelle



UMIDIFICATORE  
HUMIDIFIER



# TERMINAL ELECTRICAL PANEL

**Components key:**

CL Humidifier level control  
CP Compressor  
EV1 Water inlet electrovalve  
IL Light switch  
IP Door microswitch  
K1 Compressor relay  
K5 Defrost relay  
K6 Leavening resistance relay  
K3 Steam generator relay  
L1 Internal light  
MS Feeding terminal board  
MP Micro door  
RB Boiler resistance  
RC Condensate water resistance  
RP Anticondensate water resistance  
RS Defrost resistance  
RR Heating resistance  
SA Room probe  
SC Condenser probe  
SL Level probe - SS Evaporator probe  
SU Humidity probe  
TS Safety thermostate  
VC Condenser fan  
VE Evaporator fan  
KU Umidifier  
TS Safety thermostat

**Colours key:**

NE Black  
GR Grey  
AR Orange  
RO Red  
MA Brown  
BL Dark blue  
BI White  
GV Yellow green  
RA Pink  
VI Purple  
AZ Light blue



EVERLASTING s.r.l.  
46029 SUZZARA (MN) - ITALY - Strada Nazionale della Cisa km.161  
Tel.0376/521800 (4 linee r.a.) - Telefax 0376/521794  
<http://www.everlasting.it> - E-mail:everlasting@everlasting.it